LENNOX

HEARTH PRODUCTS



INSTALLATION INSTRUCTIONS

MPD Pro Direct-Vent Gas Fireplaces

MERIT Plus® SERIES

P/N 506015-06 Rev. A 02/2013

This manual is one of a set of two supporting this product.
Refer to P/N 506017-05 for Care and Operation Instructions.

Ce manuel est disponible en francais, simplement en faire la demande. Numéro de la pièce 506223-39.

MODELS

ELECTRONIC:

MPDP35IN	**MPDP35IP**
MPDP40IN	**MPDP40IP**

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

OTL Report No. 116-F-59-5

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.

Please read and understand these instructions before starting installation.

This appliance may be installed in an aftermarket permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

⚠ 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.

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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 heater is packaged with:

- (1 set) Logs (packaged in a carton inside the firebox).
- (1 bag) Glowing Embers and (1 bag) Volcanic Stone (in bottom compartment).
- Literature Kit (envelope in bottom compartment containing *Care and Operation Instructions*, *Installation Instructions*, Safety-In-Operation Warning Labels w/instructions, Warranty).
- (1) Top Vent Flue Restrictor
- (1) Rear Vent Restrictor Plate
- (1) U-shaped Vent Restrictor
- (1) Top Standoff (taped to outer wrapper)
- (1) Hood (taped to outer wrapper)
- (1) Remote Control Kit and Receiver Kit

Required Firebox Liner Kits

(One of the following kits must be installed - sold separately)

- H8572 - Black Porcelain, MPDP35
- H8573 - Black Porcelain, MPDP40
- H8595 - Brickaded, MPDP35
- H8596 - Brickaded, MPDP40

INTRODUCTION

These Electronic appliances are designed to operate on natural or propane gas. The system is switchable between standing and intermittent pilot modes. External electrical power is required to operate these units. In the event of a power outage, four (4) "AA" batteries (in receiver) can be used as a backup (excluding blower operation).

These vented gas fireplace heaters are sealed combustion, air-circulating gas fireplaces designed for residential applications.

Approved Vent Components

These fireplaces are designed, tested and listed for operation and installation with the following vent components only:

- **Secure Vent®** Direct-Vent System Components manufactured by Security Chimneys International,
- **Secure Flex®** Flexible Vent Components manufactured by Security Chimneys International and
- **Z-FLEX®** Model GA Venting Systems listed to UL1777 and ULCS635 manufactured by Flexmaster Canada Limited.

Use only the correct size venting (4-1/2" inner and 7-1/2" outer).

These approved vent system components are labeled for identification. DO NOT use any other manufacturer's vent components with these appliances.

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 infor-més 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.

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

Remarque: L'installation et la réparation devrait être confiées à un technicien qualifié. L'appareil devrait faire l'objet d'une inspection par un technicien professionnel avant d'être utilisé et au moins une fois l'an par la suite. Des nettoyages plus fréquents peuvent être nécessaires si les tapis, la literie, et cetera produisent une quantité importante de 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 these appliances if any part has been under water. Immediately call a qualified, professional service technician to inspect the appliance and to replace any parts of the control system and any gas control which have 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-59-5) to ANSI Z21.88-2009 (in Canada, CSA-2.33-2009), and CAN/CGA-2.17-M91 (R2009) in both USA and Canada, as vented gas fireplace heaters.

These appliances are listed by OMNI-Test Laboratories for installation in bedrooms and Manufactured Homes.

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/CSA-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 supplemental heaters; therefore, it is advisable to have an alternate primary heat source when installed in a dwelling.

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

These electronic models come standard with a remotely-modulated gas valve; flame appearance and heat output cannot be controlled at the gas valve. The BTU Input for these appliances is shown in ***Table 1***.

Input (BTU/HR) Gas Valves (all models)		
Models	Input Rate (BTU / HR)	
	Nat. Gas	Prop. Gas
MPDP35	25,000 high 16,400 low	22,000 high 18,000 low
MPDP40	31,000 high 20,100 low	29,000 high 22,200 low

Table 1

Gas Pressure - All Models

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

Inlet Gas Supply Pressure (all models)		
Fuel #	**Minimum**	**Maximum**
Natural Gas	**4.5" WC (1.12 kPa)**	**10.5" WC (2.61 kPa)**
Propane	**11.0" WC (2.74 kPa)**	**13.0" WC (3.23 kPa)**
Table 2		

Manifold Gas Supply Pressure (all models)		
Fuel #	**Low**	**High**
Natural Gas	**~~(Lo)~~ 1.6" WC (0.40 kPa)**	**~~(Hi)~~ 3.5" WC (0.87 kPa)**
Propane	**~~(Lo)~~ 6.3" WC (1.57 kPa)**	**~~(Hi)~~ 10.0" WC (2.49 kPa)**
Table 3		

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

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 feet (0-1372 meters) above sea level using the standard burner orifice sizes (marked with an "*" in ***Table 4)***.

For elevations above 4500 feet, contact your gas supplier or qualified service technician.

Deration - At higher elevations, the amount of BTU fuel value delivered must be reduced by either:

• Using gas that has been derated by the gas company.

• 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/CSA-B149.1 codes - latest edition.

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

Burner Orifice Sizes Elevation 0-4500 feet (0-1372 meters)		
Model	**Nat.Gas** drill size (inches)	**Propane** drill size (inches)
MPDP35	**#42 (.093")* H3721•**	**#54 (.055")* 99K79•**
MPDP40	**#36 (.1065")* 18L40•**	**#52 (.063")* 21L01•**
Table 4	** Standard size installed at factory* *• Part /Cat. Number*	

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.

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.

Massachusetts Horizontal Vent Requirements

In the Commonwealth of Massachusetts, horizontal terminations installed less than seven (7) feet above the finished grade must comply with the following additional requirements:

- A hard wired carbon monoxide detector with an alarm and battery back-up must be installed on the floor level where the gas fireplace is installed. The carbon monoxide detector must comply with NFPA 720, be ANSI/UL 2034 listed and be ISA certified.
- A metal or plastic identification plate must be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade and be directly in line with the horizontal termination. The sign must read, in print size no less than one-half (1/2) inch in size, GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS.

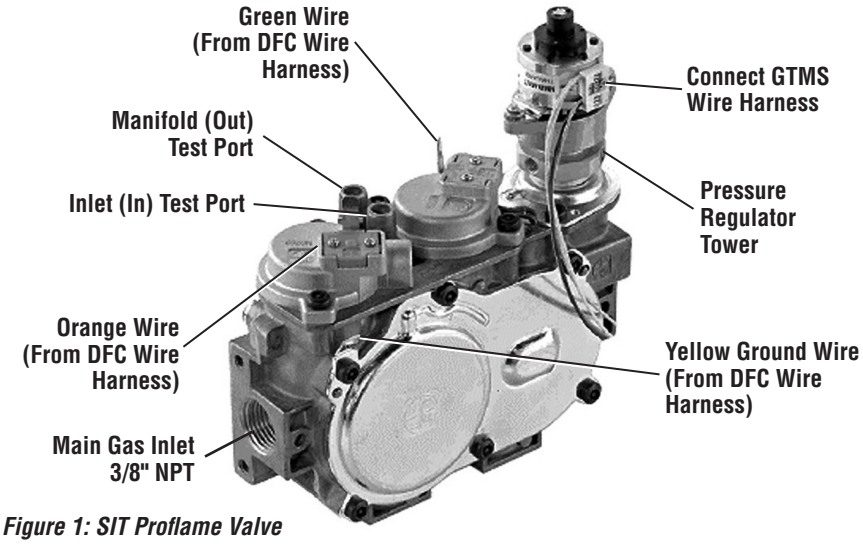


Figure 1: SIT Proflame Valve

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

COLD CLIMATE INSULATION

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

If the fireplace is being installed on a cement slab in cold climates, a sheet of plywood or other raised platform can be placed underneath to prevent 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 HOME REQUIREMENTS

This appliance may be installed in an aftermarket permanently located, manufactured home and must be installed in accordance with the manufacturer's instructions.

Cet appareil peut être installé cómme du matéri-el d'origine dans une maison préfabriquée (É.U. seulement) ou mobile et doit être installé selon les instructions du fabricant.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

Cet appareil doit être utilisé uniquement avec le type de gaz indiqué sur la plaque signalétique. Cet appareil ne peut être converti à d'autres gaz, sauf si une trousse de conversion est utilisée.

CAUTION: Ensure that the cross members are not cut or weakened during installation. The structural integrity of the manufactured home floor, wall, and ceiling / roof must be maintained.

CAUTION: This appliance must be grounded to the chassis of the manufactured home 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.

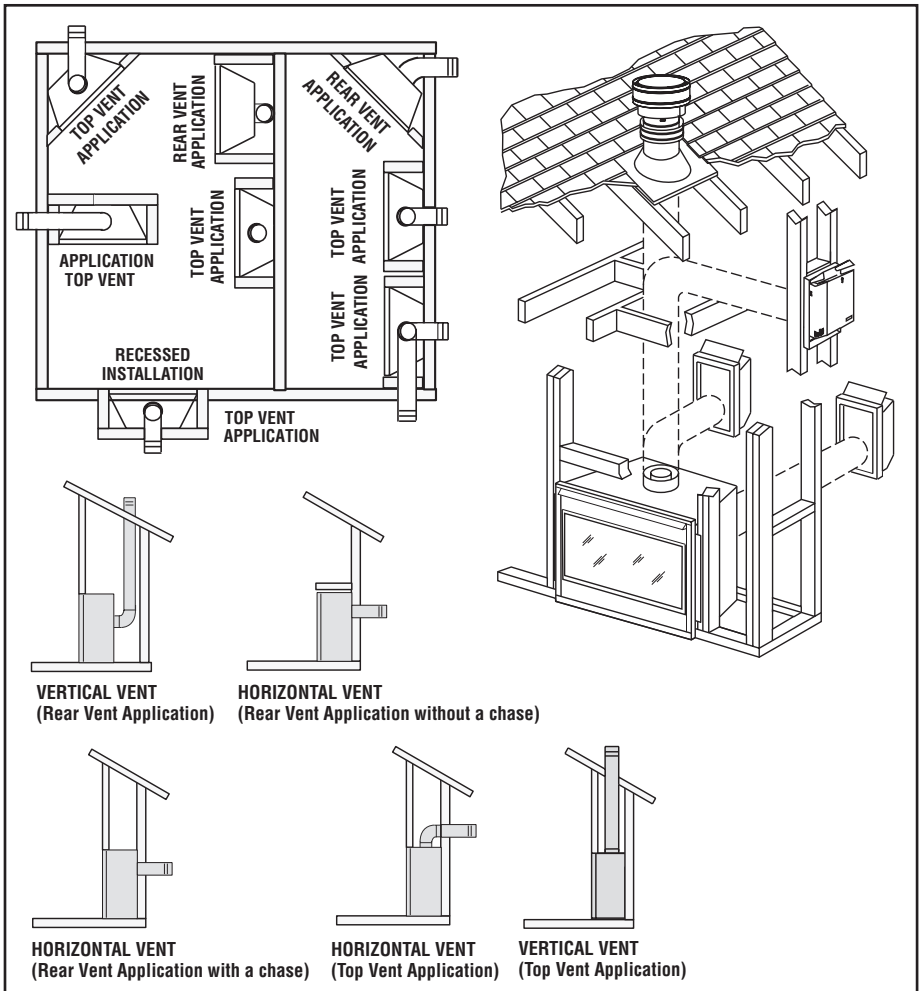


Figure 2: Typical Locations

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 2)*.

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 2)*.

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

These direct-vent appliances are uniquely suited for installations requiring a utility shelf positioned directly above the fireplace. Utility shelves like these are commonly used for locating television sets and decorative plants.

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 7**)*.

The minimum height from the base of the appliance to the underside of combustible materials used to construct a utility shelf in this fashion is shown in ***Figure 7***.

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.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

VENT TERMINATION CLEARANCES

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

Vertical Vent Termination Clearances

Terminate multiple vent terminations according to the installation codes listed above and ***Figures 3 and 4***.

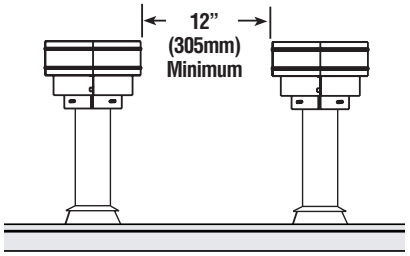


Figure 3: Multiple Terminations

Vertical Vent Termination Clearances

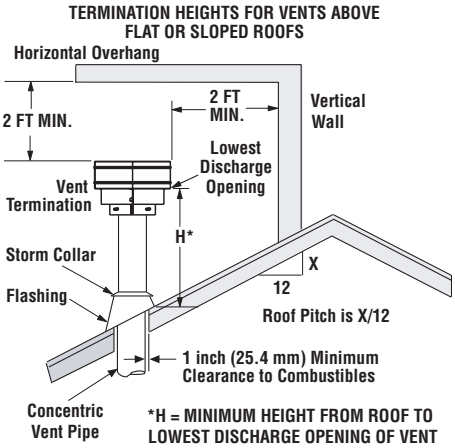


Figure 4

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

Termination Heights For Vents Above Flat Or Sloped Roofs Ref. NFPA 54 / ANSI Z223.1		
Roof Pitch	***H (ft)**	***H (m)**
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

Horizontal Vent Termination Clearances

The horizontal vent termination must have a minimum of 6" (152 mm) clearance to any overhead combustible projection of 2-1/2" (64 mm) or less (***Figure 5***). For projections exceeding 2-1/2" (64 mm), see ***Figure 6***. For additional vent location restrictions, refer to ***Figure 6*** on ***Page 7***.

Horizontal Vent Termination Clearances

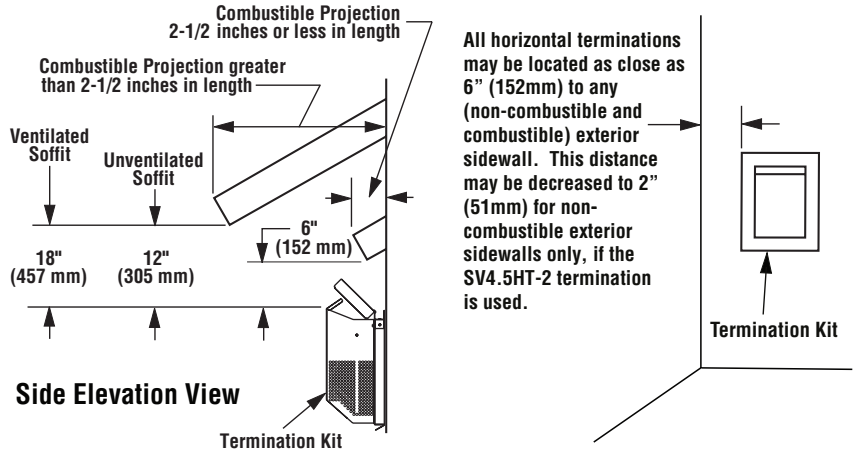
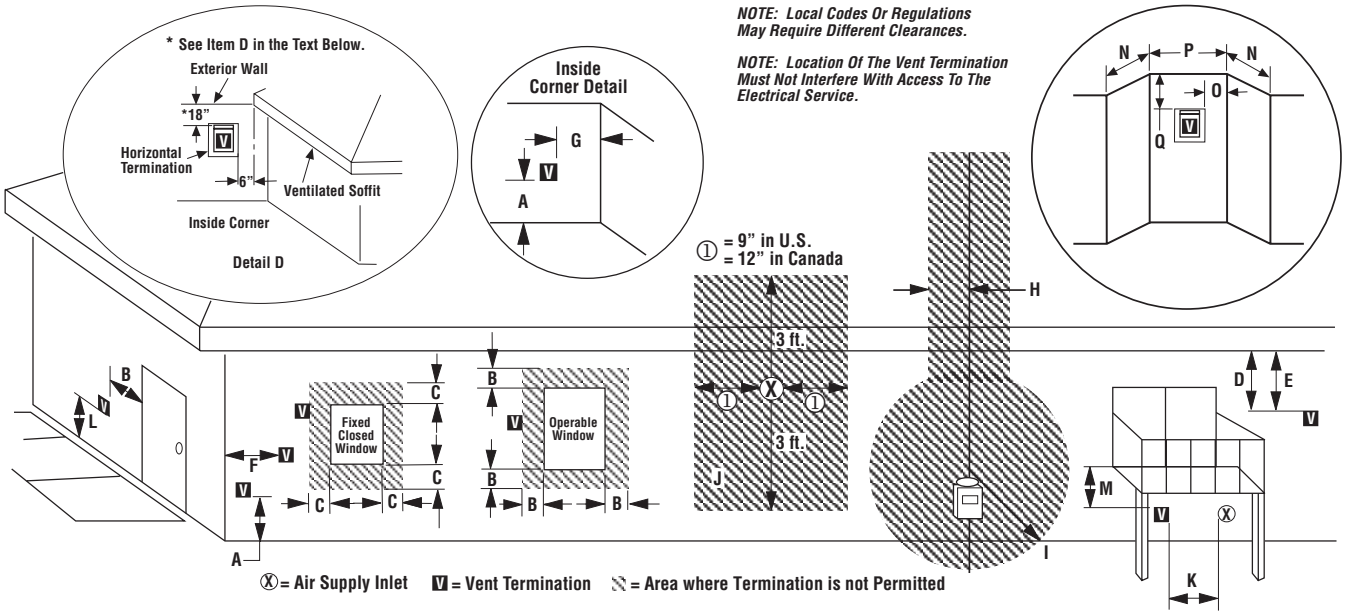


Figure 5

Note: See Figure 41 on Page 21 for exterior wall recess allowances for square horizontal termination.

EXTERIOR HORIZONTAL VENT TERMINATION CLEARANCE REQUIREMENTS



	Canadian Installation*	US Installation**
A = Clearance above grade, veranda, porch, deck, or balcony.	12 inches (30cm)*	12 inches (30cm)**
B = Clearance to window or door that may be opened.	6 inches (15cm) for appliances < 10,000 Btuh (3kW), 12 inches (30cm) for appliances > 10,000 Btuh (3kW)	6 inches (15cm) for appliances < 10,000 Btuh (3kW), 9 inches (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12 inches (30cm) for appliances > 50,000 Btuh (15kW)**
C = Clearance to permanently closed window	12 inches (305mm) recommended to prevent window condensation	9 inches (229mm) recommended to prevent window condensation
D = Vertical clearance to ventilated soffit located above the termination within a horizontal distance of 18 inches (458mm)	18 inches (458mm)	18 inches (458mm)
E = Clearance to unventilated soffit	12 inches (305mm)	12 inches (305mm)
F = Clearance to outside corner	5 inches (12.7cm) minimum	5 inches (12.7cm) minimum
G = Clearance to inside corner	2 inches (5.08cm) minimum - SV4.5HT-2•	2 inches (5.08cm) minimum - SV4.5HT-2•
H = Clearance to each inside of center line extended above meter/regulator assembly	3 feet (91cm) within a height of 15 feet above the meter/regulator assembly*	3 feet (91cm) within a height of 15 feet above the meter/regulator assembly**
I = Clearance to service regulator vent outlet	3 feet (91cm)*	3 feet (91cm)**
J = Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 inches (15cm) for appliances < 10,000 Btuh (3kW), 12 inches (30cm) for appliances > 10,000 Btuh (3kW)	6 inches (15cm) for appliances < 10,000 Btuh (3kW), 9 inches (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12 inches (30cm) for appliances > 50,000 Btuh (15kW)**
K = Clearance to a mechanical air supply inlet	6 feet (1.83m)*	3 feet (91cm) above if within 10 feet (3m) horizontally**
L = Clearance above paved sidewalk or paved diveway located on public property	7 feet (2.13m)‡	7 feet (2.13m)‡
M = Clearance under veranda, porch, deck or balcony	12 inches (30cm)*‡	12 inches (30cm)‡
N = Depth of Alcove (Maximum)	6 feet (1.83m)*	6 feet (1.83m)**
O = Clearance to Termination (Alcove)	6 inches (15.2mm)*	6 inches (15.2mm)**
P = Width of Alcove (Minimum)	3 feet (91cm)*	3 feet (91cm)*
Q = Clearance to Combustible Above (Alcove)	18 inches (457mm)*	18 inches (457mm)**

* In accordance with the current CSA-B149.1 National Gas And Propane Installation Code.
** In accordance with the curent ANSI SZ223.1/NFPA 54 National Fuel Gas Codes.
‡ A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.
*‡ Only permitted if veranda, porch, deck or balcony is fully open on a minimum 2 sides beneath the floor.
•2 inch Clearance to Non-Combustibles for SV4.5HT-2 Only.

Figure 6

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

MINIMUM CLEARANCES TO COMBUSTIBLES

Appliance And Vent Clearances

The appliance is approved with zero clearance to combustible materials on all sides (as detailed in ***Table 5)***.

MINIMUM CLEARANCES* Inches (millimeters)	
Back	1/2 (13) 0 (0) from Spacers Or Dimples
Sides	1/2 (13) 0 (0) from Spacers Or Dimples **
Top of Fireplace	4 (102)
Floor	0 (0)
From Bottom of Unit To Ceiling	64 (1626)
Vent	3 (76) Top* / 1 (25.4) Sides & Bottom
SERVICE CLEARANCES Feet (meters)	
Front	3 feet (0.9 meters)

Table 5

***Note: 3 in. (75 mm) above any horizontal/inclined vent component.**

****Note: See Page 9, Step 1 for clearance requirements to the nailing flange located at each side of the unit and any screw heads adjacent to it.***

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.

Shelf Height - To provide for the lowest possible shelf surface, use the alternate rear vent outlet, the venting attached to the top vent should be routed in a way to minimize obstructions to the space above the appliance. **Do not insulate the space between the appliance and the area above it (see *Figure 7*)**. The minimum height from the base of the appliance to the underside of combustible materials used to construct a utility shelf in this fashion is shown in ***Figure 7***.

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*** *(see* **Figure 62** on **Page 34***).*

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 or control compartment.

Vertical installation clearances to combustible mantels vary according to the depth of the mantel. See ***Figure 8***. 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.*

Models	Combustible Shelf Height - inches (millimeters)			
	Top Vent with 1-foot section and one 90-degree elbow		Rear Vent (straight out the back)	
	Secure Vent®	Secure Flex®	Secure Vent	Secure Flex
MPDP35	55-7/8 (1419)	57-5/8 (1464)	36-1/4 (921)	36-1/4 (921)
MPDP40	60-7/8 (1546)	62-5/8 (1591)	41-1/4 (1048)	41-1/4 (1048)

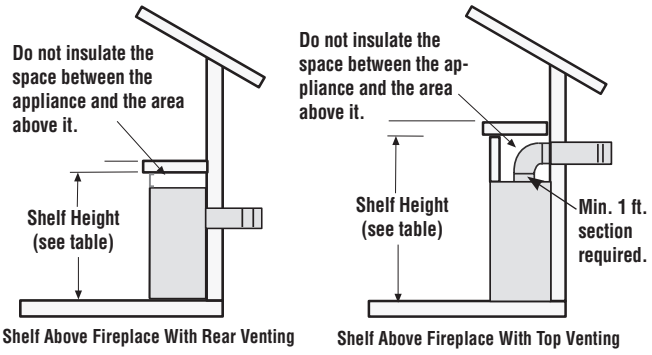


Figure 7: Shelf Height Minimum Clearances

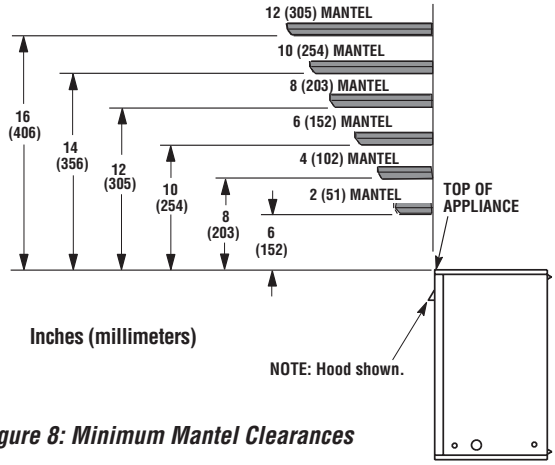


Figure 8: Minimum Mantel Clearances

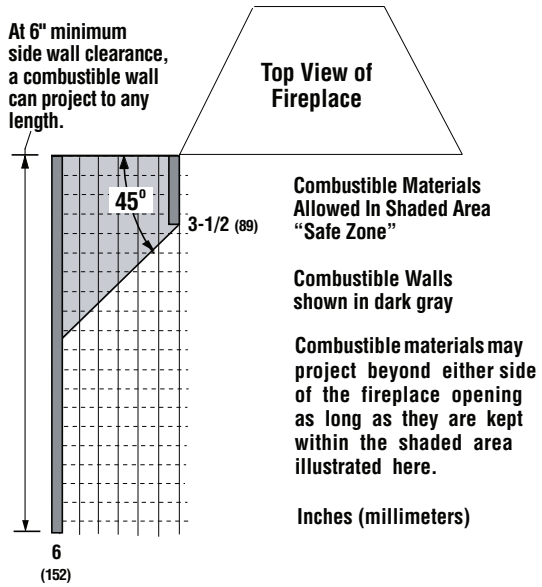


Figure 9: Minimum Distance to Side Wall

PRE-INSTALLATION STEPS

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

Before installing the fireplace, follow these steps:

1. Remove the shipping carton.
2. Remove the shipping pad, exposing the front glass door.
3. Open the two spring latches securing the glass door (under the firebox floor). Remove the door by tilting it outward at the bottom and lifting it up. Set aside the door, taking care to protect it from inadvertent damage *(see Removing and Installing the Glass Door on **Page 32**)*.
4. Remove the log set and top vent flue restrictor from the firebox. ***Handle logs carefully to prevent breakage.***
5. Remove the embers and volcanic stone from the control compartment.
6. Remove top standoff and hood (taped to back of outer wrapper).
7. Remove the 4 screws on top, and install the top standoff with the 4 screws *(**Figure 10**)*.

IMPORTANT!
Install top standoff and bend up appropriate drywall backstops (1/2" or 5/8") before installing fireplace.

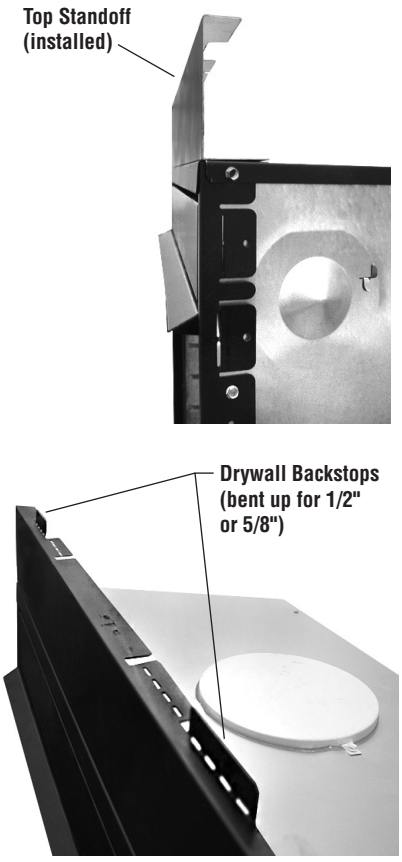


Figure 10

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 9**):* Construct the appliance framing. Position the appliance within the framing and secure with nailing brackets.

IMPORTANT! Before installing the fireplace, install the top standoff on the top front edge of the fireplace using the 4 existing screws on the fireplace top (see Figure 10). Then, bend up the applicable drywall backstops on the top standoff (1/2" or 5/8"), based on the thickness of the drywall/finish material to be used *(see **Figure 10**)*.

Bend out the appropriate side nailing flanges for the drywall/finish material to be used. Nailing flanges are provided for flush framing, 1/2-inch and 5/8-inch framing depths (*see **Figure 11**)*.

Step 2. ROUTING GAS LINE *(**Page 11**):* Route gas supply line to appliance location.

Step 3. PREPARING APPLIANCE VENT COLLAR *(**Page 12**)*.

Step 4. INSTALLING VENT SYSTEM *(**Page 12**):* Install the vent system and exterior termination.

Step 5. FIELD WIRING *(**Page 26**):* Field wire and install operating control switch.

Step 6. REMOTE CONTROL SYSTEM *(**Page 27**)*.

Step 7. CONNECTING GAS LINE *(**Page 28**):* Make connection to gas supply.

Step 8. VERIFYING APPLIANCE OPERATION *(**Page 28**)*.

Step 9. INSTALL LOGS, VOLCANIC STONE, AND GLOWING EMBERS *(**Page 29**)*.

Step 10. INSTALLING GLASS DOOR ASSEMBLY *(**Page 32**)*.

Step 11. BURNER ADJUSTMENTS *(**Page 32**):* Adjust burner to ensure proper flame appearance.

Step 12. HOOD INSTALLATION *(**Page 34**)*.

Step 13. ATTACHING SAFETY-IN-OPERATION WARNINGS *(**Page 35**)*.

DETAILED INSTALLATION STEPS

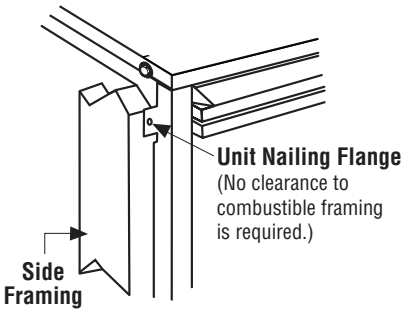
Step 1. FRAMING

Frame the appliance as illustrated in ***Figures 12 and 13*** on ***Pages 10 and 11*** *(**Figure 13*** applies to corner framing installations only). All framing details must allow for a minimum clearance to combustible framing members as shown in ***Table 5 on Page 8***.

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

Headers may be in direct contact with the appliance top standoff spacer, maintaining the 4" clearance to the fireplace top, ***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 11***. Use 8d nails or their equivalent.



Unit Secured to Framing by Nailing Flange

Left Side Front Corner of Fireplace Shown (Right side requirements are the same)

NOTE: The nailing flanges, combustible members, and screw heads 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 <u>direct contact</u> 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 in this manual.

Figure 11

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

FIREPLACE AND FRAMING SPECIFICATIONS

Framing

Model No.		A	B	C	D	E
MPDP35	in.	35-1/4	36-1/4	21-11/16	49	16
	mm	895	921	551	1245	406
MPDP40	in.	40-1/4	41-1/4	26-11/16	54	16
	mm	1022	1048	678	1372	406

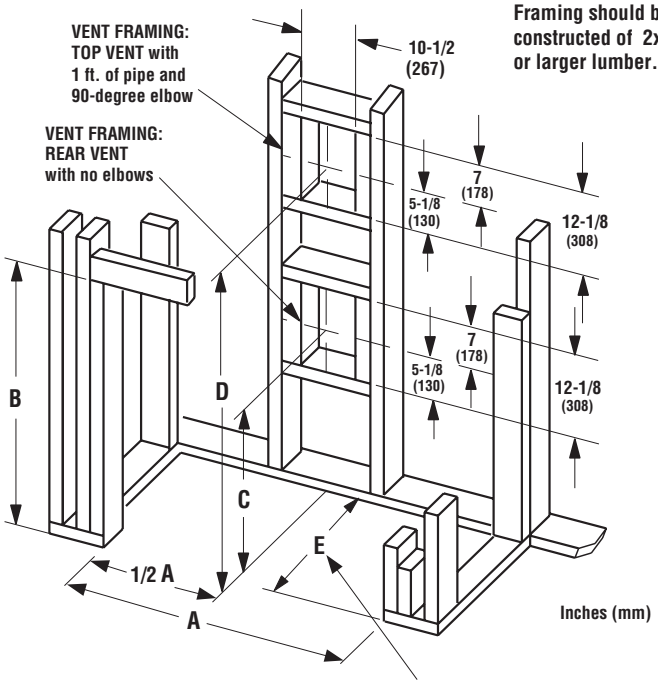
Notes

Diagrams, illustrations and photographs are not to scale. Consult installation instructions. Product designs, materials, dimensions, specifications, colors, and prices are subject to change or discontinuance without notice.

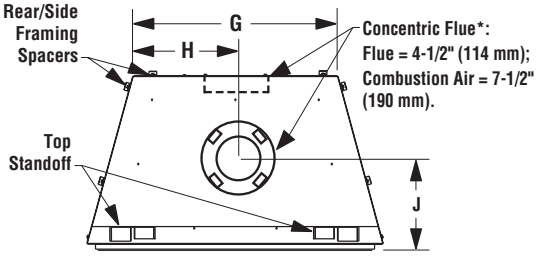
Efficiencies %				
Fireplace Model (Rear Vent)	Natural Gas		Propane	
	AFUE	EnerGuide (P4)	AFUE	EnerGuide (P4)
MPDP35	70	69	70	71
MPDP40	71	70	71	72

Canada
ENERGUIDE
Look for the **EnerGuide** Gas Fireplace Energy Efficiency Rating in this brochure
Based on CSA P.4.1-09

ENERCHOICE.ORG

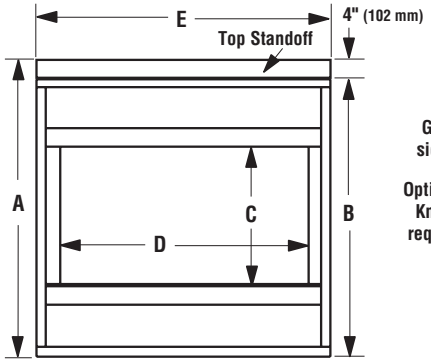


Dimension "E" is required framing depth when finish material (drywall) thickness is 1/2 in. (13mm).

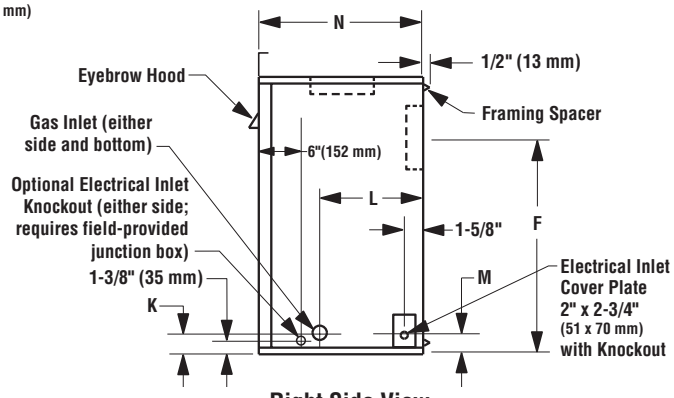


Top View

*All **MPDP** models have a top and rear vent.



Front View



Right Side View

Model No.		A	B	C	D	E	F	G	H	J	K	L	M	N
MPDP35	in.	36-1/8	32-1/8	19	29-1/2	35-1/8	21-11/16	24-7/8	12-7/16	9	3	9	3	16
	mm	918	816	483	749	892	551	632	316	220	76	220	76	406
MPDP40	in.	41-1/8	37-1/8	24	34-1/2	40-1/8	26-11/16	29-7/8	14-15/16	9	3	9	3	16
	mm	1045	943	610	876	1019	678	759	379	220	76	220	76	406

Figure 12

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

FIREPLACE FRAMING SPECIFICATIONS

Model No.		A	B	C	D	E	F
MPDP35	in.	35-1/8	57-1/2	40-5/8	19-3/16	28-3/4	6-1/8
	mm	892	1461	1032	487	730	156
MPDP40	in.	40-1/8	61-3/16	43-11/32	19-3/16	30-11/16	7-7/8
	mm	1019	1554	1101	487	779	200

Note:

- **Rear Vent Applications in Corner Installations:** The horizontal vent length (from (a) to (b)) must not exceed 28 inches (711 mm).
- **MPDP35 and MPDP40:** Dimensions **D through F** apply when one 45-degree elbow is connected directly to the appliance collar.

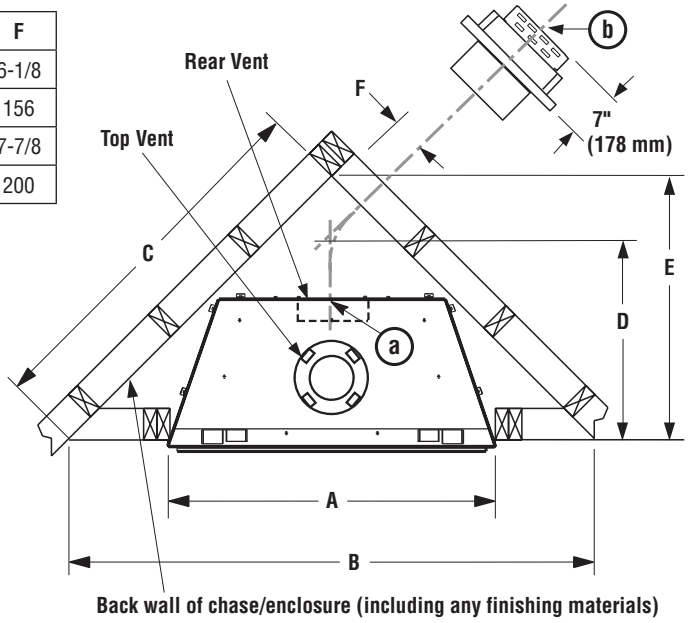
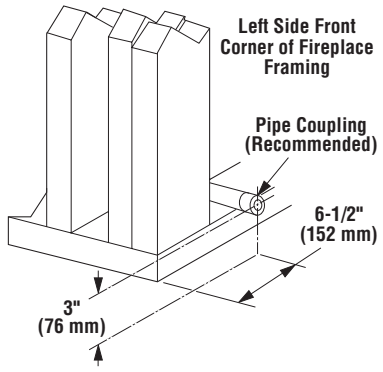


Figure 13: Corner Framing with Horizontal Termination

Step 2. ROUTING GAS LINE

Route a 1/2" (13 mm) gas line to the left side of the appliance as shown in ***Figure 14***. Gas lines must be routed, constructed and made of materials that are in strict accordance with local codes and regulations. All appliances are factory-equipped with a flexible gas line connector and 1/2-inch shutoff valve *(see **Step 7** on **Page 28**)*.



Also see *Figure 12.*

Figure 14: Route Gas Line

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, NFPA 54 - latest edition (USA) or CAN/CSA-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.

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

Notes:

- All appliances are factory-equipped with a flexible gas line connector and 1/2 inch shutoff valve (see ***Figure 52*** on ***Page 28***).
- 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 7*** on ***Page 28***.
- 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 (i.e. are below grade penetrations of the gas line allowed?, etc).

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.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Step 3. PREPARING APPLIANCE VENT COLLAR

The unit's top and rear vent collars are each sealed with a cover plate and gasket. The cover plate and gasket must be removed from the applicable vent collar being used. Refer to ***Page 13*** for rear vent applications and ***Page 14*** for top vent applications. Also refer to the following steps to prepare the appropriate collar for use.

From the vent collar being used, remove the four screws securing the cover plate and gasket. Discard the cover plate and gasket. Reinstall all four screws and tighten securely.

⚠ WARNING

Vent cover plate and vent seal cap must remain securely installed on unused vent collar. Failure to reinstall and securely tighten cover plate screws could result in leakage of flue products into the living space.

Step 4. 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/CSA-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).*

NOTE: These fireplaces must be vented directly to the outside.

The vent system may not service multiple appliances, and must never be connected to a flue serving a separate solid fuel burning appliance. The vent pipe is tested to be run inside an enclosed wall (such as a chase). There is no requirement for inspection openings in the enclosing wall at any of the joints in the vent pipe.

Vent Restrictor Installation

The fireplace ships with the following:

- (1) **rear solid cover plate** (ships installed over rear vent hole; similar to **top solid cover plate** shown in ***Figure 16***)
- (1) **top solid cover plate** (ships installed over top vent hole; refer to ***Figure 16***)
- (1) **rear vent restrictor plate** (square plate with two rectangular holes; ships uninstalled in literature bag)
- (1) **U-shaped vent restrictor** (ships uninstalled in literature bag)
- (1) **top vent flue restrictor** (ships uninstalled and taped to log set in firebox)

Vent Restrictor Installation in Rear Vent Systems

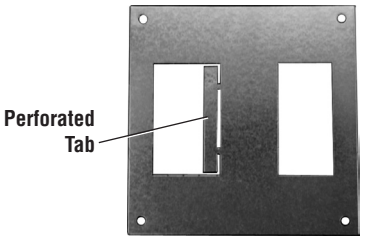
IF REAR VENT HORIZONTAL VENT LENGTH IS 7 INCHES OR SHORTER:

MPDP35 models: Install the **rear vent restrictor plate** *as shipped (see **Figure 15, View A**; do NOT bend back the perforated tab)* over the rear vent hole using the 4 previously removed screws, as shown in ***Figure 16***.

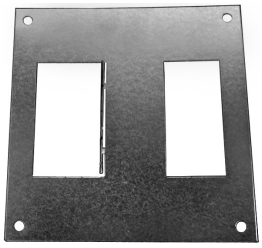
MPDP40 models: Hand-bend the perforated tab on the **rear vent restrictor plate** back 90 degrees *(as shown in **Figure 15, View B**)*, and then install it over the rear vent hole using the 4 previously removed screws, as shown in ***Figure 16***.

IF REAR VENT HORIZONTAL VENT LENGTH IS LONGER THAN 7 INCHES:

All models: Reinstall the 4 previously removed **screws only**, into the rear cover plate screw holes. ***Do NOT install the rear vent restrictor plate.***



A. Rear Vent Restrictor Plate as shipped from factory. (Use in this position on MPDP35 only.)



B. Rear Vent Restrictor Plate with perforated tab bent 90 degrees. (Use in this position on MPDP40 only.)

Figure 15

Top Solid Cover Plate (shown installed over top vent hole)

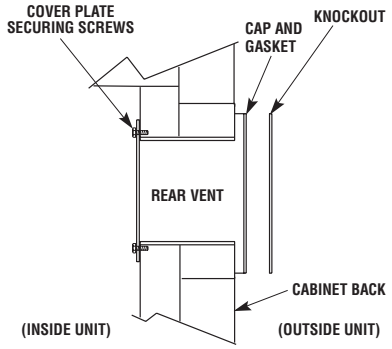


Rear Vent Restrictor Plate (shown installed over rear vent hole after Rear Solid Cover Plate was removed)

Figure 16

When rear venting, remove the outer wrapper knockout, cover plate, and gasket from outside the unit ***(Figure 17)***.

REAR VENT SEAL AND COVER PLATE REMOVAL WHEN USING THE REAR VENT



CROSS SECTION

Figure 17

IF REAR VENT VERTICAL VENT LENGTH IS 8 FEET OR LONGER:

All models: Before attaching the first piece of venting pipe or elbow, install the **U-shaped vent restrictor** into the rear vent collar from outside the unit ***(Figure 18)***. The U-shaped vent restrictor is held in place by friction.

U-SHAPED VENT RESTRICTOR INSTALLATION (REAR VENT)

Installation of the U-shaped vent restrictor is required in rear vent applications with vertical vent runs over 8 feet.

Install the vent restrictor from outside the unit in the inner fireplace collar of the rear vent outlet, oriented as shown below.

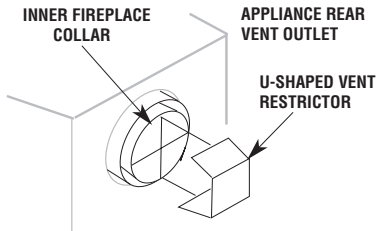


Figure 18

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Vent Restrictor Installation in Top Vent Systems

Note: When top venting the fireplace, the top vent flue restrictor MUST be installed.

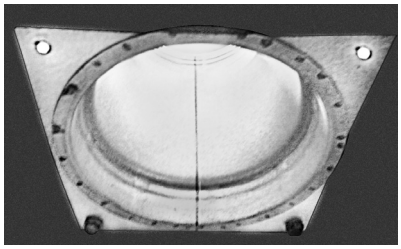


Figure 19

1. Remove the 2 top front screws and loosen the 2 top rear screws of the **rear solid cover plate** *(**Figures 19 and 20**)*.
2. Install the **top vent flue restrictor** by sliding the two notches in the **top vent flue restrictor** *(**Figure 20**)* under and behind the two screws loosened in the previous step, and then tighten the screws *(**Figure 21**)*.

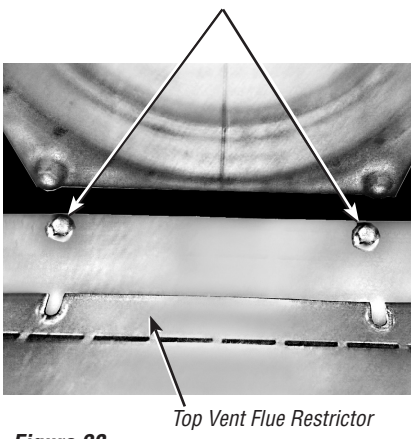


Figure 20

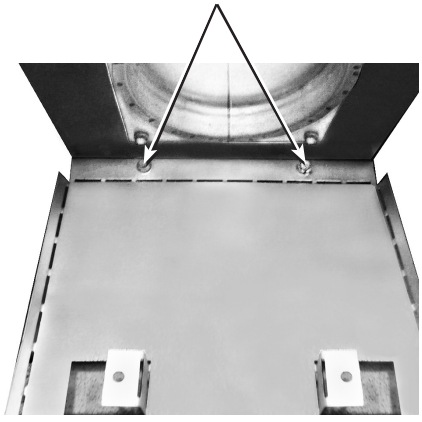


Figure 21

3. Bend the **top vent flue restrictor** FORWARD and UP *(**Figure 22**)*, and secure with the other 2 previously removed screws *(**Figure 23**)*.

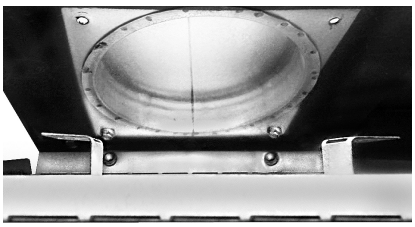


Figure 22

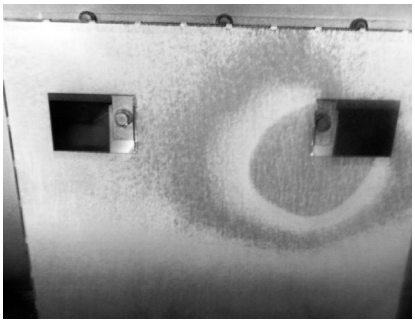


Figure 23

When top venting, remove the outer top knockout and gasket from outside the unit *(**Figure 24**)*.

TOP VENT SEAL AND COVER PLATE REMOVAL WHEN USING THE TOP VENT

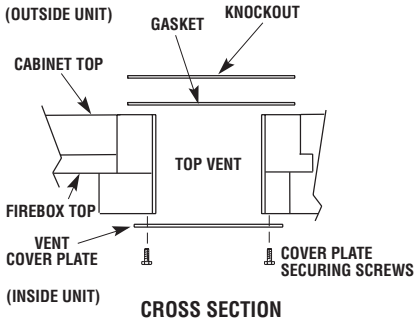


Figure 24

IF TOP VENT VERTICAL VENT LENGTH IS 8 FEET OR LONGER:

Before attaching the first piece of venting pipe, install the **U-shaped vent restrictor** into the top vent collar from outside the unit *(**Figure 25**)*. The U-shaped vent restrictor is held in place by friction.

Note: An elbow may NOT be directly attached to the fireplace top vent collar. A minimum of 1 ft. of vertical vent pipe must be attached to the top vent collar before installing any elbow.

U-SHAPED VENT RESTRICTOR INSTALLATION (TOP VENT)

Installation of the U-shaped vent restrictor is required in top vent applications with vent runs over 8 feet.

Install the vent restrictor from outside the unit in the inner fireplace collar of the top vent outlet, oriented as shown below.

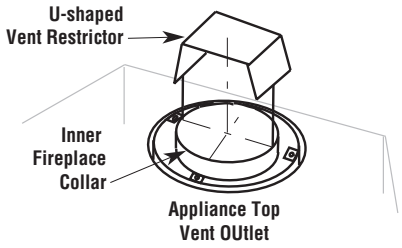


Figure 25

Select Venting System (Horizontal or Vertical)

With the appliance secured in framing, determine vent routing and identify the exterior termination location. The following sections describe vertical (roof) and horizontal (exterior wall) vent applications. Refer to the section relating to your installation. **See *Pages 36 and 37* for a list of approved venting components.**

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

VERTICAL TERMINATION SYSTEMS (ROOF)

See ***Figure 26*** and ***Figures 34 through 38*** on ***Pages 18 and 19*** and their associated Vertical Vent Tables, which illustrate the various vertical venting configurations that are possible for use with these appliances. **Secure Vent®** pipe applications are shown in these figures. **Secure Flex®** pipe may also be used. A Vertical Vent Table summarizes each system's minimum and maximum vertical and horizontal length values that can be used to design and install the vent components in a variety of applications.

Both these vertical vent systems terminate through the roof. The minimum vent height above the roof and/or adjacent walls is specified in ANSI Z223.1-(latest edition) (In Canada, the current CAN/CSA-B149.1 installation code) by major building codes. Always consult your local codes for specific requirements. A general guide to follow is the Gas Vent Rule (refer to ***Figure 4*** **on** ***Page 6)*****.**

Vertical (Straight) Installation *(Figure 26)*

Determine the number of straight vent sections required. 4-1/2" (114 mm), 10-1/2" (267 mm), 22-1/2" (572 mm), 34-1/2" (876 mm) and 46-1/2" (1181 mm) net section lengths are available (see ***tables on this page*** and ***Pages 36 and 37*** - *Vent Components)*. Plan the vent lengths so that a joint does not occur at the intersection of ceiling or roof joists. Refer to the Vent Section Length Chart.

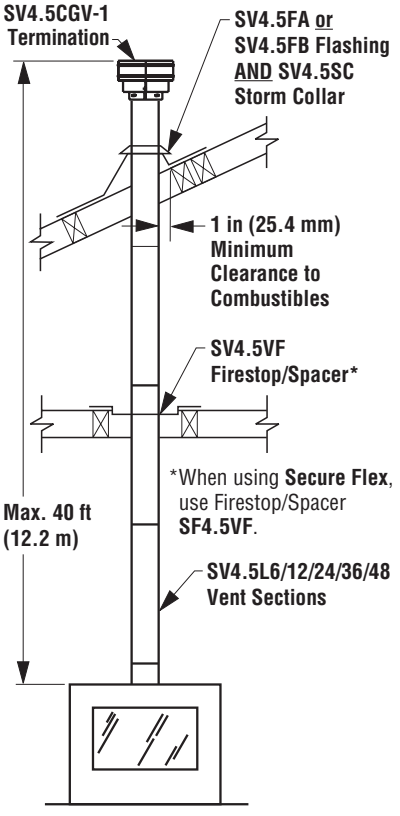


Figure 26

VENT SECTION LENGTH CHART

Nominal Section Length (inches)		6	12	24	36	48	TOTAL QTY
Net Section Length (inches)		4-1/2	10-1/2	22-1/2	34-1/2	46-1/2	
Height of Vent		Number of Vent Sections					
inches	ft						
4.5	0.375	1	0	0	0	0	1
9	0.75	2	0	0	0	0	2
10.5	0.875	0	1	0	0	0	1
15	1.25	1	1	0	0	0	2
19.5	1.625	2	1	0	0	0	3
21	1.75	0	2	0	0	0	2
22.5	1.875	0	0	1	0	0	1
25.5	2.125	1	2	0	0	0	3
31.5	2.625	0	3	0	0	0	3
34.5	2.875	0	0	0	1	0	1
37.5	3.125	1	1	1	0	0	3
43.5	3.625	0	2	1	0	0	3
45	3.75	0	0	2	0	0	2
46.5	3.875	0	0	0	0	1	1
49.5	4.125	1	0	2	0	0	3
51	4.25	1	0	0	0	1	2
55.5	4.625	0	1	2	0	0	3
57	4.75	0	0	1	1	0	2
66	5.25	0	2	2	0	0	4
67.5	5.625	0	0	3	0	0	3
69	5.75	0	0	0	2	0	2
72	6	1	0	3	0	0	4
73.5	6.125	1	0	0	2	0	3
79.5	6.625	0	1	0	2	0	3
81	6.75	0	0	0	1	1	2
90	7.5	0	2	1	0	1	4
91.5	7.625	0	0	2	0	1	3
93	7.75	0	0	0	0	2	2
96	8	1	0	1	2	0	4
97.5	8.125	1	0	0	0	2	3
102	8.5	2	0	0	0	2	4
103.5	8.625	0	0	0	3	0	3
108	9	1	0	0	3	0	4
114	9.5	0	2	0	0	2	4
117	9.75	1	0	5	0	0	6
118.5	9.875	1	1	0	3	0	5
126	10.5	0	0	1	3	0	4
130.5	10.875	1	0	1	3	0	5
135	11.25	0	0	6	0	0	6
138	11.5	0	0	0	4	0	4
139.5	11.625	0	0	0	0	3	3
142.5	11.875	1	0	0	4	0	5

VENT SECTION LENGTH CHART

Nominal Section Length (inches)		6	12	24	36	48	TOTAL QTY
Net Section Length (inches)		4-1/2	10-1/2	22-1/2	34-1/2	46-1/2	
Height of Vent		Number of Vent Sections					
inches	ft						
144	12	1	0	0	0	3	4
150	12.5	0	1	0	0	3	4
154.5	12.875	1	1	0	0	3	5
160.5	13.375	0	2	0	0	3	5
172.5	14.375	0	0	0	5	0	5
177	14.75	1	0	0	5	0	6
183	15.25	0	1	0	5	0	6
186	15.5	0	0	0	0	4	4
190.5	15.875	1	0	0	0	4	5
196.5	16.375	0	1	0	0	4	5
205.5	17.125	0	1	1	5	0	7
207	17.25	0	0	0	6	0	6
211.5	17.625	1	0	0	6	0	7
217.5	18.125	0	1	0	6	0	7
229.5	19.125	0	0	1	6	0	7
232.5	19.375	0	0	0	0	5	5
237	19.75	1	0	0	0	5	6
241.5	20.125	0	0	0	7	0	7
246	20.5	1	0	0	7	0	8
252	21	0	1	0	7	0	8
264	22	0	0	1	7	0	8
276	23	0	0	0	8	0	8
279	23.25	0	0	0	0	6	6
280.5	23.375	1	0	0	8	0	9
283.5	23.625	1	0	0	0	6	7
289.5	24.125	0	1	0	0	6	7
301.5	25.125	0	0	1	0	6	7
310.5	25.875	0	0	0	9	0	9
315	26.5	1	0	0	9	0	10
325.5	27.125	0	0	0	0	7	7
330	27.5	1	0	0	0	7	8
336	28	0	1	0	0	7	8
345	28.75	0	0	0	10	0	10
349.5	29.125	1	0	0	10	0	11
372	31	0	0	0	0	8	8
376.5	31.375	1	0	0	0	8	9
379.5	31.625	0	0	0	11	0	11
418.5	34.875	0	0	0	0	9	9
423	35.25	1	0	0	0	9	10
465	38.75	0	0	0	0	10	10

Note: Convert inches into metric equivalent measurement, as follows:

Millimeters (mm) = Inches x 25.4
Centimeters (cm) = Inches x 2.54
Meters (M) = Inches x .0254

Effective Vent Length	
Model	**Effective Length**
SV4.5L6	**4-1/2"**
SV4.5L12	**10-1/2"**
SV4.5L24	**22-1/2"**
SV4.5L36	**34-1/2"**
SV4.5L48	**46-1/2"**

Table 7

Vertical (Offset) Installation

Analyze the vent routing and determine the quantities of vent sections and number of elbows required. Refer to **Vertical Vent figures and tables on *Pages 18 and 19*** to select the type of vertical installation desired. Vent sections are available in net lengths of 4-1/2" (114 mm), 10-1/2" (267 mm), 22-1/2" (572 mm), 34-1/2" (876 mm) and 46-1/2" (1181 mm). Refer to the **Vent Section Length Chart on *Page 15*** for an aid in selecting length combinations. Elbows are available in 90° and 45° configurations. Refer to ***Figure 30*** for the SV4.5E45 and SV4.5E90 elbow dimensional specifications.

Where required, a **telescopic vent section (SV4.5LA)** may be used to provide the installer with an option in installing in tight and confined spaces or where the vent run made up of fixed length pieces develops a joint in a undesirable location, or will not build up to the required length. The SV4.5LA Telescopic Vent Section has an effective length of from 1-1/2" (38 mm) to 7-1/2" (191 mm). The SV4.5LA is fitted with a locking inclined channel end (identical to a normal vent section component) and a plain end with 3 pilot holes. Slip the plain end over the locking channel end of a standard SV4.5 vent component the required distance and secure with three screws.

Maintain a minimum 1" (25 mm) clearance to combustible materials for all vertical elements. Clearances for all horizontal elements are 3" (76 mm) on top, 1" (25 mm) on sides and 1" (25 mm) on the bottom.

A. Frame ceiling opening - Use a plumb line from the ceiling above the appliance to locate center of the vertical run. Cut and/or frame an opening, 10-1/2" x 10-1/2" (267mm x 267mm) inside dimensions, about this center mark *(**Figure 27**)*.

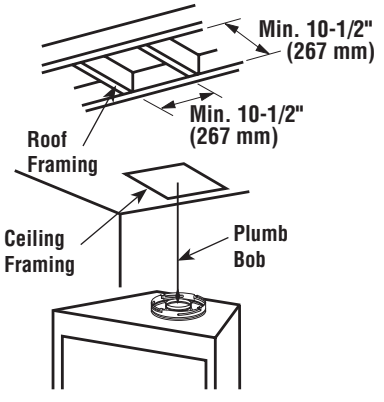


Figure 27

B. Attach vent components to appliance - Secure Vent® SV4.5 direct vent system components are unitized concentric pipe components featuring positive twist lock connections *(see **Figure 28**)*.

All of the appliances covered in this document are fitted with collars having locking inclined channels. The dimpled end of the vent components fit over the appliance collar to create the positive twist lock connection.

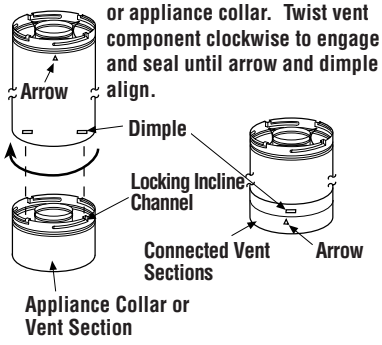


Figure 28

To attach a vent component to the appliance collar, align the dimpled end over the collar, adjusting the radial alignment until the four locking dimples are aligned with the inlet of the four inclined channels on the collar *(refer to **Figure 28**)*. Push the vent component against the collar until it fully engages, then twist the component clockwise, running the dimples down and along the incline channels until they seat at the end of the channels. The unitized design of the **Secure Vent** components will engage and seal both the inner and outer pipe without the need for sealant or screws. If desired a #6 x 1/2" screw may be used at the joint, but it is not required as the pipe will securely lock when twisted.

C. Attach vent components to each other - Other vent sections may be added to the previously installed section in accordance with the requirements of the vertical vent figures and tables. To add another vent component to a length of vent run, align the dimpled end over the inclined channel end of the previously installed section, adjusting the radial alignment until the four locking dimples are aligned with the inlets of the four incline channels of the previous section.

Push the vent component against the previous section until it fully engages, then twist the component clockwise running the dimples down and along the incline channels until they seat at the end of the channels. **This seating position is indicated by the alignment of the arrow and dimple as shown in *Figure 28*.**

D. Install firestop/spacer at ceiling - When using Secure Vent, use SV4.5VF firestop/spacer at ceiling joists; when using Secure Flex®, use SF4.5VF firestop/spacer. If there is living space above the ceiling level, the firestop/spacer must be installed on the bottom side of the ceiling. If attic space is above the ceiling, the firestop/spacer must be installed on the top side of the joist. Route the vent sections through the framed opening and secure the firestop/spacer with 8d nails or other appropriate fasteners at each corner. **Remember to maintain 1" (25 mm) clearance to combustibles, framing members, and attic or ceiling insulation when running vertical chimney sections. Attic insulation shield (96K94) may be used to obtain the required clearances indicated here. *See installation accessories table on Pages 36 and 37. The gap between the vent pipe and a vertical firestop can be sealed with non-combustible caulking.***

E. Support the vertical vent run sections - ***Note -*** *Proper venting support is very important.* Support the vertical portion of the venting system every 8 feet (2.4m) above the fireplace vent outlet. One method of support is by utilizing field provided support straps (conventional plumber's tape). Secure the plumber's tape to the framing members with nails or screws. Loop the tape around the vent, securing the ends of the tape to the framing. If desired, sheet metal screws #6 x 1/2" length may be used to secure the support straps to the vent pipe. See ***Figure 29***.

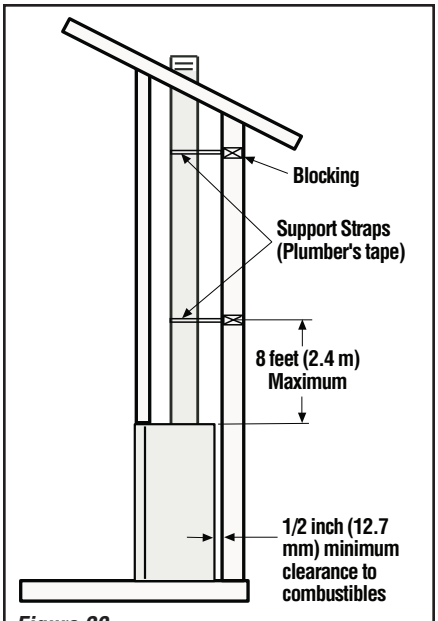


Figure 29

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

F. Change vent direction to horizontal/inclined run - At transition from or to a horizontal/inclined run, install the SV4.5E45 and SV4.5E90 elbows in the same manner as the straight vent sections. The elbows feature a twist section to allow them to be routed about the center axis of their initial collar section to align with the required direction of the next vent run element. **Twist elbow sections in a clockwise direction only so as to avoid the possibility of unlocking any of the previously connected vent sections.** See ***Figure 30***.

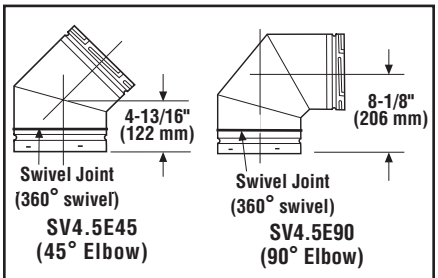
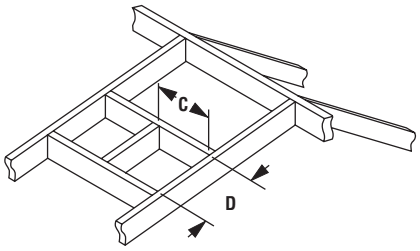


Figure 30

G. Continue installation of horizontal/inclined sections - Continue with the installation of the straight vent sections in horizontal/inclined run as described in **Step C.** Install support straps every 5' (1.52 m) along horizontal/inclined vent runs using conventional plumber's tape. **It is very important that the horizontal/inclined run be maintained in a straight (no dips), slightly elevated plane. The recommended incline is approximately 1/4" per foot (20 mm per meter) horizontal, in a direction away from the fireplace.** The rise per foot run ratios that are smaller are acceptable all the way down to at or near level. Use a carpenter's level to measure from a constant surface and adjust the support straps as necessary.

It is important to maintain the required clearances to combustibles: 1" (25 mm) at all sides for all vertical runs; and 3" (76 mm) at the top, 1" (25 mm) at sides, and 1" (25 mm) at the bottom for all horizontal/inclined runs.

H. Frame roof opening - Identify location for vent at the roof. Cut and/or frame opening per Roof Framing Chart and ***Figure 31***.



Framing Dimensions for Roof

Pitch	C	D
0/12	10-1/2 in. (267 mm)	10-1/2 in. (267 mm)
6/12	10-1/2 in. (267 mm)	12 in. (305 mm)
12/12	10-1/2 in. (267 mm)	17-3/4 in. (451 mm)

Figure 31

I. Install the roof flashing - Extend the vent sections through the roof structure. Install the roof flashing over the vent section and position such that the vent column rises vertically (use carpenters level) (***Figure 32***). Nail along perimeter to secure flashing or adjust roofing to overlap the flashing edges at top and sides only and trim where necessary. Seal the top and both sides of the flashing with waterproof caulking.

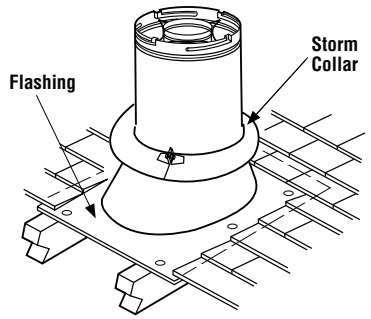


Figure 32

J. Install the storm collar - Install the storm collar, supplied with the flashing, over the vent/flashing joint. See ***Figure 32.*** Loosen the storm collar screw. Slide collar down until it meets the top of the flashing. Tighten the adjusting screw. Apply non-combustible caulking or mastic around the circumference of the joint to provide a water tight seal.

K. Install the vertical termination - The final step involves installation of the SV4.5CGV-1 Vertical Termination. Extend the vent sections to the height as shown in the "Vertical vent termination section" on ***Page 6***. The SV4.5CGV-1 Vertical Termination ***(Figure 33)*** installs in the exact same fashion as any other **Secure Vent®** section. Align the termination over the end of the previously installed section, adjusting the radial alignment until the four locking dimples of the termination are aligned with the inlets of the four incline channels of the last vent section. Push the termination down until it fully engages, then twist the termination clockwise running the dimples down and along the incline channels until they seat at the end of the channels.

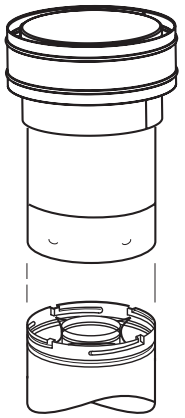


Figure 33

If the vent system extends more than 5 ft. (1.5 meters) above the roof flashing, stabilizers may be necessary. Additional screws may be used at section joints for added stability. Guide wires may be attached to the joint for additional support on multiple joint configurations.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

VERTICAL VENT FIGURES/TABLES

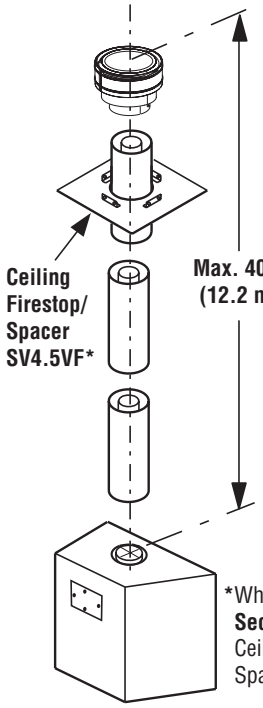
Note: Secure Vent® *(rigid vent pipe) is shown in the figures;* ***Secure Flex®*** *(flexible vent pipe) may also be used.*

Note: *It is very important that the horizontal/inclined run be maintained in a straight (no dips), slightly elevated plane. The recommended incline is approximately 1/4" per foot (20 mm per meter) horizontal, in a direction away from the fireplace. The rise per foot run ratios that are smaller are acceptable all the way down to at or near level.*

Note: *SV4.5VF (Secure Vent), SF4.5VF (Secure Flex) firestop/spacer must be used anytime vent pipe passes through a combustible floor or ceiling. SV4.5HF (Secure Vent), SF4.5HF (Secure Flex) firestop/spacer must be used anytime vent pipe passes through a combustible wall.*

Note: *Two 45 degree elbows may be used in place of one 90 degree elbow. The same rise to run ratios, as shown in the venting figures for 90 elbows, must be followed if 45 degree elbows are used.*

Note: An elbow is acceptable as 1 foot of vertical rise.



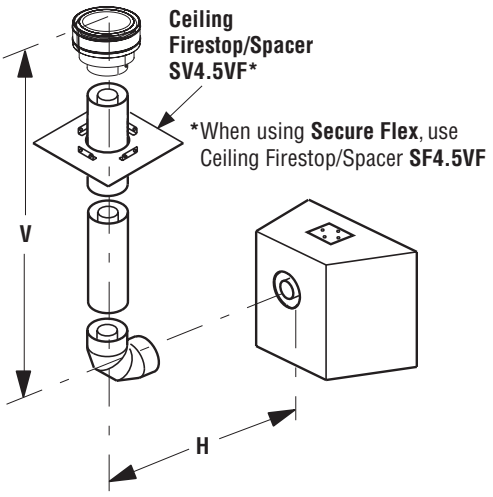
A Vent Restrictor, as shown in ***Figure 25*** *on* ***Page 14****, must be used in this application.*

Figure 34: Top Vent - STRAIGHT

TABLE A			
H Maximum		V Minimum	
feet	(meters)	feet	(meters)
2	(0.610)	1	(0.305)
4	(1.219)	2	(0.610)
6	(1.829)	3	(0.914)
8	(2.438)	4	(1.219)
V + H = 40 feet (12.2 meters) Max. H = 8 feet (2.4 meters) Max. *Ratio V to H ratio is 1:2*			

This table shows a 1 (V) to 2 (H) ratio. For every 1 foot of (V) vertical, you are allowed 2 feet of (H) horizontal run, up to a maximum horizontal run of 8 feet.

Example: *If 8 feet of (H) horizontal vent run is needed, then 4 feet minimum (V) vertical vent will be required.*



Note: Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See Pages 13 and 14.

Figure 35: Rear Vent - ONE 90-DEGREE ELBOW

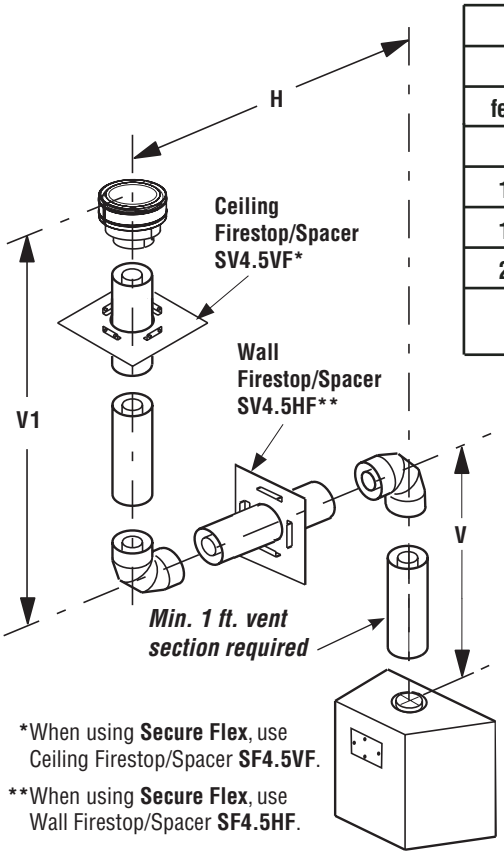


TABLE B			
H Maximum		V Minimum	
feet	(meters)	feet	(meters)
5	(1.524)	2	0.610
10	(3.048)	3	0.914
15	(4.572)	4	1.219
20	(6.096)	5	0.524
$V + V_1 + H = 40$ feet (12.2 m) Max. H = 20 feet (6.096 meters) Max.			

Example: *If 20 feet of (H) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

An elbow is acceptable as 1 foot of vertical rise.

Note:

- ***An elbow may NOT be attached directly to the vent collar.***
- ***Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See Pages 13 and 14.***

Figure 36: Top Vent - TWO 90-DEGREE ELBOWS

⚠ WARNING

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

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

VERTICAL VENT FIGURES/TABLES
(continued)

TABLE C					
$H+H_1$ Maximum		H Maximum		V Minimum	
feet	(meters)	feet	(meters)	feet	(meters)
5	(1.524)	2	(0.610)	1	(0.305)
10	(3.048)	4	(1.219)	2	(0.610)
15	(4.572)	6	(1.829)	3	(0.914)
20	(6.096)	8	(2.438)	4	(1.219)
$V + V_1 + H + H_1 = 40$ feet (12.2 m) Max H = 8 feet (2.438 meters) Max. $H + H_1 = 20$ feet (6.096 meters) Max.					

This table shows a 1 (V) to 5 (H) ratio. For every 1 foot of (V) vertical, you are allowed 5 feet of (H) horizontal run, up to a maximum horizontal run of 20 feet.

Example: *If 20 feet of (H) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

Note: Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See Pages 13 and 14.

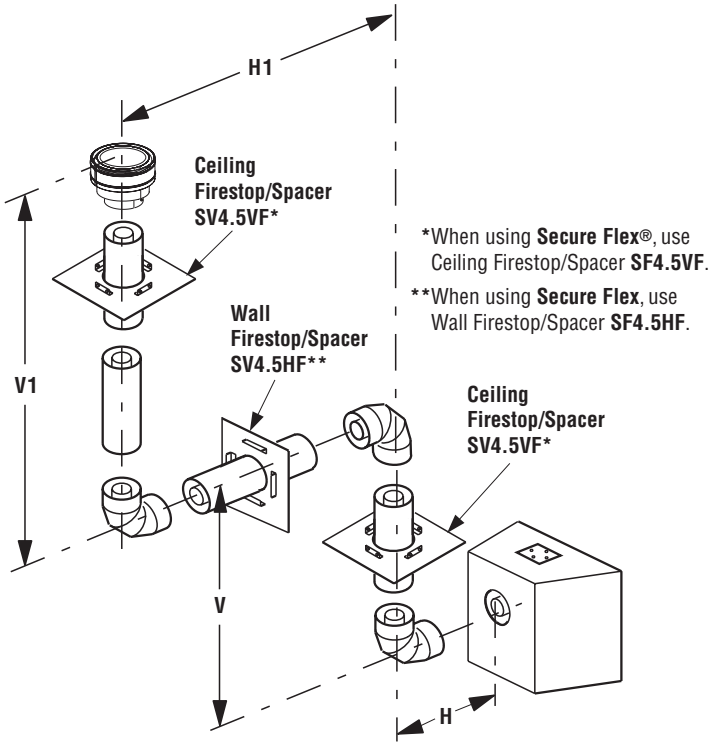


Figure 37: Rear Vent - THREE ELBOWS

TABLE D			
$H + H_1$ Maximum		V Minimum	
feet	(meters)	feet	(meters)
5	(1.524)	2	0.610
10	(3.048)	3	0.914
15	(4.572)	4	1.219
20	(6.096)	5	0.524
$H + H_1 = 20$ feet (6.096 m) Max. $V + V_1 + H + H_1 = 40$ ft. (12.192 m) Max.			

Example: *If 20 feet of (H) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

An elbow is acceptable as 1 foot of vertical rise.

Note:

- ***An elbow may NOT be attached directly to the vent collar.***
- ***Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See Pages 13 and 14.***

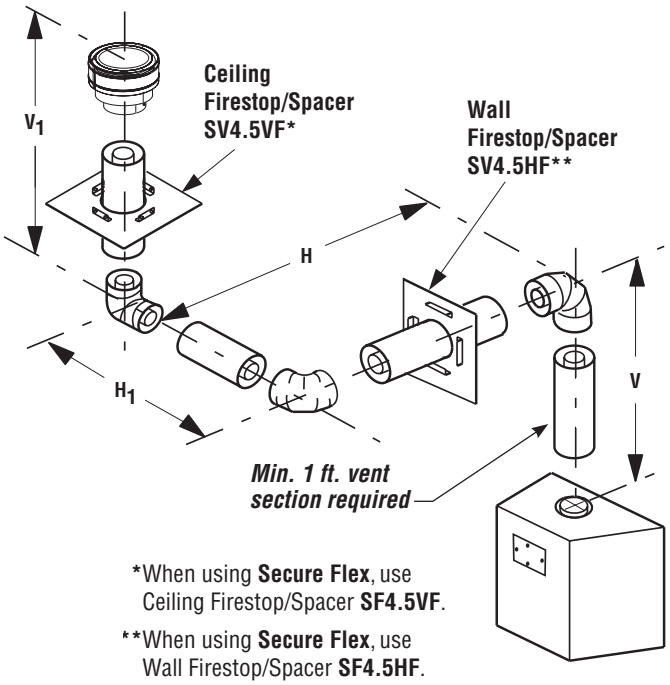


Figure 38: Top Vent - THREE ELBOWS

HORIZONTAL (OUTSIDE WALL) TERMINATION SYSTEM

Figure 39 (at right) and Figures 42 to 47 (Pages 22 to 24) and illustrate the various horizontal venting configurations that are possible for use with these appliances. **Secure Vent®** pipe applications are shown in these figures. **Secure Flex®** pipe may also be used. A Horizontal Vent Table summarizes each system's minimum and maximum vertical and horizontal length values that can be used to design and install the vent components in a variety of applications.

Both of these horizontal vent systems terminate through an outside wall. Building Codes limit or prohibit terminating in specific areas. Refer to ***Figure 6 on Page 7*** for location guidelines.

Secure Vent (SV4.5) direct vent system components are unitized concentric pipe components featuring positive twist lock connection *(refer to **Figure 28 on Page 16**)*. All appliances covered in this document are fitted with collars having locking inclined channels. The dimpled end of the vent components fit over the appliance collar to create the positive twist lock connection.

A. Plan the vent run.
Analyze the vent routing and determine the types and quantities of sections required 4-1/2" (114 mm), 10-1/2" (267 mm), 22-1/2" (572 mm), 34-1/2" (876 mm) and 46-1/2" (1181 mm) net section lengths are available. It is recommended that you plan the venting so that a joint does not occur in the ceiling or roof joists. Allow for elbows as indicated in ***Figure 30 on Page 17***.

Maintain a minimum 1" (25 mm) clearance to combustibles on the vertical sections. Clearances for the horizontal runs are; 3" (76 mm) on top, 1" (25 mm) on sides, and 1" (25 mm) at the bottom.

B. Frame the exterior wall opening.
Locate the center of the vent outlet on the exterior wall according to the dimensions shown in ***Figure 12 on Page 10***. Cut and/or frame an opening, 10-1/2" x 12-1/8" (267 mm x 308mm) inside dimensions, about this center.

C. Frame the ceiling opening.
If the vertical route is to penetrate a ceiling, use plumb line to locate the center above the appliance. Cut and/or frame an opening, 10-1/2" x 10-1/2" (267 mm x 267 mm) inside dimensions, about this center *(refer to **Figure 27** on **Page 16**)*.

D. Attach vent components to appliance.
To attach a vent component to the appliance collar, align the dimpled end over the collar, adjusting the radial alignment until the four locking dimples are aligned with the inlets of the four incline channels on the collar *(refer to **Figure 28 on Page 16**)*.

Push the vent component against the collar until it fully engages, then twist the component clockwise, running the dimples down and along the incline channels until they seat at the end of the channels.

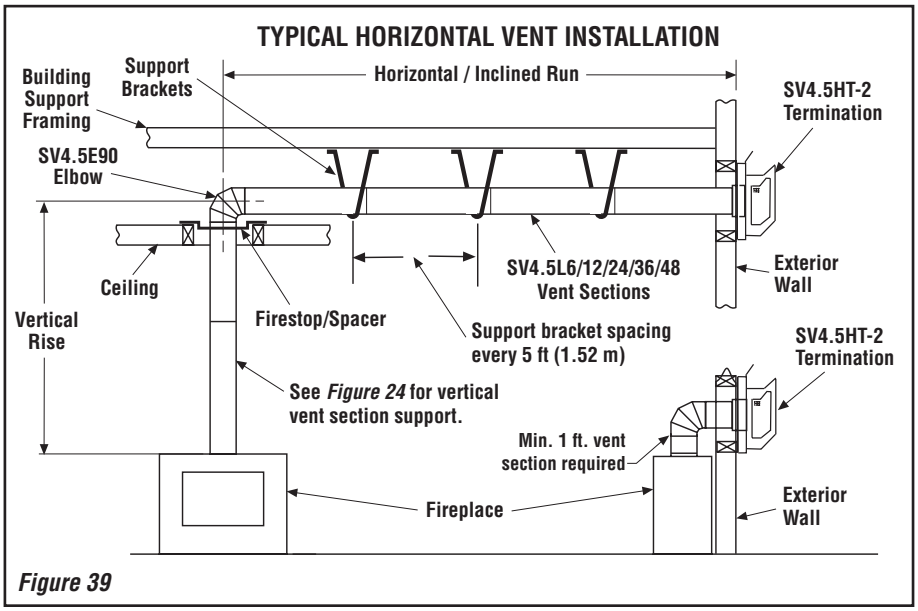


Figure 39

The unitized design of the **Secure Vent** components will engage and seal both the inner and outer pipe elements with the same procedure. Sealant and securing screws are not required.

E. Attach vent components to each other.
Other vent sections may be added to the previously installed section in accordance with the requirements of the vent tables. To add another vent component to a length of vent run, align the dimpled end of the component over the inclined channel end of the previously installed section, adjusting the radial alignment until the four locking dimples are aligned with the inlets of the four incline channels of the previous section. Push the vent component against the previous section until it fully engages, then twist the component clockwise running the dimples down and along the incline channels until they seat at the end of the channels. **This seating position is indicated by the alignment of the arrow and dimple as shown in *Figure 28 on Page 16.***

F. Install firestop/spacer at ceiling.
When using Secure Vent, use SV4.5VF firestop/spacer at ceiling joists; when using Secure Flex, use SF4.5VF firestop/spacer. If there is living space above the ceiling level, the firestop/spacer must be installed on the bottom side of the ceiling. If attic space is above the ceiling, the firestop/ spacer must be installed on the top side of the joist. Route the vent sections through the framed opening and secure the firestop/spacer with 8d nails or other appropriate fasteners at each corner. The gap between the vent pipe and a firestop can be sealed with noncombustible caulking.

Remember to maintain 1" (25 mm) clearance to combustibles, framing members, and attic or ceiling insulation when running vertical chimney sections.

G. Support the vertical run sections.
On the vertical run, support the venting system every 8 feet (2.4m) above the fireplace vent outlet with field provided support straps (Plumber's tape). Attach the straps to the vent pipe and secure to the framing members with nails or screws. *See **Figure 29 on Page 16**.*

H. Change vent direction.
At transition from or to a horizontal/inclined run, install the SV4.5E45 and SV4.5E90 elbows in the same manner as the straight vent sections. The elbows feature a twist section to allow them to be routed about the center axis of their initial collar section to align with the required direction of the next vent run element. **Twist elbow sections in a clockwise direction only so as to avoid the possibility of unlocking any of the previously connected vent sections.** *See **Figure 30 on Page 17**.*

I. Continue installation of horizontal/inclined sections. Continue with the installation of the straight vent sections in horizontal/inclined run as described in **Step E**. Install support straps every 5 ft. (1.52 m) along horizontal/inclined vent runs using conventional plumber's tape. *See **Figure 39**.* **It is very important that the horizontal/inclined run be maintained in a straight (no dips), slightly elevated plane. The recommended incline is approximately 1/4" per foot (20 mm per meter) horizontal, in a direction away from the fireplace.** The rise per foot run ratios that are smaller are acceptable all the way down to at or near level. Use a carpenter's level to measure from a constant surface and adjust the support straps as necessary.

It is important to maintain the required clearances to combustibles: 1" (25 mm) at all sides for all vertical runs; and 3" (76 mm) at the top, 1" (25 mm) at sides, and 1" (25 mm) at the bottom for all horizontal/inclined runs.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

J. Assemble vent run to exterior wall - If not previously measured, locate the center of the vent at the exterior wall. Prepare an opening as described in **Step B**. Assemble the vent system to point where the terminus of the last section is within 7 in. (178 mm) to 11-1/4 in. (286 mm) inboard of the exterior surface to which the SV4.5 HT termination is to be attached, see ***Figure 40***. If the terminus of the last section is not within this distance, use the **telescopic vent section SV4.5LA,** as the last vent section. For wall thicknesses greater than that shown in ***Figure 40***, refer to ***Table 8 on Page 22***. This table lists the additional venting components needed (in addition to the termination and adaptor) for a particular range of wall thicknesses.

K. Attach termination adaptor. Attach the adaptor (adaptor - SV4.5RCH - provided with the termination) to the vent section or telescoping vent section), elbow or appliance collar as shown in ***Figure 40*** in the same manner as any SV4.5 vent component (refer to **Step E**).

L. Install Firestop/Spacer at exterior wall. When using the **square** termination, install SV4.5HF (Secure Vent®), SF4.5HF (Secure Flex®) Firestop/Spacer over the opening at the exterior side of the framing, long side up, with the 3 inch spacer clearance at the top as shown in ***Figure 40***, and nail into place. The Firestop/Spacer may also be installed over the opening at the interior side of the framing. The gap between the vent pipe and a firestop can be sealed with noncombustible caulking.

M. Install the desired termination.

1. Install the square termination (SV4.5HT-2). From outside the exterior wall, slide the collars of the termination onto the adaptor (the outer over the outer and the inner inside the inner) until the termination seats against the exterior wall surface to which it will be attached. Orient the housing of the termination with the arrow pointed upwards. Secure the termination to the exterior wall. **The horizontal termination must not be recessed into the exterior wall or siding by more than the 1-1/4" (32 mm) as shown in *Figure 41*.**

SVHRK Snorkel Cap: The snorkel cap is designed to be fitted into a basement window box. The SVHRK cap is for use with flex vent. The vertical distance between the inlet and outlet of the cap is 28 in. (711 mm).

IMPORTANT: The vent termination is HOT while in operation and for a period of time following the use of the fireplace. To prevent contact with hot surfaces, we recommend the use of a Termination Guard *(see Page 36).* This can be purchased at your local dealer.

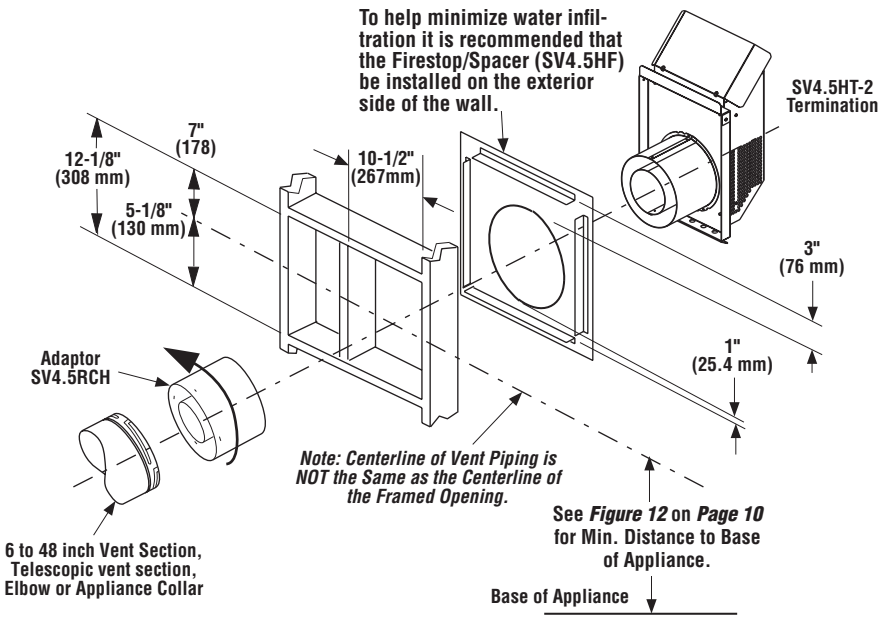


Figure 40: Installing the Square Horizontal Termination (SV4.5HT-2)

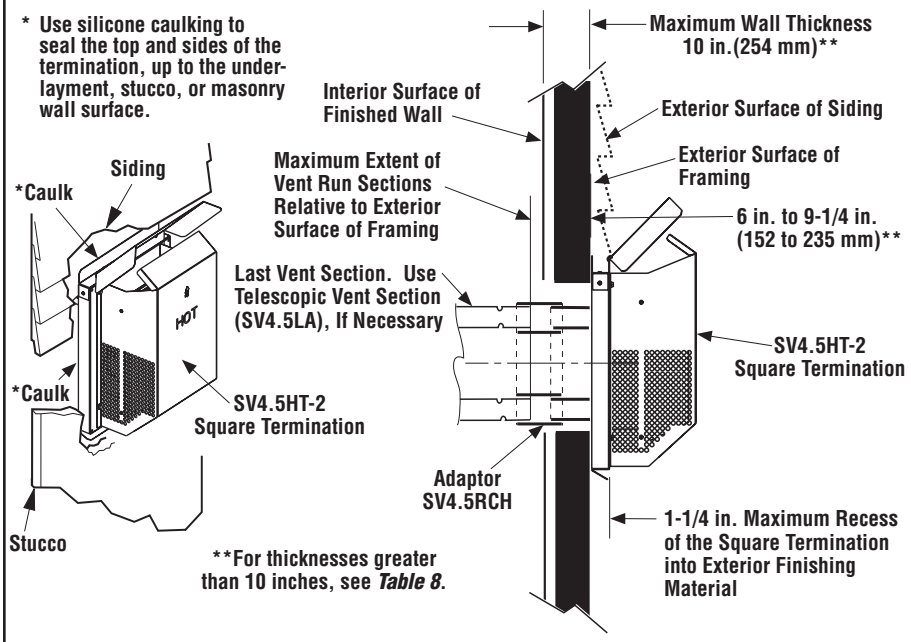


Figure 41

Venting Connection and Exterior Wall Recessing of the Horizontal Square Termination (SV4.5HT-2).

Horizontal terminations have been designed to perform in a wide range of weather conditions. Our terminations meet or exceed industry standards.

When selecting the locations of your horizontal terminations, do not place the termination where water from eaves and adjoining rooflines may create a heavy flow of cascading water onto the termination cap. If the cap must be placed where the possibility of cascading water exists, it is the responsibility of the builder to direct the water away from the termination cap by using gutters or other means.

Take care to carefully follow the installation instructions for the termination, including the use of silicone caulking where required.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

HORIZONTAL VENT FIGURES/TABLES

Note:

- ***Secure Vent***® *components (rigid vent pipe and terminal) are shown in the figures;* ***Secure Flex***® *components (flexible vent pipe and terminal) may also be used.*
- *Two 45-degree elbows may be used in place of one 90 degree elbow. The same rise to run ratios, as shown in the venting figures for 90 elbows, must be followed if 45-degree elbows are used.*
- ***It is very important that the horizontal/inclined run be maintained in a straight (no dips), slightly elevated plane. The recommended incline is approximately 1/4" per foot (20 mm per meter) horizontal, in a direction away from the fireplace.*** *The rise per foot run ratios that are smaller are acceptable all the way down to at or near level.*
- *SV4.5VF (Secure Vent), SF4.5VF (Secure Flex) firestop/spacer must be used anytime vent pipe passes through a combustible floor or ceiling. SV4.5HF (Secure Vent), SF4.5HF (Secure Flex) firestop/spacer must be used anytime vent pipe passes through a combustible wall.*

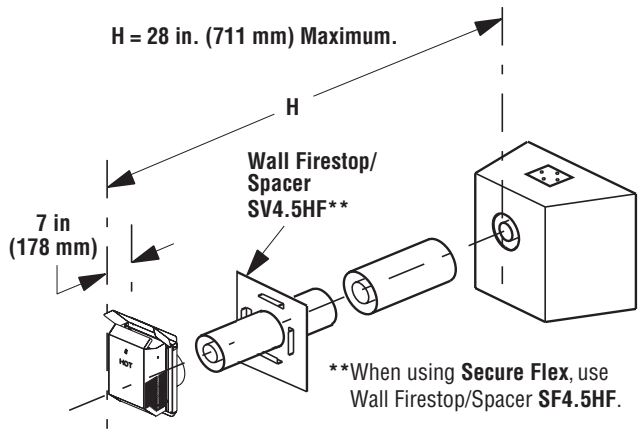
⚠ WARNING

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

Venting Components Required for Various Exterior Wall Thicknesses, when using Typical Termination Kits	
Vent Components Required	**Exterior Wall Thickness - inches (mm)**
Termination Kit Only	6 to 9-1/4 (152 to 235)
Termination Kit and 6 In. Vent Section (SV4.5L6)	10-3/4 to 14 (273 to 356)
Termination Kit and 12 in. Vent Section (SV4.5L12)	16-3/4 to 20 (426 to 508)
Termination Kit and Telescopic Section (SV4.5L12)	11-3/4 to 20 (299 to 508)

Table 8 *Note: See Figure 41 showing wall thickness range when using SV4.5HT-2 termination kit.*

Remove inside rear vent restrictor if vented over 7" horizontally (see Page 13).



Only the square termination (SV4.5HT-2) may be used.

See ***Table 8*** as an aid in venting component selection for a particular range of exterior wall thicknesses.

Figure 42: Rear Vent - NO ELBOWS

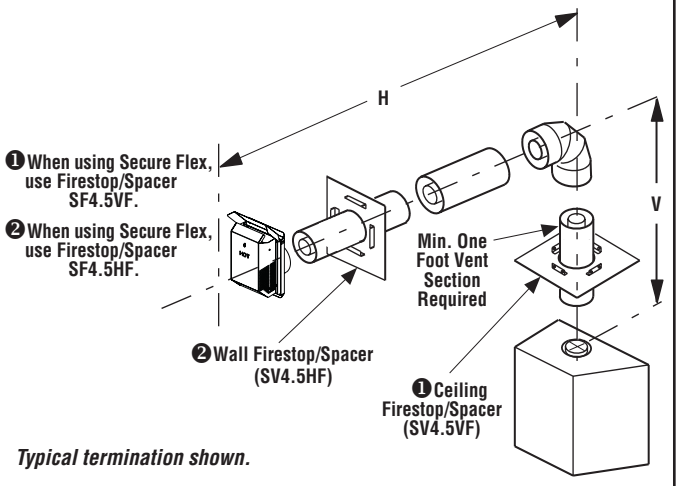
TABLE E			
H Maximum		**V Minimum**	
feet	**(meters)**	**feet**	**(meters)**
3	**(0.914)**	*****	**(0.061)**
7	**(2.134)**	**3**	**(0.914)**
11	**(3.35)**	**4**	**(1.22)**
14	**(4.267)**	**5**	**(1.524)**
18	**(5.49)**	**6**	**(1.729)**
20	**(6.2)**	**7**	**(2.134)**
V + H = 40 feet (12.2 m) Max. H = 20 ft. (6.096 m) Max.			

Example: *If 20 feet of (H) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

Note:

- ***An elbow may NOT be attached directly to the vent collar.***
- ***Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See Pages 13 and 14.***

**** Minimum 1 ft. section and elbow***

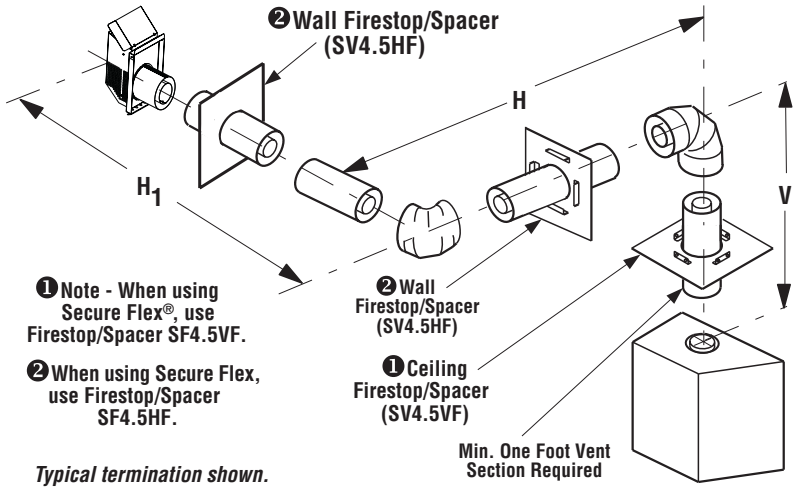


Typical termination shown.

See Table 8 as an aid in venting component selection for a particular range of exterior wall thicknesses.

Figure 43: Top Vent - ONE 90-DEGREE ELBOW

HORIZONTAL VENT FIGURES/TABLES (continued)



Typical termination shown.

TABLE F			
H Maximum		V Minimum	
feet	(meters)	feet	(meters)
3	(0.914)	*	(0.061)
7	(2.134)	3	(0.914)
11	(3.35)	4	(1.22)
14	(4.267)	5	(1.524)
18	(5.49)	6	(1.729)
20	(6.2)	7	(2.134)
V + H + H1 = 40 feet (12.2 m) Max. H + H1 = 20 ft. (6.096 m) Max.			

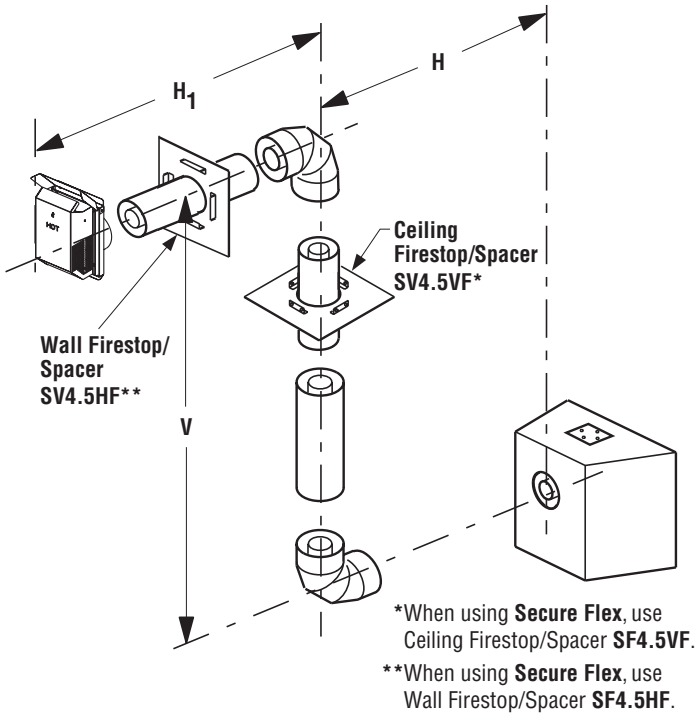
Example: *If 20 feet of (H + H_1) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

Note:

- ***An elbow is acceptable as 1 ft. of vertical rise.***
- ***An elbow may NOT be attached directly to the vent collar.***
- ***Install the U-shaped vent restrictor in any run with more than 8 ft. of vertical rise (see Pages 13 and 14).***
- ***See Table 8 on Page 22 as an aid in venting component selection for a particular range of exterior wall thicknesses.***

**** Minimum 1 ft. section and elbow***

Figure 44: Top Vent - TWO 90-DEGREE ELBOWS



Square termination (SV4.5HT-2) shown.

TABLE G					
H+H_1 Maximum		H Maximum		V Minimum	
feet	(meters)	feet	(meters)	feet	(meters)
5	(1.524)	2	(0.610)	1	(0.305)
10	(3.048)	4	(1.219)	2	(0.610)
15	(4.572)	6	(1.829)	3	(0.914)
20	(6.096)	8	(2.438)	4	(1.219)
V + H + H_1 = 40 feet (12.2 m) Max. H = 8 feet (2.438 meters) Max. H + H_1 = 20 feet (6.096 meters) Max.					

This table shows a 1 (V) to 5 (H) ratio. For every 1 foot of (V) vertical, you are allowed 5 feet of (H) horizontal run, up to a maximum horizontal run of 20 feet.

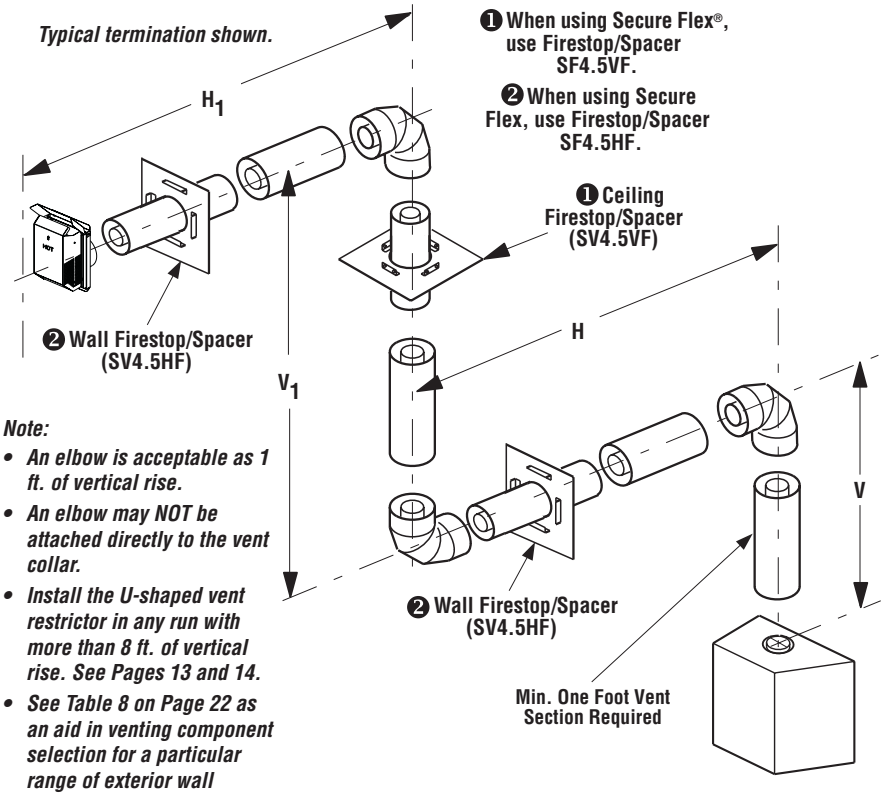
Example: *If 20 feet of (H) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

See Table 8 on Page 22 as an aid in venting component selection for a particular range of exterior wall thicknesses.

Note: Install the U-shaped vent restrictor in any run with more than 8 ft. of vertical rise. See Pages 13 and 14.

Figure 45: Rear Vent - TWO 90-DEGREE ELBOWS

HORIZONTAL VENT FIGURES/TABLES (continued)



Note:

- ***An elbow is acceptable as 1 ft. of vertical rise.***
- ***An elbow may NOT be attached directly to the vent collar.***
- ***Install the U-shaped vent restrictor in any run with more than 8 ft. of vertical rise. See Pages 13 and 14.***
- ***See Table 8 on Page 22 as an aid in venting component selection for a particular range of exterior wall thicknesses.***

** Minimum 1 ft. section and elbow*

TABLE H

H Maximum		V Minimum	
feet	(meters)	feet	(meters)
3	(0.914)	*	(0.061)
7	(2.134)	3	(0.914)
11	(3.35)	4	(1.22)
14	(4.267)	5	(1.524)
18	(5.49)	6	(1.729)
20	(6.2)	7	(2.134)

H + H1 = 20 feet (6.096 m) Max.
V + V + H + H = 40 ft. (12.192 m) Max.

Example: *If 20 feet total ($H+H_1$) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

Figure 46: Top Vent - THREE 90-DEGREE ELBOWS

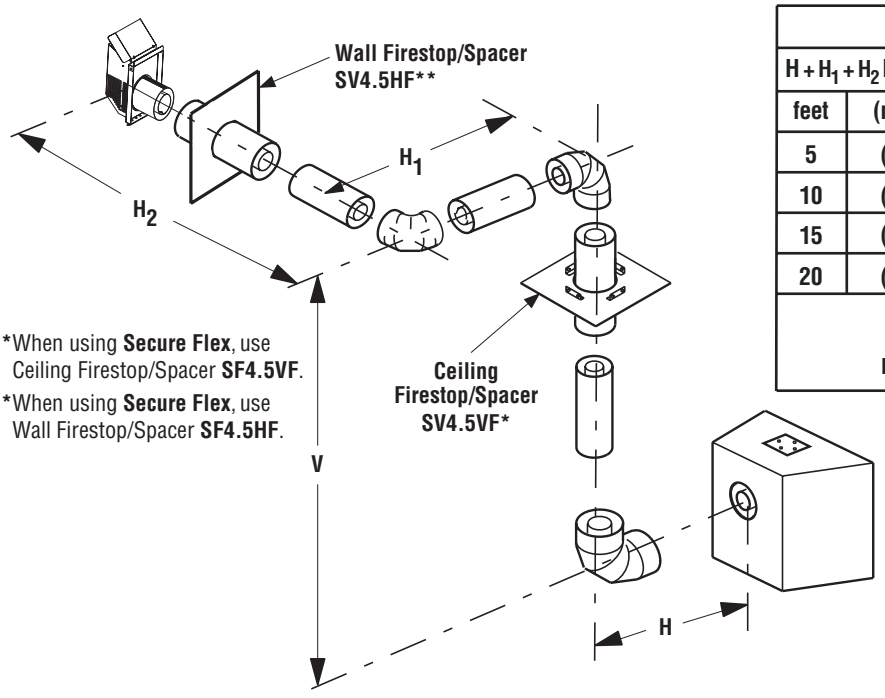


TABLE I

$H + H_1 + H_2$ Maximum		H Maximum		V Minimum	
feet	(meters)	feet	(meters)	feet	(meters)
5	(1.524)	2	(0.610)	1	(0.305)
10	(3.048)	4	(1.219)	2	(0.610)
15	(4.572)	6	(1.829)	3	(0.914)
20	(6.096)	8	(2.438)	4	(1.219)

$V + H + H_1 + H_2 = 40$ feet (12.2 m) Max.
H = 8 feet (2.438 meters) Max.
$H + H_1 + H_2 = 20$ feet (6.096 meters) Max.

This table shows a 1 (V) to 5 (H) ratio. For every 1 foot of (V) vertical, you are allowed 5 feet of (H) horizontal run, up to a maximum horizontal run of 20 feet.

Example: *If 20 feet of (H) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.*

Note: Install the U-shaped vent restrictor in any run with more than 8 ft. of vertical rise. See Pages 13 and 14.

Square termination (SV4.5HT-2) shown.

See ***Table 8 on Page 22*** as an aid in venting component selection for a particular range of exterior wall thicknesses.

Figure 47: Rear Vent - THREE 90-DEGREE ELBOWS

VERTICAL OR HORIZONTAL VENTING USING *SECURE FLEX®* KITS AND COMPONENTS

Secure Flex® venting kits and components may be used in any venting application where rigid **Secure Vent®** (SV4.5) direct vent components can be used. All restrictions, clearances and allowances that pertain to the rigid piping apply to the flexible venting. ***Secure Flex* kits may not be modified; also, under no circumstances may separate sections of flex pipe be joined together**. **Secure Flex** kits may be added to the end of a vent run made up of rigid **Secure Vent** (SV4.5) vent sections provided that doing so does not violate any of the venting length, height, routing, horizontal to vertical ratio requirements or clearance considerations detailed in this manual.

Secure Flex kits come with an included adaptor that can be fitted to the appliance collar or the inclined channel end of the last **Secure Vent** (SV4.5) vent section in a rigid system in the exact same fashion as any other **Secure Vent** section. Align the dimpled end of the adaptor over the previously installed section or appliance collar, adjusting the radial alignment until the four locking dimples of the adaptor are aligned with the inlets of the four incline channels of the last vent section or collar. Push on the adaptor until it fully engages, then twist the adaptor clockwise running the dimples down and along the incline channels until they seat at the end of the channels.

Attach the flexible vent to the adaptor as follows *(see Figure 48)*:

A. Install the Inner Flex Pipe.

1. Install the small gear clamp loosely around the inner flexible vent pipe, push it back out of the way.

2. Apply a bead of **Mill-Pac Black (700°F) high temperature sealant - Catalog No. 10K81)** to the inner adaptor collar, approximately 1/2 inch from the end.

3. Pull and extend the inner flexible vent pipe.

4. Slide the inner flex pipe over the adaptor collar. Ensure the flexible vent pipe completely engages the adaptor collar to a distance of 1 3/4 inches from the end, and that it is free from damage or tears.

5. Slide the gear clamp down and tighten it fully to secure the flexible vent to the adaptor inner collar approximately 3/4 inch from the end of the flex.

6. Install **three screws 120 degrees apart** through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.

B. Install the Outer Flex Pipe.

1. Install the large gear clamp loosely around the outer flexible vent pipe, push it back out of the way.

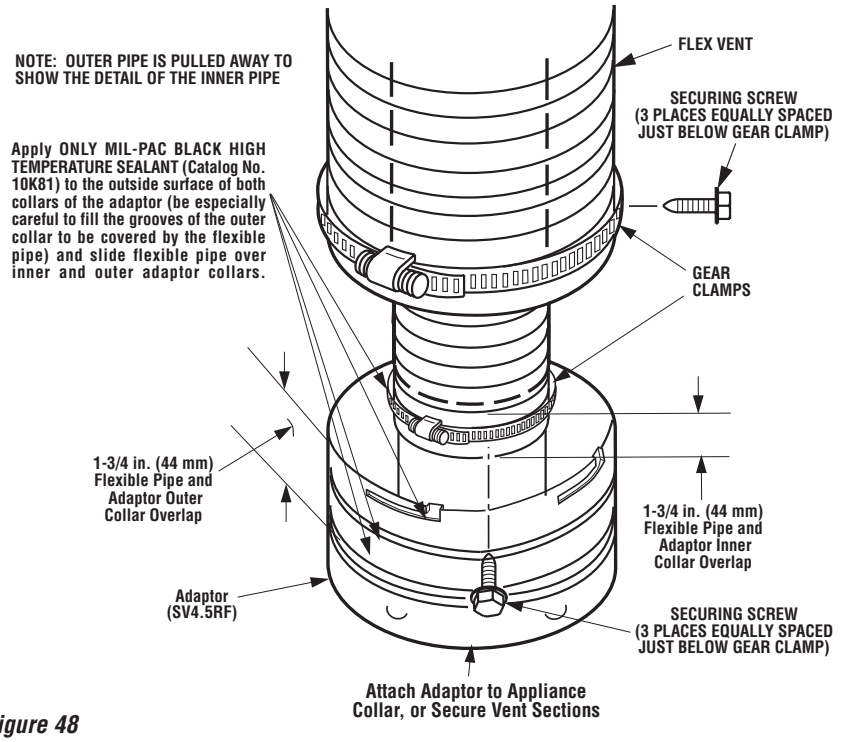


Figure 48

2. Apply a bead of **Mill-Pac Black (700°F) high temperature sealant - Catalog No. 10K81)** to the outer adaptor collar; to the grooves of the collar which extend approximately 1 inch from the end and to the flat surface, approximately 1-3/8 inches from the end.

3. Pull and extend the outer flexible vent pipe.

4. Slide the outer flex pipe over the adaptor collar. Ensure the flexible vent pipe completely engages the adaptor collar to a distance of 1 3/4 inches from the end, and that it is free from damage or tears.

5. Slide the gear clamp down and tighten it fully to secure the flexible vent to the adaptor outer collar approximately 3/4 inch from the end of the flex.

6. Install **three screws 120 degrees apart** through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.

C. Route Flex Vent.

Ensure that the flex vent is properly routed to provide the required clearance. Do Not allow the flexible vent to bend in a radius tighter than 5" (127 mm). Refer to ***Figure 49***. Space out the internal flex vent spacers evenly and avoid kinking of inner pipe. Support horizontal sections of flex with metal straps at 2 foot (0.61 m) intervals.

D. Install Firestop/Spacers at ceilings and walls.

When Secure Flex penetrates a wall or ceiling, a firestop/spacer is required: use the SF4.5 VF firestop/spacer for ceilings and the SF4.5 HF firestop/spacer for walls.

See the appropriate sections and figures shown throughout the venting section for their installation requirements.

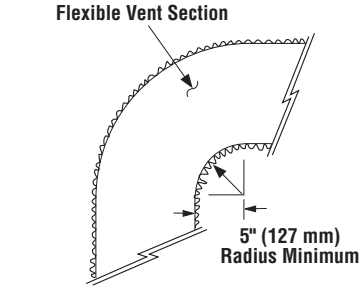


Figure 49

E. Attach Flex Vent to Termination.

Secure Flex components can be purchased separately and attached to bulk lengths of **Secure Flex** flexible tubing cut to size at the job site. Secure the flexible vent to the **Secure Flex** terminations in the same manner *(see **Figure 48**)* as it was attached to the adaptor.

Note: Secure Flex vent must be attached to Secure Flex terminations only. DO NOT substitute Secure Vent terminations or the Secure Vent adaptor for Secure Flex components. The collars of Secure Flex terminations and adaptors have a different circumference than that used with the Secure Vent pipe. Additionally, Secure Flex components have an extended length center tube for use in attaching the flexible vent.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Step 5. 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.

Electronic Wiring *(see Figures 50 and 51)*

All 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 10.***
3. Remove the cover plate's knockout and then feed the power supply wire through the knockout opening and into the unit junction box.
4. Connect the black power supply wire to the **lower outlet's** red and black pigtail leads and the white power supply wire to the **common** terminal of the outlet as shown in ***Figures 50 and 51.***
5. **Connect the ground supply wire to the pigtail lead attached to outlet's green ground screw.**
6. After the wiring is complete, replace the cover plate.
7. Acquire and locate a standard junction box on the wall adjacent to the appliance within the reach of the remote system umbilical cord wiring harness. Position the 14 pin terminal within the junction box in preparation for its attachment to the remote receiver.

⚠ 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.

8. When wall finish is complete install the receiver in the previously located junction box and connect the 14 pin terminal to the 14 pin connector on the back of the receiver.
9. Install the receiver cover plate, taking care to ensure the receiver switch is properly indexed with the switch cover when aligning the components for attachments.

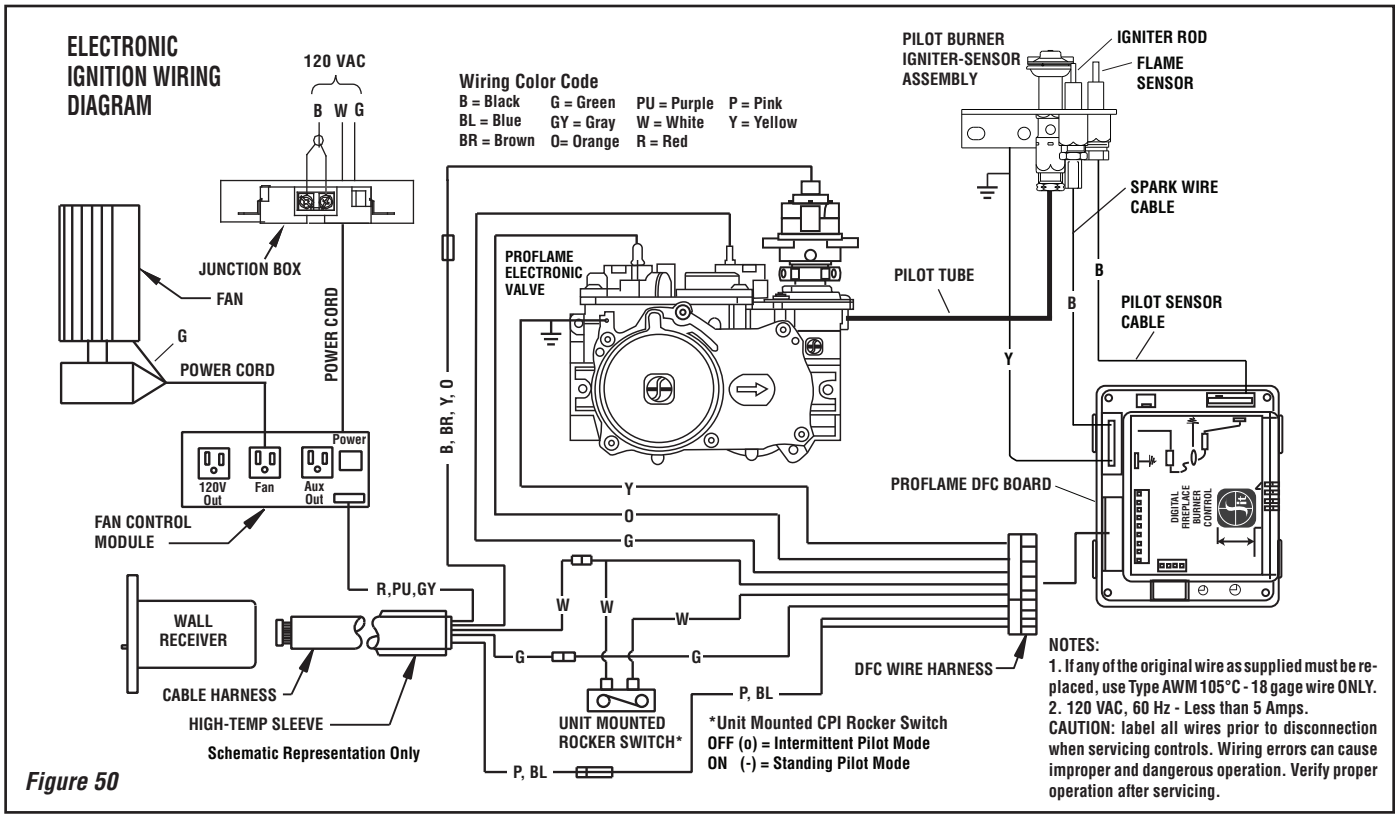


Figure 50

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

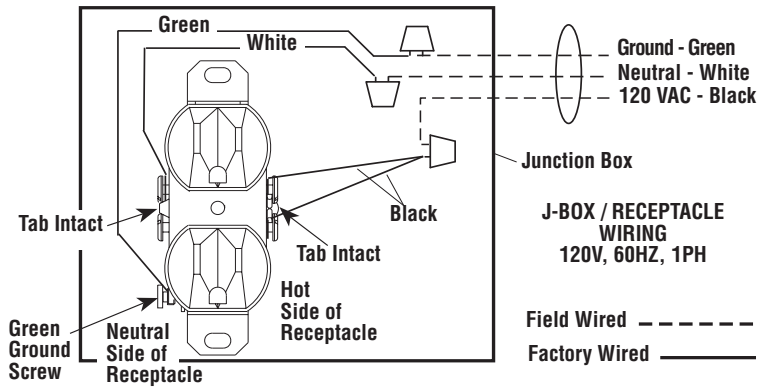


Figure 51- J-Box Wiring

Step 6. REMOTE CONTROL SYSTEM

The remote control system allows you to operate your fireplace from the comfort of your chair and is configured to control the ON/OFF primary burner operation, its flame levels (through six levels) and provides ON/OFF and Smart thermostatic control of the appliance

The system controls fan speed through six (6) levels and has a constantly powered 120V/60Hz power outlet.

The Receiver connects directly to the gas valve, stepper motor and the Fan Control Module with and umbilical cord wiring harness.

The Receiver is powered by 4 AA type batteries, located within.

The Receiver accepts commands via radio frequency from the Transmitter and does not require line-of-sight operation.

The Receiver three position slider switch can be set to one of three positions: ON (Manual Override), REMOTE (Remote Control) or OFF.

Initializing The System For The First Time

Install the 4 AA batteries into the receiver battery bay (behind the wall switch plate).

Note: *The polarity of the battery and insert into the battery bay as indicated on the Battery cover* (+/-).

Place the 3 position slider switch on the wall receiver in the "Remote" position *(see **Figure 50 and Page 35**)*. Using the end of a paper clip, or other similar object, insert the end of the paper clip into the hole marked "PRG" on the Receiver front cover. The Receiver will "beep" three (3) times to indicate that it is ready to synchronize with a Transmitter.

Install the 3 AAA type batteries in the Transmitter battery bay, located on the base of the Transmitter. With the batteries already installed in the Transmitter, push the ON button. The Receiver will "beep" four times to indicate the Transmitter's command is accepted and sets to the particular code of that Transmitter. The system is now initialized.

Low Battery Power Detection

The life span of the Receiver batteries depends on various factors: quality of the batteries used, the number of ignitions of the appliance, the number of changes to the room thermostat set point, etc.

When the Receiver batteries are low, two "beeps" will be emitted from the Receiver when it receives and ON/OFF command from the Transmitter. This is an alert for a low battery condition for the Receiver. When the batteries are replaced the "beep" will be emitted from the Receiver when the ON/OFF key is pressed (See Initializing The System).

Refer to the fireplace *Care and Operation Instructions* for detailed remote control system operation instructions.

⚠ WARNING

Fire hazard. Can cause severe injury or death. The receiver causes ignition of the appliance. The appliance can turn on suddenly. Keep away from the appliance burner when operating the remote system or activating manual bypass of the remote system.

⚠ CAUTION

Property damage hazard. Excessive heat can cause property damage. The appliance can stay lit for many hours. Turn off the appliance if it is not going to be attended for any length of time. Always place the Transmitter where children cannot reach it.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

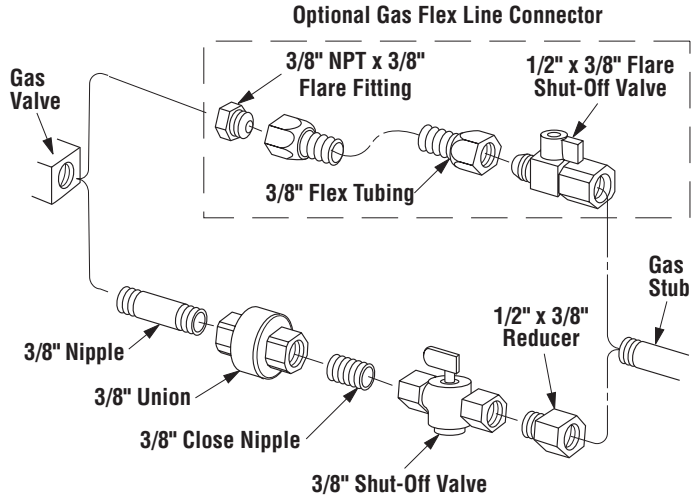


Figure 52: Gas Connection

Step 7. CONNECTING GAS LINE

Make gas line connections. All codes require a shut-off valve mounted in the supply line. ***Figure 52*** 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 52*** 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 lower control compartment door by pushing in the right top corner 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.

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 receiver or remote control to the "OFF" position. 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.

Step 8. VERIFYING APPLIANCE OPERATION

With gas line installed, run initial system checkout before closing up the front of the unit. Follow the lighting instructions provided in the *Care and Operation Instructions*.

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 by pushing in the right top corner 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.*

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).

Electronic Appliance Checkout

To light the burner, turn on the remote control. Ensure the igniter lights the pilot. The pilot flame should engulf the flame rod as shown in ***Figure 53***.

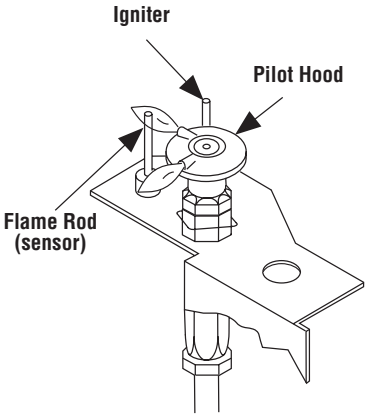


Figure 53

Step 9. INSTALL VOLCANIC STONE, GLOWING EMBERS, AND LOGS

⚠ WARNINGS

- **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.**

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

Step 1. Remove the appliance front door *(see Removing Glass Enclosure Panel on **Page 32**)*.

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).*

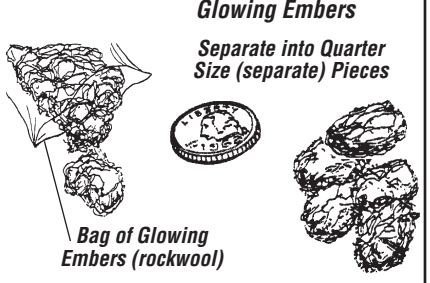


Figure 54

Step 3. Separate the Glowing Embers into pieces about the size of a quarter *(**Figure 54**)*. Keep the pieces fluffed up, not matted.

Distribute the pieces over the front surface of the burner, as shown in ***Figure 55***, ***but DO NOT PLACE OVER BURNER SLOTS***.

Do not use more than necessary. The ember material should cover approximately 65% of the front burner, with no appreciable gaps or openings. Make sure the main burner ports are NOT covered by the ember material.

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 56 and 57***. 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.**

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 56*** for MPDP35 Series appliances and ***Figure 57*** for MPDP40 Series appliances.

REFERENCE
Firebox Accessories / Parts

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

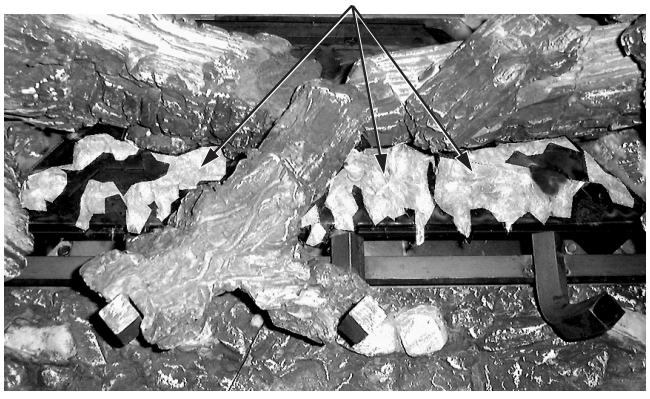
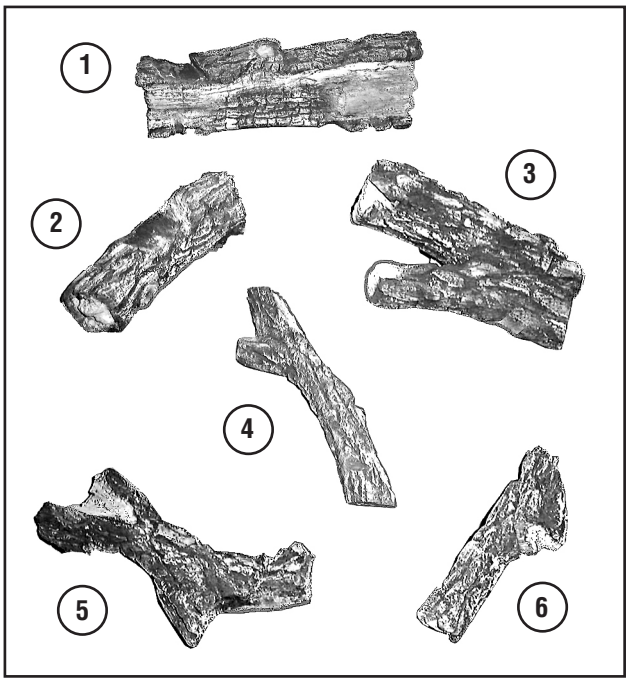


Figure 55

MPDP35 LOG PLACEMENT

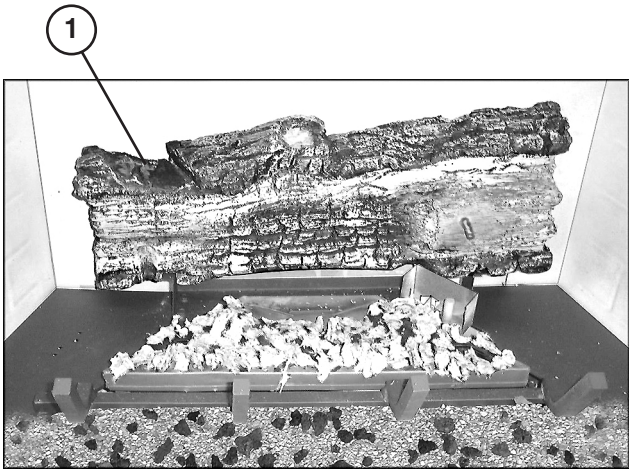


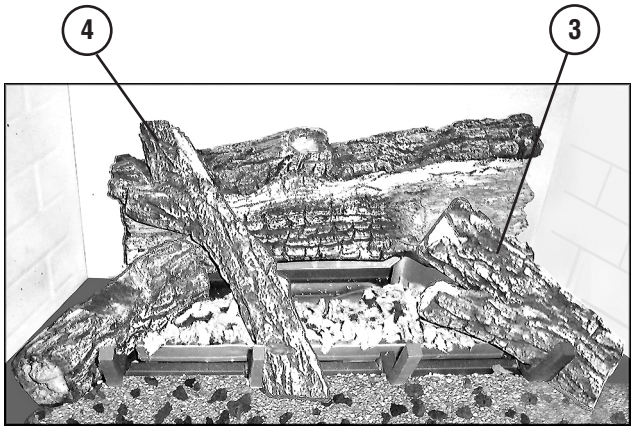
Log Number	Description (Stamped #)
1	Log, Rear (39-5)
2	Log, Left (39-1)
3	Log, Right (39-2)
4	Log, Top Center (39-6)
5	Log, Top/Left (39-3)
6	Log, Top/Right (39-4)

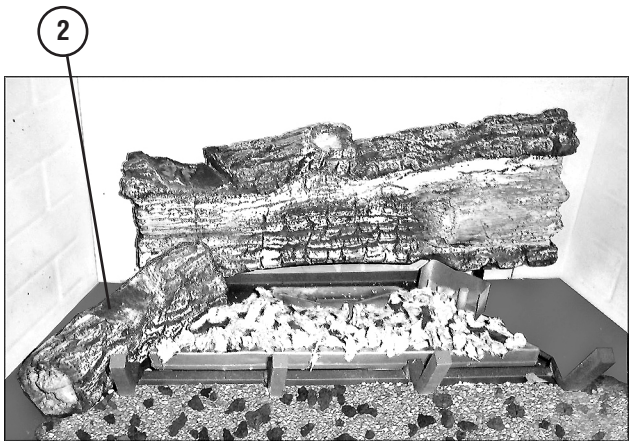
Catalog Number for the entire log set: H6197

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.







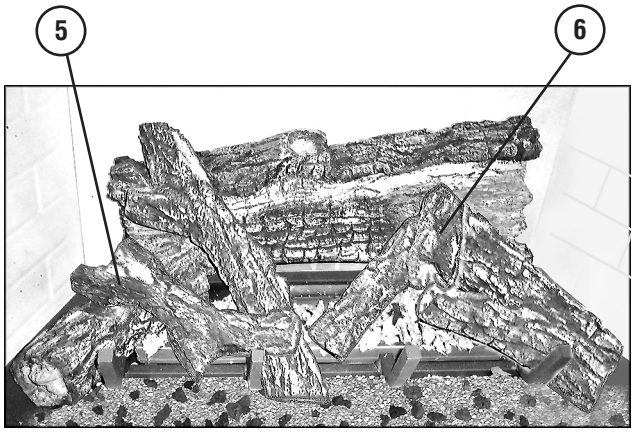
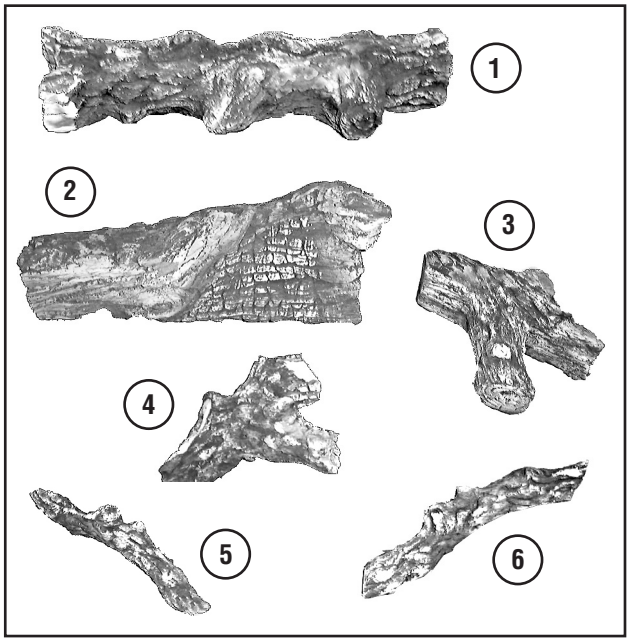


Figure 56

MPDP40 LOG PLACEMENT

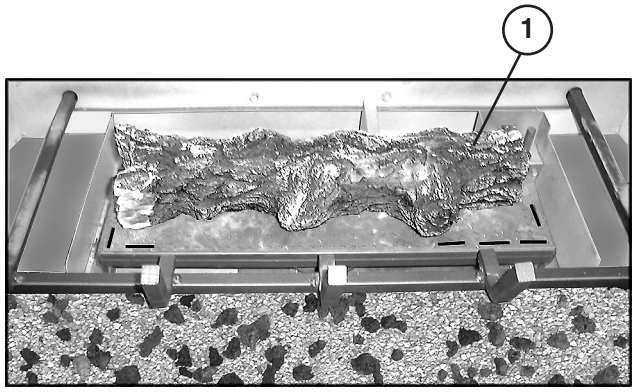


Log Number	Description (Stamped #)
1	Log, Center (39-8)
2	Log, Rear (138)
3	Log, Right (39-10)
4	Log, Left (39-9)
5	Log, Top/Left (39-11)
6	Log, Top/Right (39-11)

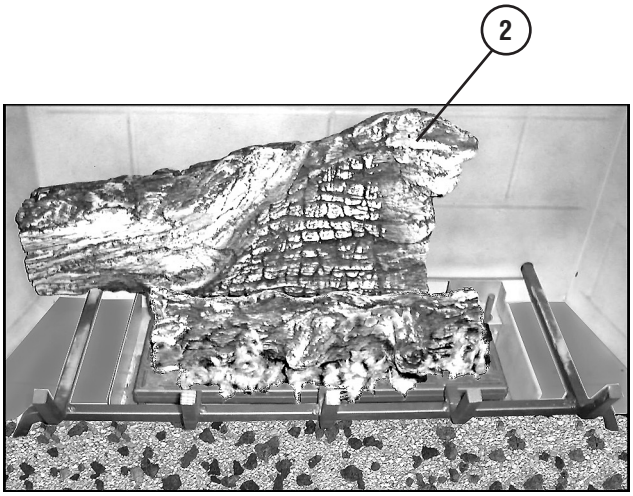
Catalog Number for the entire log set: 24M25

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 55***. 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.







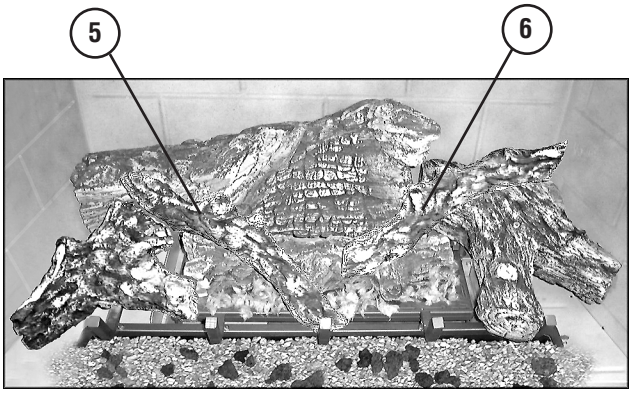


Figure 57

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 these doors, 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

Remove the top radiant panel.

To access the two glass door securing latches, first open the lower control compartment door ***(Figure 58)*** by pushing in the right top corner of the door (the door is hinged at the bottom).

[Optional] 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 two latches at the top of the lower control compartment, and disengage them from the door frame bottom vee-flange by pulling the latches forward and down to release them from the door channel.

Pull the bottom of the door out a few inches and grasp it on the right and left. Gently lift to release the door from its channel above the door. Pull the door forward.

Installing the Glass Enclosure Panel

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 ***(Figure 58)***. 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 two latches located underneath the firebox floor to the door's vee-flange. Close both the latches securely.

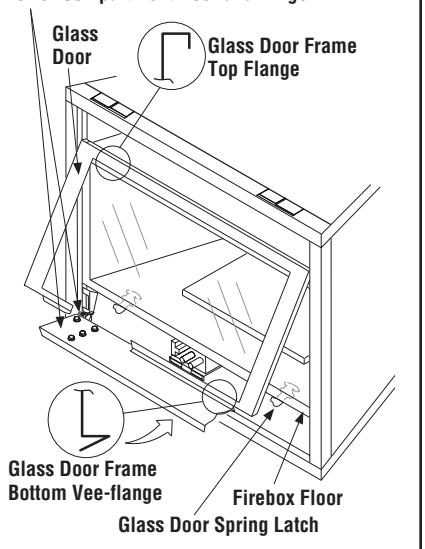


Figure 58

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.

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**

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Burner Flame Adjustments

⚠ WARNINGS

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

⚠ CAUTIONS

- **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 59 and 60*** for proper flame appearance. To adjust the flame, rotate the adjustment rod toward the back or toward the front of the fireplace (rod located in the lower control area). Position the air shutter to the factory setting as shown in the table in ***Figure 61***.
2. Light the 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.

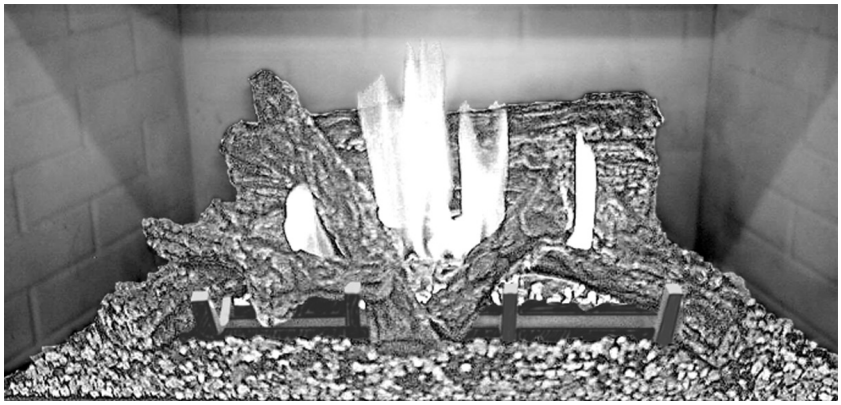


Figure 59 - Burner Flame Appearance, Model MPDP35

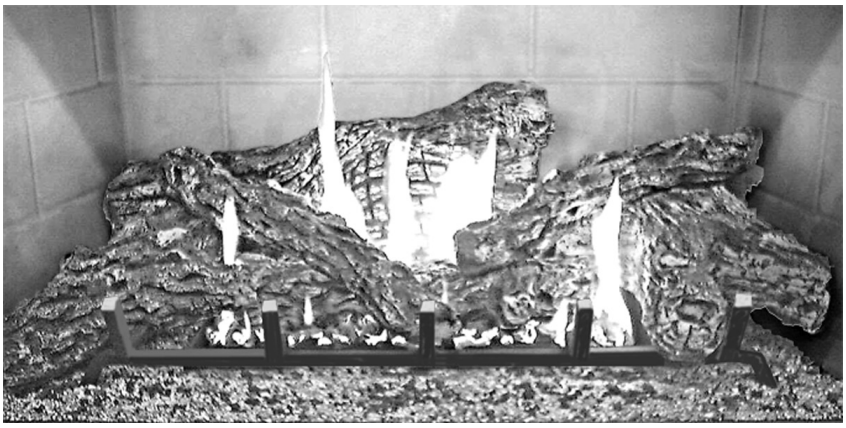
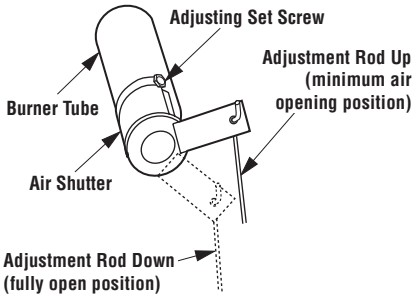


Figure 60 - Burner Flame Appearance, Model MPDP40



Models	Gas Type	**FACTORY AIR SHUTTER SETTING** inches (mm)
MPDP35	Nat.	1/16 (1.6)
	Prop.	3/16 (4.76)
MPDP40	Nat.	1/8 (3.2)
	Prop.	3/8 (9.6)

Figure 61

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Step 12. HOOD INSTALLATION

All models must have hoods installed prior to operating.

Slide the hood into the slots on the lower edge of the radiant panel *(**Figure 62**)*.

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 *(**Figure 62**)*.

See Page 5 for Cold Climate Insulation and Page 8 for Clearances.

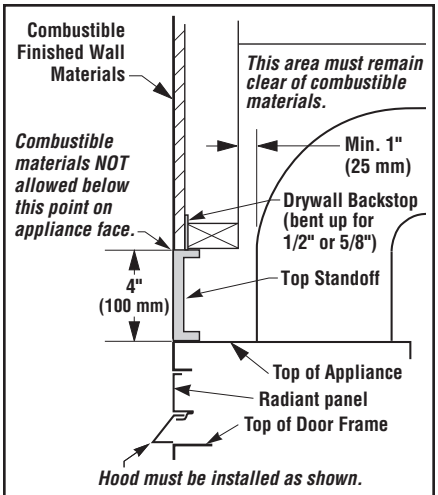


Figure 62

STEP 13. INSTALLER INSTRUCTIONS - ATTACHING SAFETY IN OPERATION WARNINGS

It is the installer's 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 set of safety instruction labels that have been furnished with the fireplace be affixed to the operation and control points of the fireplace. A safety instruction label must be affixed to the receiver wall switch plate where the fireplace is turned on and off *(See **Figure A**)* and on the remote control handheld transmitter *(See **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 receiver that controls the fireplace (verify the switch operates the fireplace by turning it on and off). Clean the wall receiver plate thoroughly to remove any dust and oils. Affix the label to the surface of the plate of the wall receiver that controls the fireplace *(**Figure A**)*. Choose the language primarily spoken in the home. If unknown, affix the English language label.
2. Locate the remote control 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 le jeu d'étiquettes de sécurité qui ont été fournies avec le foyer soient collées à côté des dispositifs de contrôle du foyer. Une étiquette de sécurité doit être collée sur la plaque du récepteur mural contrôlant l'allumage du foyer *(voir **Figure A**)* et 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 le récepteur mural 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 du récepteur mural pour éliminer la poussière et les traces de graisse ou d'huile. Collez l'étiquette sur la surface de la plaque du récepteur 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. Repérez la télécommande et 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 el juego de etiquetas de instrucciones de seguridad que se incluyeron con la chimenea se coloque en los puntos de operación y control de la misma. Se debe colocar una etiqueta de instrucciones de seguridad en la placa del interruptor de pared del receptor desde el cual se enciende y se apaga la chimenea *(ver la **Figura A**)* y en el transmisor de control remoto *(ver la **Figura B**)*. 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 receptor de pared que controla la chimenea (verifique que el interruptor opera la chimenea encendiéndola y apagándola). Limpie bien la placa del receptor de pared para quitar el polvo y aceite. Pegue la etiqueta en la superficie de la placa del receptor de pared 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. Identifique el transmisor de control remoto 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

WARNING
EXTREMELY HOT
glass and fireplace
Risk of Severe Burns
ALWAYS KEEP CHILDREN AWAY FROM FIREPLACE

DIAGRAMMES DES ÉTIQUETTES DE SÉCURITÉ

AVERTISSEMENT
Vitre et foyer
EXTRÊMEMENT CHAUDS
Risque de brûlures graves
Toujours tenir les enfants á l'écart du foyer

DIAGRAMAS DE ETIQUETAS DE SEGURIDAD

ADVERTENCIA
Vidrio y chimenea
EXTREMADAMENTE CALIENTES
Riesgo de quemaduras graves
Siempre mantenga a los niños alejados de la chimenea

Figure A

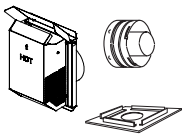
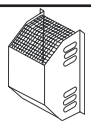
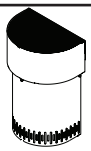
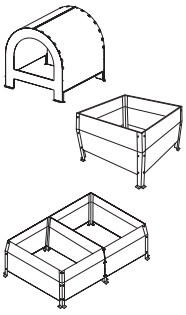


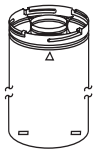
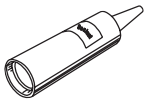
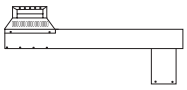
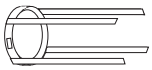
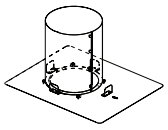
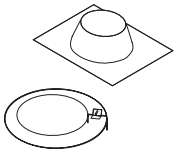
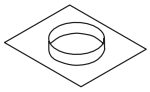
Figure B



NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

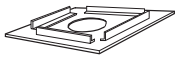
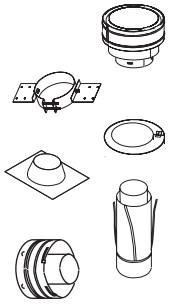
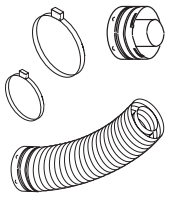
INSTALLATION ACCESSORIES

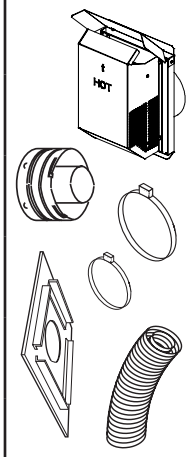
Listed Secure Vent® Components			
	Cat. No.	Model	Description
	H1968	SV4.5HT-2	Horizontal Square Termination with Firestop/ Spacer (H2246) and Adaptor (74L61)
	H2152	SV4.5CGV-1	Vertical Termination Cap, High Wind
	87L02	SV4.5HGS	Termination Guard for Horizontal Square Termination (Deluxe) (1 pack) *(Ref. Instr. #750055M)*
	H5820	SV4.5HTSK	Termination Shroud (Guard) for Horizontal Square Termination (1 pack) *(Ref. Instr. #750246M)*
	H3907	SV4.5ARSA	Attic Insulation Shield w/ adjustable height, 12"-22"
	H1988	CTSA-33	Chase Top Shroud Kit, Arch Top 3 X 3 Ft., *(Ref. Instr. #750194M)*
	H1985	CTSO-33	Chase Top Shroud Kit, Open Top 3 X 3 Ft., *(Ref. Instr. #750193M)*
	H1987	CTSO-44	Chase Top Shroud Kit, Open Top 4 X 4 Ft., *(Ref. Instr. #750193M)*
	H1986	CTSO-46	Chase Top Shroud Kit, Open Top 4 X 6 Ft., *(Ref. Instr. #750193M)*

Listed Secure Vent Components			
	Cat. No.	Model	Description
Vent Sections (Rigid) 	77L70	SV4.5L6	6 Inch (152 mm)
	77L71	SV4.5L12	12 Inch (305 mm)
	77L72	SV4.5L24	24 Inch (610 mm)
	77L73	SV4.5L36	36 Inch (914 mm)
	77L74	SV4.5L48	48 Inch (1219 mm)
	77L75	SV4.5LA	Telescopic Length Slip Section (2" to 7-1/2" rigid)
	77L76	SV4.5E45	45 Degree Elbow
	77L77	SV4.5E90	90 Degree Elbow
	10K81	SFMP	Mill-Pac, Black, High-Temperature Sealant
	99L02	SV4.5HRK14	Horizontal Riser Kit, 14", *(Ref. Instr. #750146M)*
	99L03	SV4.5HRK36	Horizontal Riser Kit, 36", *(Ref. Instr. #750146M)*
	96K93	SV4.5SU	Support Strap
	H5816	SV4.5-TWSK10	Through Wall Shield Kit (used to shield the direct-vent pipe from blown insulation) *(Ref. Instr. #750247M)*
The following flashings come packaged with a storm collar:			
	77L78	SV4.5F	Flat Roof Flashing
	77L79	SV4.5FA	1/12 to 7/12 Adjustable Flashing
	77L80	SV4.5FB	7/12 to 12/12 Adjustable Flashing
	77L81	SV4.5SC6	Storm Collar (6 per box)
	H6183	SV4.5HF5	Firestop Spacer, 5", ***rigid***
	H6184	SF4.5HF5	Firestop Spacer, 5", ***flex***
	H2246	SV4.5HF-10	Firestop/Spacer-Horizontal, ***rigid*** (3-1-1 spacing), 10 Pack
	H2247	SV4.5VF-10	Firestop/Spacer-Vertical, ***rigid*** (1-1-1 spacing), 10 Pack
	96K92	SV4.5SP	Support Plate

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

INSTALLATION ACCESSORIES CONTINUED

Listed Secure Flex® Components			
	Cat. #	**Model**	**Description**
These termination kits include firestop/spacer, gear clamps and flex adaptor.			
	60L10	SF-18	18 feet (5.49 m) * compressed ***flex*** *(Ref. Instr. #750053M)*
	98K03	SF-12	12 feet (3.66 m)* compressed ***flex*** *(Ref. Instr. #750052M)*
	H2248	SF4.5HF-10	Firestop / Spacer - Horizontal, ***flex*** (3-1-1 spacing), 10 Pack
	H2249	SF4.5VF-10	Firestop/Spacer-Vertical, ***flex*** (1-1-1 spacing), 10 Pk
	56L74	SFVT30	Vertical Termination for ***flex*** (flat to 6/12) with flex adaptor, section of rigid vent, roof support collar assembly, roof flashing and storm collar. *(Ref. Instr. #750052M)*
	56L75	SFVT45	Vertical Termination for ***flex*** (6/12 to 12/12) with flex adaptor, section of rigid vent, roof support collar assembly, roof flashing, and storm collar. *(Ref. Instr. #750052M)*
	91L66	SFGC4-6	Gear Clamp 4.5 in. (114 mm) for ***flex*** (6 pack)
	91L67	SFGC7-6	Gear Clamp 7.5 in. (190.5 mm) for ***flex*** (6 pack)
	H7748	H7748	36" ***Flex*** Connector Kit. 36" of flex with two adaptors for mating two rigid sections of vent together.

Listed Secure Flex Components			
	Cat. #	**Model**	**Description**
	H1969	SF4.5HT-2	Horizontal Square Termination for ***flex*** (without flex vent)
	77L87	SFKIT12S	Square Term. for ***flex*** (with 12 inch [305 mm] compressed flex vent**)
	77L88	SFKIT18S	Square Term. for ***flex*** (with 18 inch [457 mm] compressed flex vent**)
	77L89	SFKIT24S	Square Term. for ***flex*** (with 24 inch [610 mm] compressed flex vent**)
	77L90	SFKIT36S	Square Term. for ***flex*** (with 36 inch [914 mm] compressed flex vent**)
	77L91	SFKIT48S	Square Term. for ***flex*** (with 48 inch [1219 mm] compressed flex vent**)

**** All compressed flex vents can be expanded up to two times.**

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/CSA-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/CSA-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 below, and the following steps detail the conversion procedure. Refer to the instructions provided with the conversion kit when performing any gas conversion.

Electronic SIT Systems Natural Gas to Propane Gas Conversion Kits	
Models	**Catalog No.**
MPDP35	H8608
MPDP40	H8609
Propane Gas to Natural Gas Conversion Kits	
Models	**Catalog No.**
MPDP35	H8610
MPDP40	H8611

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.

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 58** on **Page 32**)* 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 32**)*.

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

Step 5. On the left side of the burner, remove the two securing screws. Remove the burner assembly.

Step 6. Refer to ***Figure 64*** and the instructions provided with the SIT Regulator Conversion Kit. Using a Torx T20 (with 1/4" shank and center hole) or slotted screwdriver, remove and discard the two (2) pressure regulator mounting screws, pressure regulator tower, the diaphragm assembly (A) (if applicable) and the spring (B). Discard all removed components.

Ensure the rubber gasket (C), which is prefitted as part of the assembly, is properly positioned *(see **Figure 64**)*.

Step 7. Install the new Stepper Motor pressure regulator assembly using the supplied screws as shown in ***Figure 64***. Tighten screws securely (reference torque = 25 lb. in.).

Step 8. Install the enclosed identification label to the valve body where it can be easily seen.

Step 9. Make Stepper Motor and valve electrical connections.

Step 10. See ***Figure 63*** and replace the pilot orifice. 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.

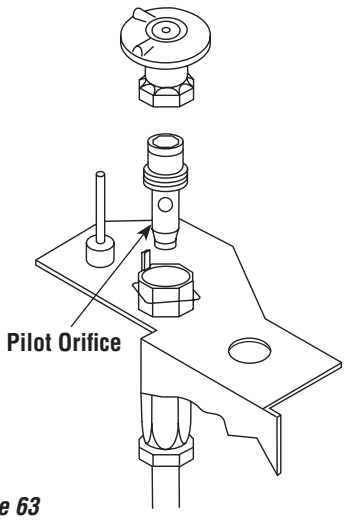


Figure 63

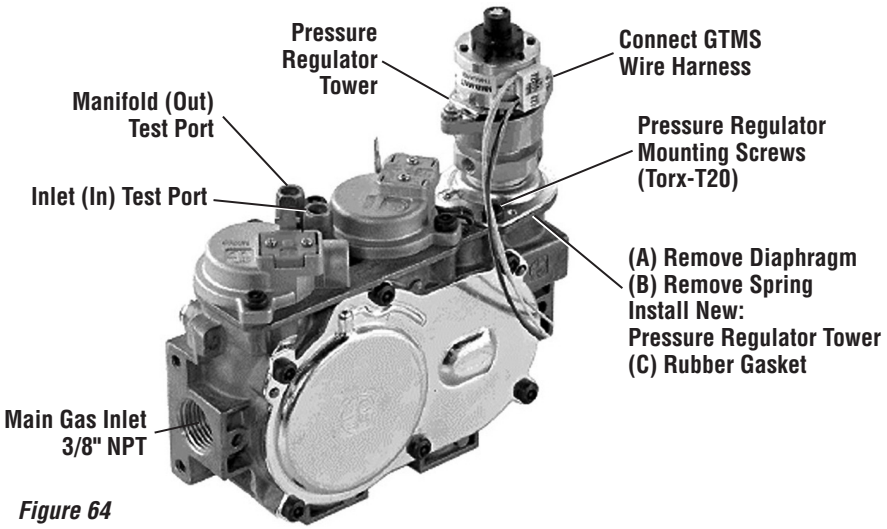


Figure 64

Step 11. Replace Burner Orifice

A. Remove the orifice from the manifold and replace it with the one provided in the kit. See ***Table 9*** for orifice sizes for natural and propane models. ***Figure 65*** illustrates the 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).**

B. Retrieve the burner and hold the venturi tube above the orifice. Place the shutter adjusting rod in the slot of the shutter arm (see ***Figure 61 on Page 34***). Set the burner assembly into its position and secure the burner assembly with the two screws previously removed.

Burner Orifice Sizes Elevation 0-4500 feet (0-1372 meters)		
Model	**Nat.Gas** drill size (inches)	**Propane** drill size (inches)
MPDP35	#42 (.093")* H3721•	#54 (.055")* 99K79•
MPDP40	#36 (.1065")* 18L40•	#52 (.063")* 21L01•

Table 9 ** Standard size installed at factory • Part /Cat. Number*

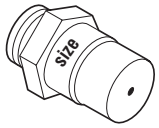


Figure 65

Step 12. Reassemble the remaining components by reversing the procedures outlined in the preceding steps.

Step 13. Attach the conversion label provided in the conversion kit next to the rating plate on the appliance.

Step 14. Turn on gas supply and test for gas leaks *(refer to **Page 28**)*.

Step 15. 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 32 and 33***.

Inspect the pilot system for proper flame. The pilot flame should engulf the flame sensor as shown in ***Figure 53 on Page 28***.

Step 16. Using a manometer, test the inlet and manifold gas pressures. See ***Tables 2 and 3 on Page 4 and Figure 64***.

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

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Lennox Hearth Products reserves the right to make changes at any time, without notice, in design, materials, specifications, and prices, and also to discontinue colors, styles, and products. Consult your local distributor for fireplace code information.

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