LENNOX®

HEARTH PRODUCTS

INSTALLATION INSTRUCTIONS

ENVY and ENVY CD
Direct-Vent Gas Fireplaces

DAVE LENNOX signature™ COLLECTION

MODELS

NV35IN NVCD35IN	NV40IN NVCD40IN	NV45IN NVCD45IN

P/N 506023-17 Rev. A 08/2013

This manual is one of a set of two supporting this product.
Refer to P/N 506025-09 for Care and Operation Instructions.

Ce manuel est disponible en francais, simplement
en faire la demande. Numéro de la pièce 506223-74.

C ETL LISTED US
Intertek

Report No. G100513653 PRT-001

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.

TABLE OF CONTENTS

Please read and understand these instructions before beginning your installation.

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

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

PACKAGING

The assembled vented gas fireplace heater is packaged with:

- Traditional models only: (1 set) Logs (Packaged in a carton inside the firebox)
- Traditional models only: (1 bag) Volcanic Stone
- Literature Kit (Envelope containing Care and Operation Instructions, Installation Instructions, Safety-In-Operation Warning Labels, Warranty)
- (1) U-Shaped Vent Restrictor (Attached to Literature Kit envelope)

INTRODUCTION

ENVY fireplaces are designed to operate on natural or propane gas. An electronic intermittent pilot ignition system provides safe, efficient operation. External electrical power is required to operate these units. In the event of a power outage, four (4) AA batteries provide backup power for appliance operation (excluding blower).

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,
- Secure Flex® Flexible Vent Components, 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 in. inner and 7 1/2 in. 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.

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

Remarqué : 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.

DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

⚠ 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

Do not operate without surround trim assembly and screen installed.

⚠ 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.

Remarqué : 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.

NOTE: 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.

Remarqué : 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.

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

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

Codes and Standards

These appliances comply with National Safety Standards and are tested and listed by ETL/Intertek. (Report No. G100513653 PRT-001) to ANSI Z21.88 (in Canada, CSA-2.33), and CAN/CGA-2.17-M91 in both USA and Canada, as vented gas fireplace heaters.

These appliances are listed by ETL/Intertek for installation in bedrooms and manufactured homes.

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.

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.

ENVY fireplaces 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***.

Table 1: Input Rate, Gas Valves

Models	Input Rate (BTU/HR)	
	Natural Gas	Propane Gas
NV35IN	35,500 high 15,500 low	35,000 high 18,000 low
NVCD35IN	31,000 high 16,000 low	28,000 high 15,000 low
NV40IN	41,500 high 15,500 low	37,000 high 14,500 low
NVCD40IN	40,000 high 21,000 low	32,000 high 18,500 low
NV45IN	47,000 high 18,000 low	45,000 high 18,000 low
NVCD45IN	47,000 high 24,000 low	40,000 high 22,000 low

DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Gas Pressure

Table 2 and ***Table 3*** show the appliance inlet and manifold gas pressure requirements.

Table 2: Inlet Gas Supply Pressure

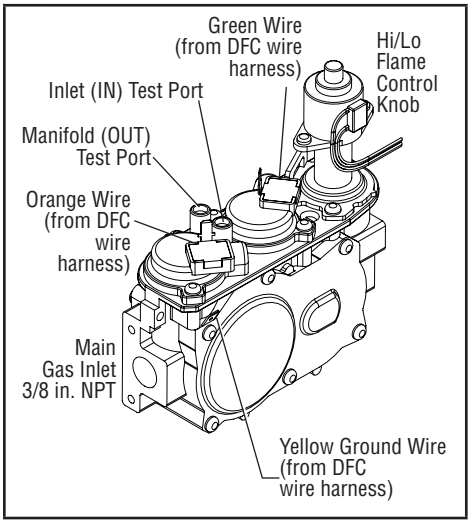
Fuel	Minimum	Maximum
Natural Gas	4.5 in. WC (1.12 kPa)	10.5 in. WC (2.61 kPa)
Propane	11.0 in. WC (2.74 kPa)	13.0 in. WC (3.23 kPa)

Table 3: Manifold Gas Supply Pressure

Fuel	Low	High
Natural Gas	1.6 in. WC (0.40 kPa)	3.5 in. WC (0.87 kPa)
Propane	6.3 in. WC (1.57 kPa)	10.0 in. WC (2.49 kPa)

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 in. (10 mm) NPT thread inlet and outlet side of the valve (***Figure 1***).

Figure 1: SIT Electronic Gas Valve



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

These appliances are tested and approved for installation at elevations of 0–4500 ft (0–1372 m) above sea level using the standard burner orifice sizes (marked with an "*" in ***Table 4***).

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

Deration

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

- Using gas that has been derated by the gas company.
- Changing the burner orifice to a smaller size as regulated by the local authorities having jurisdiction and by the (USA) National Fuel Gas Code NFPA 54/ANSI Z223.1—latest edition or, in Canada, the CAN/CSA-B149.1 codes—latest edition.

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

Table 4: Burner Orifice Sizes, Elevation 0–4500 ft (0–1372 m)

Model	Natural Gas drill size	Propane drill size
NV35IN	Front #49 (0.073 in.)* Back #43 (0.089 in.)*	Front #57 (0.043 in.)* Back #54 (0.055 in.)*
NVCD35IN	Front #42 (0.0935 in.)* Back #55 (0.052 in.)*	Front #55 (0.052 in.)* Back #60 (0.040 in.)*
NV40IN	Front #41 (0.096 in.)* Back #43 (0.089 in.)*	Front #55 (0.052 in.)* Back #55 (0.052 in.)*
NVCD40IN	Front #35 (0.11 in.)* Back #52 (0.0635 in.)*	Front #53 (0.0595 in.)* Back #65 (0.035 in.)*
NV45IN	Front #40 (0.098 in.)* Back #40 (0.098 in.)*	Front #54 (0.055 in.)* Back #54 (0.055 in.)*
NVCD45IN	Front #32 (0.116 in.)* Back #49 (0.073 in.)*	Front #51 (0.067 in.)* Back #62 (0.038 in.)*

* Standard size installed at factory
• Catalog number

In Canada—CAN/CGA-2.17-M91 (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 U.S. 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 in. (914 mm) 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.

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 and the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, in the United States, or the Standard for Installation in Mobile Homes, CAN/CSA Z240 MH Series, in Canada.

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 et conformément à la norme Manufactured Home Constructions and Safety, Title 24 CFR, Part 3200 aux Unis ou à la norme Can/CSA-Z240 Série MM, Maisons mobiles au Canada.

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.

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. The appliance may be installed in a bedroom.

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

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.

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.

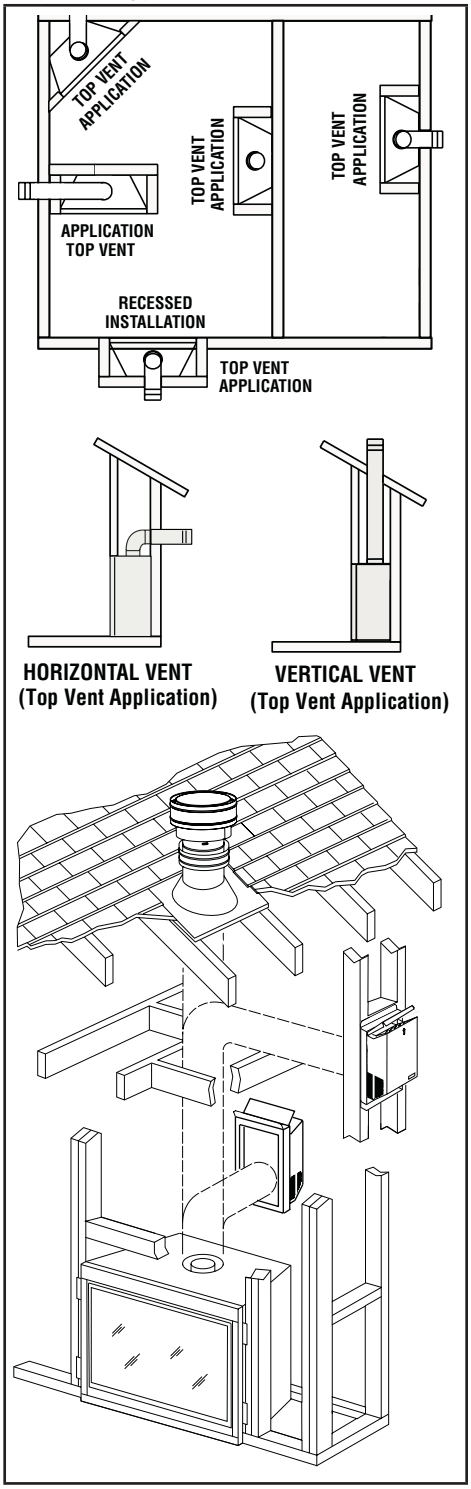
Be aware that this is a heat producing appliance. Objects placed above the unit are exposed to elevated temperatures.

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

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 ***Table 8***.

The appliance should 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, etc., a metal or wood barrier covering the entire bottom surface must be used.

Figure 2: Typical Locations



DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

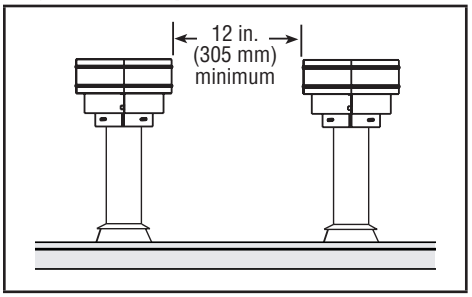
VENT TERMINATION CLEARANCES

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 (***Figure 3***).

Figure 3: Multiple Terminations



Terminate single vent caps relative to building components according to ***Table 5*** and ***Figure 4***.

Table 5: Termination Heights for Vents above Flat or Sloped Roofs (NFPA 54 / ANSI Z223.1)

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

Horizontal Vent Termination Clearances

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

Figure 4: Vertical Vent Termination Clearances

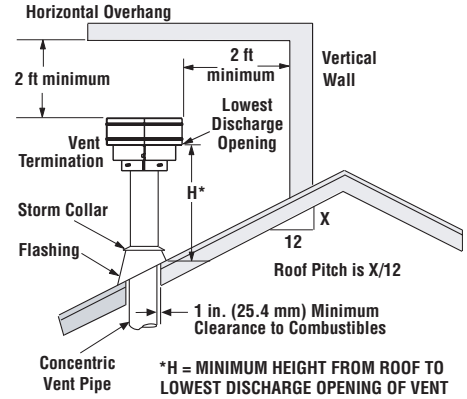


Figure 5: Horizontal Vent Termination Clearances

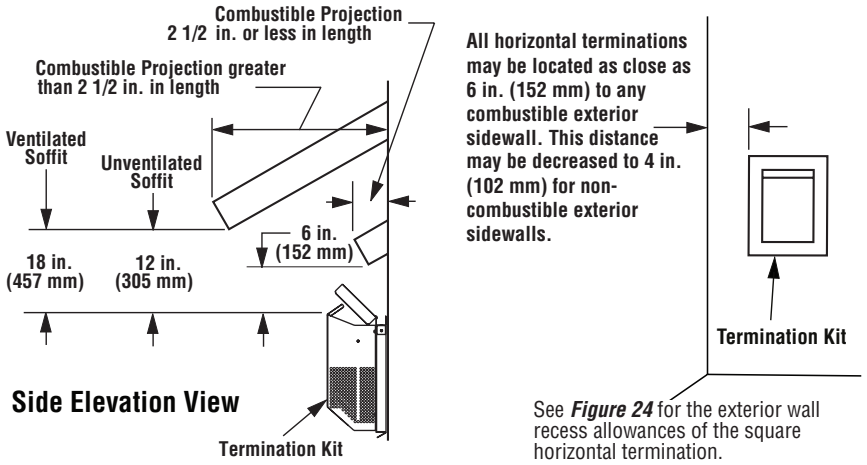
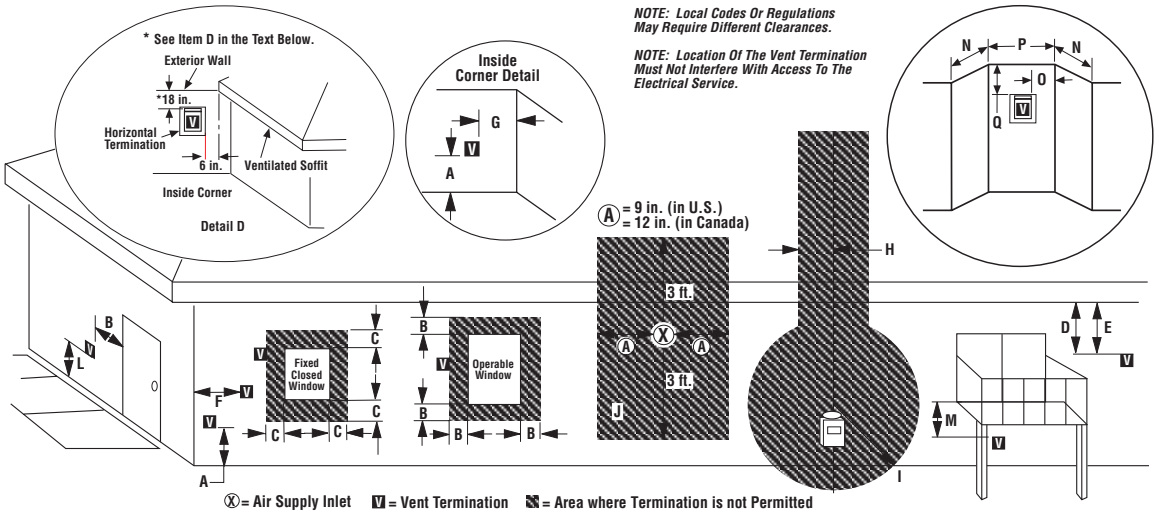


Table 6: Exterior Horizontal Vent Termination Clearances



		U.S. Installation **	Canadian Installation *
A	Clearance above grade, veranda, porch, desk, or balcony	12 in. (300 mm) **	12 in. (300 mm) *
B	Clearance to window or door that may be opened	6 in. (150 mm) for appliances < 10,000 Btuh (3 kW), 9 in. (230 mm) for appliances > 10,000 Btuh (3 kW), and < 50,000 Btuh (15 kW), 12 in. (300 mm) for appliances > 50,000 Btuh (15 kW) **	6 in. (150 mm) for appliances < 10,000 Btuh (3 kW), 12 in. (300 mm) for appliances > 10,000 Btuh (3 kW)
C	Clearance to permanently closed window	9 in. (229 mm) recommended to prevent window condensation	12 in. (305 mm) recommended to prevent window condensation
D	Vertical clearance to ventilated soffit located above the termination within a horizontal distance of 18 in. (458 mm)	18 in. (458 mm)	18 in. (458 mm)
E	Clearance to unventilated soffit	12 in. (305 mm) 30 in. (760 mm) to vinyl soffit	12 in. (305 mm) 30 in. (760 mm) to vinyl soffit
F	Clearance to outside corner	5 in. (127 mm) minimum	5 in. (127 mm) minimum
G	Clearance to inside corner	2 in. (50.8 mm) minimum—SV4.5HT-2 • 6 in. (152 mm) minimum—SV4.5HTSS	2 in. (50.8 mm) minimum—SV4.5HT-2 • 6 in. (152 mm) minimum—SV4.5HTSS
H	Clearance to each inside of center line extended above meter / regulator assembly	36 in. (910 mm) within a height of 15 ft above the meter / regulator assembly **	36 in. (910 mm) within a height of 15 ft above the meter / regulator assembly *
I	Clearance to service regulator vent outlet	36 in. (910 mm)**	36 in. (910 mm)*
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 in. (150 mm) for appliances < 10,000 Btuh (3 kW), 9 in. (230 mm) for appliances > 10,000 Btuh (3 kW) and < 50,000 Btuh (15 kW), 12 in. (300 mm) for appliances > 50,000 Btuh (15 kW)**	6 in. (150 mm) for appliances < 10,000 Btuh (3 kW), 12 in. (300 mm) for appliances > 10,000 Btuh (3 kW)
K	Clearance to a mechanical air supply inlet	36 in. (910 mm) above if within 10 ft (3 m) horizontally **	72 in. (1830 mm) *
L	Clearance above paved sidewalk or paved diveway located on public property	84 in. (2130 mm) ‡	84 in. (2130 mm) ‡
M	Clearance under veranda, porch, deck or balcony	12 in. (300 mm) *‡	12 in. (300 mm) *‡
N	Depth of alcove (maximum)	72 in. (1830 mm) **	72 in. (1830 mm) *
O	Clearance to termination (alcove)	6 in. (15.2 mm) **	6 in. (15.2 mm)*
P	Width of alcove (minimum)	36 in. (910 mm) **	36 in. (910 mm) *
Q	Clearance to combustible above (alcove)	18 in. (457 mm) **	18 in. (457 mm) *

* 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 two sides beneath the floor

• 2 in. clearance to non-combustibles for SV4.5HT-2 only

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 (***Table 7***), with the following exception: When the unit is installed with one side flush with a wall, the wall on the other side of the unit must not extend beyond the front edge of the unit. In addition, when the unit is recessed, the side walls surrounding the unit must not extend beyond the front edge of the unit (***Figure 7***).

Table 7: Minimum Clearances *

Back	1/2 in. (13 mm) to wrapper 0 in. (0 mm) to Spacers
Sides	1/2 in. (13 mm) to wrapper 0 in. (0 mm) to Spacers **
Top Spacers	0 in. (0 mm)
Floor	0 in. (0 mm)
From Bottom of Unit to Ceiling	78 in. (1981 mm)
Front Service Clearance	36 in. (914 mm) Top * 12 in. (305 mm) Sides and Bottom

* 3 in. (76 mm) above any horizontal/inclined vent component.

** See **Page 9** 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 must be built from non-combustible, heat-resistant materials (e.g., Micore® 160, Glasscrete®, Durock®, or a similar material). It must extend the width of the fireplace opening and at least 20 in. in front of the fireplace.

- A hearth extension is required if the fireplace is installed less than 6 in. above the finished floor surface.
- A hearth extension is not required if the fireplace is installed at least 6 in. above the finished floor surface.

Shelf Height

To provide for the lowest possible shelf surface, 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 (***Figure 6***).

Wall Finishes / Surrounds / Mantels

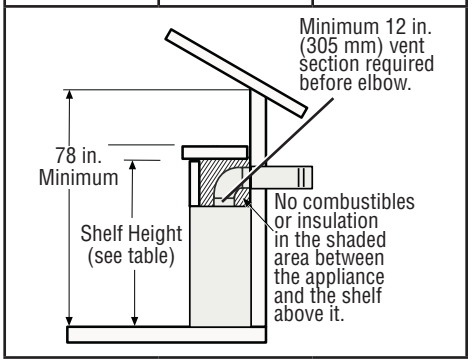
Combustible wall finish materials and/or surround materials must not be allowed to encroach the area defined by the appliance front face (black sheet metal). Never allow combustible materials to be positioned in front of or overlapping the appliance face (***Figure 7***).

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.

Vertical installation clearances to combustible mantels vary according to the depth of the mantel (***Table 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.

Table 8: Combustible Shelf Height

Model	Top Vent with one 90° Elbow	
	Secure Vent®	**Secure Flex® (flex elbow)**
NV35 NV40 NV45	73 1/2 in. (1867 mm) *	73 1/2 in. (1867 mm) *



* Includes 3 in. (76 mm) clearance to combustibles (required above vent components)

Figure 6: Shelf Height

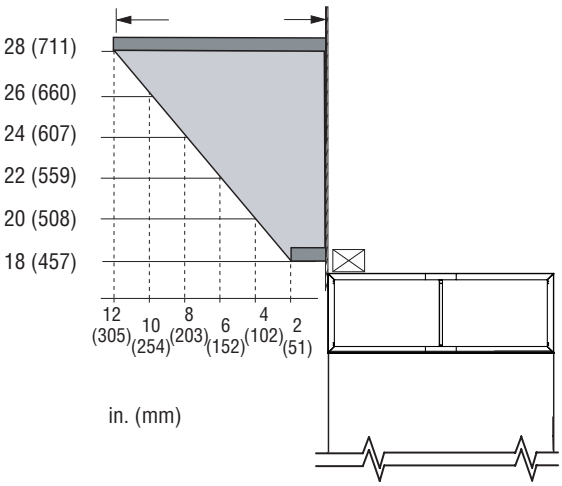
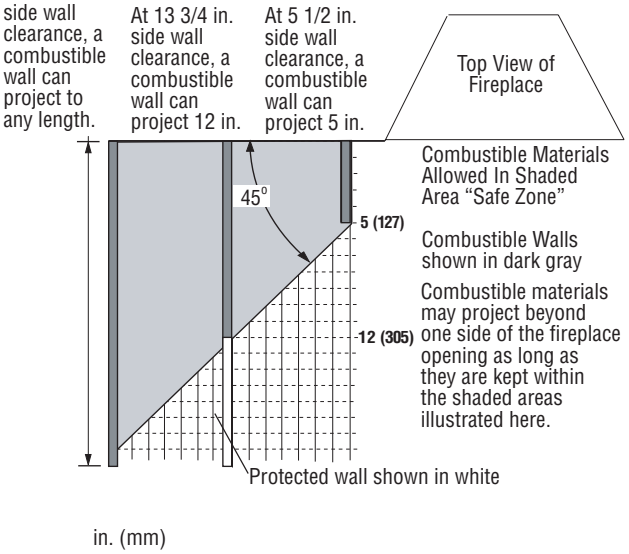


Figure 7: Combustible Side Clearances



⚠ WARNING

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

⚠ AVERTISSEMENT

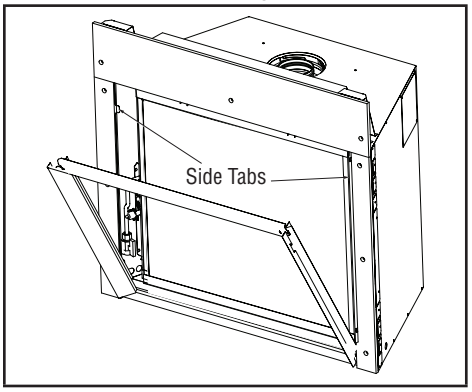
Risque de dommages ou de blessures si les pièces ne sont pas installées conformément à ces schémas et ou si des pièces autres que celles spécifiquement approuvées avec cet appareil sont utilisées.

PRE-INSTALLATION STEPS

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

1. Remove the shipping carton and the shipping pad.
2. Remove the top louver, then remove the surround trim assembly by detaching it at the top of the fireplace and lifting it 1 in. to disengage the side tabs, then pulling it away from the fireplace exposing the front glass door (***Figure 8***).

Figure 8: Removing the surround trim assembly



3. Locate the four (4) spring-loaded latches; two above and two below the enclosure (***Figure 39***).
4. Release the lower latches, by pulling each handle out and down to unhook it from the glass door.
5. Lightly press against the door, to hold it in position, while releasing the two upper latches.
6. Carefully grip the door at the top and bottom, and remove it from the fireplace. Place the door in a secure location where it will not be damaged.

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 instructions.

1. **Construct the Appliance Framing** (**Page 9**).
2. **Route the Gas Supply Line to the Appliance** (**Page 11**)
3. **Install the Vent System and Exterior Termination** (**Page 11**)
4. **Complete the Field Wiring** (**Page 23**)
5. **Connect the Gas Supply** (**Page 25**)
6. **Verify Correct Appliance Operation** (**Page 26**)
7. **Contemporary Fireplaces Only: Install the Contemporary Floor and Contemporary Glass Media** (**Page 26**)
8. **Install the Firebox Liners** (**Page 26**)
9. **Traditional Fireplaces Only: Install the Logs, Decorative Volcanic Stone, and Glowing Embers** (**Page 27**)
10. **Install the Glass Door** (**Page 28**)
11. **Adjust the Burner to Ensure Proper Flame Appearance** (**Page 28**)
12. **Attach the Safety-in-Operation Warnings** (**Page 31**)

Construct the Appliance Framing

Frame the fireplace as illustrated in ***Table 9***, or ***Table 11*** for corner installations.All framing details must allow for a minimum clearance to combustible framing members as shown in ***Table 6*** on **Page 7**.

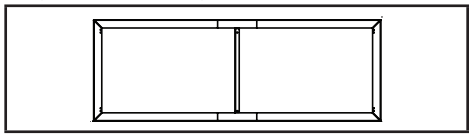
If the fireplace is to be elevated above floor level, a solid continuous platform must be constructed below the fireplace.

Headers may be in direct contact with the fireplace top spacers maintaining the 15 1/2 in. (394 mm) clearance to the fireplace top, but must not be supported by them or notched to fit around them. All construction above the fireplace must be self-supporting. DO NOT use the fireplace for structural support.

Bend each of the two (2) L-shaped standoff components, at the designated places, into a U-shape (***Figure 9***). Align the closed end of each U-shaped standoff component with the left/right side of the top, front of the fireplace and the attachement holes in the top of the fireplace. Attach each U-shaped standoff component with two (2) 5/16 in. hex head screws. Align the center support with the holes in the U-shaped standoff components and the top of the fireplace. Attach the center support with two (2) 5/16 in. hex head screws in the top and two (2) screws in the bottom.

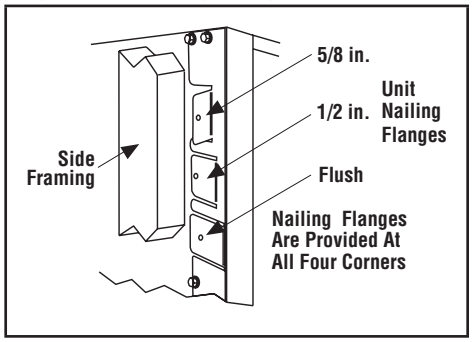
NOTE: Position the center support with the larger holes at the bottom and the smaller holes at the top.

Figure 9: Framing Standoff



The fireplace should be secured to the side framing members using the unit's nailing flanges—one top and bottom on each side of the fireplace front (***Figure 10***). Use 8d nails or their equivalent.

Figure 10: Nailing Flanges *



* Left side top corner of fireplace is shown. Requirements for other three corners are the same.

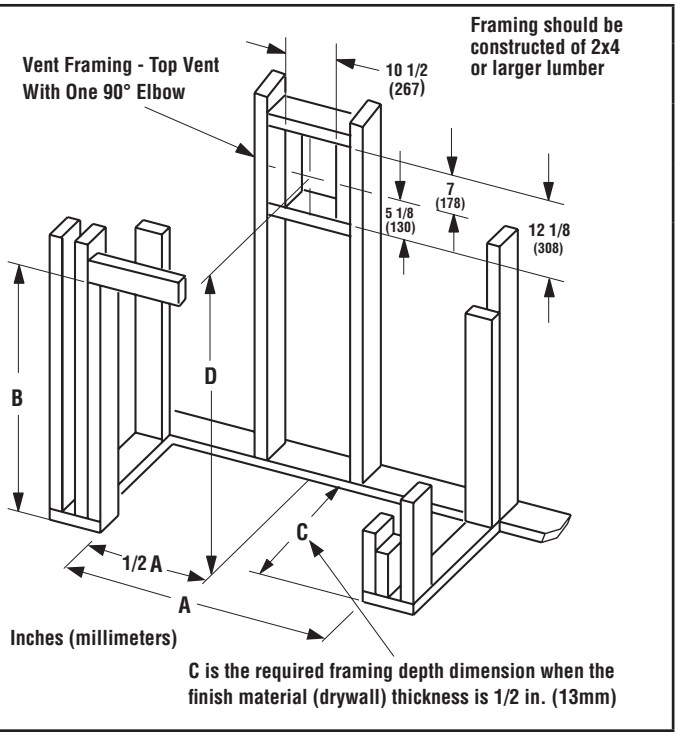
Bend out appropriate nailing flanges to provide for proper drywall thickness to front of firebox.

Position the fireplace within the framing and secure it with the nailing brackets. Bend out the appropriate nailing flanges for the drywall/finish material to be used. Nailing flanges are provided for flush framing, 1/2 in. (13 mm) and 5/8 in. (16 mm) framing depths (***Figure 10***).

NOTE: Combustible framing may be in direct contact with the nailing flanges and may be located closer than 1/2 in. (13 mm) from screw heads and the firebox wrapper in areas adjacent to the nailing flanges. Frame the opening to the exact dimensions specified.

Table 9: Fireplace Framing Specifications

Model	A	B	C	D
NV35IN / NVCD35IN	39.75 in. 1010 mm	44.75 in. 1137 mm	24.0 in. 610 mm	46.75 in. 1187 mm
NV40IN / NVCD40IN	44.75 in. 1137 mm	48.5 in. 1232 mm	24.0 in. 610 mm	50.5 in. 1283 mm
NV45IN / NVCD45IN	49.75 in. 1264 mm	52.25 in. 1327 mm	24.0 in. 610 mm	54.25 in. 1378 mm

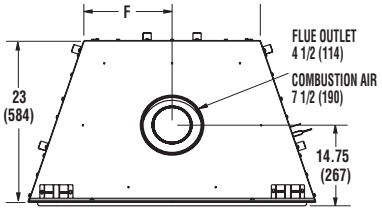


Vertical Venting Through the Ceiling:

To frame the 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 in. (267 x 267 mm) inside dimensions, about this center mark (***Table 15***).

Table 10: Fireplace Specifications

Model	A	B	C	D	E	F	G
NV35IN / NVCD35IN	44.5 in. 1130 mm	24.75 in. 629 mm	28.75 in. 730 mm	39.25 in. 997 mm	21.85 in. 555 mm	10.93 in. 278 mm	28.5 in. 724 mm
NV40IN / NVCD40IN	48.25 in. 1226 mm	28.0 in. 711 mm	33.75 in. 857 mm	44.25 in. 1124 mm	27.0 in. 686 mm	13.5 in. 343 mm	32.25 in. 819 mm
NV45IN / NVCD45IN	52.0 in. 1321 mm	32.25 in. 819 mm	38.75 in. 984 mm	49.25 in. 1251 mm	32.0 in. 813 mm	16.0 in. 406 mm	36.0 in. 914 mm



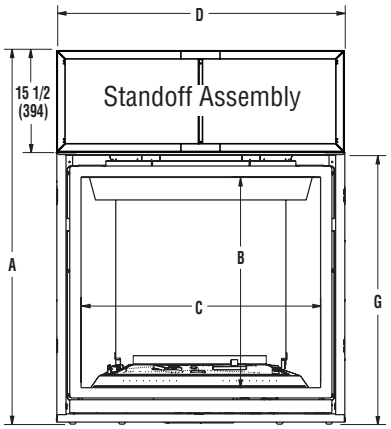
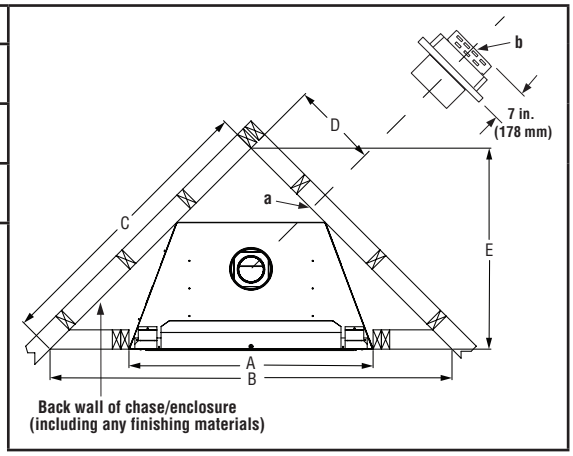


Table 11: Corner Framing with Horizontal Termination

Model	A	B	C	D	E
NV35IN / NVCD35IN	39.25 in. 1000 mm	68.00 in. 1727 mm	48.10 in. 1222 mm	13.75 in. 349 mm	34.00 in. 864 mm
NV40IN / NVCD40IN	44.25 in. 1124 mm	73.00 in. 1854 mm	51.60 in. 1311 mm	15.50 in. 394 mm	36.50 in. 927 mm
NV45IN / NVCD45IN	49.25 in. 1251 mm	78.00 in. 1981 mm	55.10 in. 1400 mm	17.25 in. 438 mm	39.00 in. 991 mm

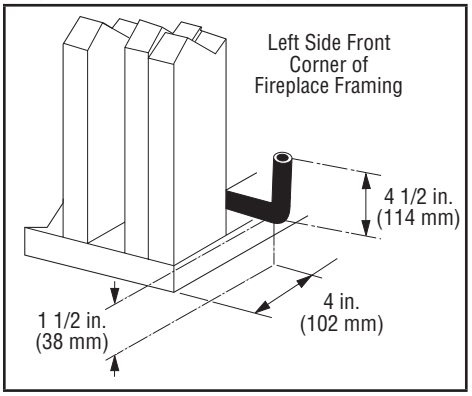
NOTE: The horizontal vent length of "A" to "B" must not exceed 28 in. (711 mm).



Route the Gas Supply Line to the Appliance

A 1/2 in. (13 mm) gas line must be routed to the left side of the appliance (***Figure 11***). 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 a 1/2 in. shutoff valve (**Page 25**).

Figure 11: Routing the 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 12*** 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.

Hire a qualified plumber or gas fitter 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. No one unfamiliar and unqualified should attempt sizing or installing gas piping.

Table 12: Schedule 40 Black Iron Pipe, Inside Diameter

Pipe Length	Natural Gas	Propane Gas
0–10 ft	1/2 in.	3/8 in.
10–40 ft	1/2 in.	1/2 in.
40–100 ft	1/2 in.	1/2 in.
100–150 ft	3/4 in.	1/2 in.
150–200 ft	3/4 in.	1/2 in.

- All appliances are factory-equipped with a flexible gas line connector and 1/2 in. shutoff valve (***Figure 31***).
- See Massachusetts Requirements (**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 **Page 25**.
- 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.
- A sediment trap in the supply line as close as possible to the appliance is recommended. Appliances using propane should have a sediment trap at the base of the tank.
- Check with the local building official for local code requirements (e.g., Are below grade penetrations of the gas line allowed?, etc).

⚠ CAUTION

If propane is used, be aware that with a tank that is too small (i.e., under 100 lbs, if this is the only gas appliance in the dwelling—see NPFA 58), there may be a loss of pressure. This can result in insufficient fuel delivery that can cause sooting, severely delayed ignition, or other malfunctions. Any damage resulting from an improper installation is not covered by the limited warranty.

Install the Vent System and Exterior Termination

NOTE: 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 venting components (**Page 2**). 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 solid fuel burning appliance. The vent pipe is tested to be run inside an enclosed wall (such as a chase). Inspection openings in the enclosing wall, at the vent pipe joints, are not required.

Installation of Vent Restrictor

A vent restrictor may be needed with this appliance. The restrictor is installed in the appliance top flue outlet (***Figure 13***), either before adding vent from above, or after installation of vent from below—within the firebox. The restrictor is self securing with a positive friction fit.

Determine the vent restrictor configuration for the appliance (***Figure 12***):

Use the base vent restrictor for:

- Horizontal termination with total vertical run of more than 6 ft.
- Vertical termination with total vertical run of 6–10 ft.

Use intermediate setting for:

- Vertical termination with total vertical run of >10–40 ft.

Use the maximum setting for:

- Vertical termination with total vertical run of >40–60 ft.

Figure 12: Vent Restrictor Configuration

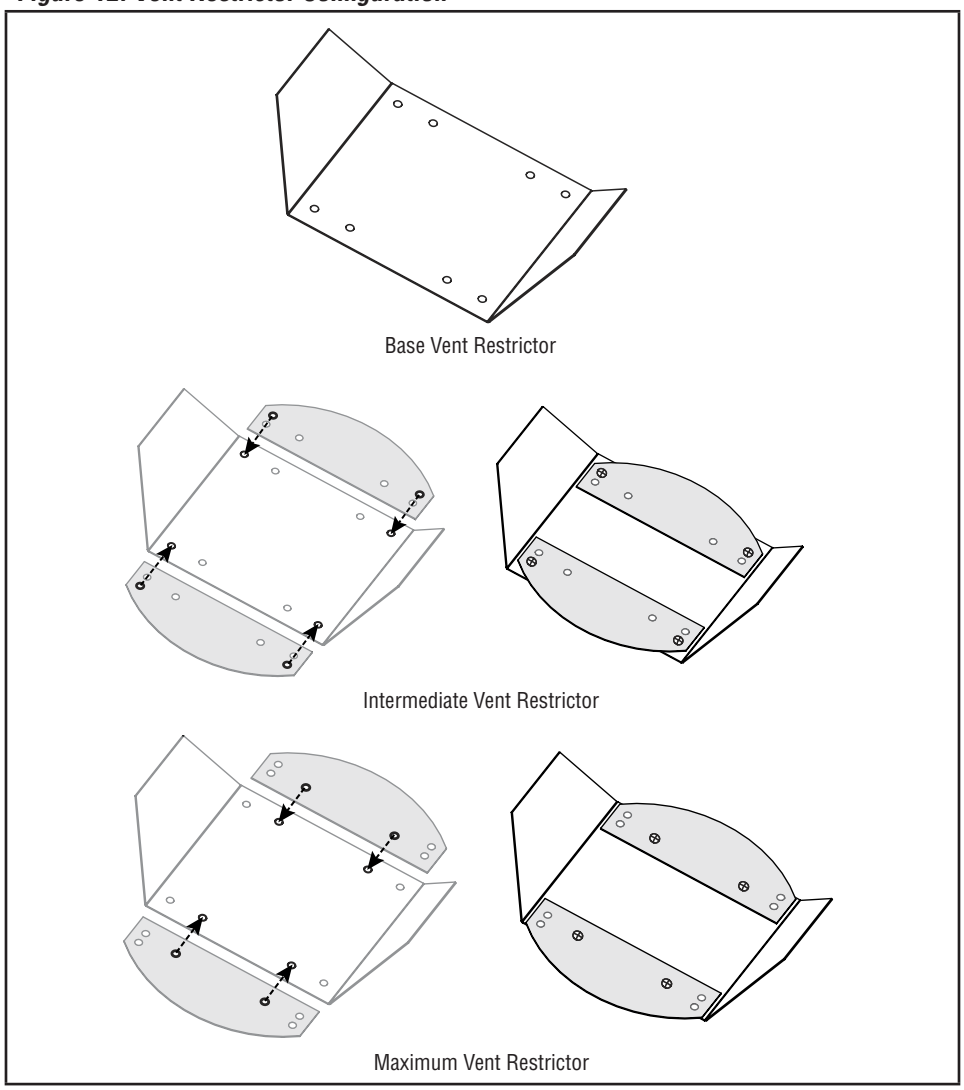
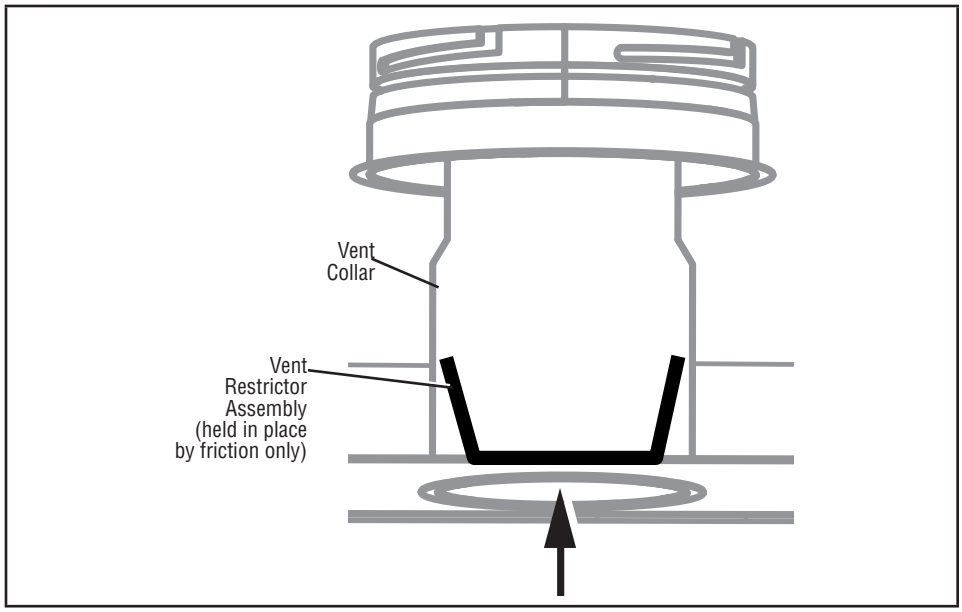


Figure 13: Vent Restrictor Installation



Select Venting System—Horizontal or Vertical

With the appliance secured in the framing, determine the vent routing and identify the exterior termination location. The following sections describe vertical (roof) and horizontal (exterior wall) vent installations. A list of approved venting components are shown on **Page 32**.

Vertical (Roof) Termination Systems

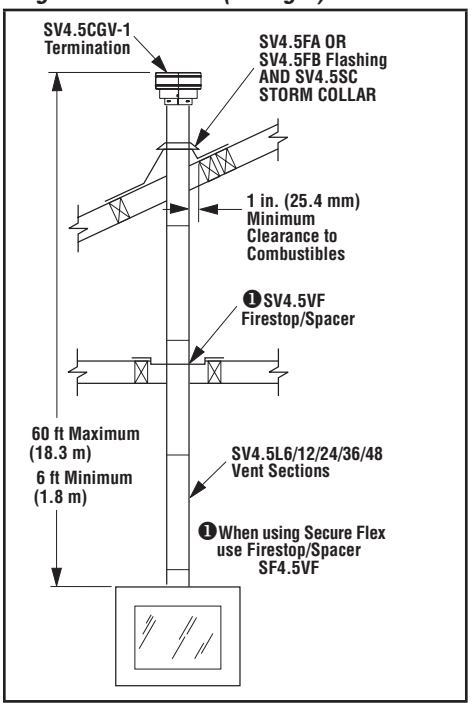
See the tables starting on **Page 17** for the various vertical venting configurations that are possible for use with these appliances. Secure Vent™ pipe applications are shown in these figures. Secure Flex™ pipe may also be used. A vertical vent table summarizes each system's minimum and maximum vertical and horizontal lengths.

Both 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 (**Page 6**).

Vertical (Straight) Installation

Determine the number of straight vent sections required. 4 1/2 in. (114 mm), 10 1/2 in. (267 mm), 22 1/2 in. (572 mm), 34 1/2 in. (876 mm) and 46 1/2 in. (1181 mm) net section lengths are available. Plan the vent lengths so that a joint does not occur at the intersection of ceiling or roof joists.

Figure 14: Vertical (Straight) Installation



Vertical (Offset) Installation

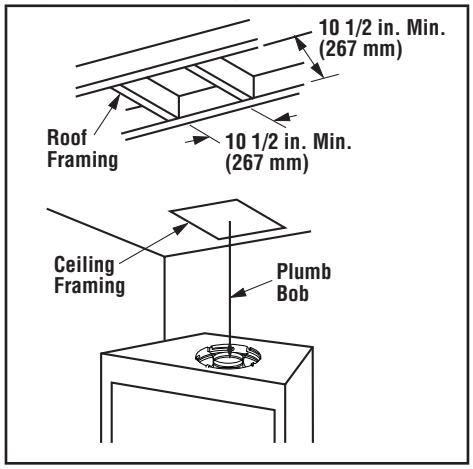
Analyze the vent routing and determine the quantities of vent sections and number of elbows required. Refer to the vertical vent figures and tables starting on **Page 17** to select the type of vertical installation desired. Vent sections are available in net lengths of 4 1/2 in. (114 mm), 10 1/2 in. (267 mm), 22 1/2 in. (572 mm), 34 1/2 in. (876 mm) and 46 1/2 in. (1181 mm). Refer to ***Table 13*** for an aid in selecting length combinations. Elbows are available in 90° and 45° configurations. Refer to ***Figure 18*** on **Page 15** 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 results in 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 in. (38 mm) to 7 1/2 in. (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 in. (25 mm) clearance to combustible materials for all vertical elements. Clearances for all horizontal elements are 3 in. (76 mm) on top, 1 in. (25 mm) on sides and 1 in. (25 mm) on the bottom.

1. 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 in. (267 x 267 mm) inside dimensions, about this center mark (***Figure 15***).

Figure 15: Ceiling Opening



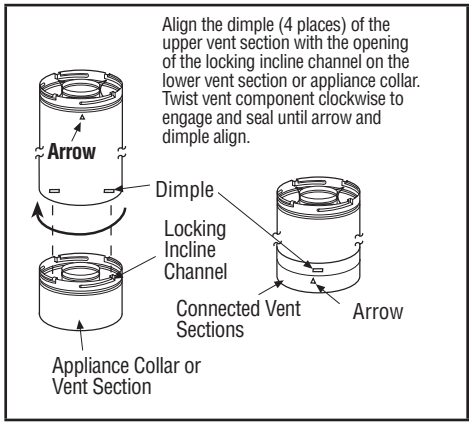
2. Attach vent components to appliance—Secure Vent SV4.5 direct-vent system components are unitized concentric pipe components featuring positive twist lock connections (***Figure 16***). To attach a vent component to the appliance collar, align the dimpled end over the collar, adjusting the radial alignment until the four locking dimples are aligned with the inlet of the four inclined channels on the collar (***Figure 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 ends of the channels.

   Slide the rope gasket over the vent component and position it snugly against the appplliance.

   The unitized design of 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 in. screw may be used at the joint, but is not required as the pipe will securely lock when twisted. An elbow may not be directly attached to the appliance collar.

   NOTE: 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 16: Appliance Collar



3. Attach vent components to each other—Additional vent sections may be added to the previously installed section in accordance with the requirements of the vertical vent figures and tables.

4. 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 in. (25 mm) clearance to combustibles, framing members, and attic or ceiling insulation when running vertical chimney sections. Attic insulation shield (H3907) may be used to obtain the required clearances. The gap between the vent pipe and a vertical firestop can be sealed with non-combustible caulking.

Table 13: Vent Section Length

Nominal Section Length (in.)		6	12	24	36	48	Total Qty
Net Section Length (in.)		4.5	10.5	22.5	34.5	46.5	
Height of Vent		Number of Vent Sections					
in.	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
22.5	1.875	0	0	1	0	0	1
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
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
67.5	5.625	0	0	3	0	0	3
69	5.75	0	0	0	2	0	2
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
91.5	7.625	0	0	2	0	1	3
93	7.75	0	0	0	0	2	2
97.5	8.125	1	0	0	0	2	3
103.5	8.625	0	0	0	3	0	3
108	9	1	0	0	3	0	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
139.5	11.625	0	0	0	0	3	3
142.5	11.875	1	0	0	4	0	5
144	12	1	0	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
186	15.5	0	0	0	0	4	4
196.5	16.375	0	1	0	0	4	5
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
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
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

Table 13: Vent Section Length

Nominal Section Length (in.)		6	12	24	36	48	Total Qty
Net Section Length (in.)		4.5	10.5	22.5	34.5	46.5	
Height of Vent		Number of Vent Sections					
in.	ft						
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
325.5	27.125	0	0	0	0	7	7
330	27.5	1	0	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
379.5	31.625	0	0	0	11	0	11
465	38.75	0	0	0	0	10	10
475.5	39.625	0	1	0	0	10	11
480	40	1	1	0	0	10	11
492	41	1	0	1	0	10	12
499.5	41.625	0	0	0	1	10	11
504	42	1	0	0	1	10	12
511.5	42.625	0	0	0	0	11	11
520.5	43.375	0	2	0	1	11	14
531	44.25	0	2	2	0	11	15
538.5	44.875	1	0	0	2	11	14
549	45.75	1	0	2	1	11	15
558	46.5	0	0	0	0	12	12
562.5	46.875	1	0	0	0	12	13
568.5	47.375	0	1	0	0	12	13
573	47.75	1	1	0	0	12	14
580.5	48.375	0	0	1	0	12	13
589.5	49.125	0	1	2	2	10	15
595.5	49.625	1	1	1	0	12	15
604.5	50.375	0	0	0	0	13	13
615	51.25	0	1	0	0	13	14
625.5	52.125	0	2	0	0	13	15
631.5	52.625	1	0	1	0	13	15
637.5	53.125	0	1	1	0	13	15
651	54.25	0	0	0	0	14	14
655.5	54.625	1	0	0	0	14	15
672	56	0	2	0	0	14	16
678	56.5	1	0	1	0	14	16
688.5	57.375	1	1	1	0	14	17
697.5	58.125	0	0	0	0	15	15
702	58.5	1	0	0	0	15	16
712.5	59.375	1	1	0	0	15	17
720	60	0	0	1	0	15	16

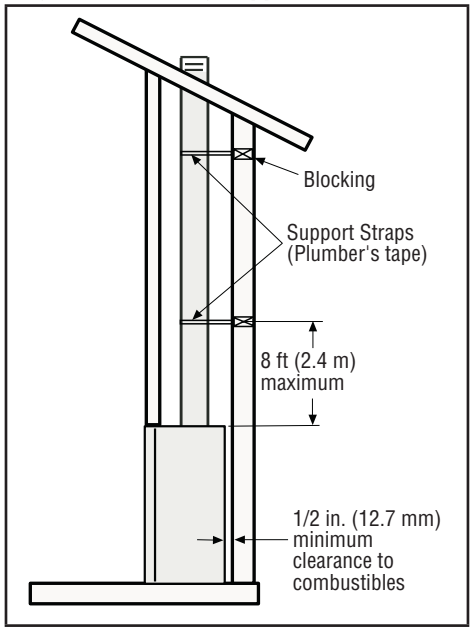
DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Table 14: Effective Vent Length

Model	Effective Length
SV4.5L6	4 1/2 in.
SV4.5L12	10 1/2 in.
SV4.5L24	22 1/2 in.
SV4.5L36	34 1/2 in.
SV4.5L48	46 1/2 in.

5. Support the vertical vent run sections—Support the vertical portion of the venting system every 8 ft (2.4 m) 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 and secure the ends of the tape to the framing. If desired, sheet metal screws (#6 x 1/2 in.) may be used to secure the support straps to the vent pipe (***Figure 17***).

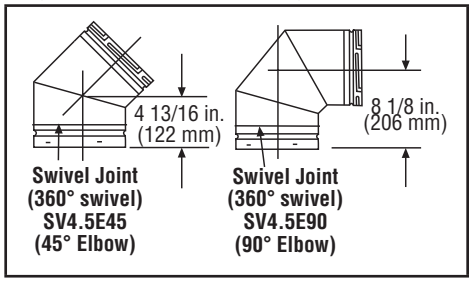
Figure 17: Venting Support



NOTE: Proper venting support is very important. The weight of the vent must not be supported by the fireplace.

6. Change vent direction to horizontal/inclined run—At transition to/from 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, to avoid the possibility of unlocking any of the previously connected vent sections (***Figure 16***).

Figure 18: Elbow Mounting

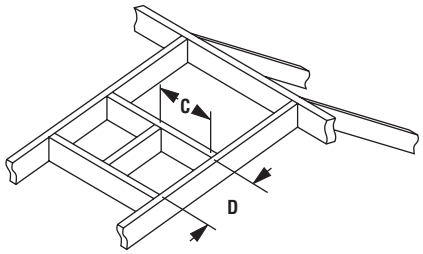


7. Continue installation of horizontal/inclined sections—Continue with the installation of the straight vent sections in horizontal/inclined run. Install support straps every 5 ft (1.52 m) along horizontal/inclined vent runs using conventional plumber's tape (***Figure 22***). Maintain the horizontal/inclined run in a straight (no dips) and slightly elevated (recommended) plane, in a direction away from the fireplace of 1/4 in. rise per foot (20 mm per meter). Smaller rise per foot run ratios are acceptable all the way down to at/near level. Use a carpenter's level to measure from a constant surface and adjust the support straps as necessary.

NOTE: Maintain the required clearances to combustibles: 1 in. (25 mm) at all sides for all vertical runs; and 3 in. (76 mm) at the top, 1 in. (25 mm) at sides, and 1 in. (25 mm) at the bottom for all horizontal/inclined runs.

8. Frame the roof opening—Identify the location for vent at the roof. Cut and/or frame the opening per ***Table 15***.

Table 15: Roof Framing Dimensions

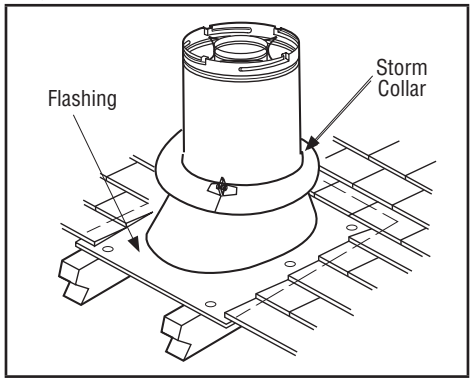


Pitch	C	D
0/12	10 1/2 in. (267 mm)	10 1/2 in. (267 mm)
6/12	10 1/2 in. (267 mm)	12 in. (305 mm)
12/12	10 1/2 in. (267 mm)	17 3/4 in. (451 mm)

9. Install the roof flashing—Extend the vent sections through the roof structure. Using a carpenter's level, install the roof flashing over the vent section and position it such that the vent column rises vertically (***Figure 19***). 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.

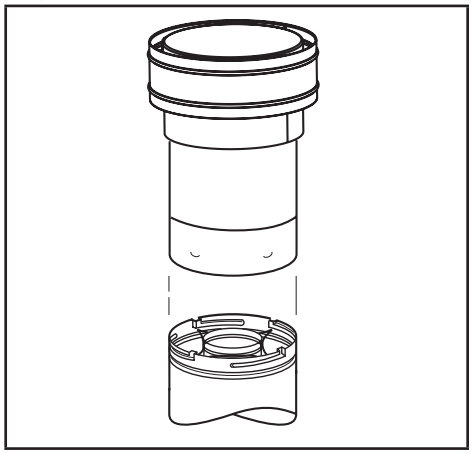
10. Install the storm collar—Install the storm collar, supplied with the flashing, over the vent/flashing joint (***Figure 19***). Loosen the storm collar screw. Slide the collar down until it meets the top of the flashing. Tighten the adjusting screw. Apply non-combustible caulking or mastic around the circumference of the joint to provide a watertight seal.

Figure 19: Storm Collar



11. Install the vertical termination (SV4.5CGV-1)—Extend the vent sections to the correct height (***Figure 4***). The SV4.5CGV-1 vertical termination (***Figure 20***) can be installed 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 are seated at the end of the channels. If the vent system extends more than 5 ft (1.5 m) 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.

Figure 20: Vertical Termination



Vertical Vent Tables and Figures

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 in. 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.

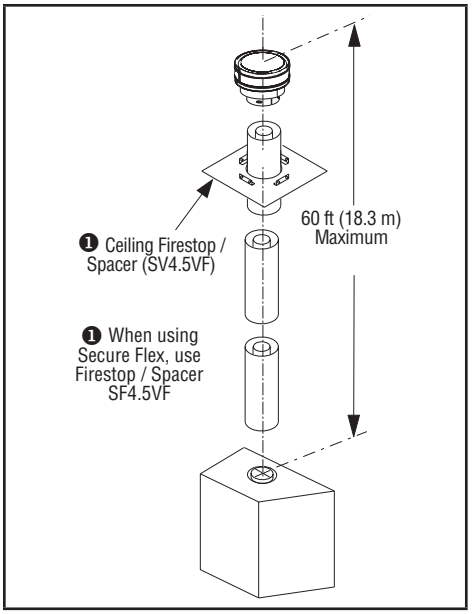
NOTE: Two 45° elbows may be used in place of one 90° elbow. The same rise to run ratios, as shown in the venting figures for 90°, must be followed if 45° elbows are used.

NOTE: An elbow is acceptable as 1 ft of vertical rise, but may not be connected directly to the appliance collar.

⚠ WARNING

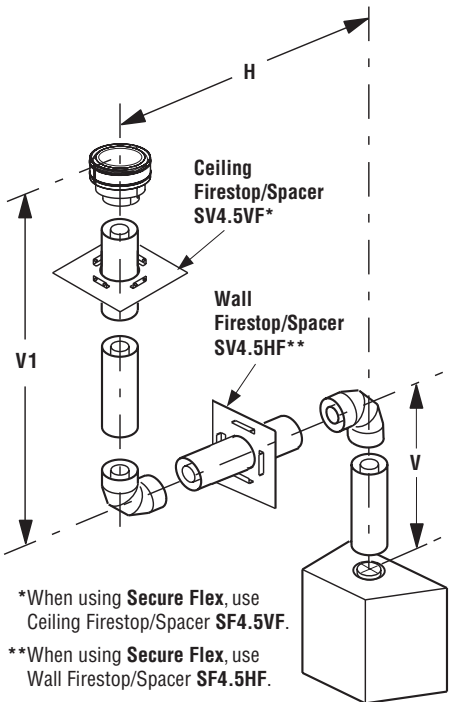
Under no circumstances, may separate sections of concentric flexible vent pipe be joined together.

Figure 21: Top Vent—Straight



Install the U-shaped vent restrictor in any vent run with more than 6 ft of vertical rise. See **Page 12** for more information.

Table 16: Top Vent—Two 90° Elbows



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	1.524

$V + V_1 + H = 60$ ft (18.3 m) maximum

H = 20 ft (6.096 m) maximum

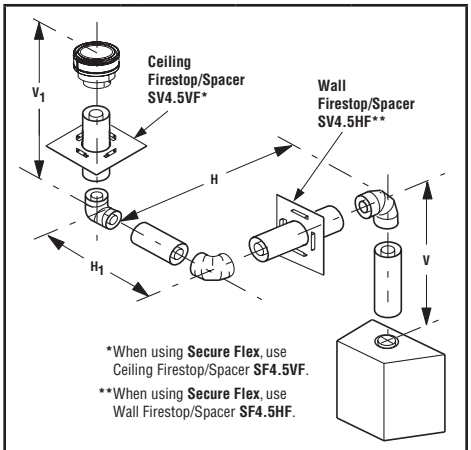
Install the U-shaped vent restrictor in any vent run with more than 6 ft of vertical rise. See **Page 12** for more information.

If 20 ft of (H) horizontal vent run is needed, then 4 ft (straight section) minimum of (V) vertical vent will be required.

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

An elbow is acceptable as 1 ft of vertical rise, but may not be connected directly to the appliance collar.

Table 17: Top Vent—Three Elbows



$H + H_1$ Maximum		V Minimum	
feet	meters	feet	meters
5	1.524	1	0.305
5	1.524	1	0.305
10	3.048	2	0.610
15	4.572	3	0.914
20	6.096	4	1.219

$H + H_1 = 20$ ft (6.1 m) maximum

$V + V_1 + H + H_1 = 60$ ft (18.3 m) maximum

Install the U-shaped vent restrictor in any vent run with more than 6 ft of vertical rise. See **Page 12** for more information.

If 20 ft of (H) horizontal vent run is needed, then 4 ft (straight section) minimum of (V) vertical vent will be required.

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

An elbow is acceptable as 1 ft of vertical rise, but may not be connected directly to the appliance collar.

NOTE: The vent system may have a maximum of three (3) 90° elbows.

Horizontal (Outside Wall) Termination System

See the horizontal vent tables on **Page 20** that 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. The tables summarize each system's minimum and maximum vertical and horizontal lengths for installing the vent components in a variety of applications.

These horizontal vent systems terminate through an outside wall. Building codes limit or prohibit terminating in specific areas (***Table 6***).

Secure Vent SV4.5 direct-vent system components are unitized concentric pipe components featuring positive twist lock connections (***Figure 16***). 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.

1. Plan the vent run—Analyze the vent routing and determine the types and quantities of sections required: 4 1/2 in. (114 mm), 10 1/2 in. (267 mm), 22 1/2 in. (572 mm), 34 1/2 in. (876 mm) and 46 1/2 in. (1181 mm) net section lengths are available. Plan the vent lengths so that a joint does not occur at the intersection of ceiling or roof joists. Make allowances for elbows. Maintain a minimum 1 in. (25 mm) clearance to combustibles on the vertical sections. Clearances for the horizontal runs are 3 in. (76 mm) on top, 1 in. (25 mm) on sides, and 1 in. (25 mm) at the bottom.

2. Frame exterior wall opening—Locate the center of the vent outlet on the exterior wall according to the dimensions shown in (***Figure 23***). Cut and/or frame an opening, 10 1/2 x 12 1/8 in. (267 x 308 mm) inside dimensions, about this center.

3. Frame ceiling opening—If the vertical route will penetrate a ceiling, use a plumb line to locate the center above the appliance. Cut and/or frame an opening, 10 1/2 x 10 1/2 in. (267 x 267 mm) inside dimensions, about this center (***Table 15***).

4. 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 (***Figure 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.

   Slide the rope gasket over the vent component and position it snugly against the apppliance.

   The unitized design of 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.

   NOTE: An elbow may not be attached directly to the appliance collar. **At a minimum, a 12 in. (305 mm) straight vent section is required before attaching the first elbow** (***Figure 22***).

5. 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 (***Figure 16***).

6. 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.

   NOTE: Maintain 1 in. (25 mm) clearance to combustibles, framing members, and attic or ceiling insulation when running vertical chimney sections.

7. Support the vertical run sections—See **Page 15**.

8. Change vent direction—At transition to/from 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, to avoid the possibility of unlocking any of the previously connected vent sections (***Figure 16***).

9. Continue installation of horizontal/inclined sections—Continue with the installation of the straight vent sections in horizontal/inclined run. Install support straps every 5 ft (1.52 m) along horizontal/inclined vent runs using conventional plumber's tape (***Figure 22***). Maintain the horizontal/inclined run in a straight (no dips) and slightly elevated plane, in a direction away from the fireplace of 1/4 in. rise per foot (20 mm per meter). Smaller rise per foot run ratios are acceptable, all the way down to at/near level.

   NOTE: Maintain the required clearances to combustibles: 1 in. (25 mm) at all sides for all vertical runs; and 3 in. (76 mm) at the top, 1 in. (25 mm) at sides, and 1 in. (25 mm) at the bottom for all horizontal/inclined runs. Use a carpenter's level to measure from a constant surface and adjust the support straps as necessary.

10. Assemble the vent run to the exterior wall—If not previously measured, locate the center of the vent at the exterior wall. Prepare an opening as described in ***Figure 23***. Assemble the vent system to point where the terminus of the last section is located relative to the exterior surface to which the termination is to be attached (***Figure 24***). 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 those shown in ***Figure 24***, refer to ***Table 18***.

11. Attach the termination adaptor—Attach the adaptor (SV4.5RCH, provided with the termination) to the vent section or telescoping vent section elbow or appliance collar (***Figure 23***) in the same manner as any SV4.5 vent component.

12. Install the firestop/spacer at the exterior wall—When using the termination, install the SV4.5HF (Secure Vent™), or SF4.5HF (Secure Flex™) firestop/spacer over the opening at the exterior side of the framing, long side up, with the 3 in. spacer clearance at the top (***Figure 23***), and nail into place. The firestop/spacer may also be installed over the opening at the interior side of framing.

    NOTE: The firestop/spacer also may be installed over the opening on the interior side of framing. The gap between the vent pipe and a firestop can be sealed with noncombustible caulking.

13. Install the Termination (SV4.5HT-2)—For the last step, from outside the exterior wall, slide the collars of the termination onto the adaptor (the outer inside the outer and the inner outside 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 in. (32 mm) (***Figure 24***).

NOTE: 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, use a termination guard (**Page 32**). This can be purchased at your local dealer.

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.

Carefully follow the installation instructions for the termination, including the use of silicone caulking where required.

Figure 22: Typical Horizontal Vent Installation

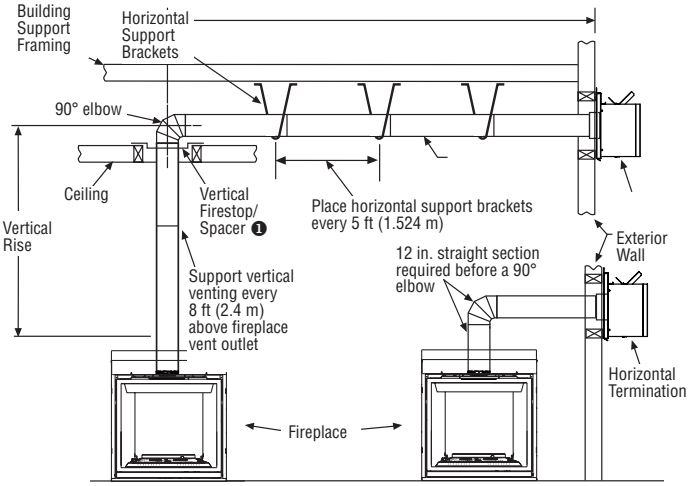


Figure 23: Installing Horizontal Termination

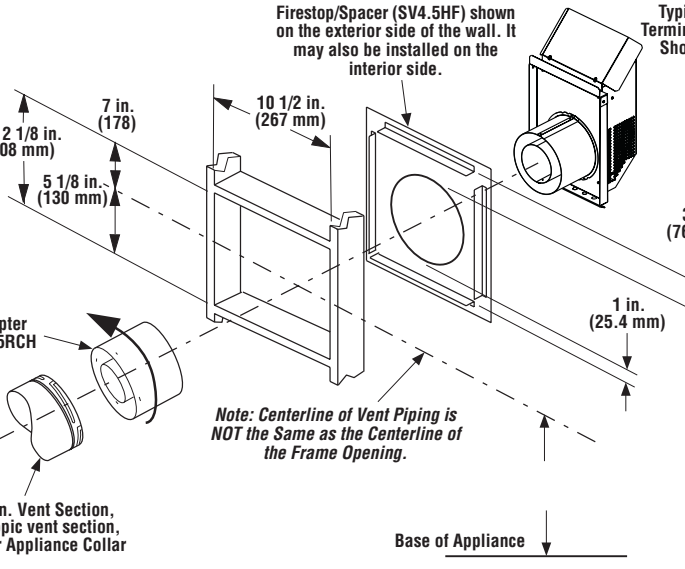
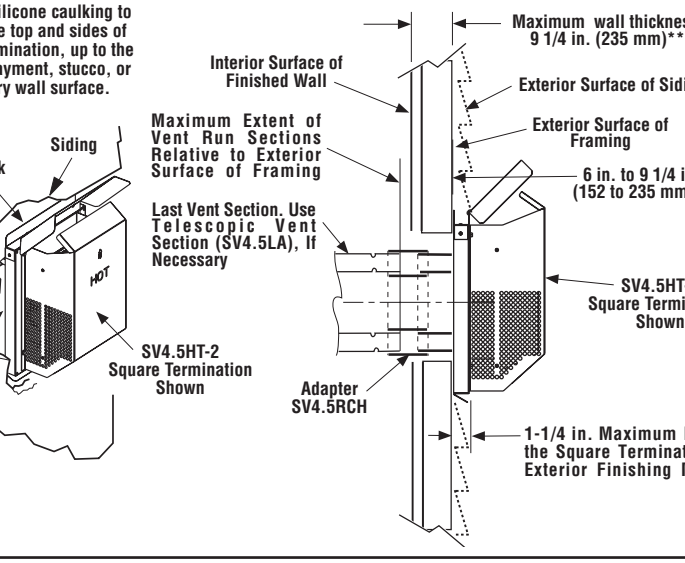


Figure 24: Horizontal Termination



Horizontal Vent Tables and Figures

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.

NOTE: Two 45° elbows may be used in place of one 90° elbow. The same rise to run ratios, as shown in the venting figures for 90° elbows, must be followed if 45° elbows are 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 in. per foot (20 mm per meter) horizontal, in a direction away from the fireplace. Rise per foot run ratios are acceptable 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: The tables show a 1(V) to 1.6 (H) ratio up to a maximum horizontal run of 16 ft.

NOTE: An elbow is acceptable as 1 ft of vertical rise, but may not be connected directly to the appliance collar.

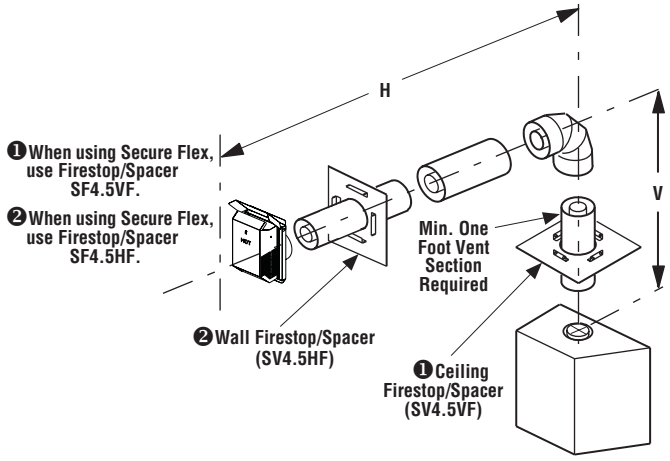
⚠ WARNING

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

Table 18: Venting Components Required for Various Exterior Wall Thicknesses, when using Typical Termination Kits

Vent Components Required	Exterior Wall Thickness
Termination Kit Only	6–9 1/4 in. (152–235 mm)
Termination Kit and 6 in. Vent Section (SV4.5L6)	10 3/4–14 in. (2733–356 mm)
Termination Kit and 12 in. Vent Section (SV4.5L12)	16 3/4–20 in. (426–508 mm)
Termination Kit and Telescopic Section (SV4.5L12)	11 3/4–20 in. (299–508 mm)

Table 19: Top Vent—One 90° Elbow, Elbow Connection NOT at Appliance



H Maximum		V Minimum	
feet	meters	feet	meters
3	0.91	1.6	0.490
5.2	1.58	3	0.914
6.8	2.07	4	1.22
8.4	2.56	5	1.524
10	3.05	6	1.729
16	4.87	10	3.050

V + H = 60 ft (18.3 m) maximum

H = 16 ft (4.87 m) maximum

Install the U-shaped vent restrictor in any vent run with more than 6 ft of vertical rise. See **Page 12** for more information.

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

If 16 ft of (H) horizontal vent run is needed, then 10 ft minimum of (V) vertical vent will be required.

This table shows a 1 (V) to 1.6 (H) ratio. For every 1 ft of (V) vertical, you are allowed 1.6 ft of (H) horizontal run, up to a maximum horizontal run of 16 ft (4.87 m).

Table 20: Top Vent—Two 90° Elbows

H + H_1 Maximum		V Minimum	
feet	meters	feet	meters
3	0.91	1.6	0.490
5.2	1.58	3	0.914
6.8	2.07	4	1.22
8.4	2.56	5	1.524
10	3.05	6	1.729
16	4.87	10	3.050

$V + H + H_1$ = 60 ft (18.3 m) maximum

$H + H_1$ = 16 ft (4.87 m) maximum

Install the U-shaped vent restrictor in any vent run with more than 6 ft of vertical rise. See **Page 12** for more information.

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

See ***Table 18*** as an aid in venting component selection for a particular range of exterior wall thicknesses.

If 16 ft of (H) horizontal vent run is needed, then 10 ft minimum of (V) vertical vent will be required.

This table shows a 1 (V) to 1.6 (H) ratio. For every 1 ft of (V) vertical, you are allowed 1.6 ft of (H) horizontal run, up to a maximum horizontal run of 16 ft (4.87 m).

An elbow is acceptable as 1 ft of vertical rise, but may not be connected directly to the appliance collar.

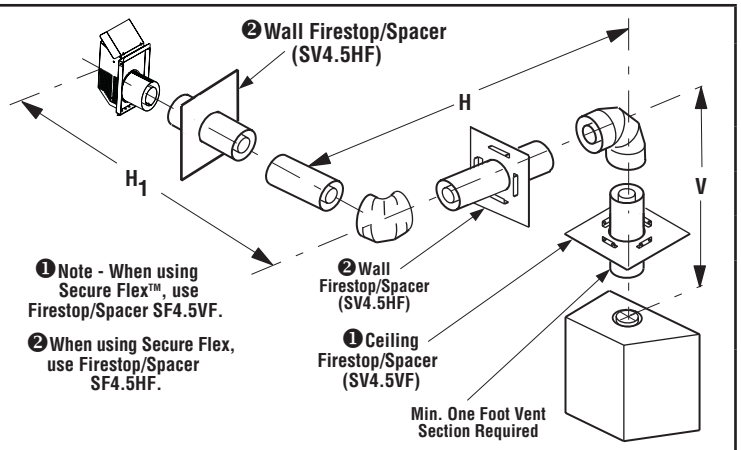


Table 21: Top Vent—Three 90° Elbows

H Maximum		V Minimum	
feet	meters	feet	meters
3	0.91	1.6	0.490
5.2	1.58	3	0.914
6.8	2.07	4	1.22
8.4	2.56	5	1.524
10	3.05	6	1.729
16	4.87	10	3.050

$H + H_1$ = 16 ft (4.87 m) maximum

$V + V_1 + H + H_1$ = 60 ft (18.3 m) maximum

Install the U-shaped vent restrictor in any vent run with more than 6 ft of vertical rise. See **Page 12** for more information.

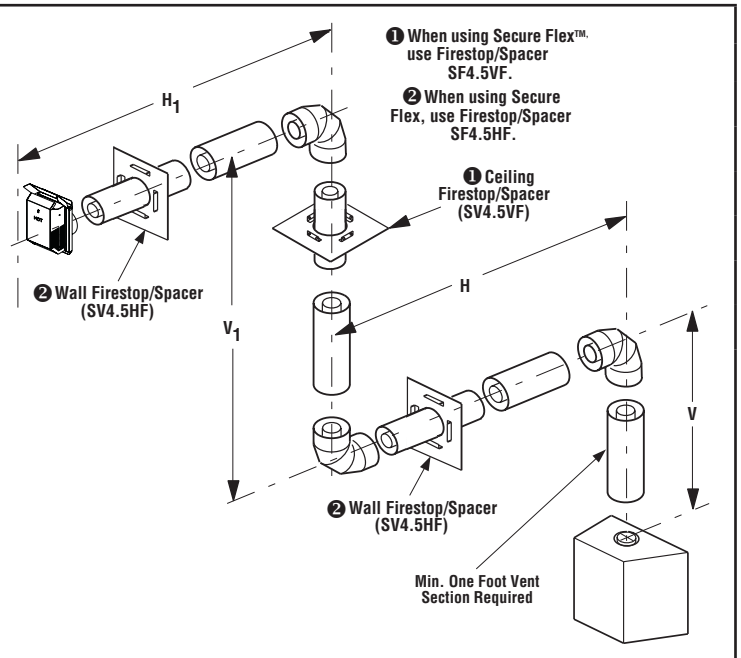
Square termination (SV4.5HT-2) shown.

See ***Table 18*** as an aid in venting component selection for a particular range of exterior wall thicknesses.

If 16 ft of (H) horizontal vent run is needed, then 10 ft minimum of (V) vertical vent will be required.

This table shows a 1 (V) to 1.6 (H) ratio. For every 1 ft of (V) vertical, you are allowed 1.6 ft of (H) horizontal run, up to a maximum horizontal run of 16 ft (4.87 m).

An elbow is acceptable as 1 ft of vertical rise, but may not be connected directly to the appliance collar.



Vertical or Horizontal Venting Using Secure Flex™ Venting Kits and Components

Secure Flex™ venting kits and components may be used in any venting application in place of rigid Secure Vent™ (SV4.5) direct-vent components. All restrictions, clearances and allowances that pertain to the rigid piping apply to the flexible venting. Secure Flex kits may not be modified. Do not join separate sections of flex pipe together.

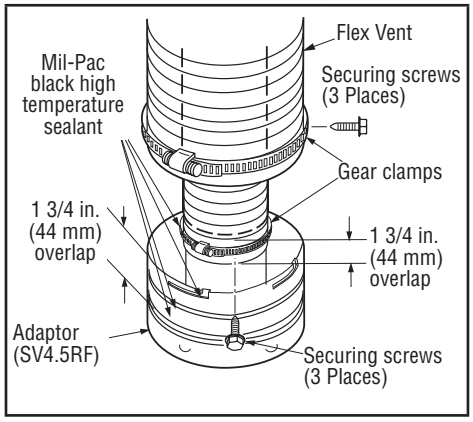
Using an adaptor (SV4.5RF), Secure Flex kits may be added to the end of a vent run made up of rigid Secure Vent (SV4.5) vent sections provided that doing so does not violate any of the venting length, height, routing, horizontal to vertical ratio requirements or clearance considerations detailed in this manual.

Secure Flex kits come with an adaptor that can be fitted to 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 inclined 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 (***Figure 25***):

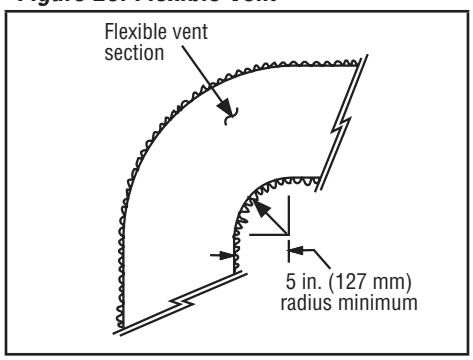
1. Install the Inner flex pipe—Install the small gear clamp loosely around the inner flexible vent pipe and push it back out of the way. Apply a bead of Mill-Pac Black (700 °F) high temperature sealant (P/N 10K81) to the inner adaptor collar, approximately 1/2 in. from the end. Pull and extend the inner flexible vent pipe. 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 in. from the end, and that it is free from damage or tears. Slide the gear clamp into place tighten it fully to secure the flexible vent to the adaptor inner collar approximately 3/4 in. from the end of the flex. Install the three (3) screws, 120° apart, through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.
2. Install the outer flex pipe—Install the large gear clamp loosely around the outer flexible vent pipe and push it back out of the way. Apply a bead of Mill-Pac Black (700 °F) high temperature sealant (P/N 10K81) to the outer adaptor collar, to the grooves of the collar that extend approximately 1 in. from the end and to the flat surface, approximately 1 3/8 in. from the end. Pull and extend the outer flexible vent pipe. Slide the outer flex pipe over the adaptor collar. Ensure the flexible vent pipe completely engages the adaptor collar to a distance of 1 3/8 in. from the end, and that it is free from damage or tears. Slide the gear into place and tighten it fully to secure the flexible vent to the adaptor outer collar approximately 3/4 in. from the end of the flex. Install three screws, 120° apart, through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.

Figure 25: Flexible Vent Adapter



3. Route the 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 in. (127 mm) (***Figure 26***). Evenly space the internal flex vent spacers (roughly every 6 in.) and avoid kinking the inner pipe. Support the horizontal sections of flex with metal straps at 2 ft (0.61 m) intervals.

Figure 26: Flexible Vent



4. Install the firestop/spacers at the 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.
5. Attach the flex vent to the 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 (***Figure 25***) 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 diameter than those used with the Secure Vent pipe. Additionally, Secure Flex components have an extended length center tube for use in attaching the flexible vent.

Complete the 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

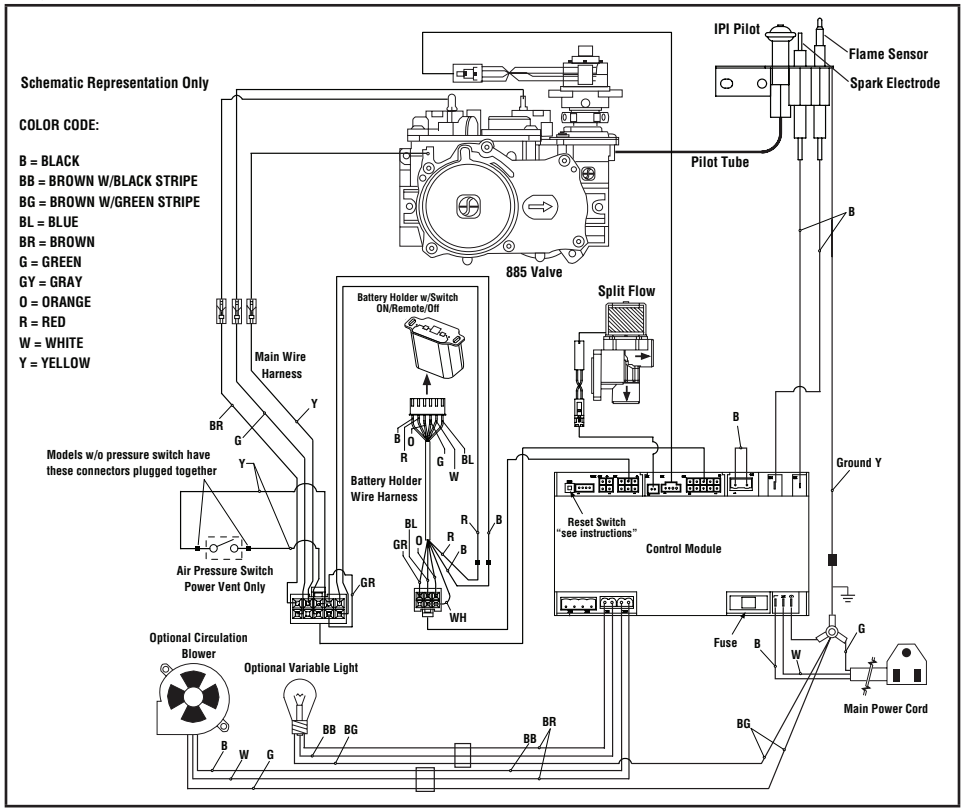
Au moment de l'entretien des commandes, étiquetez tous les fils avant de les débrancher. Des erreurs de câblage peuvent entraîner un fonctionnement inadéquat et dangereux.

Verify proper operation after servicing.

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

The gas valve is set in place and pre-wired at the factory. This appliance must be connected to a 120 Vac power source.

Figure 27: Wiring Diagram—Electronic Gas Valves



Electronic Wiring

One of the following optional controls may be used:

- ON/OFF Wall Switch,
- Thermostat / Remote Control.

See the fireplace Care and Operation Instructions for details.

1. Route a 3-wire, 120 Vac, 60 Hz, 1 ph power supply to the left side of the appliance.
2. Remove the electrical inlet cover plate from the side of the unit by removing the plate's securing screws.
3. Remove the cover plate knockout. Install a strain relief. Then, feed the power supply wire through the knockout opening.
4. Use wire nuts to connect the leads from the appliance to the power supply leads.
5. Replace the cover plate.
6. Install the wall-mounted ON/OFF control in a convenient location near the fireplace.

Installing and initializing the Remote Control System

Required Items (not provided):

- Standard Junction Box
- Paper Clip or similar object (for remote control system initialization)

The receiver for the Total Comfort Control™ Remote Control System connects directly to the gas valve, stepper motor, and fan control module with an umbilical cord wiring harness.

1. Install a junction box (not provided) on the wall adjacent to the appliance, within reach of the remote system umbilical cord wiring harness. Position the terminal within the junction box in preparation for attachment to the remote wall switch.
2. When wall finish is complete, install the wall switch in the previously installed junction box, and connect the terminal to the connector on the back of the wall switch.
3. Install the wall switch cover plate, taking care to ensure the wall switch is properly indexed with the switch cover when aligning the components for attachments.

After completing fireplace installation, initialize the remote control system before operating the fireplace.

1. Insert the three (3) provided AAA batteries into the battery bay in the transmitter. Take care to correctly align polarity (+/–).
2. Insert the four (4) provided AA batteries into the wall switch battery bay (behind the wall switch plate). Take care to correctly align polarity (+/–).
3. On the wall switch, place the three-position slider switch in the REMOTE position (***Figure 28***).
4. On the wall switch front cover, insert the end of a paper clip (or other similar object) into the hole marked PRG.

   NOTE: The Receiver will beep three (3) times to indicate it is ready to synchronize with the transmitter.
5. On the transmitter, press the ON button. The receiver will beep four (4) times to indicate acceptance of the transmitter's command (and set the receiver to the transmitter's specific code). The system is now initialized.

The remote control system provides remote operation of the following fireplace functions:

- Primary burner ON/OFF
- Auxiliary burner ON/OFF
- Dimmable light function
- 6-Speed blower operation
- Flame height and heat output adjustment (six levels)

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

The slider on the wall switch can be set to one of three positions:

- ON (manual override)
- OFF (manual override)
- REMOTE (remote control)

See the fireplace Care and Operation Instructions for detailed instructions on using the remote control system to operate the fireplace.

Figure 28: Wall Switch

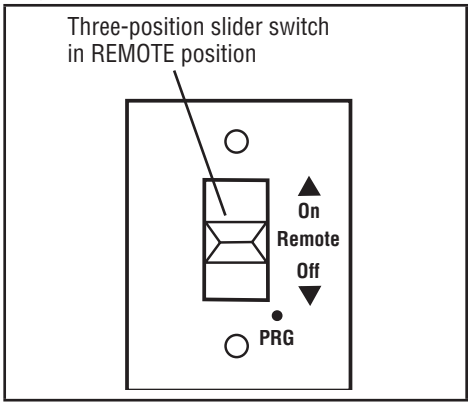
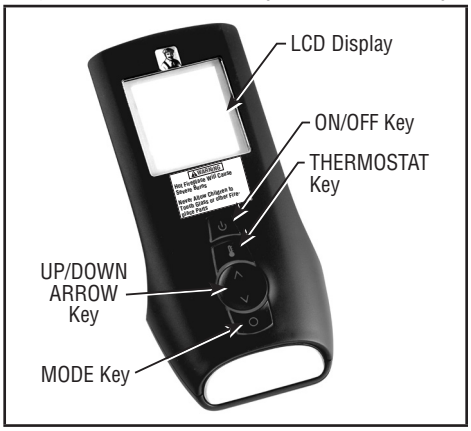


Figure 29: Transmitter (Remote Control)



⚠ 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 can not reach it.

Refer to the Appliance Care & Operations manual (P/N 506025-01) for detailed remote system operation instructions.

Connect the Gas Supply

All codes require a shutoff valve mounted in the supply line. The shut-off valve should be oriented to face the fireplace front. ***Figure 31*** illustrates two methods for connecting the gas supply. Use a sediment trap in the gas piping within the home to prevent moisture and debris in the line from damaging the valve.

The flex-line method is acceptable in the U.S.A. where local codes permit it. In the Commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter. Canadian requirements vary depending on locality. Installation must be in compliance with local codes. These appliances are equipped with a gas flex line for use in connecting the unit to the gas line (***Figure 31***). The flex line is rated for both natural and propane gas. A manual shutoff valve is also provided with the flex line.

The gas control valve is located on the left of the firebox, in the side control compartment. The valve is accessible with the glass door removed (***Figure 30***).

Secure all joints tightly using appropriate tools and sealing compounds. Ensure propane resistant compounds are used in propane applications. Seal around the gas line to prevent cold air leakage.

Route a hard pipe from the lefthand side to a spot directly below the access plate opening.

Locate the shut-off valve and gas flex line and pull the assembly forward, out of the compartment. Separate the shutoff valve from the gas flex line. Determine the length of pipe needed to route the gas line from the last fitting to a point directly below the access plate opening.

Using pipe-dressing materials appropriate for the gas type, securely affix the shutoff valve to this pipe at a convenient location outside of the appliance lower control compartment.

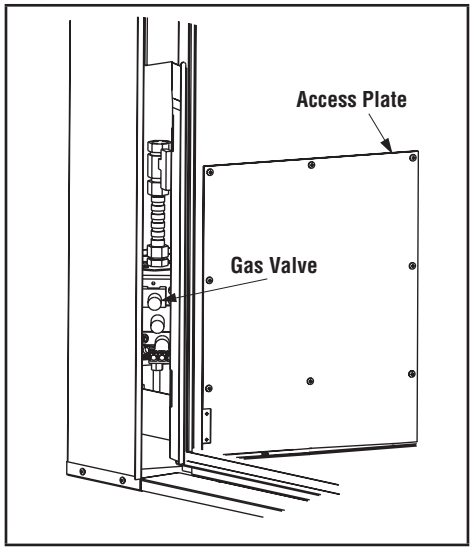
Refer to ***Figure 31*** and insert the last length of gas pipe with the attached shutoff valve into the lower control compartment, and pass it through the gas line access hole on the left side of the appliance outer wrapper.

Using materials appropriate for the gas type, thread the last length of pipe into the end of the gas vent run and tighten it in place using a pipe wrench.

NOTE: Turn the last piece of gas pipe in the last fitting until the shut-off valve is positioned in a way that allows the shutoff valve handle to be accessed in the lower control compartment and easily operated through its full range of motion.

Bring the flex line to the shutoff valve by hand and align the flare fittings. Tighten the fittings by hand, and then use a wrench to tighten completely, 1/4 turn at a time.

Figure 30: Gas Control Access



Test all connections (factory and field) for gas leaks

Turn on gas supply and test for leaks using a gas leak test solution.

NOTE: A soapy water solution is effective for leak testing. However, it is not recommended, because the soap residue left on the pipes/fittings can result in corrosion.

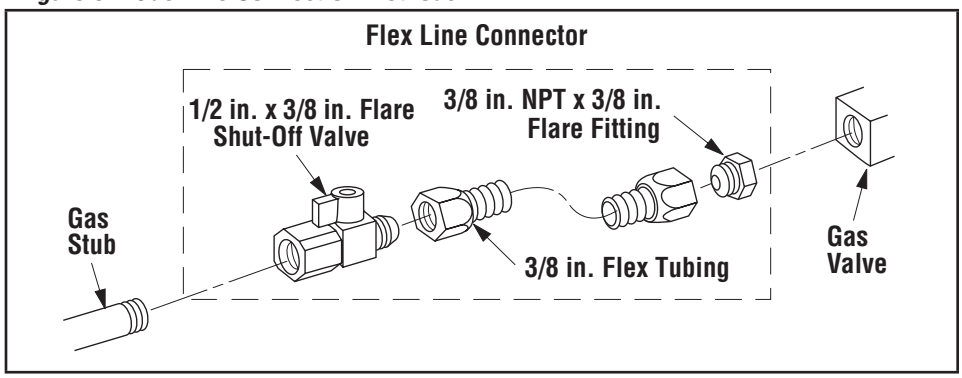
1. Light the appliance

   NOTE: Refer to the lighting instructions label in the control compartment or in the Care and Operation Instructions.

2. Brush all joints and connections with the gas leak test solution to check for leaks. If bubbles are formed, or gas odor is detected, turn the gas control knob (OFF/PILOT/ON) to the OFF position. Either tighten or refasten the leaking connection, then retest as described above.

3. When the gas lines are tested and leak free, rinse off the leak testing solution.

Figure 31: Gas Line Connection Methods



Verify Correct Appliance Operation

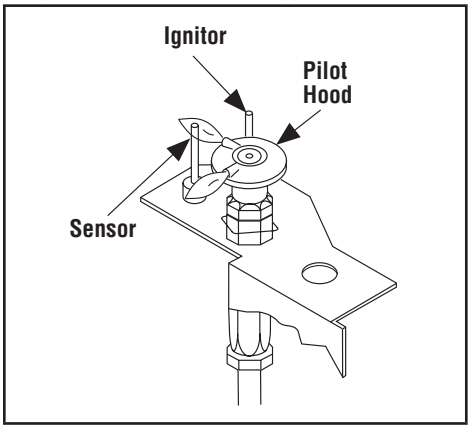
With the gas line installed, perform an initial system inspection before closing the front of the unit. Follow the pilot lighting instructions provided in the Care and Operation Instructions manual.

NOTE: Lighting Instructions are also found on the literature tag tied to the gas piping next to the gas valve in the left side compartment. To access the tag, remove the surround trim assembly.

When lighting the appliance for the first time, the gas line will purge itself of air. This may take a few minutes. Once complete, the pilot and burner will light. Subsequent lightings of the appliance will not require air purging. Inspect the pilot flame (carefully remove the logs, if necessary).

To light the burner, turn the wall switch or (optional) remote control ON. Ensure the ignitor lights the pilot. The pilot flame should engulf the flame rod (***Figure 32***).

Figure 32: Pilot Flame Appearance



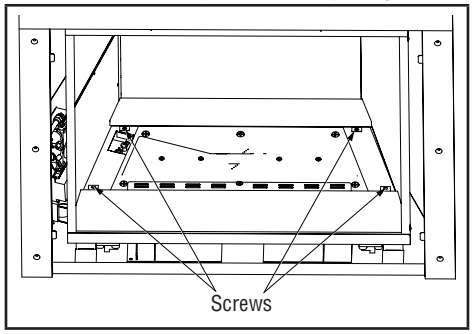
Contemporary Fireplaces Only: Install the Contemporary Floor and Contemporary Glass Media

NOTE: Turn off all electricity to the appliance before installing the contemporary floor and contemporary media.

1. Position the rear contemporary floor to the back of the firebox, aligning the holes in the mounting tabs with the screw holes in the firebox floor (***Figure 33***). Secure with the two (2) included 5/16 in. screws.

NOTE: It may be easier to install the rear porcelain firebox liner (**Step 3** in **Porcelain Firebox Liners**), before installing the rear contemporary floor.

Figure 33: Installing the Contemporary Floor



2. Position the front contemporary floor to the front of the firebox, aligning the holes in the mounting tabs with the screw holes in the firebox floor (***Figure 33***). Secure with the two (2) included 5/16 in. screws.

Install the Firebox Liners

Ceramic Firebox Liners

1. Remove the four (4) firebox liner panels from the packing materials.
2. Carefully position the rear panel, upper edge first, in the firebox against the rear wall.
3. While holding the rear panel, carefully position the left side panel in the firebox.
4. While holding the left panel, carefully position the top panel, left edge up to a resting position on the upper edge of the left panel.
5. Raise the right end of the top panel, and hold it in position while installing the right panel in the following step.
6. Carefully position the right side panel in the firebox.
7. Lower the top panel onto the upper edge of the right side panel.

   NOTE: Do not force the top panel into place. Excessive force may cause breakage. If the top panel is correctly positioned, it will fit snugly in place.
8. Ensure the top panel is positioned over both the left side and right side panels and that all panels are aligned with the sides and rear of the firebox.

Porcelain Firebox Liners

1. Remove the four (4) firebox liner panels from the packing materials.
2. Locate the rear, left, and right panels.
3. Position the rear panel, upper edge first, in the firebox against the rear wall. Insert the lower mounting tabs into the mounting slots in the firebox base. Secure the panel to the rear wall with a 5/16 in. screw through the upper mounting tab.
4. Position the left panel in the firebox against the left wall and the rear panel.
5. Position the top panel, left edge up, so that it rests on the upper edge of the left panel.
6. Raise the right edge of the top panel, and hold it against the firebox ceiling when installing the right panel in the following step.
7. Position the right panel in the firebox against the right wall and the rear panel.
8. Lower the top panel onto the upper edge of the right panel, and slide it under the two tabs on the left and right panels.
9. Ensure the top panel is positioned over both the left side and right side panels and that all panels are aligned with the sides and rear of the firebox.
10. Use an ammonia-free glass cleaner and a soft, non-abrasive cloth to remove fingerprints and smudges from the porcelain firebox liner panels.
11. Install the contemporary glass media in a thin, even layer.

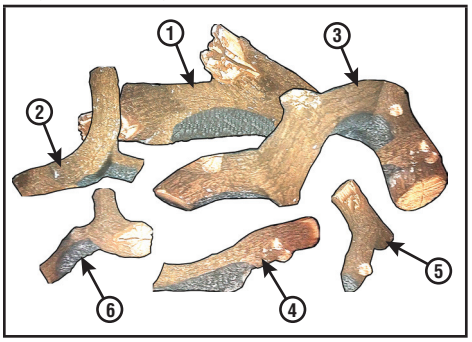
    NOTE: Do not mound or overapply the glass media.

Traditional Fireplaces Only: Install the Logs, Decorative Volcanic Stone, and Glowing Embers

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

NOTE: The log set and fire are artistically arranged to provide an asymmetrical fire. The fire does not burn in the left rear quarter of the log set.

Figure 34: Log Set



NOTE: ***Figure 34*** is representative of all fireplace models. Logs 5 and 6 may vary in appearance from those shown above.

Table 22: Log Set

Log Number	Description
1	Rear Log
2	Bottom Left Log
3	Bottom Right Log
4	Front Log
5	Top Right Log
6	Top Left Log

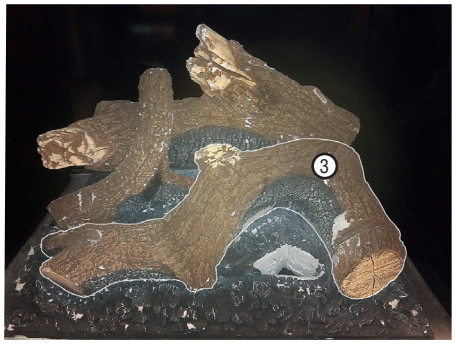
Catalog number for the entire set:
35 in. H8707
40 in. H8708
45 in. H8824

1. Align the two holes in the bottom of Log 1 over the two tabs at the rear of the burner (***Figure 35***).

Figure 35: Placing Logs 1 and 2

2. Hold Log 1 in position while placing Log 2 on the burner and resting it against the alignment notch in Log 1 (***Figure 35***).
3. Place Log 3 in position with the base aligned in the burner surface (***Figure 36***).

Figure 36: Placing Log 3

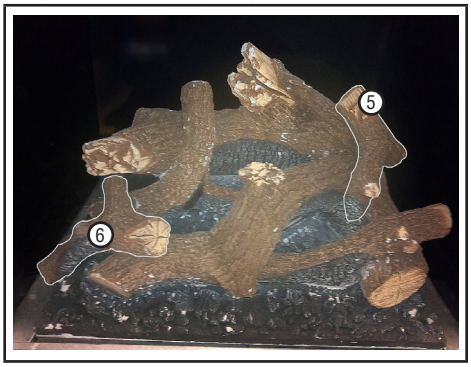


4. Insert the left end of Log 4 under Log 3 and position the right end of Log 4 in the notch on the top, right end of Log 3 (***Figure 37***).

Figure 37: Placing Log 4

5. Ensure all logs are properly positioned on the surface of the burner and interlocked with each other (***Figure 37***).
6. Place Log 5 in position in the notches on the upper right portions of Logs 1 and 3 (***Figure 38***).

Figure 38: Placing Logs 5 and 6



7. Place Log 6 in position in the notches near the left ends of Logs 2 and 3 (***Figure 38***).
8. Install the volcanic stone in front of and on the sides of the log set. Cover all of the exposed metal floor.

Install 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.

CAUTION

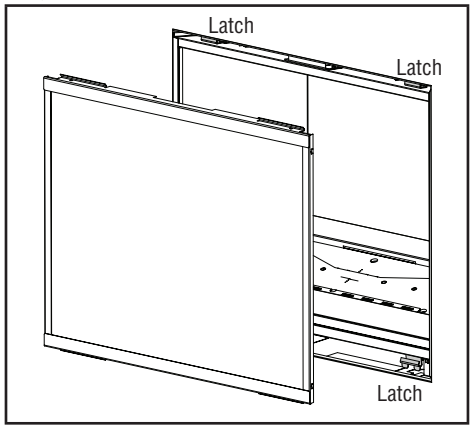
DO NOT abuse glass door by striking or slamming shut.

NOTE: Visually inspect the gasket on the backside of the glass door. The gasket surface must be clean, free of irregularities, and seated firmly. Ensure it is properly located. Make sure the bead is not rolled into the channel at the top of the door, but remains flat against the top of the glass.

NOTE: When installing the glass door, ensure the spacing on both sides is even.

1. Retrieve the glass door. Visually inspect the gasket on the backside.
2. Locate the four (4) spring-loaded latches; two above and two below the fireplace opening (***Figure 39***).

Figure 39: Glass Door



3. Carefully grip the door at the top and bottom, and align it with the fireplace opening. Lightly press against the door, to hold it in position.
4. Secure the two upper latches by pulling each handle down and pressing in to hook it to the glass door.
5. Secure the two lower latches,
6. Install the surround trim assembly by lowering it onto the appliance and pressing in to secure it (***Figure 8***).

To Remove the Glass Door

For more information on removing the glass door, see **Page 9**.

Adjust the Burner to Ensure Proper Flame Appearance

⚠ WARNING

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

CAUTION

- **Soot will be produced if the air shutter is closed too much. Any damage due to sooting, resulting from improperly setting the air shutter, is not covered under the warranty.**
- **The air shutter rod and nearby appliance surfaces are hot. Exercise caution to avoid injury while adjusting flame appearance.**

Flame Appearance and Sooting

The flame should be blue at the base, and yellow-orange in the body of the flame.

When the appliance is first lit, the entire flame may be blue and will gradually turn yellow-orange during the first 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 yellow-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.

Table 23: 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

1. Remove the top louver and the surround trim assembly.
2. Locate the air shutter adjustment rod in the lower control compartment (***Figure 40***), and adjust it to the standard setting.

   NOTE: Pull the rod out to close, and push the rod in to open the air shutter.
3. Light the appliance (follow lighting procedure on lighting label in control compartment or the Care and Operations Manual).
4. 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 (***Figure 41*** and ***Figure 42***). 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.
5. When satisfied that the burner flame appearance is normal, reinstall the lower control compartment door then proceed to finish the installation.

Figure 40: Air Shutter Adjustment Rod

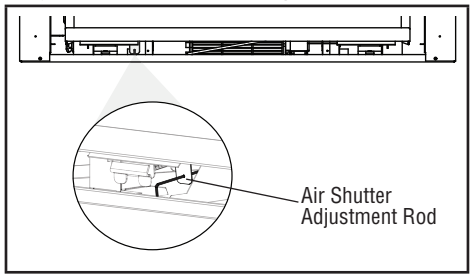


Figure 41: Traditional Fireplaces Flame Appearance

Figure 42: Contemporary Fireplaces Flame Appearance

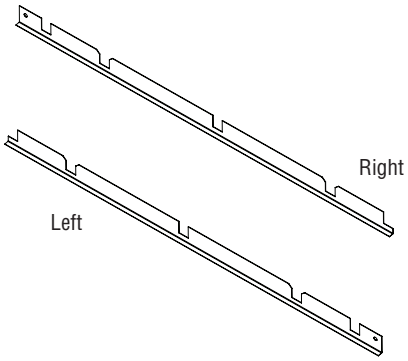
Table 24: Main Burner Shutter Opening—Factory Setting

Models	Natural Gas	Propane
NV35	3/16 in. (4.8 mm)	7/16 in. (11.1 mm)
NV40	3/16 in. (4.8 mm)	3/8 in. (9.5 mm)
NV45	3/16 in. (4.8 mm)	3/8 in. (9.5 mm)

Finishing Requirements

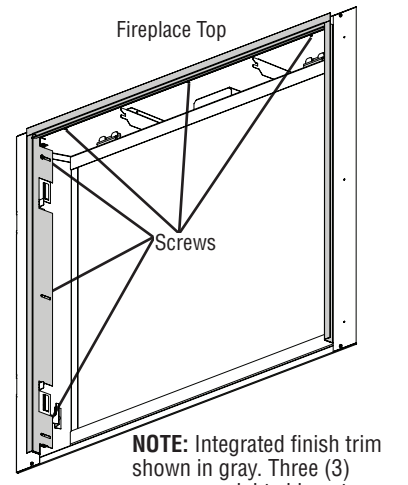
1. Remove the surround trim assembly (***Figure 8***)
2. Remove the finish trim gap fillers from the side of the fireplace, and identify the left and right side pieces (***Figure 43***).

Figure 43: Finish Trim Gap Fillers



3. Loosen the nine (9) screws securing the integrated finish trim and slide the trim out and away from the fireplace door (***Figure 44***).

Figure 44: Finish Trim Fasteners



NOTE: Integrated finish trim shown in gray. Three (3) screws on right side not shown, but mirror left side.

NOTE: The integrated finish trim is designed to be "flush face" with a minimum thickness of 1 in. (25 mm) in a non-combustible wall. The fireplace is supplied with 1/2 in. (13 mm) non-combustible wall material (***Figure 45***).

NOTE: A "flush face" installation will require a minimum of an additional 1/2 in. (13 mm) non-combustible (installer-supplied) wall material (***Figure 46***) to create the minimum 1 in. (25 mm) thick wall.

NOTE: The integrated finish trim is adjustable to accommodate a wall thickness of an additional 1 in. (25 mm)—for a 2 in. (51 mm) total thickness.

NOTE: For wall thicknesses greater than 2 in. (51 mm), remove the three integrated finish trim pieces (***Figure 44***).

Figure 45: Non-combustible Wall

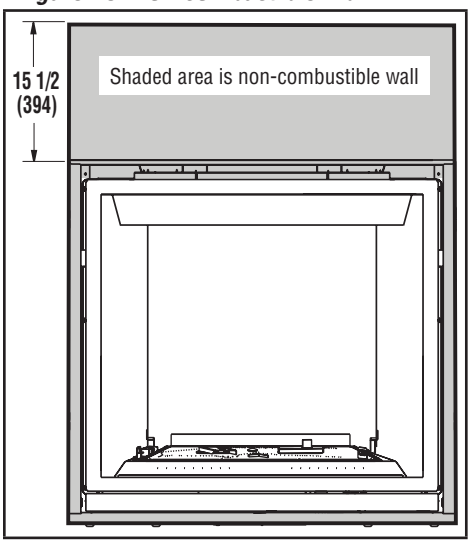
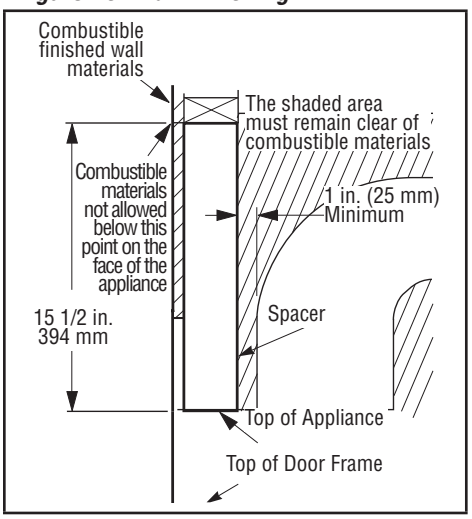


Figure 46: Wall Finishing

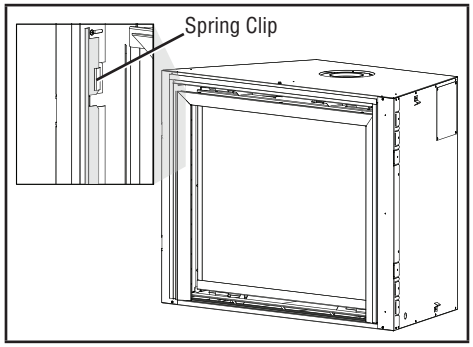


NOTE: See **Page 5** for Cold Climate Insulation and **Page 6** for Clearances.

4. Slide the finish trim in until it is flush with the finished wall surface. Tighten the nine (9) screws (***Figure 44***) securing the finish trim.
5. Install the surround trim assembly by lowering it onto the appliance and pressing in to secure it (***Figure 8***).
6. Slide the left finish trim gap filler into the left gap between the finish trim and the surround trim assembly (***Figure 47***).

   NOTE: Ensure the finish trim gap filler slides into the spring clip, as shown.

Figure 47: Finished Installation



7. Slide the right finish trim gap filler into the right gap between the finish trim and the surround trim assembly (***Figure 47***).

   NOTE: Ensure the finish trim gap filler slides into the spring clip, as shown.

Attach the Safety-in-Operation Warnings

NOTE: 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 (***Figure A***) and on the remote control handheld transmitter (***Figure B***). To properly complete the installation of this fireplace, locate the multi-lingual adhesive labels provided with the Care and Operation Instructions and proceed as follows:

1. Locate the wall 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 (***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 fonction-nement 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

Remarqué : 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 (***Figure A***) y en el transmisor de control remoto (***Figure 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 (***Figure 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 (***Figure B***). Seleccione el idioma que más se habla en la casa. Si no sabe cuál es, use la etiqueta en inglés.
3. Si no puede encontrar las etiquetas, sírvase llamar a Lennox Hearth Products o al distribuidor de Lennox Hearth Products más cercano para recibir etiquetas de instrucciones de seguridad adicionales gratuitas.

Juego de etiquetas de repuesto - Nº de cat. H8024

LENNOX HEARTH PRODUCTS

1-800-655-2008

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

SAFETY LABEL DIAGRAMS

DIAGRAMMES DES ÉTIQUETTES DE SÉCURITÉ

DIAGRAMAS DE ETIQUETAS DE SEGURIDAD

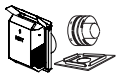
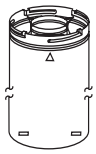
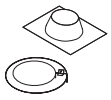
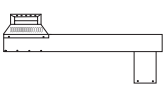
Figure A

Figure B

DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

INSTALLATION ACCESSORIES

Table 25: Listed Secure Vent™ Components

	Catalog Number	Models	Description
	H1968	SV4.5HT-2	Horizontal square termination with firestop / spacer (H2246) and adaptor (74L61)
	77L70	SV4.5L6	6 in. (152 mm)
	77L71	SV4.5L12	12 in. (305 mm)
	77L72	SV4.5L24	24 in. (610 mm)
	77L73	SV4.5L36	36 in. (914 mm)
	77L74	SV4.5L48	48 in. (1219 mm)
	77L75	SV4.5LA	Telescopic length slip section (2–7 1/2 in., rigid)
	77L76	SV4.5E45	45° Elbow
	77L77	SV4.5E90	90° Elbow
	77L78	SV4.5F	Flat roof flashing *
	77L79	SV4.5FA	1/12–7/12 Adjustable flashing *
	77L80	SV4.5FB	7/12–12/12 Adjustable flashing *
	77L81	SV4.5SC6	Storm collar (6/box) *
	H6183	SV4.5HF5	Firestop spacer, 5 in., rigid *
	H6184	SF4.5HF5	Firestop spacer, 5 in., 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 *
	17M52	SV4.5HGS-1	Termination guard, square (1 pack)
	17M53	SV4.5HGS-12	Termination guard, horizontal square (12 pack)
	87L02	SV4.5HGS	Termination guard for horizontal square termination (deluxe) (1 pack)
	H5820	SV4.5HTSK	Termination guard for horizontal square termination (1 pack)
	H5816	SV4.5-TWSK10	Through wall shield kit (used to shield the direct-vent pipe from blown insulation)
	H3907	SV4.5ARSA	Attic insulation shield w/ adjustable height, 12–22 in.
	96K93	SV4.5SU	Support strap
	10K81	SFMP	Mill-Pac, black, high temperature sealant
	99L02	SV4.5HRK14	Horizontal Riser Kit, 14 in.
	99L03	SV4.5HRK36	Horizontal Riser Kit, 36 in.
	H8914	SV4.5TK90HT2	Horizontal Termination Kit with SV4.5 90° elbow
	H8915	SV4.5TK90SS	

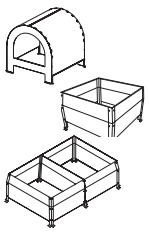
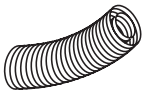
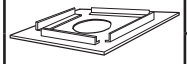
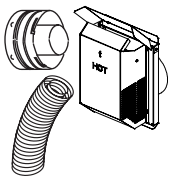
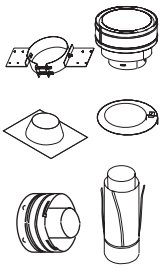
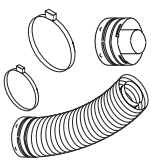
	Catalog Number	Models	Description
	H1988	CTSA-33	Chase top shroud kit, arch top, 3 x 3 ft
	H1985	CTSO-33	Chase top shroud kit, open top, 3 x 3 ft
	H1987	CTSO-44	Chase top shroud kit, open top, 4 x 4 ft
	H1986	CTSO-46	Chase top shroud kit, open top, 4 x 6 ft

Table 26: Listed Secure Flex™ Components

	Catalog Number	Models	Description
	60L10	SF-18	18 ft (5.49 m)* compressed flex
	98K03	SF-12	12 ft (3.66 m)* compressed flex
	H2248	SF4.5HF-10	Firestop/spacer—horizontal, flex (3-1-1 spacing), 10 pk
	H2249	SF4.5VF-10	Firestop/Spacer—vertical, flex (1-1-1 spacing), 10 pk
 Horizontal square termination for flex	H1969	SF4.5HT-2	without flex
	77L87	SFKIT12S	with 12 in. (305 mm)* compressed flex
	77L88	SFKIT18S	with 18 in. (457 mm)* compressed flex
	77L89	SFKIT24S	with 24 in. (610 mm)* compressed flex
	77L90	SFKIT36S	with 36 in. (914 mm)* compressed flex
	77L91	SFKIT48S	with 48 in. (1219 mm)* compressed flex
	56L74	SFVT30	Vertical termination for flex, flat–6/12 with flex adaptor, section of rigid vent, roof support collar assembly, roof flashing and storm collar
	56L75	SFVT45	Vertical termination for flex 6/12–12/12 with flex adaptor, section of rigid vent, roof support collar assembly, roof flashing and storm collar
	91L66	SFGC4-6	Gear clamp 4 1/2 in. (114 mm) for flex (6 pk)
	91L67	SFGC7-6	Gear clamp 7 1/2 in. (191 mm) for flex (6 pk)
	H7748	H7748	36 in. Flex connector kit, 36 in. of flex with two adapters for mating two rigid sections of vent together

* Flashing comes packaged with a storm collar.

DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Table 27: Replacement Parts

Description		NV35		NV40		NV45	
		Catalog Number	Qty	Catalog Number	Qty	Catalog Number	Qty
1	Surround Trim Assembly	H8734	1	H8713	1	H8735	1
2	Glass Door	H9017	1	H9018	1	H9019	1
3	Literature Kit	H9020	1	H9020	1	H9020	1
4	Remote Control Receiver Wall Switch Kit	H8752	1	H8752	1	H8752	1
5	Touch-Up Paint	90L73	1	90L73	1	90L73	1
6	Blower Assembly	80L84	1	80L84	1	80L84	1
7	Volcanic Stone	80L42	1	80L42	1	80L42	1
8	Electronic Pilot Assembly, Natural Gas	H7268	1	H7268	1	H7268	1
9	Flex Hose Connector, 24 in.	H8997	1	H8997	1	H8997	1
10	Flex Hose Connector, 12 in.	H8979	1	H8979	1	H8979	1
11	Flex Hose, 10 in.	H8724	1	H8724	1	H8724	1
12	Remote Control Kit	H8753	1	H8753	1	H8753	1
13	ON/OFF Jumper	H8809	1	H8809	1	H8809	1
14	Gas Valve, SIT Proflame, Natural Gas	H7270	1	H7270	1	H7270	1
15	Shield Standoff	H8980	1	H8981	1	H8982	1
16	Firebox Access Door Gasket	H8983	1	H8983	1	H8983	1
17	Contemporary Burner Assembly	H8984	1	H8985	1	H8986	1
18	Traditional Burner Assembly	H9038	1	H9039	1	H9040	1
19	Vent Restrictor Base	H8987	1	H8987	1	H8987	1
20	Vent Restrictor Wing	H8988	1	H8988	1	H8988	1
21	Gas Train Assembly Gasket	H8989	1	H8989	1	H8989	1
22	Door Latch Assembly, Top	H9063	1	H9063	1	H9063	1
23	Door Latch Assembly, Bottom	H9064	1	H9064	1	H9064	1
24	Firebox Lamp	H8991	1	H8991	1	H8991	1
25	Firebox Lamp Gasket	H8993	1	H8993	1	H8993	1
26	Ceramic Glass, 4 1/2 x2 in.	H8992	1	H8992	1	H8992	1
27	Control Module, SIT	H8656	1	H8656	1	H8656	1
28	Brass Orifice, Female #35	H8828	1	H8828	1	H8828	1
29	Brass Orifice, Female #40	H8933	1	H8933	1	H8933	1
30	Brass Orifice, Female #54	H8763	1	H8763	1	H8763	1
31	Brass Orifice, Female #64	H8765	1	H8765	1	H8765	1
32	Brass Orifice, Female #65	H8767	1	H8767	1	H8767	1
33	Brass Orifice, Female #66	H8875	1	H8875	1	H8875	1
34	Flare 90° Elbow, 3/8 in. NPT (M) X 3/8 in.	H8994	1	H8994	1	H8994	1
35	Flare Straight Fitting, 3/8 in. NPT (M) X 3/8 in.	H8995	1	H8995	1	H8995	1
36	Split Valve	H8996	1	H8996	1	H8996	1
37	Assembly Harness, Wall to Proflame II, 12 ft	H8813	1	H8813	1	H8813	1
38	Assembly Harness, Valve to Proflame II	H8814	1	H8814	1	H8814	1
39	Assembly Harness, Power to Proflame II	H8811	1	H8811	1	H8811	1
40	Assembly Harness, Blower Plug-In	H8817	1	H8817	1	H8817	1
41	Assembly Harness, Lights to Proflame II	H8810	1	H8810	1	H8810	1
42	Assembly Harness, Split Flow to Proflame II	H8812	1	H8812	1	H8812	1
43	Assembly Harness, Light and Fan Connector, 5 in.	H8815	1	H8815	1	H8815	1
44	Volcanic Stone	80L42	1	80L42	1	80L42	1

Contact a Lennox Hearth Products dealer to obtain any of these parts. Never use substitute materials. Use of non-approved parts can result in poor performance and safety hazards.

⚠ WARNING

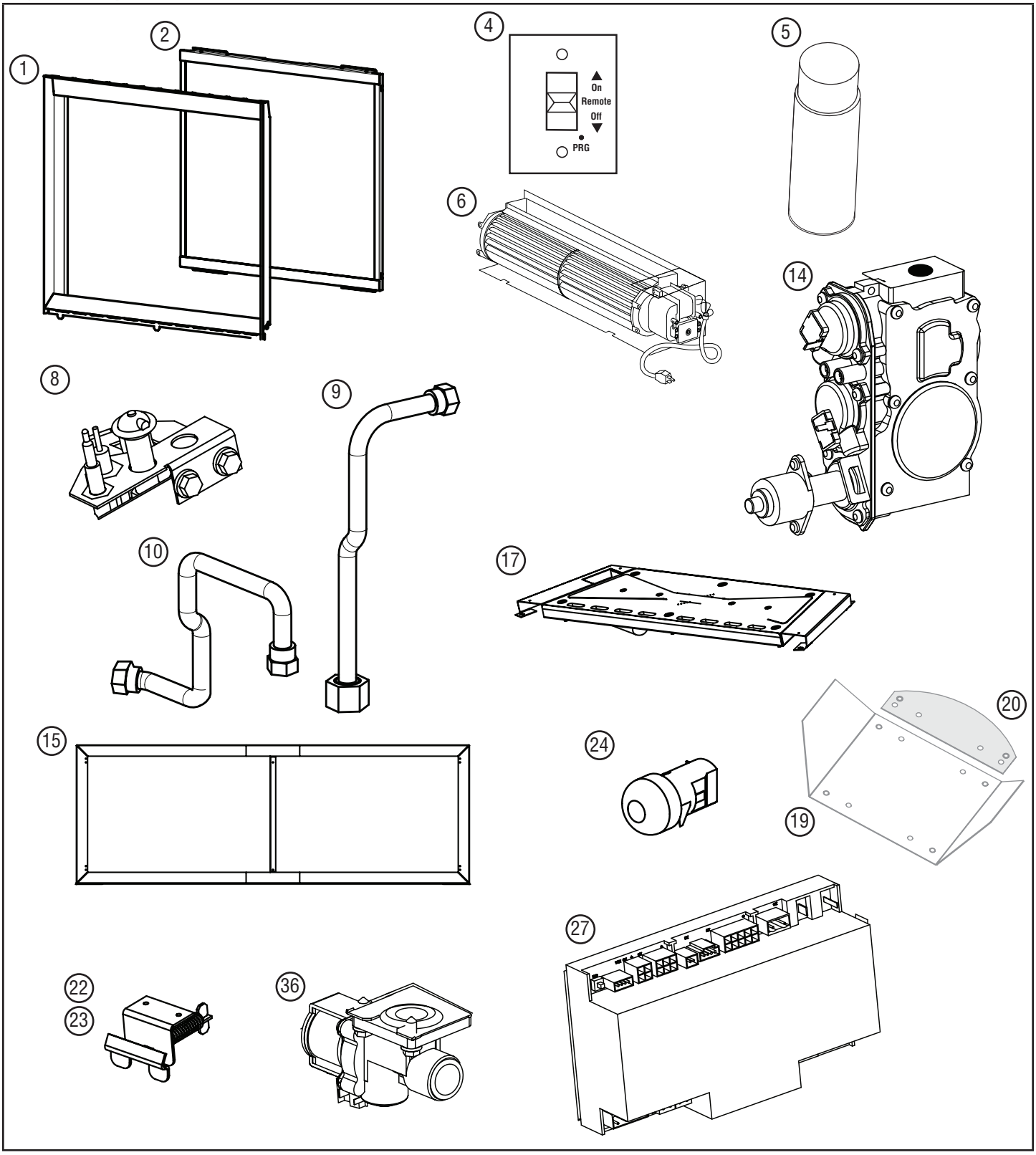
Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

⚠ 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.

DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Figure 48: Replacement Parts



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 instructions is not followed exactly, a fire, explosion, or the 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.

Refer to the instructions provided with the conversion kit when performing any gas conversion.

Table 28: Traditional Fireplaces— Natural Gas to Propane Conversion Kits

Models	Catalog Number
NV35IN	H8754
NV40IN	H8722
NV45IN	H8757

Table 29: Traditional Fireplaces— Propane to Natural Gas Conversion Kits

Models	Catalog Number
NV35IN	H8755
NV40IN	H8756
NV45IN	H8758

Table 30: Contemporary Fireplaces— Natural Gas to Propane Conversion Kits

Models	Catalog Number
NVCD35IN	H8759
NVCD40IN	H8760
NVCD45IN	H8761

P/N 506023-17 Rev. A 08/2013

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