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Ce manuel est disponible en francais, simplement en faire la demande. Numéro de la pièce 900357-03.





Installation and Operation Instructions

Altair[™] Series Direct Vent Gas Fireplaces

		_
Altair40DMN	Altair45DMN	
Altair40DMP	Altair45DMP	
Altair40DEN	Altair45DEN	

		Installateur : Laissez cette notice avec l'appareil. Consommateur : Conservez cette notice pour consulta- tion ultérieure.
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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.

Cet appareil peut installé dans une maison préfabriquée (mobile) déjà installée à demeure, si les réglements locaux le permettent. Ce appareil doit être utilisé uniquement avec le type de gaz indiqué sure la plaque signalétique. Cet appareil ne peut être converti à d'autres gaz, sauf si une trousse de conversion est utilsée.

WARNING:

FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- 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.
- Leave the building immediately.
- 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:

RISQUED'INDENDIE OU D'EXPLOSION

Le non-respect Des avertissements de sécurité pourrait d'entraîner des blessures graves. la mort ou des dommages matériels.

- 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.
- Sortez immédiatement de bâtiment.
- 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.

SAFETY AND YOUR FIREPLACE

See attached color flyer for proper color representation



Voir ci-joint tract pour une bonne représentation de la couleur



Vea el volante adjunto para la representación de color adecuado



Safety and Your
FireplaceLa sécurité et
votre foyerSeguridad y su
chimeneaAll parts of your
IHP fireplace get
EXTREMELY HOT!Toutes les parties de votre
foyer IHP deviennent
EXTRÊMEMENT CHAUDES !¡Todas las partes de la
chimenea IHP se ponen
MUY CALIENTES!

To prevent severe burns and injuries, do Not remove the barrier on the appliance which prevents direct contact with the glass.



- □ Follow the safety instructions below and be sure everyone in your household understands this burn hazard:
- The surfaces on your fireplace get EXTREMELY HOT!
- The glass on the front of the fireplace reaches EXTREMELY HIGH temperatures and can cause severe burns if touched.
- Keep children away from an operating fireplace. Closely supervise children in any room where a fireplace is operating to prevent contact with glass.
- Keep clothing, furniture, gasoline, and other flammable liquids away from the fireplace.
- Even after the gas is turned off, fireplace surfaces remain extremely hot.
- Be sure to attach the enclosed Safetyin-Operation Warnings where you turn on your fireplace, to help remind everyone of the dangers associated with high temperatures (Pages 34).
- Read Important Safety Information (Page 39).

- Afin d'éviter les brûlures graves ou les blessures, ne pas retirer l'écran de protection de la foyer qui empêche tout contact direct avec la vitre.
- Suivez les instructions de sécurité ci-dessous et veillez à ce que tous les membres de votre famille soient conscients du danger de brûlure encouru :
- Les surfaces de votre foyer deviennent EXTRÊMEMENT CHAUDES !
- La vitre située à l'avant du foyer atteint des températures EXTRÊMEMENT ÉLEVÉES et peut causer de graves blessures en cas de contact.
- Tenez les enfants à l'écart du foyer lorsqu'il fonctionne. Surveillez attentivement les enfants dans les pièces où un foyer est utilisé afin d'éviter qu'ils ne soient en contact avec la vitre.
- Tenez tous les vêtements, les meubles, l'essence et tout autre liquide inflammable à l'écart du foyer.
- Même après fermeture du gaz, les surfaces du foyer restent extrêmement chaudes.
- Veillez à coller les Étiquettes de mise en garde relatives à la sécurité d'utilisation à l'endroit où vous utilisez le foyer, pour rappeler à tous les utilisateurs les dangers liés aux températures élevées (Pages 34).
- □ Lisez L'information de sûreté importante (Page 39).



- Para evitar quemaduras y lesiones graves, no quite el protector de malla o guardia de seguridad que evita el contacto directo con el vidrio.
- Siga las instrucciones de seguridad a continuación y asegúrese de que todos en su hogar sepan acerca de este peligro de quemadura:
- ¡Las superficies de la chimenea se ponen MUY CALIENTES!
- El vidrio delante de la chimenea alcanza temperaturas EXTREMADAMENTE ALTAS y puede causar quemaduras graves si se toca.
- Mantenga a los niños alejados de la chimenea en funcionamiento.
 Supervise en forma cercana a los niños en cualquier cuarto donde haya una chimenea funcionando para impedir el contacto con el vidrio.
- Mantenga la ropa, mobiliario, gasolina y otros líquidos inflamables alejados de la chimenea.
- Aún después de haber apagado el gas, las superficies de la chimenea permanecen extremadamente calientes.
- Asegúrese de colocar las Etiquetas de advertencia de seguridad de operación en el lugar donde enciende la chimenea, para que todos recuerden los peligros asociados con las altas temperaturas (Página 34).
- □ Lea Información importante de seguridad (Página 39).

[ENGLISH]

[FRENCH]

[SPANISH]

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Please read and understand these instructions before beginning your installation.



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

PACKAGING

The assembled vented gas fireplace heater is packaged with:

- 1 logs in a carton located within the firebox.
- 2 one plastic bag of glowing embers in the bottom compartment.
- 3 literature package containing the Installation and Operation Manual (this manual), Safety Flyer, Glass and Barrier Flyer and Safety-in-Operation Warning Labels.
- 4 one rear and one top vent restrictor are provided with this fireplace. See *Page 14* for installation instructions.
- 5 one hood.
- 6 front face assembly with barrier installed.
- 7 4" top stand off taped diagonally to the rear of the fireplace.

INTRODUCTION

The *Millivolt* appliances have a millivolt gas control valve with piezo ignition system. If any optional accessories that will require electrical power are to be installed, the electrical power must be provided at the time of appliance installation. The *Electronic* appliances are designed to operate on natural or propane gas. An electronic intermittent pilot ignition system provides safe, efficient operation. External electrical power is required to operate these units.

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:

- <u>Secure Vent</u>[®] Direct-Vent System Components manufactured by IHP,
- <u>Secure Flex</u>[®] Flexible Vent Components manufactured by IHP and
- <u>Z-FLEX</u>[®] Model GA Venting Systems listed to UL1777 and ULCS635 manufactured by Flexmaster Canada Limited.

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

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

NOTE:

- If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance.
- For use with barrier(s) Part No(s). J7420 (40" Models) and J7428 (45" Models).

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.



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

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

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

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

🛕 WARNING

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

A 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.

A 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.

A WARNING

Any safety screen, guard, or barrier removed for servicing an 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.

A WARNING

Improper installation or use of this appliance can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning. 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, et cetera. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.

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

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

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

IMPROPER INSTALLATION OR USE OF THIS APPLIANCE CAN CAUSE SERIOUS INJURY OR DEATH FROM FIRE, BURNS, EXPLOSION OR CARBON MONOXIDE POISONING.

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

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

These appliances comply with National Safety Standards and are tested and listed by PFS. (Report No. F14-170) to ANSI Z21.88 (in Canada, CSA-2.33), and CAN/CGA-2.17-M9, latest editions, in both USA and Canada, as vented gas fireplace heaters.

Both millivolt and electronic versions of these appliances are listed by PFS Corporation for installation in bedrooms and Manufactured Homes.

Misc. Codes / Standards -

The Installation must conform to local codes or, in the absence of local codes, with the *National Fuel Gas Code, ANSI Z223.1/NFPA 54—latest edition*, or the Natural Gas and Propane Installation Code, CSA B149.1. The appliance, when installed, must be electrically grounded and wired in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA* 70—latest edition, or the *Canadian Electrical Code, CSA C22.1—latest edition.*

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

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

These fireplaces are designed as supplemental heaters. Therefore, it is advisable to have an alternate primary heat source when installed in a dwelling.

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

Millivolt Models - The millivolt appliances are manually controlled and feature a spark igniter (piezo) that allows the appliance's pilot gas to be lit without the use of matches or batteries. This system provides continued service in the event of a power outage.

Electronic and Millivolt models come standard with a manually-modulated gas valve; flame appearance and heat output can be controlled at the gas valve. The BTU Input for these appliances is shown in *Pages 1.*

Input (BTU/HR) Gas Valves (all models)				
Madala	Input Rate (BTU / HR)			
Models	Nat. Gas	Prop. Gas		
40"	27,000 high 21,000 low	27,000 high 21,000 low		
45"	31,000 high 25,000 low	29,000 high 23,000 low		
Table 1				

Gas Pressure - All Models

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

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

Manifold Gas Supply Pressure (all models)			
Fuel # Low High			
Natural Gas	(Lo) 2.2" WC (0.55 kPa)	(Hi) 3.5" WC (0.87 kPa)	
Propane	(Lo) 6.3" WC (1.57 kPa)	(Hi) 10.0" WC (2.49 kPa)	
Table 3			

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

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

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

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

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

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

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

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

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

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

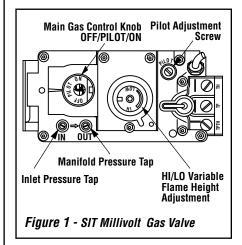
Burner Orifice Sizes Elevation 0-4500 feet (0-1372 meters)				
Model Nat.Gas Propane Series drill size (inches) drill size (inches)				
40"	#40 (0.0980")* 69L96 ●	#53 (0.0595")* 39L10∙		
45"	#37 (0.1040")* 24M10 ●	(0.0620")* 21L01 •		
Table 4 * Standard size installed at factory • Part /Cat. Number				

In Canada - CAN/CGA-2.17-M91 (R2009) (high altitude):

THE CONVERSION SHALL BE CARRIED OUT BY A MANUFACTURER'S AUTHO-RIZED REPRESENTATIVE, IN ACCOR-DANCE 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.

Gas Valve Diagrams

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



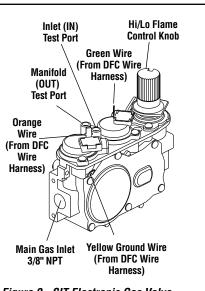


Figure 2 - SIT Electronic Gas Valve

COMMONWEALTH OF MASSACHUSETTS REQUIREMENTS

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

- Install this appliance in accordance with Massachusetts Rules and Regulations 248 C.M.R. Sections 4.00 through 8.00.
- Installation and repair must be done by a plumber or gas fitter licensed in the Commonwealth of Massachusetts.
- The flexible gas line connector used shall not exceed 36 inches (92 centimeters) in length.
- The individual manual shut-off must be a T-handle type valve.

Massachusetts Horizontal Vent Requirements

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

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

COLD CLIMATE INSULATION

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

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

MANUFACTURED HOME REQUIREMENTS

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

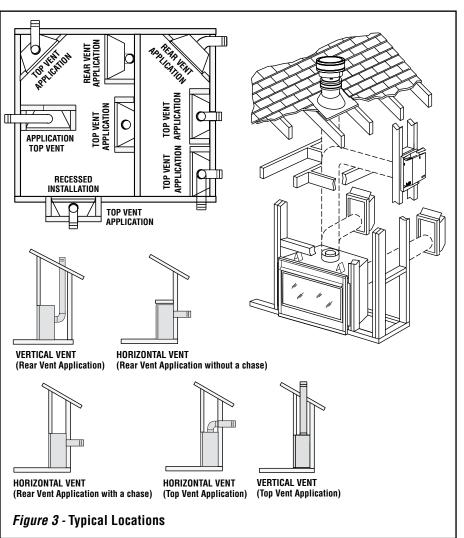
Cet appareil peut être installé cómme du matériel d'origine dans une maison préfabriquée (É.U. seulement) ou mobile et doit être installé selon les instructions du fabricant.

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

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

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

CAUTION: This appliance must be grounded to the chassis of the manufactured home in accordance with local codes or in the absence of local codes, with the National Electrical Code ANSI / NFPA 70 latest edition or the Canadian Electrical Code CSA C22.1—latest edition.



LOCATION

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

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

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

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

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 locat-ing television sets and decorative plants. Be aware that this is a heat producing appliance. Objects placed above the unit are exposed to elevated temperatures.

Do not insulate the space between the appliance and the area above it (see *Figure 8*).

The minimum height from the base of the appliance to the underside of combustible materials used to construct a utility shelf in this fashion is shown in *Figure 8*.

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

VENT TERMINATION CLEARANCES

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

Vertical Vent Termination Clearances

Terminate multiple vent terminations according to the installation codes listed above and Figures 4 and 5.

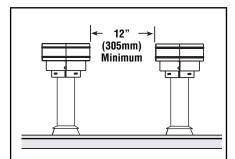
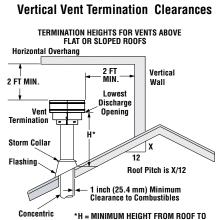


Figure 4 - Multiple Terminations



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

LOWEST DISCHARGE OPENING OF VENT

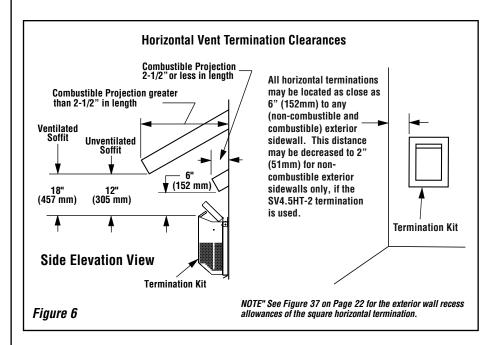
Termination Heights For Vents Above Flat Or Sloped Roofs Ref. NFPA 54 / ANSI Z223.1 **Roof Pitch** * Feet * Meters Flat to 6/12 1.0 0.3 6/12 to 7/12 1.25 0.38 7/12 to 8/12 1.5 0.46 8/12 to 9/12 2.0 0.61 9/12 to 10/12 2.5 0.76 3.25 10/12 to 11/12 0.99 11/12 to 12/12 4.0 1.22 12/12 to 14/12 5.0 1.52 14/12 to 16/12 6.0 1.83 7.0 16/12 to 18/12 2.13 18/12 to 20/12 7.5 2.29 20/12 to 21/12 8.0 2.44

Figure 5

Vent Pipe

Horizontal Vent Termination Clearances

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



EXTERIOR HORIZONTAL VENT TERMINATION CLEARANCE REQUIREMENTS

Image: See Figure 5 Image: See Figure 5<					
		U.S. Installation **	Canadian Installation *		
A	Clearance above grade, veranda, porch, desk, or balcony	12" (300 mm) **	12" (300 mm) *		
В	Clearance to window or door that may be opened	6" (150 mm) for fireplaces < 10,000 Btu/h (3 kW), 9" (230 mm) for fireplaces > 10,000 Btu/h (3 kW), and < 50,000 Btu/h (15 kW), 12" (300 mm) for fireplaces > 50,000 Btu/h (15 kW) **	6" (150 mm) for fireplaces < 10,000 Btu/h (3 kW), 12" (300 mm) for fireplaces > 10,000 Btu/h (3 kW)		
C	Clearance to permanently closed window	9" (229 mm) recommended to prevent window condensation	12" (305 mm) recommended to prevent window condensation		
D	Vertical clearance to ventilated soffit located above the termination within a horizontal distance of 18" (458 mm)	18" (458 mm)	18" (458 mm)		
E	Clearance to unventilated soffit	12" (305 mm)	12" (305 mm)		
F	Clearance to outside corner	5" (127 mm) minimum	5" (127 mm) minimum		
G	Clearance to inside corner	6" (152 mm) minimum	6" (152 mm) minimum		
Н	Clearance to each inside of center line extended above meter / regulator assembly	36" (910 mm) within a height of 15 ft above the meter / regulator assembly **	36" (910 mm) within a height of 15 ft above the meter / regulator assembly *		
	Clearance to service regulator vent outlet	36" (910 mm)**	36" (910 mm)*		
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other fireplace	6" (150 mm) for fireplaces < 10,000 Btu/h (3 kW), 9" (230 mm) for fireplaces > 10,000 Btu/h (3 kW) and < 50,000 Btu/h (15 kW), 12" (300 mm) for fireplaces > 50,000 Btu/h (15 kW)**	6" (150 mm) for fireplaces < 10,000 Btu/h (3 kW), 12" (300 mm) for fireplaces > 10,000 Btu/h (3 kW)		
К	Clearance to a mechanical air supply inlet	36" (910 mm) above if within 10 ft (3 m) horizontally **	72" (1830 mm) *		
L	Clearance above paved sidewalk or paved diveway located on public property	84" (2130 mm) ‡	84" (2130 mm) ‡		
М	Clearance under veranda, porch, deck or balcony	12" (300 mm) *‡	12" (300 mm) *‡		
N	Depth of alcove (maximum)	72" (1830 mm) **	72" (1830 mm) *		
0	Clearance to termination (alcove)	6" (15.2 mm) **	6" (15.2 mm)*		
Р	Width of alcove (minimum)	36" (910 mm) **	36" (910 mm) *		
Q *	Clearance to combustible above (alcove) In accordance with the current CAN/CGA-B149.1 National Ga	18" (457 mm) **	18" (457 mm) *		

In accordance with the current CAN/CGA-B149.1 National Gas And Propane Installation Code
 In accordance with the current ANSI Z223.1/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

MINIMUM CLEARANCES TO COMBUSTIBLES

Appliance And Vent Clearances

The appliance is approved with zero clearance to combustible materials on all sides (as detailed in *Table 5)*, 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 (see *Figure 10*).

MINIMUM CLEARANCES* Inches (millimeters)				
Back 1" (25) 0 (0) from Spacers Or Dimples				
Sides 1/2" (13) 0 (0) from Spacers Or Dimples				
Top of Fireplace 4" (101)				
Floor 0 (0)				
From Bottom of Unit To Ceiling 64 (1626)				
Vent 3 (76) Top* / 1 (25.4) Sides & Botto				
SERVICE CLEA	SERVICE CLEARANCES Feet (meters)			
Front 3 feet (0.9 meters)				
Table 5				

*NOTE: 3" (75 mm) above any horizontal/inclined vent component.

**NOTE: See Page 11, Step 1 for clearance requirements to the nailing flange located at each side of the unit and any screw heads adjacent to it.

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

Shelf Height - To provide for the lowest possible shelf surface, use the alternate rear vent outlet, the venting attached to the top vent should be routed in a way to minimize obstructions to the space above the appliance. Do not insulate the space between the appliance and the area above it (see *Figure 8*). The minimum height from the base of the appliance to the underside of combustible materials used to construct a utility shelf in this fashion is shown in *Figure 8*.

Wall Finishes / Surrounds / Mantels

NOTE: Combustible wall finish materials and/or surround materials must not be allowed to encroach the area defined by the appliance front face (black sheet metal). **Never allow combustible materials to be positioned** *in front of or overlapping the appliance face* (see Figure 61 on Page 35).

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

Vertical installation clearances to combustible mantels vary according to the depth of the mantel. See *Figure 9*. Mantels constructed of non-combustible materials may be installed at any height above the appliance opening; however, do not allow anything to hang below the fireplace hood.

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

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

All Models	Combustible Shelf Height - Inches (millimeters)		
	Secure Vent®	Secure Flex® (flex elbow)	
Top Vent	*50-1/2 (1283)	*52-1/4 (1327)	
Rear Vent	*40-1/4 (1022)	*40-1/4 (1022)	

* Includes 3" clearance to combustibles (required above vent components)

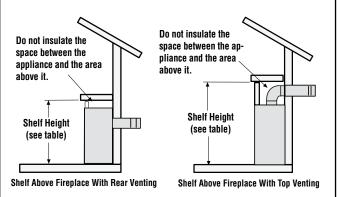
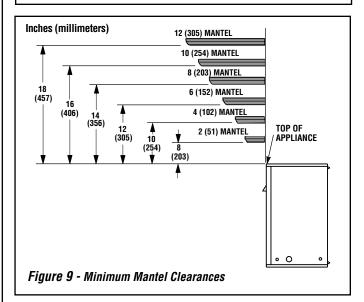
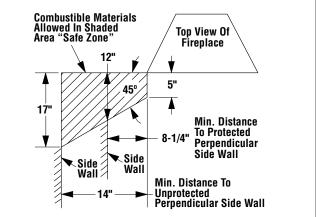


Figure 8 - Shelf Height Minimum Clearances With Top Venting





Combustible materials may project beyond one side of the fireplace opening as long as they are kept within the shaded areas illustrated here.

Figure 10 - Minimum Distance to Side Wall

PRE-INSTALLATION STEPS

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

- 1.Remove the shipping carton. Remove the shipping pad. Remove front face assembly and hood exposing the front glass door.
- 2.Open the two spring latches securing the glass door (under the firebox floor). Remove the door by tilting it outward at the bottom and lifting it up. Set the door aside, taking care to protect it from inadvertent damage. See Removing The Glass Enclosure Panel on *Page 32.*
- 3. Remove the log set from the firebox. *Handle logs carefully to prevent breakage.*
- 4. Remove the embers and volcanic stone from the control compartment.
- 5. Remove top standoff (taped to side of outer wrapper).
- Remove the 4 screws on top, and install the top standoff with the 4 screws (see *Figure* 11).

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 page numbers references in the following steps for detailed procedures.

Step 1. FRAMING (*Page 11*): Install top standoff spacer. Construct the appliance framing. Position the appliance within the framing. Secure with nailing flanges.

Step 2. (*Page 13*) Route gas supply line to appliance location.

Step 3. (*Page 14*) Preparing the appliance vent collar.

Step 4. (*Page 15*) Install the vent system and exterior termination.

Step 5. (Page 27) Field Wiring

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

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

Step 6. (*Page 28*) Install blower kit (optional equipment).

Step 7. (Page 28) Make connection to gas supply.

Step 8. (Page 29) Verifying appliance operation.

Step 9. (*Page 30*) Install the logs, decorative volcanic stone and glowing embers.

Step 10. (*Page 32*) Install glass door front face assembly and hood..

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

Step 12. (*Page 34*) Attach Safety-In-Operation Warnings.

Step 1. FRAMING

Frame these appliances as illustrated in *Figures* **13** and **14** on *Pages* **12** and **13** (*Figure* **14** applies to corner framing installations only). All framing details must allow for a minimum clearance to combustible framing members as shown in *Table 5 on Page* **10**.

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

Headers may be in direct contact with the appliance top standoff spacer (*Figure 11*), maintaining the 4" clearance to the fireplace top, *but must not be supported by them or notched to fit around them*. All construction above the appliance must be self-supporting. *DO NOT use the appliance for structural support.*

The fireplace should be secured to the side framing members using the unit's side nailing flanges - one top and bottom on each side of the fireplace front. See *Figure 12.* Use 8d nails or their equivalent.

SIDE NAILING FLANGES

Bend out the appropriate nailing flanges for the drywall/finish material to be used. Nailing flanges are provided for flush framing, 1/2" and 5/8" framing depths *(see Figure 12)*.

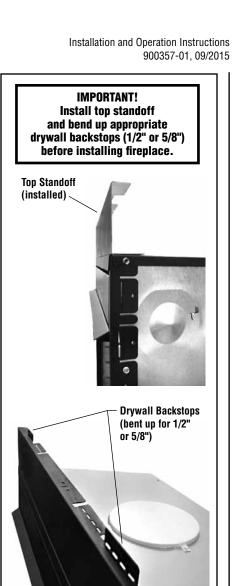
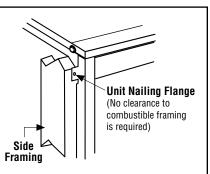


Figure 11 - Top Standoff Spacer

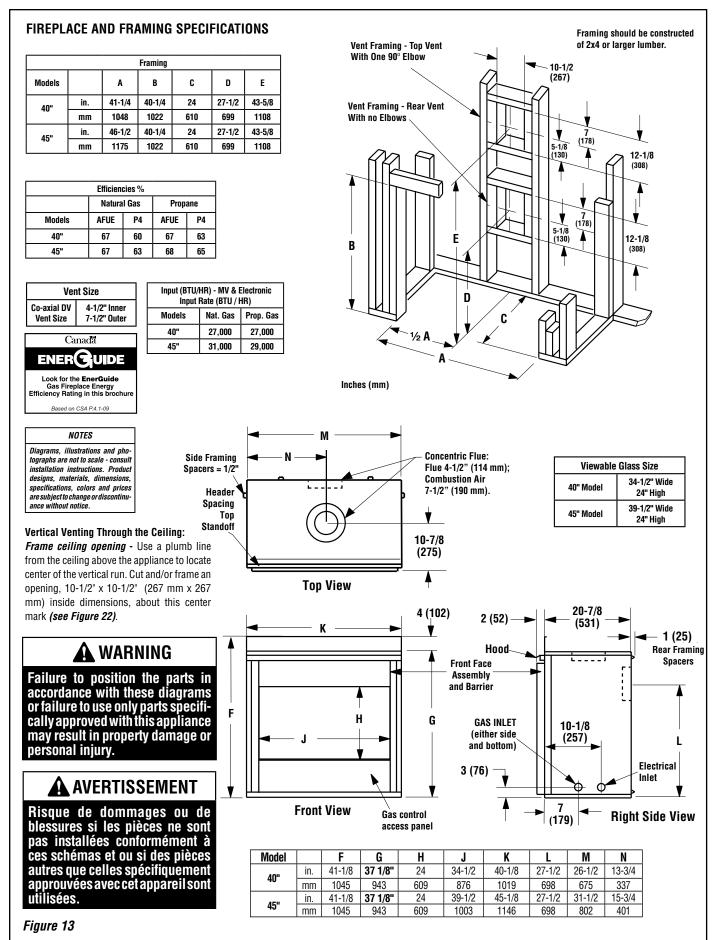


NOTE: The nailing flanges, combustible members, and screw heads in areas directly adjacent to the nailing flanges are EXEMPT from the 1/2" clearance to combustible requirements for the firebox outer wrapper.

Combustible framing may be in <u>direct contact</u> with the nailing flanges and may be located closer than 1/2" from screw heads and the firebox wrapper in areas adjacent to the nailing flanges.

Frame the opening to the exact dimensions specified in the framing details in this manual.

Figure 12 - Side Nailing Flanges



			F	raming			
Model		A	В	C	D	E	F
401	in.	40-1/8	67-3/4	47-7/8	25-11/16	33-7/8	5-3/4
40"	mm	1019	1721	1216	652	860	146
	in.	45-1/8	72-3/4	51-7/16	25-1/16	36-3/8	7-1/2
45"	mm	1146	1848	1307	652	924	191

- * These dimensions occur when one 45° elbow is connected directly to the appliance collar.
- NOTE: Venting requirements for rear vent applications in corner installations - the horizontal vent length "a" to "b, " must not exceed 28" (711mm)

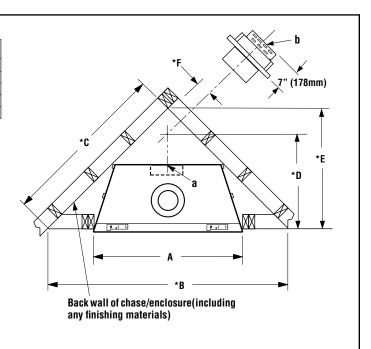
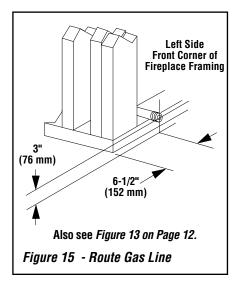


Figure 14 - Corner Framing with Horizontal Termination

Step 2. ROUTING GAS LINE

Route a 1/2" (13 mm) gas line to the left side of the appliance as shown in *Figure 15*. Gas lines must be routed, constructed and made of materials that are in strict accordance with local codes and regulations. All appliances are factory-equipped with a flexible gas line connector and 1/2" shutoff valve. (See Figure 50 on Page 29).



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/CGA-B149.1—latest edition (Canada). Never use galvanized or plastic pipe. Refer to **Table 6** for proper sizing of the gas supply line, if black iron pipe is being used. Gas lines must be routed, constructed and made of materials that are in strict accordance with local codes and regulations. We recommend that a qualified individual such as a plumber or gas fitter be hired to correctly size and route the gas supply line to the appliance. Installing a gas supply line from the fuel supply to the appliance involves numerous considerations of materials, protection, sizing, locations, controls, pressure, sediment, and more. Certainly no one unfamiliar and unqualified should attempt sizing or installing gas piping.

Schedule 40 Black Iron Pipe Inside Diameter (Inches)						
Schedule 40 PipeNaturalPropaneLength (feet)GasGas						
0-10	1/2	3/8				
10-40	1/2	1/2				
40-100	1/2	1/2				
100-150	3/4	1/2				
150-200	3/4	1/2				
Table 6						

NOTES:

- All appliances are factory-equipped with a flexible gas line connector and 1/2" shutoff valve (see *Figure 50* on *Page 29*).
- See *Massachusetts Requirements* on *Page* 6 for additional requirements for installations in the state of Massachusetts in the USA.
- The gas supply line should Not be connected to the appliance until **Step 7** (**Page 28**).
- A pipe joint compound rated for gas should be used on the threaded joints. Ensure propane resistant compounds are used in propane applications. Be very careful that the pipe compound does not get inside the pipe.
- It is recommended to install a sediment trap in the supply line as close as possible to the appliance. Appliances using Propane should have a sediment trap at the base of the tank.
- Check with local building official for local code requirements (i.e. are below grade penetrations of the gas line allowed?, etc).

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

Step 3. VENT RESTRICTOR INSTALLATION

NOTE: Use these instructions only when the horizontal termination is attached directly to the fireplace.

Vent Restrictor Installation

The fireplace ships with the following:

- (1) rear solid cover plate (ships installed over rear vent hole; similar to top solid cover plate shown in *Figure 17*)
- (1) top solid cover plate (ships installed over top vent hole; refer to *Figure 17*)
- (1) rear vent restrictor plate (square plate with two rectangular holes; ships uninstalled in literature bag)
- (1) U-shaped vent restrictor (ships uninstalled in literature bag)
- (1) top vent flue restrictor (ships uninstalled and taped to log set in firebox)

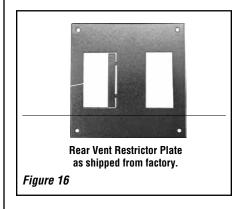
Vent Restrictor Installation in <u>REAR VENT</u> Systems

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

Install the **rear vent restrictor plate** *as shipped (see Figure 16)* over the rear vent hole using the 4 previously removed screws, as shown in *Figure 17*.

IF REAR VENT HORIZONTAL VENT Length IS Longer Than 7 inches:

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

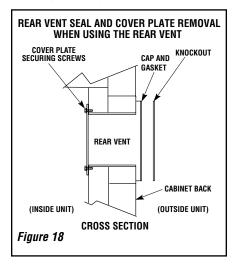




Rear Vent Restrictor Plate (shown installed over rear vent hole after Rear Solid Cover Plate was removed)

Figure 17

When rear venting, remove the outer wrapper knockout, cover plate, and gasket from outside the unit (*Figure 18*).



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

All models: Before attaching the first piece of venting pipe or elbow, install the **U-shaped vent restrictor** into the rear vent collar from outside the unit (*Figure 19*). The U-shaped vent restrictor is held in place by friction.

U-SHAPED VENT RESTRICTOR INSTALLATION (REAR VENT) Installation of the U-shaped vent restrictor is required in rear vent applications with vertical vent runs over 8 feet. Install the vent restrictor from outside the unit in the inner fireplace collar of the rear vent outlet, oriented as shown below. INNER FIREPLACE COLLAR COLLAR U-SHAPED VENT RESTRICTOR Figure 19

Vent Restrictor Installation in <u>TOP VENT</u> Systems

Install the top vent restrictor (provided in the bottom control compartment of fireplace) in any vent run with more than 8 ft. of vertical rise.

- 1. Remove the screws from the top cover plate inside the firebox *(see Figure 17)*. Discard the top cover plate.
- 2. Using two of the screws that were removed from the top cover plate, install the top restrictor as shown in *Figure 20*.

NOTE: The screws are installed into the holes in the air collector box.



Step 4. INSTALL THE VENT SYSTEM

General Information

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

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

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

Use only approved venting components. See *Approved Vent Components* on *Page 4.*

These fireplaces must be vented directly to the outside.

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

Select Venting System - Horizontal or Vertical

With the appliance secured in framing, determine vent routing and identify the exterior termination location. The following sections describe vertical (roof) and horizontal (exterior wall) vent applications. Refer to the section relating to your installation. A list of approved venting components are shown on *Pages 35 and 36*.

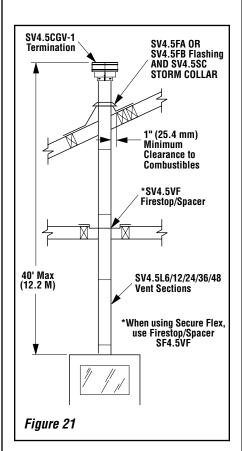
VERTICAL TERMINATION SYSTEMS (ROOF)

See *Figure 21* and *Figures 30-34* on *Pages 19-20* and their associated Vertical Vent Tables which illustrate the various vertical venting configurations that are possible for use with these appliances. **Secure Vent**[®] pipe applications are shown in these Figures; **Secure Flex**[®] pipe may also be used. A Vertical Vent Table summarizes each system's minimum and maximum vertical and horizontal length values that can be used to design and install the vent components in a variety of applications.

Both these vertical vent systems terminate through the roof. The minimum vent height above the roof and/or adjacent walls is specified in ANSI Z223.1-(latest edition) (In Canada, the current CAN/CGA-B149.1 installation code) by major building codes. Always consult your local codes for specific requirements. A general guide to follow is the Gas Vent Rule (refer to *Figure 5 on Page 8*).

Vertical (Straight) Installation (*Figure 21*)

Determine the number of straight vent sections required. 4-1/2" (114 mm), 10-1/2" (267 mm), 22-1/2" (572 mm), 34-1/2" (876 mm) and 46-1/2" (1181 mm) net section lengths are available (see **Tables on this page** and **Pages 35 and 36** - Vent Sections). Plan the vent lengths so that a joint does not occur at the intersection of ceiling or roof joists. Refer to the Vent Section Length Chart.



Nominal Section Length (incres) 6 12 24 36 48 To Length (incres) Height of Vent Number of Vent Sections 0 Height of Vent Number of Vent Sections 0 inches ft 0 0 0 0 1 9 0.75 2 0 0 0 0 2 10.5 0.875 0 1 0 0 0 0 2 19.5 1.625 2 1 0 0 0 2 19.5 1.625 2 1 0 0 0 2 19.5 1.625 2 1 0 0 0 3 21 1.75 0 2 0 0 0 3 31.5 2.625 0 3 0 0 0 3 34.5 3.75 0 0 0 1 1 1 44.5<	VENT SECTION LENGTH CHART							
Length (inches) 4-1/2 10-1/2 22-1/2 34-1/2 4b-1/2 L Height of Vent Number of Vent Sections Q inches ft 0 0 0 1 9 0.75 2 0 0 0 0 2 10.5 0.875 0 1 0 0 0 2 10.5 0.875 0 1 0 0 0 2 19.5 1.625 2 1 0 0 0 2 22.5 1.875 0 0 1 0 0 3 31.5 2.625 0 3 0 0 0 3 34.5 2.875 0 0 1 1 0 0 3 34.5 3.625 0 2 1 0 0 3 44.5 3.75 0 0 0 1 1 <tr< th=""><th>Section (inc</th><th>Length hes)</th><th>6</th><th>12</th><th>24</th><th>36</th><th></th><th>Ŭ T T</th></tr<>	Section (inc	Length hes)	6	12	24	36		Ŭ T T
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9 0.75 2000001 10.5 0.875 010001 15 1.25 110002 19.5 1.625 210002 22.5 1.875 020001 25.5 2.125 120003 31.5 2.625 030003 34.5 2.875 000101 37.5 3.125 111100 34.5 3.625 021003 43.5 3.625 021003 45 3.75 000111 49.5 4.125 102003 51 4.25 100112 66 5.25 022003 57 4.75 001102 72 6103004 67.5 5.625 010203 99 5.75 000112 90 7.5 021014 91.5 7.625 000 <th>inches</th> <th>ft</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	inches	ft						
10.5 0.875 0 1 0 0 0 1 15 1.25 1 1 0 0 0 2 19.5 1.625 2 1 0 0 0 2 19.5 1.625 2 1 0 0 0 2 22.5 1.875 0 0 1 0 0 1 25.5 2.125 1 2 0 0 0 3 31.5 2.625 0 3 0 0 0 3 34.5 2.875 0 0 0 1 0 3 43.5 3.625 0 2 1 0 0 3 45 3.75 0 0 2 0 0 3 45 3.875 0 0 1 1 2 0 3 51 4.25 1	4.5	0.375	1	0	0	0	0	1
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19.5 1.625 2 1 0 0 0 3 21 1.75 0 2 0 0 0 2 22.5 1.875 0 0 1 0 0 1 25.5 2.125 1 2 0 0 0 3 31.5 2.625 0 3 0 0 0 3 34.5 2.875 0 0 0 1 0 1 37.5 3.125 1 1 1 0 0 3 43.5 3.625 0 2 1 0 0 3 45 3.75 0 0 2 0 0 1 49.5 4.125 1 0 2 0 0 3 51 4.25 1 0 0 1 1 0 2 56.5 0	10.5	0.875	0	1	0	0	0	1
19.5 1.025 2 1 0 0 0 2 21 1.75 0 2 0 0 0 2 22.5 1.875 0 0 1 0 0 1 25.5 2.125 1 2 0 0 0 3 31.5 2.625 0 3 0 0 0 3 34.5 2.875 0 0 0 1 0 1 37.5 3.125 1 1 1 0 0 3 43.5 3.625 0 2 1 0 0 3 45 3.75 0 0 2 0 0 3 45 3.75 0 0 1 2 0 0 3 51 4.25 1 0 0 1 2 0 3 55.5 4.625 <	15	1.25	1	1	0	0	-	2
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	22.5	1.875	0	0	1	0	0	1
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79.5 6.625 0 1 0 2 0 3 81 6.75 0 0 0 1 1 2 90 7.5 0 2 1 0 1 4 91.5 7.625 0 0 2 0 1 3 93 7.75 0 0 0 0 2 2 96 8 1 0 1 2 0 4 97.5 8.125 1 0 0 0 2 3 102 8.5 2 0 0 0 2 3		-				-		-
81 6.75 0 0 0 1 1 2 90 7.5 0 2 1 0 1 4 91.5 7.625 0 0 2 0 1 3 93 7.75 0 0 0 0 2 2 96 8 1 0 1 2 0 4 97.5 8.125 1 0 0 0 2 3 102 8.5 2 0 0 0 2 4				-	-		-	-
90 7.5 0 2 1 0 1 4 91.5 7.625 0 0 2 0 1 3 93 7.75 0 0 0 0 2 2 96 8 1 0 1 2 0 4 97.5 8.125 1 0 0 0 2 3 102 8.5 2 0 0 0 2 4					-			-
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103.5 8.625 0 0 0 3 0 3				-	-			
103.3 0.323 0 4		-		-		-		
114 9.5 0 2 0 0 2 4								_
117 9.75 1 0 5 0 0 6								_
118.5 9.875 1 1 0 3 0 5								_
1100 0.010 1 0<								_
130.5 10.875 1 0 1 3 0 5								_
135 11.25 0 0 6 0 0 6								_
138 11.5 0 0 0 4 0 4			0	0	0	4	0	4
139.5 11.625 0 0 0 0 3 3	139.5		0	0	0	0	3	3
142.5 11.875 1 0 0 4 0 5	142.5	11.875	1	0	0	4	0	5

Nom!		SEUL	ON LE		HAKI	
	l Section (inches)	6	12	24	36	48
	Section (inches)	4-1/2	10-1/2	22-1/2	34-1/2	46-1/2
	of Vent		Number	of Vent	Section	s
inches	ft					
144	12	1	0	0	0	3
150	12.5	0	1	0	0	3
154.5	12.875	1	1	0	0	3
160.5	13.375	0	2	0	0	3
172.5	14.375	0	0	0	5	0
177	14.75	1	0	0	5	0
183	15.25	0	1	0	5	0
186	15.5	0	0	0	0	4
190.5	15.875	1	0	0	0	4
196.5	16.375	0	1	0	0	4
205.5	17.125	0	1	1	5	0
200.0	17.25	0	0	0	6	0
211.5	17.625	1	0	0	6	0
	18.125		1		-	-
217.5 229.5	18.125	0	-	0	6 6	0
229.5	19.125	0	0	0	0	0 5
232.5	19.75	1	0	0	0	5
241.5	20.125	0	0	0	7	0
246	20.5	1	0	0	7	0
252	21	0	1	0	7	0
264	22	0	0	1	7	0
276	23	0	0	0	8	0
279	23.25	0	0	0	0	6
280.5	23.375	1	0	0	8	0
283.5	23.625	1	0	0	0	6
289.5	24.125	0	1	0	0	6
301.5 310.5	25.125 25.875	0	0	0	0 9	6 0
315	26.5	1	0	0	9	0
325.5	27.125	0	0	0	0	7
330	27.5	1	0	0	0	7
336	28	0	1	0	0	7
345	28.75	0	0	0	10	0
349.5	29.125	1	0	0	10	0
372	31	0	0	0	0	8
376.5	31.375	1	0	0	0	8
379.5	31.625	0	0	0	11	0
418.5	34.875	0	0	0	0	9
423 465	35.25 38.75	1 0	0	0	0	9 10

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

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

Effective Vent Length				
Model	Effective Length			
SV4.5L6	4-1/2"			
SV4.5L12	10-1/2"			
SV4.5L24	22 -1/2"			
SV4.5L36	34-1/2"			
SV4.5L48	46-1/2"			
Table 7				

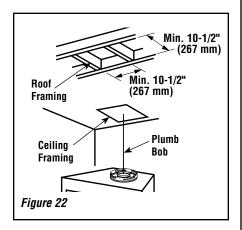
Vertical (Offset) Installation

Analyze the vent routing and determine the quantities of vent sections and number of elbows required. Refer to **Vertical Vent Figures and Tables on Pages 19 and 20** to select the type of vertical installation desired. Vent sections are available in net lengths of 4-1/2" (114 mm), 10-1/2" (267 mm), 22 -1/2" (572 mm), 34-1/2" (876 mm) and 46-1/2" (1181 mm). Refer to the **Vent Section Length Chart on Page 16** for an aid in selecting length combinations. Elbows are available in 90° and 45° configurations. Refer to **Figure 25** on **Page 18** for the SV4.5E45 and SV4.5E90 elbow dimensional specifications.

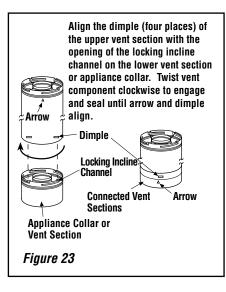
Where required, a **telescopic vent section (SV4.5LA)** may be used to provide the installer with an option in installing in tight and confined spaces or where the vent run made up of fixed length pieces develops a joint in a undesirable location, or will not build up to the required length. The SV4.5LA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

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

A. Frame ceiling opening - Use a plumb line from the ceiling above the appliance to locate center of the vertical run. Cut and/or frame an opening, $10-1/2" \times 10-1/2" (267mm \times 267mm)$ inside dimensions, about this center mark *(Figure 22)*.



B. Attach vent components to appliance -Secure Vent SV4.5 direct vent system components are unitized concentric pipe components featuring positive twist lock connections (*see Figure 23*). 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.



To attach a vent component to the appliance collar, align the dimpled end over the collar, adjusting the radial alignment until the four locking dimples are aligned with the inlet of the four inclined channels on the collar (refer to Figure 23). Push the vent component against the collar until it fully engages, then twist the component clockwise, running the dimples down and along the incline channels until they seat at the end of the channels. The unitized design of the Secure Vent® components will engage and seal both the inner and outer pipe without the need for sealant or screws. If desired a #6 x 1/2" screw may be used at the joint, but it is not required as the pipe will securely lock when twisted.

NOTE: An elbow may also be attached to the appliance collar. Attach in the same manner as you would a vent section.

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

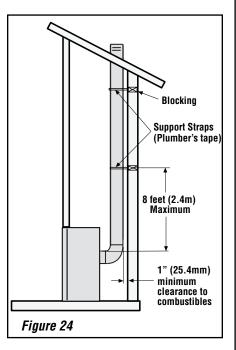
Push the vent component against the previous section until it fully engages, then twist the component clockwise running the dimples down and along the incline channels until they seat at the end of the channels. This seating position is indicated by the alignment of the arrow and dimple as shown in *Figure 23*.

D. Install firestop/spacer at ceiling - When using Secure Vent, use SV4.5VF firestop/spacer at ceiling joists; when using Secure Flex, use SF4.5VF firestop/spacer. If there is living space above the ceiling level, the firestop/spacer must be installed on the bottom side of the ceiling. If attic space is above the ceiling, the firestop/ spacer must be installed on the top side of the joist. Route the vent sections through the framed opening and secure the firestop/spacer with 8d nails or other appropriate fasteners at each corner. Remember to maintain 1" (25 mm) clearance to combustibles, framing members, and attic or ceiling insulation when running vertical chimney sections. Attic insulation shield (96K94) may be used to obtain the required clearances indicated here. See installation accessories table on Pages 35 and 36. The gap between the vent pipe and a vertical firestop can be sealed with non-combustible caulking.

E. Support the vertical vent run sections -

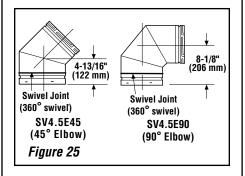
Note - Proper venting support is very important. The weight of the vent must not be supported by the fireplace in any degree.

Support the vertical portion of the venting system every 8 feet (2.4m) above the fireplace vent outlet. One method of support is by utilizing field provided support straps (conventional plumber's tape). Secure the plumber's tape to the framing members with nails or screws. Loop the tape around the vent, securing the ends of the tape to the framing. If desired, sheet metal screws#6x1/2" length may be used to secure the support straps to the vent pipe. See **Figure 24**.



Innovative Hearth Products Altair™ Direct Vent Gas Fireplace

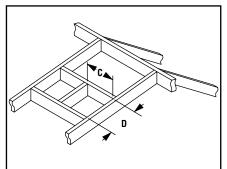
F. Change vent direction to horizontal/inclined run - At transition from or to a horizontal/inclined run, install the SV4.5E45 and SV4.5E90 elbows in the same manner as the straight vent sections. The elbows feature a twist section to allow them to be routed about the center axis of their initial collar section to align with the required direction of the next vent run element. Twist elbow sections in a clockwise direction only so as to avoid the possiblity of unlocking any of the previously connected vent sections. See *Figure 25*.



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

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

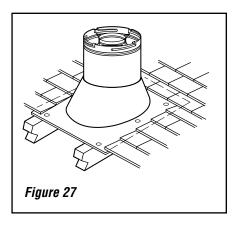
H. Frame roof opening - Identify location for vent at the roof. Cut and/or frame opening per Roof Framing Chart and *Figure 26*.



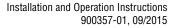
Framing Dimensions for Roof

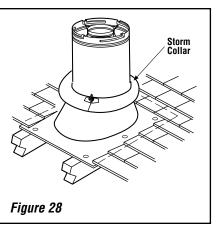
Pitch	C	D			
0/12	10-1/2" (267 mm)	10-1/2" (267 mm)			
6/12 10-1/2" 12" (267 mm) (305 mm					
12/12 10-1/2" 17-3/4" (267 mm) (451 mm)					
Figure 26					

I. Install the roof flashing - Extend the vent sections through the roof structure. Install the roof flashing over the vent section and position such that the vent column rises vertically (use carpenters level) (*Figure 27*). 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.

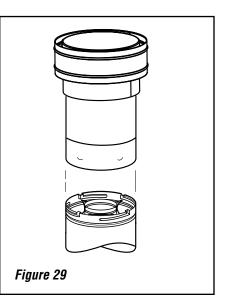


J. Install the storm collar - Install the storm collar, supplied with the flashing, over the vent/ flashing joint. See *Figure 28*. Loosen the storm collar screw. Slide collar down until it meets the top of the flashing. Tighten the adjusting screw. Apply non-combustible caulking or mastic around the circumference of the joint to provide a water tight seal.





K. Install the vertical termination - The final step involves installation of the SV4.5CGV-1 Vertical Termination. Extend the vent sections to the height as shown in the "Vertical vent termination section" on Page 8. The SV4.5CGV-1 Vertical Termination (Figure 29) installs in the exact same fashion as any other Secure Vent® section. Align the termination over the end of the previously installed section, adjusting the radial alignment until the four locking dimples of the termination are aligned with the inlets of the four incline channels of the last vent section. Push the termination down until it fully engages, then twist the termination clockwise running the dimples down and along the incline channels until they seat at the end of the channels.



If the vent system extends more than 5' (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.

VERTICAL VENT FIGURES/TABLES

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

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

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

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

NOTE: An elbow is acceptable as 1 foot of vertical rise, except where an elbow is the only vertical component in the system. (See Figure 39 on Page 23).

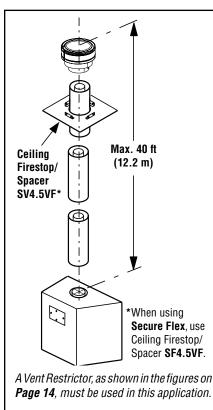
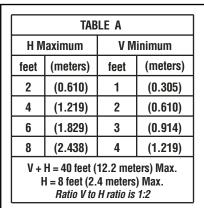
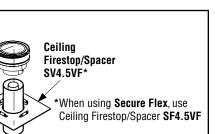


Figure 30 - Top Vent - STRAIGHT



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

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



Installation and Operation Instructions

900357-01, 09/2015

When using Secure Flex, use Ceiling Firestop/Spacer SF4.5V

NOTE: Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See **Page 14**.

Figure 31 - Rear Vent - ONE 90 DEGREE ELBOW

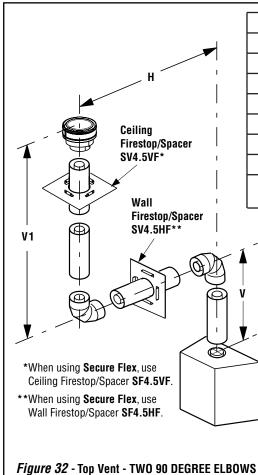


TABLE B H Maximum V Minimum (meters) feet (meters) feet 5 (1.524)Elbow Only 5 (1.524)1 (0.305)(3.048)2 (0.610)10 (4.572)3 (0.914)15 20 (6.096)4 (1.219) $V + V_1 + H = 40$ feet (12.2 m) Max. H = 20 feet (6.096 meters) Max.

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

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

An elbow is acceptable as 1 foot of vertical rise except where an elbow is the only vertical component in the system. See **Figure 39**.

NOTE: Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See **Page 14**.

A WARNING

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

VERTICAL VENT FIGURES/TABLES (continued)

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

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

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

NOTE: Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See **Page 14**.

Figure 33 - Rear Vent - THREE ELBOWS

	TABI	E D		
H+I	H ₁ Maximum	V	Minimum	
feet	(meters)	feet	(meters)	
5 (1.524)		EI	bow Only	
5	(1.524)	1	(0.305)	
10	(3.048)	2	(0.610)	
15	(4.572)	3	(0.914)	
20 (6.096) 4 (1.219)				
$H + H_1 = 20$ feet (6.096 m) Max. V + V ₁ + H + H ₁ = 40 ft. (12.192 m) Max.				

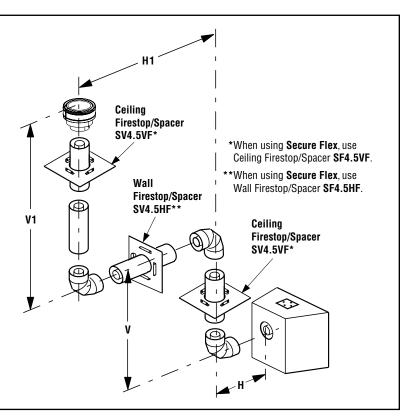
Example: If 20 feet of (H) horizontal vent run is needed, then 4 feet minimum of (V) vertical vent will be required.

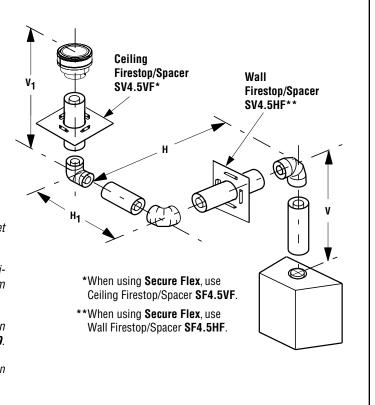
This table shows a 1 (V) to 5 (H) ratio. For every 1 foot of (V) vertical, you are allowed 5 feet of (H) horizontal run, up to a maximum horizontal run of 20 feet.

An elbow is acceptable as 1 foot of vertical rise except where an elbow is the only vertical component in the system. See **Figure 39**.

NOTE: Install the U-shaped vent restrictor in any vent run with more than 8 ft. of vertical rise. See **Page 14**.

Figure 34 - Top Vent - THREE ELBOWS





HORIZONTAL (OUTSIDE WALL) TERMINATION SYSTEM

Figures 35, and Figures 38-44 on Pages 23-25 and their associated Horizontal Vent Table illustrate the various horizontal venting configurations that are possible for use with these appliances. Secure Vent® pipe applications are shown in these figures; Secure Flex® pipe may also be used. A Horizontal Vent Table summarizes each system's minimum and maximum vertical and horizontal length values that can be used to design and install the vent components in a variety of applications.

Both of these horizontal vent systems terminate through an outside wall. Building Codes limit or prohibit terminating in specific areas. Refer to *Figure 7* on *Page 9* for location guidelines.

Secure Vent SV4.5 direct vent system components are unitized concentric pipe components featuring positive twist lock connection, (*refer to Figure 23* on *Page 17*). 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.

A. Plan the vent run -

Analyze the vent routing and determine the types and quantities of sections required 4-1/2" (114 mm), 10-1/2" (267 mm), 22-1/2" (572 mm), 34-1/2" (876 mm) and 46-1/2" (1181 mm) net section lengths are available. It is recommended that you plan the venting so that a joint does not occur in the ceiling or roof joists. Allow for elbows as indicated in *Figure 25* on *Page 18*.

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

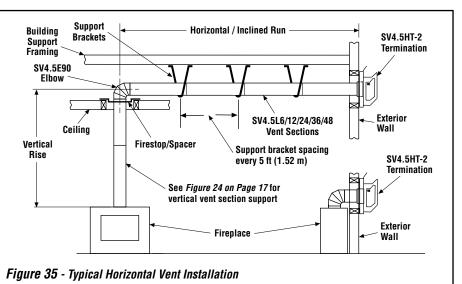
B. Frame exterior wall opening -

Locate the center of the vent outlet on the exterior wall according to the dimensions shown in *Figure 13* on *Page 12*. Cut and/or frame an opening, $10-1/2^{"} \times 12 - 1/8^{"}$ (267 mm x 308mm) inside dimensions, about this center.

C. Frame ceiling opening - If the vertical route is to penetrate a ceiling, use plumb line to locate the center above the appliance. Cut and/or frame an opening, 10-1/2" x 10-1/2" (267 mm x 267 mm) inside dimensions, about this center (refer to *Figure 22* on *Page 17*).

D. Attach vent components to appliance - To attach a vent component to the appliance collar, align the dimpled end over the collar, adjusting the radial alignment until the four locking dimples are aligned with the inlets of the four incline channels on the collar (*refer to Figure 23 on Page 17*).

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



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

NOTE: An elbow may also be attached to the appliance collar. Attach in the same manner as you would a vent section.

E. Attach vent components to each other - Other vent sections may be added to the previously installed section in accordance with the requirements of the vent tables. To add another vent component to a length of vent run, align the dimpled end of the component over the inclined channel end of the previously installed section, adjusting the radial alignment until the four locking dimples are aligned with the inlets of the four incline channels of the previous section. Push the vent component against the previous section until it fully engages, then twist the component clockwise running the dimples down and along the incline channels until they seat at the end of the channels. This seating position is indicated by the alignment of the arrow and dimple as shown in Figure 23 on Page 17.

F. Install firestop/spacer at ceiling -

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

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

On the vertical run, support the venting system every 8 feet (2.4m) above the fireplace vent outlet with field provided support straps (Plumber's tape). Attach the straps to the vent pipe and secure to the framing members with nails or screws. See *Figure 24 on Page 17*.

H. Change vent direction - At transition from or to a horizontal/inclined run, install the SV4.5E45 and SV4.5E90 elbows in the same manner as the straight vent sections. The elbows feature a twist section to allow them to be routed about the center axis of their initial collar section to align with the required direction of the next vent run element. Twist elbow sections in a clockwise direction only so as to avoid the possiblity of unlocking any of the previously connected vent sections. See *Figure 25* on *Page 18*.

I. Continue installation of horizontal/inclined sections - Continue with the installation of the straight vent sections in horizontal/inclined run as described in Step E. Install support straps every 5 ft. (1.52 m) along horizontal/inclined vent runs using conventional plumber's tape. See Figure 35. It is very important that the horizontal/inclined run be maintained in a straight (no dips), slightly elevated plane. The recommended incline is approximately 1/4" per foot (20 mm per meter) horizontal, in a direction away from the fireplace. The rise per foot run ratios that are smaller are acceptable all the way down to at or near **level.** Use a carpenter's level to measure from a constant surface and adjust the support straps as necessary.

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

Innovative Hearth Products Altair™ Direct Vent Gas Fireplace

J. Assemble vent run to exterior wall - If not previously measured, locate the center of the vent at the exterior wall. Prepare an opening as described in Step B. Assemble the vent system to point where the terminus of the last section is within 7" (178 mm) to 11-1/4" (286 mm) inboard of the exterior surface to which the SV4.5 HT termination is to be attached, see Figure 36. If the terminus of the last section is not within this distance, use the telescopic vent section SV4.5LA, as the last vent section. For wall thicknesses greater than that shown in Figure 37, refer to Table 8 on Page 23. This table lists the additional venting components needed (in addition to the termination and adaptor) for a particular range of wall thicknesses.

K. Attach termination adaptor - Attach the adaptor (adaptor - SV4.5RCH - provided with the termination) to the vent section or telescoping vent section), elbow or appliance collar as shown in *Figures 36 and 37* in the same manner as any SV4.5 vent component (refer to **Step E**).

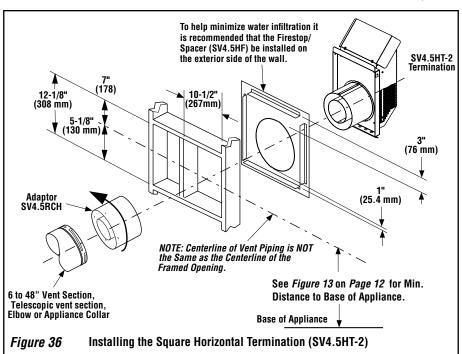
L. Install Firestop/Spacer at exterior wall - When using the square termination, install SV4.5HF (Secure Vent®), SF4.5HF (Secure Flex®) Firestop/Spacer over the opening at the exterior side of the framing, long side up, with the 3" spacer clearance at the top as shown in *Figure 36*, and nail into place. The Firestop/Spacer may also be installed over the opening at the interior side of the framing. The gap between the vent pipe and a firestop can be sealed with noncombustible caulking.

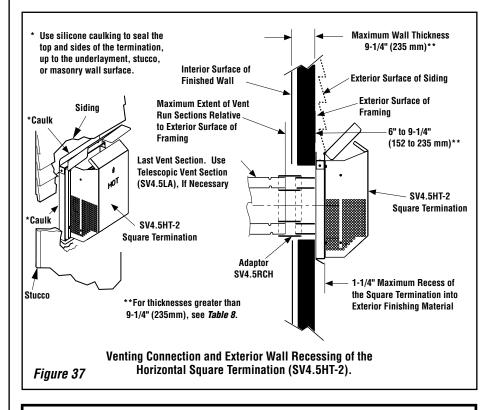
M. Install the desired termination -

1. Install the square termination (SV4.5HT-2)-For the last step, from outside the exterior wall, slide the collars of the termination onto the adaptor (the outer over the outer and the inner inside the inner) until the termination seats against the exterior wall surface to which it will be attached. Orient the housing of the termination with the arrow pointed upwards. Secure the termination to the exterior wall. The horizontal termination must not be recessed into the exterior wall or siding by more than the 1-1/4" (32 mm) as shown in *Figure 37*.

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

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





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

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

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

HORIZONTAL VENT FIGURES/TABLES

NOTE: Secure Vent[®] components (rigid vent pipe and terminal) are shown in the figures; Secure Flex[®] components (flexible vent pipe and terminal) may also be used.

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

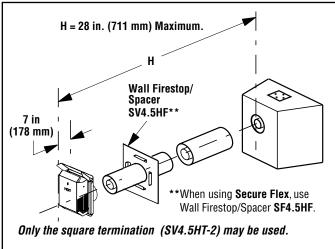
NOTE: It is very important that the horizontal/inclined run be maintained in a straight (no dips), slightly elevated plane. The recommended incline is approximately 1/4" per foot (20 mm per meter) horizontal, in a direction away from the fireplace. The rise per foot run ratios that are smaller are acceptable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

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



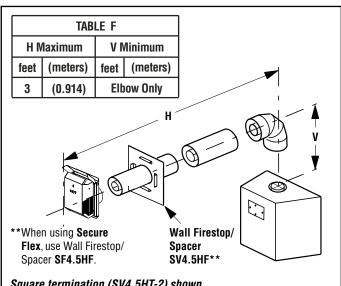
Under no circumstances, may separate sections of concentric flexible vent pipe be joined together.

Venting Components Required for Various Exterior Wall Thick- nesses, when using Typical Termination Kits				
Vent Components Required	Exterior Wall Thickness - inches (mm)			
Termination Kit Only	6 to 9-1/4 (152 to 235)			
Termination Kit and 6" Vent Section (SV4.5L6)	10-3/4 to 14 (273 to 356)			
Termination Kit and 12" Vent Section (SV4.5L12)	16-3/4 to 20 (426 to 508)			
Termination Kit and Tele- scopic Section (SV4.5L12)	11-3/4 to 20 (299 to 508)			
Table 8	NOTE: See Figure 37 showing wall thickness range when using SV4.5HT-2 termination kit.			



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

Figure 38 - Rear Vent - NO ELBOWS



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

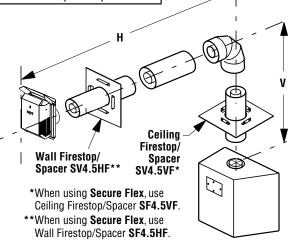
See Table 8 as an aid in venting component selection for a particular range of exterior wall thicknesses.

Figure 39 - Top Vent -ONE 90 DEGREE ELBOW - ELBOW CONNECTION AT APPLIANCE

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

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

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



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

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

Figure 40 - Top Vent - ONE 90 DEGREE ELBOW - ELBOW CONNECTION NOT DIRECTLY AT APPLIANCE

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HORIZONTAL VENT FIGURES/TABLES (continued)

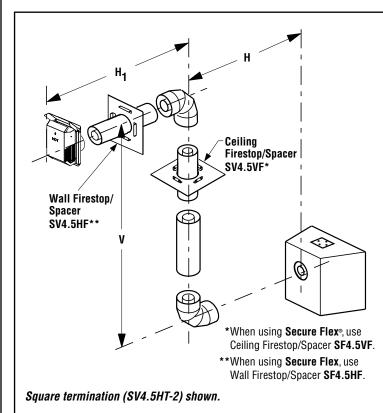


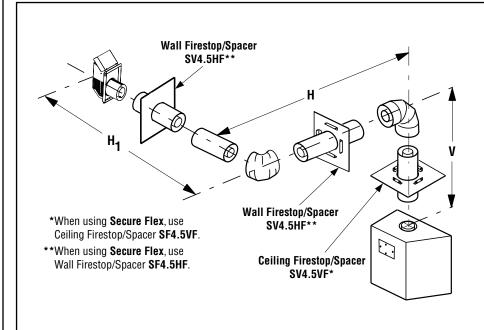
Figure 41 - Rear Vent - TWO 90 DEGREE ELBOWS

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

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

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

See *Table 8 on Page 23* as an aid in venting component selection for a particular range of exterior wall thicknesses.



H + H₁ Maximum **V** Minimum (meters) (meters) feet feet (0.914)**Elbow Only** 3 1 5 (1.524)(0.305)2 10 (3.048)(0.610)15 (4.572)3 (0.914)(6.096) 4 20 (1.219)V + H + H₁ = 40 feet (12.2 m) Max. $H + H_1 = 20$ ft. (6.096 m) Max.

TABLE J

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

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

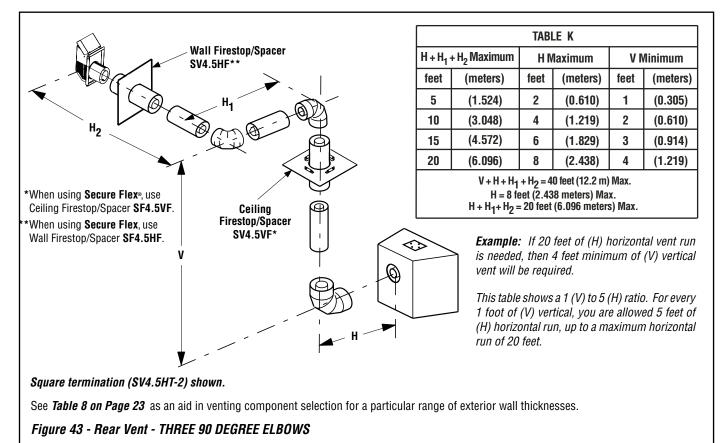
An elbow is acceptable as 1 foot of vertical rise except where an elbow is the only vertical component in the system. See **Figure 39**.

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

See *Table 8 on Page 23* as an aid in venting component selection for a particular range of exterior wall thicknesses.



HORIZONTAL VENT FIGURES/TABLES (continued)



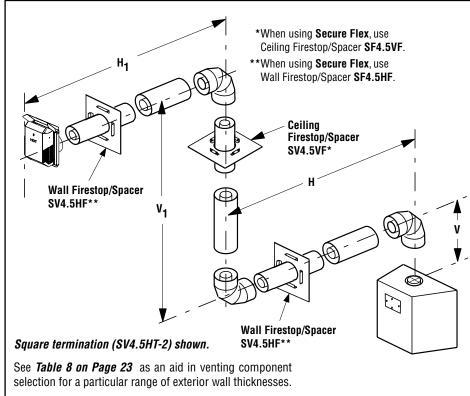


Figure 44 - Top Vent - THREE 90 DEGREE ELBOWS

TABLE L					
H Maximum V Minimun			/linimum		
feet	(meters)	feet	(meters)		
5	5 (1.524) Elbow Only				
5	(1.524) 1 (0.305)				
10 (3.048) 2 (0.610)					
15 (4.572) 3 (0.914)					
20 (6.096) 4 (1.219)					
	$H + H_1 = 20$ feet (6.096 m) Max. V + V ₁ + H + H ₁ = 40 ft. (12.192 m) Max.				

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

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

An elbow is acceptable as 1 foot of vertical rise except where an elbow is the only vertical component in the system. See **Figure 39**.

VERTICAL OR HORIZONTAL VENTING USING Secure Flex® Kits and components

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

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

Attach the flexible vent to the adaptor as follows (see Figure 45):

A. Install the Inner Flex Pipe -

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

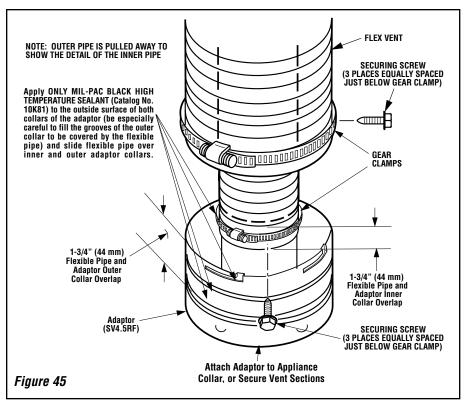
2. Apply a bead of Mill-Pac Black (700°F) high temperature sealant - Catalog No. 10K81) to the inner adaptor collar, approximately 1/2" from the end.

 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" from the end, and that it is free from damage or tears.
 Slide the gear clamp down and tighten it fully to secure the flexible vent to the adaptor inner collar approximately 3/4" from the end of the flex.
 Install three screws 120 degrees apart through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.

B. Install the Outer Flex Pipe -

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





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

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

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

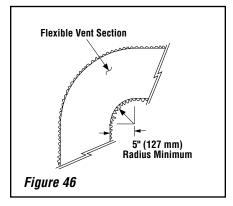
6. Install three screws 120 degrees apart through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.

C. Route Flex Vent -

Ensure that the flex vent is properly routed to provide the required clearance. Do Not allow the flexible vent to bend in a radius tighter than 5" (127 mm). Refer to *Figure 46*. Support horizontal sections of flex with metal straps at 2 foot (0.61 m) intervals.

D. Install Firestop/Spacers at ceilings and walls -

When Secure Flex penetrates a wall or ceiling, a firestop/spacer is required: use the SF4.5 VF firestop/spacer for ceilings and the SF4.5 HF firestop/spacer for walls. See the appropriate sections and figures shown throughout the venting section for their installation requirments.



E. Attach Flex Vent to Termination -

Secure Flex components can be purchased separately and attached to bulk lengths of Secure Flex flexible tubing cut to size at the job site. Secure the flexible vent to the Secure Flex terminations in the same manner (see Figure 45) as it was attached to the adaptor.

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

A CAUTION

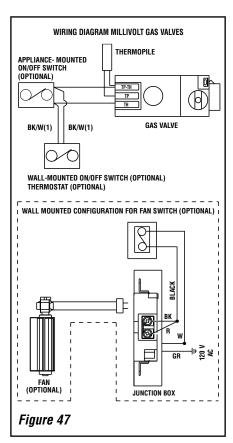
Ground supply lead must be connected to the wire attached to the green ground screw located on the outlet box. See *Figure 48*. Failure to do so will result in a potential safety hazard. The appliance must be electrically grounded in accordance with local codes or, in the absence of local codes, the National Electrical Code, ANSI/NFPA 70-latest edition., or the Canadian Electrical Code, CAN/ CSA C22.1—latest edition.

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 cáblage peuvent entraîner un fonctionnement inadéquat et dangereux.

Verify proper operation after servicing.

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



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

A. Millivolt Wiring (See Figure 47) -

- Appliance-mounted ON/OFF burner control switch (rocker switch) is factory installed in the control compartment. Optional wallmounted switch, thermostat, or one of the optional remote control kits may also be used.
- If wall-mounted ON/OFF control switch or thermostat is selected, mount it in a convenient location on a wall near the fireplace.
- **3**. Wire the control switch within the millivolt control circuit using the 15 feet of 2 conductor wire supplied with the unit.

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

CAUTION: Do Not connect the optional wall switch to a 120V power supply.

4. If an optional control switch is installed, turn the appliance-mounted ON/OFF burner control switch to the OFF position.

B. Electronic Wiring (*Figure 48*)

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

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

- **1**. Route a 3-wire 120Vac 60Hz 1ph power supply to the appliance junction box.
- 2. Remove the electrical inlet cover plate from the side of the unit by removing the plate's securing screws.
- **3.** Remove the cover plate knockout; then feed the power supply wire through the knockout opening and into the unit junction box.
- See Figure 49. Connect the black power supply wire to the lower outlet's red pigtail lead.

Connect the white power supply wire to the outlet's common terminal.

5. Connect the ground supply wire to the pigtail lead attached to the outlet's green ground screw.

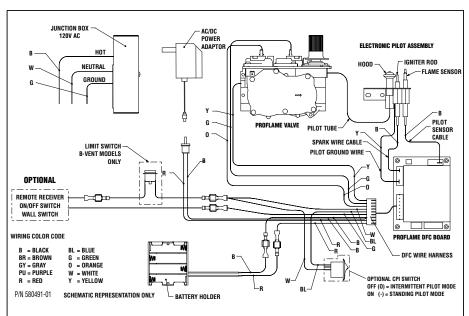


Figure 48 - Wiring Diagram - Electronic Gas Valves

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

- 6. If wall-mounted ON/OFF control or thermostat is to be used, mount it in a convenient location on a wall near the fireplace.
- If an optional control is to be used, wire it in the low voltage circuit as shown in *Figure* 48.

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

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

A WARNING

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

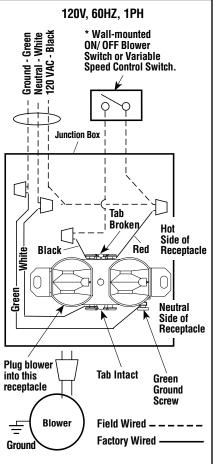


Figure 49 - J-BOX WIRING

Step 6. WIRING - OPTIONAL FORCED AIR BLOWER KIT

FBK-100 and FBK-200 Kits

(See Figure 47 on Page 27) -

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

FBK-250 Blower Kit

(See Figure 47 on Page 27)

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

NOTE: The tab connecting the receptacles of the outlet box must be broken in FBK-100 and FBK-200 blower kit applications. See **Figure 49**.

Step 7. CONNECTING GAS LINE

Make gas line connections. All codes require a shut-off valve mounted in the supply line. *Figure* **50** illustrates two methods for connecting the gas supply. The flex-line method is acceptable in the U.S., however, Canadian requirements vary depending on locality. Installation must be in compliance with local codes. A sediment trap is recommended in the gas piping within the home to prevent moisture and debris in the line from damaging the valve.

These appliances are equipped with a gas flex line for use (where permitted) in connecting the unit to the gas line. A gas flex line is provided to aid in attaching the direct vent appliance to the gas supply. The gas flex line can only be used where local codes permit. Refer to *Figure 50* for flex line description. The flex line is rated for both natural and propane gas. A manual shut off valve is also provided with the flex line.

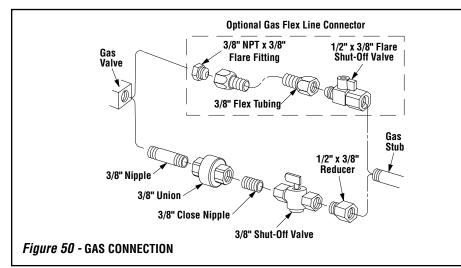
The gas control valve is located in the lower control compartment.

To access the valve open the lower control compartment door (see **Figure 51**) by lifting up approximately 1/2" and then swinging the door open. (The door is hinged at the bottom). Remove the bottom compartment door by sliding the hinge pin, located at the door's left side, to the right until it disengages from the left corner post hole. Pull the door diagonally to the left, away from the fireplace.

The millivolt control valve has a 3/8" (10 mm) NPT thread inlet port. The electronic control valve has a 1/2" (13 mm) NPT thread inlet port and is fitted with a $1/2" \times 3/8"$ (13 mm x 10 mm) NPT fitting.

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

All codes require a shut-off valve mounted in the supply line. The orientation of the shut-off valve should face the front. *Figure 50* illustrates two methods for connecting the gas supply. A sediment Trap is recommended to prevent moisture and debris in the gas line for damaging the valve.



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

WARNING

Never use an open flame to check for leaks.

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

NOTE: Using a soapy water solution is an effective leak test solution but it is not recommended, because the soap residue that is left on the pipes/fittings can result in corrosion over time.

- A. Light the appliance (refer to the lighting instructions label in the control compartment or in the Care and Operation Instructions manual).
- B. Brush all joints and connections with the gas leak test solution to check for leaks. If bubbles are formed, or gas odor is detected, turn the gas control knob (off/pilot/on) to the "OFF" position. Either tighten or refasten the leaking connection, then retest as described above.
- **C.** When the gas lines are tested and leak free, be sure to rinse off the leak testing solution.

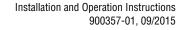
Step 8. VERIFYING APPLIANCE OPERA-TION

With gas line installed run initial system checkout before closing up the front of the unit. Follow the pilot lighting instructions provided in the Care and Operation Instructions manual. For piezo igniter location see *Figure 51* (millivolt appliances only).

NOTE: Lighting Instructions are also found on the literature tag tied to the gas piping next to the gas valve. To access the tag, open the lower control compartment door (**Figure 51**) by pushing in simultaneously the left and right top corners of the door. (The door is hinged at the bottom). Remove the bottom compartment door by sliding the hinge pin, located at the door's left side, to the right until it disengages from the left corner post hole.

When first lighting the appliance, it will take a few minutes for the line to purge itself of air. Once purging is complete, the pilot and burner will light and operate as indicated in the instruction manual.

Subsequent lighting of the appliance will not require such purging. Inspect the pilot flame (remove logs, if necessary, handling carefully).



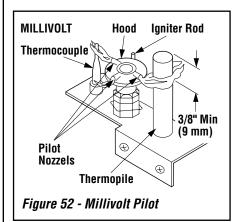
Millivolt Appliance Checkout

The pilot flame should be steady, not lifting or floating. Flame should be blue in color with traces of orange at the outer edge.

The top 3/8" (10 mm) at the pilot generator (thermopile) and the top 1/8" minimum (tip) of the quick drop out thermocouple should be engulfed in the pilot flame.

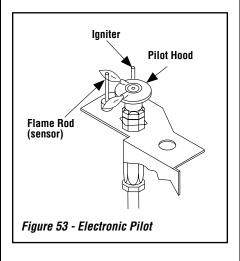
The flame should project 1" (25 mm) beyond the hood at all three ports (see *Figure 52*). Replace logs if removed for pilot inspection.

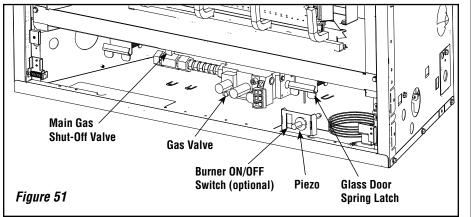
To light the burner; turn "ON" the remote wall switch and rotate the gas valve control knob counterclockwise to the "ON" position ("ON" will be at the top side of the valve).



Electronic Appliance Checkout

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





Step 9. INSTALL VOLCANIC STONE, GLOWING EMBERS AND LOGS

🛕 WARNING

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

REFERENCE Firebox Accessories / Parts				
Cat. No.	Model No.	Description		
88L53	FGE	Bag of Glowing Embers		
80L42	FDVS	Bag of Decorative Volcanic Stone		

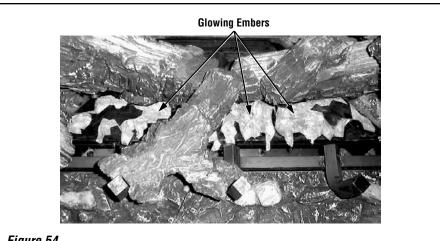


Figure 54

NOTE: Turn off all electricity to the appliance before you install volcanic stone, embers and logs. DO NOT attempt to install the logs until the appliance installation has been completed, the gas line connected and tested for leaks and the initial burner operation has been checked out.

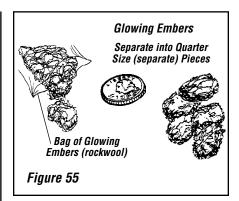
Step 1. Remove the appliance front door (see Removing Glass Enclosiure panel on *Page 32*.

Step 2. Install decorative volcanic stone -

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

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

Step 3. Separate the Glowing Ember (rockwool) into pieces about the size of a quarter (*Figure 55*). Keep the pieces fluffed up, not matted. Distribute these pieces over the front surface of the burner, as shown in *Figure 54*. Do not use more than is necessary. When properly positioned, the Glowing Embers will cover approximately 65% of the front burner and with no appreciable gaps or openings. Ensure that the main burner ports remain uncovered by the ember material.



Step 4. Placement of Logs -

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

Step 5. Position the individual logs as shown in *Figure 56.* Logs should be placed in the order shown. All logs that have notches to fit over the grate tines should be positioned with these notches directly against the grate. **Handle logs carefully to prevent breakage.**

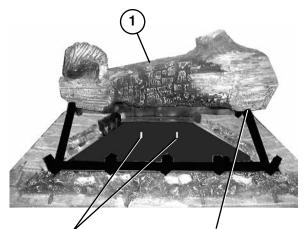
Proper log placement is critical to encourage outstanding flame appearance and prevent sooting. When positioned properly as shown, logs will be positioned between flame peaks and will not impinge any flames.

Refer to Figure 56 for 40" and 45" Model appliances.

40" AND 45" LOG PLACEMENT

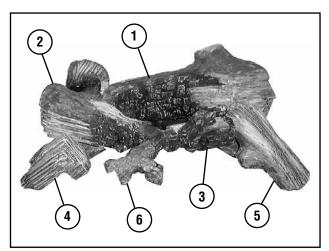
Log Number	Description
1	Log, Rear
2	Log, Diagonal/Left
3	Log, Diagonal/Right
4	Log, Front/Left
5	Log, Top/Right
6	Log, Front/Center

Catalog Number for the entire log set: 55M03

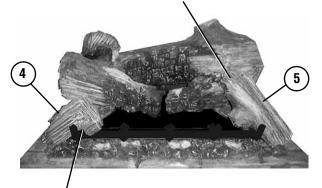


Locating Pins Align Groove A Of Log (1) Over

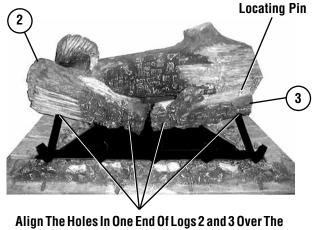
Align Groove At The Bottom Of Log (1) Over The Grate And Push It Towards The Rear.



Align The Hole On The Log (5) Over The Locating Pin And Postition The Notch Over The Grate As Shown



Align The Groove In The Bottom Of Log (4) Over The Grate And Slide It Toward The Front.



Align The Holes In One End Of Logs 2 and 3 Over The Locating Pins And Align The Grooves On The Other End Over The Grate And Push It Toward The Rear

6 6 Position The Grooves On Log (6) Against The Grate As Shown

Figure 56

Step 10. REMOVING AND INSTALLING THE GLASS DOOR

WARNING

- Do not attempt to substitute the materials used on these doors, or replace cracked or broken glass.
- Handle this glass with extreme care! Glass is susceptible to damage - Do not scratch or handle roughly while reinstalling the glass door frame.
- The glass door(s) 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.
- DO NOT abuse glass door by striking or slamming shut.

🛦 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.

Removing Glass Enclosure Panel (see *Figure 57)*

To access the glass door securing latches, first remove the hood by pulling firmly straight away from the unit. Remove the front face assembly by lifting top and bottom evenly approximately 1/2" and pulling straight out from the unit once the brackets are disengaged. Locate the two (2) glass door spring latches at the top of the control compartment *(see Figure 57)*. Pull out each spring latch until it disengages from the door frame bottom vee-flange. Remove the door by tilting it outward at the bottom and lifting it up. Set the door aside, taking care to protect it from inadvertent damage.

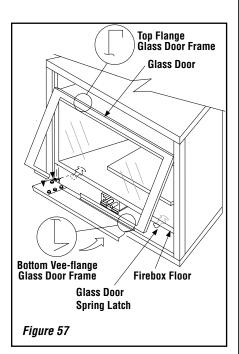
Installing Glass Enclosure Panel (see *Figure 57)*

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

Position the door in front of the firebox opening with the bottom of the door held away from the fireplace *(Figure 57)*. Hook the top flange of the door frame over the top of the firebox frame.

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

NOTE: Front Face Assembly with barrier installed must be reinstalled prior to operation.



Step 11. BURNER ADJUSTMENTS

Flame Appearance and sooting

Proper flame appearance is a flame which is blue at the base and becomes yellowish-orange in the body of the flame.

When the appliance is first lit, the entire flame may be blue and will gradually turn yellowishorange during the first 15 minutes of operation. If the flame remains blue, or if the flame is orange with evidence of sooting (black tip), the air shutter opening may need to be adjusted.

If the air shutter opening is closed too far, sooting may develop. Sooting is indicated by black puffs developing at the tips of very long orange flames. Sooting results in black deposits forming on the logs, appliance inside surfaces and on exterior surfaces adjacent to the vent termination.

Sooting is caused by incomplete combustion in the flames and lack of combustion air entering the air shutter opening. To achieve a warm yellowish-orange flame with an orange body that does not soot, the shutter opening must be adjusted between these two extremes.

Air Shutter Adjustment Guidelines

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

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

Air Shutter Adjustment Guidelines:					
Amount of Primary Air	Flame Color	Air Shutter Adjustment			
If air shutter is closed too far	Flame will be orange	Air shutter gap should be increased			
If air shutter is open too far	Flame will be blue	Air shutter gap should be decreased			

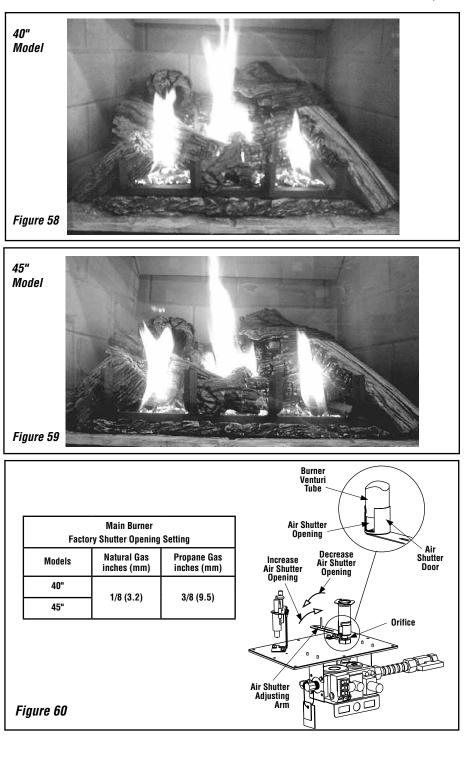
Burner Flame Adjustments



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

CAUTION

- Soot will be produced if the air shutter is closed too much. Any damage due to sooting, resulting from improperly setting the air shutter, is not covered under the warranty.
- The air shutter door and nearby appliance surfaces are hot. Exercise caution to avoid injury while adjusting flame appearance.
- 1. Refer to *Figures 58, 59 and 60* for proper flame appearance. To adjust the flame, rotate the adjustment rod toward the back or toward the front of the fireplace (rod located in the lower control area). Position the air shutter to the factory setting as shown in the table in *Figure 60*.
- 2. Light appliance (follow lighting procedure on lighting label in control compartment or see the Care and Operation Manual).
- Allow the burner to operate for at least 15 minutes while observing the flame continuously to ensure that the proper flame appearance has been achieved. If the following conditions are present, adjust accordingly.
 - If flame appears weak or sooty, adjust the air shutter, incrementally, to a more open position until the proper flame appearance is achieved.
 - If flame remains blue, adjust the air shutter, incrementally, to a more closed position until the proper flame appearance is achieved.
- (Millivolt Models) Leave the control knob (off/pilot/on) in the ON position and the burner OFF/ON switch OFF (and remote switches, if applicable).
- **5.** When satisfied that the burner flame appearance is normal, re-install the lower control compartment door then proceed to finish the installation.



STEP 12. ATTACHING SAFETY-IN-OPERATION WARNINGS

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

ATTACHING SAFETY IN OPERATION WARNINGS It is required that the safety instruction labels furnished with the fireplace be affixed to the operation and control point of the fireplace. A safety instruction label must be affixed to the wall switch plate where the fireplace is turned on and off (*See Figure A*) or wall thermostat (*See Figure B*) and if used on the remote control handheld transmitter (*Figure C*). 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:

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

Cat. No. H8024 Replacement Label Kit

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

SAFETY LABEL DIAGRAMS

EXTREMELY HOT glass and fireplace

Risk of Severe Burns

ALWAYS KEEP CHILDREN AWAY FROM FIREPLACE

WARNING

APPOSITION DES MISES EN GARDE RELATIVES à la sécurité d'utilisation

- Il est impératif que les étiquettes de sécurité fournies avec le foyer soient collées à côté des dispositifs de contrôle du foyer. Une étiquette de sécurité doit être collée sur la plaque de l'interrupteur contrôlant l'allumage du foyer (voir **Figure A**) ou sur le thermostat mural (voir **Figure B**) et, le cas échéant, sur le boîtier de la télécommande (**Figure C**). 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 :
- Repérez l'interrupteur ou le thermostat mural qui contrôle le foyer (vérifiez que l'interrupteur contrôle le fonctionnement du foyer en le faisant basculer de Marche à Arrêt, et vice-versa). Nettoyez soigneusement la plaque murale de l'interrupteur ou le thermostat mural pour éliminer la poussière et les traces de graisse ou d'huile. Collez l'étiquette sur la surface de la plaque de l'interrupteur mural qui contrôle le foyer (*Figure A*) ou du thermostat mural (*Figure B*). Choisissez la langue qui est principalement parlée dans la résidence du propriétaire. En cas de doute, collez l'étiquette en anglais.
- Si une télécommande est utilisée pour contrôler le foyer, nettoyez la soigneusement pour éliminer la poussière et les traces de graisse ou d'huile. Collez l'étiquette sur le boîtier de la télécommande (*Figure C*). Choisissez la langue qui est principalement parlée dans la résidence du propriétaire. En cas de doute, collez l'étiquette en anglais.
- Si vous ne trouvez pas les étiquettes, veuillez appeler Innovative Hearth Products ou votre distributeur Innovative Hearth Products local pour recevoir gratuitement des étiquettes supplémentaires.

Étiquettes de remplacement, n° cat. H8024

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

DIAGRAMMES DES ÉTIQUETTES DE SÉCURITÉ



COLOCACIÓN DE ADVERTENCIAS DE SEGURIDAD EN OPERACIÓN

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

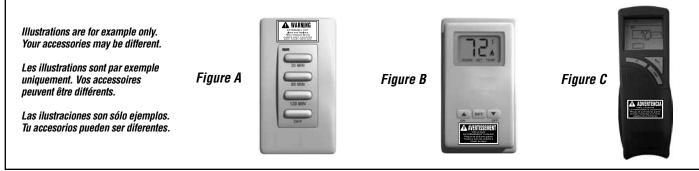
- Identifique el interruptor o el termostato de pared que controla la chimenea (verifique que el interruptor opera la chimenea encendiéndola y apagándola). Limpie bien la placa del interruptor o el termostato de pared para quitar el polvo y aceite. Pegue la etiqueta en la superficie de la placa del interruptor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

Juego de etiquetas de repuesto - Nº de cat. H8024

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

DIAGRAMAS DE ETIQUETAS DE SEGURIDAD





Step 13. HOOD INSTALLATION

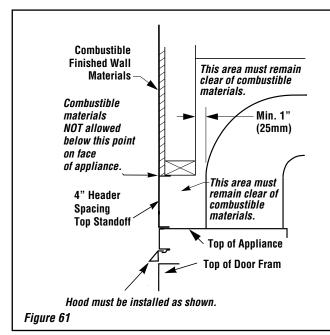
Refer to Figure 61. All of these appliances must have hoods installed prior to operating.

On all clean face units, slide the hood into the slots on the lower edge of the radiant panel (*Figure 61*).

FINISHING REQUIREMENTS - Wall Details

Complete finished interior wall. To install the appliance facing flush with the finished wall, position framework to accommodate the thickness of the finished wall (*Figure 61*)

See Page 7 for Cold Climate Insulation and Page 10 for Clearances



NOTE:

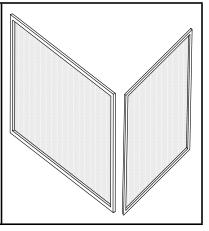
- If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance.
- For use with barrier(s) Part No(s). J7420 (40" Models) and J7428 (45" Models).

NOTICE: All Altair model fireplaces include barriers to reduce the risk of burns from hot viewing glass. The barriers in the fireplace are screens shown right.

J7420 (40" Models)

J7428 (45" Models)

Figure 62



Listed Secure Vent® Components				
	Cat. No.	Model	Description	
	H1968	SV4.5HT-2	Horizontal Square Termina- tion With Firestop / spacer (H2246) & Adaptor (74L61)	
	H2152	SV4.5CGV-1	Vertical Termination Cap, High Wind	
Vent Sections	77L70	SV4.5L6	6" (152 mm)	
(Rigid)	77L71	SV4.5L12	12" (305 mm)	
	77L72	SV4.5L24	24" (610 mm)	
Δ	77L73	SV4.5L36	36" (914 mm)	
ן ד <u></u>	77L74	SV4.5L48	48" (1219 mm)	
	77L75	SV4.5LA	Telescopic Length Slip Sec- tion (2" to 7-1/2" rigid)	
	77L76	SV4.5E45	45 Degree Elbow	
	77L77	SV4.5E90	90 Degree Elbow	
The followin	g flashings c	ome packaged w	ith a storm collar:	
	77L78	SV4.5F	Flat Roof Flashing	
	77L79	SV4.5FA	1/12 to 7/12 Adjustable Flashing	
	77L80	SV4.5FB	7/12 to 12/12 Adjustable Flashing	
	77L81	SV4.5SC6	Storm Collar (6 per box)	
	H6183	SV4.5HF5	Firestop Spacer, 5", <i>rigid</i>	
	H6184	SF4.5HF5	Firestop Spacer, 5", <i>flex</i>	
	H2246	SV4.5HF-10	Firestop / Spacer-Horizon- tal, <i>rigid</i> (3-1-1 spacing), 10 Pack	
	H2247	SV4.5VF-10	Firestop / Spacer-Vertical, <i>rigid</i> (1-1-1 spacing), 10 Pack	
	96K92	SV4.5SP	Support Plate	

🛕 WARNING

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

INSTALLATION ACCESSORIES CONTINUED

Listed Secure Vent® Components				
	Cat. #	Model	Description	
	17M52	SV4.5HGS-1	Termination Guard, Square (1 pack) <i>Ref.</i> <i>instr. #750109M</i>	
	17M53	SV4.5HGS-12	Termination Guard, Hori- zontal Square (12 pack) <i>Ref. instr. #750109M</i>	
	87L02	SV4.5HGS	Termination Guard for Horizontal Square Termi- nation (Deluxe) (1 pack) <i>Ref. instr. #750055M</i>	
	H5820	SV4.5HTSK	Termination Shroud (Guard) for Horizontal Square Termination (1 pack) (ref. instr. #750246M)	
	H5816	SV4.5- TWSK10	Through Wall Shield Kit (used to shield the direct- vent pipe from blown insulation) <i>Ref. instr. #750247M</i>	
0	H3907	SV4.5ARSA	Attic Insulation Shield w/ adjustable height, 12"-22"	
	96K93	SV4.5SU	Support Strap	
	10K81	SFMP	Mill-Pac, Black, High Tem- perature Sealant	
	89L40	SFMP-12	Mill-Pac, Black, High Tem- perature Sealant - Bulk 12 pack	
	99L02	SV4.5HRK14	Horizontal Riser Kit, 14", Ref. instr. #750146M	
	99L03	SV4.5HRK36	Horizontal Riser Kit, 36", Ref. instr. #750146M	

Listed Secure Flex® Components						
	Cat. #	Model	Description			
These termination kits include firestop/spacer, gear clamps and flex adaptor.						
	60L10	SF-18	18 feet (5.49 m) * com- pressed <i>flex, Ref. instr.</i> <i>#750053M</i>			
	98K03	SF-12	12 feet (3.66 m) * com- pressed <i>flex, Ref. instr.</i> <i>#750052M</i>			
	H2248	SF4.5HF-10	Firestop / Spacer - Hori- zontal, flex (3-1-1 spacing), 10 Pack			
	H2249	SF4.5VF-10	Firestop/Spacer-Vertical, <i>flex</i> (1-1-1 spacing), 10 Pk			
	H1969	SF4.5HT-2	Horizontal Square Termina- tion for <i>flex</i> (without flex)			
r Hor	77L87	SFKIT12S	Square Term. for <i>flex</i> (with 12" [305 mm] * compressed flex)			
	77L88	SFKIT18S	Square Term. for <i>flex</i> (with 18" [457 mm] * compressed flex)			
	77L89	SFKIT24S	Square Term. for <i>flex</i> (with 24" [610 mm] * compressed flex)			
	77L90	SFKIT36S	Square Term. for <i>flex</i> (with 36" [914 mm] * compressed flex)			
	77L91	SFKIT48S	Square Term. for <i>flex</i> (with 48" [1219 mm] * compressed flex)			
	56L74	SFVT30	Vertical Termination for <i>flex</i> (flat to 6/12) with flex adaptor, section of rigid vent, roof support collar assembly, roof flashing and storm collar. <i>Ref. instr.</i> #750052M			
	56L75	SFVT45	Vertical Termination for <i>flex</i> (6/12 to 12/12) with flex adaptor, section of rigid vent, roof support collar assembly, roof flashing and storm collar. <i>Ref. instr.</i> <i>#750052M</i>			
	91L66	SFGC4-6	Gear Clamp 4.5" (114 mm) for <i>flex</i> (6 pack)			
	91L67	SFGC7-6	Gear Clamp 7.5" (190.5 mm) for flex (6 pack)			
	H7748	H7748	36" <i>Flex</i> Connector Kit. 36" of flex with two adaptors for mating two rigid sections of vent together.			
Callelen and a second s						

 $^{\star} \text{All compressed flex vents can be expanded up to two times.}$

GAS CONVERSION KITS

Installation and Operation Instructions 900357-01, 09/2015

🛕 WARNING

This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instruction is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit. The qualified service agency performing this installation assumes responsibility for this conversion.

AVERTISSEMENT

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

In Canada:

THE CONVERSION SHALL BE CAR-RIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROVINCIAL AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH THE RE-QUIREMENTS OF THE CAN/CGA-B149.1 INSTALLATION CODE.

LA CONVERSION DEVRA ÊTRE EF-FECTUÉE CONFORMÉMENT AUX RE-COMMANDATIONS DES AUTORITÉS PROVINCIALES AYANT JURIDICTION ET CONFORMÉMENT AUX EXIGENCES DU CODE D'INSTALLATION CAN/CGA-B149.1.

Gas conversion kits are available to adapt your appliance from the use of one type of gas to the use of another. These kits contain all the necessary components needed to complete the task including labeling that must be affixed to ensure safe operation.

Kit part numbers are listed here and the following steps detail the conversion procedure. Refer to the instructions provided with the conversion kit when performing any gas conversion.

<i>Millivolt</i> SIT Systems Natural Gas To <u>Propane Gas</u> Conversion Kits	
Models	Catalog No.
40" Model 85L63	
45" Model 85L64	

<i>Millivolt</i> SIT Systems Propane Gas to <u>Natural Gas</u> Conversion Kits	
Models	Catalog No.
40" Model	85L70
45" Model 85L71	

<i>Electronic</i> SIT Systems Natural Gas To <u>Propane Gas</u> Conversion Kits	
Models	Catalog No.
40" Model H9101	
45" Model H9102	

<i>Electronic</i> SIT Systems Propane Gas To <u>Natural Gas</u> Conversion Kits	
Models	Catalog No.
40" Model H9104	
45" Model H9105	

INSTALLATION INSTRUCTIONS

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

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

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

Step 2. Open the bottom drop-down door. Open it (see *Figure 51* on *Page 29*) by pushing in simultaneously the left and right top corners of the door. (The door is hinged at the bottom). Remove the bottom compartment door by sliding the hinge pin, located at the door's left side, to the right until it disengages from the left corner post hole. Pull the door diagonally to the left, away from the fireplace.

Step 3. Remove the front glass door/frame from the appliance (see instructions on *Page 32*).

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

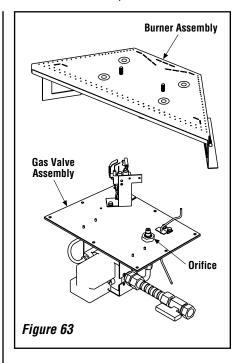
Step 5. Refer to *Figure 63*.

A. Above the burner, remove the two baffle securing screws. Remove the baffle.

B. Remove the two screws securing the trapezoidal plate to the burner. Remove the plate.

C. Remove the burner assembly with attached venturi tube.

Innovative Hearth Products Altair™ Direct Vent Gas Fireplace

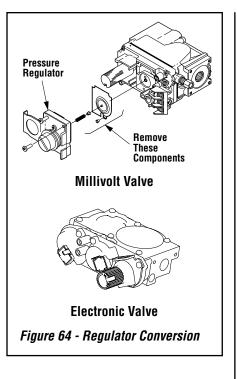


Millivolt and Electronic Ignition System Appliances

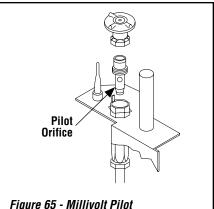
Step 6. SIT Systems - Refer to *Figure 64* and the instructions provided with the SIT Regulator Conversion Kit. Using a Torx T20 driver (with 1/4" shank and center hole) or slotted screwdriver, remove and discard the pressure regulator mounting screws (two screws for electronic models, three screws for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

Step 7. Install the new pressure regulator assembly using the supplied screws as shown in *Figure 64*. Tighten the screws to 25 in-lb.

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



Step 9. Refer to *Figure 65* and remove the pilot hood assembly to access the hexed pilot orifice. Remove and replace the orifice with the one provided with the kit.



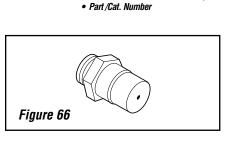
rigure 65 - Millivolt Pilot (electronic pilot is similar)

Step 10. (Refer to Figure 63)

Remove the orifice from the manifold and replace it with the one provided in the kit. See the following table for orifice sizes for natural and propane models. *Figure 66* illustrates the orifice.

Use pipe joint compound or Teflon tape on all pipe fittings before installing (ensure propane resistant compounds are used in propane applications, do not use pipe joint compounds on flare fittings).

Burner Orifice Sizes Elevation 0-4500 feet (0-1372 meters)		
Model Series	Nat.Gas drill size (inches)	Propane drill size (inches)
40"	#40 (0.0980")* 69L96 ●	#53 (0.0595")* 39L10∙
45"	#37 (0.1040")* 24M10 ●	(0.0620")* 21L01 ●
Table 9		



* Standard size installed at factory

Step 11. Retrieve the burner and hold the venturi tube above the orifice . Place the shutter adjusting rod in the propane slot of the shutter arm (see *Figure 60 on Page 33*). Set the burner assembly into its position and secure the trapezoidal plate with the two screws previously removed.

Step 12. Reinstall the baffle with the two baffle securing screws.

Step 13. Reassemble the remaining components by reversing the procedures outlined in the preceding steps.

Step 14. Attach the conversion label provided in the conversion kit next to the rating plate on the appliance.

Step 15. Turn on gas supply and test for gas leaks (refer to *Page 29*).

Step 16. Relight the main burner. The lighting instructions can be found on the lighting label in the control compartment or in the Care and Operation Manual provided with the appliance. Verify proper burner ignition and operation. See Burner Adjustments and Burner Flame Appearance on *Pages 32 and 33*.

Step 17. Inspect the pilot system for proper flame. The pilot flame should engulf the flame sensor as shown in *Figures 52 and 53* on *Page 29*.

Step 18. Using a manometer, test the inlet and manifold gas pressures. See *Tables 2 and 3* on *Page 6*.

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

IMPORTANT SAFETY INFORMATION

Important Safety Information

- 1. WARNING: Do not operate appliance with the glass front removed, cracked, or broken.
- Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.
- 3. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
- 4. Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition.
- 5. Clothing or other flammable material should not be placed on or near the appliance.
- 6. 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.
- 7. Any safety screen, guard or barrier removed for servicing an appliance must be replaced prior to operating the appliance.
- 8. 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, et cetera. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean. See maintenance instructions on Page 45.

L'information de sûreté importante

- 1. AVERTISSEMENT. Ne pas utiliser l'appareil si le panneau frontal en verre n'est pas en place, est craqué ou brisé.
- 2. Ne pas se servir de cet appareil s'il a été plongé dans l'eau, même partiellement. Faire inspecter l'appareil par un technicien qualifié et remplacer toute partie du systéme de contrôle et toute commande qui ont été plongées dans l'eau.
- 3. En raison des températures élevées, l'appareil devrait être installé dans un endroit où il y a peu de circulation et loin du mobilier et des tentures.
- 4. Les enfants et les adultes devraient être informés des dangers que posent les températures de surface élevées et se tenir à distance afin d'éviter des brûlures ou que leurs vêtements ne s'enflamment.
- 5. On ne devrait pas placer de vêtements ni d'autres matières inflammables sur l'appareil ni à proximité.
- 6. 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.
- 7. Tout écran ou protecteur retiré pour permettre l'entretien de l'appareil doit être remis en place avant de mettre l'appareil en marche.
- 8. L'installation et la réparation devrait être confiées à un technicien qualifié. L'appareil devrait faire l'objet d'une inspection par un technicien professionnel avant d'être utilisé et au moins une fois l'an par la suite. Des nettoyages plus fréquents peuvent être nécessaires si les tapis, la literie, et cetera produisent une quantité importante de poussière. Il est essentiel que les compartiments abritant les commandes, les brûleurs et les conduits de circulation d'air de l'appareil soient tenus propres. Voyez les instructions d'entretien à la Page 45.

Información importante de seguridad

- 1. ADVERTENCIA: No opere el artefacto con el frente de vidrio quitado, agrietado o roto.
- No use este artefacto si alguna de sus partes ha estado bajo agua. Llame de inmediato a un técnico de servicio calificado para que inspeccione el artefacto y reemplace cualquier parte del sistema de control y cualquier control de gas que haya estado bajo agua.
- Debido a las altas temperaturas, el artefacto debe situarse fuera de las áreas de tráfico y lejos del mobiliario y cortinas.
- Se debe alertar a los niños y adultos sobre los peligros de las altas temperaturas en la superficie y que se mantengan alejados para evitar quemaduras o ignición de la ropa.
- 5. No debe colocarse ropa u otros materiales inflamables sobre y cerca del artefacto.
- 6. Se debe supervisar de cerca a los niños cuando estén en el mismo cuarto que el artefacto. Los niños pequeños, los jóvenes y otras personas pueden ser susceptibles a quemaduras por contacto accidental. Se recomienda instalar una barrera física si hay personas en riesgo en la casa. Para restringir el acceso a una chimenea o estufa, instale una puerta de seguridad ajustable para mantener a los niños pequeños, jóvenes y otras personas en riesgo fuera del cuarto y lejos de las superficies calientes.
- Cualquier malla o resguardo de seguridad quitado para dar servicio a un artefacto, debe reinstalarse antes de operar el artefacto.
- 8. Una persona de servicio competente debe realizar la instalación y reparación. Una persona de servicio profesional debe inspeccionar el artefacto antes de usar al menos una vez por año. Se puede requerir limpieza más frecuente debido a la pelusa excesiva del alfombrado, del material de cobijas, etc. Es imprescindible mantener limpios los compartimientos de control, los quemadores y los pasajes de circulación del aire del artefacto. Ver las instrucciones de mantenimiento en la *página 45*.

HOMEOWNER'S INSTRUCTIONS - ATTACHING SAFETY IN OPERATION WARNINGS

ATTACHING SAFETY IN OPERATION WARNINGS

Your fireplace has been furnished with safety instruction labels that are to be affixed to the operation and control point of the fireplace. A safety instruction label should be affixed to the wall switch plate where the fireplace is turned on and off (See Figure A) or wall thermostat (See Figure B) and if used on the remote control handheld transmitter (Figure C). The warnings should already have been put in place when the fireplace initial set-up was completed. If they are not affixed at these spots, locate the multi-lingual adhesive labels provided with these instructions and proceed as follows:

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

Cat. No. H8024 Replacement Label Kit

INNOVATIVE HEARTH PRODUCTS Astria.us.com

Tu accesorios pueden ser diferentes.

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

SAFETY LABEL DIAGRAMS	5	DIAGRAMMES DE SÉ	DES ÉTIQUE Curité
EXTREMELY HOT glass and fireplace Risk of Severe Burns ALWAYS KEEP CHILDREN AWAY FROM FIREPLACE		EXTRÊMEME Risque de bri Toujours tenir	t foyer ENT CHAUDS Úlures graves es enfants á du foyer
Illustrations are for example only. Your accessories may be different. Les illustrations sont par exemple uniquement. Vos accessoires peuvent être différents. Las ilustraciones son sólo eiemplos.	Figure A	WARNING Warner war Warner warner war Warner warner warner warner war Warner warner warner warner war Warner war Warner wa	Figure

APPOSITION DES MISES EN GARDE RELATIVES À LA SÉCUBITÉ D'UTILISATION

Votre foyer a été livré avec des étiquettes de sécurité qui doivent être collées à côté des dispositifs de contrôle du foyer. Une étiquette de sécurité doit être collée sur la plaque de l'interrupteur contrôlant l'allumage du foyer (voir Figure A) ou sur le thermostat mural (voir Figure **B**) et, le cas échéant, sur le boîtier de la télécommande (Figure C). Les mises en garde auraient dû être collées au moment de l'installation initiale du foyer. Si ce n'est pas le cas, prenez les étiquettes adhésives multilingues fournies avec ces instructions et procédez comme suit: 1. Repérez l'interrupteur ou le thermostat mural

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

Étiquettes de remplacement, n° cat. H8024

INNOVATIVE HEARTH PRODUCTS Astria.us.com

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

ETTES

B

COLOCACIÓN DE ADVERTENCIAS DE SEGURIDAD **FN OPFRACIÓN**

Su chimenea incluve etiquetas de instrucciones de seguridad que deben colocarse en el punto de operación y control de la chimenea. Se debe colocar una etiqueta de instrucciones de seguridad en la placa del interruptor de pared desde el cual se enciende y se apaga la chimenea (ver la Figura A) o en el termostato de pared (ver la Figura **B**) y en el transmisor de control remoto (**Figura C**) si se usa. Las advertencias ya deben haberse colocado cuando se completó la instalación inicial de la chimenea. Si no están colocadas en estos lugares, encuentre las etiquetas adhesivas multilingües proporcionadas con estas instrucciones y prosiga de la siguiente manera:

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

Juego de etiquetas de repuesto - Nº de cat. H8024

INNOVATIVE HEARTH PRODUCTS Astria.us.com

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

DIAGRAMAS DE ETIQUETAS DE SEGURIDAD



Figure C

ADVERTE

APPLIANCE INSTALLATION, SERVICE, AND MAINTENANCE NOTICES

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

AVERTISSEMENT : Une installation, un réglage, une modification, une réparation ou un entretien mal effectué peut causer des dommages matériels ou des blessures. Voir la notice de l'utilisateur qui accompgne l'appareil. Pour de l'aide ou des renseignements supplémentaires, consultez un installateur, un technicien agréé ou le fournisseur de gaz.

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

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

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

Any change to this appliance and/or its operating controls is dangerous. Improper installation or use of this appliance can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.

CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Turn off the gas supply to the appliance and have it serviced by a qualified professional, as it may not be operating correctly. Some people are more affected by carbon monoxide than others, including pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes. Turn off gas and electrical power to the fireplace and allow it to cool before cleaning or servicing the appliance.

The vent termination is hot while in operation and for a period of time following the use of the fireplace. Young children should be carefully supervised when they are in the same area as a hot termination.

APPLIANCE OPERATION NOTICES

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

These fireplaces are vented gas appliances. Do not burn wood or other material in these appliances.

This appliance is only for use with the type of gas indicated on 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 les types de gaz indiqués sur la plaque signalétique. Ne pas l'utiliser avec d'autres gaz sauf si un kit de conversion certifié est installé.

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

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

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

These fireplaces are designed as supplemental heaters. Therefore, it is advisable to have an alternate primary heat source when installed in a dwelling.

CAUTION: Hot while in operation. Do not touch. Severe Burns may result. Keep children, clothing furniture, gasoline and other liquids having flammable vapors away.

ATTENTION : L'appareil est chaud lorsqu'il fonctionne. Ne pas toucher l'appareil. Risque de brûlures graves. Surveiller les enfants. Garder les vêtements, les meubles, l'essence ou autres liquides produisant des vapeur inflammables loin de l'appareil.

WARRANTY INFORMATION

Your gas appliance is covered by a limited lifetime warranty. You will find a copy of the warranty accompanying this manual. Please read the warranty to be familiar with its coverage.

Retain this manual. File it with your other documents for future reference.

Failure to comply with the installation and operating instructions provided will result in an improperly installed and operating appliance, voiding its warranty.

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.

GENERAL INFORMATION

The fireplace models covered in this manual are direct-vent sealed combustion gas fireplace heaters designed for residential application. These direct-vent appliances operate with the combustion chamber completely isolated from the indoor environment.

All air for combustion is brought in from the outside and exhaust gases are vented through the same direct-vent, co-axial (intake/exhaust) vent system.

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

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

Innovative Hearth Products Altair™ Direct Vent Gas Fireplace

These appliances comply with National Safety Standards and are tested and listed by PFS (Report No. F14-170) to ANSI Z21.88 (in Canada, CSA-2.33), and CAN/CGA-2.17-M91, latest version, in both USA and Canada, as vented gas fireplace heaters.

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, or the Natural Gas and Propane Installation Code, CAN/CGA B149.1—latest edition. The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, the latest edition of the National Electrical Code, ANSI/ NFPA 70, or the Canadian Electrical Code, CSA C22.1—latest editions.

BTU Input

Millivolt Models - The millivolt appliances are manually controlled and feature a spark igniter (piezo) that allows the appliance's pilot gas to be lit without the use of matches or batteries. This system provides continued service in the event of a power outage.

Electronic and Millivolt models come standard with a manually-modulated gas valve; flame appearance and heat output can be controlled at the gas valve. The BTU Input for these appliances is shown in *Table 10.*

Input (BTU/HR) Gas Valves (all models)		
Madala	Input Rate (BTU / HR)	
Models	Nat. Gas	Prop. Gas
40"	27,000 high 21,000 low	27,000 high 21,000 low
45"	31,000 high 25,000 low	29,000 high 23,000 low
Table 10		

Gas Pressure - All Models

Tables 11 and 12 show the appliances' inlet and manifold gas pressure requirements:

Inlet Gas Supply Pressure (all models)		
Fuel #	Minimum	Maximum
Natural Gas	4.5" WC (1.12 kPa)	10.5" WC (2.61 kPa)
Propane 11.0" WC 13.0" WC (2.74 kPa) (3.23 kPa)		
Table 11		

Manifold Gas Supply Pressure (all models)			
Fuel #	Low	High	
Natural Gas	(Lo) 2.2" WC (0.55 kPa)	(Hi) 3.5" WC (0.87 kPa)	
Propane (Lo) 6.3" WC (Hi) 10.0" WC (1.57 kPa) (2.49 kPa)			
Table 12	0	8	

Test gauge connections are provided on the front of the millivolt and electronic gas control valve (identified IN for the inlet and OUT for the manifold side). The control valves have a 3/8" (10mm) NPT thread inlet and outlet side of the valve (refer to *Figures 68 and 69*).

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 <u>equal to or less than</u> 1/2 psi (3.5 kPa).

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

These appliances are tested and approved for installation at elevations of 0-4500 feet (0-1372 meters) above sea level using the standard burner orifice sizes (marked with an "*" in *Table 13*).

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

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

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

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

Burner Orifice Sizes Elevation 0-4500 feet (0-1372 meters)		
Model	Nat.Gas drill size (inches)	Propane drill size (inches)
40"	#40 (0.0980")* 69L96 ●	#53 (0.0595")* 39L10 ●
45"	#37 (0.1040")* 24M10 ●	(0.0620")* 21L01 •
Table 13 * Standard size installed at factory • Part /Cat. Number		

In Canada - CAN/CGA-2.17-M91 (high altitude):

THE CONVERSION SHALL BE CARRIED OUT BY A MANUFACTURER'S AUTHO-RIZED REPRESENTATIVE, IN ACCOR-DANCE 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.

Burn-in Period

During the first few fires of this appliance there will be some odor due to the curing of the paint and burning off of lubricants used in the manufacturing process. Depending on your use, the burn-in period may take a few hours or a few days.

KEEP YOUR HOUSE WELL VENTILATED DURING THE CURING PROCESS. THE ODOR AND HAZE EMITTED DURING THE CURING PROCESS CAN BE QUITE NOTICEABLE AND MAY SET OFF A SMOKE DETECTOR.

If an optional blower is installed, Do Not turn it on during the Burn-In period.

A white film may develop on the glass front during the first few fires as part of the curing process. The glass should be kept clean during the first two weeks of use to prevent the film from baking on (making it very difficult to remove). See *Cleaning Glass* on **Page 45**.

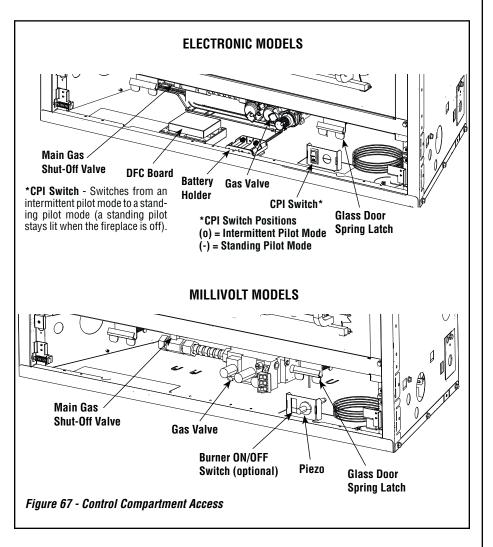
OPERATION AND CARE OF YOUR APPLIANCE

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.



Gas Controls/Control Compartment Access

The gas controls can be found behind the hinged drop-down panel.

To open the hinged drop-down panel, lift the panel up and out from behind the flange and rotate the top away from the unit on the hinge.

On millivolt systems, the piezo igniter, Hi/Lo flame adjustment knob, and pilot and main gas ON/OFF control knob are located in the control compartment. On both millivolt and electronic systems the gas valve is located in the control compartment. See *Figure 67.*

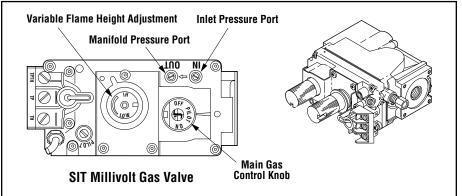
Remove the bottom compartment door by sliding the hinge pin, located at the door's left side, to the right until it disengages from the left corner post hole. Pull the door diagonally to the left, away from the fireplace.

To close the hinged drop-down panel, rotate the panel back into an upright position, lift the panel, and drop behind the flange.

Operation of millivolt and electronic gas control systems are different. Before lighting and operating your appliance determine if you have a millivolt or electronic appliance.

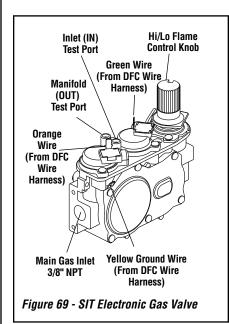
Refer to Figure 67 for access to the gas control valve. Millivolt appliances will be fitted with the gas control valve shown in <i>Figure 68.

Appliances with electronic systems will be fitted with the electronic valve shown in *Figure 69*. Familiarize yourself with the gas control valve that your appliance uses.



NOTE: The piezo igniter is located in the control compartment - refer to Figure 67

Figure 68



Millivolt Appliances

To light millivolt appliances refer to the detailed lighting instructions found on **Page 56** (English) and Page 57 (French). Millivolt appliance lighting instructions may also be found on the pull out lighting instruction labels attached to the gas control valve.

Millivolt appliances are fitted with an ON/OFF Rocker Switch for appliance ON/OFF control. Refer to *Figure 67* for its location. Once the pilot is lighted, the ON/OFF rocker switch will control the appliance ON/OFF operation. To operate: Toggle the switch between its ON and OFF positions. If your millivolt appliance is equipped with an optional remote wall switch or remote control kit and the pilot is lit, the appliance main burner may be turned on and off with the wall switch or remote control.

Electronic Appliances

To light electronic appliances refer to the detailed lighting instructions found in both English and French on **Pages 58 and 59** of these instructions respectively. Electronic appliance lighting instructions may also be found on the pull out lighting instruction labels attached to the gas control valve.

If your electronic appliance is equipped with an optional wall switch or remote control kit, the appliance main burner may be turned ON and OFF using the wall switch or remote control.

CPI switch located to the left of the gas valve switches the pilot from intermittent operation (pilot goes out when the fireplace is turned off) to continuous pilot mode. The rocker switch will not turn the burner on or off.

Variable Flame Height Adjustment

All Electronic and Millivolt appliances are equipped with a variable gas control valve. Flame height for these models may be adjusted through a range between fixed low and high settings, alternately, while the appliance is in operation.

Adjust the flame height as desired after lighting the appliance by rotating the variable adjustment control knob located on the front of the valve *(refer to Figures 68 and 69).*

MAINTENANCE

(See Maintenance Schedule, Page 55)

Refer to the maintenance schedule for maintenance tasks, procedures, frequency and by whom they should be performed. Always verify proper operation of the appliance after servicing.

🛕 WARNING

Turn off gas and electrical power to the fireplace and allow it to cool before cleaning or servicing the appliance.

CAUTION: Wear gloves and safety glasses for protection while doing required maintenance.

Verify proper operation after servicing.

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

Always turn off gas to the pilot (millivolt appliances) before cleaning. Before relighting, refer to the lighting instructions in this manual. Instructions are also found on a pull-out panel located in the control compartment.

Always keep the appliance area clear and free from combustible materials, gasoline and other flammable liquids.

Inspect Venting System

The appliance and venting system should be thoroughly inspected before initial use and at least annually by a qualified service technician (inspection should include ensuring that exhaust or intake passages are unobstructed and vent components are properly assembled and not damaged). Homeowner must contact a qualified service technician at once if any abnormal condition is observed.

If the venting system is disassembled for any reason, a qualified service technician should follow vent installation instructions for proper reassembly and proper sealing of the venting system components. However, more frequent periodic inspections and cleanings should be performed by the homeowner.

Cleaning Glass

(see front face assembly, Front Glass Enclosure Panel, Removal and Installation on **Page 46**).

NOTE: Clean glass after first two weeks of operation (after Burn-In period is over) and then only when necessary and when the fireplace is cool. Wipe surface with a clean, dampened, soft cloth. Follow with a dry, soft towel as desired. Take care not to scratch the glass surface.

Do not use abrasive cleaners on glass. Never clean the glass when it is hot.

The viewing glass should be cleaned periodically to remove any build-up caused from the following:

- During start-up, it is normal for condensation to form on the inside of the glass (this condensation and fog will usually disappear in a few minutes). The moisture can cause lint, dust and other airborne particles to cling to the glass surface.
- Initial curing of the high temperature paint and burning off of lubricants used in the manufacturing process may result in a film on the glass.
- A white coating may form on the glass as a result of impurities and minerals in the fuel.

It is recommended that the glass be cleaned two or three times during each heating season, depending on the circumstances present. The following cleaning solutions are approved for use to clean glass:

- Non-ammonia based household cleaner
- 50%-50% mix of white vinegar and water
- Gas fireplace/stove glass cleaner

Inspect Glass Gasket - Visually inspect the gasket on the backside of the glass enclosure panels. The gasket surface must be clean, free of irregularities and seated firmly.

Clean Control Compartment

Keep control compartment clean by vacuuming or brushing at least twice a year. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is important that control compartments, burners and circulating air passageways of the appliance be kept clean.

Clean Logs And Burner

Carefully remove the logs (use care when handling the fiber logs, as they become quite fragile after curing). Vacuum out any foreign matter (lint, carbon, etc.) on the burner. Ensure the burner ports are "open." Remove any carbon deposits from the under side of the logs using a vacuum cleaner, or a soft bristled brush (i.e. paint brush).

NOTE: Improper positioning of logs can create carbon build-up and will alter the performance of the appliance.

Replacing Logs

If the logs become damaged by accident or improper handling and need replacement, use only the proper replacement logs from manufacturer (see **Page 62** for ordering information).

Re-Install Embers and Logs

Carefully follow placement instructions on *Pages 47-48*. All logs should fit onto corresponding pins and/or log stoppers. This will ensure a proper flame and safe combustion.

Inspect Wiring

Refer to wiring diagrams on Page 51.

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

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

Inspect and clean all wire connections. Ensure that there is no melting or damage. Inspection should include:

- Terminals at the Valve
- OFF/ON Switch
- (Optional Control Switch) Wall Thermostat, Remote Control or Remote Wall Switch Kit

Inspect Burner Flame and Pilot Flame Appearance

Periodically do a visual check of the burner flame and the pilot flame. Ensure that the burner flame appearance resembles the flame shown in *Figures 74 and 75* and as described in Flame Appearance and Sooting on *Page 49*. Refer to *Figures 77 and 78 on Page 50* for more information about the pilot flame appearance. Contact a qualified service technician at once if any abnormal condition is observed.

Small Area Paint Touch-up

Only use a factory supplied paint kit for touchups. Paint is available at your local Innovative Hearth Products dealer. Never attempt to paint a hot fireplace.

Do not attempt to repaint the appliance until the finish is completely cured (see *Burn-In Period* on *Page 42*). If the surface later becomes stained or marred, it may be lightly sanded and touched up with spray paint.

Front Glass Enclosure Panel, Removal and Installation

🛦 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(s) 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.

🛕 WARNING

Any safety screen, guard, or barrier removed for servicing an 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. Only doors certified with the appliance shall be used.

Seules des portes certifiées pour cet appareil doivent être utilisées.

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

Removing Glass Enclosure Panel (see *Figure 70)*

To access the glass door securing latches, first remove the hood by pulling firmly straight away from the unit. Remove the front face assembly by lifting top and bottom evenly approximately 1/2" and pulling straight out from the unit once the brackets are disengaged.

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

Locate the two (2) glass door spring latches at the top of the control compartment *(see Figure* **70**). Pull out each spring latch until it disengages from the door frame bottom vee-flange. Remove the door by tilting it outward at the bottom and lifting it up. Set the door aside, taking care to protect it from inadvertent damage.

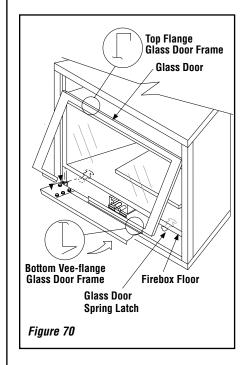
Installing Glass Enclosure Panel (see *Figure 70)*

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

Position the door in front of the firebox opening with the bottom of the door held away from the fireplace (*Figure 70*). Hook the top flange of the door frame over the top of the firebox frame.

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

NOTE: Front Face Assembly with barrier installed must be reinstalled prior to operation.



INSTALL VOLCANIC STONE, GLOWING EMBERS AND LOGS

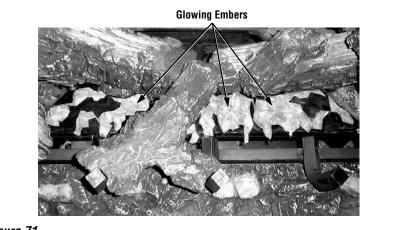
NOTE: Turn off all electricity to the appliance before you install volcanic stone, embers and logs.

🛕 WARNING

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

REFERENCE Firebox Accessories / Parts		
Cat. No. Model No. Description		
88L53	88L53 FGE Bag of Glowing Embers	
80L42 FDVS Bag of Decorative Volcanic Stone		

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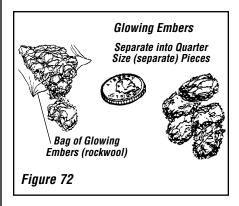
Step 1. Remove front face assembly, hood, and appliance front door (see Removing Glass Encloslure panel on *Page 46*.

Step 2. Install decorative volcanic stone -

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

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

Step 3. Separate the Glowing Ember (Rockwool) into pieces about the size of a quarter (*Figure 72*). Keep the pieces fluffed up, not matted. Distribute these pieces over the front surface of the burner, as shown in *Figure 71*. Do not use more than is necessary. When properly positioned, the Glowing Embers will cover approximately 65% of the front burner and with no appreciable gaps or openings. Ensure that the main burner ports remain uncovered by the ember material.



Step 4. Placement of Logs -

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

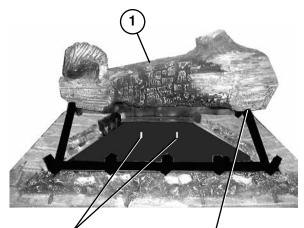
Step 5. Position the individual logs as shown in *Figure 73.* Logs should be placed in the order shown. All logs that have notches to fit over the grate tines should be positioned with these notches directly against the grate. **Handle logs carefully to prevent breakage.**

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

40" AND 45" LOG PLACEMENT

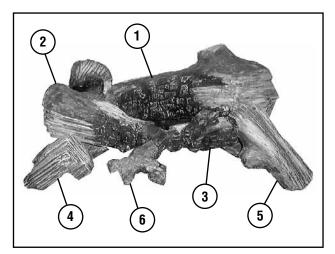
Log Number	Description
1	Log, Rear
2	Log, Diagonal/Left
3	Log, Diagonal/Right
4	Log, Front/Left
5	Log, Top/Right
6	Log, Front/Center

Catalog Number for the entire log set: 55M03

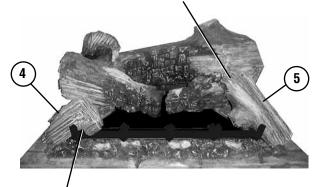


Locating Pins

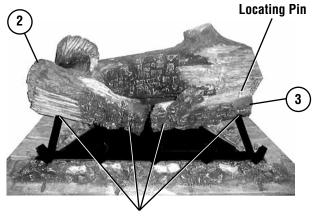
Align Groove At The Bottom Of Log (1) Over The Grate And Push It Towards The Rear.



Align The Hole On The Log (5) Over The Locating Pin And Postition The Notch Over The Grate As Shown

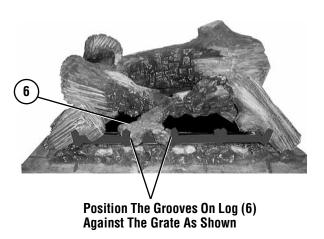


Align The Groove In The Bottom Of Log (4) Over The Grate And Slide It Toward The Front.



Align The Holes In One End Of Logs 2 & 3 Over The Locating Pins And Align The Grooves On The Other End Over The Grate And Push It Toward The Rear

Figure 73



BURNER ADJUSTMENTS (QUALIFIED TECHNICIANS ONLY)

Flame Appearance and Sooting

Proper flame appearance is a flame which is blue at the base and becomes yellowish-orange in the body of the flame.

When the appliance is first lit, the entire flame may be blue and will gradually turn yellowishorange during the first 15 minutes of operation. If the flame remains blue, or if the flame is orange with evidence of sooting (black tip), the air shutter opening may need to be adjusted.

If the air shutter opening is closed too far, sooting may develop. Sooting is indicated by black puffs developing at the tips of very long orange flames. Sooting results in black deposits forming on the logs, appliance inside surfaces and on exterior surfaces adjacent to the vent termination.

Sooting is caused by incomplete combustion in the flames and lack of combustion air entering the air shutter opening. To achieve a warm yellowish-orange flame with an orange body that does not soot, the shutter opening must be adjusted between these two extremes.

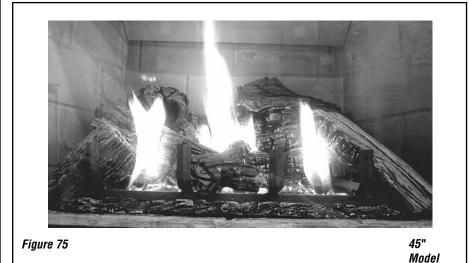
Air Shutter Adjustment Guidelines

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

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

Air Shutter	Adjustment (Guidelines:
Amount of Primary Air	Flame Color	Air Shutter Adjustment
If air shutter is closed too far	Flame will be orange	Air shutter gap should be increased
If air shutter is open too far	Flame will be blue	Air shutter gap should be decreased





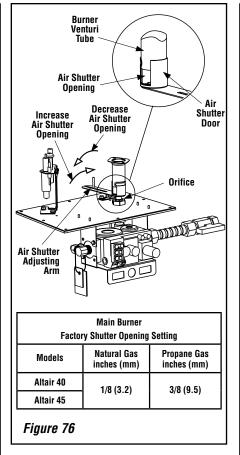
Burner Flame Adjustments

WARNING

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

A CAUTION

- Soot will be produced if the airshutter is closed too much. Any damage due to sooting, resulting from improperly setting the air shutter, is not covered under the warranty.
- The air shutter door and nearby appliance surfaces are hot. Exercise caution to avoid injury while adjusting flame appearance.
- Refer to *Figures 74 and 75* for proper flame appearance. To adjust the flame, rotate the adjustment rod toward the back or toward the front of the fireplace (rod located in the lower control area). Position the air shutter to the factory setting as shown in the table in *Figure 76*.
- Light appliance (follow lighting procedure on lighting label in control compartment or see the *Pages 56-59*.
- Allow the burner to operate for at least 15 minutes while observing the flame continuously to ensure that the proper flame appearance has been achieved. If the following conditions are present, adjust accordingly.
 - If flame appears weak or sooty, adjust the air shutter, incrementally, to a more open position until the proper flame appearance is achieved.
 - If flame remains blue, adjust the air shutter, incrementally, to a more closed position until the proper flame appearance is achieved.
- Leave the control knob (off/pilot/on) in the ON position and the burner OFF/ON switch OFF (and remote switches, if applicable).
- **5.** When satisfied that the burner flame appearance is normal, re-install the lower control compartment door then proceed to finish the installation.



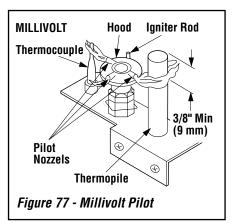
Millivolt Appliance Checkout

The pilot flame should be steady, not lifting or floating. Flame should be blue in color with traces of orange at the outer edge.

The top 3/8" (10 mm) at the pilot generator (thermopile) and the top 1/8" minimum (tip) of the quick drop out thermocouple should be engulfed in the pilot flame.

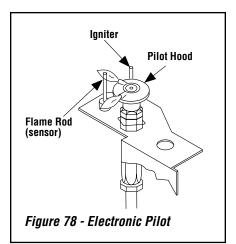
The flame should project 1" (25 mm) beyond the hood at all three ports (see *Figure 77*). Replace logs if removed for pilot inspection.

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



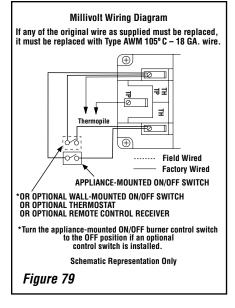
Electronic Appliance Checkout

To light the burner, turn 'ON' the wall or remote control switch. Ensure the igniter lights the pilot. The pilot flame should engulf the flame rod as shown in *Figure 78*.



WIRING DIAGRAMS

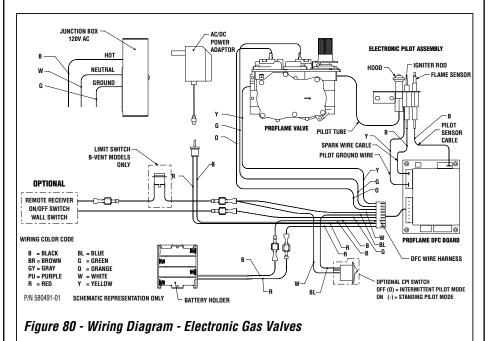
Wiring diagrams are provided here for reference purposes only. This information is also provided on schematics attached directly to the appliance on a pullout panel located within the control compartment.



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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 CÁBLAGE PEU-VENT ENTRAÎNER UN FONCTIONNEMENT INADÉQUAT ET DANGEREUX.



REPLACEMENT PARTS

A complete parts list is found at the end of this manual. Use only parts supplied from the manufacturer.

With proper care and maintenance, your appliance will provide many years of enjoyment. If you should experience any problem, first refer to the troubleshooting guide in this manual. If problem persists, contact your Innovative Hearth Products dealer or distributor.

Normally, all parts should be ordered through your Innovative Hearth Products distributor or dealer.

Parts will be shipped at prevailing prices at time of order.

When ordering repair parts, always give the following information:

- **1.** The model number of the appliance.
- 2. The serial number of the appliance.
- 3. The part number.
- **4.** The description of the part.
- **5.** The quantity required.
- **6.** The installation date of the appliance.

If you encounter any problems or have any questions concerning the installation or application of this system, please contact your dealer or distributor. INNOVATIVE HEARTH PRODUCTS 1508 Elm Hill Pike, Suite 108 Nashville, TN 37210 visit us at Astria.us.com

PRODUCT REFERENCE INFORMATION

We recommend that you record the following important information about your fireplace. Please contact Innovative Hearth Products for the phone number of your nearest Innovative Hearth Products dealer who will answer your questions or address your concerns.

Your Fireplace's Model Number____

Your Fireplace's Serial Number	
•	

The Date On Which Your Fireplace Was Installed_

The Type of Gas Your Fireplace Uses _____

Your Dealer's Name

Innovative Hearth Products Altair™ Direct Vent Gas Fireplace

ACCESSORY COMPONENTS



State-of-the-art control with touch screen operation

- · Backlit LCD display
- Wall mounted docking station for the transmitter
- Thermostatic or manual ON/OFF
- Programmable Weekday/Weekend modes
- Flame icon and low battery indicator
- Receiver may be wall mounted or placed in the valve compartment
- Includes batteries

Remote, Touch Screen, Thermostat, On/Off		
Cat. No.	Model No.	Description
H8865	RC-S-TOUCH	Remote Control



ON/OFF Wall Switch Kit

The ON/OFF wall switch may be used to control the operation of the fireplace burner as an alternative to the optional unit-mountable ON/ OFF rocker switch. Install the wall switch in a convenient location near the fireplace.

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



Thermostatic or Manual modes

- LCD Display
- Up to 9 hour Count down Timer
- Includes batteries
- Child lock
- Low battery indicator
- Receiver may be wall mounted or placed in the valve compartment

Remote, LCD Stat, Thermostat, On/Off		
Cat. No.	Model No.	Description
H8861	RC-S-STAT	Remote Control



Flame and Heat modulation

- Includes solenoid for SIT millivolt valves
 Thermostatic, manual or up to 9 hour Count-
- down Timer modes
- 3 Fan speed settings
- Child lock
- Low battery indicator
- Wall clip included
- Includes batteries

Remote With Hi/Low Flame, Millivolt		
Cat. No.	Model No.	Description
H8862	RC-S-MODMV	Remote Control



Cost Effective Solution

• Simple On/Off operation

Kit includes: Remote and Receiver

RCKit4001, Simple On/Off		
Cat. No.	Model No.	Description
F2236	RCKit4001	Remote Control



Wall Thermostat

- Wall surface mounted
- Thermostat or manual ON/OFF operation
- Large LCD screen to display room and set temperature in $^\circ\mathrm{F}$ and $^\circ\mathrm{C}$
- · Connects to wall switch wire

Wall Thermostat, On/Off and Thermostatic functions		
Cat. No.	Model No.	Description
H8864	WS-S-TSTAT	Wall Thermostat



Wall Control

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

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

Innovative Hearth Products Altair™ Direct Vent Gas Fireplace

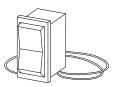
ACCESSORY COMPONENTS CONTINUED



Manual or up to 3 hr Countdown Timer modes

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

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



Unit-Mountable ON/OFF Rocker Switch Kit (Millivolt systems only)

The rocker switch may be used to provide ON/ OFF operation as an alternative to the optional wall switch. The rocker switch installs directly in the gas valve mounting bracket (millivolt gas valve-equipped fireplaces only).

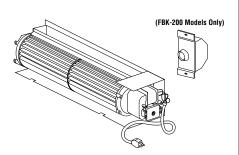
Rocker Switch Kit		
Cat. No.	Model No.	Description
80L41	FRS	Rocker Switch Kit

P

Touch-Up Paint Kit

Repair of minor scratches and discoloration of the appliance painted surfaces may be accomplished with the touch-up paint kit.

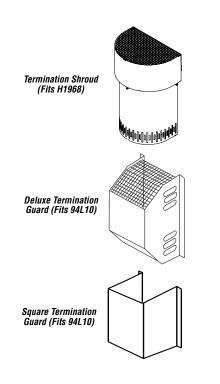
Touch-Up Paint (Black) Kit		
Cat. No.	Model No.	Description
F1881	SCITPSAB	Touch-Up Paint, Interior
F1882	SCTPSAB	Touch-Up Paint, Exterior



Forced Air Kit

The FBK-100 blower provides constant velocity forced air circulation. The FBK-200 assembly with variable speed, wall-mountable switch provides variable speed forced air circulation. The FBK-250 assembly with heat activation and a unit mounted switch which provides variable speed forced air circulation.

	Blower Kits			
Cat. No. Model No. Description				
80L84	FBK-100	Single Speed		
80L85	FBK-200	Variable Speed with wall-mountable switch		
80L86	FBK-250	Heat activated vari- able speed with unit mounted switch		



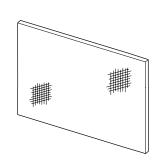
Termination Guard Kits

The vent termination guards may be used to cover the vent termination on the exterior of the home to minimize exposure to the hot surface of the termination.

Termination Guard Kits (all models)			
Cat. No. Model No. Description			
H5820	4.5HTSK	Termination Shroud	
87L02	SV4.5HGS	Termination Guard, Deluxe	
17M52	SV4.5HGS-1	Termination Guard, Square	

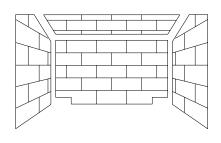
Installation and Operation Instructions 900357-01, 09/2015

ACCESSORY COMPONENTS CONTINUED



If the barrier that comes standard with this unit is damaged, discontinue ues of the fireplace until it is replaced. All barriers are designed to reduce the risk of injury from contact with hot glass. See warnings on *Page 2*.

Barrier Kits			
Model No.	Catalog No. Model No.		
40"	J7420		
45"	J7428		



The firebox liner kits include ceramic panels of the side walls, the rear and the baffle of the firebox. The panels have brick-like features in relief.

Firebox Liner Kits			
Cat. No. Model		Description	
H0776	EBLK-40	40 - Buff Rustic	
H2026	EBLKH-40	40 - Buff Herringbone	
H0777	EBLK-45	45 - Buff Rustic	
H2027	EBLKH-45	45 - Buff Herringbone	



Bag of Glowing Embers

Bag of Decorative Volcanic Stone

Replacement ember material and volcanic stone is available for use with these appliances. Order to replace materials as part of the periodic maintenance of the appliance.

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

MAINTENANCE SCHEDULE

Turn off gas and electrical power to the fireplace and allow it to cool before cleaning or servicing the appliance.

Annually (Before the onset of the Burning Season)

MAINTENANCE TASK	ACCOMPLISHING PERSON	PROCEDURE
Inspect/Clean Burner, Logs and Controls	Qualified Service Technician	Inspect valve and ensure it is properly operating. Check piping for leaks. Vacuum the control compartment, fireplace logs and burner area.
Check Flame Patterns and Flame Height	Qualified Service Technician	Refer to <i>Figures 74 (40") or 75 (45") on Page 49</i> and verify the flame pattern and height displayed by the appliance conforms to the picture. Flames must not impinge on the logs. Ensure flames are steady (not lifting or floating).
Inspect/Clean Pilot and Burner	Qualified Service Technician	Refer to <i>Figure 77 (Millivolt) or Figure 78 (Electronic) on Page 50</i> . Remove any surface build-up on pilot and burner assembly. Wipe the pilot nozzles, igniter/flame rod and hood. Ensure the pilot flame engulfs the flame sensor as shown.
Check Vent System	Qualified Service Technician	Inspect the vent system at the top and at the base (within the firebox) for signs of blockage or obstruction. Look for any signs of dislocation or deterioration of the vent components (reconnect or replace as necessary).
		NOTE: Excessive condensation can cause corrosion of caps, pipe & fit- tings (excessive condensation can be caused by long lateral runs, too many elbows, and/or exterior portions of the system being exposed to cold weather). Also, inspect the wall straps or plumbers's tape to ensure they are securely in place.
Appliance Checkout	Qualified Service Technician	Perform the appropriate appliance checkout procedure detailed in this manual.
Replace Glowing Embers	Homeowner/Qualified Service Technician	Remove old glowing ember materials and vacuum the ember placement area. Place new embers per instructions on <i>Page 47.</i>

Periodically (After the Burning Season)

MAINTENANCE TASK	ACCOMPLISHING PERSON	PROCEDURE			
Clean Firebox Interior	Homeowner	Carefully remove logs, glowing embers and volcanic stone. Vacuum out interior of the firebox. Clean firebox walls and log grate. Replace logs, glowing embers and volcanic stone as detailed in this manual.			
Check Flame Patterns and Flame Height	Homeowner	Refer to Refer to <i>Figures 74 (40") or 75 (45") on Page 49</i> and vertice the flame pattern and height displayed by the appliance conforms the picture. Flames must not impinge on the logs.			
Check Vent System	Homeowner	Inspect the vent system at the top and at the base (within the firebox) for signs of blockage or obstruction. Look for any signs of dislocation of the vent components (reconnect or replace as necessary).			
Clean Front Glass Enclosure Panel	Homeowner	Clean as necessary following the directions provided in this manual. DO NOT TOUCH OR ATTEMPT TO CLEAN GLASS WHILE HOT .			

LIGHTING INSTRUCTIONS - MILLIVOLT GAS VALVE

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by a piezo igniter. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electric 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.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

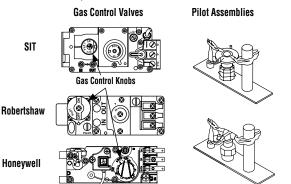
- 1. STOP! Read the safety information above on this label.
- (If applicable) Set the thermostat to lowest setting. Turn wall on/off switch, unit mounted on/off switch or remote control switch "OFF."
- 3. Turn OFF all electric power to the appliance.
- 4. Access the control compartment.
- Push in gas control knob slightly and turn clockwise to "OFF." NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do Not force.
- Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
- 7. Find pilot located in firebox on the same plane as the top of the burner.
- 8. Turn knob on gas control counterclockwise 🖍 to "PILOT."
- Push in control knob all the way and hold in. Immediately light the pilot by triggering the piezo igniter (pushing the button) until pilot lights. Continue to hold the control knob in for about 1-1/2 minutes after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.
 - If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
 - TO TURN OFF GAS TO APPLIANCE
- 1. (If applicable) Set the thermostat to lowest setting. Turn wall on/off switch, unit mounted on/off switch or remote control switch "OFF."
- 2. Turn OFF all electric power to the appliance, if service is to be performed.
- 3. Access the control compartment.

- 4. Push in gas control knob slightly and turn clockwise to "OFF." Do not force.
- 5. Close the main line gas shut-off valve.
- 6. Close control compartment.



appliance and shall be installed for the protection of children and other at-risk individuals.

- If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
- 10. Turn gas control knob counterclockwise 🖍 to "ON."
- 11. Close control compartment.
- 12. (If applicable) Turn on all electrical power to the appliance.
- 13. (If applicable) Set thermostat to desired setting. Turn wall on/off switch, unit mounted on/off switch or remote control switch "ON."

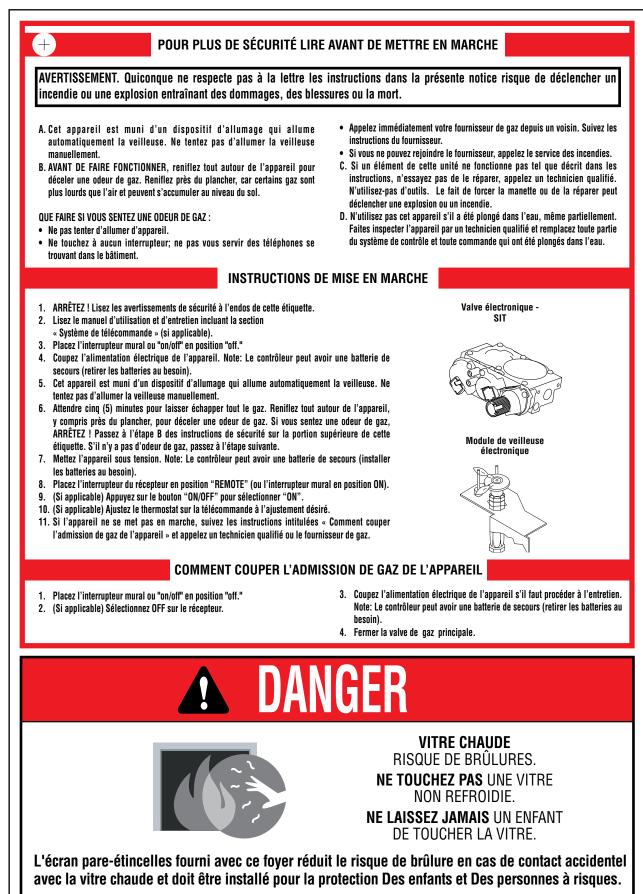


INSTRUCTIONS D'ALLUMAGE - VANNE GAZ MILLIVOLT



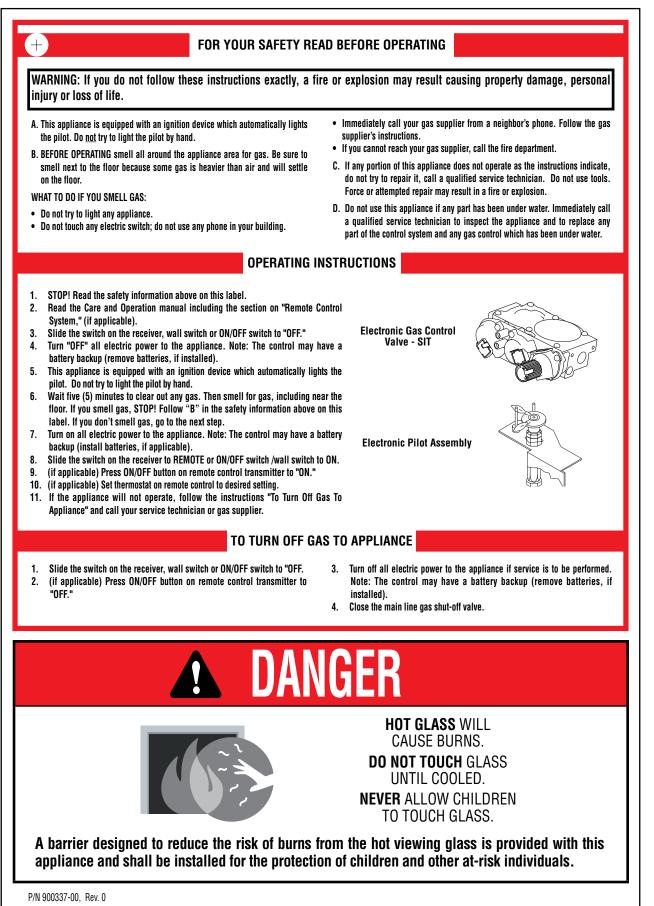
P/N 900328-00 Rev. 0

LIGHTING INSTRUCTIONS - ELECTRONIC



P/N 900334-00, Rev. 0

INSTRUCTIONS D'ALLUMAGE - ELECTRONIC



TROUBLESHOOTING - MILLIVOLT GAS CONTROL SYSTEM

NOTE: Before troubleshooting the gas control system, Ensure external gas shut off valve, located at gas supply inlet, (and wall switch, if applicable), is in the "ON" position.

IMPORTANT: Valve system troubleshooting should only be accomplished by a qualified service technician.

	SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
1.	Spark igniter will not light pilot after repeated triggering of igniter button.	 A. Defective igniter (no spark at electrode). 	Check for spark at electrode and pilot; if no spark and electrode wire is properly connected, replace igniter.
	WARNING: if the pilot will not light after 1 minute of attempting, wait for at least 5 minutes for gas to clear before attempting again.	B. Defective or misaligned electrode at pilot (spark at electrode).	Using a match, light pilot. If pilot lights, turn off pilot and trigger the igniter button again. If pilot lights, an improper gas mixture caused the bad lighting and a longer purge period is recommended. If pilot will not light - check gap at electrode and pilot - should be 1/8" to have a strong spark. If gap measures 1/8", replace pilot (see <i>Figure 77 on Page 50</i>).
		C. Gas supply pressure errant.	Check inlet gas pressure. It should be within the limits as marked on the rating plate.
		D. Pilot orifice plugged.	Clean or replace pilot orifice.
2.	Pilot will not stay lit after carefully following the lighting instructions.	A. Defective pilot generator (thermocouple).	Check pilot flame, it must impinge on thermocouple (see <i>Figure 77 on Page 50</i>). Clean and/or adjust pilot for maximum flame impingement on thermocouple. Ensure that the connection between the valve and thermocouple are tight and secure.
3.	Pilot burning, no gas to burner, Valve knob "ON," and the (standard) burner OFF/ON switch is "ON." Read impor- tant note below.	A. Wall switch or wires defective.	Check wall switch and wires for proper connections. Jumper wire across terminals at wall switch, if burner comes on, replace defective wall switch. If okay, jumper wires across wall switch wires at valve, if burner comes on, wires are faulty or connections are bad.
	IMPORTANT NOTE: If an optional *remote switch is used for burner operation, if the standard burner OFF/ON switch is still installed on appliance it must be in the "OFF"	B. Thermopile may not be generating suf- ficient millivolts.	Check thermopile with millivolt meter. Take reading at thermopile terminals of gas valve. Should read 325 millivolts minimum with optional wall switch "OFF." Replace faulty thermopile if reading is below specified minimum.
	position.	C. Plugged burner orifice.	Check burner orifice for blockage and remove.
	* Optional remote switch kits - wall switch, thermostat or timer, or remote control.	D. OFF/ON Switch & *Remote Switch are in the "ON" position resulting in excessive resistance.	When turning on the burner using a *remote switch, ensure that the standard OFF/ON switch is in the "OFF" position. If both switches are in the ON position, it may result in excessive resistance (& millivolt drain- age) and the burner may not come on.
4.	Frequent pilot/burner outage prob- lem.	A. Pilot flame may be too low or blowing (high) causing the pilot/valve safety to drop out.	Clean and/or adjust pilot flame for maximum flame impingement on thermocouple (see <i>Figure 77 on Page 50</i>).

TROUBLESHOOTING GUIDE - ELECTRONIC GAS CONTROL SYSTEM

NOTE: Before troubleshooting the gas control system, make sure the external gas shut off valve (located at gas supply inlet) is in the "ON" position.

IMPORTANT: Valve system troubleshooting should only be performed by a qualified service technician.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
1. Nothing happens	A. Remote control system is	To use the remote control system, the wall switch plate must be set to REMOTE.
when the fireplace is turned ON/OFF.	not functioning properly.	Manually operate the fireplace using the wall switch (ON/OFF).
		Replace the batteries in the handheld remote and/or behind the wall switchplate.
	B. Unit is not receiving power.	Check/replace batteries behind the wall switchplate.
		Replace unit battery backup.
		Check building circuit breakers to ensure power is on to the fireplace.
	C. Gas is not reaching the fireplace.	Check the gas supply and gas shutoff valves (call a service technician, if required).*
2. The main burner does not light	A. Gas is not reaching the fireplace.	Check the gas supply and gas shutoff valves (call a service technician, if required).*
and the igniter is sparking.	B. Unit is not receiving power.	Replace unit battery backup.
	C. Loose wires to the valve.	Check control compartment for any obvious loose wiring (call a service technician).
	D. Loose wires to ignition module.	Check control compartment for any obvious loose wiring (call a service technician).
	E. Air in the gas line.	Purge gas line of air (call a service technician).
3. The burner lights, then immediately	A. Gas is not reaching the fireplace.	Check the gas supply and gas shutoff valves (call a service technician, if required).*
goes out.	B. Loose wires to the valve or ignition module.	Check the gas supply and gas shutoff valves (call a service technician, if required).*
	C. Pilot flame is not engulfing the sensor.	Call a service technician.
	D. Obstructed vent system.	Call a service technician.
 Soot is present on the glass and panels. 	A. Initial fireplace operation.	A white film may develop on the glass during the first few fires as part of the burn-in process. The first few times you use the fireplace, clean the glass after each use (<u>AFTER</u> <u>THE GLASS HAS COMPLETELY COOLED</u>); otherwise, the white film will bake onto the glass and become difficult to remove. See glass cleaning instructions in the MAINTENANCE section of this manual.
	B. Excessive flame impingement on panels and fireplace ceiling.	Properly position the media as detailed in the instructions provided with the Media Kit.
	C. Improper air shutter opening.	Open the air shutter by adjusting the air shutter adjustment lever according to the instructions in this manual.
	D. Improper vent restrictor setting.	Open the air shutter by adjusting the air shutter adjustment lever according to the instructions in this manual.
5. Poor flame and/or blue flame.	Door seal is not properly aligned, causing gaps and air leaks.	Remove and realign the door so the gasket seal is fully engaged around the door frame.

*The unit may have multiple gas supply shutoffs (the main gas supply valve in the house, the gas supply valve in the fireplace control compartment, and/or an additional shutoff valve near the fireplace).

REPLACEMENT PARTS LIST

ltem No.	Description	40" MO	DELS	45" MODELS	
		Part No.	Qty.	Part No.	Qty.
1	Hood	97K52	1	97K53	1
4	Enclosure, Glass Front (Complete)	H8122	1	H6225	1
6	Door Latch Spring	H1264	2	H1264	2
7	Nameplate (Brand)	12L15	1	12L15	1
8	Barrier	J7420	1	J7428	1
9	Front Face Assembly with Barrier	J7530	1	J7532	1
10	Log Set (Complete)	55M03	1	55M03	1
11	Burner Assembly	H3044	1	H3044	1
12	Grate Assembly	H6605	1	H6605	1
13	Venturi/Air Shutter	H6321	1	H6321	1
14	Orifice, Main Burner - Nat. Gas	69L96	1	24M10	1
14	Orifice, Main Burner - LP Gas	39L10	1	21L01	1
16	Bag of Glowing Embers (rockwool)	88L53	1	88L53	1
19	Gasket - Venturi Tube Mounting	43K85	1	43K85	1
20	Gas Line Flexible Connector	93L32	1	93L32	1

	Gas Controls - SIT Millivolt						
ltem	Description Natural Gas			Propane Gas			
No.		Part No.	Qty.	Part No.	Qty.		
30	Gas Valve, SIT	H6209	1	88J53	1		
31	Piezo Igniter	10K86	1	10K86	1		
32	Pilot Assembly	69L17	1	69L18	1		
33	Pilot Generator	60J79	1	60J79	1		
34	Thermocouple	74L57	1	74L57	1		
35	Pilot Tube	74L56	1	74L56	1		
36	Electrode And Cable	H6212	1	H6212	1		

	Gas Controls - SIT Electronic						
Item	Description	Natural	Gas	Propane Gas			
No.	Description	Part No.	Qty.	Part No.	Qty.		
40	Gas Valve, SIT	H8844	1	H8594	1		
41	Pilot Assembly	H7268	1	H7269	1		
42	Transformer	H8006	1	H8006	1		
	Pilot Shield	H3737	1	H3737	1		
43	Digital Flame Control Module	H7272	1	H7272	1		
	Battery Holder	H8803	1	H8803	1		
	DFC Wiring Harness	H8601	1	H8601	1		
17	CPI On/Off Switch	27K30	1	27K30	1		

Contact an Innovative Hearth Products dealer to obtain any of these parts.

🛕 WARNING

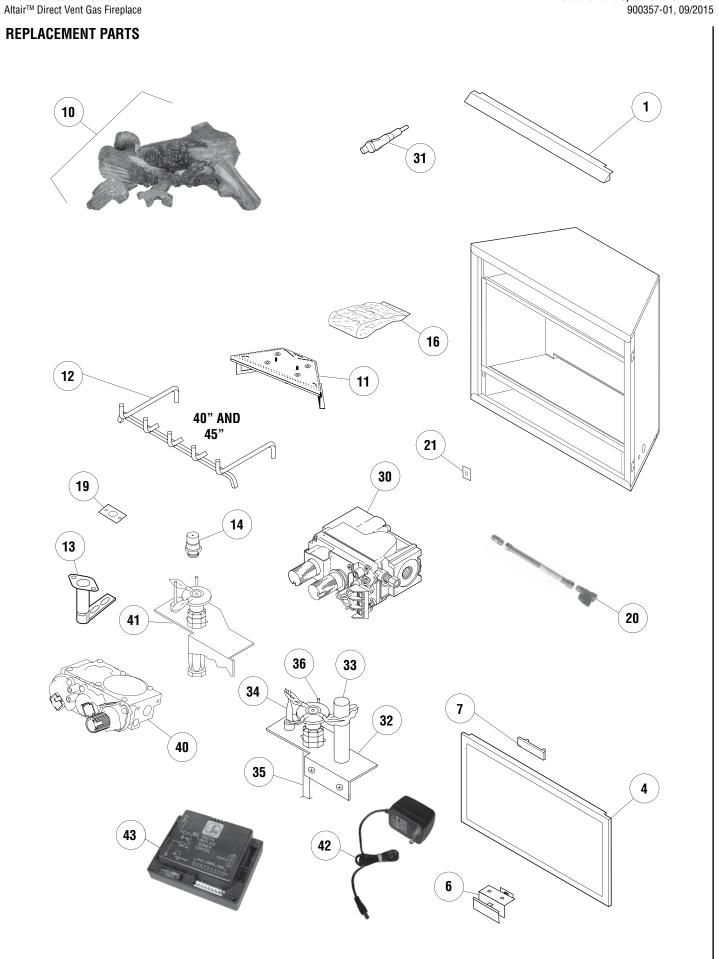
Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

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.

WARNING

Never use substitute materials. Use of non-approved parts can result in poor performance and safety haz-ards.



Innovative Hearth Products

NOTES

Innovative Hearth Products Astria[™] Brand Gas Fireplace **Limited Lifetime Warranty**

THE WARRANTY

Innovative Hearth Products ("IHP") Limited Lifetime Warranty warrants your AstriaTM brand gas fireplace ("Product") to be free from defects in materials and workmanship at the time of manufacture. The Product body and firebox carry the Limited Lifetime Warranty. Ceramic glass carries the Limited Lifetime Warranty against thermal breakage only. After installation, if covered components manufactured by IHP are found to be defective in materials or workmanship during the Limited Lifetime Warranty period and while the Product remains at the site of the original installation, IHP will, at its option, repair or replace the covered components. If repair or replacement is not commercially practical, IHP will, at its option, refund the purchase price or wholesale price of the IHP product, whichever is applicable. IHP will also pay IHP prevailing labor rates, as determined in its sole discretion, incurred in repairing or replacing such components for up to five years. THERE ARE EXCLUSIONS AND LIMITATIONS to this Limited Lifetime Warranty as described herein.

COVERAGE COMMENCEMENT DATE

Warranty coverage begins on the date of installation. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the Product by an independent IHP dealer/distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from IHP, regardless of the installation or occupancy date.

EXCLUSIONS AND LIMITATIONS

This Limited Lifetime Warranty applies only if the Product is installed in the United States or Canada and only if operated and maintained in accordance with the printed instructions accompanying the Product and in compliance with all applicable installation and building codes and good trade practices

This warranty is non-transferable and extends to the original owner only. The Product must be purchased through a listed supplier of IHP and proof of purchase must be provided. The Product body and firebox carry the Limited Lifetime Warranty from the date of installation. Vent components, trim components and paint are excluded from this Limited Lifetime Warranty. The following do not carry the Limited Lifetime Warranty but are warranted as follows:

Burner - Repair or replacement for five years from the date of installation

Gas components & electrical components - Repair or replacement for one year from the date of installation

Gaskets - Repair or replacement for one year from the date of installation

Gold & nickel plating - Replacement for two years from date of installation. Excludes tarnishing Labor coverage – Prevailing IHP labor rates apply for the warranty period of the component

Light bulbs & batteries – Replacement for 90 days from the date of installation

Logs - Replacement for five years from the date of installation against thermal breakage only

Optional blowers & remote controls - Repair or replacement for one year from the date of installation

Optional glass doors & optional glass accessories - Repair or replacement for 90 days from the date of installation

Optional surrounds - Stone/Natural Materials: Replacement for one year against cracking or breakage due to thermal stress. Other Materials: Replacement for one year. Excludes surface and hairline cracks and scratches or slight color changes that do not affect the operation or safety of the unit Tempered Glass -Replacement for one year from the date of installation

Parts not otherwise listed carry a 90 day warranty from the date of installation.

Whenever practicable, IHP will provide replacement parts, if available, for a period of 10 years from the last date of manufacture of the Product.

IHP will not be responsible for: (a) damages caused by normal wear and tear, accident, riot, fire, flood or acts of God; (b) damages caused by abuse, negligence, misuse, or unauthorized alteration or repair of the Product affecting its stability or performance (The Product must be subjected to normal use. The Product is designed to burn either natural or propane gas only. Burning conventional fuels such as wood, coal or any other solid fuel will cause damage to the Product, will produce excessive temperatures and could result in a fire hazard.); (c) damages caused by failing to provide proper maintenance and service in accordance with the instructions provided with the Product; (d) damages, repairs or inefficiency resulting from faulty installation or application of the Product.

IHP is not responsible for inadequate fireplace system draft caused by air conditioning and heating systems, mechanical ventilation systems, or general construction conditions which may generate negative pressure in the room in which the appliance is installed. Additionally IHP assumes no responsibility for drafting conditions caused by venting configurations, adjoining trees or buildings, adverse wind conditions or unusual environmental factors and conditions that affect the operation of the unit.

This Limited Lifetime Warranty covers only parts and labor as provided herein. In no case shall IHP be responsible for materials, components or construction, which are not manufactured or supplied by IHP or for the labor necessary to install, repair or remove such materials, components or construction. Additional utility bills incurred due to any malfunction or defect in equipment are not covered by this warranty. All replacement or repair components will be shipped F.O.B. from the nearest stocking IHP factory.

LIMITATION ON LIABILITY

It is expressly agreed and understood that IHP's sole obligation and the purchaser's exclusive remedy under this warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified herein.

In no event shall IHP be liable for any incidental or consequential damages caused by defects in the Product, whether such damage occurs or is discovered before or after repair or replacement, and whether such damage is caused by IHP's negligence. IHP has not made and does not make any representation or warranty of fitness for a particular use or purpose, and there is no implied condition of fitness for a particular use or purpose.

IHP makes no expressed warranties except as stated in this Limited Lifetime Warranty. The duration of any implied warranty is limited to the duration of this expressed warranty.

No one is authorized to change this Limited Lifetime Warranty or to create for IHP any other obligation or liability in connection with the Product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. The provisions of this Limited Lifetime Warranty are in addition to and not a modification of or subtraction from any statutory warranties and other rights and remedies provided by law.

INVESTIGATION OF CLAIMS AGAINST WARRANTY

IHP reserves the right to investigate any and all claims against this Limited Lifetime Warranty and to decide, in its sole discretion, upon the method of settlement.

To receive the benefits and advantages described in this Limited Lifetime Warranty, the appliance must be installed and repaired by a licensed contractor approved by IHP.

Contact IHP at the address provided herein to obtain a listing of approved dealers/distributors. IHP shall in no event be responsible for any warranty work done by a contractor that is not approved without first obtaining IHP's prior written consent.

HOW TO REGISTER A CLAIM AGAINST WARRANTY

In order for any claim under this warranty to be valid, you must contact the IHP dealer/distributor from which you purchased the product. If you cannot locate the dealer/ distributor, then you must notify IHP in writing. IHP must be notified of the claimed defect in writing within 90 days of the date of failure. Notices should be directed to the IHP Warranty Department at 1508 Elm Hill Pike, Suite 108, Nashville, TN 37210 or visit our website at WWW.ASTRIA.US.COM.

Astria.us.com

Record the following important information about your fireplace:

Fireplace model number	
Fireplace serial number	
Date fireplace was Installed	
Type of gas fireplace uses	
Dealer name	



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

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