

This appliance has been retired.
For replacement parts, please refer to the individual
service parts list located on the brand websites.

Installation Manual

Installation and Appliance Setup

CAUTION! Risk of Fire! DO NOT store instruction manuals inside fireplace cavity.
High temperatures could cause a fire.

INSTALLER: Leave this manual with the appliance, not inside the appliance.

CONSUMER: Retain this manual for future reference. Do not store inside the appliance.
Contact your dealer with questions regarding installation, operation or service.

NOTICE: DO NOT discard this manual!

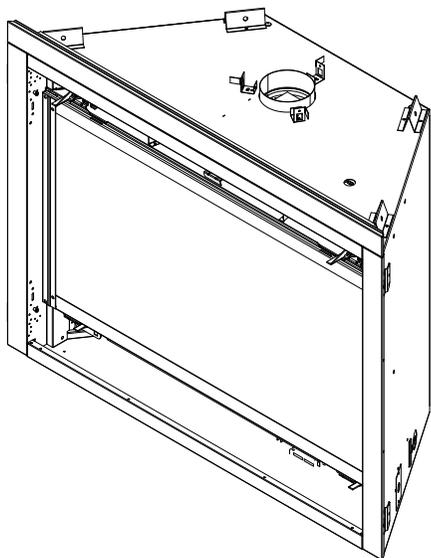
heatilator
The first name in fireplaces

Model(s):

NBV4236I-B

NBV4842I-B

GAS-FIRED



▲ 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.

! DANGER



**HOT GLASS WILL
CAUSE BURNS.**

**DO NOT TOUCH GLASS
UNTIL COOLED.**

**NEVER ALLOW CHILDREN
TO TOUCH GLASS.**

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.

Decorative barrier front must be ordered separately at time of appliance purchase. See Section 3.A.

▲ Safety Alert Key:

- **DANGER!** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- **WARNING!** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- **CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE:** Used to address practices not related to personal injury.

Note: The term “recommend” or “recommended” does not indicate a requirement. It is a best practice suggested by Hearth & Home Technologies®. Failure to perform the recommended task will not result in a safety concern.

Table of Contents

→ Installation Standard Work Checklist	3
--	---

1 Product Specific and Important Safety Information

A. Appliance Certification	4
B. Glass Specifications	4
C. BTU Specifications	4
D. High Altitude Installations	4
E. Non-Combustible Materials Specification	5
F. Combustible Materials Specification	5
G. Electrical Codes	5
H. California	5

2 Getting Started

A. Design and Installation Considerations	6
B. Good Faith Wall Surface	6
C. Tools and Supplies Needed	6
D. Inspect Appliance and Components	7
E. Negative Pressure	8

3 Framing and Clearances

A. Appliance/Decorative Front Dimension Diagrams	9
B. Decorative Barrier Front Dimension Diagram	10
C. Appliance Location and Clearances to Combustibles	11
D. Constructing the Appliance Chase	13
E. Floor Protection	13

4 Termination Location and Vent Information

A. Vent Termination Minimum Clearances	14
--	----

5 Vent Information and Diagrams

A. Vent Guidelines	15
B. Vent System Configuration	15
C. Vent Diagrams	15

6 Vent Clearances and Framing

A. Pipe Clearances to Combustibles	19
B. Wall and Ceiling Penetration Framing	19
C. Vertical Penetration Framing	19
D. Pipe Clearances to Combustibles	19

7 Appliance Preparation

A. Installing Outside Air Kit Damper Assembly	20
B. Gas and Electrical Connections	20
C. Securing and Leveling the Appliance	20

8 Venting and Chimneys (Installing Vent Pipe)

A. Assemble Vent Sections	21
B. Attaching Vent to Firebox	21
C. Securing Vent Sections	21
D. Install Attic Insulation Shield	21

9 Electrical Information

A. General Information	22
B. Wiring Requirements	23

10 Gas Information

A. Fuel Conversion	25
B. Gas Pressure	25
C. Gas Connection	25
D. High Altitude Installations	25
E. Air Shutter Setting	26

11 Finishing

A. Facing Material	27
B. Mantel and Wall Projections	27
C. Non-combustible Mantel and Wall Projections	28

12 Appliance Setup

A. Remove the Shipping Materials	29
B. Clean the Appliance	29
C. Install Optional Refractory Kit	29
D. Install Burner Mineral Wool	29
E. Install Fixed Glass Assembly	30
F. Install Decorative Barrier Front	30
G. Install the Log Assembly	31

13 Reference Materials

A. Accessories	33
--------------------------	----

→ = Contains updated information.

→ Installation Standard Work Checklist

ATTENTION INSTALLER:
Follow this Standard Work Checklist

This standard work checklist is to be used by the installer in conjunction with, not instead of, the instructions contained in this installation manual.

Customer: _____
Lot/Address: _____

Date Installed: _____
Location of Fireplace: _____
Installer: _____
Dealer/Distributor Phone # _____
Serial #: _____

Model (circle one): NBV4236I-B NBV4842I-B

 **WARNING! Risk of Fire or Explosion!** Failure to install appliance according to these instructions could lead to a fire or explosion. Install ONLY components and accessories approved by Hearth & Home Technologies. Unapproved components and accessories could cause fireplace to overheat.

Appliance Install

	YES	IF NO, WHY?
Verified that the chase is insulated and sealed. (Pg.13)	<input type="checkbox"/>	_____
Verified clearances to combustibles. (Pg. 11-12)	<input type="checkbox"/>	_____
Fireplace is leveled and secured. (Pg. 20)	<input type="checkbox"/>	_____

Venting/Chimney Section 8 (Pg 21)

Venting configuration complies to vent diagrams.	<input type="checkbox"/>	_____
Venting installed, locked and secured in place with proper clearance.	<input type="checkbox"/>	_____
Firestops installed.	<input type="checkbox"/>	_____
Attic insulation shield installed.	<input type="checkbox"/>	_____
Exterior wall/Roof flashing installed and sealed.	<input type="checkbox"/>	_____
Terminations installed and sealed.	<input type="checkbox"/>	_____

Electrical Section 9 (Pg 22-23)

Unswitched power (110-120 VAC) provided to the appliance.	<input type="checkbox"/>	_____
Switch wires properly installed.	<input type="checkbox"/>	_____

Gas Section 10 (Pg 25-26)

Proper appliance for fuel type.	<input type="checkbox"/>	_____
Was a conversion performed?	<input type="checkbox"/>	_____
Leak check performed and inlet pressure verified.	<input type="checkbox"/>	_____
Verified proper air shutter setting for installation type.	<input type="checkbox"/>	_____

Finishing Section 11 (Pg 27-28)

Combustible materials not installed in non-combustible areas.	<input type="checkbox"/>	_____
Verified all clearances meet installation manual requirements.	<input type="checkbox"/>	_____
Mantels and wall projections comply with installation manual requirements.	<input type="checkbox"/>	_____

Appliance Setup Section 12 (Pg 29-31)

All packaging and protective materials removed (inside & outside of appliance).	<input type="checkbox"/>	_____
Refractories, logs, mineral wool and lava rock installed correctly.	<input type="checkbox"/>	_____
Glass assembly installed and secured.	<input type="checkbox"/>	_____
Accessories installed properly.	<input type="checkbox"/>	_____
Decorative front properly installed.	<input type="checkbox"/>	_____
Manual bag and all of its contents are removed from inside/under the appliance and given to party responsible for use and operation.	<input type="checkbox"/>	_____
Started appliance and verified no gas leaks exist.	<input type="checkbox"/>	_____

Hearth & Home Technologies recommends the following:

- Photographing the installation and copying this checklist for your file.
- That this checklist remain visible at all times on the appliance until the installation is complete.

Comments: Further description of the issues, who is responsible (Installer/ Builder/ Other Trades, etc) and corrective action needed _____

Comments Communicated to party responsible _____ by _____ on _____
 (Builder / Gen. Contractor/) (Installer) (Date)

→ = Contains updated information.

1 Product Specific and Important Safety Information

A. Appliance Certification

MODELS: NBV4236I-B, NBV4842I-B
LABORATORY: Underwriters Laboratories, Inc. (UL)
TYPE: Vented Gas Fireplaces
STANDARD: CSA / ANSI Z21.88-2019 • CSA 2.33-2019

This product is listed to ANSI standards for “Vented Gas Fireplaces”. May be installed in a sleeping room when the provisions for combustion, ventilation and dilution air are met per the requirements of **ANSI Z223.1/NFPA 54 National Fuel Gas Code**. In Canada, installation in a sleeping room requires installation with a thermostat certified for use with this product. Consult your local authorities having jurisdiction.

NOTICE: This installation must conform with local codes. In the absence of local codes you must comply with the National Fuel Gas Code, ANSI Z223.1-latest edition in the U.S.A. and the CAN/CGA B149 Installation Codes in Canada.

NOT INTENDED FOR USE AS A PRIMARY HEAT SOURCE. This appliance is tested and approved as either supplemental room heat or as a decorative appliance. It should not be factored as primary heat in residential heating calculations.
--

B. Glass Specifications

Hearth & Home Technologies appliances manufactured with tempered glass may be installed in hazardous locations such as bathtub enclosures as defined by the Consumer Product Safety Commission (CPSC). The tempered glass has been tested and certified to the requirements of **ANSI Z97.1** and **CPSC 16 CFR 1202** (Safety Glazing Certification Council **SGCC# 1595** and **1597**. Architectural Testing, Inc. Reports **02-31919.01** and **02-31917.01**).

This statement is in compliance with **CPSC 16 CFR Section 1201.5** “Certification and labeling requirements” which refers to **15 U.S. Code (USC) 2063** stating “...Such certificate shall accompany the product or shall otherwise be furnished to any distributor or retailer to whom the product is delivered.”

Some local building codes require the use of tempered glass with permanent marking in such locations. Glass meeting this requirement is available from the factory. Please contact your dealer or distributor to order.

C. BTU Specifications

Models (U.S. or Canada)		Maximum Input BTU/h	Minimum Input BTU/h	Orifice Size (DMS)
NBV4236I-B (NG)	0-2000 FT)	25,000	17,000	#42
NBV4236I-B (Propane)	0-2000 FT)	25,000	17,000	.058 in.
NBV4842I-B (NG)	0-2000 FT)	30,000	20,500	#37
NBV4842I-B (Propane)	0-2000 FT)	30,000	22,500	#52

D. High Altitude Installations

NOTICE: If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.

When installing above 2000 feet elevation:

- In the USA: Reduce input rate 4% for each 1000 feet above 2000 feet.
- In CANADA: Reduce input rate 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

Check with your local gas utility to determine proper orifice size.

E. Non-Combustible Materials Specification

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.

Materials that are reported as passing **ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 °C** shall be considered non-combustible materials.

F. Combustible Materials Specification

Materials made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that can ignite and burn, whether flame proofed or not, or plastered or unplastered shall be considered combustible materials.

G. Electrical Codes

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

- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.

H. California



WARNING: This product and the fuels used to operate this product (liquid propane or natural gas), and the products of combustion of such fuels, can expose you to chemicals including benzene, which is known to the State of California to cause cancer and reproductive harm. For more information go to: www.P65Warnings.ca.gov.

2 Getting Started

A. Design and Installation Considerations

WARNING! Risk of Fire or Explosion! Read all instructions before starting the installation.

Heatilator B-vent type gas appliances are designed to operate with all combustion air siphoned from outside of the building and all exhaust gases expelled to the inside. No additional outside air source is required.

Installation MUST comply with local, regional, state and national codes and regulations. Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

Before installing, determine the following:

- Where the appliance is to be installed.
- The vent system configuration to be used.
- Gas supply piping requirements.
- Provisions for optional heat management system.
- Electrical wiring requirements.
- Framing and finishing details.
- Whether optional accessories—devices such as a fan, wall switch, or remote control—are desired.

Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends HHT Factory Trained or NFI certified professionals.



Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. For assistance or additional information, consult a qualified service technician, service agency or your dealer.

B. Good Faith Wall Surface

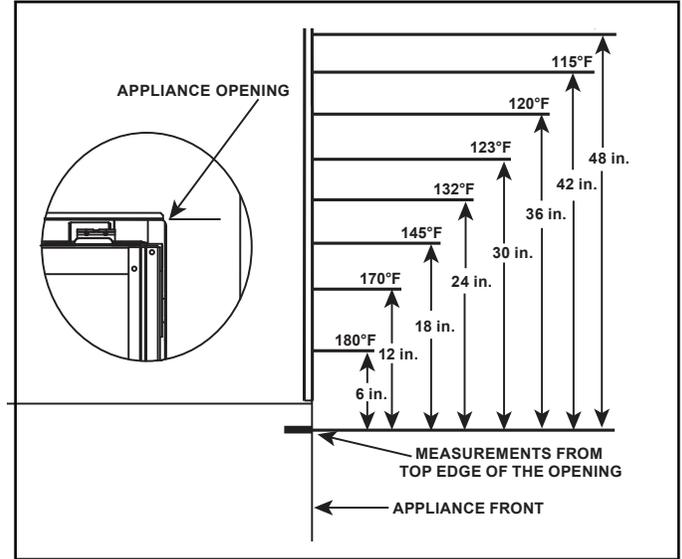


Figure 2.1 Good Faith Wall Surface Temperatures Above Appliance

NOTICE: Surface temperatures listed above are taken with a temperature measuring probe as prescribed by the test standard used for appliance certification. Temperatures on walls or mantels taken with an infrared thermometer may yield increased temperatures of up to 30 °F (17 °C) or more depending on the thermometer settings and material characteristics being measured. Use appropriate finishing materials that are able to withstand these conditions. For additional finishing guidelines, see Section 11.

C. Tools and Supplies Needed

Before beginning the installation be sure that the following tools and building supplies are available.

- | | |
|---|-----------------------------------|
| Hand Tools | Tape measure |
| Level | Framing material |
| Manometer | Framing square |
| Voltmeter | Electric drill and bits (1/4 in.) |
| Plumb line | Safety glasses/Gloves |
| Wrenches | Reciprocating saw |
| 1/4 in. nut driver | |
| Non-corrosive leak check solution | |
| 1/2 - 3/4 in. length, #6 or #8 Self-drilling screws | |
| 1/4 in. length, #6 or #8 Self-drilling screws (B-Vent only) | |
| Caulking material (300 °F minimum continuous exposure rating) | |

D. Inspect Appliance and Components

WARNING! Risk of Fire or Explosion! Damaged parts could impair safe operation. **DO NOT** install damaged, incomplete or substitute components. Keep appliance dry.

WARNING! Risk of Fire, Explosion or Electric Shock! **DO NOT** use this appliance if any part has been under water. Call a qualified service technician to inspect the appliance and to replace any part of the control system and/or gas control which has been under water.

- Carefully remove the appliance and components from the packaging.
- The vent system components and decorative barrier fronts may be shipped in separate packages.
- If packaged separately, the log set and appliance grate must be installed.
- Report to your dealer any parts damaged in shipment.

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance or vent system component.
- Modification of the appliance or vent system.
- Installation other than as instructed by Hearth & Home Technologies.
- Improper positioning of the logs/media (as applicable) or the glass assembly.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

E. Negative Pressure

WARNING! Asphyxiation Risk! Negative pressure can cause spillage of combustion fumes and soot. Fireplace needs to draft properly for safety.

Draft is the pressure difference needed to vent fireplaces successfully. Considerations for successful draft include:

- Preventing negative pressure
- Location of fireplace and chimney

Negative pressure results from the imbalance of air available for the fireplace to operate properly. Causes for this imbalance include:

- Exhaust fans (kitchen, bath, etc.)
- Range hoods
- Combustion air requirements for furnaces, water heaters and other combustion appliances
- Clothes dryers
- Location of return-air to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks (recessed lighting, attic hatch opening, duct leaks)

To minimize the effects of negative air pressure, the following must be considered:

- Install the fresh air kit. Install the intake on the side of the house towards prevailing winds during the heating season.
- Ensure adequate outdoor air is supplied for combustion appliances and exhaust equipment.
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the fireplace.

- Avoid installing the fireplace near doors, walkways or small isolated spaces.
- Recessed lighting should be of “sealed can” design; attic hatches weather stripped or sealed; and attic mounted ductwork and air handler joints and seams taped or sealed.
- Basement installations should be avoided due to stack effect. Stack effect creates negative pressure in lower levels. Hearth & Home Technologies recommends the use of direct vent fireplaces in basements.

Location of the fireplace and chimney will affect performance. As shown in Figure 2.2, the chimney should:

- Be installed through the warm space enclosed by the building envelope. This helps to produce more draft, especially during lighting and die-down of the fire.
- Penetrate the highest part of the roof. This minimizes the effects of wind turbulence.
- Be located away from trees, adjacent structures, uneven roof lines and other obstructions.

Offsets can restrict draft so their use should be minimized. Consider the fireplace location relative to floor and ceiling and attic joists.

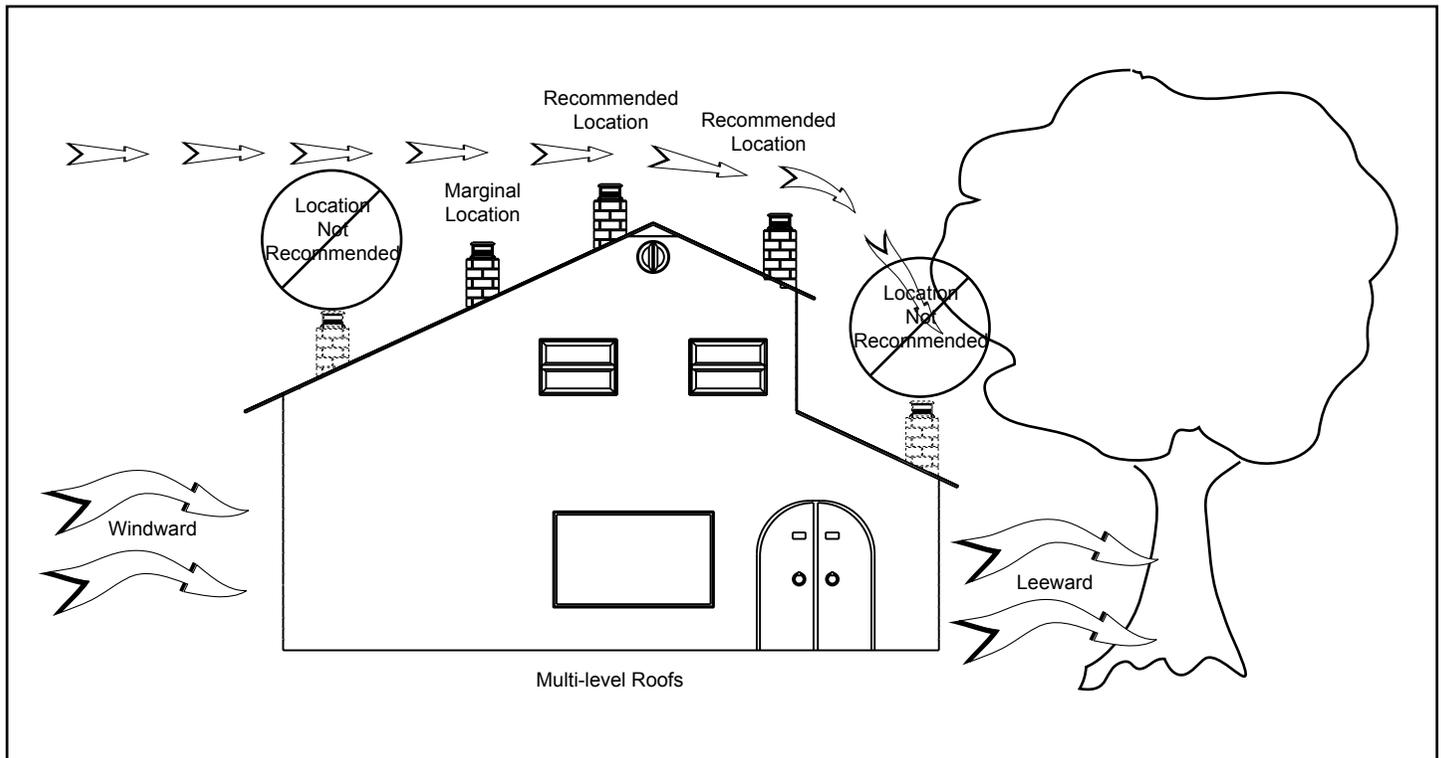


Figure 2.2

3 Framing and Clearances

A. Appliance/Decorative Front Dimension Diagrams

Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Section 5.

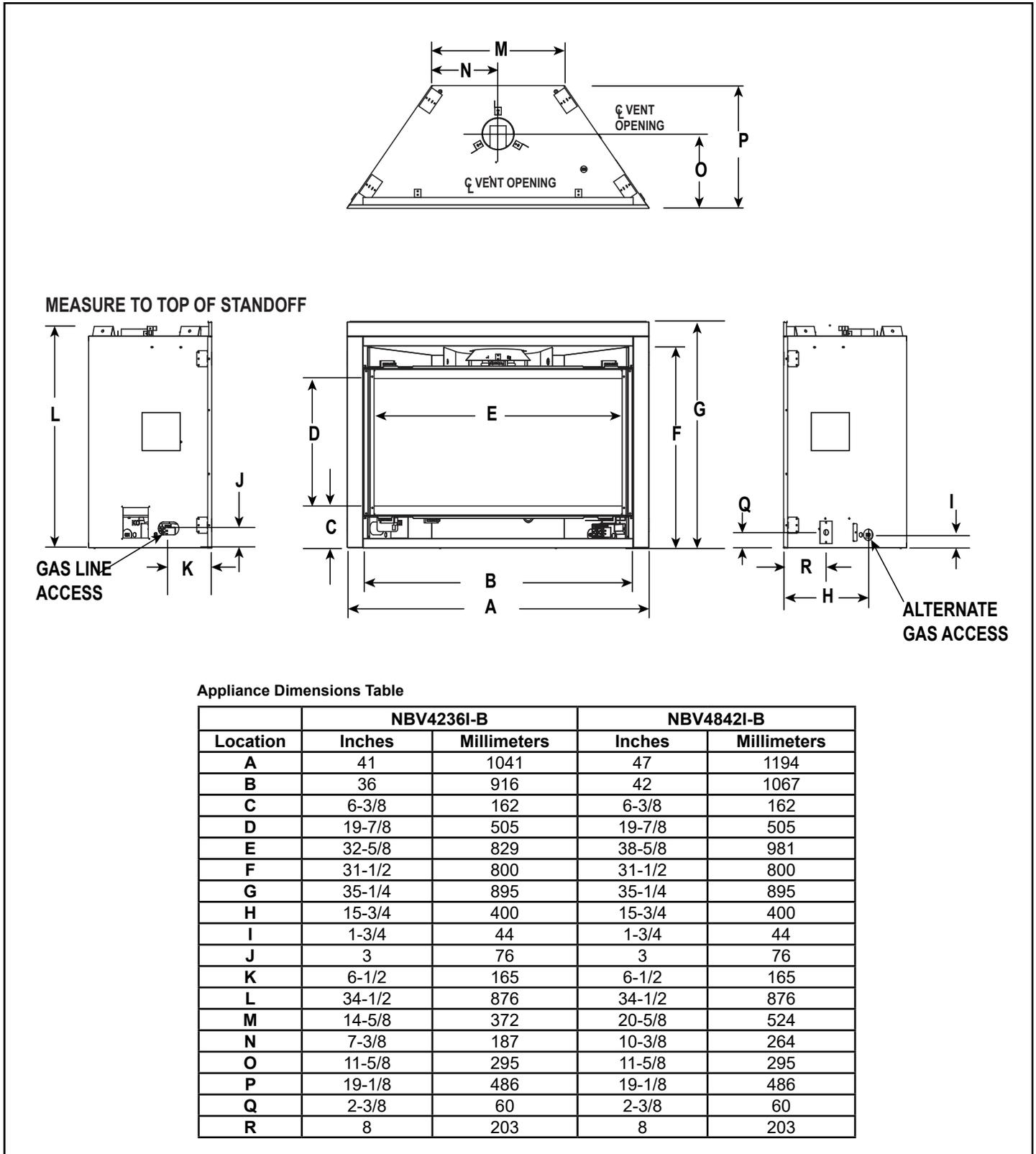


Figure 3.1 Appliance Dimensions

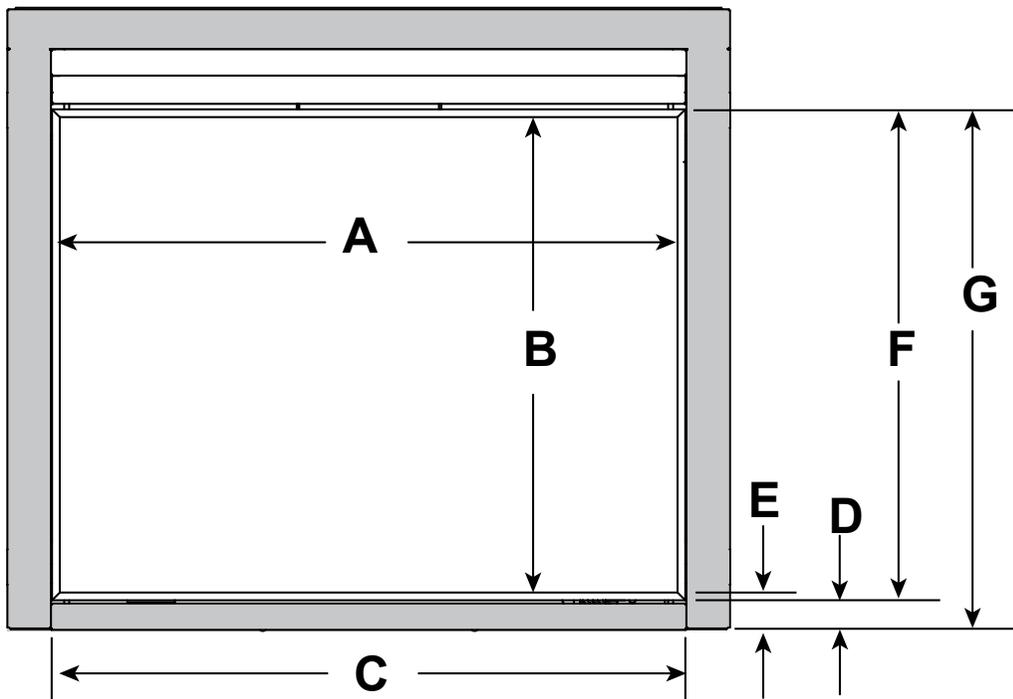
B. Decorative Barrier Front Dimension Diagram

SIMON DECORATIVE BARRIER FRONTS

IMPORTANT! This fireplace requires an installed decorative barrier front to prevent direct contact with the hot viewing glass. **DO NOT** operate the fireplace with the barrier removed.

Decorative barrier front must be ordered at time of fireplace purchase. If decorative barrier front is not present, contact dealer.

Note: See Section 11 for hearth, mantel and finishing requirements.



		A	B	C	D	E	F	G
SIM-4236	in.	34-3/8	21	35-7/8	1-5/8	2-3/8	30	31-1/2
	mm	873	533	911	41	60	762	800
SIM-4842	in.	40-3/8	21	41-7/8	1-5/8	2-3/8	30	31-1/2
	mm	1026	533	1064	41	60	762	800

Figure 3.2 Decorative Front Dimensions - SIMON-B

C. Appliance Location and Clearances to Combustibles

When selecting a location for the appliance it is important to consider the required clearances to walls (see Figure 3.3).

WARNING! Risk of Fire or Burns! Provide adequate clearance around air openings and for service access. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies

NOTICE: Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY. Illustrations/diagrams are not drawn to scale. Actual installation may vary due to individual design preference.

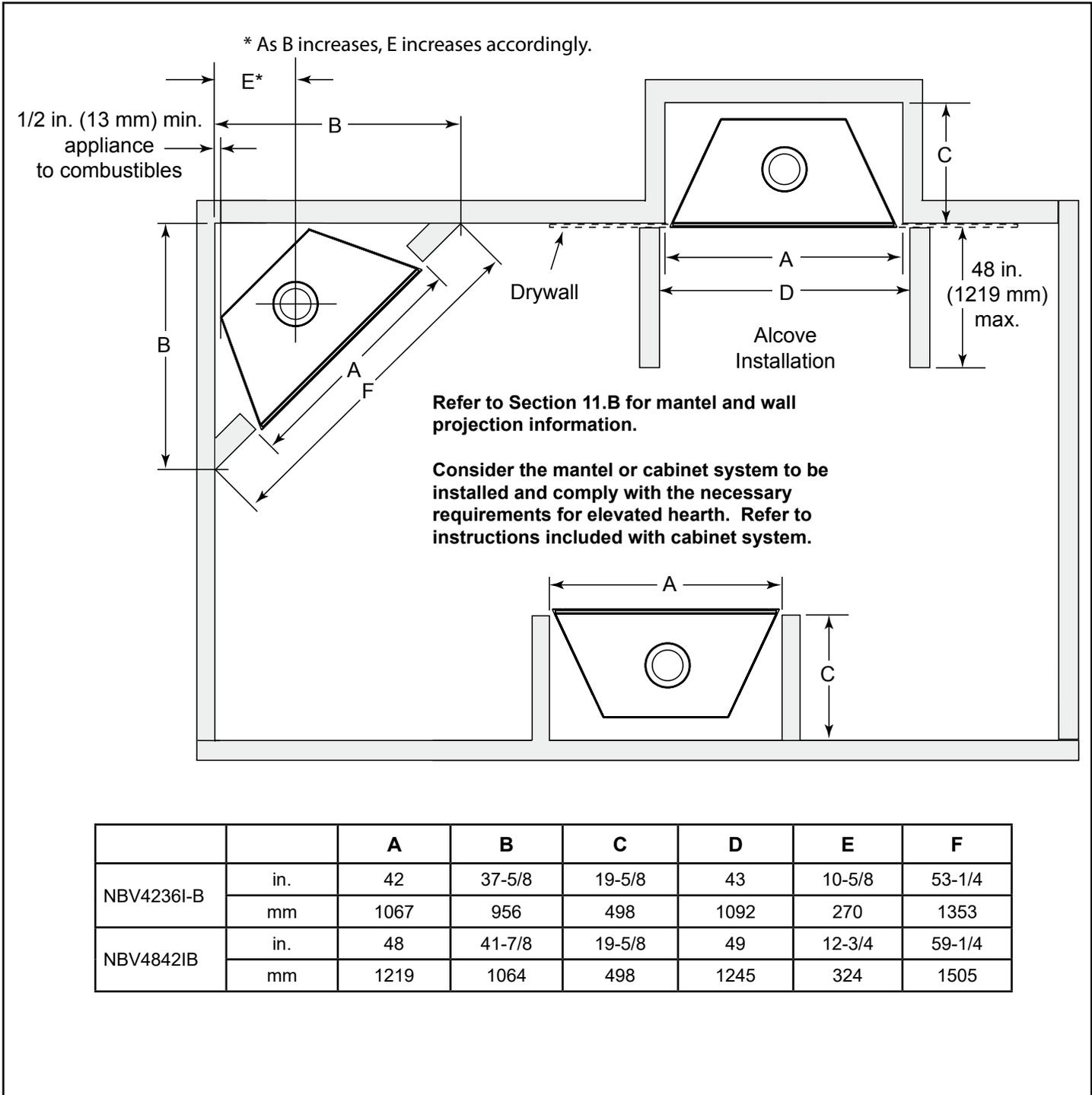
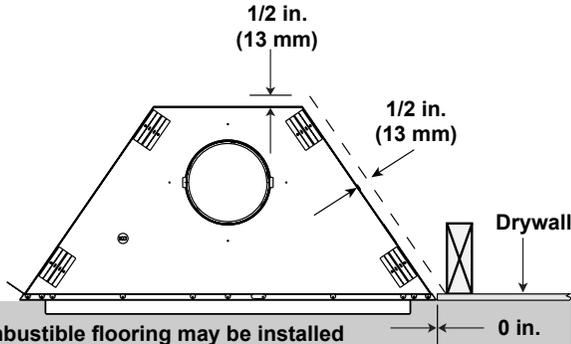


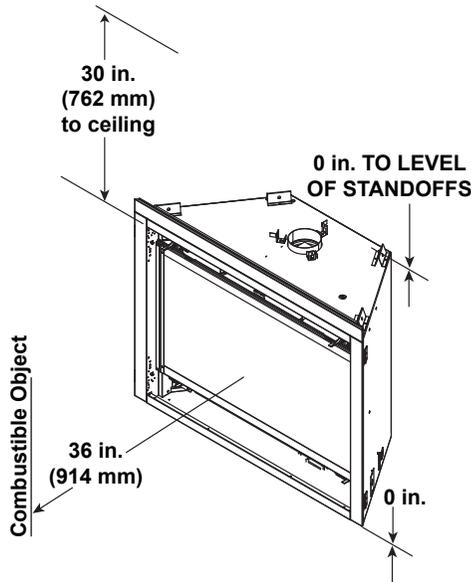
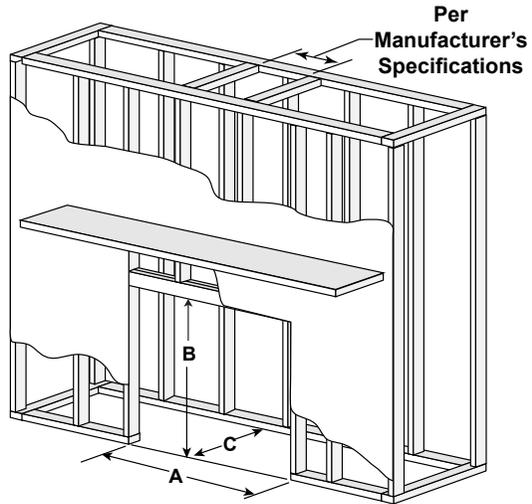
Figure 3.3 Appliance Locations

Note: If the inside of the framed cavity is to be finished, the framing dimensions must include the finished surface. Example: If drywall is to be attached to the rear wall, the depth must be measured from the drywall surface.



Combustible flooring may be installed next to the front of the appliance. For installations with vinyl flooring, see Section 3.D.

Note: Framing may be constructed of 2 X 4 or 2 X 6 materials



* Adjust framing dimensions for interior sheathing (such as sheetrock).

* MINIMUM FRAMING DIMENSIONS				
MODEL		A	B	C
		Rough Opening (Width)	Rough Opening (Height)	Rough Opening (Depth)
NBV4236I-B	in.	42	34-7/8	19-5/8
	mm	1067	886	498
NBV4842I-B	in.	48	34-7/8	19-5/8
	mm	1219	886	498

Figure 3.4 Clearances to Combustibles

D. Constructing the Appliance Chase

NOTICE: Install appliance on hard metal or wood surfaces extending full width and depth. **DO NOT** install directly on carpeting, vinyl, or any combustible material other than wood.

WARNING! Risk of Fire! Maintain specified air space clearances to appliance and vent pipe:

- Insulation and other materials must be secured to prevent accidental contact.
- The chase must be properly blocked to prevent blown insulation or other combustibles from entering and making contact with fireplace or chimney.
- Failure to maintain airspace may cause overheating and a fire.

A chase is a vertical box-like structure built to enclose the gas appliance and/or its vent system. In cooler climates the vent should be enclosed inside the chase.

NOTICE: Treatment of ceiling firestops and wall shield firestops and construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Therefore, you **MUST** check local building codes to determine the requirements to these steps.

NOTICE: When installing a sprinkler head in a fireplace chase, it is recommended to use a sprinkler head with a sprinkler activation temperature classified as Extra High. Keep sprinkler head away from vent and chimney.

Chases should be constructed and insulated in the same manner as the thermal envelope of the home based on the code requirements for that climate zone to prevent air leakage and draft problems. The chase is an extension of the building thermal envelope.

To further prevent drafts and air leakage, the wall shield and ceiling firestops should be sealed with caulk with a minimum of 300 °F continuous exposure rating to seal gaps. Gas line holes and other openings should be sealed with caulk with a minimum of 300 °F continuous exposure rating or stuffed with unfaced insulation. If the appliance is being installed on a cement surface, a layer of plywood may be placed underneath to prevent conducting cold up into the room.

E. Floor Protection

Vinyl Flooring

Vinyl flooring is sensitive to heat. Hearth and Home Technologies does not recommend adhesive based vinyl flooring due to thermal expansion. Floating-style flooring can be used, but will reach temperatures up to 110 °F in a room with ambient temperature of 70 °F. Consult flooring specifications to ensure compatibility.

4 Termination Location and Vent Information

A. Vent Termination Minimum Clearances

WARNING

Fire Risk.
Maintain vent clearance to combustibles as specified.

- **DO NOT** pack air space with insulation or other materials.

Failure to keep insulation or other materials away from vent pipe could cause overheating and fire.

H (Min.) - MINIMUM HEIGHT FROM ROOF TO LOWEST DISCHARGE OPENING

Roof Pitch	H (Min.) Ft.
Flat to 6/12.....	1.0*
Over 6/12 to 7/12.....	1.25*
Over 7/12 to 8/12.....	1.5*
Over 8/12 to 9/12.....	2.0*
Over 9/12 to 10/12.....	2.5*
Over 10/12 to 11/12.....	3.25
Over 11/12 to 12/12.....	4.0
Over 12/12 to 14/12.....	5.0
Over 14/12 to 16/12.....	6.0
Over 16/12 to 18/12.....	7.0
Over 18/12 to 20/12.....	7.5
Over 20/12 to 21/12.....	8.0

* H minimum may vary depending on regional snowfall. Refer to local codes.

A	B
6 in. (minimum) up to 20 in. 152 mm/508 mm	18 in. minimum 457 mm
20 in. and over	0 in. minimum

Wood or Fuel Oil Termination Cap

****Gas Termination Cap**

* If using decorative cap cover(s), this distance may need to be increased. Refer to the installation instructions supplied with the decorative cap cover.

** If two gas terminations are present, they may be level (B = 0 inches) provided A is a minimum of 6 inches.

Figure 4.2 Staggered Termination Caps

Figure 4.1 Minimum Height From Roof to Lowest Discharge Opening

5 Vent Information and Diagrams

A. Vent Guidelines

WARNING! Fire Risk/Asphyxiation! This appliance requires the specified pipe for operation. Incorrect pipe may cause spillage, condensation and overheating.

These models require the following size B-vent double wall vent pipe.

Model	Pipe Size
NBV3630I/NBV3933I	5 in. (127 mm)
NBV4236I/NBV4842I	5 in. (127 mm)

- Follow pipe manufacturer's installation guidelines when installing the appliance.

WARNING! Fire Risk/Explosion/Asphyxiation! DO NOT connect this gas appliance to a chimney flue serving a separate solid-fuel or gas burning appliance.

- Vent this appliance directly outside.
- Use separate vent system for this appliance.

May impair safe operation of this appliance or other appliances connected to the flue.

B. Vent System Configuration

CAUTION! Risk of Fire! ALL vent configuration specifications MUST be followed. This product is tested and listed to these specifications. Appliance performance will suffer if specifications are not followed.

Rise to Run Ratio = 2:1

Maximum Total Horizontal Run = 30 Feet

Minimum Total Vertical Rise = 12 Feet

Maximum Total Vertical Rise = 60 Feet

Maximum Number of Elbows: Four 90° or Eight 45°

WARNING! Risk of Fire or Explosion! Insulation and other combustibles must not infringe on clearances.

- ALWAYS maintain specified clearances around venting and firestop systems.
- Install firestops as specified.

Failure to keep insulation or other material away from vent pipe may cause fire.

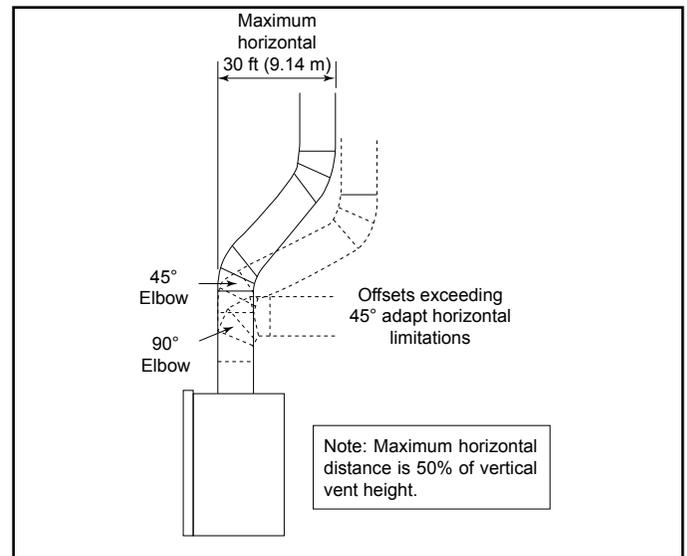


Figure 5.1 Maximum Horizontal Run Using 45° Elbows

C. Vent Diagrams

To replace the first 90° starter elbow with two 45° elbows, refer to Figure 5.1. All other 90° elbows can be replaced with two 45° elbows.

General Rules:

- The vent system must terminate vertically.
- Vent this appliance directly outside.
- Use a separate vent system for this appliance.
- Rise to run ratio not to exceed 2:1.
- Maximum total horizontal run is 30 feet (9.1 m).
- Maximum total vertical rise is 60 feet (18.3 m).

No Elbow

V = 60 ft. (18.3 m) Maximum
V = 12 ft. (3.7 m) Minimum

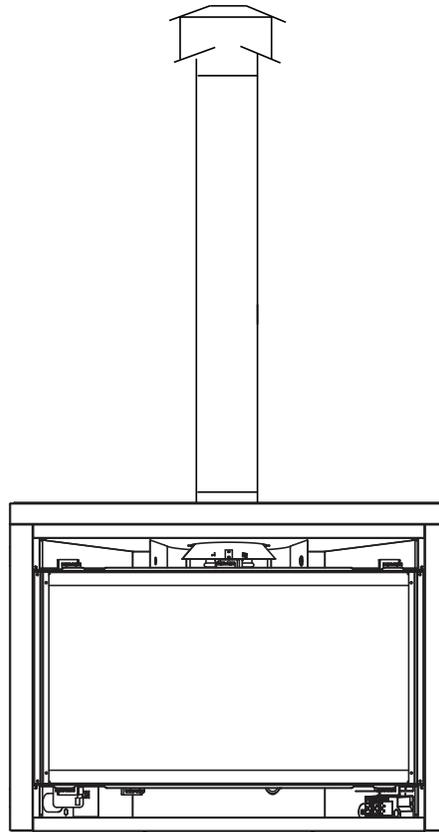


Figure 5.2

Two Elbows

$V_{Total} = 60$ ft (18.3 m) Maximum
 $V_{Total} = 12$ ft (3.7 m) Minimum
Maximum horizontal run is 50% of vertical, but may not exceed
30 ft. (9.1 m)

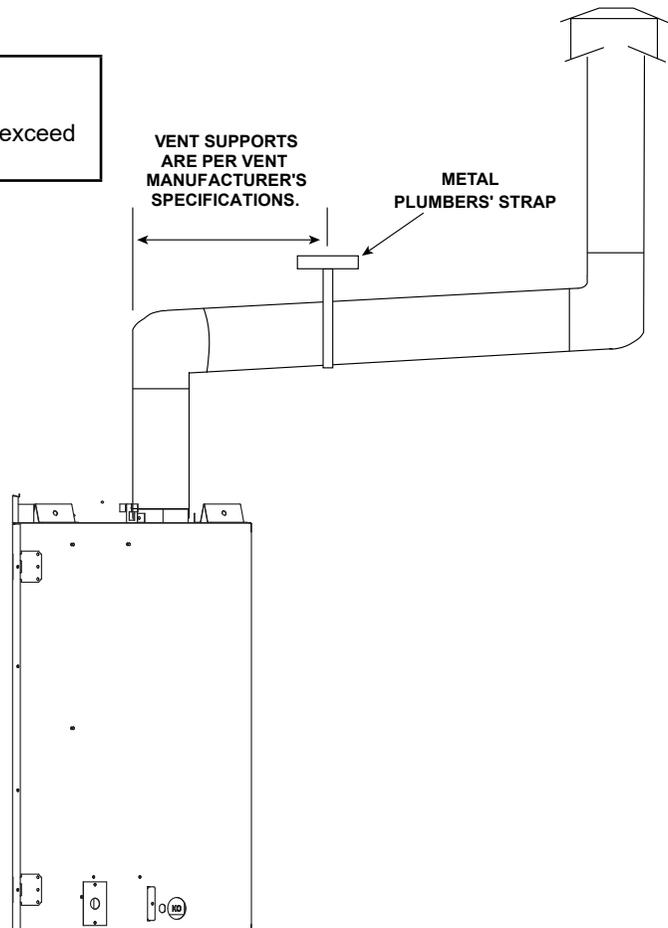


Figure 5.3

Three Elbows

$V_{TOTAL} = 60 \text{ ft. (18.3 m)}$ Maximum
 $V_{TOTAL} = 12 \text{ ft. (3.7 m)}$ Minimum
Maximum horizontal run is 50% of vertical, but may not exceed 30 ft. (9.1 m)

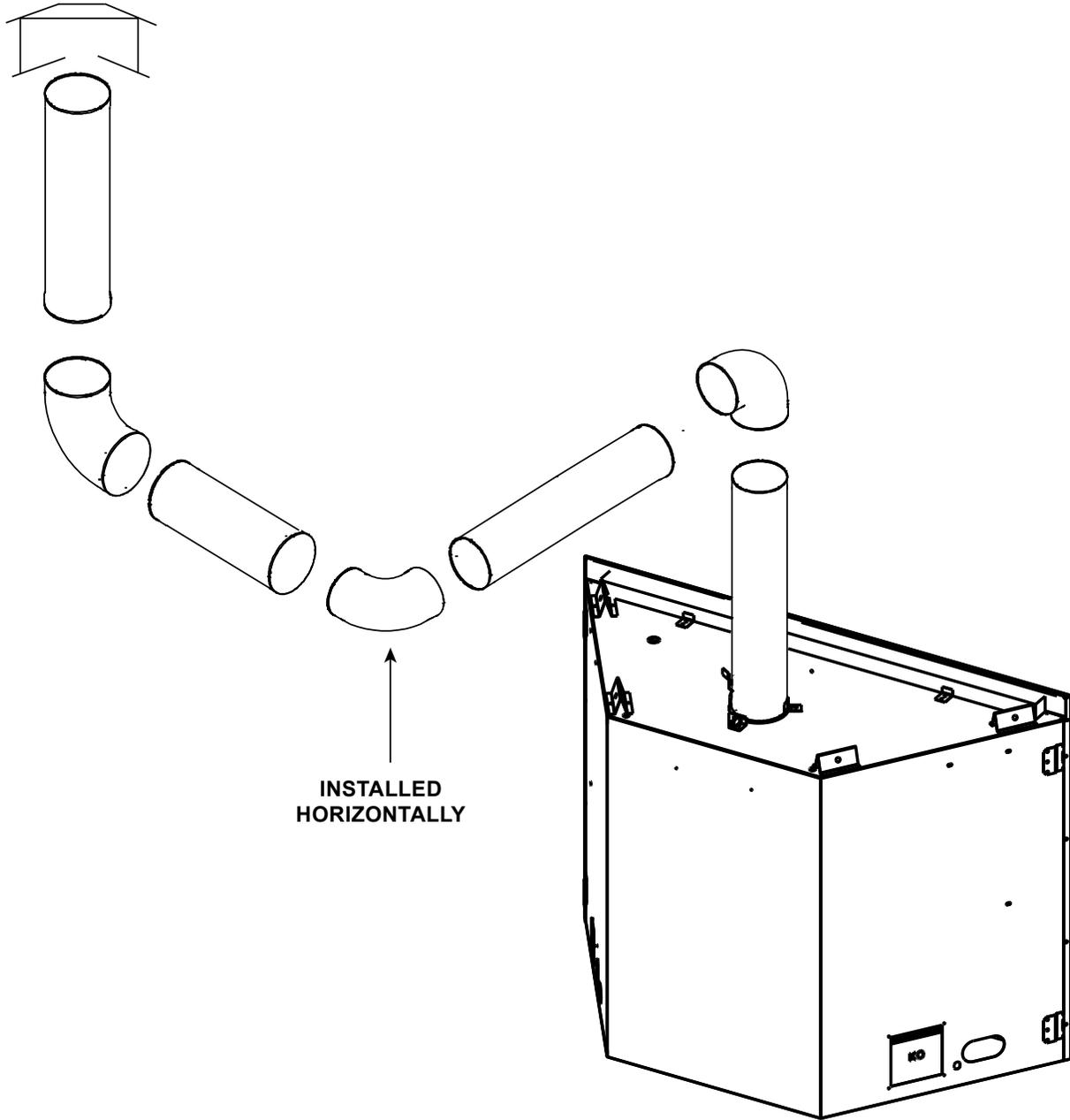


Figure 5.4

Top Vent - Vertical Termination - (continued)

Four Elbows

$V_{TOTAL} = 60 \text{ ft. (18.3 m)}$ Maximum
 $V_{TOTAL} = 12 \text{ ft. (3.7 m)}$ Minimum
Maximum horizontal run is 50% of vertical, but may not exceed 30 ft. (9.1 m)

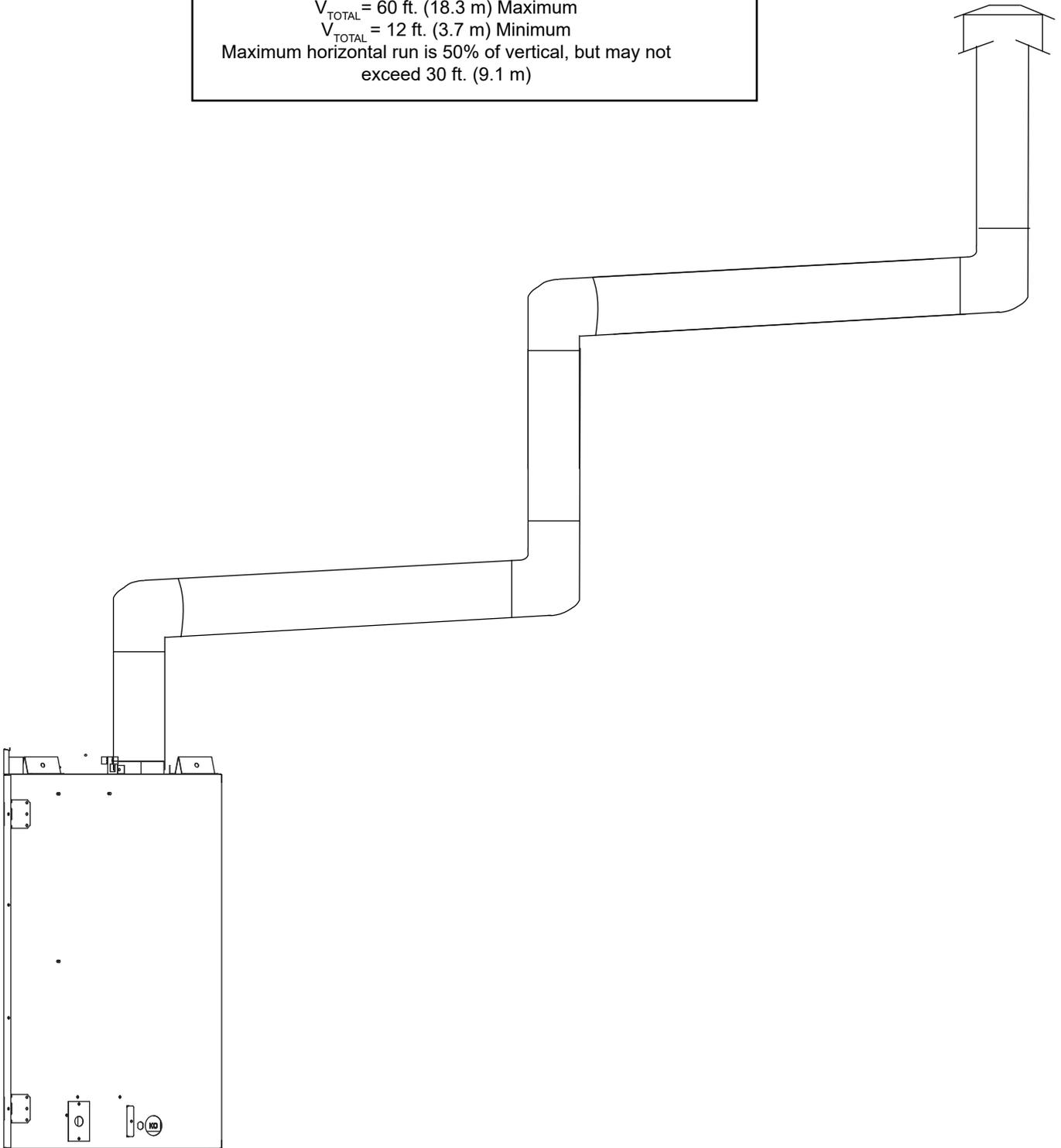


Figure 5.5

6 Vent Clearances and Framing

A. Pipe Clearances to Combustibles

Vent clearances are per vent manufacturer's specifications. The vent MUST be Listed B-Vent pipe.

WARNING! Risk of Fire! MAINTAIN AIR space clearance to vent. **DO NOT** pack insulation or other combustibles:

- Between ceiling firestops
- Between wall shield firestops
- Around vent system

Failure to keep insulation or other material away from vent pipe may cause overheating and fire.

B. Wall and Ceiling Penetration Framing

For a wall or ceiling penetration consult B-vent pipe manufacturer's instructions to provide adequate clearances. Use same size framing materials as those used in the wall or ceiling construction. Firestop spacers must be used in wall and ceiling penetrations per the B-Vent pipe manufacturer's specifications and national, regional and local codes.

Note: MUST terminate vertically.

C. Vertical Penetration Framing

WARNING! Fire Risk. DO NOT allow loose materials or insulation to touch vent. *Hearth & Home Technologies* requires the use of an attic shield.

The National Fuel Gas Code ANSI Z223.1 and NFPA 54 requires an attic shield constructed of 26 gauge minimum metal that extends at least 2 in. (51 mm) above insulation.

Attic shields must meet specified clearance and be secured in place.

Use B-vent manufacturer's firestops to provide adequate clearances.

D. Pipe Clearances to Combustibles

WARNING! Risk of Fire! Maintain air space clearance to vent. **DO NOT** pack insulation or other combustibles:

- Between ceiling firestops
- Between wall shield firestops
- Around vent system

Failure to keep insulation or other material away from vent pipe could cause overheating and fire.

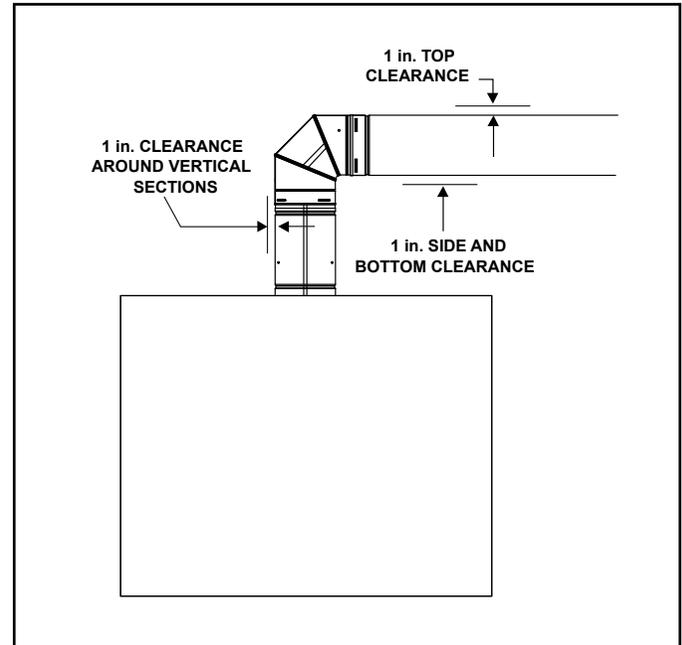


Figure 6.1 Horizontal Venting Clearances To Combustible Materials

7 Appliance Preparation

A. Installing Outside Air Kit Damper Assembly

CAUTION! Risk of Cuts/Abrasions/Flying Debris. Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

WARNING! Risk of Fire/Asphyxiation. DO NOT draw outside combustion air from:

- Wall, floor or ceiling cavity.
- Enclosed space such as an attic or garage.
- Close proximity to exhaust vents or chimneys.

Fumes or odor may result.

- The outside air kit can only be installed on the left side of the appliance.
- Refer to the installation instructions provided with the kit.

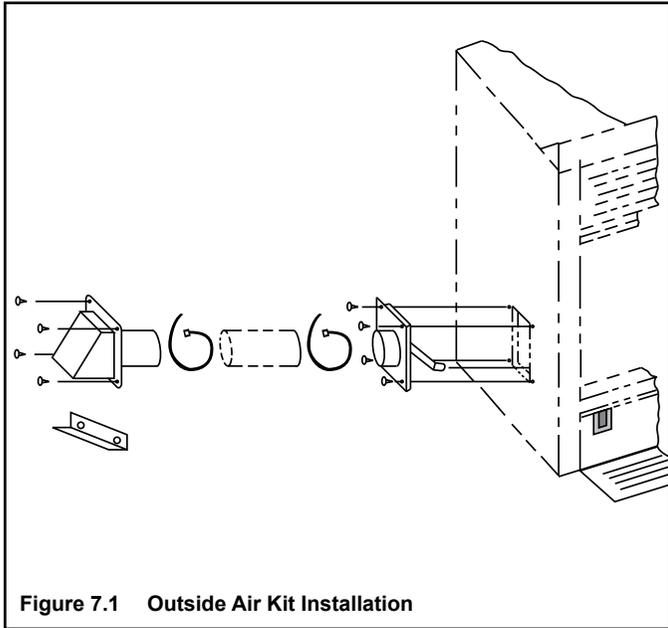


Figure 7.1 Outside Air Kit Installation

B. Gas and Electrical Connections

If applicable, ensure that gas and electrical connections are installed at this time. Refer to Section 9 (Gas Information) and Section 8 (Electrical Information).

C. Securing and Leveling the Appliance

WARNING! Risk of Fire! Prevent contact with:

- Sagging or loose insulation
- Insulation backing or plastic
- Framing and other combustible materials

Block openings into the chase to prevent entry of blown-in insulation. Make sure insulation and other materials are secured.

DO NOT notch the framing around the appliance standoffs.

Failure to maintain air space clearance could cause overheating and fire.

- Bend out nailing tabs on each side.
- Place the appliance into position.
- Keep nailing tabs flush with the framing.
- Level the appliance from side to side and front to back.
- Shim the appliance as necessary. It is acceptable to use wood shims underneath the appliance.
- Secure the appliance to the framing by using nails or screws through the nailing tabs.
- Optional: Secure the appliance to the floor by inserting two screws through the pilot holes at the bottom of the appliance.

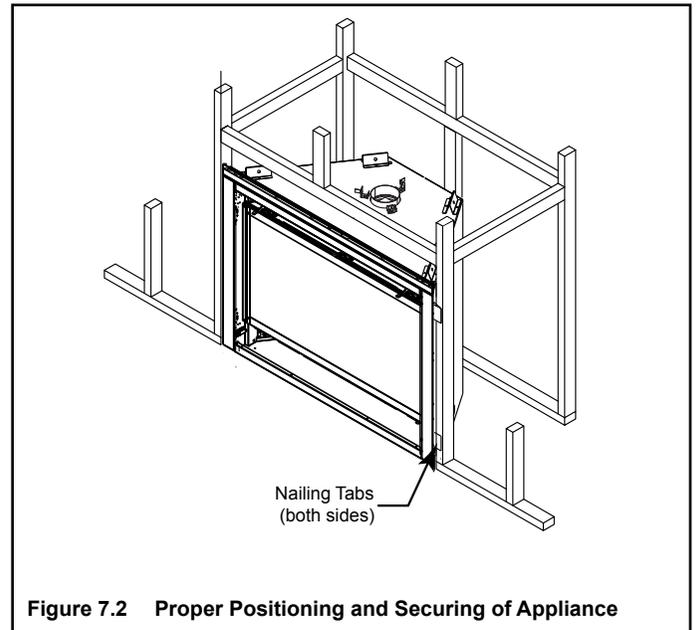


Figure 7.2 Proper Positioning and Securing of Appliance

8 Venting and Chimneys (Installing Vent Pipe)

A. Assemble Vent Sections

This B-Vent appliance requires 5 in. B-vent double-wall pipe. Follow the pipe manufacturer's installation guidelines when installing the appliance. This will ensure proper operation and prevent safety hazards.

WARNING! Risk of Fire/Exhaust Fumes! Assemble pipe sections per B-vent manufacturer's instructions. Use support tabs for screws. Pipe may separate if not properly joined.

B. Attaching Vent to Firebox

Three tabs extend from appliance collar shield. Attach tabs to first section of B-vent pipe using self-tapping 1/4 in. screws. See Figure 8.1.

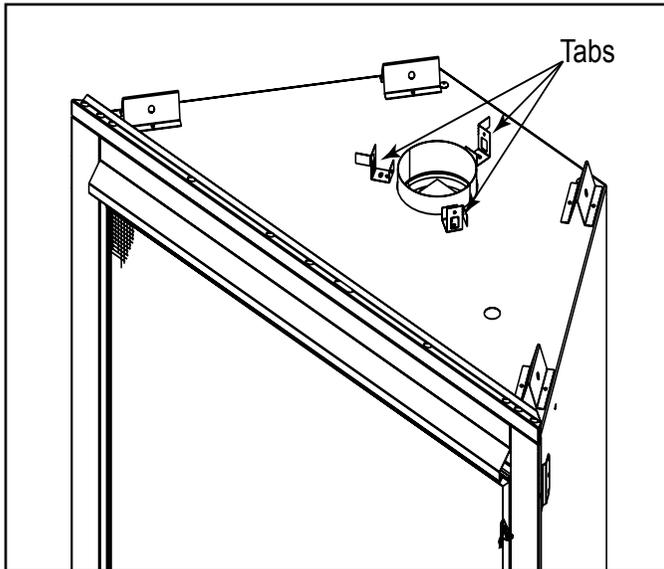


Figure 8.1

C. Securing Vent Sections

Secure vent sections with vent supports following B-vent manufacturer's instructions.

WARNING! Risk of Fire or Explosion! Use vent run supports per vent manufacturer's installation instructions.

- Connect vent sections per vent manufacturer's installation instructions.
- Maintain all clearances to combustibles. Maintain specified slope (if required).
- Improper support may allow vent to sag or separate.

D. Install Attic Insulation Shield

WARNING! Fire Risk. DO NOT allow loose materials or insulation to touch vent. *Hearth & Home Technologies* requires the use of an attic shield.

The National Fuel Gas Code ANSI Z223.1 and NFPA 54 requires an attic shield constructed of 26 gauge minimum metal that extends at least 2 in. (51 mm) above insulation.

Attic shields must meet vent manufacturer's specified clearance and be secured in place per vent manufacturer's instructions.

9 Electrical Information

A. General Information

WARNING! Risk of Shock or Explosion! DO NOT wire 110-120 VAC to the valve or to the appliance wall switch. Incorrect wiring will damage controls.

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

- Wire the appliance junction box to unswitched 110-120 VAC. This is required for proper operation of the appliance (Intellifire ignition).
- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.
- Low voltage and 110-120 VAC voltage cannot be shared within the same wall box.

Junction Box Installation

If the box is being wired from the **INSIDE** of the appliance:

- Remove the screw attaching the junction box/receptacle to the outer shell, rotate the junction box inward to disengage it from the outer shell (see Figure 9.1).
- Pull the electrical wires from outside the appliance through the opening into the valve compartment and secure wires with a Romex connector. See Figure 9.1.
- Make all necessary wire connections to the junction box/receptacle and reattach the junction box/receptacle to the outer shell.

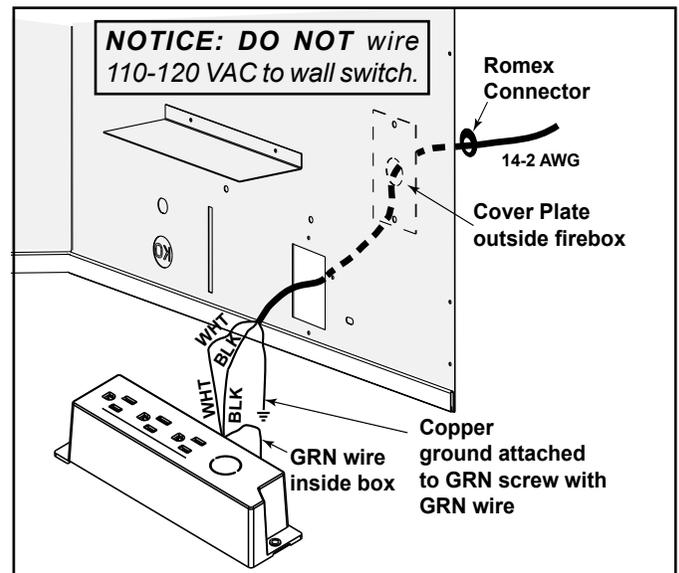


Figure 9.1 Junction Box Detail

Accessories Requirements

- This appliance may be used with a wall switch or a remote control.

Wiring for optional Hearth & Home Technologies approved accessories should be done now to avoid reconstruction. Follow instructions that come with those accessories.

Electrical Service and Repair

WARNING! Risk of Shock! Label all wires prior to disconnection when servicing controls. Wiring errors could cause improper and dangerous operation. Verify proper operation after servicing.

WARNING! Risk of Shock! Replace damaged wire with type 105° C rated wire. Wire must have high temperature insulation.

B. Wiring Requirements

Intellifire Ignition System Wiring

- Wire the appliance junction box to 110-120 VAC for proper operation of the appliance.

WARNING! Risk of Shock or Explosion! DO NOT wire IPI controlled appliance junction box to a switched circuit. Incorrect wiring will override IPI safety lockout.

- Refer to Figure 9.2, Intellifire Pilot Ignition (IPI) Wiring Diagram.
- This appliance is equipped with an Intellifire control valve which operates on a 3 volt system.
- Plug the 3 volt AC transformer into the appliance junction box to supply power to the unit OR install two D cell batteries (not included) into the battery pack before use.

NOTICE: Batteries should not be placed in the battery pack while using the transformer. Remove batteries before using the transformer, and unplug the transformer before installing the batteries. Battery polarity must be correct or module damage will occur.

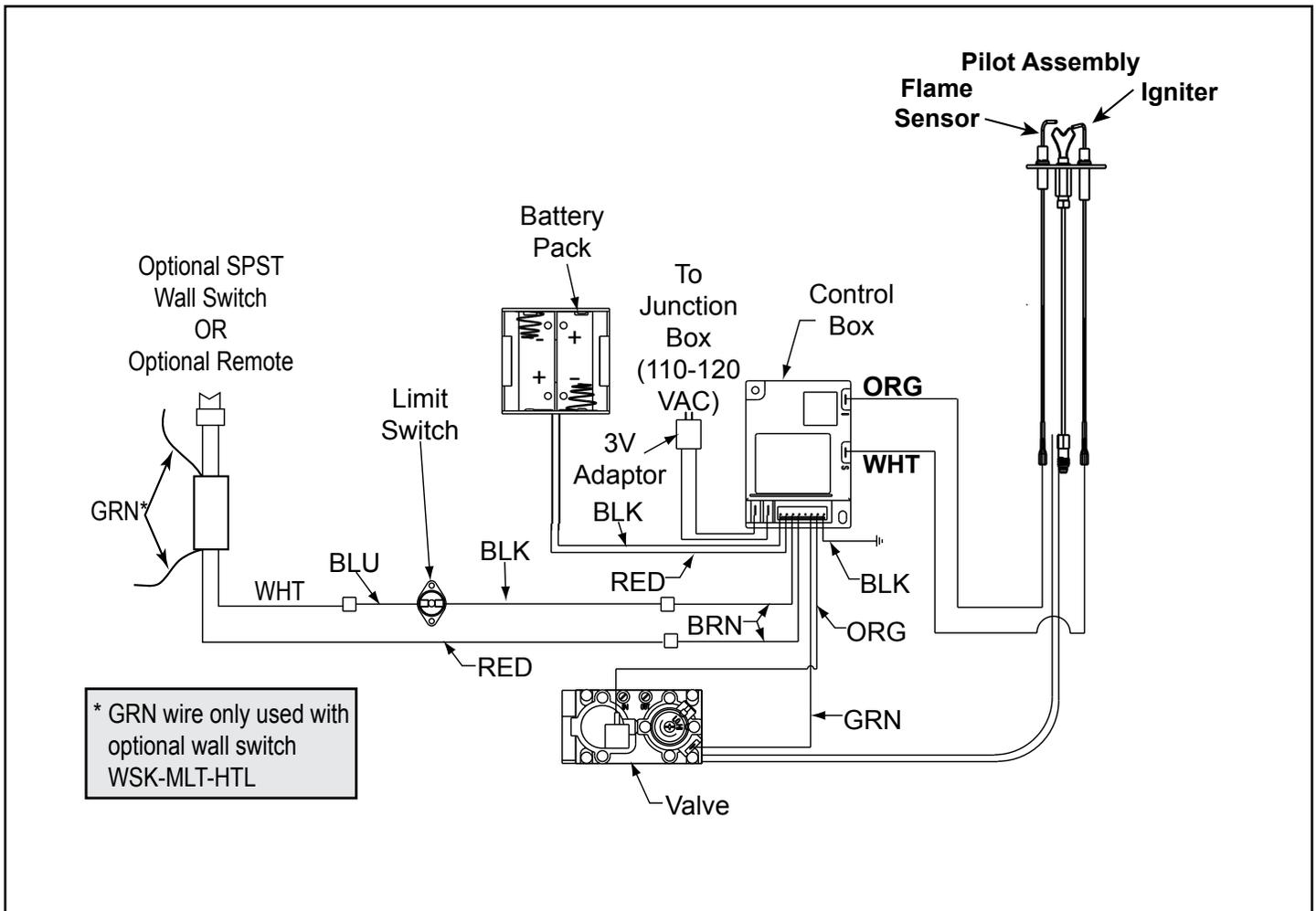


Figure 9.2 Intellifire Pilot Ignition (IPI) Wiring Diagram

Optional Fan Installation Methods

A fan can be added to your appliance to push more warmth into your space.

Option 1:

The optional fan can be used with the fan control module that is included in the fan kit. Fan speed is controlled through the control knob on the fan control module. See Figure 9.3.

Option 2:

The optional fan can be used in conjunction with a remotely located wall mounted switch or a BC10 (Blower Control Wall Switch).

- The power supply for the appliance must be brought into the appliance junction box.
- The wires to the remotely mounted switch or BC10 must plug into the black female terminals on harness. See Figure 9.4.
- The white wire connector on harness is not used and must be capped or terminated per local electrical code requirements.
- All wiring to remotely mounted switch or BC10 to be compliant with all local electrical code requirements.

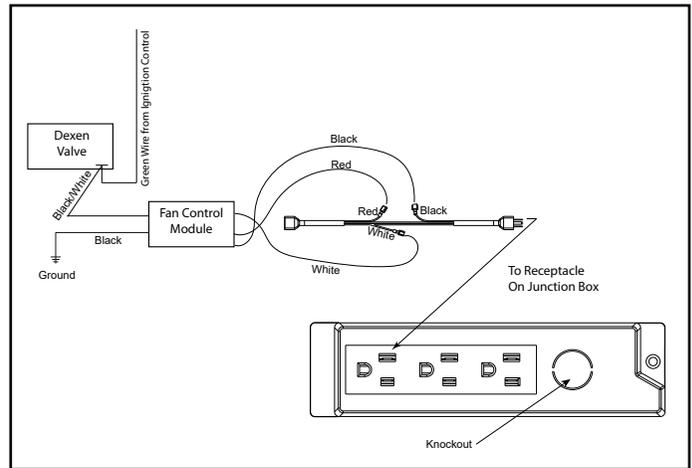


Figure 9.3 GFK21B or GFK4B Fan Kit Components

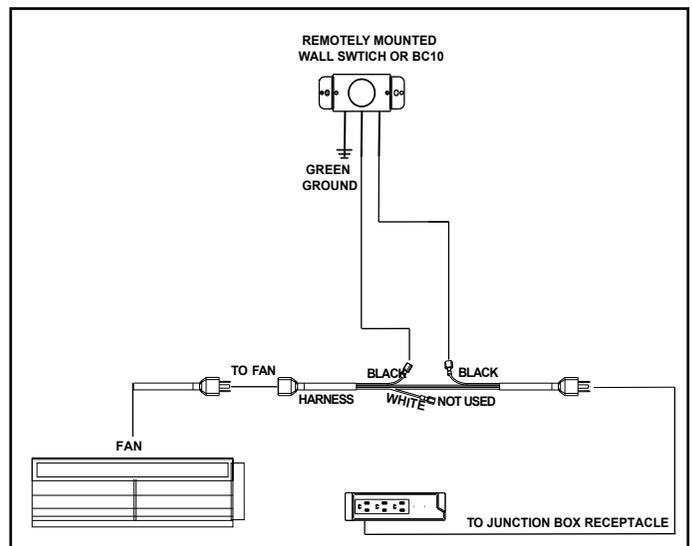


Figure 9.4 GFK21B or GFK4B Fan Kit and Remotely Mounted Switch or BC10

10 Gas Information

A. Fuel Conversion

- Make sure the appliance is compatible with available gas types.
- Conversions must be made by a qualified service technician using Hearth & Home Technologies specified and approved parts.

B. Gas Pressure

⚠ WARNING



Fire Risk.
Risk of Fire! Risk of Explosion!
Incorrect pressure will damage valve.

- Isolate gas supply piping **BEFORE** pressure testing gas line at test pressures above 1/2 psig.
- Close the manual shutoff valve **BEFORE** pressure testing gas line at test pressures equal to or less than 1/2 psig.

- Optimum appliance performance requires proper input pressures.
- Gas line sizing requirements will be determined in ANSI Z223.1 National Fuel Gas Code in the USA and CAN/CGA B149 in Canada.
- Pressure requirements are:

Gas Pressure	Natural Gas	Propane
Minimum inlet pressure	5.0 in. w.c.	11.0 in. w.c.
Maximum inlet pressure	10.0 in. w.c.	13.0 in. w.c.
Manifold pressure	3.5 in. w.c.	10.0 in. w.c.

- Verify inlet pressures. Verify minimum pressures when other household gas appliances are operating.
- Install regulator upstream of valve if line pressure is greater than 1/2 psig.

Note: Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI Z223.1. Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter).

Note: A listed (and Commonwealth of Massachusetts approved) 1/2 in. (13 mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 in. (13 mm) control valve inlet.

- **If substituting for these components, please consult local codes for compliance.**

C. Gas Connection

- Refer to Reference Section 3 for location of gas line access in appliance.
- Gas line may be run through knockout(s) provided.
- The gap between supply piping and gas access hole may be sealed with caulk or aluminum foil tape with a minimum of 300 °F continuous exposure rating or stuffed with non-combustible, unfaced insulation to prevent cold air infiltration.
- Ensure that gas line does not come in contact with outer wrap of the appliance. Follow local codes.
- Pipe incoming gas line into valve compartment.
- Connect incoming gas line to the 1/2 in. (13 mm) NPT connection on manual shutoff valve.

WARNING! Risk of Fire or Explosion! Support control when attaching pipe to prevent bending gas line.

WARNING! Risk of Fire or Explosion! Gas build-up during line purge could ignite.

- A small amount of air will be in the gas supply lines.
- *Ensure adequate ventilation.*
- *Ensure there are no ignition sources such as sparks or open flames.*

Light the appliance. It will take a short time for air to purge from lines. When purging is complete the appliance will light and operate normally.

WARNING! Risk of Fire, Explosion or Asphyxiation! Check all fittings and connections with a non-corrosive commercially available leak-check solution. DO NOT use open flame. Fittings and connections could have loosened during shipping and handling.

D. High Altitude Installations

NOTICE: If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.

When installing above 2000 feet elevation:

- In the USA: Reduce input rate 4% for each 1000 feet above 2000 feet.
- In CANADA: Input ratings are certified without a reduction of input rate for elevations up to 4500 feet (1370 m) above sea level. Please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4500 feet (1370 m).

Check with your local gas utility to determine proper orifice size.

E. Air Shutter Setting

Air shutter setting should be adjusted by a qualified installer at the time of installation.

- The air shutter is set at the factory for minimum vertical vent run.
- Adjust air shutter for longer vertical runs. See Figure 10.1.
- Turn the thumbscrew to open or close the air shutter. It may be necessary to use a pliers or crescent wrench to adjust the shutter. See chart below for correct shutter settings. The shutter measurement is taken from the bottom of the tub to the bottom of the thumbscrew. See Figure 10.1.

Note: Adjust air shutter after flame has reached full maturity (approximately 20-40 minutes).

CAUTION! Risk of Burns! Components are HOT. Wear protective gloves when adjusting shutter.

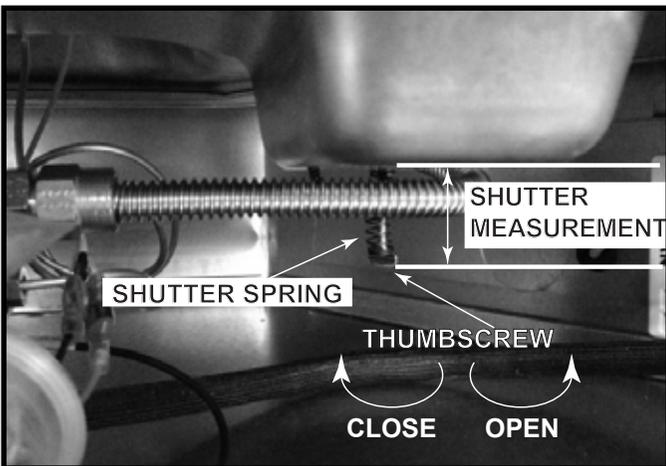


Figure 10.1 Adjusting Air Shutter

Note: The air shutter is equipped with a compression spring that helps to maintain the shutter position during transportation. It may be necessary to relieve this spring pressure on the thumb screw to adjust the shutter.

Air Shutter Settings (Factory Set to Minimum Vent Run)

MODEL	GAS TYPE	SHUTTER MEASUREMENT
NBV4236I-B	NG	1-1/4 IN.
	PROPANE	1 IN.
NBV4842I-B	NG	1-1/8 IN.
	PROPANE	1-1/8 IN.

Note: All vent runs may need to be evaluated for ideal shutter settings. Shutter distances may vary due to vent run, fuel quality, and elevation.

11 Finishing

A. Facing Material

⚠ WARNING

Risk of Fire!

DO NOT apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual. Materials overlapping into non-combustible zones could ignite and will interfere with air flow through decorative barrier fronts.

- Metal front of appliance may be covered with non-combustible materials only.
- Facing and/or finishing materials must not interfere with air flow through decorative barrier fronts, removal of decorative barrier fronts or access for service.
- Facing and/or finishing materials must never overhang into the glass opening.
- Observe all clearances when applying combustible materials.
- Seal gaps between the finished wall and appliance top and sides using a 300 °F minimum sealant.

NOTICE: Surface temperatures around the appliance will become warm while the appliance is in operation. Ensure finishing materials used for all surfaces (floor, walls, mantels, etc.) will withstand temperatures up to 190 °F.

B. Mantel and Wall Projections

WARNING! Risk of Fire! Comply with all minimum clearances as specified. Framing closer than the minimums listed must be constructed entirely of non-combustible materials (i.e., steel studs, concrete board, etc.).

Note: Mantel measurement is taken from top of the opening, NOT the top of the fireplace.

Combustible Mantels

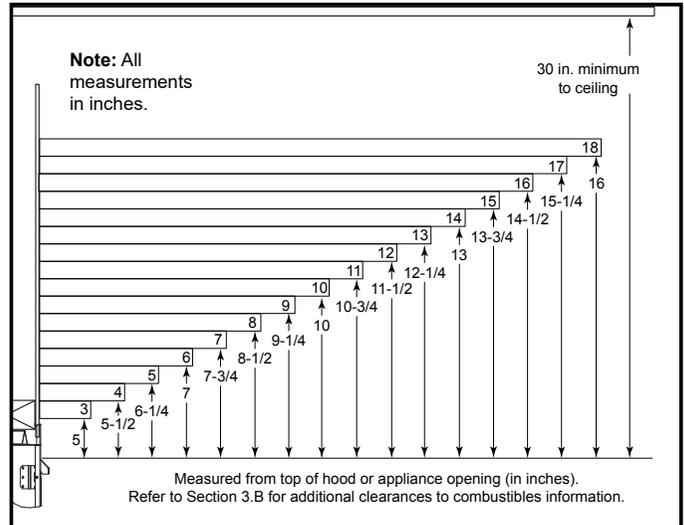


Figure 11.1 Minimum Vertical and Maximum Horizontal Dimensions of Combustibles

Combustible Mantel Legs or Wall Projections

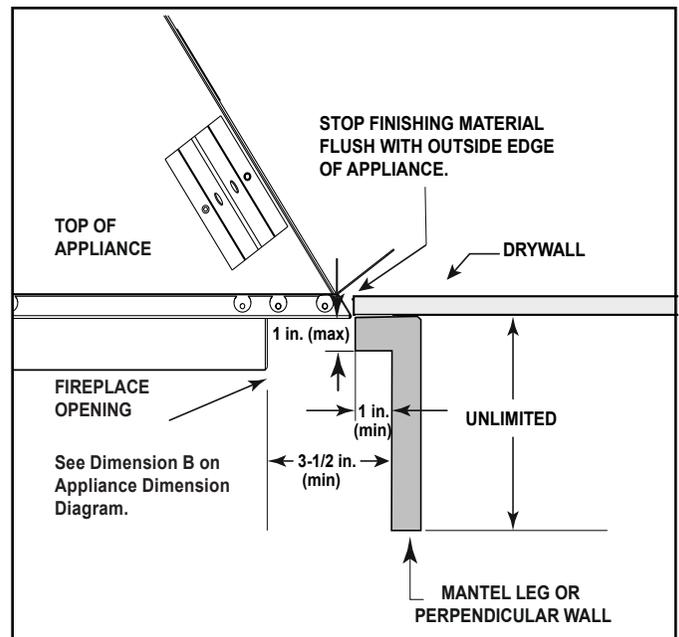


Figure 11.2 Combustible Mantel Leg or Wall Projections (Acceptable on both sides of opening)

C. Non-combustible Mantel and Wall Projections

Only decorative barrier fronts certified for use with this appliance model may be used. Contact your dealer for a list of decorative fronts that may be used. The finishing material thicknesses allowed are noted below.

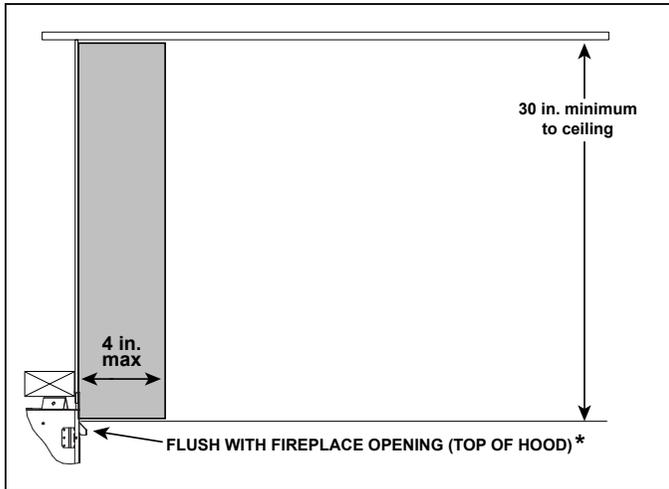


Figure 11.3 Minimum Vertical and Maximum Horizontal Dimensions for Non-Combustibles Mantels

* **Note:** When using a DEMI or TRES decorative barrier front a 1/2 in. clearance must be maintained from the fireplace opening to allow room for decorative barrier front removal / install.

Non-Combustible Mantel Legs or Wall Projections

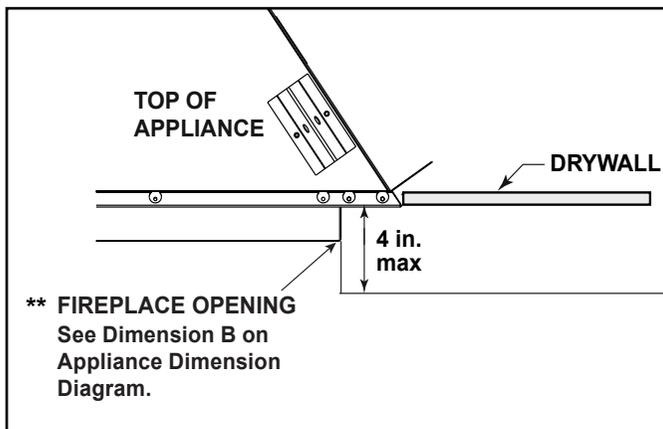


Figure 11.4 Non-Combustible Mantel Leg or Wall Projections (Acceptable on both sides of opening)

** **Note:** When using a DEMI or TRES decorative barrier front a 1/4 in. clearance must be maintained on both sides of the fireplace opening to allow room for decorative barrier front removal / install.

12 Appliance Setup

A. Remove the Shipping Materials

Remove shipping materials from inside or underneath the firebox.

- The splatter guard is a piece of corrugated material used to protect the appliance during the installation process before finishing work on the whole hearth is complete. Splatter guards may be factory installed or accompany the decorative barrier front of the appliance, depending on the fireplace model. Splatter guards must be removed before appliance is fired.

WARNING! Risk of Fire! Close the ball valve before installing the splatter guard to prevent accidental lighting. Remove the splatter guard before lighting the appliance.

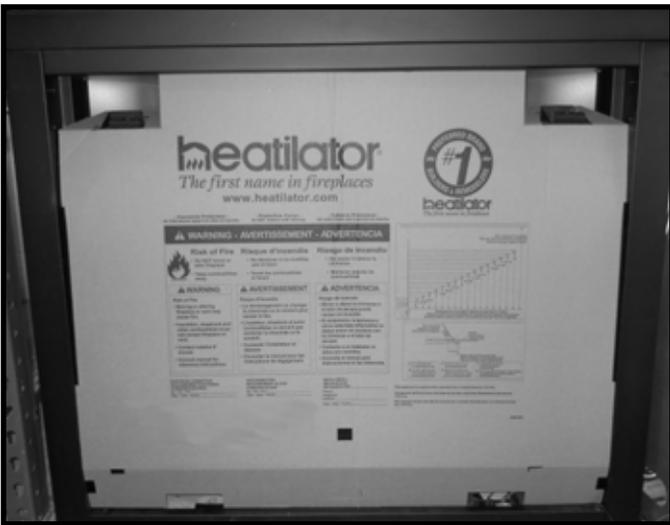


Figure 12.1 Appliance Unwrapped

B. Clean the Appliance

Clean/vacuum any sawdust that may have accumulated inside the firebox or underneath in the control cavity.

C. Install Optional Refractory Kit

An optional refractory kit is available for the NBV models. Contact your dealer to order the kit. Install according to instructions included with kit.

D. Install Burner Mineral Wool

WARNING! Risk of Explosion! Follow mineral wool placement instructions. DO NOT place mineral wool on or near rear burner ports. Replace mineral wool material annually. Improperly placed mineral wool interferes with proper burner operation.

Note: It may be helpful to temporarily remove Log #5 to place the mineral wool. If removed, replace log according to log placement instructions.

- Mineral wool is shipped with this gas appliance.
- Place a small amount of 1/2 in. diameter pieces (dime-size) mineral wool on the burner pan as shown in Figure 12.3. The mineral wool may be placed loosely over the front burner port holes in the burner pan. Do NOT press them onto or into the burner port holes. This will provide the “glowing embers” look.
- It is not necessary to use the entire bag. Save the remaining mineral wool for future use.
- It is permissible to place a small amount of mineral wool or lava rock over screw heads that are used to fasten the rear logs.

⚠ WARNING



RISK OF EXPLOSION!

- Place lava rock or mineral wool according to instructions.
- Do NOT place lava rock or mineral wool in a position that they may fall into pilot area.
Delayed ignition could occur.
- Use ONLY Hearth & Home Technologies-approved lava rock or mineral wool.
- Some models may not require use of entire contents of bag.

Place the Lava Rock

Place the lava rock in an even layer just heavy enough to cover the metal surface. Stay within the zone indicated in Figure 12.3. It is not necessary to use the entire bag. Save the remaining amount for future use.

E. Install Fixed Glass Assembly

WARNING! Risk of Asphyxiation! Handle fixed glass assembly with care. Inspect the gasket to ensure it is undamaged and inspect the glass for cracks, chips or scratches.

- **DO NOT** strike, slam or scratch glass.
- **DO NOT** operate fireplace with glass removed, cracked, broken or scratched.
- Replace as a complete assembly.

Replacing Fixed Glass Assembly

- Replace the glass door on the appliance. Pull out and latch the four glass assembly latches into the groove on the glass frame.

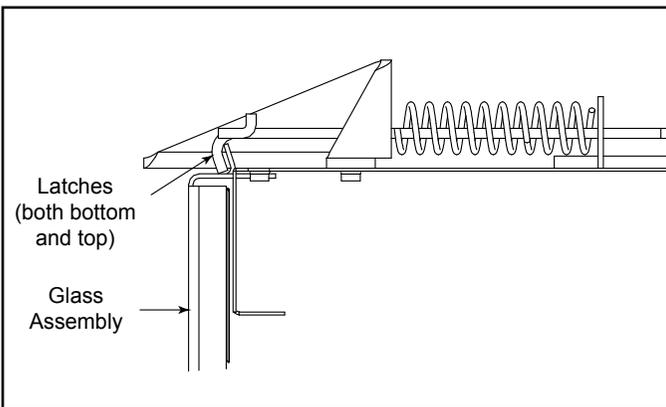


Figure 12.2 Fixed Glass Assembly

F. Install Decorative Barrier Front

WARNING! Risk of Fire! Install **ONLY** doors or fronts approved by Hearth & Home Technologies. Unapproved doors or fronts could cause fireplace to overheat.

DO NOT operate the appliance with the barrier removed. Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

For more information refer to the instructions supplied with your decorative barrier front.

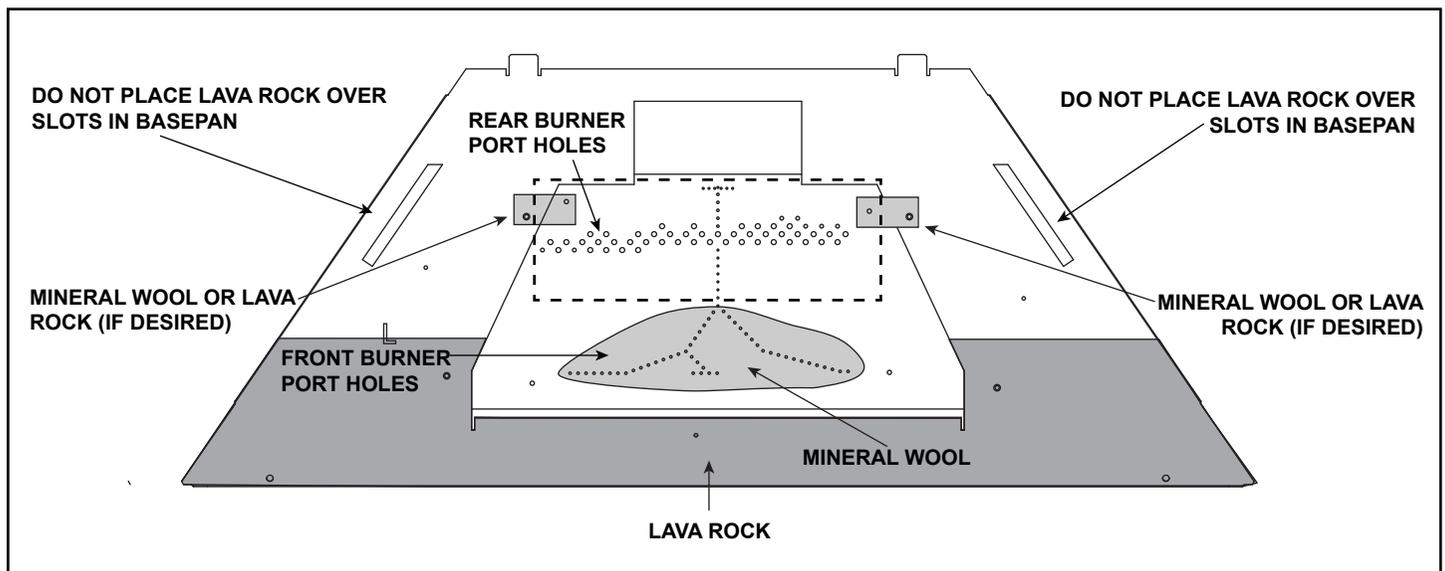


Figure 12.3 Placement of Mineral Wool and Lava Rock

G. Install the Log Assembly

LOG PLACEMENT INSTRUCTIONS

Log Set Assembly:

SRV2380-070 SRV2381-070 SRV2382-070 SRV2383-070

Models: NDV3630I-B, NDV3630IL-B, NDV3933I-B, NDV3933IL-B,
 NDV4236I-B, NDV4236IL-B, NDV4842I-B, NDV4842IL-B
 NBV3630I-B, NBV3933I-B, NBV4236I-B, NBV4842I-B

See Table 1 for corresponding log set and individual logs for each size Novus model.

SIZE	3630	3933	4236	4842
ASSEMBLY	SRV2380-070	SRV2381-070	SRV2382-070	SRV2383-070
LOG 1	SRV2380-071	SRV2380-071	SRV2382-071	SRV2383-071
LOG 2	SRV2380-072	SRV2381-072	SRV2381-072	SRV2383-072
LOG 3	SRV2380-073	SRV2381-073	SRV2381-073	SRV2383-073
LOG 4	SRV2380-074	SRV2380-074	SRV2382-074	SRV2382-074
LOG 5	SRV2380-075	SRV2380-075	SRV2380-075	SRV2383-075

Table 1.

CAUTION: Logs are fragile, handle with care.

The log set is shipped from the factory with three logs already in place on the hearth pan. See Figure 1. In case of damage, the log will need to be removed from the base pan. See Figure 2 for locations of fasteners for each log.

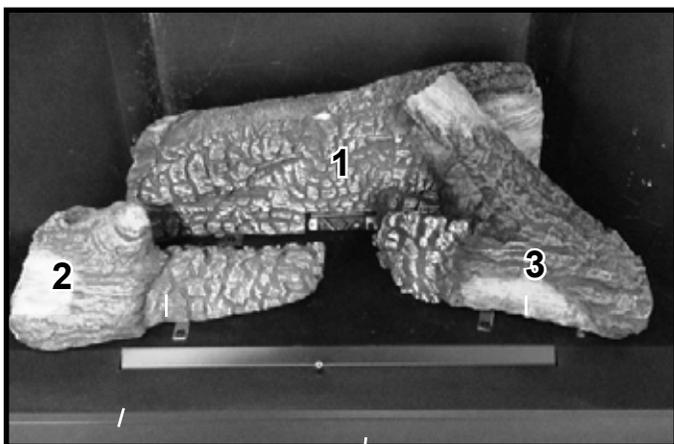


Figure 1. Log Set Shown as Shipped

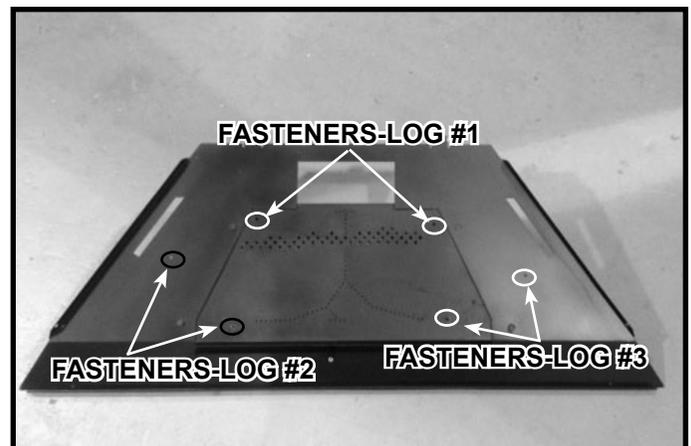


Figure 2. Log Fastener Locations on Base Pan



Figure 3. Locations of Flat Spots for Log #4

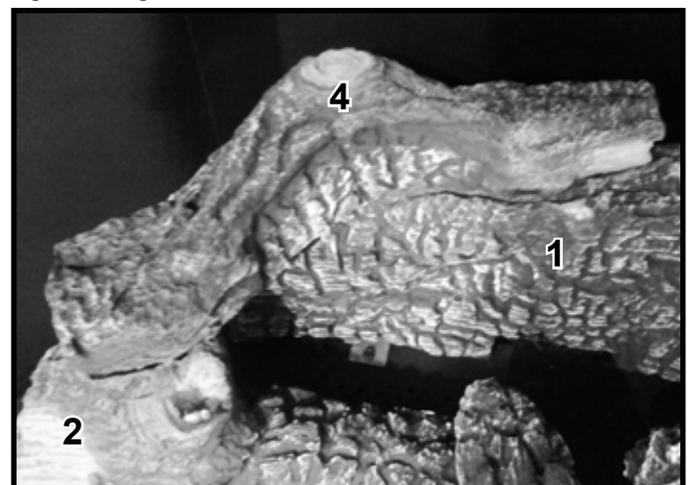


Figure 4. Log #4 in Position

LOG #4: Place Log #4 into position by setting the left end of Log #4 into the flat spot on Log #2 and then resting the right end, or nose, of Log #4 on the flat spot on Log #1. Figure 3 shows locations of flat spots. Figure 4 shows Log #4 installed.

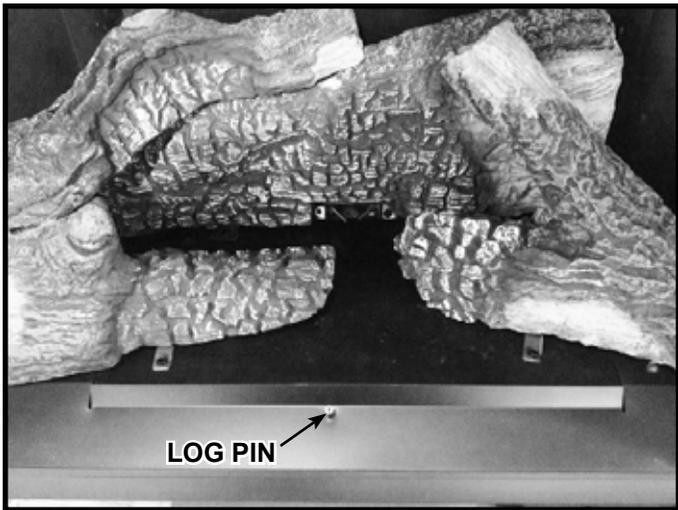


Figure 5. Log Pin Location

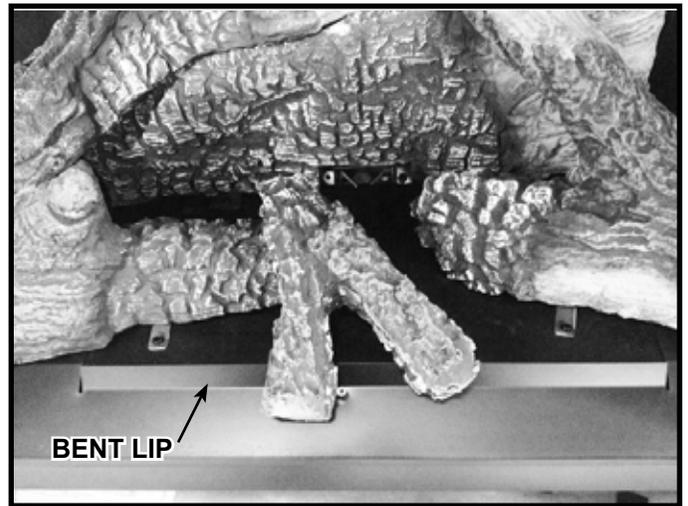


Figure 6. Log #5 in Position

Log #5: Place Log #5 into position. The forked end of Log #5 is positioned toward the front of the appliance, with the two slots on the back side resting on the bent lip of the hearth pan. See Figure 6. Slide Log #5 toward the right until it contacts the log pin as shown in Figure 6.

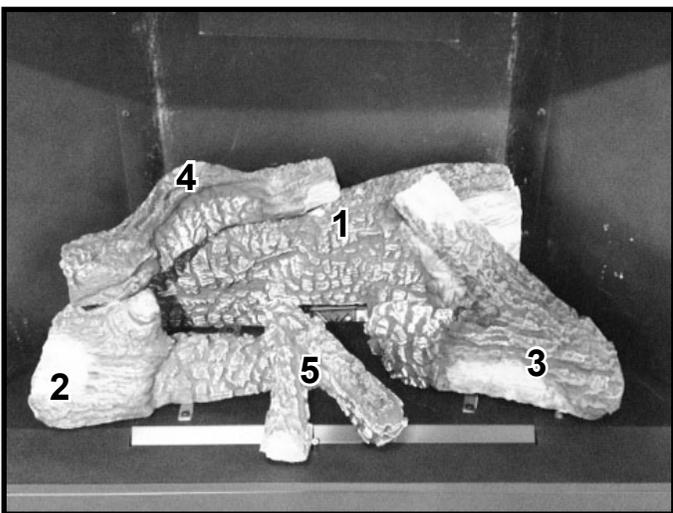


Figure 7. Log Set Installed

2382-935

13 Reference Materials

A. Accessories

Install approved accessories per instructions included with accessories. Contact your dealer for a list of approved accessories.

WARNING! Risk of Fire and Electric Shock! Use *ONLY* *Hearth & Home Technologies-approved optional accessories with this appliance. Using non-listed accessories could result in a safety hazard and will void the warranty.*

Remote Controls, Wall Controls and Wall

Switches

Follow the instructions supplied with the control installed to operate your fireplace:

For safety:

- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.

See your dealer if you have questions.

Optional Fan

Follow the instructions supplied with the fan kit to operate your fan. See your dealer if you have questions.

Optional Refractory Kit

If desired, a refractory kit may be added. Contact your dealer to order the correct refractory kit. Detailed installation instructions are included with the refractory kit.

Heatilator, a brand of Hearth & Home Technologies
7571 215th Street West, Lakeville, MN 55044
www.heatilator.com

Please contact your Heatilator dealer with any questions or concerns.
For the location of your nearest Heatilator dealer,
please visit www.heatilator.com.

Printed in U.S.A. - Copyright 2023