



HEARTH PRODUCTS

P/N 850042M REV. D 04/2013

*This manual is one of a set of two supporting this product.
Refer to P/N 875035M for Care and Operation Instructions.*

This manual is available in French. Order P/N 506223-07.

*Ce manuel est disponible en français. Simplement en faire
la demande numéro de la pièce 506223-07.*



OTL Report No. 116-F-45-5

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.
INSTALLATEUR : Laissez cette notice avec l'appareil.
CONSOMMATEUR : Conservez cette notice pour
consultation ultérieure.

INSTALLATION INSTRUCTIONS

Crestline™ B-Vent Gas Fireplaces
36"/42" LSBV Models

DAVE LENNOX
signature
COLLECTION

MODELS

Millivolt Models

LSBV-3628MN	LSBV-4228MN
LSBV-3628MP	LSBV-4228MP
LSBV-3628MN-H	LSBV-4228MN-H
LSBV-3628MP-H	LSBV-4228MP-H

Electronic Models

LSBV-3628EN
LSBV-3628EN-H
LSBV-4228EN
LSBV-4228EN-H

Decorative Product: Not for use as a heating appliance.

NOTICE: Fireplace is not to be operated by a thermostat.

WARNING / AVERTISSEMENT / AVISO

**HOT GLASS WILL
CAUSE BURNS.
DO NOT TOUCH GLASS
UNTIL COOLED
NEVER ALLOW CHILDREN
TO TOUCH GLASS.**



**UNE SURFACE VITRÉE CHAUDE
PEUT CAUSER DES BRÛLURES.
LAISSER REFROIDIR LA SURFACE
VITRÉE AVANT D'Y TOUCHER.
NE PERMETTEZ JAMAIS À UN ENFANT
DE TOUCHER LA SURFACE VITRÉE.**

**EL VIDRIO CALIENTE
CAUSARÁ QUEMADURAS.
USTED DEBE NUNCA
TOCAR EL VIDRIO CALIENTE.
LOS NIÑOS DEBEN NUNCA
TOCAR EL VIDRIO.**

WARNING: If the information in these instructions
is not followed exactly, a fire or explosion may
result, causing property damage, personal injury,
or death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS:**
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

AVERTISSEMENT : Assurez-vous de bien suivre les
instructions données dans cette notice pour réduire au
minimum le risque d'incendie ou d'explosion ou pour
éviter tout dommage matériel, toute blessure ou la mort.

- Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.
- **QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ :**
 - Ne pas tenter d'allumer d'appareil.
 - Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous trouvez.
 - Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
 - Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.
- L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.

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Please read and understand these instructions before beginning your installation.



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

PACKAGING

The assembled vented gas fireplace is packaged with the following items:

- One foam packaged log set located in firebox area.
- One bag of glowing embers (rockwool) located in the bottom compartment.
- One envelope containing the literature package, which consists of the care and operation manual, installation instructions, warranty and warning labels kit. The envelope is located in the control area.

INTRODUCTION

The millivolt appliances are designed to operate on either natural or propane gas. A millivolt gas control valve with piezo ignition system provides safe, efficient operation.

The electronic appliances are designed to operate on either natural or propane gas. An electronic intermittent pilot system provides safe, efficient operation. External electrical power is required to operate these units.

These vented gas fireplaces are designed for residential applications. They must be installed with approved type-B, 10" double wall vent pipe systems routed to the outside atmosphere.

GENERAL INFORMATION

WARNING

B-Vent appliances are not designed to operate in negatively pressured environments (pressure within the home is less than pressures outside). Significant negatively pressured environments caused by weather, home design, or other devices may impact the operation of these appliances. Negative pressures may result in poor flame appearance, sooting, damage to property and/or severe personal injury. Do not operate these appliances in negatively pressured environments.

WARNING

Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.

AVERTISSEMENT

Les jeunes enfants devraient être surveillés étroitement lorsqu'ils se trouvent dans la même pièce que l'appareil. Les tout petits, les jeunes enfants ou les adultes peuvent subir des brûlures s'ils viennent en contact avec la surface chaude. Il est recommandé d'installer une barrière physique si des personnes à risques habitent la maison. Pour empêcher l'accès à un foyer ou à un poêle, installez une barrière de sécurité; cette mesure empêchera les tout petits, les jeunes enfants et toute autre personne à risque d'avoir accès à la pièce et aux surfaces chaudes.

Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition.

Les enfants et les adultes devraient être informés des dangers que posent les températures de surface élevées et se tenir à distance afin d'éviter des brûlures ou que leurs vêtements ne s'enflamment.

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

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

⚠ WARNING

Failure to comply with these installation instructions will result in an improperly installed and operating appliance, voiding its warranty. Any change to this appliance and/or its operating controls is dangerous.

⚠ WARNING

Clothing or other flammable material should not be placed on or near the appliance.

⚠ AVERTISSEMENT

On ne devrait pas placer de vêtements ni d'autres matières inflammables sur l'appareil ni à proximité.

⚠ WARNING

Any safety screen or guard removed for servicing the appliance must be replaced prior to operating the appliance.

⚠ AVERTISSEMENT

Tout écran ou protecteur retiré pour permettre l'entretien de l'appareil doit être remis en place avant de mettre l'appareil en marche.

⚠ WARNING

THIS APPLIANCE MAY ONLY BE FITTED WITH DOORS CERTIFIED FOR USE WITH THE APPLIANCE.

Note: Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etcetera. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.

Remarque : L'installation et la réparation devrait être confiées à un technicien qualifié. L'appareil devrait faire l'objet d'une inspection par un technicien professionnel avant d'être utilisé et au moins une fois l'an par la suite. Des nettoyages plus fréquents peuvent être nécessaires si les tapis, la literie, et cetera produisent une quantité importante de poussière. Il est essentiel que les compartiments abritant les commandes, les brûleurs et les conduits de circulation d'air de l'appareil soient tenus propres.

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

Ne pas utiliser cet appareil s'il a été plongé, même partiellement, dans l'eau. Appeler un technicien qualifié pour inspecter l'appareil et remplacer toute partie du système de commande et toute commande qui a été plongée dans l'eau.

Only trim kit(s) supplied by the manufacturer shall be used in the installation of this appliance.

Seules les trousse de garniture fournies par le fabricant doivent être utilisées pour l'installation de cet appareil.

These appliances comply with National Safety Standards and are tested and listed by OMNI-Test Laboratories (Report No. 116-F-45-5) to ANSI Z21.50b (in Canada, CSA-2.22b), and CAN/CGA-2.17-M91 in both USA and Canada, as vented gas fireplaces.

Both millivolt and electronic versions of these appliances may be used in bedrooms (USA only) when the room is an "unconfined space" as defined by the National Fuel Gas Code. Use in bedrooms may not be allowed by your local building codes. You should obtain prior approval from the Authority having jurisdiction prior to installation.

This appliance uses room air for combustion. It is imperative that provisions for adequate combustion and ventilation air be made. This appliance is NOT designed to and will not operate in a negative pressure.

Misc. Codes / Standards -

The Installation must conform to local codes or, in the absence of local codes, with the *National Fuel Gas Code, ANSI Z223.1/NFPA 54 - latest edition* (In Canada, the current CAN/CGA-B149.1 installation code).

The appliance, when installed, must be electrically grounded and wired in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70 - latest edition*, or the *Canadian Electrical Code, CSA C22.1 - latest edition*.

Provide adequate clearances around air openings and adequate accessibility clearance for service and proper operation. Never obstruct the front or back viewing surfaces of the appliance.

These appliances are designed to operate on natural or propane gas only. The use of other fuels or combination of fuels will degrade the performance of this system and may be dangerous.

These fireplaces are designed as decorative appliances and are not intended for use as area heaters. They must Not be equipped with wall thermostats or remote controls with thermostat functions.

These appliances must not be connected to a chimney or flue serving a separate solid fuel burning appliance.

The appliance area be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.

These appliances are equipped with an integral combustion air door and actuator arm. Combustion air kits are optional and must be installed before removing the securing screw allowing the movement of the combustion air actuator arm (see **Step 7** on **Page 12**).

Millivolt Models - 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. Input of for these models are shown in **Table 1**.

Electronic Models - Electronic models have a fixed rate gas valve. Input of electronic models is shown in **Table 1**.

Input (BTU) Gas Valves (all models)		
All Models	Fuel Type	Input Rate (BTU / HR)
Millivolt	Natural	50,000
Millivolt	Propane	45,000
Electronic	Natural	50,000
Electronic	Propane	45,000

Table 1

Gas Pressure - All Models

Tables 2 and 3 show the appliances' inlet and manifold gas pressure requirements:

Inlet Gas Supply Pressure (all models)		
Fuel #	Minimum	Maximum
Natural Gas	5.0" WC (1.24 kPa)	10.5" WC (2.62 kPa)
Propane	11.0" WC (2.74 kPa)	13.0" WC (3.24 kPa)

Table 2

Manifold Gas Supply Pressure (all models)		
Fuel #	Low	High
Natural Gas	(Lo) 2.2" WC (0.55 kPa)	(Hi) 3.5" WC (0.87 kPa)
Propane	(Lo) 6.3" WC (1.57 kPa)	(Hi) 10.0" WC (2.49 kPa)

Table 3

Test gauge connections are provided on the front of the millivolt gas control valves (identified OUT for the manifold side and IN for inlet pressure side.

The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in **excess of** 1/2 psi (3.5 kPa).

The appliance must be isolated from the gas supply piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures **equal to or less than** 1/2 psi (3.5 kPa).

Orifice Sizes - Sea Level to High Altitude (All Models)

These appliances are tested and approved for installation at elevations of 0-4500 feet (0-1372 meters) above sea level using the standard burner orifice sizes (marked with an "*" in **Table 4**). For elevations above 4500 feet, contact your gas supplier or qualified service technician.

Deration - 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.
- 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 Z223.1 - latest edition or, in Canada, the CAN/CGA-B149.1 codes - latest edition.

Install the appliance according to the regulations of the local authorities having jurisdiction and, in the USA, the National Fuel Gas Code NFPA 54 / ANSI Z223.1 - latest edition or, in Canada, the CAN/CGA-B149.1 - latest edition.

Flame breadth, height and width will diminish 4% for every 1,000 feet of altitude.

In Canada - CAN/CGA-2.17-M91 (R2009) (high altitude): THE CONVERSION SHALL BE CARRIED OUT BY A MANUFACTURER'S AUTHORIZED REPRESENTATIVE, IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER, PROVINCIAL OR TERRITORIAL AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE CAN/CGA-B149.1 OR CAN/CGA-B149.2 INSTALLATION CODES.

Burner Orifice Sizes (all models)		
Elevation Feet (meters)	Natural Gas drill size (inches)	Propane Gas drill size (inches)
0-4500 (0-1372)	#26 (0.147") * H5805 •	#45 (0.082") * 39L66 •

Table 4

* Standard size installed at factory
• Part /Cat. Number

Gas Valve Diagrams

See **Figure 1** for Millivolt models and **Figure 2** For Electronic Models.

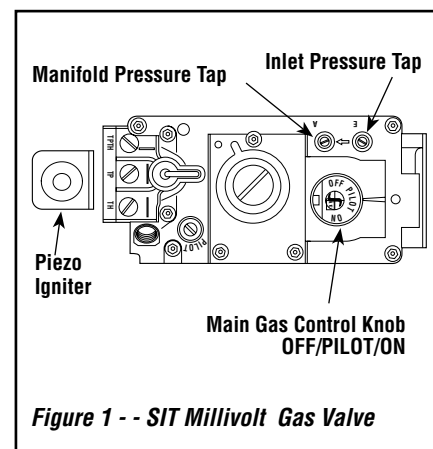


Figure 1 - - SIT Millivolt Gas Valve

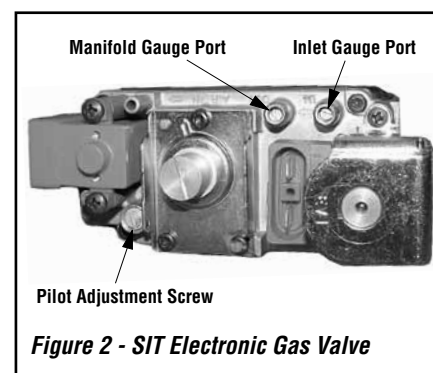


Figure 2 - SIT Electronic Gas Valve

REQUIREMENTS FOR THE COMMONWEALTH OF MASSACHUSETTS

These fireplaces are approved for installation in the US state of Massachusetts if the following additional requirements are met:

- Installation and repair must be done by a plumber or gas fitter licensed in the Commonwealth of Massachusetts.
- The flexible gas line connector used shall not exceed 36 inches (92 centimeters) in length.
- The individual manual shut-off must be a T-handle type valve.

COLD CLIMATE INSULATION

For cold climate installations, seal all cracks around your appliance with noncombustible material and wherever cold air could enter the room. It is especially important to insulate outside chase cavity between studs and under floor on which appliance rests, if floor is above ground level. Gas line holes and other openings should be caulked or stuffed with unfaced fiberglass insulation.

If the fireplace is being installed on a cement slab in cold climates, a sheet of plywood or other raised platform can be placed underneath to prevent cold transfer to the fireplace and into the room. It also helps to sheetrock inside surfaces and tape for maximum air tightness and caulk firestops.

MANUFACTURED HOUSING

B-Vent Fireplaces are not approved for use in OEM or aftermarket manufactured housing built to HUD standards.

LOCATION

In selecting the location, the aesthetic and functional use of the appliance are primary concerns. However, vent system routing to the exterior and access to the fuel supply are also important.

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies (Figure 3).

En raison des températures élevées, l'appareil devrait être installé dans un endroit où il y a peu de circulation et loin du mobilier et des tentures (Figure 3).

The location should also be free of electrical, plumbing or other heating/air conditioning ducting.

Be aware that this is a heat producing appliance. Objects placed above the unit are exposed to elevated temperatures.

Do not insulate the space between the appliance and the area above it.

The appliance must be mounted on a fully supported base extending the full width and depth of the unit. The appliance may be located on or near conventional construction materials. However, if installed on combustible materials, such as carpeting, vinyl tile or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

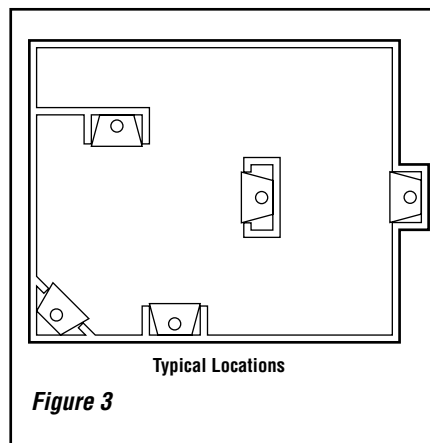


Figure 3

VENT TERMINATION CLEARANCES

These instructions should be used as a guideline and do not supersede local codes in any way. Install venting according to local codes, these instructions, the current National Fuel Gas Code (ANSI-Z223.1) in the USA or the current standards of CAN/CGA-B149.1 in Canada.

Vertical Vent Termination Clearances

Gas Vent Rule—Gas vent caps are not permitted within 8 ft. (2.4 m) of a vertical wall or similar obstruction.

Gas vent caps that are located 8 ft. or more from a portion of a building which extends at an angle greater than 45° upward from the horizontal may terminate in accordance with **Figure 4**, provided that in no case shall any discharge opening on the cap be less than 2 ft. (.6 m) horizontally from the roof surface (National Fuel Gas Code ANSI Z223.1 (NFPA 54)-(CAN/CGA B149.1).

Multiple Terminations

These appliances may vent adjacent to and at the same level with any other gas appliances (including direct-vent appliances) provided that there is at least 2 ft. (0.6m) between the proximal edges of the vent caps. These appliances may be vented adjacent to a chimney vent servicing a solid fuel fireplace provided the B-vent cap is at least 2 ft. (0.6m) away from the nearest point of the chimney opening.

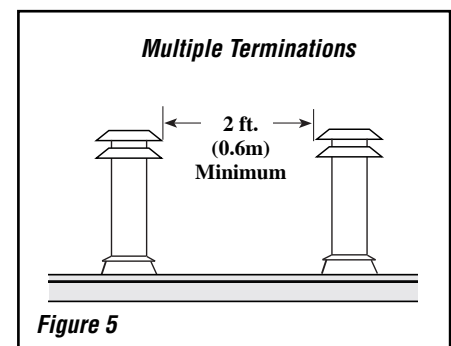
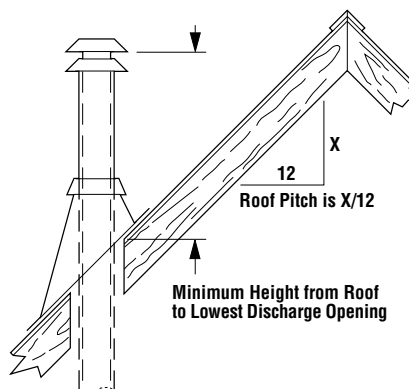


Figure 5

Vertical Vent Termination Clearances



The vent / air intake termination clearances above the high side of an angled roof is as shown in the following chart:

Figure 4

Termination Heights For Vents
Above Flat Or Sloped Roofs
Ref. NFPA 54 / ANSI Z223.1

Roof Pitch	* Feet	* Meters
Flat to 6/12	1.0	0.3
6/12 to 7/12	1.25	0.38
7/12 to 8/12	1.5	0.46
8/12 to 9/12	2.0	0.61
9/12 to 10/12	2.5	0.76
10/12 to 11/12	3.25	0.99
11/12 to 12/12	4.0	1.22
12/12 to 14/12	5.0	1.52
14/12 to 16/12	6.0	1.83
16/12 to 18/12	7.0	2.13
18/12 to 20/12	7.5	2.29
20/12 to 21/12	8.0	2.44

CLEARANCES

Minimum clearance to combustibles for the appliance is as follows: sides and back - 3/8" (9.52 mm), floor - 0" (0 mm), adjacent wall - 0" (0 mm), ceiling - 37-1/2" (953 mm). Service Clearances, Front - 3' (0.9 m).

NOTE: 3" (75 mm) minimum clearance is required above any inclined vent component. 1" minimum clearance is required to the sides of vertical vent.

Hearth Extension - A hearth extension is not required with this appliance. If a hearth extension is used, do not block the lower control compartment door. Any hearth extension used is for appearance only and does not have to conform to standard hearth extension installation requirements.

Wall Finishes / Surrounds / Mantels

Note: Combustible wall finish materials and/or surround materials must not be allowed to encroach the area defined by the appliance front face (black sheet metal). Never allow combustible materials to be positioned in front of or overlapping the appliance front face.

Non-combustible materials, such as surrounds and other appliance trim, may be installed on the appliance face with these exceptions: they must not cover any portion of the removable glass door (if used) or control compartment.

Vertical installation clearances to combustible mantels vary according to the depth of the mantel. See **Figure 6**. Mantels constructed of non-combustible materials may be installed at any height above the appliance opening; however, do not allow anything to hang below the fireplace hood.

Minimum clearance requirements include any projections such as shelves, window sills, mantels, etc. above the appliance.

NOTE: We recommend the use of high temperature paint (rated 175° F or higher) on the underside of the mantel.

To install the appliance facing flush with the finished wall, position framework to accommodate the thickness of the finished wall (**Figure 6**). Both **Figures 6 and 7** show a combustible mantel shelf projecting a maximum of 12" (305 mm) from the wall, and which must be installed a minimum distance of 12" (305mm) from the top of the firebox opening. No other mantel length/height combinations are allowable for this fireplace.

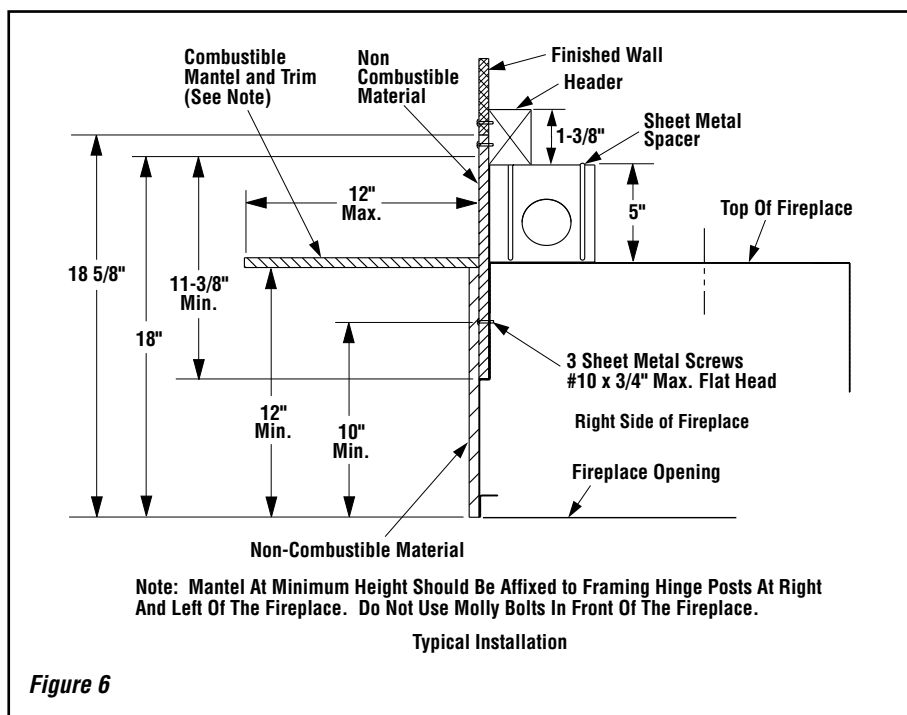


Figure 6

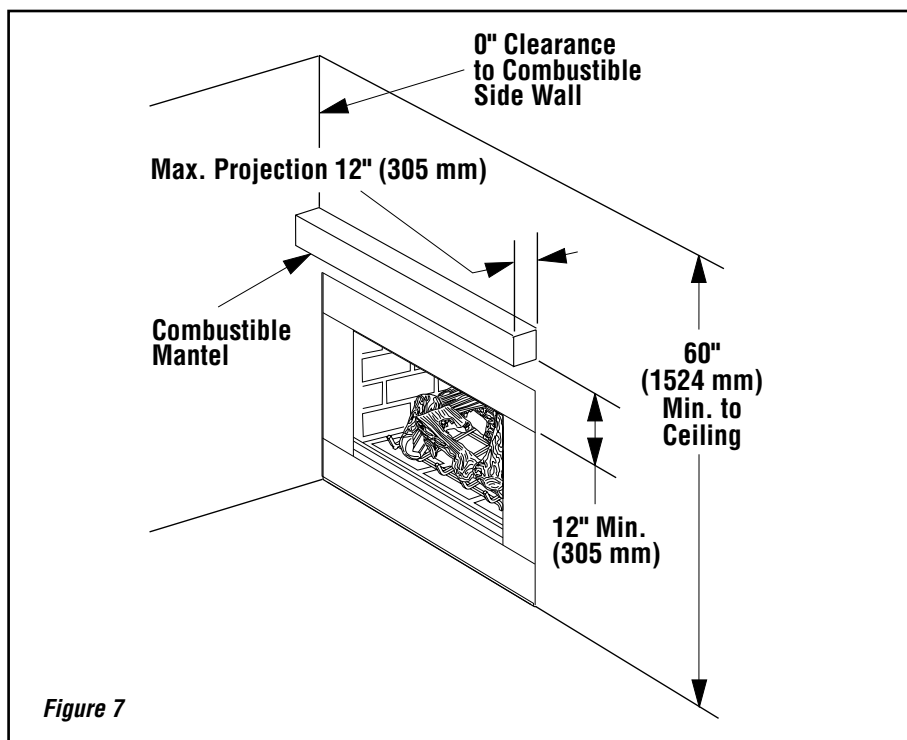
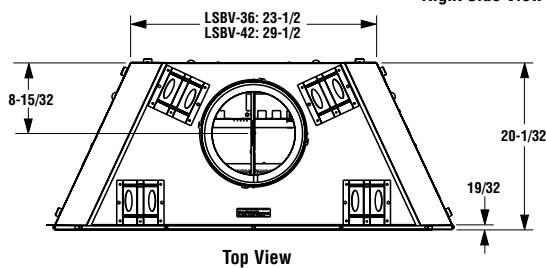
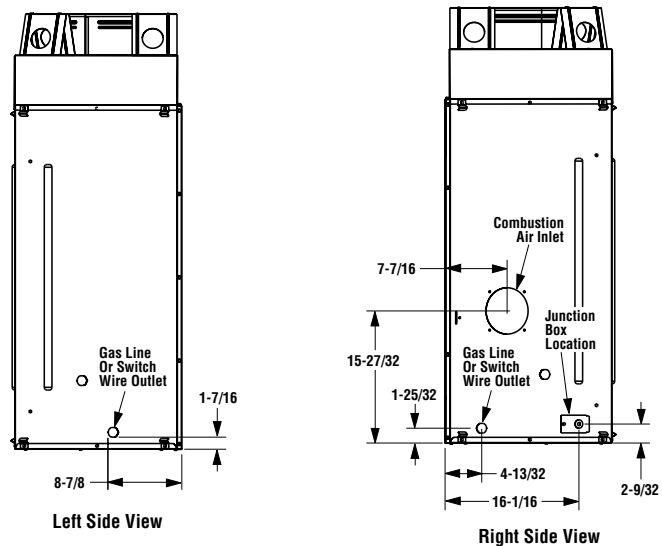
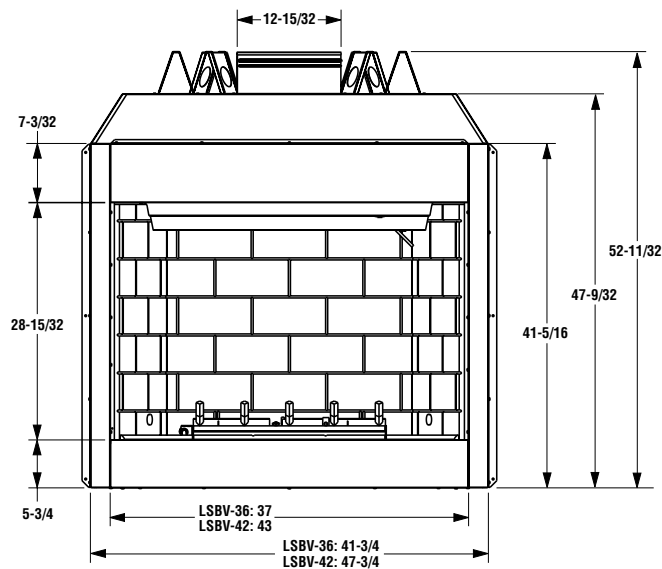


Figure 7

APPLIANCE AND FRAMING SPECIFICATIONS



Note: All framing dimensions calculated for 1/2" dry wall at the appliance face. If sheathing the chase or finishing with other thickness materials, calculations will need to be made.

Fireplace Framing Dimensions - inches (millimeters)										
	A	B	C	D	E	F	G	H	J	K
LSBV-3628	42-1/4 (1073)	52-1/2 (1344)	23-9/16 (599)	11-1/4 (286)	63-1/2 (1613)	31-3/4 (807)	20-1/2 (521)	4 (102)	7-1/2 (190)	44-3/16 (1122)
LSBV-4228	48-1/4 (1226)	52-1/2 (1344)	29-9/16 (751)	14-1/4 (362)	69-1/2 (1765)	34-3/4 (883)	20-1/2 (521)	4 (102)	7-1/2 (190)	49-1/8 (1248)

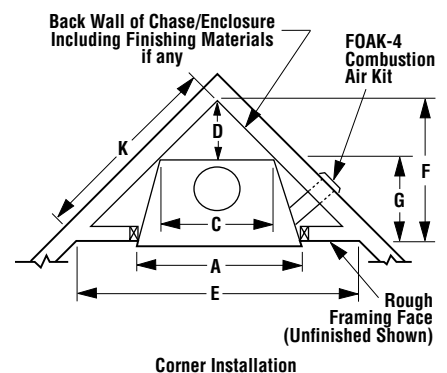
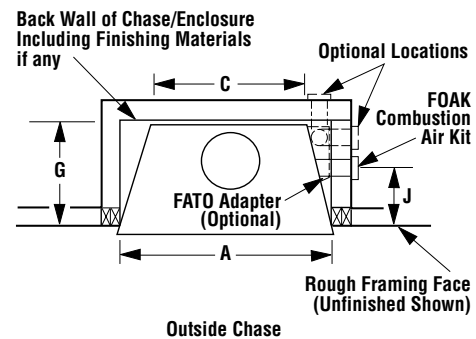
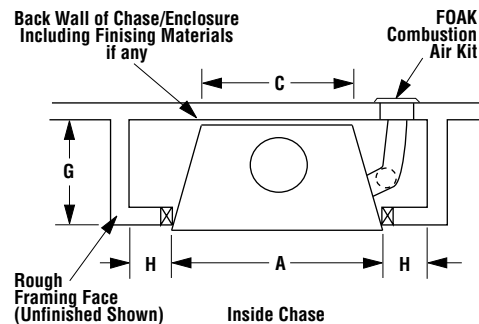
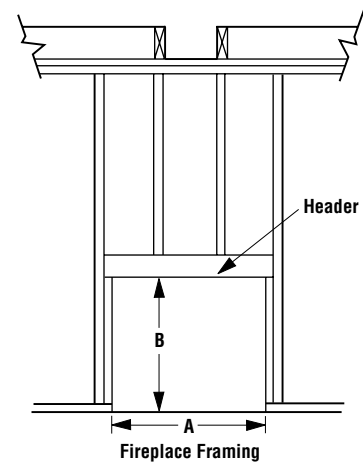


Figure 8

! WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

! AVERTISSEMENT

Risque de dommages ou de blessures si les pièces ne sont pas installées conformément à ces schémas et ou si des pièces autres que celles spécifiquement approuvées avec cet appareil sont utilisées.

PRE-INSTALLATION STEPS

The fireplace may be installed directly on a combustible floor or raised on a platform of an appropriate height. Do not place fireplace on carpeting, vinyl or other soft floor coverings. It may, however, be placed on flat wood, plywood, particle board or other hard surfaces. Be sure fireplace rests on a solid continuous floor or platform with appropriate framing for support and so that no cold air can enter the room from under the fireplace.

The fireplace may be positioned and then the framing built around it, or the framing may be constructed and the fireplace positioned into the opening.

Usually, no special floor support is needed for the fireplace, however, to be certain:

1. Estimate the total weight of the fireplace system and surround materials such as brick, stone, etc., to be installed.
2. Measure the square footage of the floor space to be occupied by the system, surrounds and hearth extensions.
3. Note the floor construction, i.e. 2 x 6's, 2 x 8's or 2 x 10's, single or double joists, type and thickness of floor boards.
4. Use this information and consult your local building code to determine if you need additional support.

If you plan to raise the fireplace and hearth extension, build the platform assembly then position fireplace and hearth extension on top. Secure the platform to the floor to prevent possible shifting.

TYPICAL INSTALLATION SEQUENCE

The typical sequence of installation is outlined below; however, each installation is unique, resulting in variations to the steps described herein.

1. Construct the appliance framing.
2. Route gas supply line to appliance location.
3. Position the appliance.
4. Install the vent system and exterior termination.
5. Field wire and install operating control switch.
6. Make connection to gas supply.
7. Install (optional) outside Air Kit.
8. Install the logs and glowing embers (rockwool).
9. Check appliance operation.
10. Adjust burner to ensure proper flame appearance.
11. Attach "Safety in Operation" Warnings.

INSTALLING THE FIREPLACE

Step 1. Construct the Appliance Framing - Frame appliance enclosure as illustrated in **Figure 8 on Page 7**.

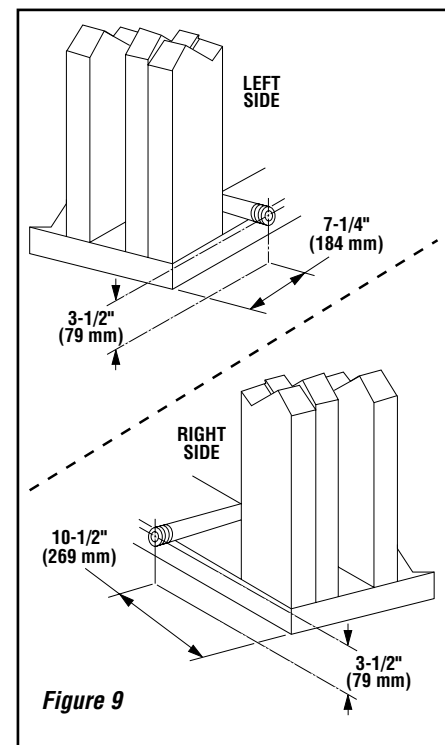
Note: The framed depth, 20-1/2" (521 mm) from a framed wall, must always be measured from a finished surface. If a wall covering such as drywall is to be attached to the rear wall, then the 20-1/2" (521 mm) must be measured from the drywall surface. It is important that this dimension be exact.

If the appliance is to be elevated above floor level, a solid continuous platform must be constructed.

The header may rest on the top metal spacers, but must not be notched to fit around them.

Consult all local codes.

Step 2. Route Gas Supply Line - Route gas line (**Figure 9**) using techniques and materials prescribed by local and/or national codes. It is recommended that a gas line of 1/2" or greater diameter be used to allow full gas volume to the fireplace. Undue pressure loss will occur if the pipe is too small. The appliance, as set up at the factory, is best suited for use with a gas line routed from the left side. The gas line may however be alternately routed from the right side.



This unit is provided with a gas line/switch wire outlet at both sides (see **Figure 8 on Page 7**). The gas line may be routed through this opening at either the right or left side. Route the Millivolt switch wire through the opening opposite from the gas line. To avoid cutting the Millivolt switch wire, do not route the switch wire through the opening with the gas line.

When rigid pipe is used, an ANSI approved manual shut-off valve and union must be installed upstream of the fireplace.

Ensure that a sediment trap is installed in the existing gas line, if not, install a sediment trap upstream to prevent moisture and contaminants from passing through trap to the appliance controls and burners. Failure to do so could prevent the appliance from operating reliably.

An external regulator must be used on all propane (L.P.G.) heaters to reduce the supply tank pressure to 13" w.c. (maximum). Any copper tubing used to supply propane (L.P.G.) from the tank must be internally tinned.

IMPORTANT: HOLD GAS VALVE SECURELY TO PREVENT MOVEMENT WHEN CONNECTING TO INLET GAS LINE



WARNING

CONNECTING DIRECTLY TO AN UN-REGULATED PROPANE (L.P.G.) TANK MAY CAUSE AN EXPLOSION.

All appliances are equipped with a gas flex line and shutoff valve attached directly to the gas control valve. To quickly and easily complete the gas line routing, use the gas flex line kit.

Step 3. Position the Appliance - Slide the fireplace into prepared framing or position fireplace in its final position and frame later.

Refer to fireplace drawings and specifications on **Page 7** for framing dimensions and details. Framing header may be positioned directly on the fireplace top spacers.

IMPORTANT: UNDER NO CIRCUMSTANCES CAN THE FIREPLACE TOP SPACERS (refer to Figure 10) BE REMOVED OR MODIFIED, NOR MAY YOU NOTCH THE HEADER TO FIT AROUND OR BE INSTALLED LOWER THAN THE SPACERS. THE HEADER MAY BE IN DIRECT CONTACT WITH THE TOP SPACERS BUT MAY NOT BE SUPPORTED BY THEM.

Fireplace should be secured to side framing members using the full length 1/2 inch nailing flanges that are integral to the appliance at each side. Use 6d nails or equivalent (**Figure 10**).

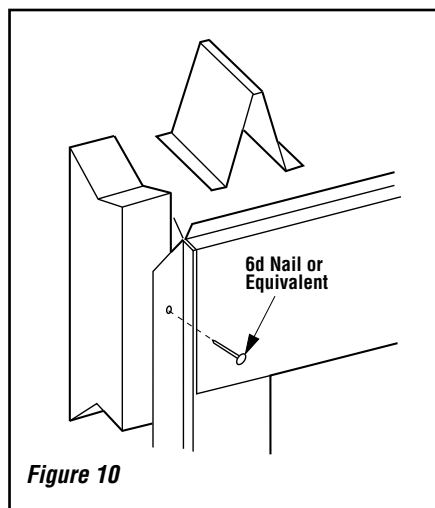


Figure 10

Note: The nailing flanges and the area directly behind the nailing tabs are exempt from the clearances described on the fireplace clearance label.

Step 4. Install the Vent System and Exterior Termination

Slip a 10" (254 mm) B-Vent system over the appliance collar (**Figure 11**) and secure with four sheetmetal screws (#8 or larger). Minimum overall height of the vent system and appliance must be 12' (3.66 m) vertical (no offset) or 17' (5.18 m) when an offset up to 45 degrees from the vertical is used. The lower part of the offset must not begin less than 3' (0.914 m) above the top of the fireplace (**see Figure 12**).

Maximum overall height of the vent system and appliance should not exceed 40 feet (12.19m).

Install the B-vent system in accordance with the vent manufacturer's instructions.

CAUTION: THIS APPLIANCE CANNOT BE VENTED HORIZONTALLY.

Note: Refer to the vent manufacturers installation instructions for variations of venting techniques. If common venting of several units is contemplated, it should be discussed with an architect and the local Building Department.

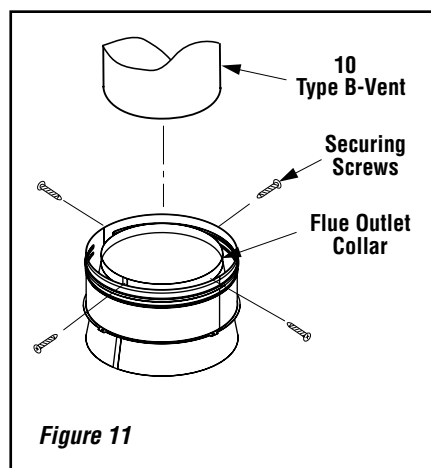


Figure 11

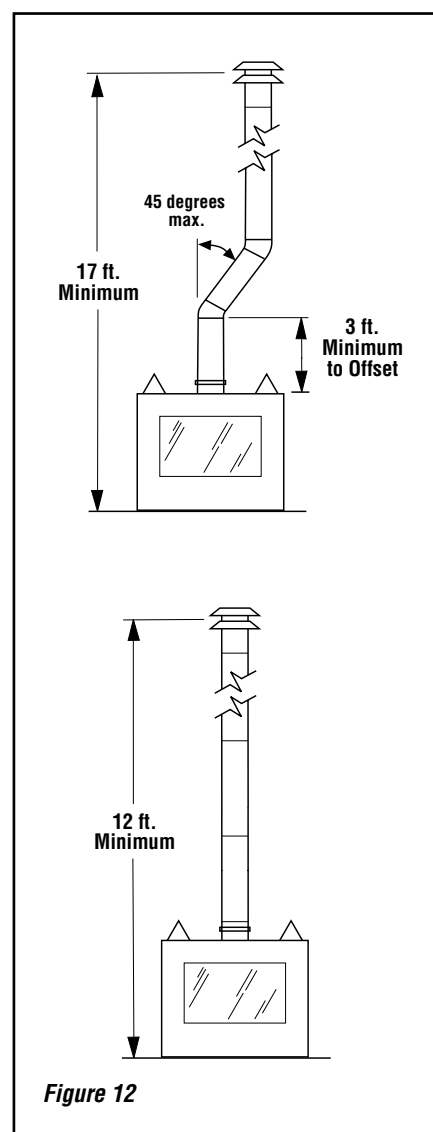


Figure 12

Step 5. Field Wiring – Refer to Section A for millivolt appliances and Section B for electronic appliances.

A. Millivolt Wiring – Units are fitted at the factory with an SIT millivolt gas control valve. The valve has been tested with and approved for use with these appliances and is listed accordingly. Refer to **Figure 15** for the wiring diagram.

The gas valve has been set in place and has been pre-wired at the factory. Locate the wall switch (not provided) or optional remote control in the desired location and connect the millivolt wire (see **Figure 15**).

CAUTION: DO NOT CONNECT THE WALL SWITCH TO A 120V POWER SUPPLY.

Note: The ends of the 18' coiled wire must be connected to the wall switch (not supplied) for the appliance to operate.

B. Electronic Wiring – The electronic appliance must be connected to the main power supply. To install, route a 3-wire 120V 60Hz power supply to the appliance junction box and ground.

Locate and install a low voltage (24V) wall switch (not supplied) in the desired location. Connect the low voltage wire to this switch (see **Figure 13**).

1. Route a 3-wire 120V 60Hz power supply line to the appliance junction box wires and ground (**Figures 13 and 14**).

2. After wiring is complete, replace the appliance junction box cover and secure with the hex head screws previously removed.

NOTE: Supply wires may be alternatively connected to the outlet using the screw terminals, however the black supply wire must be wired to a terminal that is opposite (across the outlet) the point where the white supply wire is connected (**Figure 14**).

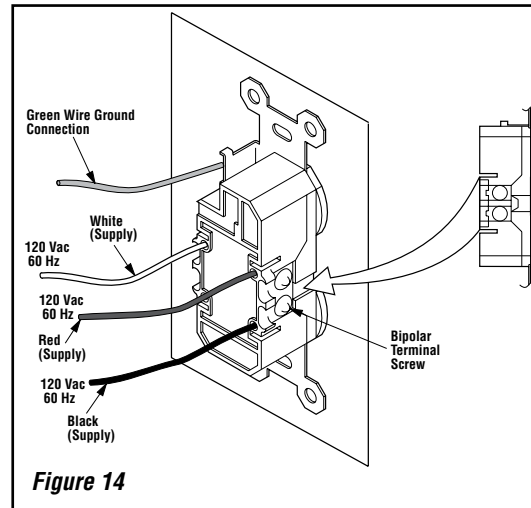


Figure 14

CAUTION

Ground supply lead must be connected to the wire attached to the green ground screw located on the outlet box. See **Figure 14**. Failure to do so will result in a potential safety hazard. The appliance must be electrically grounded in accordance with local codes or, in the absence of local codes, the National Electrical Code, ANSI/NFPA 70-latest edition. (In Canada, the current CSA C22.1 Canadian Electrical Code).

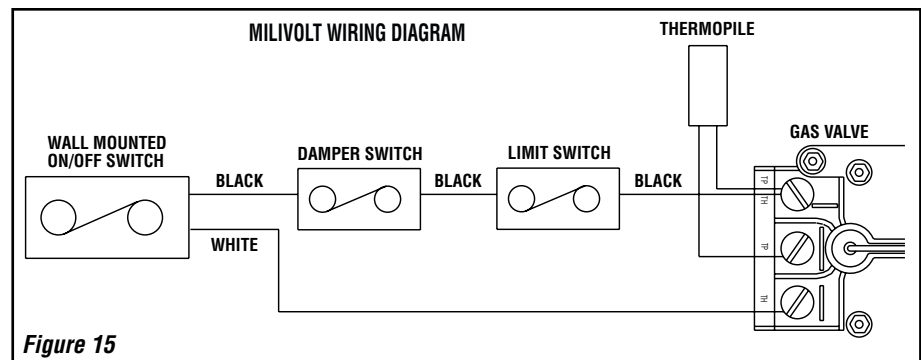


Figure 15

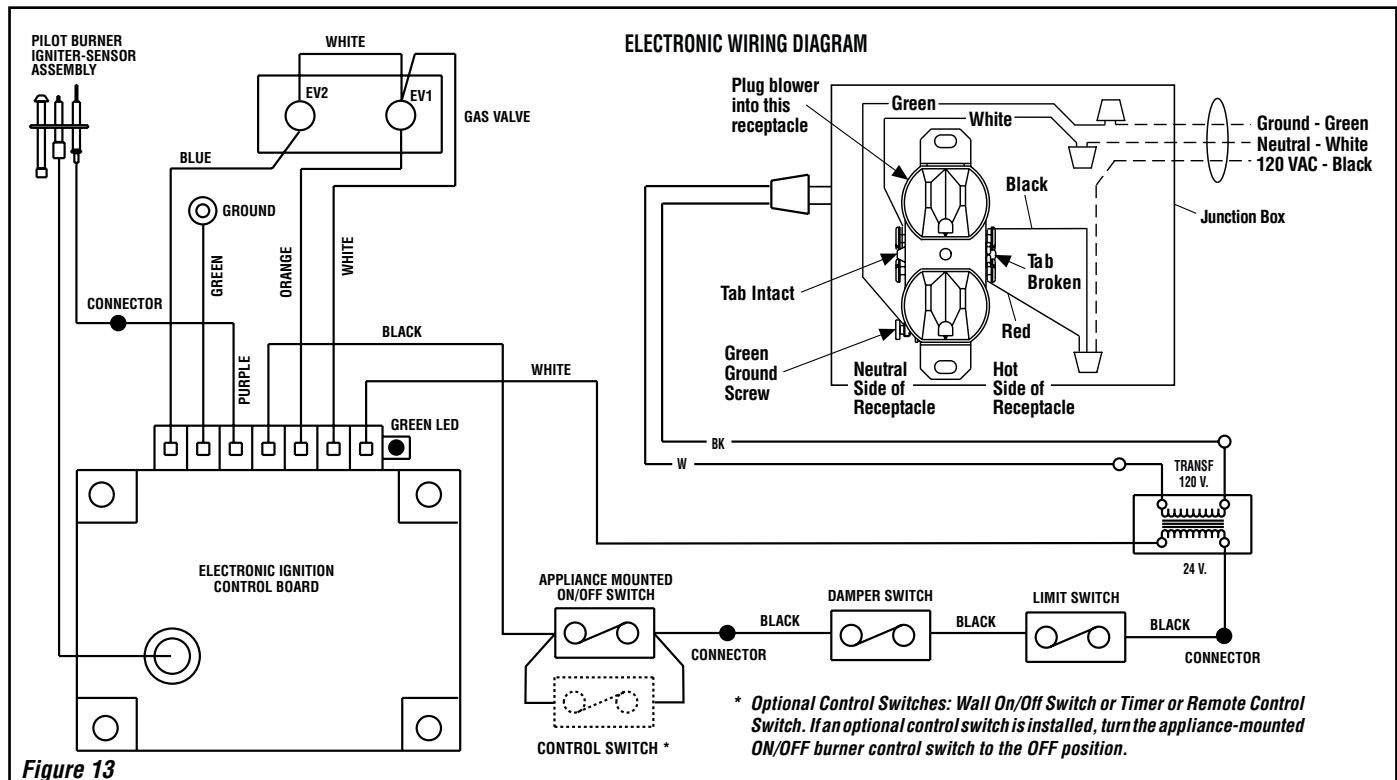
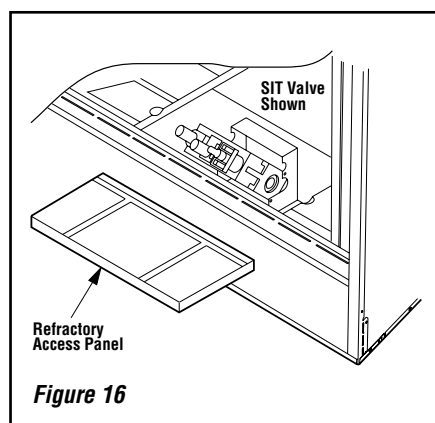


Figure 13

Step 6. Connecting Gas Line – Make gas line connections. All codes require a shut-off valve mounted in the supply line. **Figure 17** illustrates the method for connecting the gas supply. The flex-line method utilizing the gas flex line provided with the appliance is acceptable in the U.S., however, Canadian requirements vary depending on locality. Installation must be in compliance with local codes.

The gas control valve is located in the lower control compartment. To access the valve remove the refractory access panel and set aside (**Figure 16**). The control valve has a 3/8" (10 mm) NPT thread inlet port.

Secure all joints tightly using appropriate tools and sealing compounds (ensure propane resistant compounds are used in propane applications).



TEST ALL CONNECTIONS FOR GAS LEAKS (FACTORY AND FIELD):

! WARNING
Never use an open flame to check for leaks.

Turn on gas supply and test for gas leaks, using a gas leak test solution (also referred to as bubble leak solution).

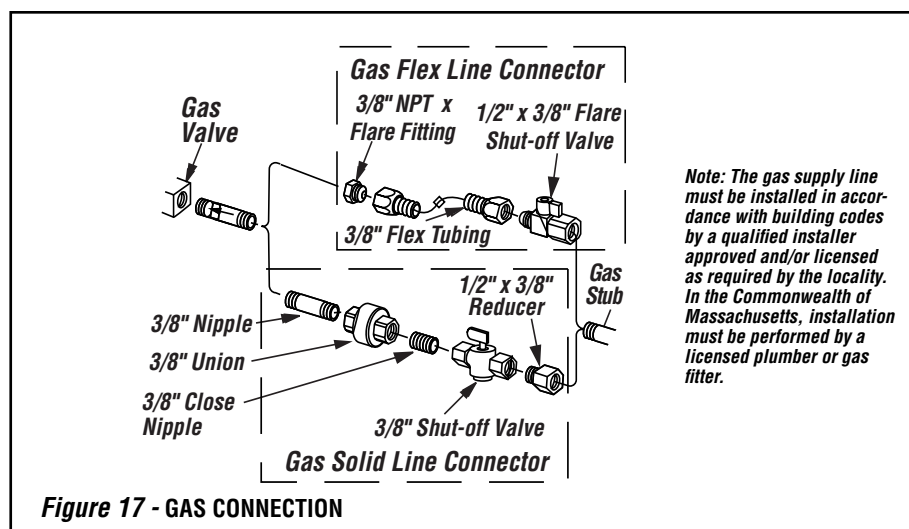
Note: Using a soapy water solution (50% dish soap, 50% water) is an effective leak test solution but it is not recommended, because the soap residue that is left on the pipes/fittings can result in corrosion over time. **Never use an open flame to check for leaks.**

A. Light the appliance (refer to the lighting instructions label in the control compartment or in the Homeowner's Care and Operation Instructions).

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 the gas control knob to the "OFF" position. Either tighten or refasten the leaking connection and retest as described above.

C. When the gas lines are tested and leak free, be sure to rinse off the leak testing solution.

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, clean out the ports.



Step 7. Optional Outside Air Kits – Combustion (outside make-up air) kits, Model FOAK-4 or FAOK-4LD, may be used with these appliances. Refer to the installation instructions packaged with the air kits for specific installation information. The outside air kit must be installed before the fireplace is framed and enclosed in the finished wall.

Outside air drawn into the fireplace supplies air to the fire for combustion. Only one combustion air duct on the right side of the fireplace is necessary if installed.

If additional length of duct is necessary, purchase locally available U.L. Class 0 or Class 1 metallic ducting. The duct may extend up to 50' (15.24 m) in any direction.

There is one hand operated air gate shut-off, for outside make-up air, located at the right side of the fireplace opening behind the screen. To open, lift and pull the handle out. The combustion air damper should be **open when the fireplace is in use** and, to prevent outside air from entering your home, fully closed when the fireplace is not in operation.

CAUTION: NEVER LOCATE INLET OF AN OUTSIDE AIR HOOD WHERE IT CAN BE BLOCKED BY SHRUBS, SNOW DRIFTS, ETC. NEVER LOCATE INLET IN GARAGE OR ANY AREA WHERE THERE IS ANOTHER FUEL BURNING APPLIANCE OR PRODUCTS EMITTING COMBUSTIBLE GASES SUCH AS PAINT, GASOLINE, ETC. IN COLD CLIMATES, IT IS RECOMMENDED THE COMBUSTION AIR DUCT BE INSULATED.

Outside combustion air ducting may be run upwards or vertically through framing and ceiling joists, with the hood installed through an outside wall and 3' (1 m) below the termination. Ducting may also be run downward through floor joists and under the home to a ventilated crawlspace not considered part of the living area of the home.

After installing the outside air kit, remove the cover from the shut off lever in the left side of the firebox opening.

NOTE: Do not terminate combustion air kit in attic space under any circumstances.

After completing the installation of the optional combustion air vent system the actuator arm must be put in service and tested to ensure proper operation before completing any enclosure around the firebox. Failure to do so may result in extensive and costly rework.

Operate the actuator through several cycles including the closed position. Ensuring proper operation and freedom of movement. Return the actuator arm to the closed position.

Step 8. Installing Logs and Glowing Embers (rockwool) –

WARNING

- **DO NOT attempt to install the logs until the appliance installation has been completed, the gas line connected and tested for leaks and the initial burner operation has been checked out.**
- **The size and position of the log set was engineered to give the appliance a safe, reliable and attractive flame pattern. Any attempt to use a different log set in the fireplace will void the warranty and will result in incomplete combustion, soot-ing, and poor flame quality.**
- **Logs get very hot and will remain hot up to one hour after gas supply is turned off. Handle only when logs are cool. Turn off all electricity to the appliance before you install grate, volcanic stone, vermiculite, embers and logs.**
- **This appliance is not designed to burn wood. Any attempt to do so could cause irreparable damage to the appliance and prove hazardous to your safety.**
- **If logs are not installed according to the log installation instructions, 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: Turn off all electricity to the appliance before you install embers and logs. DO NOT attempt to install the logs until the appliance installation has been completed, the gas line connected and tested for leaks and the initial burner operation has been checked out.

INSTALLATION STEPS:

READ WARNINGS ON THIS PAGE BEFORE PROCEEDING. FOLLOW THE LOG PLACEMENT INSTRUCTIONS EXACTLY

The logs are packaged within the firebox. Remove the glowing embers from the packaging and tear into dime size pieces. Do not use more than is necessary.

Displace Volcanic Stone to the center of the burner pan when removing and reinstalling the burner tube.

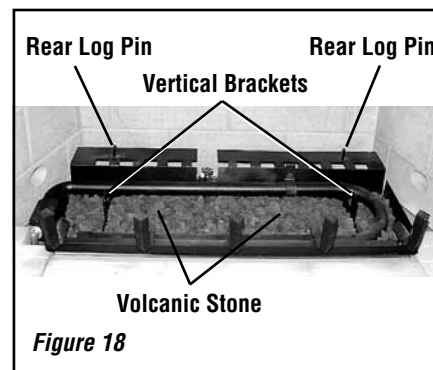
The log set shown in this document (**Figure 19**) is typical, installation of all sets are similar.

Proper log placement is critical to prevent soot-ing. Carefully position the ceramic fiber logs over the burner as described in the following steps, and detailed in **Figures 18 through 24**.

Note: Logs should be placed in the gaps between the flame peaks and should be positioned so that at no time they impinge the flames.

The logs are packaged within the firebox. The Volcanic Stone (2 bags) and Glowing Embers (rockwool) (1 bag) are in the bottom of the burner tray.

Spread 1-1/2 bags of Volcanic Stone evenly inside of the burner tray, as shown in **Figure 18**. The rest of the 1/2 bag of Volcanic Stone should be used only on LSBV-42 models, placed on the open spaces on the bottom of the firebox between the refractory and burner tray.



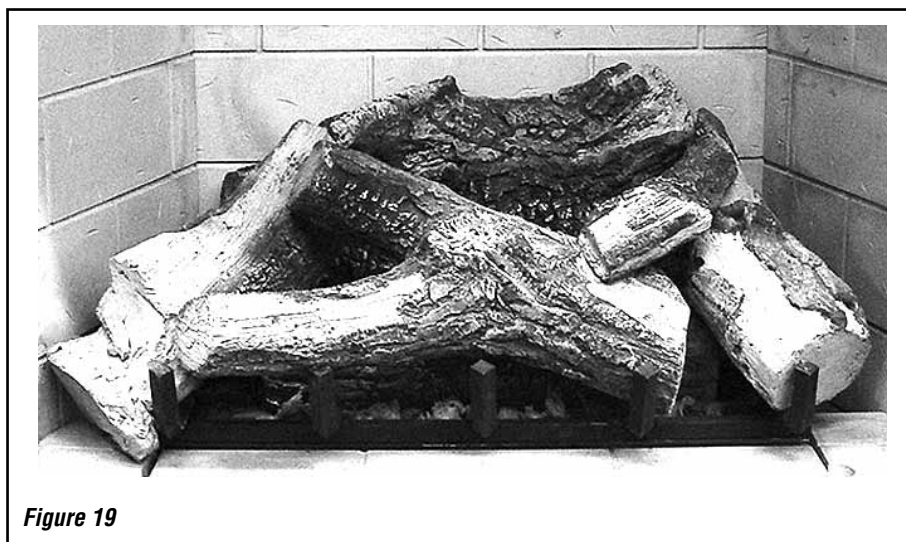


Figure 19

These appliances are equipped with a beautifully crafted six (6) piece ceramic fiber log set. The logs are to be positioned precisely as shown. Any modification to the lay of the logs may result in sooting, property damage and injury or death.

The rear log has mating holes for pin engagement on its bottom side. DO NOT force a hole into a log by engaging the pins where they are not intended to go.

Apparent minor mis-alignment of the pins and holes or landings can be eliminated by gently adjusting the position of the logs until the pins, holes or landings easily mate.

Step 1. To position the logs, begin by placing the rear log in position over the two pins located at the left rear and right rear of the log grate, see **Figure 18 and Figure 20**.

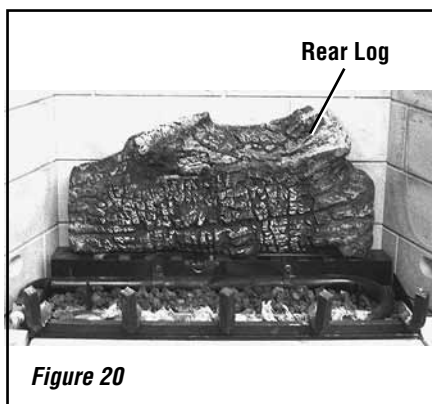


Figure 20

Step 2. Position the bottom log, (see **Figure 18 and Figure 21**) between the two vertical brackets of the burner tray.

Remove the Glowing Embers from the plastic bag and tear into quarter size pieces, as shown in **Figure 21**. Spread across the front part of the burner. Do Not use more than is necessary to cover the burner. When properly positioned, the Glowing Embers will unevenly cover approximately 85% of the burner with no appreciable gaps.

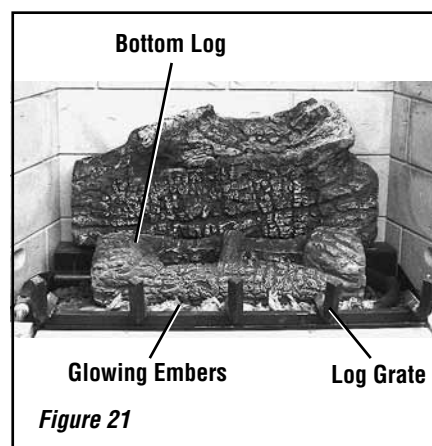


Figure 21

Step 3. Place the left log as shown in **Figure 22**, on the landing of the rear log. Make sure the landing on the front end of the log is resting on the first left finger of the grate, as shown in **Figure 22**.

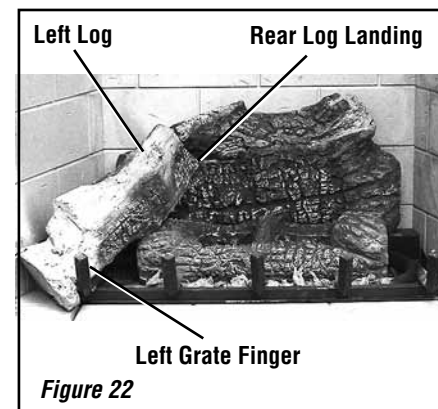


Figure 22

Step 4. Position the center log, see **Figure 23**, with the two branches sitting on the two landings provided on the top of the left log. The other end of the center log has a groove that should fit against the second right finger of the grate, as shown in **Figure 23**.

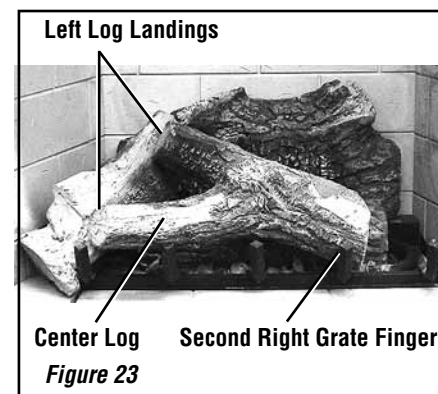


Figure 23

Step 5. Place the right log as shown in **Figure 24**, with the upper end sitting on the landing provided on the rear log. Another end of the right log should rest on the first right finger of the grate (see **Figure 24**). Position the top right log as shown, locating it on the landing of the center log.

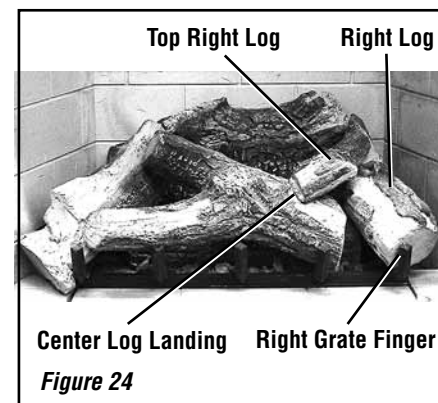


Figure 24

VERIFYING APPLIANCE OPERATION

Step 9. Checking the System – 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. For piezo igniter location see **Figure 25** (millivolt appliances only).

Note: Instructions are also found on the pull out lighting instructions label attached to the gas control valve.

When first lighting the appliance, it will take a few minutes for the line to purge itself of air. 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).

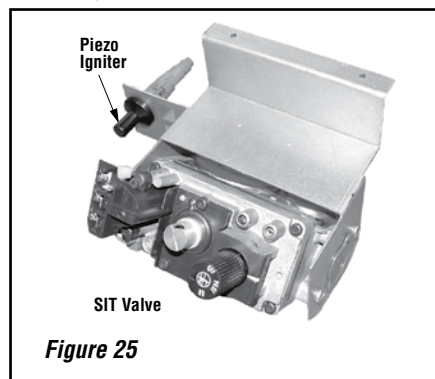


Figure 25

MANUALLY-RESET BLOCKED FLUE SAFETY SWITCH

This appliance is equipped with a manually-reset blocked flue safety switch. Refer to **Figure 26** for its location. If during appliance operation, the flame goes out (independently of the burner on/off wall switch), it may be due to the operation of this safety limit switch. First **allow the appliance to cool**. Then reset the safety switch by pushing the red reset button.

This reset button is located on the back of the limit switch, between the wire terminals (**see Detail A of Figure 26**).

The appliance should then relight and remain lit. If this does not occur, **turn off the appliance and call a qualified service technician**.

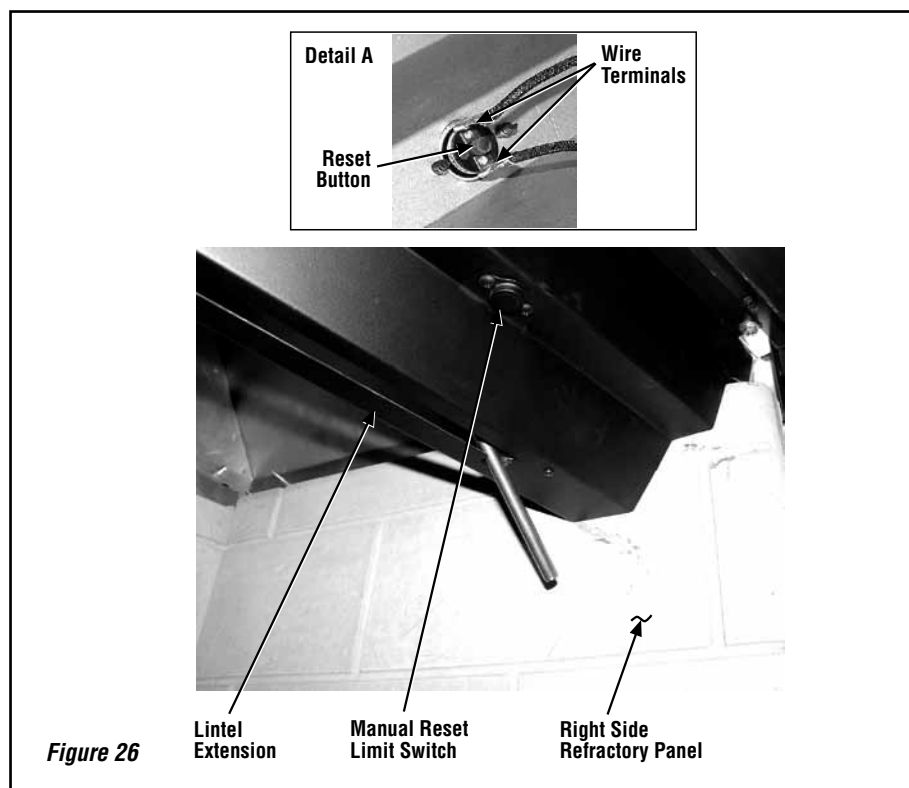


Figure 26

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" (9 mm) at the pilot generator (thermopile) should be engulfed in the pilot flame. The flame should project 1" (25 mm) beyond the hood at all three ports (**Figure 27**).

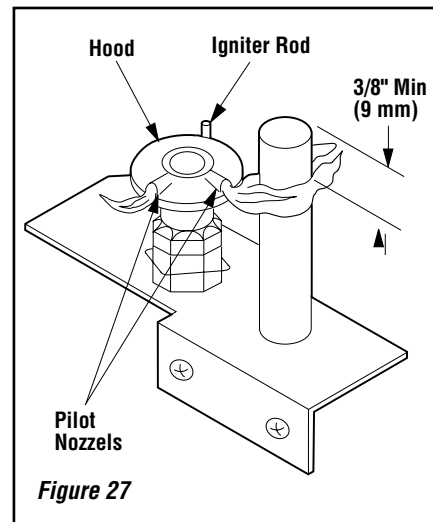


Figure 27

Replace logs if removed for pilot inspection.

To light the burner; rotate the gas valve control knob counterclockwise to the "ON" position ("ON" will be to the right hand side of the valve). Turn "ON" the remote wall switch.

Electronic Appliance Checkout

To light the burner, turn 'ON' the optional remote wall switch. Ensure the igniter lights the pilot. The pilot flame should engulf the flame rod as shown in **Figure 28**.

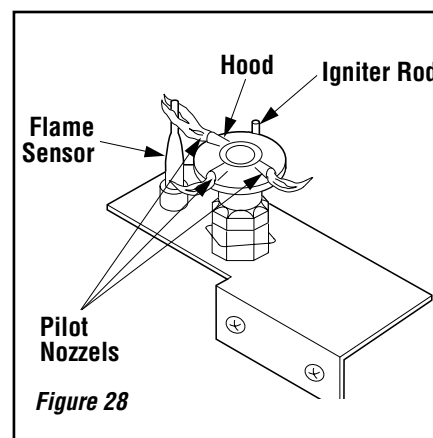


Figure 28

Step 10. BURNER ADJUSTMENTS**Flame Appearance and Sooting**

Proper flame appearance is a flame which is blue at the base and becomes yellowish-orange in the body of the flame. When the appliance is first lit, the entire flame may be blue and will gradually turn yellowish-orange during the first 15 minutes of operation. After 15 minutes of operation, if the flame is blue, or if the flame is orange with evidence of sooting (black tip), the air shutter opening may need to be adjusted.

If the air shutter opening is closed too far, 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 yellowish-orange flame with an orange body that does not soot, the shutter opening must be adjusted between these two extremes.

Air Shutter Adjustment Guidelines

- If there is smoke or soot present, first check the log set positioning to ensure that the flames are not impinging on any of the logs. If the log set is properly positioned and a sooting condition still exists, then the air shutter opening should be increased.
- If there are offsets in the vent system, the air shutter opening may need to be increased.
- An appliance operated with the air shutter opened too far, may have flames that appear blue and transparent. These weak, blue and transparent flames are termed anemic.
- Propane models may exhibit flames which candle or appear stringy. If this is present and persists, adjust the air shutter to a more open position, then operate the appliance for a few more minutes to ensure that the flame normalizes and the flames do not appear sooty.

The following chart 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

Burner Air Shutter Adjustment Procedure**! WARNING**

- **Air shutter adjustment should only be performed by a qualified professional service technician.**

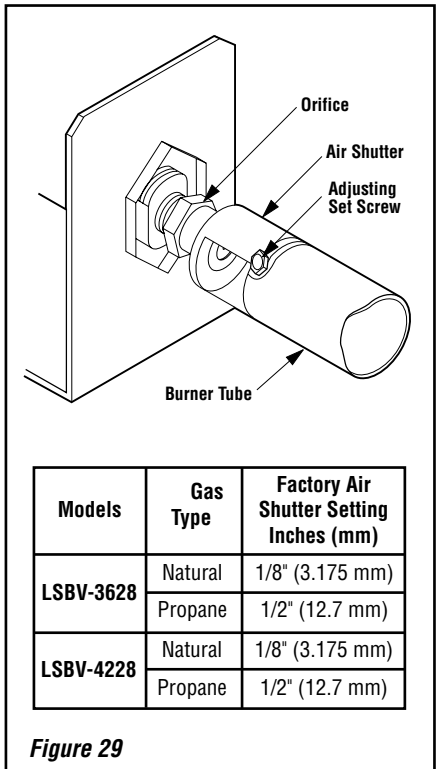
! CAUTION

- **Soot 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 air shutter door and nearby appliance surfaces are hot. Exercise caution to avoid injury while adjusting flame appearance.**

Burner Air Shutter Adjustment Procedure

To adjust the flame, position the air shutter to the nominal setting (**Figure 29**). Allow the burner to operate for at least 30 minutes. Observe the flame continuously. If it appears weak or sooty as previously described, adjust the air shutter open or closed until desired effect is achieved.

NOTE: If the flame still appears anemic with the air shutter closed all the way (usually a result of lengthy vertical venting runs), turn off the appliance, turn off the gas supply, wait for the parts to cool and access the air shutter. The shutter is prevented from actually closing by a tab that is bent over into the opening. Remove this obstruction by bending back. Reassemble and restart the appliance and after 24 minutes reobserve the flame. Adjust the air shutter as described.

**Figure 29**

When satisfied that the appliance operates properly, proceed to finish the installation. Leave the control knob/lever in "ON" position and turn the remote switch "OFF." Replace the refractory access panel.

STEP 11. ATTACHING SAFETY IN OPERATION WARNINGS

It is the installers responsibility to ensure these warnings are properly affixed during installation. These warning labels are a critical step in informing consumers of safe operation of this appliance.

ATTACHING SAFETY IN OPERATION WARNINGS

It is required that the safety instruction labels furnished with the fireplace be affixed to the operation and control point of the fireplace. A safety instruction label must be affixed to the wall switch plate where the fireplace is turned on and off (*See Figure A*) and if used on the remote control handheld transmitter (*Figure B*). To properly complete the installation of this fireplace, locate the multi-lingual adhesive labels provided with the Care and Operation Instructions and proceed as follows:

1. Locate the wall switch that controls the fireplace (verify the switch operates the fireplace by turning it on and off). Clean the wall switch plate thoroughly to remove any dust and oils. Affix the label to the surface of the plate of the wall switch that controls the fireplace (*Figure A*). Choose the language primarily spoken in the home. If unknown, affix the English language label.
2. If a remote control is used to control the fireplace, locate the transmitter and clean it thoroughly to remove any dust and oils. Affix the label to the surface of handheld transmitter (*Figure B*). Choose the language primarily spoken in the home. If unknown, affix the English language label.
3. If you are unable to locate the labels, please call Lennox Hearth Products or your nearest Lennox Hearth Products dealer to receive additional safety instruction labels free of charge.

Cat. No. H8024 Replacement Label Kit

LENNOX HEARTH PRODUCTS
1-800-655-2008

Note: English is red text on clear label. French and Spanish are white text on black label.

**SAFETY LABEL
DIAGRAMS****APPOSITION DES MISES EN GARDE RELATIVES
À LA SÉCURITÉ D'UTILISATION**

Il est impératif que les étiquettes de sécurité fournies avec le foyer soient collées à côté des dispositifs de contrôle du foyer. Une étiquette de sécurité doit être collée sur la plaque de l'interrupteur contrôlant l'allumage du foyer (*voir Figure A*) et, le cas échéant, sur le boîtier de la télécommande (*Figure B*). Pour achever l'installation correcte de ce foyer, procédez comme suit avec les étiquettes adhésives en langues étrangères fournies avec les instructions d'utilisation et d'entretien :

1. Repérez l'interrupteur qui contrôle le foyer (vérifiez que l'interrupteur contrôle le fonctionnement du foyer en le faisant basculer de Marche à Arrêt, et vice-versa). Nettoyez soigneusement la plaque murale de l'interrupteur pour éliminer la poussière et les traces de graisse ou d'huile. Collez l'étiquette sur la surface de la plaque de l'interrupteur mural qui contrôle le foyer (*Figure A*). Choisissez la langue qui est principalement parlée dans la résidence du propriétaire. En cas de doute, collez l'étiquette en anglais.
2. Si une télécommande est utilisée pour contrôler le foyer, nettoyez la soigneusement pour éliminer la poussière et les traces de graisse ou d'huile. Collez l'étiquette sur le boîtier de la télécommande (*Figure B*). Choisissez la langue qui est principalement parlée dans la résidence du propriétaire. En cas de doute, collez l'étiquette en anglais.
3. Si vous ne trouvez pas les étiquettes, veuillez appeler Lennox Hearth Products ou votre distributeur Lennox Hearth Products local pour recevoir gratuitement des étiquettes supplémentaires.

Étiquettes de remplacement, n° cat. H8024

LENNOX HEARTH PRODUCTS
1-800-655-2008

Remarque : Le texte anglais est rouge sur un support transparent. Le texte français et espagnol est blanc sur un support noir.

**DIAGRAMMES DES ÉTIQUETTES
DE SÉCURITÉ****COLOCACIÓN DE ADVERTENCIAS DE SEGURIDAD
EN OPERACIÓN**

Se requiere que las etiquetas de instrucciones de seguridad incluidas con la chimenea se coloquen en el punto de operación y control de la misma. Se debe colocar una etiqueta de instrucciones de seguridad en la placa del interruptor de pared desde el cual se enciende y se apaga la chimenea (*ver la Figura A*) y en el transmisor de control remoto (*Figura B*) si se usa. Para completar correctamente la instalación de esta chimenea, encuentre las etiquetas adhesivas multilingües incluidas con las instrucciones de cuidado y operación y haga lo siguiente:

1. Identifique el interruptor de pared que controla la chimenea (verifique que el interruptor opera la chimenea encendiéndola y apagándola). Limpie bien la placa del interruptor de pared para quitar el polvo y aceite. Pegue la etiqueta en la superficie de la placa del interruptor que controla la chimenea (*Figura A*). Seleccione el idioma que más se habla en la casa. Si no sabe cuál es, use la etiqueta en inglés.
2. Si se usa un control remoto para controlar la chimenea, encuentre el transmisor y límpielo bien para quitar el polvo y aceite. Pegue la etiqueta en la superficie del transmisor (*Figura B*). Seleccione el idioma que más se habla en la casa. Si no sabe cuál es, use la etiqueta en inglés.
3. Si no puede encontrar las etiquetas, sírvase llamar a Lennox Hearth Products o al distribuidor de Lennox Hearth Products más cercano para recibir etiquetas de instrucciones de seguridad adicionales gratuitas.

Juego de etiquetas de repuesto - N° de cat. H8024

LENNOX HEARTH PRODUCTS
1-800-655-2008

Nota: La etiqueta en inglés es transparente con texto rojo. Las etiquetas en francés y español son negras con texto blanco.

**DIAGRAMAS DE ETIQUETAS
DE SEGURIDAD**

*Illustrations are for example only.
Your accessories may be different.*

*Les illustrations sont par exemple
uniquement. Vos accessoires
peuvent être différents.*

*Las ilustraciones son sólo ejemplos.
Tu accesorios pueden ser diferentes.*

Figure A

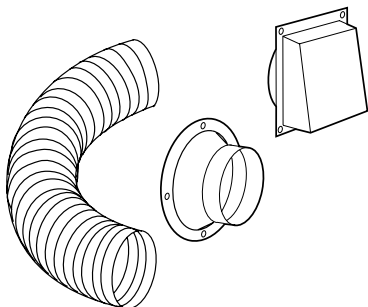


Figure B



INSTALLATION ACCESSORIES

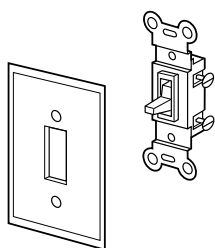
The following accessory items are available for use in the installation of this appliance.



Outside Combustion Air Kits		
Cat. No.	Model No.	Description
81L87	FOAK-4	(with duct)
81L88	FOAK-4LD	(without duct)

Outside Air Kits Models FOAK-4 and FOAK-4LD

Outside Air kits are available with duct (FOAK-4) and without duct (FOAK-4LD) for use if outside combustion air is required or desired. If model FOAK-4LD is used it must be used in conjunction with locally purchased, non-combustible Class 1 or Class 0 flexible duct.



OFF/ON Wall Switch Kit

The OFF/ON wall switch kit may be used to control the operation of the fireplace burner. Install the OFF/ON wall switch in a convenient location near the fireplace.

White Wall Switch Kit		
Cat. No.	Model No.	Description
85L87	FWSK	OFF/ON Wall Switch Kit



Cost Effective Solution

- Simple On/Off operation
- Works with millivolt and low voltage electronic ignition controls

Kit includes:
Remote and Receiver

G-Fire Remote, Simple On/Off		
Cat. No.	Model No.	Description
H8840	KIT-RC-G-FIRE	Remote Control



Wall Control

- 4-button timer with 30/60/120/OFF minutes
- Wall surface mounted
- Connects to wall switch wire
- Perfect for rental and resort applications

Wall Switch, Countdown Timer		
Cat. No.	Model No.	Description
H8863	WS-S-TMR	Wall Switch



Manual or up to 3 hr Countdown Timer modes

- LCD display
- Displays room temp. in °F or °C
- Flame icon and low battery indicator
- Includes batteries
- Wall clip included
- Receiver may be wall mounted or placed in the control compartment
- Includes white face plate
- Flame icon
- Low battery indicator
- Batteries included

Remote, Two Button, Timer, On/Off Or Timer Mode		
Cat. No.	Model No.	Description
H8860	RC-S-1	Remote Control

GAS CONVERSION KITS

⚠ 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 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 technicien 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.

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 AYANT JURISDICTION ET CONFORMÉMENT AUX EXIGENCES DU CODE D'INSTALLATION CAN/CGA-B149.1.

Gas conversion kits are available to adapt your appliance 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.

Kit part numbers are listed here and the steps that follow detail the conversion procedure.

**Millivolt SIT Systems -
Natural To Propane Gas Conversion Kits**

Models	Unit Type	Catalog No.
LSBV-3628	millivolt	H5814
LSBV-4228	millivolt	H5814

**Electronic SIT Systems -
Natural To Propane Gas Conversion Kits**

Models	Unit Type	Catalog No.
LSBV-3628	electronic	H5815
LSBV-4228	electronic	H5815

**Millivolt SIT Systems -
Propane to Natural Gas Conversion Kits**

Models	Unit Type	Catalog No.
LSBV-3628	millivolt	H5812
LSBV-4228	millivolt	H5812

**Electronic SIT Systems -
Propane to Natural Gas Conversion Kits**

Models	Unit Type	Catalog No.
LSBV-3628	electronic	H5813
LSBV-4228	electronic	H5813

Step 1. TURN OFF THE GAS SUPPLY TO THE APPLIANCE and disconnect power supply at the circuit breaker. Ensure appliance is cold. Remove the front glass door (if used) from the appliance. Access the control compartment.

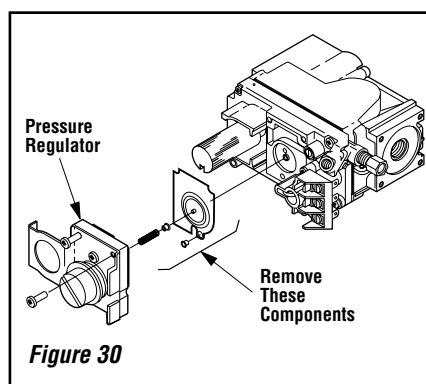
Step 2. Carefully remove the logs. Exercise care as not to break the logs.

Step 3. Locate the screw securing the burner. Remove the burner and retain the securing screw.

Millivolt Appliances

Step 4. SIT Systems - Refer to **Figure 30** and the instructions provided with the kit. Using a Torx T20, remove and discard the three pressure regulator mounting screws.

Remove the pressure regulator, spring, poppet, diaphragm and bushing. **Discard all removed components.** Ensure the rubber gasket installed on the back of the replacement pressure regulator is properly positioned and install the new pressure regulator using the new screws supplied with the kit. Tighten screws to 25 in-lbs of torque.

**Figure 30**

Gas Conversion Kits (continued)

Step 5. Millivolt Systems – Attach manometer to the manifold side pressure test fitting and verify manifold pressure reads 3.5" water column (0.87 kPa) for natural gas, and 10.0" water column (2.49 kPa) for propane gas.

Step 6. See **Figure 31** and remove the pilot hood assembly to access the hexed pilot orifice. Remove and replace the orifice with the one provided with the kit.

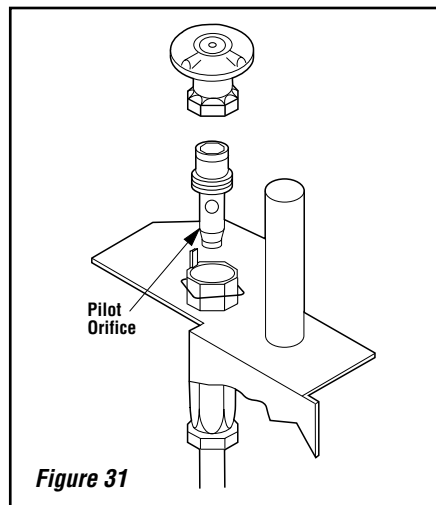


Figure 31

Electronic Appliances

Step 7. SIT Electronic Valves - See **Figure 33** and the instructions provided with the kit. Remove the slotted cap screw, o-ring, pressure-regulating adjusting screw and spring, then discard.

Modify the pressure regulator from the kit. Using a standard tin snip cutting tool, proceed to trim shoulder off of the regulator.

Install new components and modified pressure regulator from the kit.

Attach manometer to the manifold side pressure test fitting and adjust screw until pressure reads 3.5" water column (0.87 kPa) for natural gas, and 10.0" water column (2.49 kPa) for propane gas.

Refer to **Figure 32** and replace the pilot orifice as follows: Remove the pilot hood assembly to access the hexed pilot orifice.

Remove the pilot orifice and replace it with the one provided with the conversion kit. Reinstall the pilot assembly by reversing the steps detailed here.

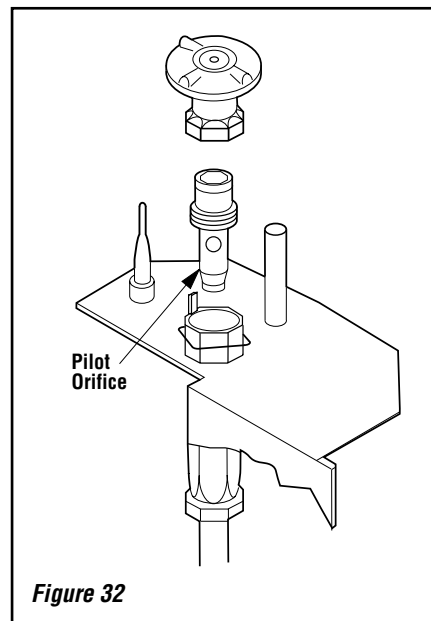


Figure 32

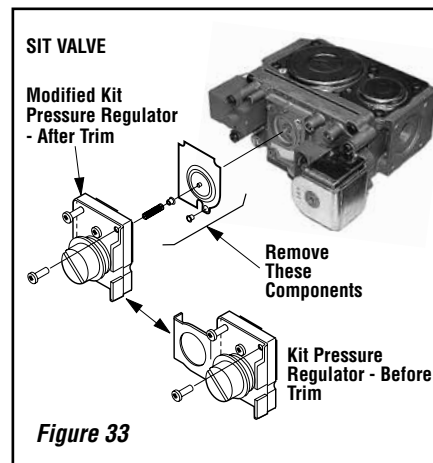


Figure 33

When reinstalling the igniter assembly, use extreme care to prevent damage and breakage. Do not apply any leverage to the igniter assembly while restoring the retainer clip to its original position.

All Models

Step 8. Unscrew the orifice from the manifold and replace it with the one provided with the kit. See the following table for orifice sizes for natural and propane models. **Figure 34** illustrates the orifice.

Burner Orifice Sizes (all models)		
Elevation Feet (meters)	Natural Gas drill size (inches)	Propane Gas drill size (inches)
0-4500 (0-1372)	#26 (0.147") * H5805 •	#45 (0.082") * 39L66 •

Table 5 * Standard size installed at factory
• Part /Cat. Number

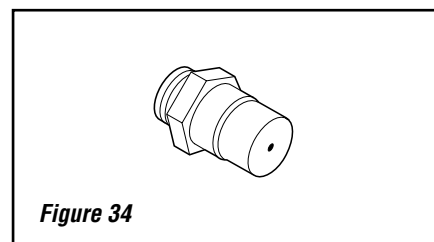


Figure 34

Step 9. Reassemble all removed components by reversing the procedures outlined in the preceding steps. Use pipe joint compound or Teflon tape on all pipe fittings before installing (ensure propane resistant compounds are used in propane applications, do not use pipe joint compounds on flare fittings).

Step 10. Attach the conversion label provided in the conversion kit to the rating plate on the appliance.

Step 11. Turn on gas supply and test for gas leaks (see **Step 6** on **Page 8**).

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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