LENNOX
HEARTH PRODUCTS

INSTALLATION INSTRUCTIONS

MPB B-Vent Gas Fireplaces

MERIT Plus SERIES

P/N 506015-05 Rev. D 04/2013

This manual is one of a set of two supporting this product.
Refer to P/N 506017-04 for Care and Operation Instructions.

Ce manuel est disponible en francais, simplement en faire la demande. Numéro de la pièce 506223-45.

MODELS

MILLIVOLT:		ELECTRONIC:	
MPB33CNM	MPB35CPM	MPB33CNE	MPB40CNE
MPB33CPM	MPB40CNM	MPB35CNE	MPB45CNE
MPB35CNM	MPB45CNM		

Tested & Listed By O-T-L Portland Oregon USA
C US
OMNI-Test Laboratories, Inc.

OTL Report No. 116-F-36d-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.

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'incindie ou d'explosion ou pour éviter tout dommage matériel, toute blessure ou la mort.

- Ne pas entreposer ni utilizer 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 aucan 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 incindies.
- L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.

TABLE OF CONTENTS

Please read and understand these instructions before beginning your installation.

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

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:

- (1 set) Logs (packaged in a carton inside the firebox).
- (1 bag) Volcanic Stone (included in the firebox or bottom compartment).
- (1 bag) Glowing Embers (in bottom compartment).
- Literature Kit (envelope in bottom compartment containing Care and Operation Instructions, Installation Instructions, Safety-In-Operation Warning Labels, Warranty).
- (1) Hood (behind the top louver assembly).

INTRODUCTION

The ***Millivolt*** appliances have a millivolt gas control valve with piezo ignition system. If any optional accessories that will require electrical power are to be installed, the electrical power must be provided at the time of appliance installation.

The ***Electronic*** appliances are designed to operate on natural or propane gas. An electronic intermittent pilot ignition system provides safe, efficient operation. External electrical power is required to operate these units. In the event of a power outage, four (4) "AA" batteries (in battery holder) provide backup power for appliance operation (excluding [optional] blower).

APPROVED VENT COMPONENTS

These vented gas fireplaces are designed for residential applications. They must be installed with approved Type-B, double wall vent pipe systems and a listed vent termination routed to the outside atmosphere. Use only the proper size listed below.

REQUIRED PIPE DIAMETER:
MPB33 series: Requires 4" (102 mm)
MPB35 series: Requires 5" (127 mm)
MPB40 series: Requires 5" (127 mm)
MPB45 series: Requires 6" (152 mm)

⚠ 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.

GENERAL INFORMATION

⚠ 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

Improper installation or use of this appliance can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.

⚠ 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.

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.

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 pous-sière. 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 trousses 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, Inc. (Report No. 116-F-36d-5) to ANSI Z21.50b-2009 (in Canada, CSA 2.22b-2009), and CAN/CGA-2.17-M91 (R2009) in both USA and Canada, as vented gas fireplaces.

Both millivolt and electronic versions of these appliances may be used in bedrooms 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.

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 openings 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.

OUTSIDE COMBUSTION AIR HOOK UP

These appliances are equipped with an integral combustion air door and actuator arm. Combustion air kits are optional. Install as shown in ***Step 7*** on ***Page 13***.

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

Both millivolt and electronic systems can be operated during a power outage, and feature manually operated hi-low flame control. The BTU Input for these appliances is shown in ***Table 1.***

	Natural Gas	Propane Gas
Model	**Input Rate (BTU/HR)**	**Input Rate BTU/HR)**
MPB33	13,500 to 17,500	13,500 to 17,500
MPB35	16,000 to 20,000	16,500 to 20,000
MPB40	24,000 to 30,000	22,300 to 28,000
MPB45	24,750 to 31,000	23,000 to 29,000

Table 1 - BTU Input Ratings

GAS PRESSURE - ALL MODELS

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

Fuel #	Minimum	Maximum
Natural Gas	4.5" WC (1.12 kPa)	10.5" WC (2.62 kPa)
Propane	11.0" WC (2.74 kPa)	13.0" WC (3.24 kPa)

Table 2 - Inlet Gas Supply Pressure

Fuel #	Low	High
Natural Gas	2.2" WC (0.55 kPa)	3.5" WC (0.87 kPa)
Propane	6.3" WC (1.57 kPa)	10.0" WC (2.49 kPa)

Table 3 - Manifold Gas Supply Pressure

Test gauge connections are provided on the front of the millivolt and electronic gas control valve (identified IN for the inlet and OUT for the manifold side). The control valves have a 3/8" (10 mm) NPT thread inlet and outlet side of the valve (refer to ***Figures 1 and 2***).

Propane tanks are at pressures that will cause damage to valve components. Verify that the tanks have step down regulators to reduce the pressure to safe levels.

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 ft (0 - 1372 m) above sea level using the standard burner orifice sizes (marked with an "*" in ***Table 4***). For elevations above 4500 ft, 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.
- 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 - latest edition / ANSI Z223.1 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. **Gas Valve Diagrams.** See ***Figure 1*** for millivolt models and ***Figure 2*** for electronic models.

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.

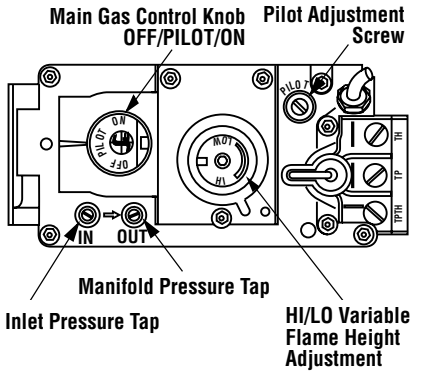


Figure 1 - SIT Millivolt Gas Valve

Burner Orifice Sizes Elevation 0-4500 feet (0-1372 meters)		
Model	**Nat.Gas** drill size (inches)	**Propane** drill size (inches)
MPB33	#47 (0.0785")* 99K74 •	(0.048")* 99K78 •
MPB35	#44 (0.086")* 60J80 •	#55 (0.052")* 19L52 •
MPB40	#38 (0.102")* 99K76 •	(0.062")* 21L01 •
MPB45	#37 (0.104")* 24M10 •	#52 (0.0635")* 37G00 •

Table 4 — ** Standard size installed at factory* — *• Part /Cat. Number*

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:

- Install this appliance in accordance with Massachusetts Rules and Regulations 248 C.M.R.
- 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.

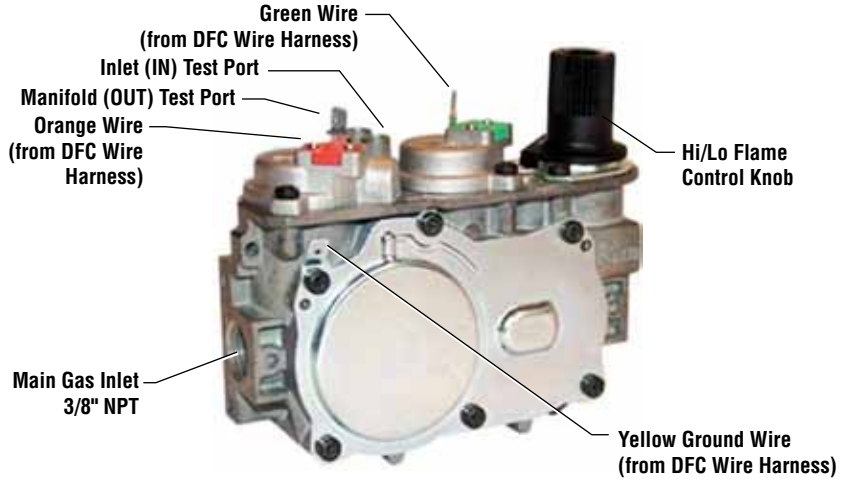


Figure 2 - SIT Electronic Gas Valve

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

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 conduction of cold transferring 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 (see ***Figure 10 on Page 8***).

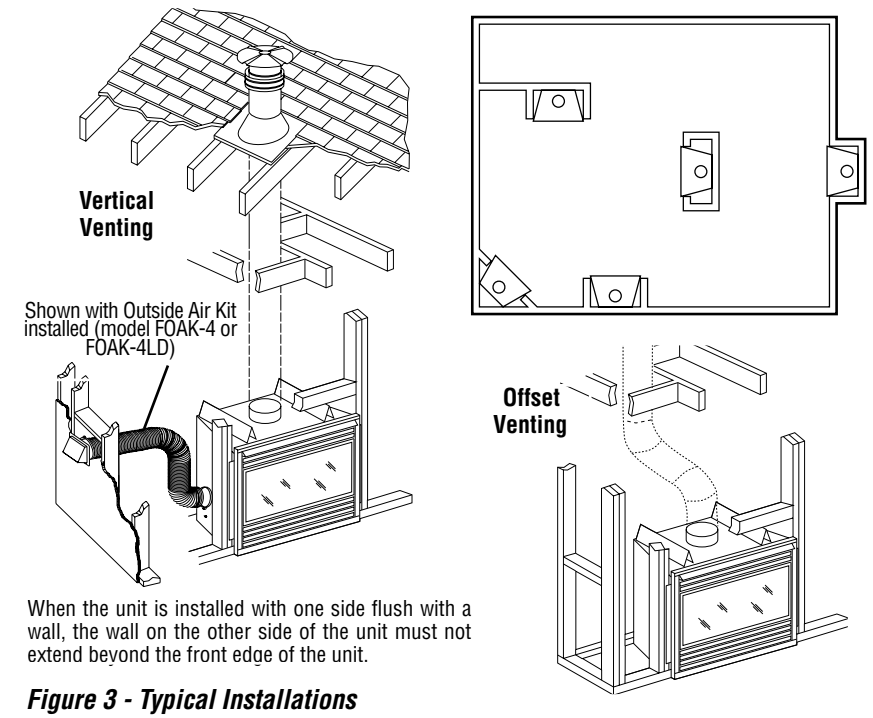
The appliance must be mounted on a fully supported base extending the full width and depth of the unit. The appliance may be located on or near conventional construction materials. However, if installed on combustible materials, such as carpeting, vinyl tile or other combustible material other than wood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

VENT TERMINATION CLEARANCES

Gas Vent Rule - Gas vent caps are not permitted within 8 feet (2.4 mm) of a vertical wall or similar obstruction. Gas vent caps that are located 8' 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' (610 mm) horizontally from the roof surface (National Fuel Gas Code ANSI Z223.1 (NFPA 54) Gas Vent Termination) (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.



When the unit is installed with one side flush with a wall, the wall on the other side of the unit must not extend beyond the front edge of the unit.

Figure 3 - Typical Installations

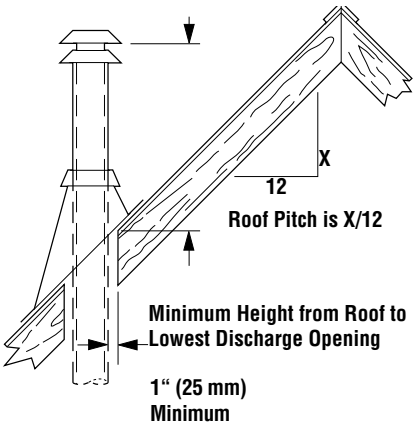


Figure 4 - Vertical Vent Termination Clearances

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

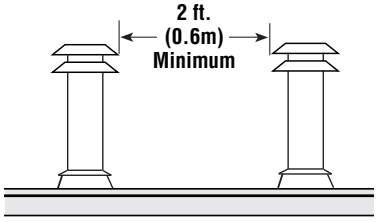


Figure 5 - Multiple Terminations

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

APPLIANCE AND VENT CLEARANCES

MINIMUM CLEARANCES TO COMBUSTIBLES

The appliance is approved with zero clearance to combustible materials on all sides. Refer to ***Table 5*** for minimum clearance values. For typical installations, see ***Figure 3 on Page 5***.

Minimum Clearances	
Back	1/2" (13 mm) 0 (0) from Spacers or Dimples
Sides	1/2" (13 mm) 0 (0) from Spacers or Dimples
Top Spacers	3" (76 mm) 0" (0 mm) with standoff(s) in vertical position
Floor	0" (0 mm)
Bottom of Appliance To Ceiling	64" (1626 mm)
Vent	1" (25.4 mm)
SERVICE CLEARANCES	
Front	3' (0.9 m)

Table 5

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 face.*** *Refer to* ***Figure 36 on Page 21*** for clearance recommendations and requirements.

Figures 6 and 7 *illustrate the areas surrounding the fireplace where clearances are an issue. The outer edge of the metal trim on only one side of the fireplace may abutt a perpendicular wall. For this type of installation, the other side of the fireplace must be a flat wall to allow for proper air flow and burner operation.*

Combustible materials may project beyond one or both sides of the fireplace opening when these materials are kept within the "Safe Zone" illustrated in ***Figure 6***.

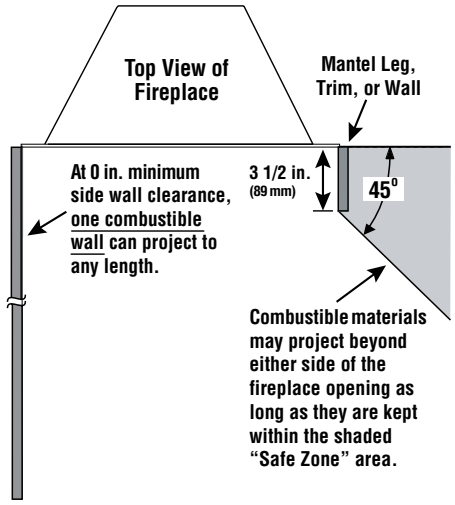


Figure 6 - Clearance References

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 panel, louvers, or control compartment.

Vertical installation clearances to combustible mantels vary according to the depth of the mantel *(see* ***Figure 7****)*. 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.*

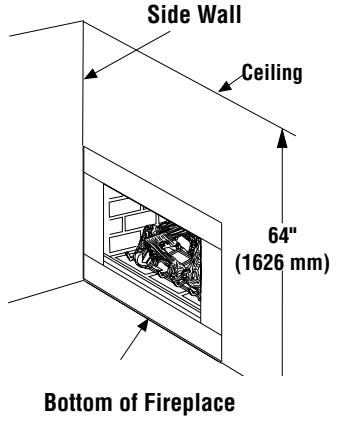


Figure 7 - Wall Clearances

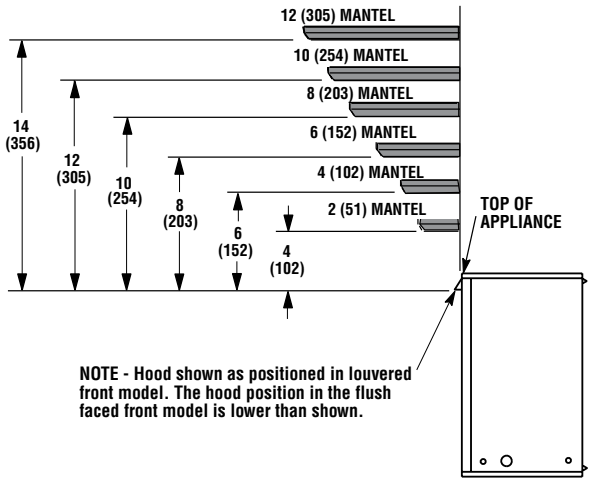


Figure 8 - Minimum Mantel Clearances

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

PRE-INSTALLATION STEPS

The appliance is shipped with all gas controls and components installed and pre-wired.

1. Before installing the appliance, follow these steps:
2. Remove the shipping carton.
3. Remove the shipping pad, exposing the front glass door.
4. Open the spring latch securing the glass door (under the firebox floor). Remove the door by tilting it outward at the bottom and lifting it up. ***Set the door aside, taking care to protect it from inadvertent damage***. See *Removing the Glass Enclosure Panel* on ***Page 19***.
5. Remove the log set from the firebox. Handle logs carefully to prevent breakage.
6. Remove the embers and volcanic stone from the control compartment.

TYPICAL INSTALLATION SEQUENCE

The typical sequence of installation is outlined below; however, each installation is unique and may result in variations to the steps described. See the pages referenced in the following steps for detailed procedures.

Step 1. FRAMING *(**Page 7**):* Construct the appliance framing. Position the appliance within the framing and secure with nailing flanges and floor anchor tabs.

Bend out the appropriate nailing flanges for the drywall/finish material to be used. Nailing flanges are provided for flush framing, 1/2" and 5/8" framing depths (*see **Figure 8***).

Step 2. ROUTING GAS LINE *(**Page 9**):* Route gas supply line to appliance location.

Step 3. INSTALLING VENT SYSTEM *(**Page 10**):* Install the vent system and exterior termination.

Step 4. FIELD WIRING *(**Page 11**).*

a. Millivolt Appliances - Install the operating control switch (not factory provided). If installing the optional forced air circulating blower, bring in electrical service line.

b. Electronic Appliances - Field wire and install operating control switch.

Step 5. WIRING - OPTIONAL FORCED AIR BLOWER KIT *(**Page 12**).*

Step 6. CONNECTING GAS LINE *(**Page 12**):* Make connection to gas supply.

Step 7. INSTALLING OPTIONAL OUTSIDE AIR KIT *(**Page 13**)*

Step 8. VERIFYING APPLIANCE OPERATION *(**Page 14**).*

Step 9. INSTALLING VOLCANIC STONE, GLOWING EMBERS, AND LOGS *(**Page 14**).*

Step 10. REMOVING AND INSTALLING THE GLASS DOOR *(**Page 19**).*

Step 11. BURNER ADJUSTMENTS *(**Page 19**): Adjust burner primary air shutter to achieve proper flame appearance.*

Step 12. TESTING VENT OPERATION *(**Page 21**)* Vent operation test and (safety limit) switch operation.

Step 13. HOOD INSTALLATION *(**Page 21**).*

Step 14. FINISHING REQUIREMENTS *(**Page 21**)*

Step 15. ATTACHING SAFETY-IN-OPERATION WARNINGS *(**Page 22**).*

DETAILED INSTALLATION STEPS

STEP 1. FRAMING

Frame the appliance as illustrated in ***Figure 11*** on ***Page 8***. All framing details must allow for a minimum clearance to combustible framing members as shown in the table on ***Page 8***.

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

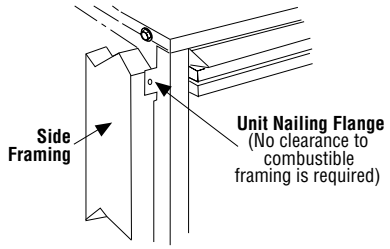
NOTE: *The framed depth, 16" (406 mm) from a framed wall, must always be measured from a finished surface. If a wall covering such as drywall is to be attached to the rear wall, then the 16" (406 mm) must be measured from the drywall surface. It is important that this dimension be exact.*

Headers may be in direct contact with the appliance top standoff spacers, ***but must not be supported by them or notched to fit around them***. All construction above the appliance must be self-supporting. ***DO NOT use the appliance for structural support.***

Secure the fireplace to the side framing members using the unit's nailing flanges - one top and bottom on each side of the fireplace front *(see **Figure 9**).* Use 8d nails or their equivalent.

FLOOR NAILING TABS

Fireplace may be anchored to floor. Bend down two anchor tabs (one on each side) located at the base of the fireplace and secure to the floor by nailing with 8d nails or equivalent *(see Figure 10).*



Left Side Front Corner of Fireplace Shown
(Right Side Requirements the Same)

Note: The nailing flanges, combustible members and screw heads located in areas directly adjacent to the nailing flanges, are EXEMPT from the 1/2" clearance to combustible requirements for the firebox outer wrapper. Combustible framing may be in direct contact with the nailing flanges and may be located closer than 1/2" from screw heads and the firebox wrapper in areas adjacent to the nailing flanges. Frame the opening to the exact dimensions specified in the framing details of this manual.

Figure 9 - Unit Secured to Framing by Nailing Flange

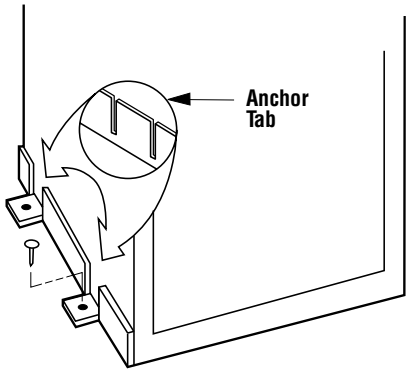
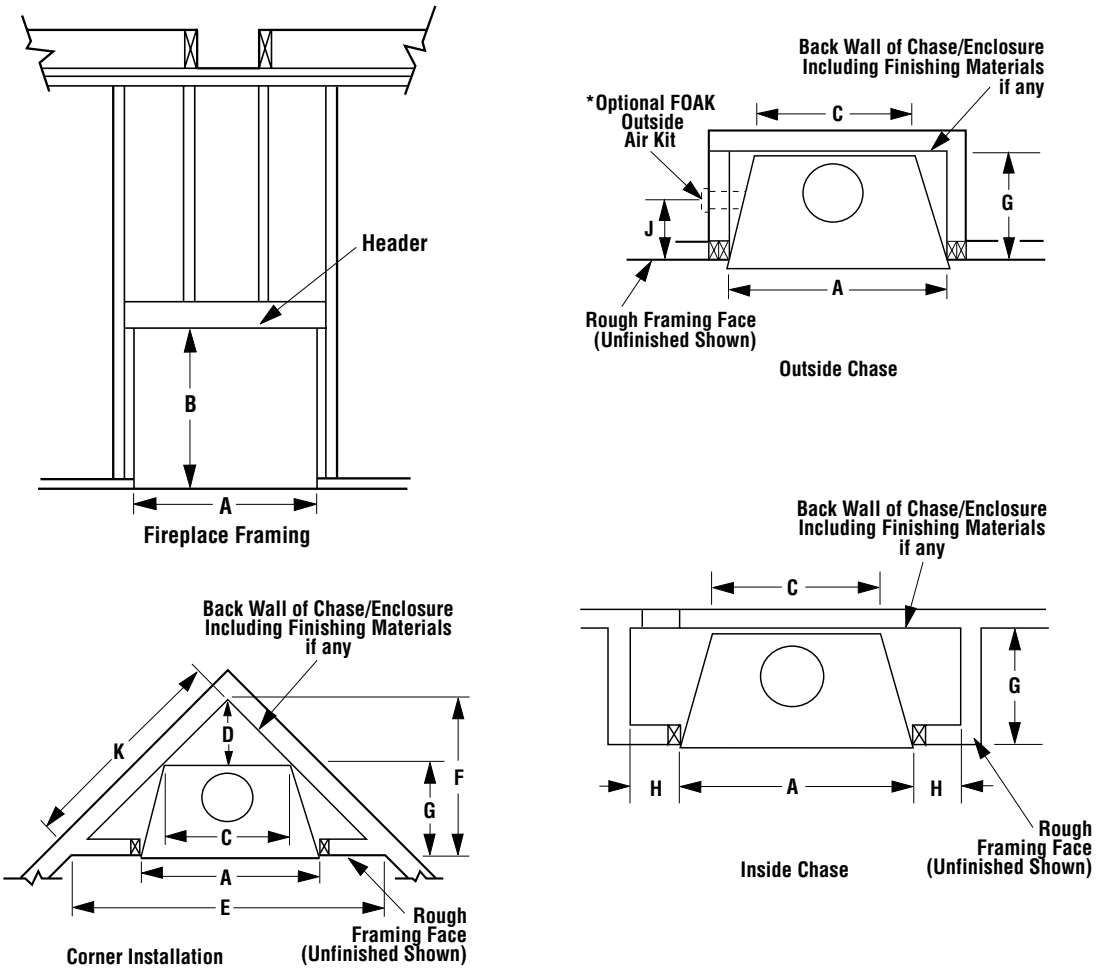


Figure 10 - Floor Anchor Tabs

NOTE: *Some units only have one anchor tab on each side.*



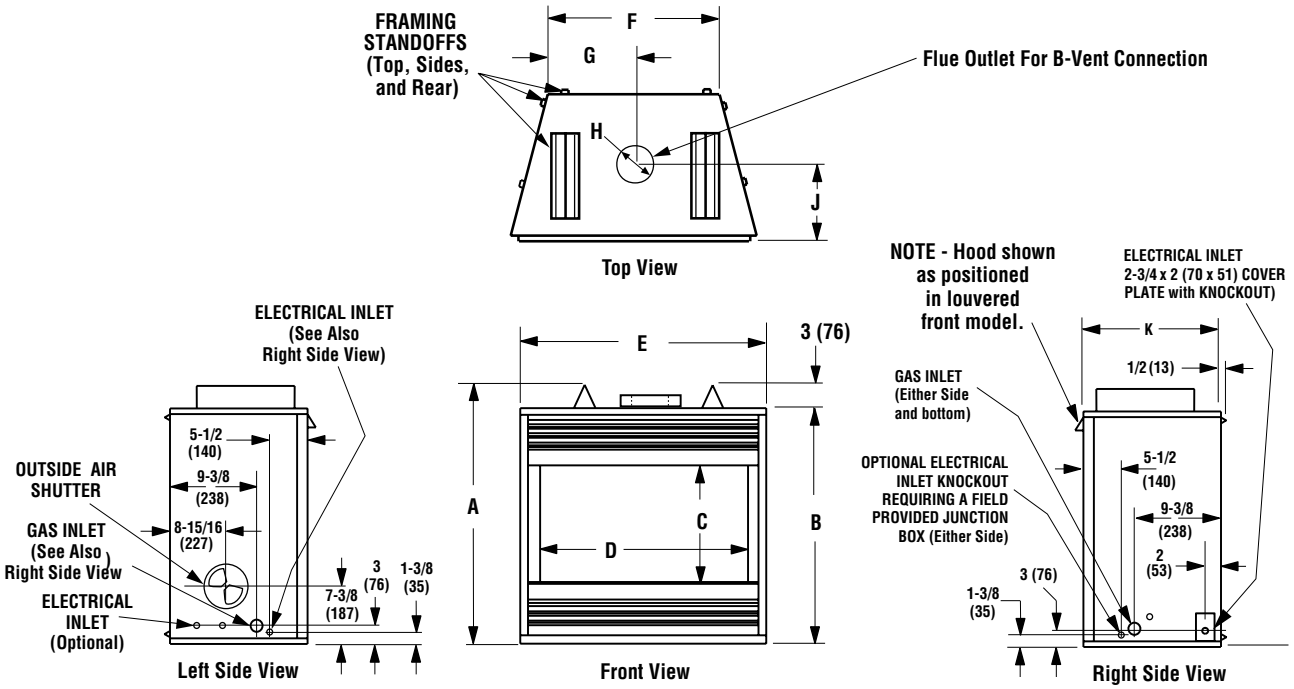
All framing dimensions calculated for 1/2" dry wall at the appliance face. If sheathing the chase or finishing with other thickness materials, calculations will need to be made.

** Outside air kit - FOAK (without adaptor). See* ***Figure 23*** *on* ***Page 14.***

Model No.		A Unit Size	A Framing Size	B	C	D	E	F	G	H	J	K
MPB33	in.	33-1/8	33-1/4	33-1/4	21-1/2	11-1/4	48-1/2	24-1/4	13	4	4-1/16	34-5/16
	mm	842	845	845	546	286	1232	616	330	102	103	872
MPB35	in.	35-1/8	35-1/4	35-1/4	24-7/8	12-3/4	57-1/2	28-3/4	16	4	7-1/16	40-5/8
	mm	892	895	895	632	324	1460	730	406	102	179	1032
MPB40	in.	40-1/8	40-1/4	40-1/4	29-7/8	14-11/16	61-13/16	30-11/16	16	4	7-1/16	43-11/32
	mm	1019	1022	1022	759	373	1570	779	406	102	179	1101
MPB45	in.	45-1/8	45-1/4	40-1/4	34-7/8	17-3/16	66-3/8	33-3/16	16	4	7-1/16	46-15/16
	mm	1146	1149	1022	886	437	1686	843	406	102	179	1192

Figure 11 - Framing Specifications

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.



Model No.		A	B	C	D	E	F	G	H	J	K
MPB33	in.	33-1/8	30-1/8	17	27-1/2	33-1/8	21-1/2	10-3/4	4	6-1/2	13
	mm	841	765	432	699	841	546	273	102	165	330
MPB35	in.	35-1/8	32-1/8	19	29-1/2	35-1/8	24-7/8	12-7/16	5	8-3/4	16
	mm	892	816	483	749	892	621	316	127	222	406
MPB40	in.	40-1/8	37-1/8	24	34-1/2	40-1/8	29-7/8	14-15/16	5	8-3/4	16
	mm	1019	943	610	876	1019	759	379	127	222	406
MPB45	in.	40-1/8	37-1/8	24	39-1/2	45-1/8	34-7/8	17-7/16	6	8-3/4	16
	mm	1146	943	610	1003	1146	886	443	152	222	406

Figure 12 - Fireplace Specifications

STEP 2. ROUTING GAS LINE

Route a 1/2" (13 mm) gas line as shown in ***Figure 13***. Gas lines must be routed, constructed and made of materials that are in strict accordance with local codes and regulations. 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. All appliances are factory-equipped with a flexible gas line connector and 1/2" shutoff valve **(see *Step 6 on Page 12*)**.

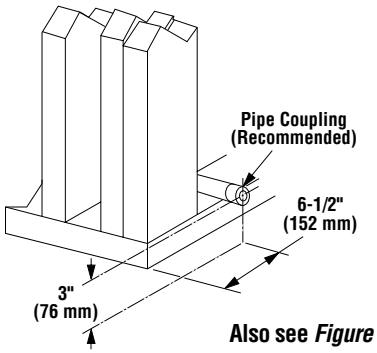


Figure 13 - Gas Line Routing

PROPER SIZING OF GAS LINE

Properly size and route the gas supply line from the supply regulator to the area where the appliance is to be installed per requirements outlined in the National Fuel Gas Code, ANSI Z223.1 (NFPA 54) - latest edition (USA) or CAN/CGA-B149.1 - latest edition (Canada).

Never use galvanized or plastic pipe. Refer to ***Table 6*** for proper sizing of the gas supply line, if black iron pipe is being used. Gas lines must be routed, constructed and made of materials that are in strict accordance with local codes and regulations. We recommend that a qualified individual such as a plumber or gas fitter be hired 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.

NOTES:

- *All appliances are factory-equipped with a flexible gas line connector and 1/2" shutoff valve (see **Figure 21** on **Page 13**).*

Schedule 40 - Black Iron Pipe Inside Diameter (Inches)		
Schedule 40 Pipe Length (feet)	**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 6

- *See **Massachusetts Requirements** on **Page 4** for additional requirements for installations in the state of Massachusetts in the USA.*
- *The gas supply line SHOULD NOT be connected to the appliance until **Step 6** on **Page 12**).*
- *A pipe joint compound rated for gas should be used on the threaded joints. **Ensure propane resistant compounds are used in propane applications**. Be very careful that the pipe compound does not get inside the pipe.*
- *It is recommended to install a sediment trap in the supply line as close as possible to the appliance.*
- *Check with local building official for local code requirements.*

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

IMPORTANT: If propane is used, be aware that if 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, severe delayed ignition or other malfunctions). Any damage resulting from an improper installation, such as this, is not covered under the limited warranty.

STEP 3. INSTALLING VENT SYSTEM

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.
Ensure clearances are in accordance with local installation codes and the requirements of the gas supplier.

Dégagement conforme aux codes d'installation locaux et aux exigences du foumisseunde gaz.

Use only approved vent components (see *Approved Vent Components* on *Page 2).*

These fireplaces must be vented vertically to the outside.

Refer to ***Figure 14,*** and slip the first section of B-Vent over the fireplace flue outlet and secure with sheet metal screws (# 8 or larger), then install the remainder of the B-Vent vertically to the outside. Minimum overall height of the vent system and appliance must be 10' (2.54 m) vertical with no offset, or 12' (3.7 m) when an offset up to 45 degrees from the vertical is used; or 15' (4.6 m) when an offset is greater than 45 degrees and up to 60 degrees *(see **Figure 17**).*

The offset may start at the fireplace flue collar. The maximum overall height of the vent system and appliance should not exceed 40 feet.

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

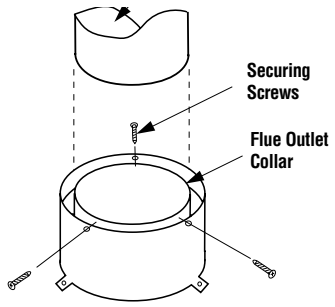


Figure 14 - Initial B-Vent Installation

USE ONLY APPROVED B-VENT DIAMETER

MPB33, MPB35, MPB40 and MPB45 series fireplaces must be vertically vented using listed type-B, double-walled vent pipe with the proper diameter as listed below and a listed vent termination.

Required Pipe Diameter:

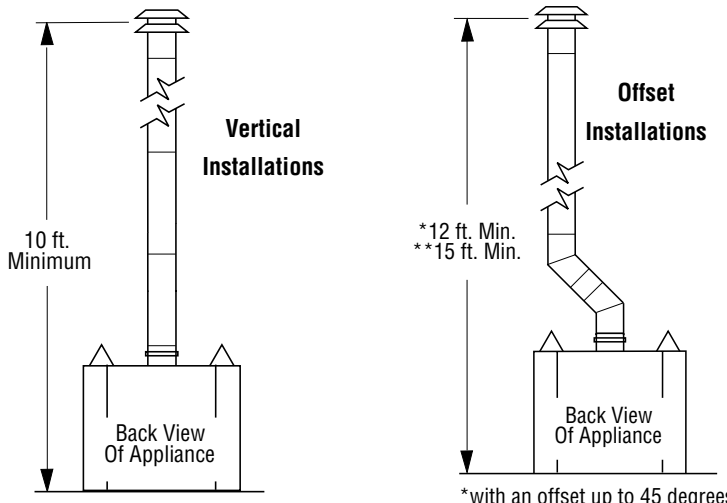
MPB33 series: Requires 4" (102 mm)
MPB35 series: Requires 5" (127 mm)
MPB40 series: Requires 5" (127 mm)
MPB45 series: Requires 6" (152 mm)

⚠ CAUTION

This appliance cannot be vented horizontally.

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.

Do not place insulation materials within 1" of the gas vent system.



The maximum overall height of the vent system and appliance should not exceed 40 feet.

*with an offset up to 45 degrees
** with an offset greater than 45 degrees and up to 60 degrees

Figure 17 - Vent System Installation

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

STEP 4. FIELD WIRING

CAUTION

The ground supply lead must be connected to the wire attached to the green ground screw located on the outlet box *(see wiring diagrams)*. 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).

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

ATTENTION: Au moment de l'entretien des commandes, étiquetez tous les fils avant de les débrancher. Des erreurs de câblage peuvent entraîner un fonctionnement inadéquat et dangereux.

Verify proper operation after servicing.

S'assurer que l'appareil fonctionne adéquatement une fois l'entretien terminé.

Refer to Section A for millivolt appliances and Section B for electronic appliances. The gas valve is set in place and pre-wired at the factory on both models.

CAUTION: ENSURE THAT WIRES ARE POSITIONED AWAY FROM HOT SURFACES AND SHARP EDGES.

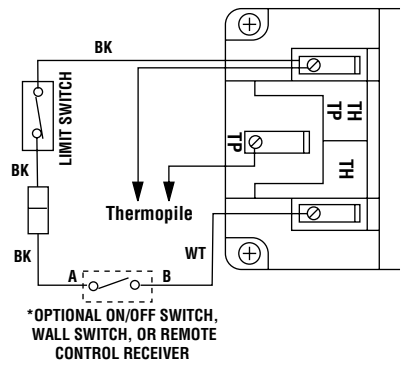


Figure 17 - SIT Milivolt Wiring Diagram

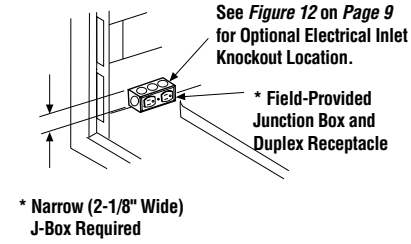


Figure 18 - Optional J-Box/Outlet Box (Left Side Shown)

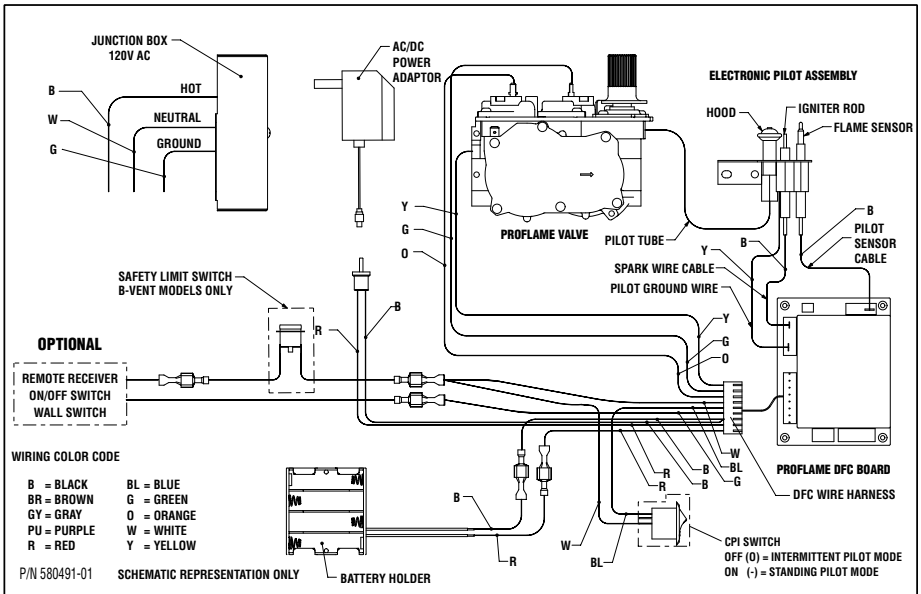


Figure 16 - Wiring Diagram - Electronic Gas Valves

A. Millivolt Wiring *(see Figure 18)*

Millivolt units are not provided with any factory-installed controls; therefore, one of the optional control switches is required to operate the unit (ON/OFF Wall Switch, Unit-Mountable ON/OFF Switch*, Remote Control). See the fireplace Care and Operation Instructions for details.

[*If using a Unit-Mountable ON/OFF Rocker Switch with an optional Style View Door, mount the Rocker Switch on the door instead of the unit.]

1. If installing an ON/OFF wall switch or receiver, mount it in a convenient location on a wall near the fireplace.
2. Wire the control switch within the millivolt control circuit using the 15 feet of 2 conductor wire supplied with the unit.

NOTE: *The supplied 15 feet of 2 conductor wire has one end of each conductor connected to the gas valve circuit and the other end of each conductor placed loose inside the bottom compartment.*

CAUTION

In millivolt systems, do not connect optional control switch to 120 V power supply.

B. Electronic Wiring *(see Figure 18)*

One of the following optional controls also may be used: ON/OFF Wall Switch, Remote Control (see fireplace *Care and Operation Instructions* for details.).

NOTE: *Electronic models must be connected to the main power supply.*

1. Route a 3-wire 120Vac 60Hz 1ph power supply to the appliance junction box.
2. Remove the electrical inlet cover plate from the side of the unit by removing the plate's securing screws *(see **Figure 12 on Page 9**)*.
3. Remove the cover plate knockout; then feed the power supply wire through the knockout opening and into the unit junction box.
4. *See **Figure 18***. Connect the **black power supply wire to the lower outlet's red pigtail lead**.

   Connect the **white power supply wire to the outlet's common terminal**.
5. Connect the **ground supply wire to the pigtail lead attached to the outlet's green ground screw.**

NOTE: *Remote receiver should be located in the wall, or if installed in the control compartment, pulled all the way forward and completely to the left or right against the corner posts.*

6. If wall-mounted ON/OFF control is to be used, mount it in a convenient location on a wall near the fireplace.
7. If an optional control is to be used, wire it in the low voltage circuit as shown in ***Figure 18***.

NOTE: *The supplied 15 feet of 2 conductor wire has one end of each conductor connected to the gas valve circuit and the other end of each conductor placed loose inside the bottom compartment.*

8. After the wiring is complete, replace the cover plate.

⚠ WARNING

Electronic models of these appliances are equipped with a three-prong (grounding) plug utilized in connecting the electronic components to the junction box in the lower compartment. This grounding plug provides protection against shock hazard and should be plugged directly into the properly grounded three-prong receptacle. DO NOT cut or remove the grounding prong from the plug.

STEP 5. WIRING OPTIONAL FORCED AIR BLOWER KIT

FBK-100, FBK-200, and FBK-250 Kits *(see Figure 18)*

An electrical outlet box is provided for the installation of the FBK-100, FBK-200 and FBK-250 forced air blower kits. Electrical power must be provided to this box to operate these blowers. Install the blower kits according to the installation instructions provided with the kits.

NOTE: *The tab connecting the two receptacles of the outlet box must be broken in the FBK-100 and FBK-200 blower kit applications (see **Figure 19**).*

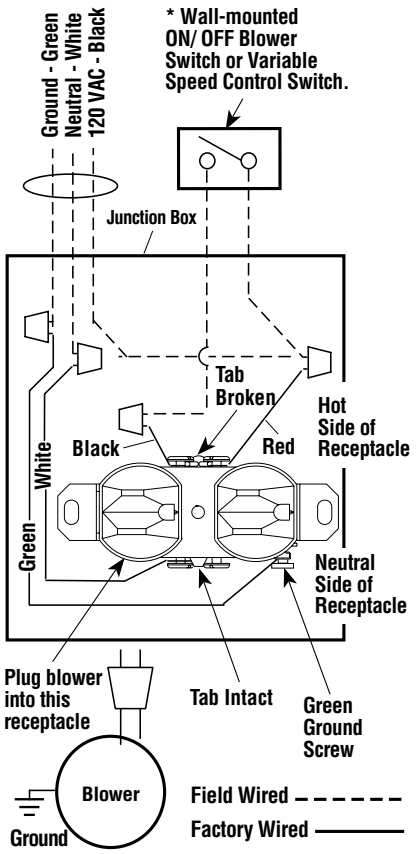


Figure 19 - Junction Box Wiring

STEP 6. CONNECTING GAS LINE

Make gas line connections. All codes require a shut-off valve mounted in the supply line. The orientation of the shut-off valve should face the front (see ***Figure 22***). ***Figure 21*** 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.

A sediment trap is recommended in the gas piping within the home to prevent moisture and debris in the line from damaging the valve.

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 direct vent appliance to the gas supply. The gas flex line can only be used where local codes permit. Refer to ***Figure 21*** 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.

To access the valve, open the control compartment access panel. Actuate the spring loaded magnetic catches securing the panel. First, gently depress the upper right top corner of the panel until the magnet catch "pops" the door free. Then, gently pulling the panel forward, disengage the left magnet catch and allow the panel to swing down to open.

The control valves have a 3/8" (10 mm) NPT thread inlet and outlet side of the valve (refer to ***Figure 1 [Millivolt] and Figure 2 [Electronic] on Page 4)***.

Secure all joints tightly using appropriate tools and sealing compounds (ensure propane resistant compounds are used in propane applications). Optional: Seal around the gas line to prevent cold air leakage. Gas line holes and other openings can be caulked or stuffed with unfaced fiberglass insulation.

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 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.*

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

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 (off/pilot/on) to the "OFF" position (millivolt units), or turn the receiver, remote control or control switch to the "OFF" position (electronic units). Either tighten or refasten the leaking connection, then retest as described above.

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

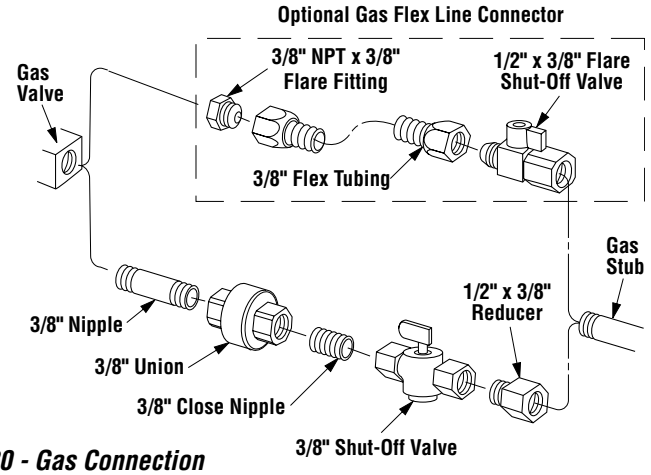


Figure 20 - Gas Connection

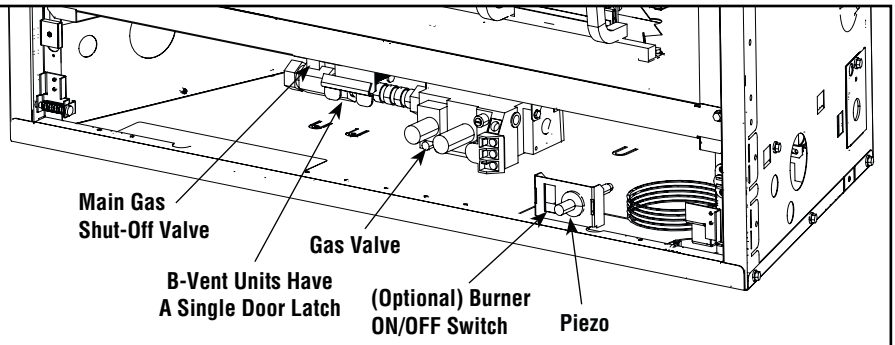


Figure 21 - Millivolt Gas Valve - Lower Control Compartment

STEP 7. INSTALLING OUTSIDE AIR KIT

Optional outside make-up air kits, Model FOAK-4 or FAOK-4LD *(see **Figure 23** on **Page 14**)*, may be used with these appliances. Refer to the installation instructions packaged with the air kits for specific installation information. If used, 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 outside air duct is necessary, if installed. See ***Figure 3*** on ***Page 5*** for the location of the unit's outside air inlet.

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.

***NOTE**: When installing the air duct vertically, DO NOT terminate the duct closer than 3' below the chimney top.*

Outside supplemental 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.

***NOTE**: Do not terminate an outside air kit in the attic space under any circumstances.*

After completing the installation of the optional outside air vent system the outside air control lever 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. Before the operation of the vent system can be tested, the lever securing screw must be removed *(see **Figure 20**)*.

The hand operated outside air control lever is located on the left side of the fireplace opening *(see **Figure 20**)*.

⚠ CAUTION

Never locate inlet 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 outside air duct be insulated.

To open the outside air shutter, open the bottom control access panel, reach into the control compartment, and pull the outside air control lever all the way out. The outside air shutter should be fully open when the fireplace is in use and completely closed when the fireplace is not being used. Closing it when not in use will prevent outside cold air from entering the dwelling.

⚠ WARNING

DO NOT operate the outside air control lever with a fire in the firebox unless a complete outside combustion air vent system has been installed with the appliance.

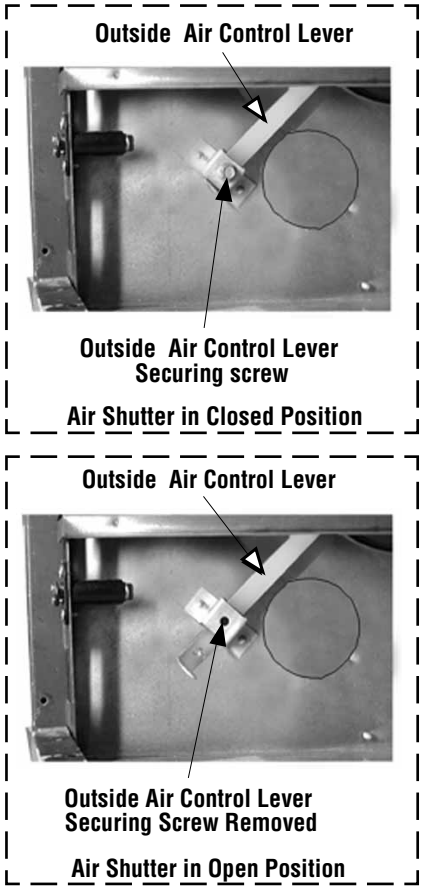
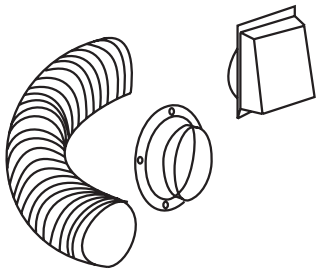


Figure 22 - Outside Air Control Lever

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.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.



Outside Combustion Air Kits		
Cat. No.	Model No.	Description
81L87	FOAK-4	Combustion Air Kit (w/duct)
81L88	FOAK-4LD	Combustion Air Kit (w/o duct)

Figure 23 - Outside Combustion Air Kits

Step 8. VERIFYING APPLIANCE OPERATION

With gas line installed, run initial system checkout before closing up the front of the unit. Follow the pilot lighting instructions provided in the Care and Operation Instructions. For piezo igniter location on millivolt appliances, *see* ***Figure 22***.

NOTE: *Lighting Instructions are also found on the literature tag tied to the gas piping next to the gas valve. To access the tag, open the lower control compartment door (see* ***Figure 22****). To open the control compartment access panel, actuate the spring loaded magnetic catches securing the panel. First, gently depress the upper right top corner of the panel until the magnet catch "pops" the door free. Then, gently pulling the panel forward, disengage the left magnet catch and allow the panel to swing down to open.* 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 lighting of the appliance will not require such purging. Inspect the pilot flame (remove logs, if necessary, handling carefully).

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 *(see* ***Figure 24****)*. Replace logs if removed for pilot inspection.

To light the burner; turn "ON" the remote wall switch and rotate the gas valve control knob counterclockwise to the "ON" position ("ON" will be at the top side of the valve).

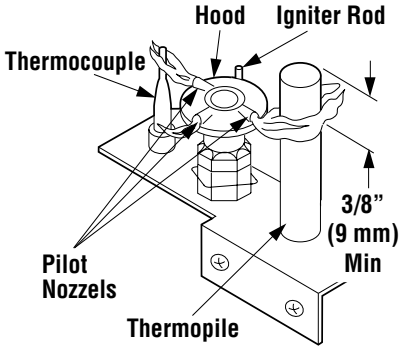


Figure 24 - Millivolt Pilot

Electronic Appliance Checkout

To light the burner, turn 'ON' the wall or remote control switch. Ensure the igniter lights the pilot. The pilot flame should engulf the flame rod as shown in ***Figure 25***.

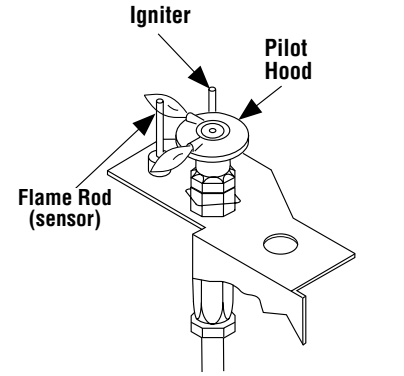


Figure 25 - Electronic Pilot

STEP 9. INSTALLING VOLCANIC STONE, GLOWING EMBERS, AND LOGS

Locate the packaged carton of logs (which were located in the firebox). The decorative volcanic stone and glowing embers were packaged separately in plastic bags located in the control area of the fireplace.

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.

Proper log placement is critical to encourage outstanding flame appearance and prevent sooting. When positioned properly as shown, logs will be positioned between flame peaks and will not impinge any flames.

Refer to ***Figure 28*** for MPB33 Series appliances, ***Figure 29*** for MPB35 Series appliances and ***Figure 30*** for MPB40 and MPB45 Series appliances.

NOTE: *Turn off all electricity to the appliance before you install volcanic stone, embers and logs.*

⚠ 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, sooting, 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, 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.**

Step 1. Remove the appliance front door.

*(see Removing the Glass Enclosure Panel on **Page 19**).*

Step 2. Install decorative volcanic stone

Sprinkle the decorative volcanic stone in a pleasing pattern. The volcanic stone should be placed directly on top of the firebox bottom, along the front and to the back at the right and left sides of the burner. Position any optional ceramic fiber liners before placing the stone. Logs should be positioned after the volcanic stone.

***NOTE:** This appliance is provided with enough glowing embers for several applications, do not feel compelled to use all that is in a new bag. For best glowing effect, replace the ember material annually. Replacement glowing embers are available (Catalog Number 88L53).*

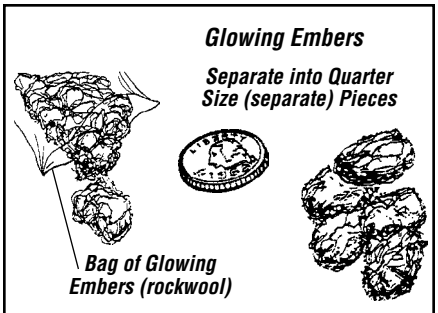


Figure 26 - Glowing Embers

Step 3. Separate the glowing embers (rockwool) into pieces about the size of a quarter *(see **Figure 26**)*. Keep the pieces fluffed up, not matted. Distribute these pieces over the front surface of the burner, as shown in ***Figure 27***. Do not use more than is necessary. When properly positioned, the Glowing Embers will cover approximately 65% of the front burner and with no appreciable gaps or openings. Ensure that the main burner ports remain uncovered by the ember material.

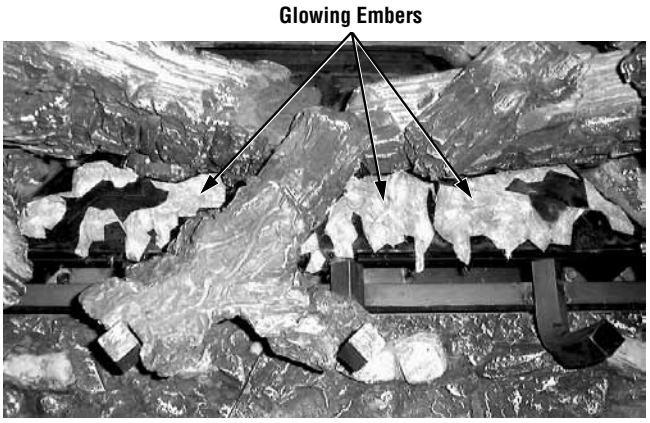


Figure 27 - Glowing Embers Placement

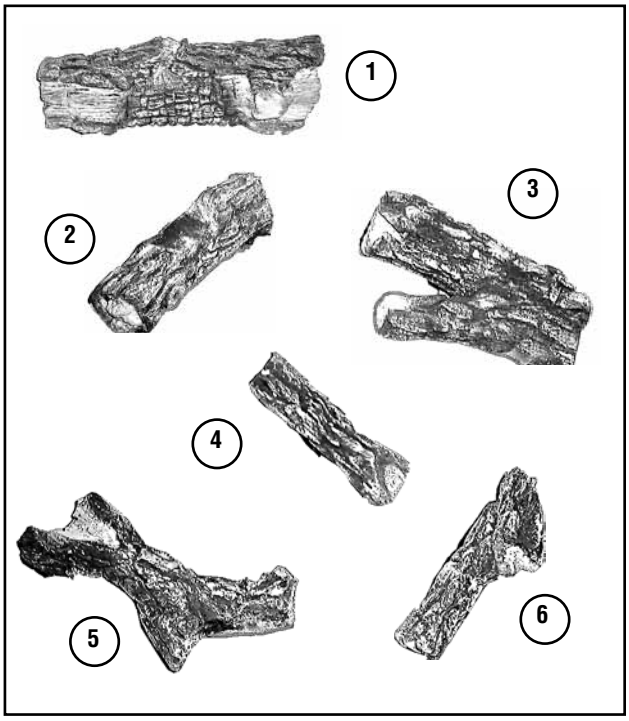
Step 4. Placement of Logs - All top logs that rest on lower logs, do so over notches, indents or nubs. Proper log placement is critical to prevent sooting. Logs should be placed in the gaps between the flame peaks and should be positioned so they do not impinge the flames.

Step 5. Position the individual logs as shown in ***Figures 28, 29, and 30***. Logs should be placed in the order shown. All logs that have notches to fit over the grate tines should be positioned with these notches directly against the grate. **Handle logs carefully to prevent breakage.**

REFERENCE		
Cat. No.	**Model No.**	**Description**
88L53	FGE	Bag of Glowing Embers
80L42	FDVS	Bag of Decorative Volcanic Stone

Table 7 - Firebox Accessories/Parts

MPB33 LOG PLACEMENT

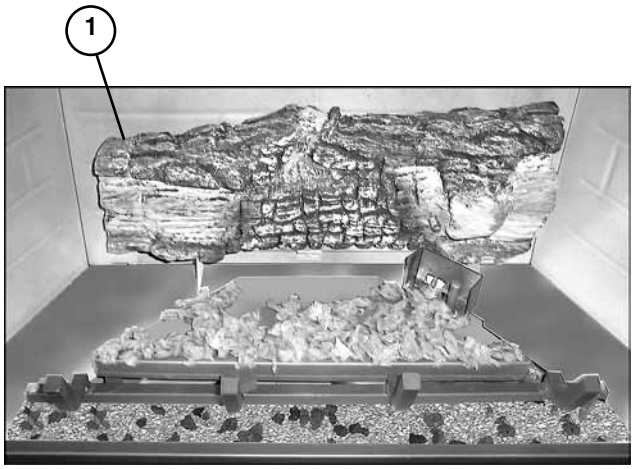


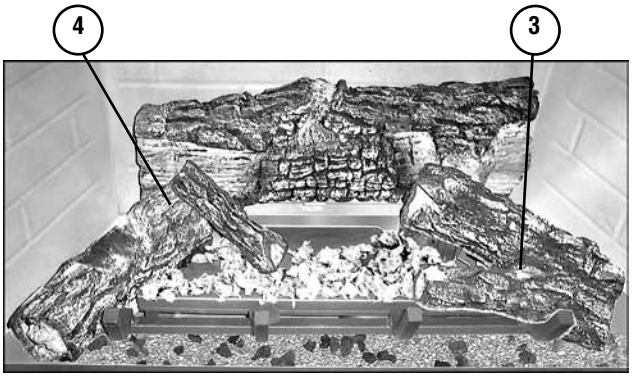
* Item	Description (stamped #)
1	Log, Rear (39-12)
2	Log, Left (39-1)
3	Log, Right (39-2)
4	Log, Top Center (39-13)
5	Log, Top/Left (39-3)
6	Log, Top/Right (39-4)

Catalog Number for the entire log set: 24M15

Position the individual logs as shown below. Logs should be placed in the order shown. Position the rear log on the brackets at the rear of the firebox with the log's notches directly over the brackets. Position the right log (log no. 3) by inserting the pin from the rear log into the hole on its upper end. Place the left log and then the smaller left and right top logs. All logs that have notches to fit over the grate tines should be positioned with these notches directly against the grate. All top logs that rest on lower logs, do so over flattened mounting faces in the bottom logs.

Proper log and twig placement is critical to encourage outstanding flame appearance and prevent sooting.





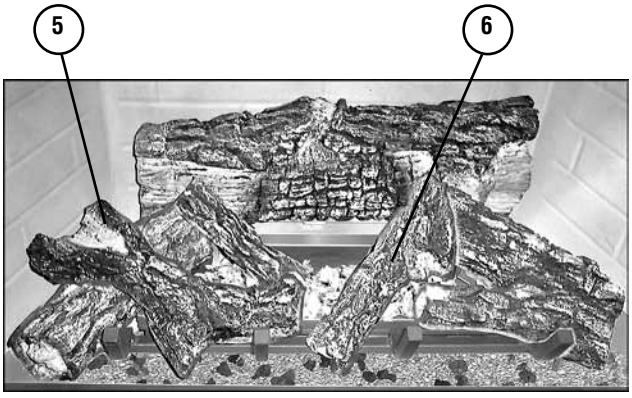
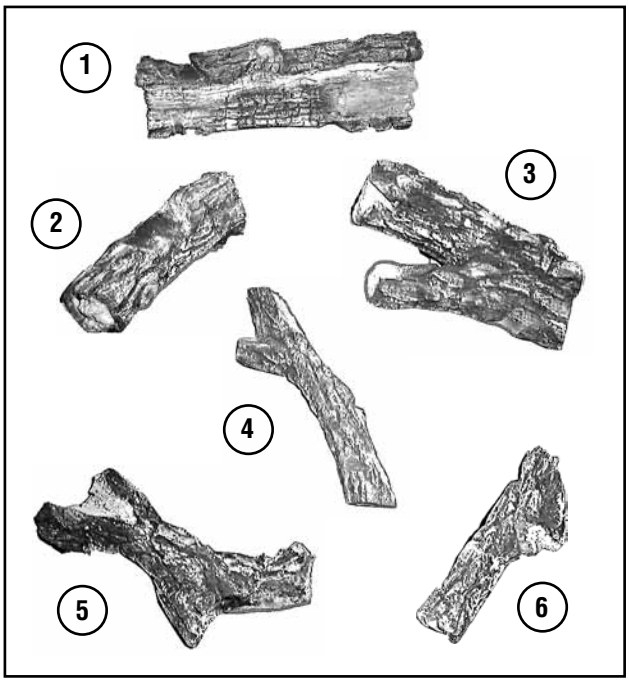


Figure 28 - Log Set 24M15 Placement

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

MPB35 LOG PLACEMENT

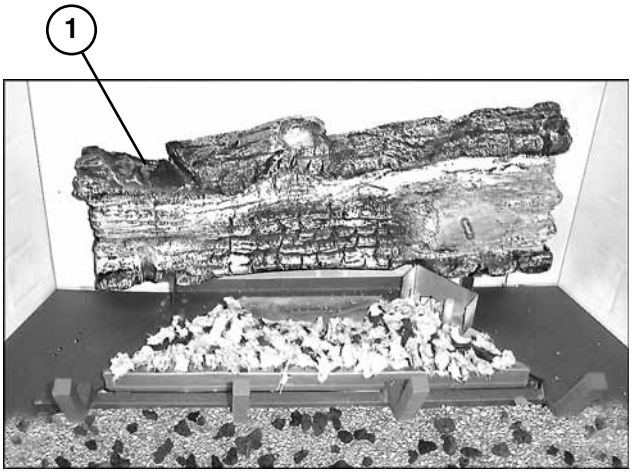


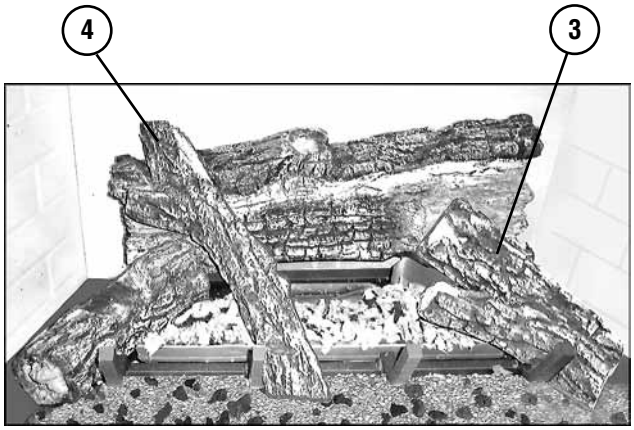
Log Number	Description (Stamped #)
1	Log, Rear (39-5)
2	Log, Left (39-1)
3	Log, Right (39-2)
4	Log, Top Center (39-6)
5	Log, Top/Left (39-3)
6	Log, Top/Right (39-4)

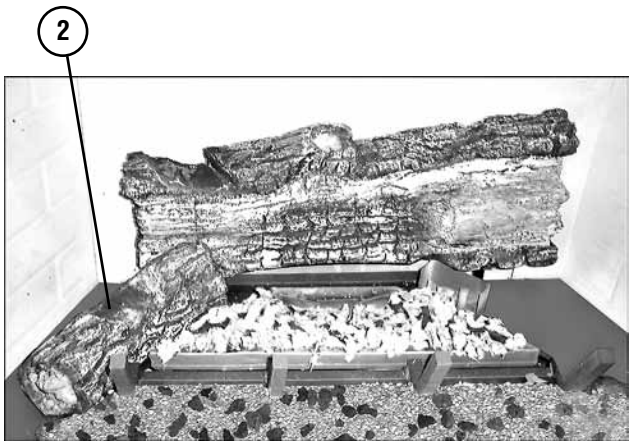
Catalog Number for the entire log set: H6197

Position the individual logs as shown below. Logs should be placed in the order shown. Position the rear log on the brackets at the rear of the firebox with the log's notches directly over the brackets. Position the right log (log no. 3) by inserting the pin from the rear log into the hole on its upper end. Place the left log and then the smaller left and right top logs. All logs that have notches to fit over the grate tines should be positioned with these notches directly against the grate. All top logs that rest on lower logs, do so over flattened mounting faces in the bottom logs.

Proper log and twig placement is critical to encourage outstanding flame appearance and prevent sooting.







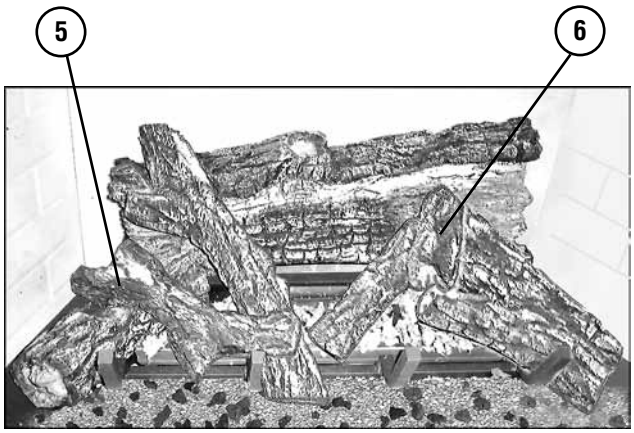
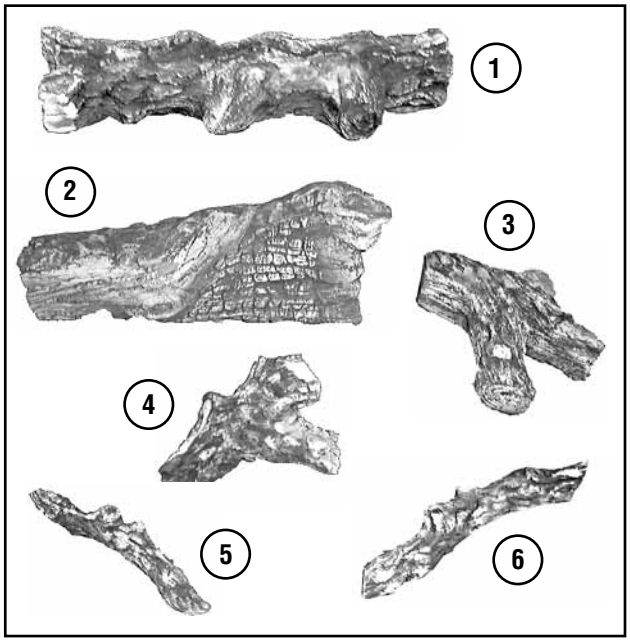


Figure 29 - Log Set H6197 Placement

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

MPB40 AND MPB45 LOG PLACEMENT

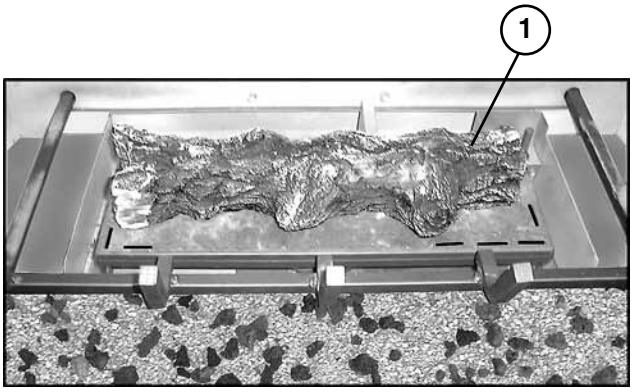


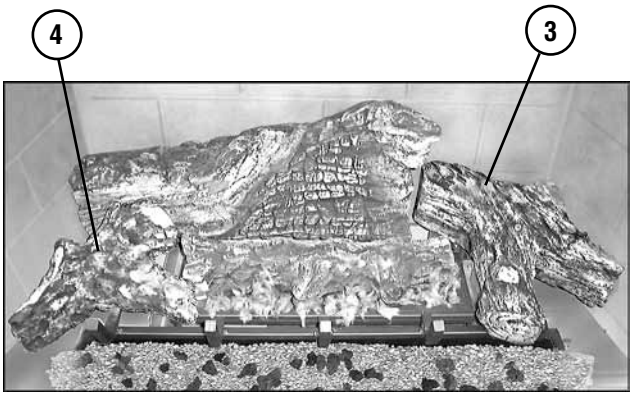
Log Number	Description (Stamped #)
1	Log, Center (39-8)
2	Log, Rear (138)
3	Log, Right (39-10)
4	Log, Left (39-9)
5	Log, Top/Left (39-11)
6	Log, Top/Right (39-11)

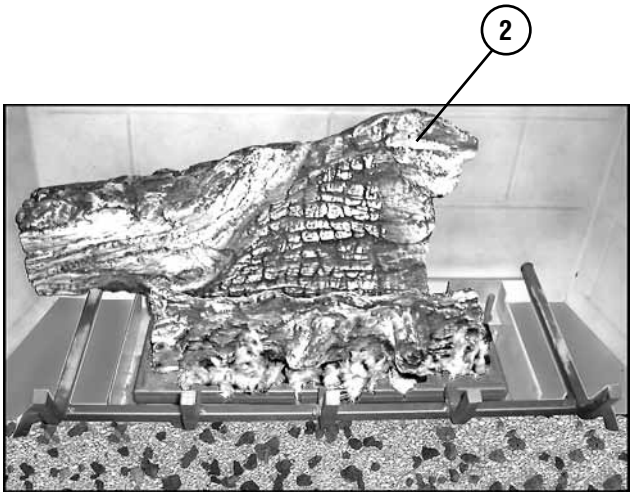
Catalog Number for the entire log set: 24M25

Position the individual logs as shown below. Logs should be placed in the order shown. Position the center log on the burner first, then place the glowing embers as shown in ***Figure 27***. Place the rear log, both the right and left, and then the smaller left and right top logs. All logs that have notches to fit over the grate tines should be positioned with these notches directly against the grate. All top logs that rest on lower logs, do so over flattened mounting faces in the bottom logs.

Proper log and twig placement is critical to encourage outstanding flame appearance and prevent sooting.







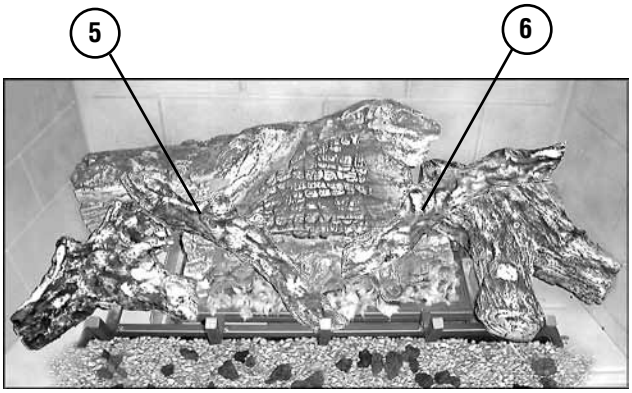


Figure 30 - Log Set 24M25 Placement

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

STEP 10. REMOVING AND INSTALLING THE GLASS DOOR

⚠ WARNING

- **Do not attempt to substitute the materials used on the door, or replace cracked or broken glass.**
- **Handle this glass with extreme care! Glass is susceptible to damage - Do not scratch or handle roughly while reinstalling the glass door frame.**
- **The glass door of this appliance must only be replaced as a complete unit as provided by the manufacturer. Do not attempt to replace broken, cracked or chipped glass separately.**
- **Do not attempt to touch the front enclosure glass with your hands while the fireplace is in use.**

⚠ WARNING

Do not operate appliance with the glass front removed, cracked or broken.

⚠ AVERTISSEMENT

Ne pas utiliser l'appareil si le panneau frontal en verre n'est pas en place, est craqué ou brisé.

Only doors certified with the appliance shall be used.

Seules des portes certifiées pour cet appareil doivent être utilisées.

WARNING: DO NOT abuse glass door by striking or slamming shut.

Removing the Glass Enclosure Panel *(see Figure 31)*

Remove the top louver assembly. Open the lower control compartment door *(see **Figure 22 on Page 13**)* by pressing in simultaneously at the left and right top corners of the door (the door is hinged at the bottom).

Remove the bottom compartment door by sliding the hinge pin, located at the door's left side, to the right until it disengages from the left corner post hole. Pull the door diagonally to the left, away from the fireplace.

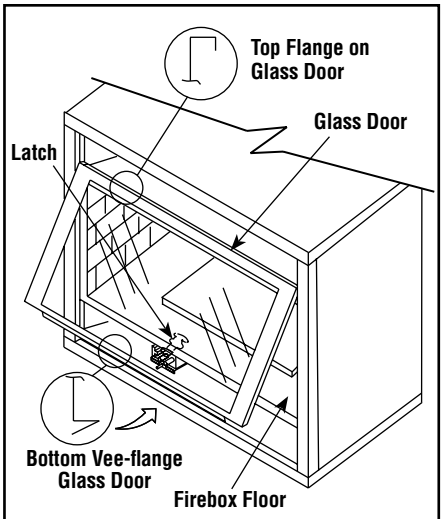
Locate the latch at the top of the control compartment and disengage it from the door frame bottom vee-flange, pulling down on the handle to open it.

Installing the Glass Enclosure Panel *(see Figure 31)*

Retrieve the glass door. Visually inspect the gasket on the backside of the frame. Gasket surface must be clean, free of irregularities and seated firmly.

Position the door in front of the firebox opening with the bottom of the door held away from the fireplace *(see **Figure 31**)*. Hook the top flange of the door frame over the top of the firebox frame.

Let the bottom of the door frame swing gently in towards the fireplace ensuring that the gasket seats evenly as the door frame draws shut. Fasten the latch located underneath the firebox floor to the door's vee-flange. Close the latch securely.



NOTE: When installing the glass door, ensure the spacing on both sides are equal.

Figure 31 - Installing or Removing the Glass Door

STEP 11. BURNER ADJUSTMENTS

Flame Appearance and Sooting

Proper flame appearance is a flame that 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. If the flame remains 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.
- The more offsets in the vent system, the larger the air shutter opening will need to be.
- 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 closed position, then operate the appliance for a few more minutes to ensure that the flame normalizes and the flames do not appear sooty.

***NOTE**: 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

⚠ WARNING

- **Air shutter adjustment should only be performed by a qualified professional service technician.**
- **Ensure the front glass panel is in place and sealed during adjustment.**

⚠ CAUTION

- **Soot will be produced if the air shutter is closed too much. Any damage due to sooting, 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.**

1. Refer to ***Figures 32, 33, and 34*** for proper flame appearance. To adjust the flame, refer to ***Figure 35*** and move the rod up and down (the adjustment rod is located in the lower control area). Position the air shutter to the factory setting as shown in ***Table 8***.
2. Light appliance (follow lighting procedure on lighting label in control compartment or in the *Care and Operation Instructions*).
3. Allow the burner to operate for at least 15 minutes while observing the flame continuously to ensure that the proper flame appearance has been achieved. If the following conditions are present, adjust accordingly.
   - If flame appears weak or sooty, adjust the air shutter, incrementally, to a more open position until the proper flame appearance is achieved.
   - If flame remains blue, adjust the air shutter, incrementally, to a more closed position until the proper flame appearance is achieved.
4. When satisfied that the burner flame appearance is normal, reinstall the lower control compartment door, then proceed to finish the installation.

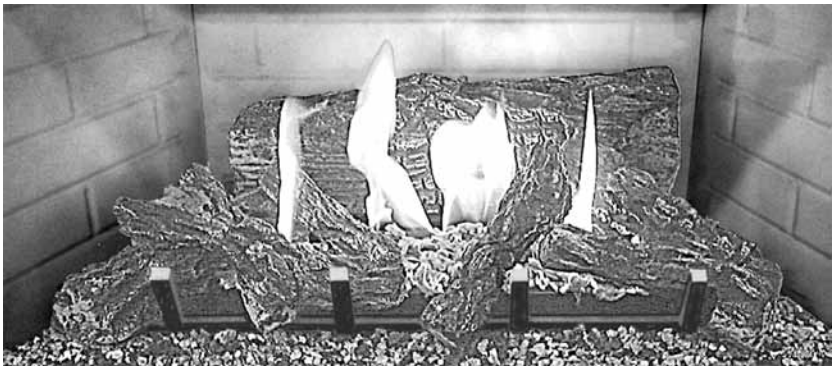


Figure 32 - MPB33 MODEL

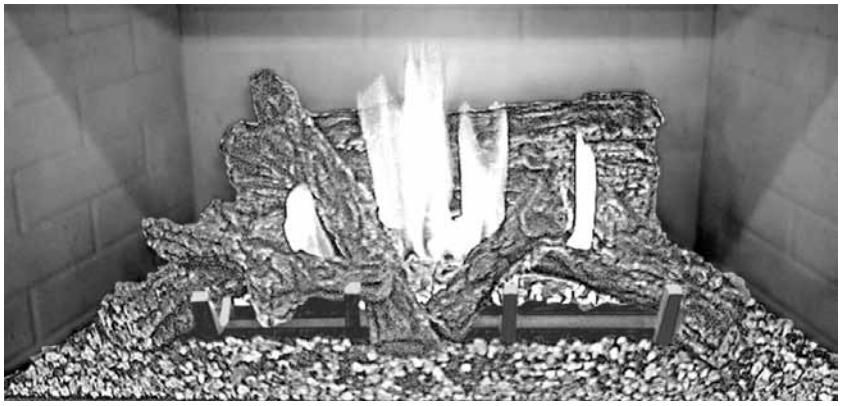


Figure 33 - MPB35 MODEL

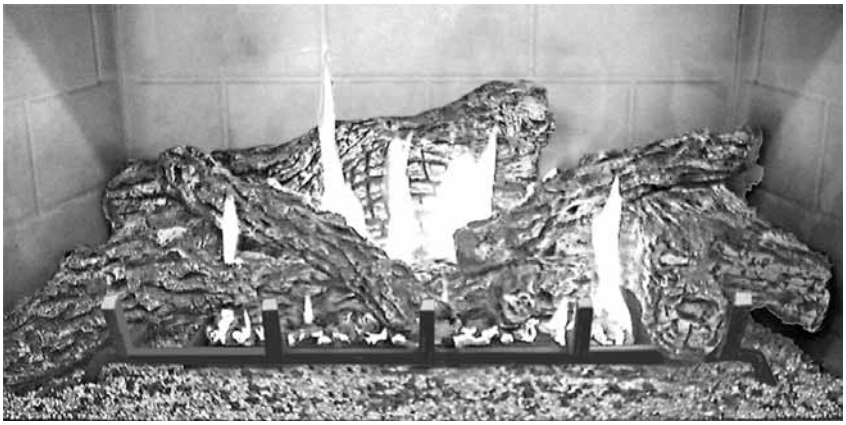


Figure 34 - MPB40 AND MPB45 MODEL

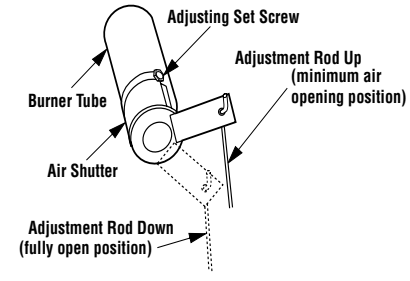


Figure 35 - Air Shutter Opening Setting

Main Burner Factory Air Shutter Opening Setting - Inches (millimeter)		
Model	**Natural Gas**	**Propane Gas**
MPB33	Fully Closed	3/16" (4.76 mm)
MPB35	Fully Closed	3/16" (4.76 mm)
MPB40	Fully Closed	3/16" (4.76 mm)
MPB45	Fully Closed	3/16" (4.76 mm)

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

STEP 12. TESTING VENT OPERATION

After appliance installation, perform this vent operation test to verify that proper venting conditions exist:

1. Place unit in its normally-operated condition, with the glass enclosure panel in place.
2. Close all doors and windows in the room. Turn on all exhaust fans in the building.
3. Light the appliance.
4. Wait fifteen (15) minutes.
5. To check for venting action, start by holding a smoke producing device within an inch of one side edge (not top or bottom edge) of the glass enclosure panel. The smoke should be drawn toward the edge of the glass enclosure. Continue the test by moving the smoke producing device along the entire length of both side edges of the glass door.
6. If the smoke is not drawn into the firebox, turn off the appliance and call a qualified service technician.

RESETTING THE SAFETY LIMIT SWITCH

This appliance is equipped with a manually resettable safety limit switch. Refer to ***Figure 37*** for its location. If, during appliance operation, the flame goes out (independently of the burner on/off wall switch), it may be due to a blocked vent. If this condition occurs, the safety limit switch will activate, causing the fireplace burner to shut off.

To reset the safety limit switch, perform the following steps.

NOTE*: Allow the appliance to cool completely.*

7. Remove the top louver panel.
8. Reset the safety limit switch by pushing the red reset button, located between the wire terminals on the back of the switch (see Figure 37, Detail A).
9. The appliance should then relight and remain lit.

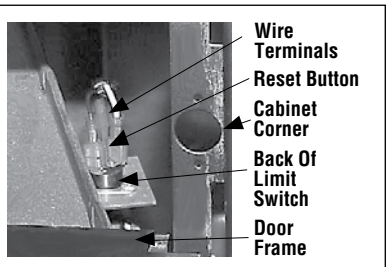
NOTE*: If the appliance does not relight, turn off the appliance and call for a qualified service technician.*
Reinstall the top louver panel.

REPLACING THE SAFETY LIMIT SWITCH

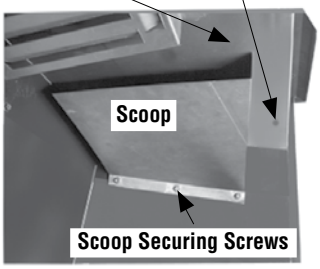
To replace the blocked vent safety limit switch, refer to ***Figure 37, Details B & C***).

NOTE*: This procedure should only be performed by a qualified service technician.*

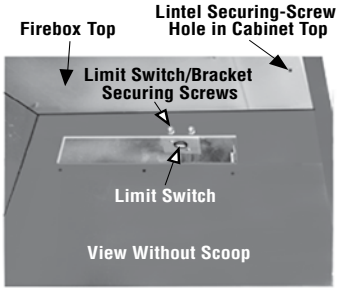
10. Turn electrical power off before beginning this procedure.
11. Lower the bottom control compartment access panel.
12. Remove the glass enclosure panel by unfastening the latch (located in the center of the unit front opening, under the firebox floor) securing the glass enclosure panel.
13. Remove the glass enclosure panel by tilting it outward at the bottom and lifting it up. Carefully set the door aside to protect it from inadvertent damage *(see **Figure 31** on **Page 19**)*.
14. Remove the three (3) screws securing the lintel, and then remove the lintel. One of the lintel cabinet top holes is shown in *Figure 37*, Detail B.
15. Remove the three (3) screws securing the scoop, and then remove the scoop *(see **Figure 37**, Detail B)*.
16. Remove the two (2) screws securing the safety switch bracket, and remove the switch/bracket assembly, with low voltage wires attached, through the side panel slot into the firebox *(see **Figure 37**, Detail C)*.
17. Replace the switch.
18. Reinstall the switch/bracket assembly.
19. Reinstall the scoop and lintel.



Detail A



Detail B



Detail C

Blocked Flue Safety Limit Switch Location, Inside View of Firebox, Top/Right Side Intersection

Figure 36 - Safety Limit Switch

20. Reinstall the glass enclosure panel.
21. Raise the bottom control compartment access panel.
22. The appliance should then relight and remain lit. If this does not occur, check unit for a blocked vent condition.

STEP 13. HOOD INSTALLATION

Refer to Figure 36. All models must have hoods installed prior to operating.

On louvered face units, slide the hood into the slots on the lower edge of the cabinet top above the louvered vent *(see **Figure 36**)*.

STEP 14. FINISHING REQUIREMENTS

Wall Details

Complete finished interior wall. To install the appliance facing flush with the finished wall, position framework to accommodate the thickness of the finished wall *(see **Figure 11** on **Page 8**)*.

See Page 4 for Cold Climate Insulation and Page 6 for Clearances.

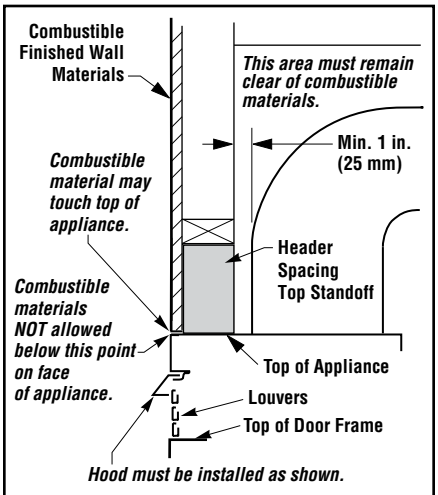


Figure 37 - Louver Face Models

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

STEP 15. 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.

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.

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 - Nº 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.

SAFETY LABEL DIAGRAMS

DIAGRAMMES DES ÉTIQUETTES DE SÉCURITÉ

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

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

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 instruction is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit. The qualified service agency performing this installation assumes responsibility for this conversion.

⚠ AVERTISSEMENT

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

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 JURIDICTION 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 following steps detail the conversion procedure. Refer to the instructions provided with the conversion kit when performing any gas conversion.

Millivolt SIT Systems
Natural Gas To Propane Gas
Conversion Kits

Models	Cat. No.
MPB33	H2009
MPB35	H2011
MPB40	H2013
MPB45	H2015

Millivolt SIT Systems
Propane Gas to Natural Gas
Conversion Kits

Models	Cat. No.
MPB33	H8849
MPB35	H8850
MPB40	H8851
MPB45	H8852

INSTALLATION INSTRUCTIONS

Step 1. TURN OFF THE GAS SUPPLY TO THE APPLIANCE and disconnect power supply at the circuit breaker. Ensure appliance is cold.

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

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

Models	Cat. No.
MPB33	H8632
MPB35	H8634
MPB40	H8636
MPB45	H8638

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

Models	Cat. No.
MPB33	H8845
MPB35	H8846
MPB40	H8847
MPB45	H8848

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

Step 2. Open the lower control compartment door *(see **Figure 22 on Page 13**)* by pushing on the right top corner of the door (the door is hinged at the bottom).

[Optional] Remove the control compartment door by sliding the hinge pin, located at the door's left side, to the right until it disengages from the left corner post hole. Pull the control compartment door diagonally to the left, away from the fireplace.

Step 3. Remove the front glass door/frame from the appliance *(see **Page 19**)*.

Step 4. Carefully remove the logs. **Exercise care so as not to break the logs**.

Step 5. Refer to ***Figures 28, 29, or 30***.

A. Remove the grate and sub floor.

B. Remove the two (2) screws securing the burner assembly.

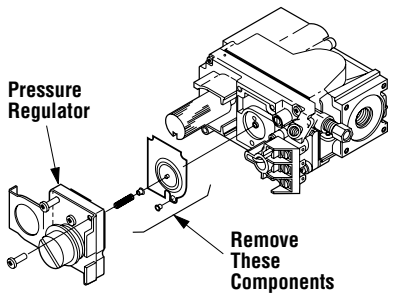
C. Remove the burner assembly with attached venturi tube.

MILLIVOLT AND ELECTRONIC IGNITION SYSTEM APPLIANCES

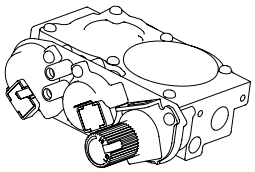
Step 1. SIT Systems - Refer to ***Figure 38*** and the instructions provided with the SIT Regulator Conversion Kit. Using a Torx T20 driver to remove and discard the pressure regulator mounting screws (two screws for electronic models, three screws for millivolt models), pressure regulator tower, the diaphragm assembly (if applicable) and the spring. Discard all removed components.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Step 2. Install the new pressure regulator assembly using the supplied screws. Tighten the screws with a torque of 25 lb-in.



Millivolt Valve



Electronic Valve

Figure 38 - Regulator Conversion

Step 3. Install the enclosed identification label to the valve body where it can be easily seen.

Step 4. Refer to ***Figure 39***. Remove the pilot hood assembly to access the hexed pilot orifice. Remove and replace the orifice with the one provided with the kit. Exercise extreme care to prevent damage to or breakage of the igniter assembly. **Step 5.** Remove the burner orifice from the manifold and replace it with the one provided in the kit. See ***Table 8*** for orifice sizes for natural and propane models. ***Figure 40*** illustrates the orifice.

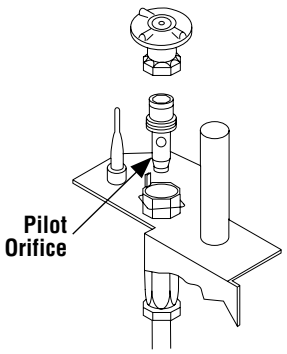


Figure 39 - Millivolt Pilot

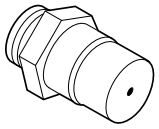


Figure 40 - Orifice

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 6. Retrieve the burner and hold the venturi tube above the orifice. Set the burner assembly into position and secure with the two screws previously removed.

Step 7. Reassemble the remaining components by reversing the procedures outlined in the ***Steps 1 - 5***.

Step 8. Attach the conversion label provided in the conversion kit next to the rating plate on the appliance.

Step 9. Turn on gas supply and test for gas leaks *(refer to **Page 12**)*.

Step 10. Reapply electrical power at the circuit breaker.

Step 11. Relight the main burner. The lighting instructions can be found on the lighting label in the control compartment or in the *Care and Operation Manual* provided with the appliance. Verify proper burner ignition and operation. See Burner Adjustments and Burner Flame Appearance on ***Pages 19 and 20***.

Step 12. Inspect the pilot system for proper flame. The pilot flame should engulf the flame sensor as shown in ***Figures 24 and 25*** on ***Page 14***.

Step 13. Using a manometer, test the inlet and manifold gas pressures *(see **Tables 2 and 3 on Page 4**)*.

ALWAYS TEST PRESSURES WITH THE VALVE REGULATOR CONTROL AT THE HIGHEST SETTING.

Burner Orifice Sizes
Elevation 0-4500 feet (0-1372 meters)

Model Series	Nat.Gas drill size (inches)	Propane drill size (inches)
MPB33	#47 (0.0785")* 99K74 •	(0.048")* 99K78 •
MPB35	#44 (0.086")* 60J80 •	#55 (0.052")* 19L52 •
MPB40	#38 (0.102")* 99K76 •	(0.062")* 21L01 •
MPB45	#37 (0.104")* 24M10 •	#52 (0.0635")* 37G00 •

Table 8 ** Standard size installed at factory • Part /Cat. Number*

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LENNOX® HEARTH PRODUCTS

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