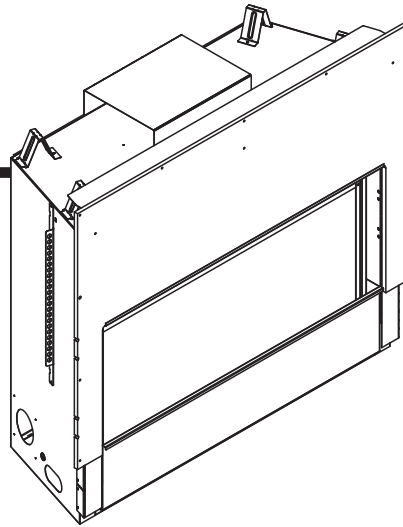


**Model:**  
**RAVE4013I-C**



## NOTICE



### DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.

**DO NOT  
DISCARD**

**⚠ WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury, or death.**

- **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **What to do if you smell gas**
  - **DO NOT** try to light any appliance.
  - **DO NOT** touch any electrical switch. **DO NOT** use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

This appliance may be installed as an OEM installation in manufactured home (USA only) or mobile home and must be installed in accordance with the manufacturer's instructions and the manufactured home construction and safety standard, *Title 24 CFR, Part 3280 or Standard for Installation in Mobile Homes, CAN/CSA Z240MH, in Canada.*

*This appliance is only for use with the type(s) of gas indicated on the rating plate.*

## ⚠ WARNING



### HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

### Hot glass will cause burns.

- **DO NOT** touch glass until it is cooled
  - NEVER allow children to touch glass
  - Keep children away
  - CAREFULLY SUPERVISE children in same room as fireplace.
  - Alert children and adults to hazards of high temperatures.
- High temperatures may ignite clothing or other flammable materials.**
- Keep clothing, furniture, draperies and other flammable materials away.

***This appliance has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. 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.

In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter.

See Table of Contents for location of additional Commonwealth of Massachusetts requirements.



Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies suggests NFI certified or factory trained professionals, or technicians supervised by an NFI certified professional.

Read this manual before installing or operating this appliance.  
Please retain this owner's manual for future reference.

## A. Congratulations

Congratulations on selecting a Heatilator gas fireplace, an elegant and clean alternative to wood burning fireplaces. The Heatilator gas fireplace you have selected is designed to provide the utmost in safety, reliability, and efficiency.

As the owner of a new fireplace, you'll want to read and carefully follow all of the instructions contained in this owner's manual. Pay special attention to all cautions and warnings.

This owner's manual should be retained for future reference. We suggest that you keep it with your other important documents and product manuals.

The information contained in this owner's manual, unless noted otherwise, applies to all models and gas control systems.

Your new Heatilator gas fireplace will give you years of durable use and trouble-free enjoyment. Welcome to the Heatilator family of fireplace products!

### Homeowner Reference Information

*We recommend that you record the following pertinent information about your fireplace.*

Model Name: \_\_\_\_\_ Date purchased/installed: \_\_\_\_\_

Serial Number: \_\_\_\_\_ Location on fireplace: \_\_\_\_\_

Dealership purchased from: \_\_\_\_\_ Dealer Phone: \_\_\_\_\_

Notes: \_\_\_\_\_

### Listing Label Information/Location

The model information regarding your specific fireplace can be found on the rating plate usually located in the control area of the fireplace.

Type of Gas

Gas and Electric Information

Model Number

Serial Number

**heatilator**  
The first name in fireplaces

Heat & Glo, a brand of Hearth & Home Technologies, Inc.  
7571 215th Street West, Lakeville, MN 55044

**GAS-FIRED**  
**UL**  
**LISTED**

Not for use with solid fuel.  
(Ne doit pas être utilisé avec un combustible solide).

Type of Gas (Sorte De Gaz): **NATURAL GAS**

This appliance must be installed in accordance with local codes, if any; if not, follow ANSI Z223.1 in the USA or CAN/CGA B149 installation codes. (Installer l'appareil selon les codes ou règlements locaux ou, en l'absence de tels règlements, selon les codes d'installation CAN/CGA-B149.)

**ANSI Z21XX-XXXX • CSA 2.XX-MXX • UL307B**

Minimum Permissible Gas Supply for Purposes of Input Adjustment.

Approved Minimum (De Gaz) Acceptable	0.0 in w.c.	(Po. Col. d'eau)
Maximum Pressure (Pression)	0.0 in w.c.	(Po. Col. d'eau)
Maximum Manifold Pressure (Pression)	0.0 in w.c.	(Po. Col. d'eau)
Minimum Manifold Pressure (Pression)	0.0 in w.c.	(Po. Col. d'eau)

Total Electrical Requirements: 000Vac, 00Hz., less than 00 Amperes

**MADE IN USA**

ALTITUDE:	0-0000 FT.	IN CANADA	0000-0000FT.
MAX. INPUT BTUH:	00,000		00,000
MIN. INPUT BTUH:	00,000		00,000
ORIFICE SIZE:	#XXXXX		#XXXXX

Model: (Modele): XXXXXXXX

Serial (Serie): XXXXXXXX

## ▲ 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.

## Table of Contents

A. Congratulations . . . . .	2
B. Limited Lifetime Warranty. . . . .	5

### 1 Listing and Code Approvals

A. Appliance Certification . . . . .	7
B. Tempered Glass Specifications . . . . .	7
C. BTU Specifications. . . . .	7
D. High Altitude Installations. . . . .	7
E. Non-Combustible Materials Specification. . . . .	7
F. Combustible Materials Specification . . . . .	7
G. Electrical Codes . . . . .	7
H. Requirements for the Commonwealth of Massachusetts. . . . .	8

## User Guide

### 2 Operating Instructions

A. Gas Fireplace Safety . . . . .	9
B. Your Fireplace . . . . .	9
C. Clear Space . . . . .	10
D. Decorative Doors and Fronts . . . . .	10
E. Fixed Glass Assembly . . . . .	10
F. Remote Controls, Wall Controls and Wall Switches. . . . .	10
G. Before Lighting Fireplace . . . . .	10
H. Lighting Instructions (IPI) . . . . .	11
I. After Fireplace is Lit . . . . .	12
→ J. Frequently Asked Questions . . . . .	12

### 3 Maintenance and Service

A. Maintenance Tasks-Homeowner . . . . .	13
B. Maintenance Tasks-Qualified Service Technician . . . . .	14

## Installer Guide

### 4 Getting Started

A. Typical Appliance System. . . . .	15
B. Design and Installation Considerations . . . . .	16
C. Tools and Supplies Needed . . . . .	16
D. Inspect Appliance and Components. . . . .	16

### 5 Framing and Clearances

A. Selecting Appliance Location . . . . .	17
B. Constructing the Appliance Chase . . . . .	18
C. Clearances . . . . .	19
D. Mantel and Wall Projections. . . . .	20

### 6 Termination Locations

A. Vent Termination Minimum Clearances . . . . .	22
--	----

### 7 Vent Information and Diagrams

A. Approved Pipe . . . . .	24
B. Vent Table Key . . . . .	24
C. Use of Elbows . . . . .	24
D. Measuring Standards. . . . .	24
E. Vent Diagrams . . . . .	24

### 8 Vent Clearances and Framing

A. Pipe Clearances to Combustibles . . . . .	35
B. Wall Penetration Framing. . . . .	35
C. Install the Ceiling Firestop . . . . .	36
D. Install Attic Insulation Shield. . . . .	37

### 9 Appliance Preparation

A. Top Vent . . . . .	38
B. Securing and Leveling the Appliance . . . . .	39

### 10 Installing Vent Pipe (SLP Pipe)

A. Assemble Vent Sections. . . . .	40
B. Assemble Slip Sections . . . . .	41
C. Secure The Vent Sections . . . . .	41
D. Disassemble Vent Sections . . . . .	42
E. Install Decorative Ceiling Components . . . . .	42
F. Install Metal Roof Flashing. . . . .	43
G. Assemble and Install Storm Collar . . . . .	43
H. Install Vertical Termination Cap . . . . .	44
I. Install Decorative Wall Components . . . . .	44
J. Heat Shield Requirements for Horizontal Termination . . . . .	44
K. Install Horizontal Termination Cap . . . . .	45

### 11 Gas Information

A. Fuel Conversion . . . . .	46
B. Gas Pressure . . . . .	46
C. Gas Connection . . . . .	47
D. High Altitude Installations . . . . .	47

### 12 Electrical Information

A. Wiring Requirements . . . . .	48
B. IntelliFire Ignition System Wiring . . . . .	48
C. Optional Accessories Requirements . . . . .	48
D. Electrical Service and Repair. . . . .	49
E. Junction Box Installation. . . . .	49

## 13 Finishing

A. Framing and Finishing Instructions . . . . .	50
B. Mantel and Wall Projections . . . . .	53
C. Facing Material . . . . .	54
D. Decorative Fronts . . . . .	56

## 14 Appliance Setup

A. Remove Fixed Glass Assembly . . . . .	57
B. Remove the Shipping Materials . . . . .	57
C. Clean the Appliance . . . . .	57
D. Accessories . . . . .	57
E. Fixed Glass Assembly . . . . .	58
F. Install the Mesh . . . . .	58
G. Air Shutter Setting . . . . .	58

## 15 Troubleshooting

A. IntelliFire Ignition System . . . . .	59
--	----

## 16 Reference Materials

A. Appliance Dimension Diagram . . . . .	61
B. Vent Components Diagrams . . . . .	62
C. Service Parts List . . . . .	67
D. Contact Information . . . . .	70

➔ = Contains updated information.

## B. Limited Lifetime Warranty

### Hearth & Home Technologies Inc. LIMITED LIFETIME WARRANTY

Hearth & Home Technologies Inc., on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

#### **WARRANTY COVERAGE:**

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

#### **WARRANTY PERIOD:**

Warranty coverage begins on the date of original purchase. 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, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
			X						Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page.

## **B. Limited Lifetime Warranty (*continued*)**

### **WARRANTY CONDITIONS:**

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

### **WARRANTY EXCLUSIONS:**

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets, firebricks, grates, flame guides, light bulbs, batteries and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

### **This warranty is void if:**

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

### **LIMITATIONS OF LIABILITY:**

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.



# 1 Listing and Code Approvals

## A. Appliance Certification

**MODEL:** RAVE4013I-C

**LABORATORY:** Underwriters Laboratories, Inc. (UL)

**TYPE:** Vented Gas Fireplace Heater

**STANDARD:** ANSI Z21.88-2009/CSA 2.33-2009  
Vented Gas Fireplace Heaters

This product is listed to ANSI standards for “Vented Gas Fireplace Heaters” and applicable sections of “Gas Burning Heating Appliances for Manufactured Homes and Recreational Vehicles”, and “Gas Fired Appliances for Use at High Altitudes”.

**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. Tempered 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)
RAVE4013I-C (NG)	US (0-2000 FT)	26,000	N/A	#42
	CANADA (2000-4500 FT)	21,870	N/A	#43
RAVE4013I-C (LP)	US (0-2000 FT)	25,000	N/A	.057
	CANADA (2000-4500 FT)	23,500	N/A	#54

## 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** and **UL763** 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.

**Note:** The following requirements reference various Massachusetts and national codes not contained in this document.

## H. Requirements for the Commonwealth of Massachusetts

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

### Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

### Approved Carbon Monoxide Detectors

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

### Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) in. in size, **“GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS”**.

## Inspection

The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

## Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- The equipment listed in Chapter 10 entitled “Equipment Not Required To Be Vented” in the most current edition of NFPA 54 as adopted by the Board; and
- Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

## MANUFACTURER REQUIREMENTS

### Gas Equipment Venting System Provided

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

### Gas Equipment Venting System NOT Provided

When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies “special venting systems”, the following requirements shall be satisfied by the manufacturer:

- The referenced “special venting system” instructions shall be included with the appliance or equipment installation instructions; and
- The “special venting systems” shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

**See Gas Connection section for additional Commonwealth of Massachusetts requirements.**



## A. Gas Fireplace Safety

### ⚠ WARNING



#### HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

#### Hot glass will cause burns.

- **DO NOT** touch glass until it is cooled
- **NEVER** allow children to touch glass
- Keep children away

- **CAREFULLY SUPERVISE** children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

#### High temperatures may ignite clothing or other flammable materials.

- Keep clothing, furniture, draperies and other flammable materials away.

***This appliance has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. 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.

- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.
- Never leave children alone near a hot fireplace, whether operating or cooling down.
- Teach children to **NEVER** touch the fireplace.
- Consider not using the fireplace when children will be present.

Contact your dealer for more information, or visit: [www.hpba.org/safety-information](http://www.hpba.org/safety-information).

To prevent unintended operation when not using your fireplace for an extended period of time (summer months, vacations, trips, etc):

- Remove batteries from remote controls.
- Turn off wall controls.
- Unplug 3 volt adapter plug and remove batteries on IPI models.

**WARNING! Choking Hazard!** Keep glass rock media out of reach of children.

If you expect that small children or vulnerable adults may come into contact with this fireplace, the following precautions are recommended:

- Install a physical barrier such as:
  - A decorative firescreen.
  - Adjustable safety gate.

## B. Your Fireplace

**WARNING! DO NOT operate fireplace before reading and understanding operating instructions.** Failure to operate fireplace according to operating instructions could cause fire or injury.

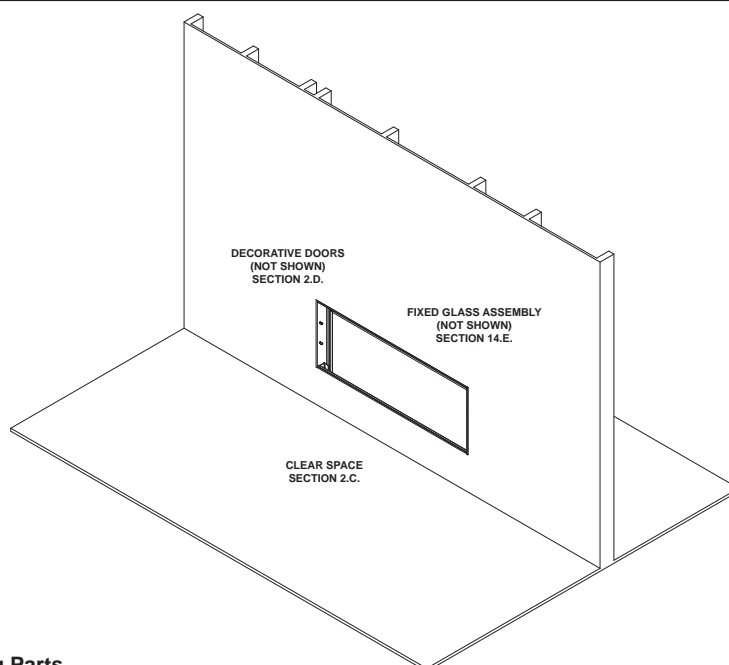


Figure 2.1 General Operating Parts

### C. Clear Space

**WARNING! DO NOT** place combustible objects in front of the fireplace or block louvers. High temperatures may start a fire. See Figure 2.2.

Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

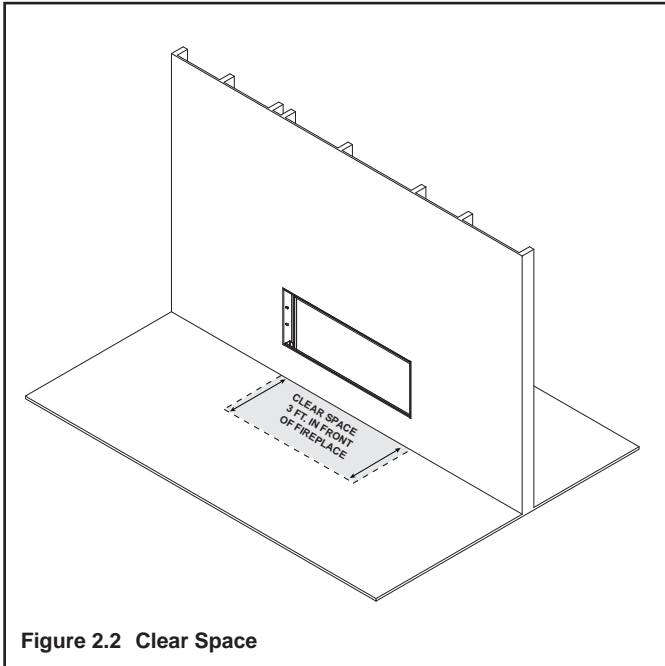


Figure 2.2 Clear Space

### D. Decorative Doors and Fronts

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

**This decorative front has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. DO NOT operate the fireplace 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 door or front.

### E. Fixed Glass Assembly

See Section 14.E.

### F. 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.

### G. Before Lighting Fireplace

Before operating this fireplace for the first time, **have a qualified service technician:**

- Verify all shipping materials have been removed from inside and/or underneath the firebox.
- Verify that burner cover tray is securely fastened to the base pan.
- Check the wiring.
- Check the air shutter adjustment.
- Ensure that there are no gas leaks.
- Ensure that the glass is sealed and in the proper position and that the integral barrier is in place.

**WARNING! Risk of Fire or Asphyxiation! DO NOT** operate fireplace with fixed glass assembly removed.

## H. Lighting Instructions (IPI)

The IPI system may be operated with two D-cell batteries. When using batteries, unplug the transformer. To prolong battery life, remove them when using the transformer.

### 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 is equipped with an intermittent pilot ignition (IPI) device which automatically lights the burner. **DO NOT** try to light the burner by hand.
- 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. 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.

### WARNING:

**DO NOT CONNECT LINE VOLTAGE (110/120 VAC OR 220/240 VAC) TO THE CONTROL VALVE.**

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance.

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air.

If not installed, operated, and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or fuel combustion which are known to the State of California to cause cancer, birth defects, or other reproductive harm.

Keep burner and control compartment clean. See installation and operating instructions accompanying appliance.

For additional information on operating your  
Hearth & Home Technologies fireplace, please refer to [www.fireplaces.com](http://www.fireplaces.com).

### CAUTION:

Hot while in operation. **DO NOT** touch. Keep children, clothing, furniture, gasoline and other liquids having flammable vapors away.

**DO NOT** operate the appliance with fixed glass assembly removed, cracked or broken. Replacement of the fixed glass assembly should be done by a licensed or qualified service person.

### NOT FOR USE WITH SOLID FUEL

For use with natural gas and propane. A conversion kit, as supplied by the manufacturer, shall be used to convert this appliance to the alternate fuel.

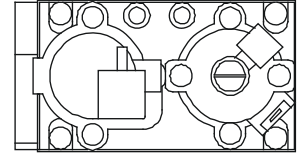
**Also Certified for Installation in a Bedroom or a Bedsitting Room.**

For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

### LIGHTING INSTRUCTIONS (IPI)

1. This appliance is equipped with an ignition device which automatically lights the burner. **DO NOT** try to light the burner by hand.

**GAS  
VALVE**



2. 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 located on the left side of this label. If you do not smell gas, go to next step.
3. To light the burner:
- Equipped with wall switch: Turn ON/OFF switch to ON.
- Equipped with remote or wall control: Press ON or FLAME button.
- Equipped with thermostat: Set temperature to desired setting.
4. If the appliance does not light after three tries, call your service technician or gas supplier.

### TO TURN OFF GAS TO APPLIANCE

1. Equipped with wall switch: Turn ON/OFF switch to OFF.
- Equipped with remote or wall control: Press OFF button.
- Equipped with thermostat: Set temperature to lowest setting.
2. Service technician should turn off electric power to the control when performing service.

593-913G

Final inspection by \_\_\_\_\_

## I. After Fireplace is Lit

### Initial Break-in Procedure

- The fireplace should be run three to four hours continuously on high.
- Turn the fireplace off and allow it to completely cool.
- Remove fixed glass assembly. See Section 14.E.
- Clean fixed glass assembly. See Section 3.
- Replace the fixed glass assembly and run continuously on high an additional 12 hours.

This cures the materials used to manufacture the fireplace.

**NOTICE! Open windows for air circulation during fireplace break-in.**

- Some people may be sensitive to smoke and odors.
- Smoke detectors may activate.

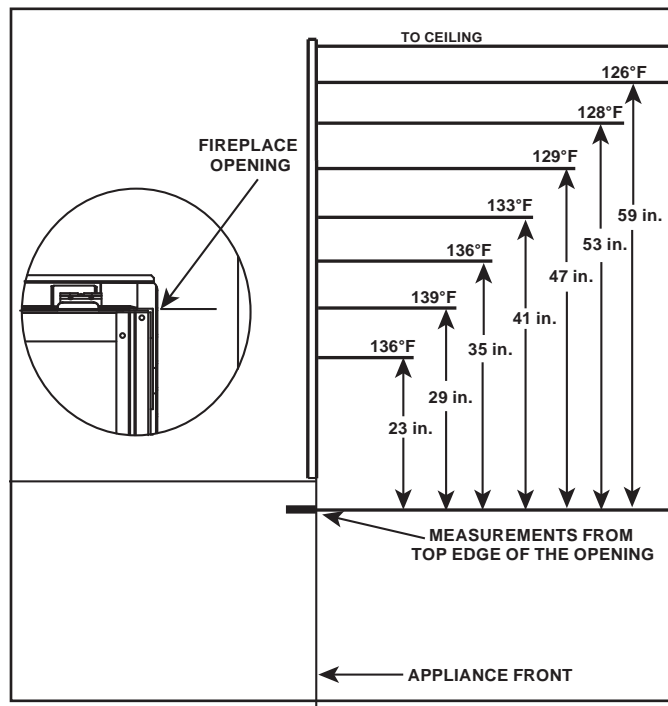


Figure 2.3. Wall Surface Temperatures Above Appliance

## J. Frequently Asked Questions

ISSUE	SOLUTIONS
Condensation on the glass	This is a result of gas combustion and temperature variations. As the fireplace warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the fireplace is allowed to burn for 20 to 40 minutes.
Odor from fireplace	When first operated, this fireplace may release an odor for the first several hours. This is caused by the curing of materials from manufacturing. Odor may also be released from finishing materials and adhesives used near the fireplace. These circumstances may require additional curing related to the installation environment.
Film on the glass	This is a normal result of the curing process of the paint. Glass should be cleaned within 3 to 4 hours of initial burning. A non-abrasive cleaner such as gas appliance glass cleaner may be necessary. See your dealer.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the fireplace.
Optional Rock Media Kit	There may be some "cracking" noise coming from the fireplace during the first few heating and cooling cycles. This noise is associated with settling rock and some minor cracking of larger pieces of rock. This will lessen over time as the glass rock is conditioned to the heating and cooling temperature changes.
	It is expected that a few small pieces (approximately 10 pieces) of rock may fall through the base pan and come to rest on the fireplace bottom. This has no affect on fireplace performance.
Power Outages (battery backup)	This appliance can operated on battery power in the event of a power outage. To access the battery pack, the decorative front, mesh and glass assembly must be removed. Refer to Section 12 for more details.
Wall above appliance feels hot to the touch.	No action necessary. This appliance ships with a non-combustible material attached. Specifications of the attached non-combustible material are listed in Section 1.E.

# 3 Maintenance and Service

Any safety screen or guard removed for servicing must be replaced prior to operating the fireplace.

When properly maintained, your fireplace will give you many years of trouble-free service. We recommend annual service by a qualified service technician.

## A. Maintenance Tasks-Homeowner

Installation and repair should be done by a qualified service technician only. The fireplace should be inspected before use and at least annually by a professional service person.

The following tasks may be performed annually by the homeowner. If you are uncomfortable performing any of the listed tasks, please call your dealer for a service appointment.

More frequent cleaning may be required due to lint from carpeting or other factors. Control compartment, burner and circulating air passageway of the fireplace must be kept clean.

**CAUTION! Risk of Burns!** *The fireplace should be turned off and cooled before servicing.*

### Glass Cleaning

**Frequency:** Seasonally

**By:** Homeowner

**Tools Needed:** Protective gloves, glass cleaner, drop cloth and a stable work surface.

**CAUTION! Handle fixed glass assembly with care.** *Glass is breakable.*

- Avoid striking, scratching or slamming glass
  - Avoid abrasive cleaners
  - **DO NOT** clean glass while it is hot
  - Prepare a work area large enough to accommodate fixed glass assembly and door frame by placing a drop cloth on a flat, stable surface.
- Note:** Fixed glass assembly and gasketing may have residue that can stain carpeting or floor surfaces.
- Remove door or decorative front from fireplace and set aside on work surface.
  - See Section 14.E for instructions to remove fixed glass assembly.
  - Clean glass with a non-abrasive commercially available cleaner.
    - Light deposits: Use a soft cloth with soap and water
    - Heavy deposits: Use commercial fireplace glass cleaner (consult with your dealer)
  - Refer to Section 14.E for glass removal and replacement instructions.
  - Reinstall door or decorative front.

### Doors, Surrounds, Fronts

**Frequency:** Annually

**By:** Homeowner

**Tools needed:** Protective gloves, stable work surface

- Assess condition of screen and replace as necessary.
- Inspect for scratches, dents or other damage and repair as necessary.
- Check that louvers are not blocked.
- Vacuum and dust surfaces.

### Remote Control

**Frequency:** Seasonally

**By:** Homeowner

**Tools needed:** Replacement batteries and remote control instructions.

- Locate remote control transmitter and receiver.
- Verify operation of remote. Refer to remote control operation instructions for proper calibration and setup procedure.
- Place batteries as needed in remote transmitters and battery-powered receivers.
- Place remote control out of reach of children.

If not using your fireplace for an extended period of time (summer months, vacations/trips, etc), to prevent unintended operation:

- Remove batteries from remote controls.
- Unplug 3 volt adapter plug on IPI models.

### Venting

**Frequency:** Seasonally

**By:** Homeowner

**Tools needed:** Protective gloves and safety glasses.

- Inspect venting and termination cap for blockage or obstruction such plants, bird nests, leaves, snow, debris, etc.
- Verify termination cap clearance to subsequent construction (building additions, decks, fences, or sheds). See Section 6.
- Inspect for corrosion or separation.
- Verify weather stripping, sealing and flashing remains intact.
- Inspect draft shield to verify it is not damaged or missing.

## B. Maintenance Tasks-Qualified Service Technician

The following tasks must be performed by a qualified service technician.

### Gasket Seal and Glass Assembly Inspection

**Frequency:** Annually

**By:** Qualified Service Technician

**Tools needed:** Protective gloves, drop cloth and a stable work surface.

- Inspect gasket seal and its condition.
- Inspect fixed glass assembly for scratches and nicks that can lead to breakage when exposed to heat.
- Confirm there is no damage to glass or glass frame. Replace as necessary.
- Verify that fixed glass assembly is properly retained and attachment components are intact and not damaged. Replace as necessary.

### Firebox

**Frequency:** Annually

**By:** Qualified Service Technician

**Tools needed:** Protective gloves, sandpaper, steel wool, cloths, mineral spirits, primer and touch-up paint.

- Inspect for paint condition, warped surfaces, corrosion or perforation. Sand and repaint as necessary.
- Replace fireplace if firebox has been perforated.

### Control Compartment and Firebox Top

**Frequency:** Annually

**By:** Qualified Service Technician

**Tools needed:** Protective gloves, vacuum cleaner, dust cloths

- Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided.
- Remove all foreign objects.
- Verify unobstructed air circulation.

### Burner Ignition and Operation

**Frequency:** Annually

**By:** Qualified Service Technician

**Tools needed:** Protective gloves, vacuum cleaner, whisk broom, flashlight, voltmeter, indexed drill bit set, and a manometer.

- Verify burner is properly secured and aligned with pilot or igniter.
- Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.

- Verify batteries have been removed from battery back-up IPI systems to prevent premature battery failure or leaking.
- Check for smooth lighting and ignition carryover to all ports. Verify that there is no ignition delay.
- Inspect for lifting or other flame problems.
- Verify air shutter setting is correct. See Section 14.G for required air shutter setting. Verify air shutter is clear of dust and debris.
- Inspect orifice for soot, dirt and corrosion. Verify orifice size is correct. See Service Parts List for proper orifice sizing.
- Verify manifold and inlet pressures. Adjust regulator as required.
- Inspect pilot flame pattern and strength. See Figure 3.1 for proper pilot flame pattern. Clean or replace orifice spud as necessary.
- Inspect IPI flame sensing rod for soot, corrosion and deterioration. Polish with fine steel wool or replace as required.
- Verify IPI millivolt output. Replace as necessary.
- Verify that there is not a short in flame sense circuit by checking continuity between pilot hood and flame sensing rod. Replace pilot as necessary.



Figure 3.1 IPI Pilot Flame Pattern



# 4 Getting Started

## Installer Guide

### A. Typical Appliance System

**NOTICE:** Illustrations and photos reflect typical installations and are for design purposes only. Illustrations/diagrams are not drawn to scale. Actual product may vary from pictures in manual

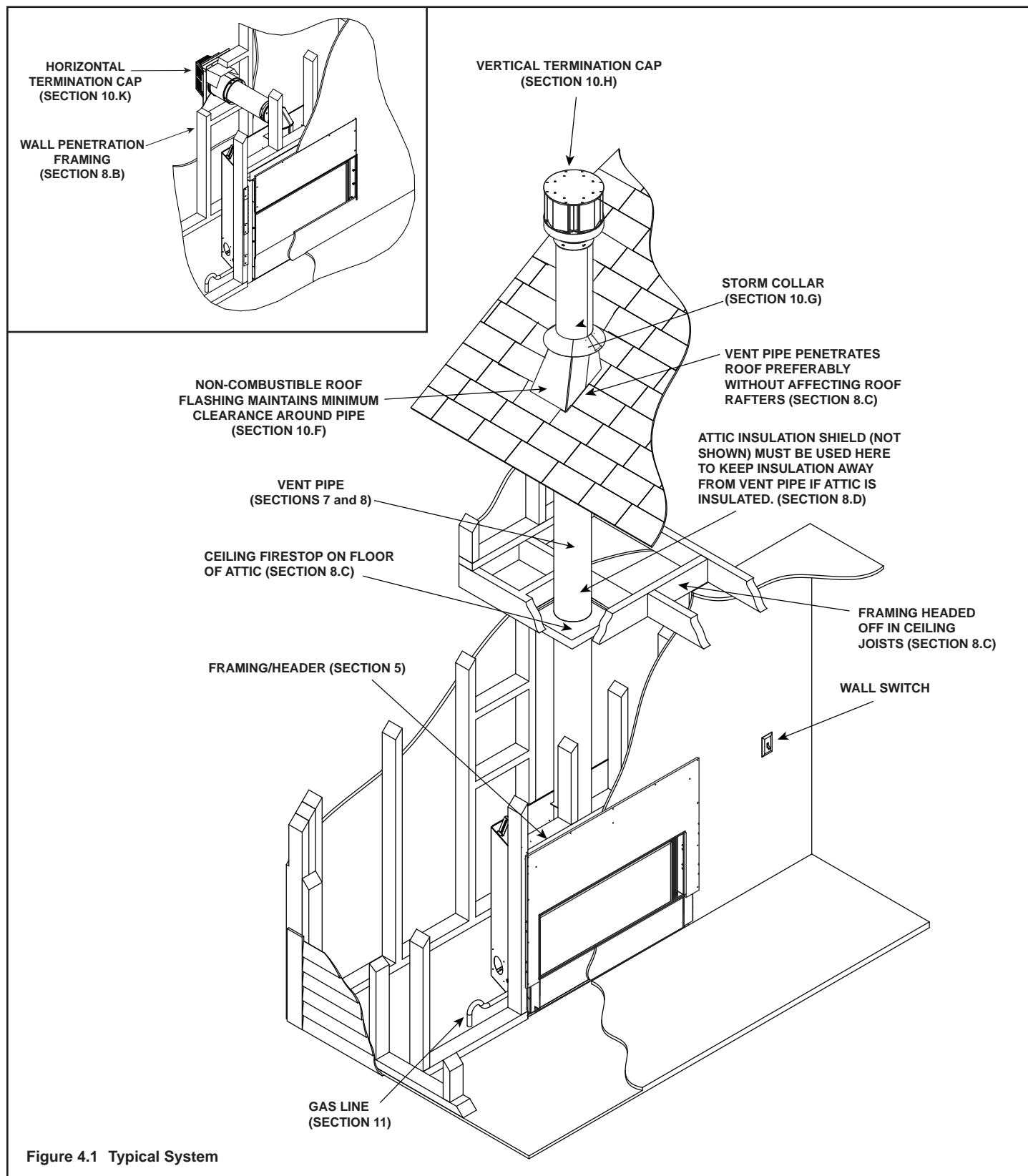


Figure 4.1 Typical System

## B. Design and Installation Considerations

Heatilator direct vent gas appliances are designed to operate with all combustion air siphoned from outside of the building and all exhaust gases expelled to the outside. 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.
- Electrical wiring requirements.
- Framing and finishing details.
- Whether optional accessories—devices such as a wall switch or remote control—are desired.

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.

## C. Tools and Supplies Needed

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

Tape measure	Framing material
Pliers	Non-corrosive leak check solution
Hammer	Phillips screwdriver (magnetic)
Gloves	Framing square
Voltmeter	Electric drill and bits (1/4 in. magnetic)
Plumb line	Safety glasses
Level	Reciprocating saw
Manometer	Flat blade screwdriver
1/2 - 3/4 in. length, #6 or #8 Self-drilling screws	
Caulking material (300°F minimum continuous exposure rating)	

## D. Inspect Appliance and Components

- Carefully remove the appliance and components from the packaging.
- The vent system components and decorative doors and fronts may be shipped in separate packages.
- Report to your dealer any parts damaged in shipment, particularly the condition of the glass.
- **Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

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

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 gas logs or the glass door.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

**Any such action may cause a fire hazard.**

***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.***

# 5 Framing and Clearances

## A. Selecting Appliance Location

When selecting a location for the appliance it is important to consider the required clearances to walls (see Figure 5.1).

**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.

It is important to follow the framing and finishing instructions step by step to ensure proper placement of fireplace in the surrounding framing/finishing materials.

Unlike many traditional, single sided Heatilator fireplaces, the RAVE4013I-C is recessed into surround framing. The left and right nailing tabs were designed to ensure the fireplace is recessed to the correct location within the framing materials. Refer to Section 13 for detailed instructions on finishing.

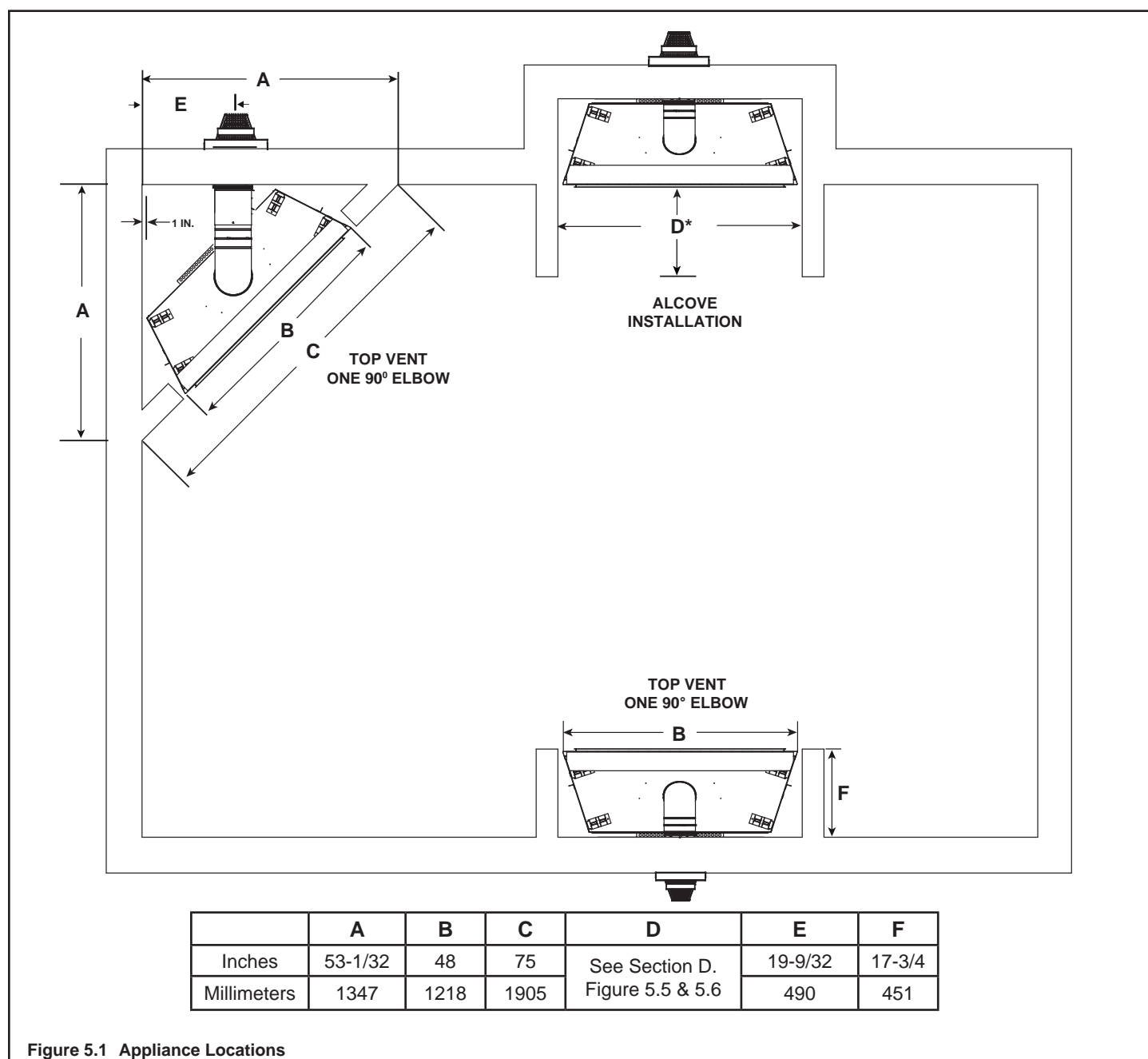


Figure 5.1 Appliance Locations

## B. Constructing the Appliance Chase

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.*

Chases should be constructed in the manner of all outside walls of the home to prevent cold air drafting problems. The chase should not break the outside building envelope in any manner.

Walls, ceiling, base plate and cantilever floor of the chase should be insulated. Vapor and air infiltration barriers should be installed in the chase as per regional codes for the rest of the home. Additionally, in regions where cold air infiltration may be an issue, the inside surfaces may be sheetrocked and taped for maximum air tightness.

To further prevent drafts, the wall shield and ceiling firestops should be caulked with caulk with a minimum of 300°F continuous exposure rating to seal gaps. Gas line holes and other openings should be caulked 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.

The factory-supplied non-combustible board must be used in all installations. It must be directly attached to structural framing adjacent to the appliance. Screw fasteners should be installed in the pilot holes provided in the outer perimeter of the non-combustible board. See Figure 13.2.

The factory-supplied board is designed such that its edges will be at the approximate center of the adjacent framing, assuming it is 1-1/2 in. nominal thickness. This will allow the wallboard joints to occur on the center of the framing where the panels can be fastened properly. If the framing thickness is less than 1-1/2 in. nominal, such as with formed steel systems, then it may be necessary to adjust the adjacent framing dimensions so that the non-combustible board and wallboard joints are centered on the framing.

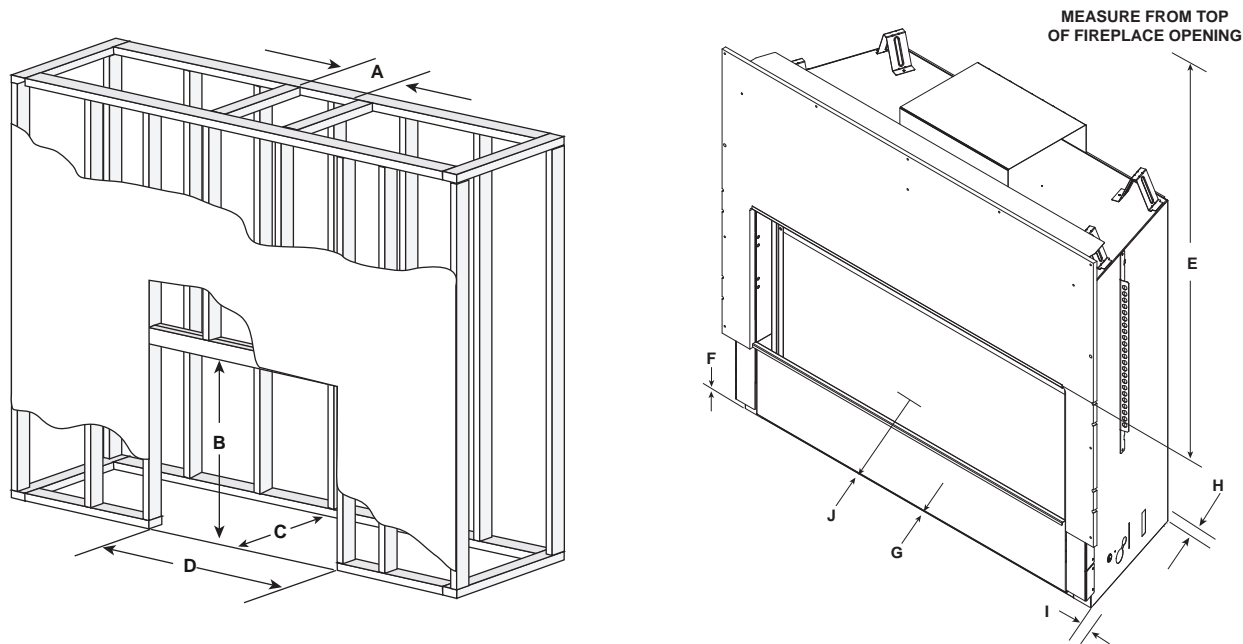
C. Clearances

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

**Note:** Figure 5.2 shows the fireplace installed on the floor. However, this fireplace can be elevated off the floor provided that the fireplace is properly supported by framing materials and the ceiling clearances are maintained.



MINIMUM FRAMING DIMENSIONS*										
	A	B	C	D	E	F	G	H	I	J
	Rough Opening (Vent Pipe)	Rough Opening (Height)	Rough Opening (Depth)	Rough Opening (Width)	Clearance to Ceiling	Combustible Floor	Combustible Flooring	Behind Appliance	Sides of Appliance	Front of Appliance
Inches	8-5/8	42 1/4	18-1/4	50	31	0	0	1	1	36
Millimeters	219	1073	464	1270	787	0	0	25	25	914

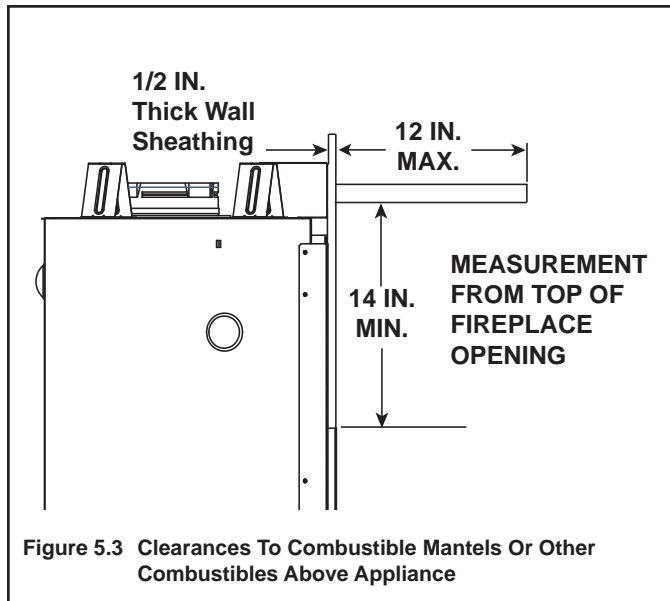
\* Adjust framing dimensions for interior sheathing (such as sheetrock)

Figure 5.2. Clearances to Combustibles

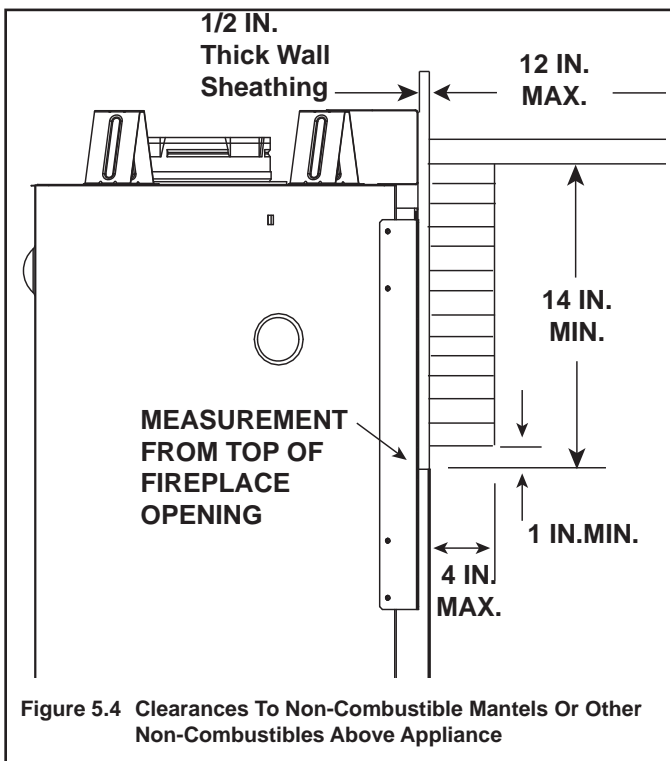
## D. Mantel and Wall Projections

**WARNING! Risk of Fire!** Comply with all minimum clearances to combustibles as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of noncombustible materials (i.e., steel studs, concrete board, etc).

### Combustible Mantels

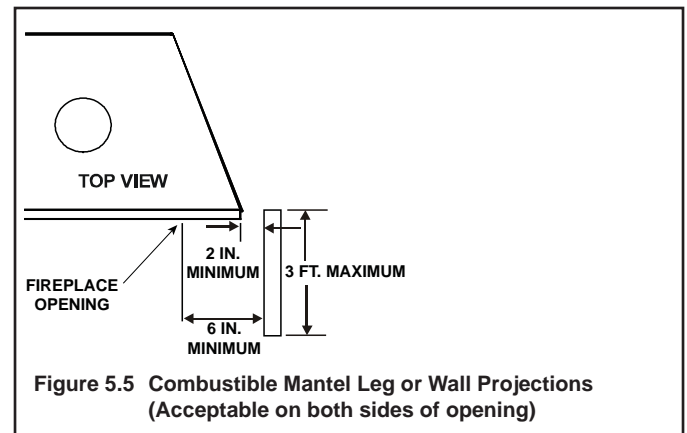


### Non-combustible Mantels

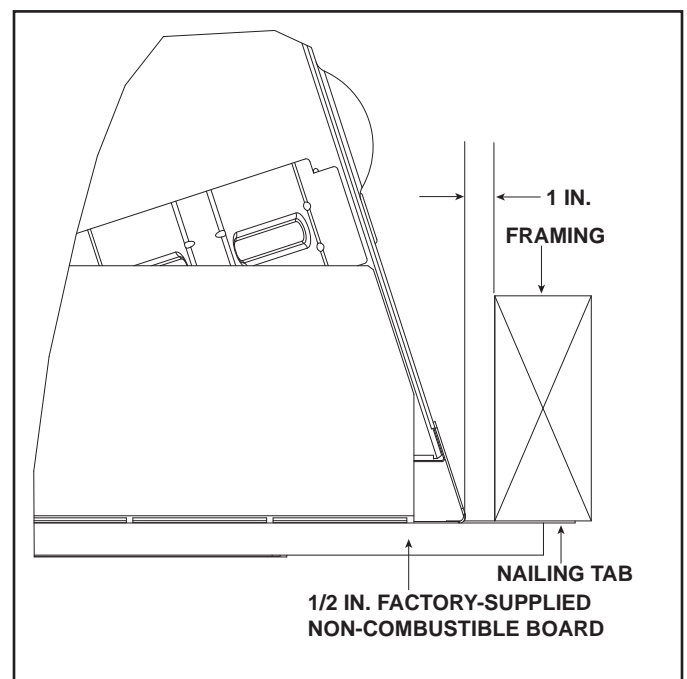
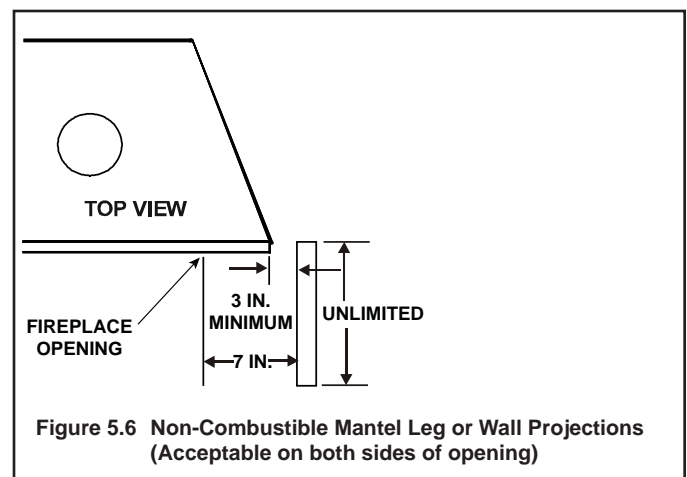


**Note:** For non-combustible fireplace finish material (marble, stone, etc) specifications refer to Section 13.C.

### Combustible Mantel Legs Or Wall Projections Extending Past The Face Of The Fireplace



### Non-combustible Mantel Legs Or Wall Projections Extending Past The Face Of The Fireplace





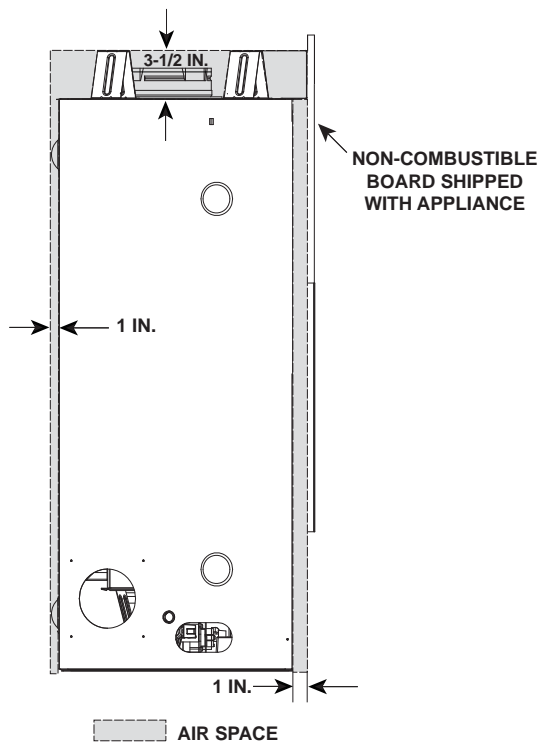


Figure 5.8 Non-Combustible Zone

# 6 Termination Locations

## A. Vent Termination Minimum Clearances



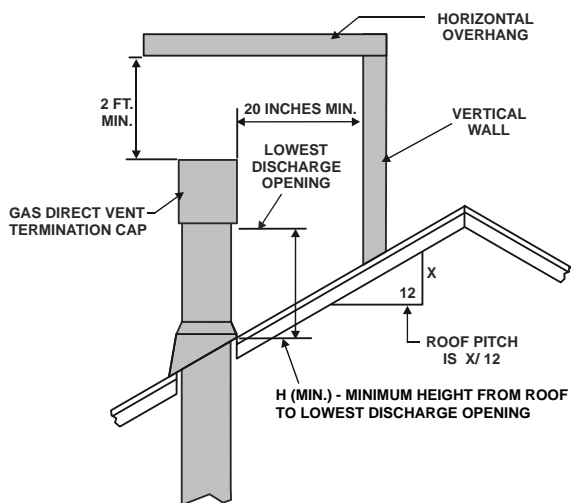
### ⚠ WARNING

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 may cause overheating and fire.

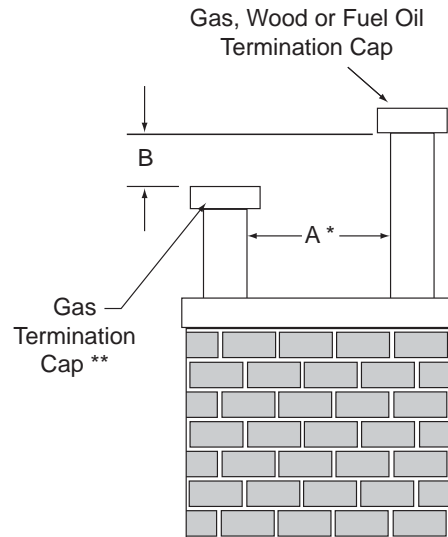


Roof Pitch	H (Min.) Ft.
Flat to 6/12.....	1.0*
Over 6/12 to 7/12.....	1.25*
Over 7/12 to 8/12.....	1.5*
Over 8/12 to 9/12.....	2.0*
Over 9/12 to 10/12.....	2.5
Over 10/12 to 11/12.....	3.25
Over 11/12 to 12/12.....	4.0
Over 12/12 to 14/12.....	5.0
Over 14/12 to 16/12.....	6.0
Over 16/12 to 18/12.....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

\* 3 foot minimum in snow regions

**Figure 6.1 Minimum Height From Roof To Lowest Discharge Opening**

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



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

\*\* In a staggered installation with both gas and wood or fuel oil terminations, the wood or fuel oil termination cap must be higher than the gas termination cap.

**Figure 6.2 Staggered Termination Caps**

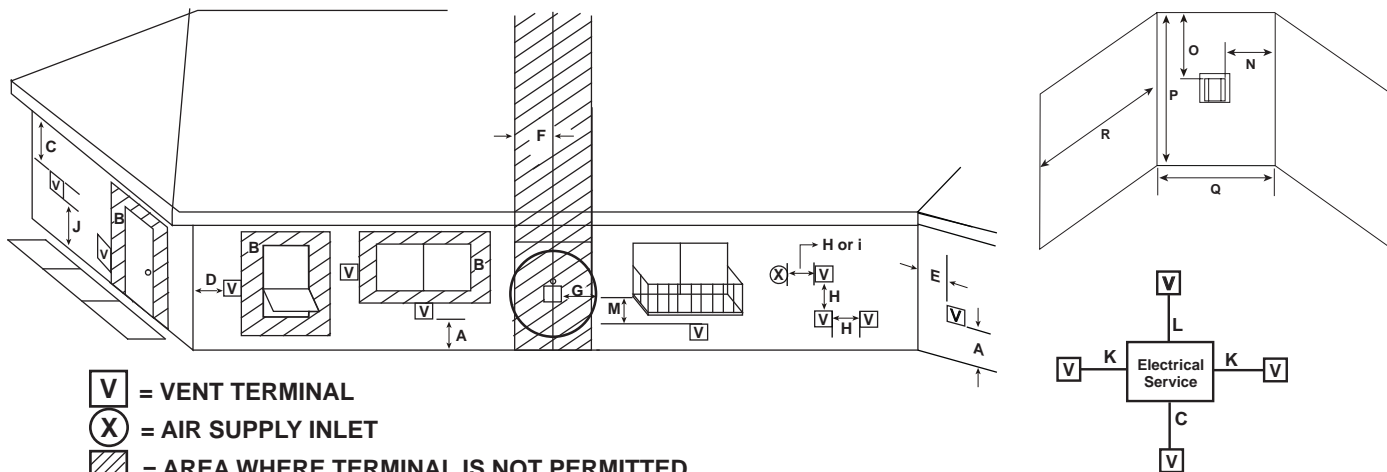
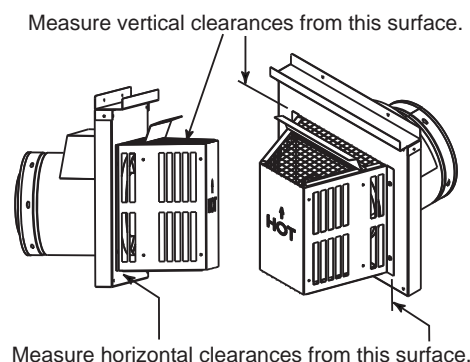


Figure 6.3 Minimum Clearances for Termination

**Covered Alcove Applications**  
 (Spaces open only on one side and with an overhang)  
 N = 6 inches ..... non-vinyl sidewalls  
 12 inches ..... vinyl sidewalls  
 O = 18 inches ..... non-vinyl soffit and overhang  
 42 inches ..... vinyl soffit and overhang  
 P = 8 ft.

	$Q_{MIN}$	$R_{MAX}$
1 cap	3 feet	$2 \times Q_{ACTUAL}$
2 caps	6 feet	$1 \times Q_{ACTUAL}$
3 caps	9 feet	$2/3 \times Q_{ACTUAL}$
4 caps	12 feet	$1/2 \times Q_{ACTUAL}$
$Q_{MIN} = \# \text{ termination caps} \times 3$ $R_{MAX} = (2 / \# \text{ termination caps}) \times Q_{ACTUAL}$		



**CAUTION! Risk of Burns!** Termination caps are **HOT**, consider proximity to doors, traffic areas or where people may pass or gather (sidewalk, deck, patio, etc.). Listed cap shields available. Contact your dealer.

- Local codes or regulations may require different clearances.
- Vent system termination is **NOT** permitted in screened porches.
- Vent system termination is permitted in porch areas with two or more sides open.
- Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.
- Vinyl protection kits are suggested for use with vinyl siding.

# 7 Vent Information and Diagrams

## A. Approved Pipe

This appliance is approved for use with Hearth & Home Technologies SLP venting systems. Refer to Section 16B for vent component information.

**DO NOT** mix pipe, fittings or joining methods from different manufacturers.

The pipe is tested to be run inside an enclosed wall. There is no requirement for inspection openings at each joint within the wall.

**WARNING! Risk of Fire or Asphyxiation.** This appliance requires a separate vent. **DO NOT** vent to a pipe serving a separate solid fuel burning appliance.

**CAUTION: The SLP-HRC-SS and SLP-HRC-ZC-SS termination caps are not approved for use with propane (LP) fuel.** May lead to elevated glass temperature that may cause tempered glass breakage.

## B. Vent Table Key

The abbreviations listed in this vent table key are used in the vent diagrams.

Symbol	Description
V <sub>1</sub>	First section (closest to appliance) of vertical length
V <sub>2</sub>	Second section of vertical length
H <sub>1</sub>	First section (closest to appliance) of horizontal length
H <sub>2</sub>	Subsequent sections of horizontal length

## C. Use of Elbows

Diagonal runs have both vertical and horizontal vent aspects when calculating the effects. Use the rise for the vertical aspect and the run for the horizontal aspect (see Figure 7.1).

Two 45° elbows may be used in place of one 90° elbow. On 45° runs, one foot of diagonal is equal to 8-1/2 in. (216 mm) horizontal run and 8-1/2 in. (216 mm) vertical run. A length of straight pipe is allowed between two 45° elbows (see Figure 7.1).

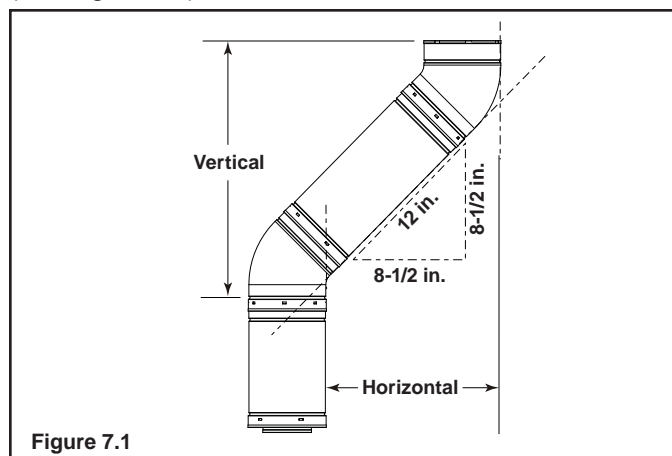


Figure 7.1

## D. Measuring Standards

Vertical and horizontal measurements listed in the vent diagrams were made using the following standards.

- Pipe measurements are shown using the effective length of pipe (see Figure 7.2).
- Measurements are made from the appliance outer wrap, not from the standoffs.
- Horizontal terminations are measured to the outside mounting surface (flange of termination cap).
- Vertical terminations are measured to bottom of termination cap.
- Horizontal pipe installed level with no rise.

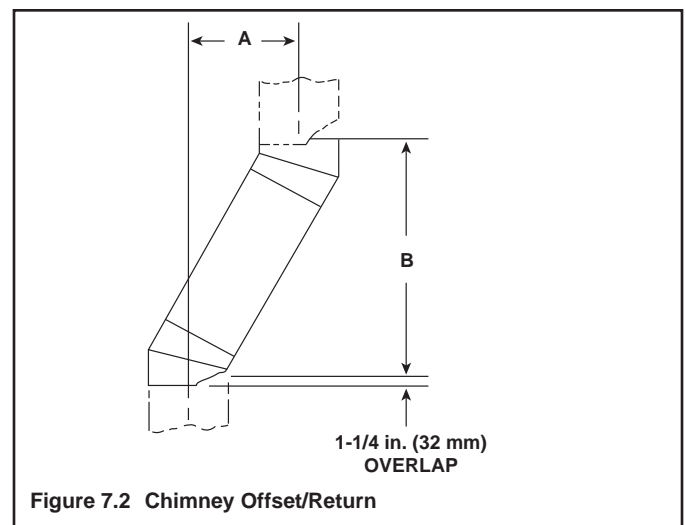


Figure 7.2 Chimney Offset/Return

	Effective Height/Length		
	Pipe	inches	mm
Effective Height/Length	SLP4	4	102
	SLP6	6	152
	SLP12	12	305
	SLP24	24	610
	SLP36	36	914
	SLP48	48	1219
	SLP6A	2 - 6	51 - 152
	SLP12A	2 - 12	51 - 305

Figure 7.3 SLP Pipe Effective Length

## E. Vent Diagrams

General Rules:

- When penetrating a combustible wall, a wall shield firestop must be installed.
- When penetrating a combustible ceiling, a ceiling firestop must be installed.
- Horizontal runs of vent do not require vertical rise; horizontal runs may be level.

## ⚠ WARNING



Fire Risk. Explosion Risk.  
Do NOT pack insulation or other combustibles between ceiling firestops.

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

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



### Top Vent - Horizontal Termination Venting with 1 elbow

V Minimum		H <sub>1</sub> Maximum	
		RAVE4013I-C	
90 Elbow		1-1/2 ft.	457mm
1 ft.	305 mm	3 ft.	914 mm
2 ft.	610 mm	5 ft.	1.5 m
3 ft.	914 mm	7 ft.	2.1 m
4 ft.	1.2 m	14 ft.	4.3 m
H MAX. = 14 ft. (4.3 m)			
V + H MAX. = 40 ft. (12.2 m)			

**Note:** Use SLP Series components only.

**Note:** There MUST be a 25% reduction in total H when using flex vent except when using the simple up and out installation (see Figure 7.3).

**CAUTION:** The SLP-HRC-SS and SLP-HRC-ZC-SS termination caps are not approved for use with propane (LP) fuel. May lead to elevated glass temperature that may cause tempered glass breakage.

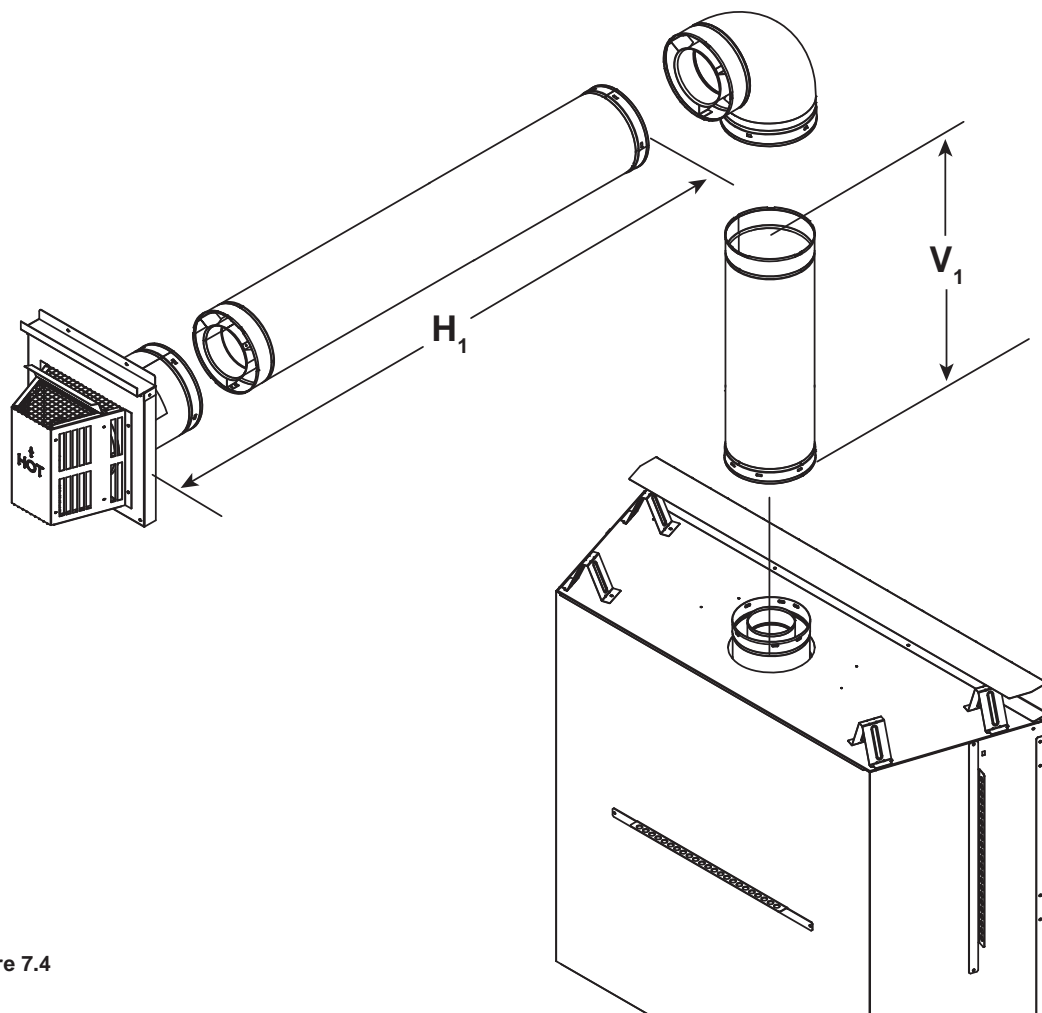


Figure 7.4

## 1. Top Vent - Horizontal Termination - (continued)

### Top Vent - Horizontal Termination Venting with 2 elbows

V Minimum		H <sub>1</sub> + H <sub>2</sub> MAXIMUM	
		RAVE4013I-C	
90° Elbow		1 ft.	305 mm
1 ft.	305 mm	2 ft.	610 mm
2 ft.	610 mm	4 ft.	1.2 m
3 ft.	914 mm	6 ft.	1.8 m
4 ft.	1.2 m	15 ft.	4.6 m
H <sub>1</sub> + H <sub>2</sub> MAX. = 15 ft. (4.6 m)			
V + H <sub>1</sub> + H <sub>2</sub> MAX. = 40 ft. (12.2 m)			

**Note:** Use SLP Series components only.

**Note:** There MUST be a 25% reduction in total H when using flex vent except when using the simple up and out installation (see Figure 7.3).

**CAUTION:** The SLP-HRC-SS and SLP-HRC-ZC-SS termination caps are not approved for use with propane (LP) fuel. May lead to elevated glass temperature that may cause tempered glass breakage.

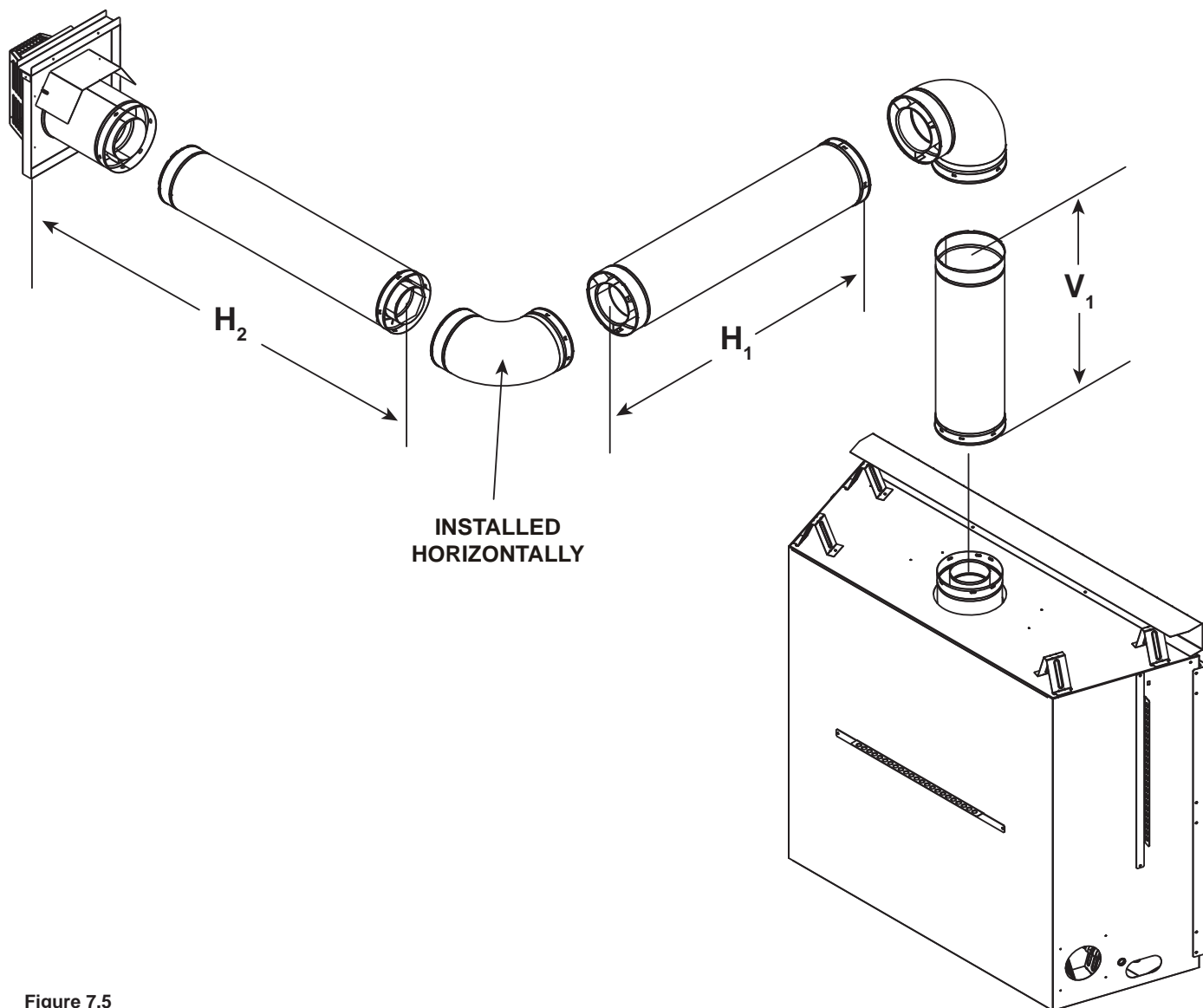


Figure 7.5



## 1. Top Vent - Horizontal Termination - (continued)

### Top Vent - Horizontal Termination Venting with 3 elbows

RAVE4013I-C					
$V_1$ Minimum		$H_1 + H_2$ Maximum		$V_2$	$V_1 + V_2$ Minimum
90° Elbow		6 ft.	1.8 m	*	*
1 ft.	305 mm	10 ft.	3.0 m	*	*
2 ft.	610 mm	12 ft.	3.7 m	*	*
3 ft.	914 mm	14 ft.	4.3 m	*	*
$H_1 + H_2 \text{ MAX.} = 14 \text{ ft. (4.3 m)}$ $V_1 + V_2 + H_1 + H_2 \text{ MAX.} = 40 \text{ ft. (12.2 m)}$ *No specific restrictions on this value EXCEPT $V_1 + V_2 + H$ cannot exceed 40 ft. (12.2 m)					

**Note:** Use SLP Series components only.

**Note:** There MUST be a 25% reduction in total H when using flex vent except when using the simple up and out installation (see Figure 7.3).

**CAUTION:** The SLP-HRC-SS and SLP-HRC-ZC-SS termination caps are not approved for use with propane (LP) fuel. May lead to elevated glass temperature that may cause tempered glass breakage.

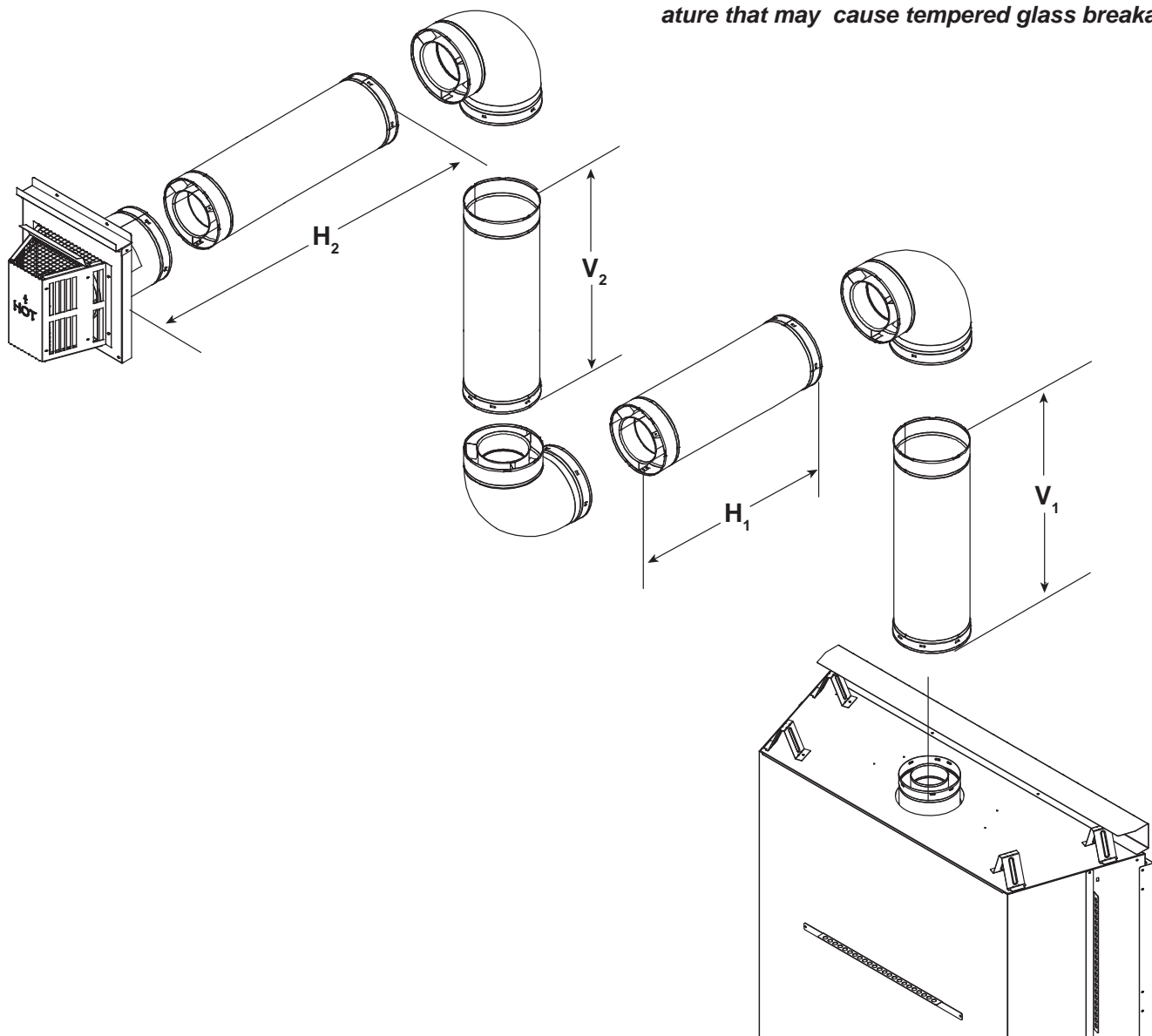


Figure 7.6

1. Top Vent - Horizontal Termination - (continued)

Top Vent - Horizontal Termination  
Venting with 3 elbows

V Minimum		H <sub>1</sub> + H <sub>2</sub> + H <sub>3</sub> MAXIMUM	
		RAVE4013I-C (NG ONLY)	
3 ft.	914 mm	15 ft.	4.6 m
H <sub>1</sub> + H <sub>2</sub> + H <sub>3</sub> MAX. = 15 ft. (4.6 m) V <sub>1</sub> MAX. = 7 ft (2.1 m)			

**Note:** Use SLP Series components only.

**Note:** There MUST be a 25% reduction in total H when using flex vent except when using the simple up and out installation (see Figure 7.3).

**CAUTION:** The SLP-HRC-SS and SLP-HRC-ZC-SS termination caps are not approved for use with propane (LP) fuel. May lead to elevated glass temperature that may cause tempered glass breakage.

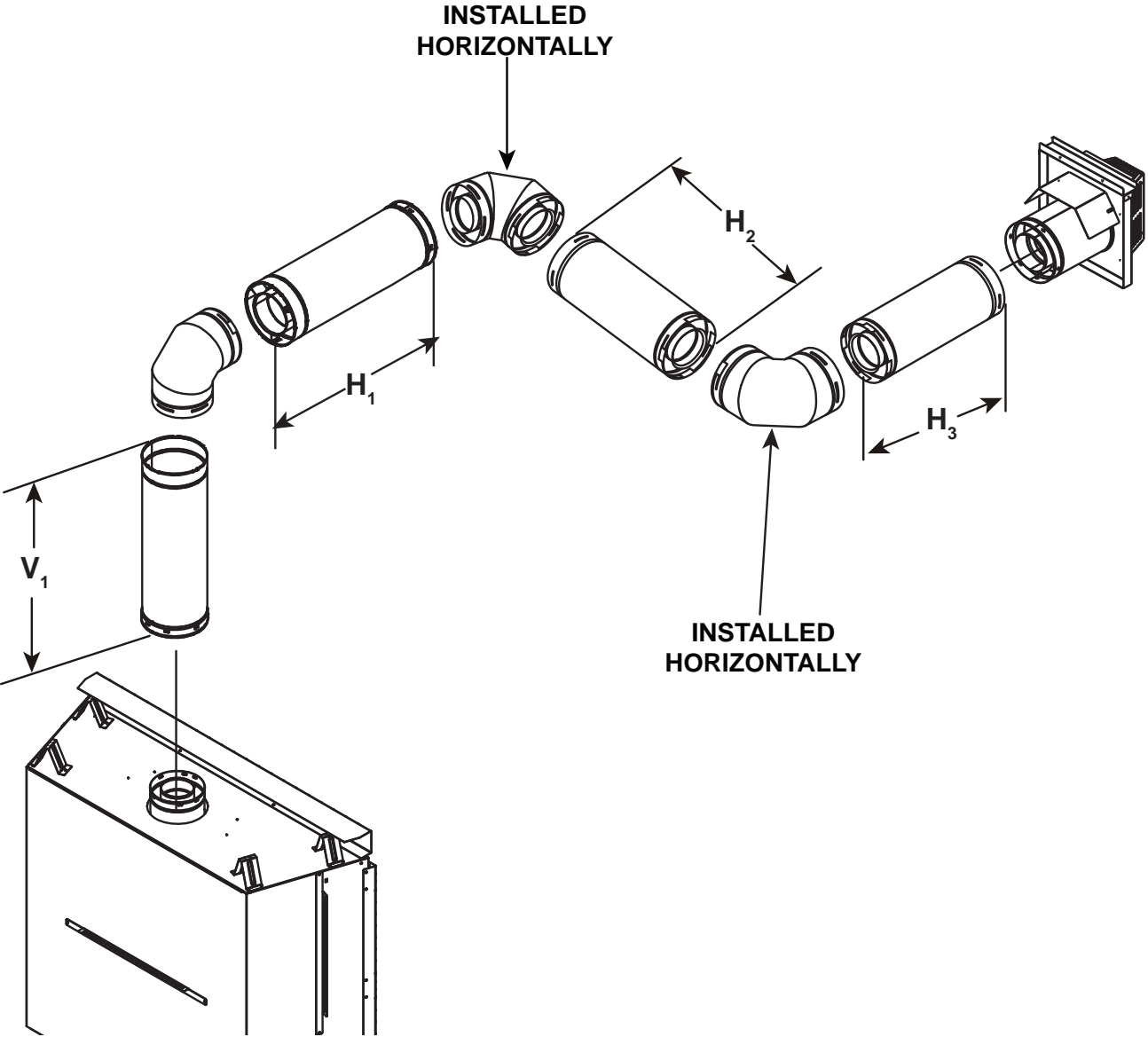
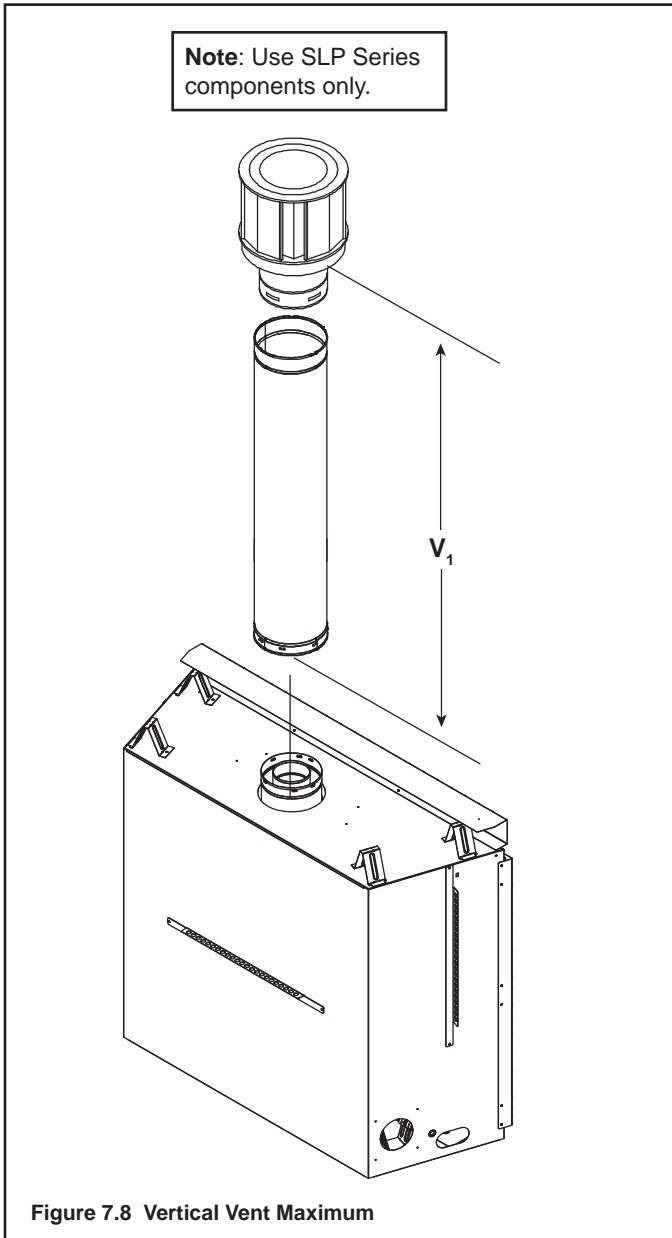


Figure 7.7

## Top Vent - Vertical Termination No Elbows

$V_1 = 44 \text{ ft. Max. (13.4 m)}$

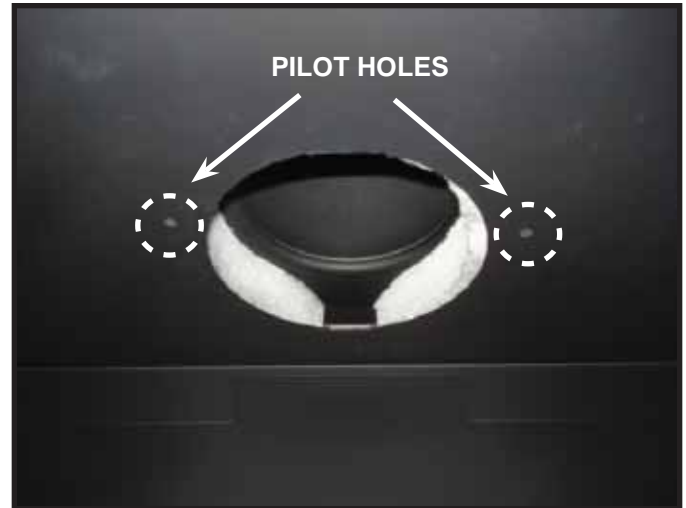
**Note:** If installing a vertical vent/termination off the top of the appliance, the optional exhaust restrictor may be needed.



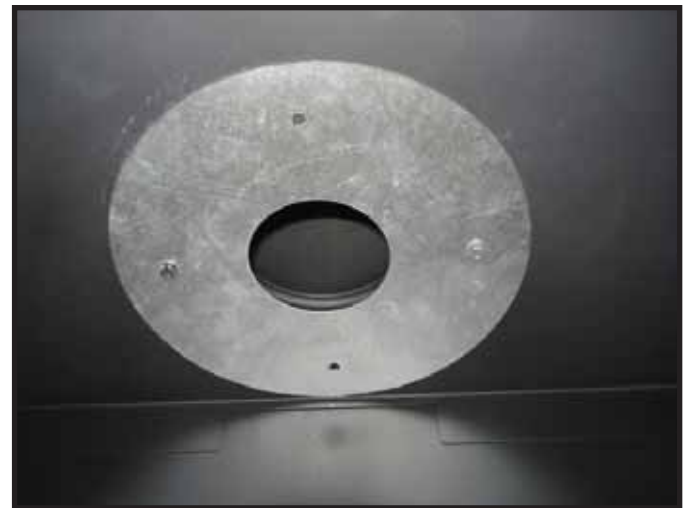
Exhaust restrictors are recommended for these vertically terminated products which have excessive draft. Exhaust restrictors will compensate for high draft, and restore visual flame height. If the vent configuration has a total vertical of 15-44 feet, an exhaust restrictor may be needed. The exhaust restrictor can be located in the appliance manual bag.

## Exhaust restrictor Instructions

1. Locate the two pilot holes located in the inside firebox heat shield as shown in Figure 7.9.
2. Center the exhaust restrictor such that the through holes in the vent restrictor align with the pilot holes in the restrictor.
3. Use (2) ½" self-piercing screws to secure vent restrictor to firebox heat shield. See Figure 7.10.



**Figure 7.9 Location of Pilot Holes**



**Figure 7.10 Exhaust Restrictor Installation**

4. In some applications, such as those where the fireplace is elevated off the floor, the vent restrictor may be painted, but painting is not required.

**Notice:** Before painting, contact your dealer for information on the appropriate high temperature paint.

## Top Vent - Vertical Termination Venting with 2 elbows

RAVE4013I-C					
$V_1$ Minimum		H Maximum		$V_2$	$V_1 + V_2$ Minimum
90° Elbow		2 ft.	610 mm	*	*
1 ft.	152 mm	3 ft.	914 mm	*	*
2 ft.	457 mm	5 ft.	1.5 m	*	*
3 ft.	914 mm	7 ft.	2.1 m	*	*
4 ft.	1.1 m	15 ft.	4.6 m	*	*
H MAX. = 15 ft. (4.6 m) $V_1 + V_2 + H$ MAX. = 40 ft. (12.2 m) * No specific restrictions on this value EXCEPT $V_1 + V_2 + H$ cannot exceed 40 ft. (12.2 m)					

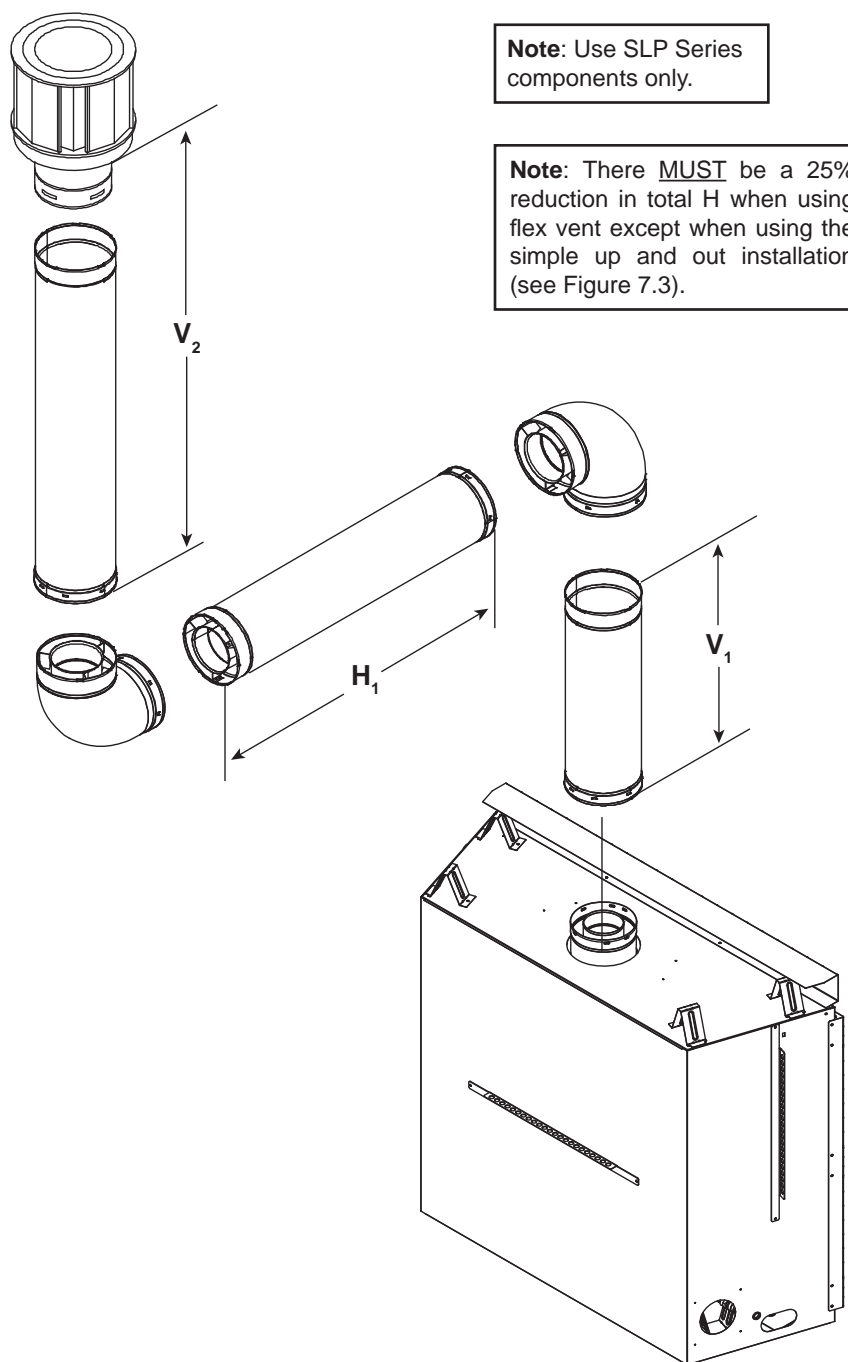


Figure 7.11

## Top Vent - Vertical Termination Venting with 3 elbows

RAVE4013I-C					
$V_1$ Minimum		$H_1 + H_2$ Maximum		$V_2$	$V_1 + V_2$ Minimum
90° Elbow		1 ft.	305 mm	*	*
1 ft.	305 mm	2 ft.	610 mm	*	*
2 ft.	610 mm	4 ft.	1.2 m	*	*
3 ft.	914 mm	6 ft.	1.8 m	*	*
4 ft.	1.2 m	14 ft.	4.3 m	*	*
H MAX. = 14 ft. (4.3 m) $V_1 + V_2 + H_1 + H_2$ MAX. = 40 ft. (12.2 m) * No specific restrictions on this value EXCEPT $V_1 + V_2 + H_1 + H_2$ cannot exceed 40 ft. (12.2 m)					

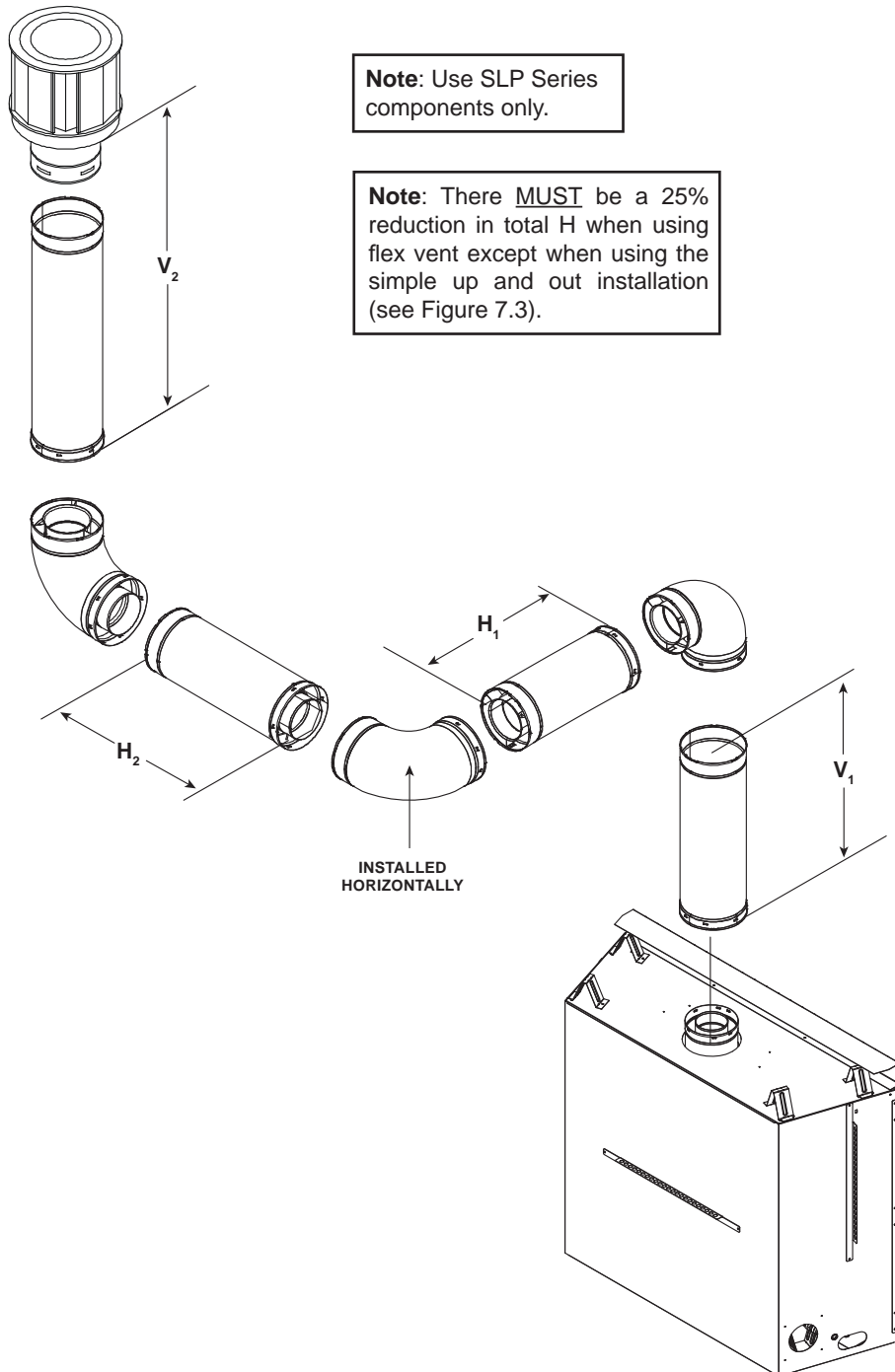


Figure 7.12

## Top Vent - Vertical Termination Venting with 4 elbows

**Note:** Use SLP Series components only.

**Note:** There MUST be a 25% reduction in total H when using flex vent except when using the simple up and out installation (see Figure 5.3).

V <sub>1</sub> MIN.		H <sub>1</sub> MAX.		V <sub>2</sub> MIN.		H <sub>2</sub> MAX.		V <sub>3</sub> MIN.	
1-1/2 ft.	457 mm	4 ft.	1.2 m	4 ft.	1.2 m	4 ft.	1.2 m	3-1/2 ft.	1.0 m
V <sub>1</sub> + V <sub>2</sub> + V <sub>3</sub> + H <sub>1</sub> + H <sub>2</sub> Maximum= 40 ft. (12.2 m)									

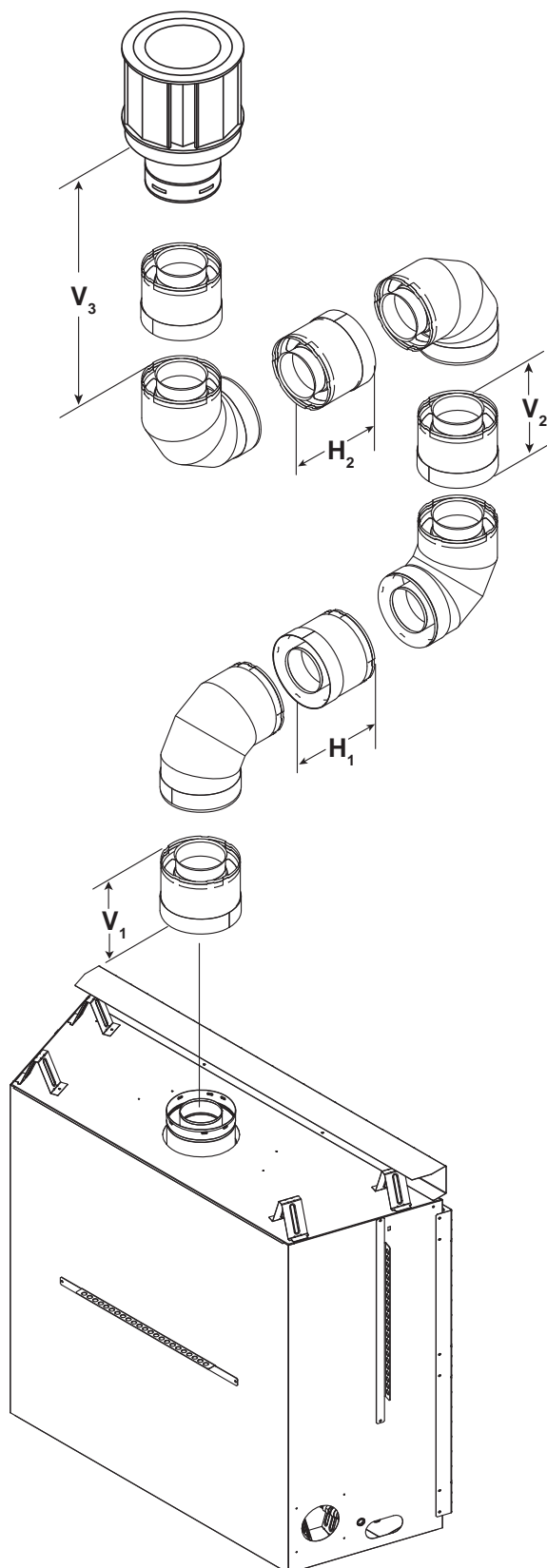


Figure 7.13



## Coaxial to Colinear Venting

The coaxial to colinear adapter (DV-46DVA-GCL) is approved for installations into solid fuel masonry or factory built fireplaces that have been installed in accordance with the National, Provincial, State and local building codes. The DV-46DVA-GCL must be recessed into existing masonry fireplace. See Table 1 and Figure 7.15.

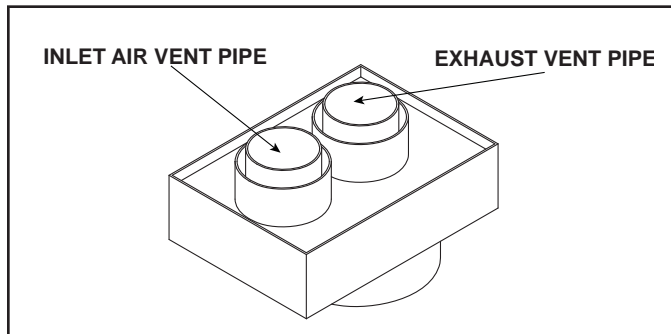


Figure 7.14 Coaxial/Colinear Appliance Adapter (DV-46DVA-GCL)

**WARNING! Risk of Fire!** Coaxial to colinear venting configuration may only be used in existing non-combustible chimney. Installation in any other venting application could cause fire.

### Prior to installing the gas appliance:

- Have the chimney and adjacent structure inspected and cleaned by qualified professionals. Hearth & Home Technologies recommends that NFI or CSIA certified professionals, or technicians under the direction of certified professionals, conduct a minimum of a NFPA 211 Level 2 inspection of the chimney.
- Replace component parts of the chimney and fireplace as specified by the professionals.
- Ensure all joints are properly engaged and the chimney is properly secured.

Table 1

CLEARANCE TO COMBUSTIBLES REQUIREMENTS	
DV-46DVA-GCL	3 IN.
Exhaust Vent Pipe	5 IN.

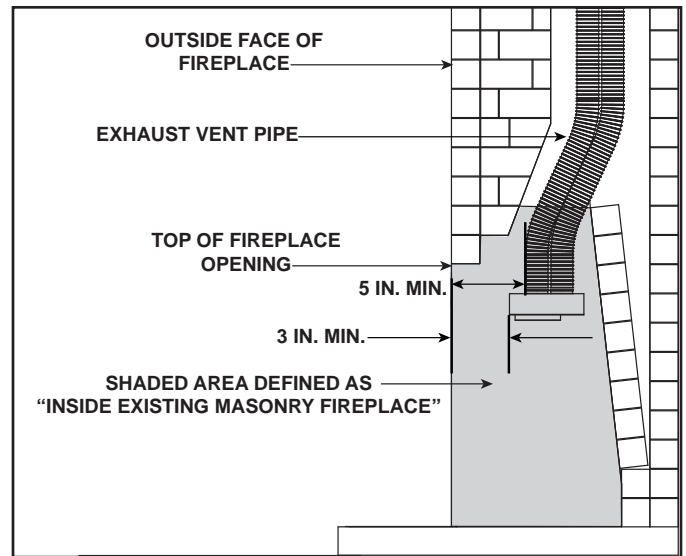


Figure 7.15 Existing Fireplace DV-46DVA-GCL Clearance Requirements

### Clearances to Combustibles:

Refer to Section 5 for clearances to the appliance, mantel, mantel legs and wall projection.

Refer to Section 8 for pipe clearances to combustibles.

### Termination Cap

For installation of termination cap see minimum vent heights for various pitched roofs. See Section 6 of appliance owner's manual.

### Flue Damper

Fully lock the solid fuel fireplace's flue damper in the open position, OR completely remove it.

### Venting Components

The LINK-DV30B is approved for use with the coaxial/colinear venting application. The LINK-DV30B kit includes:

- Two 30 feet sections of flexible vent pipe (3 inches Ø). One section is used to draw combustion air and the other section is used to expel exhaust gases.
- One vertical termination cap.

**CAUTION! DO NOT use any flue restrictor when venting with the DV-46DVA-GCL adapter and LINK-DV30B kit.** This may result in poor flame appearance, sooting, pilot malfunction, or overheating.

## Connecting the DV-46DVA-GCL Adapter to Appliance

### Top Vent

- Remove top seal cap and insulation if equipped. See Section 14, "Appliance Setup." Attach the DV-46DVA-GCL adapter to the appliance starting collar with 3-1/2 in. self-tapping screws. See Figure 7.16.

### Connecting the LINK-DV30B to the DV-46DVA-GCL adapter

- Insert the two sections of flexible vent pipe down the existing chimney.
- Attach one section of flexible vent pipe to the exhaust collar on top of the DV-46DVA-GCL adapter with three self-tapping screws.
- Attach one section of flexible vent pipe to the inlet collar on top of the DV-46DVA-GCL adapter with three self-tapping screws.

- To minimize cold air drafts, seal around the flex vents at the damper inside the chimney with non-combustible unfaced fiberglass or rock wool insulation.

The DV-46DVA-GCL adapter must be recessed into existing masonry fireplace. This measurement is taken from the top of the fireplace opening. See Table 1 and Figure 7.15.

### **WARNING! Risk of Fire, Explosion or Asphyxiation!**

*Do NOT connect this gas appliance to a chimney flue serving a separate solid fuel or gas burning appliance.*

- *May impair safe operation of this appliance or other appliances connected to the flue.*
- *Vent this appliance directly outside.*
- *Use separate vent system for this appliance.*

**CAUTION! DO NOT use any flue restrictor when venting with the DV-46DVA-GCL adapter and LINK-DV30B kit.** This may result in poor flame appearance, sooting, pilot malfunction, or overheating.

**NOTICE:** To achieve optimum performance of appliance, minimize or avoid bends in exhaust vent pipe.

V		
Minimum	10 ft.	3.05 m
Maximum	40 ft.	12.2 m

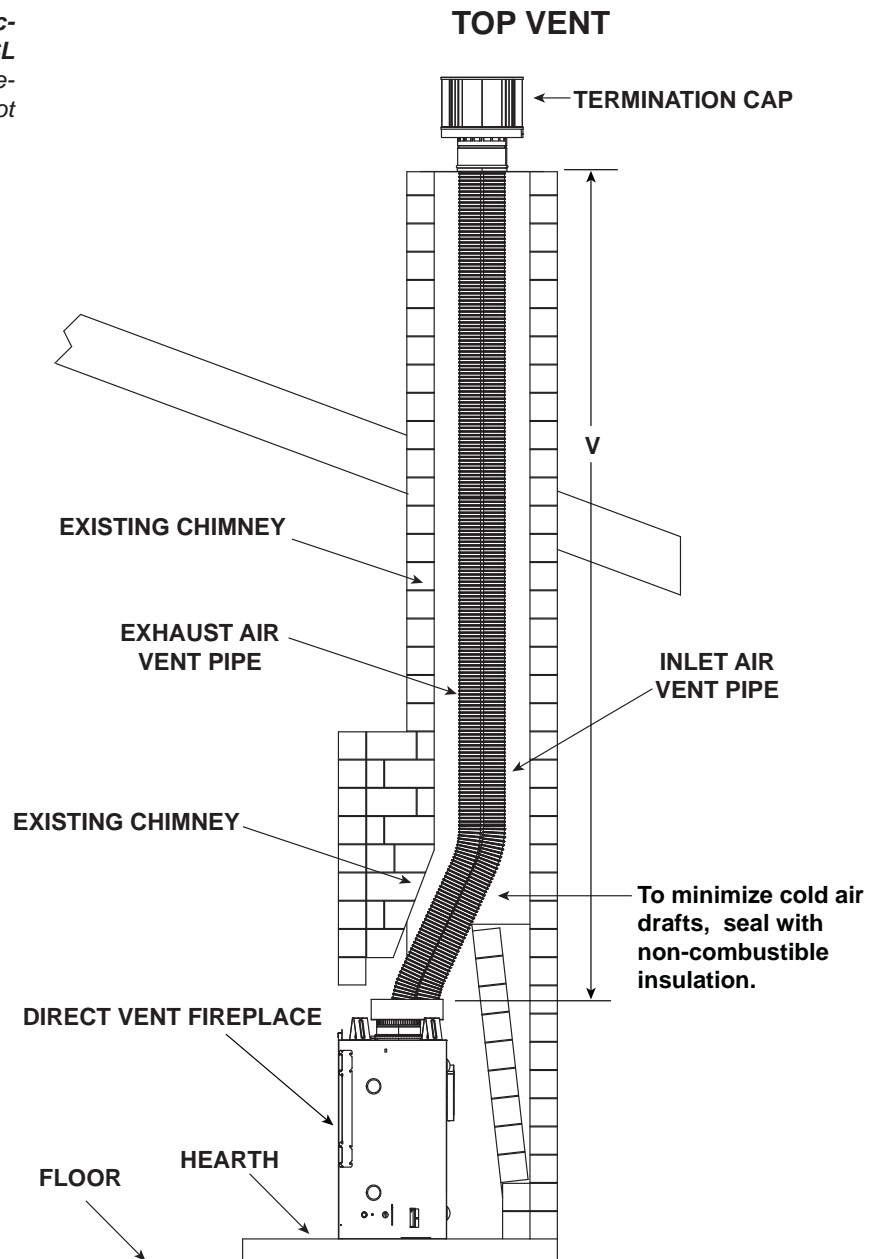


Figure 7.16

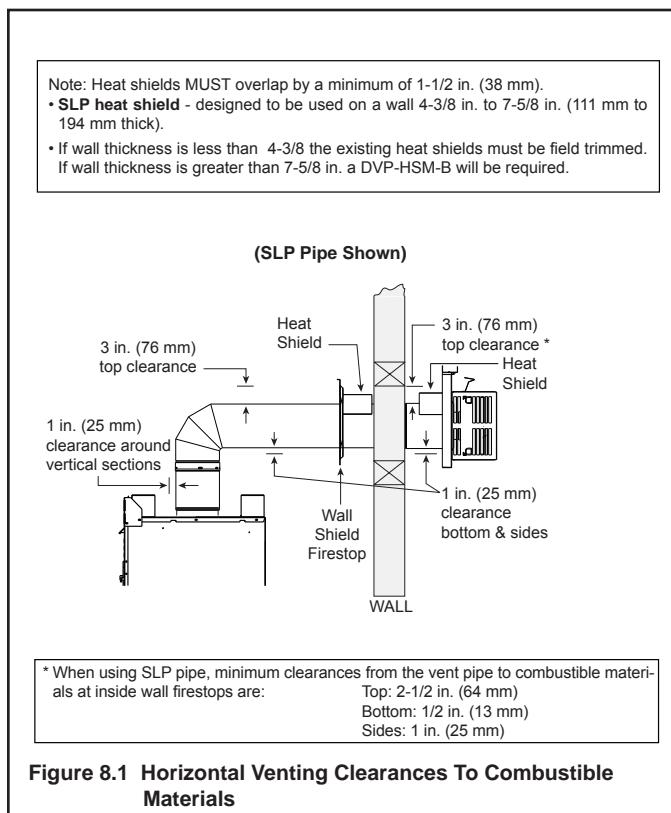
# 8 Vent Clearances and Framing

## A. 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 may cause over heating and fire.



## B. Wall Penetration Framing

### Combustible Wall Penetration

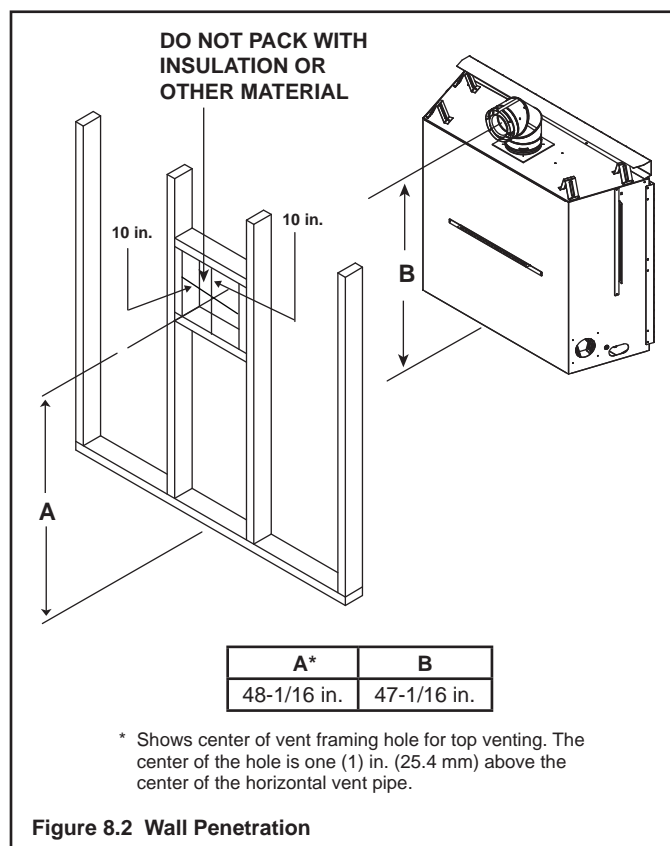
Whenever a combustible wall is penetrated, you must frame a hole for the wall shield firestop(s). The wall shield firestop maintains minimum clearances and prevents cold air infiltration.

- The opening must be framed on all four sides using the same size framing materials as those used in the wall construction.
- SLP pipe - A wall shield firestop must be placed on each side of an interior wall. A minimum 1-1/2 in. (38 mm) overlap of attached heat shields must be maintained.
- See Section 10.K for information for regarding the installation of a horizontal termination cap.

### Non-Combustible Wall Penetration

If the hole being penetrated is surrounded by noncombustible materials such as concrete, a hole with diameter one in. greater than the pipe is acceptable.

Whenever a non-combustible wall is penetrated, the wall shield firestop is only required on one side and no heat shield is necessary.

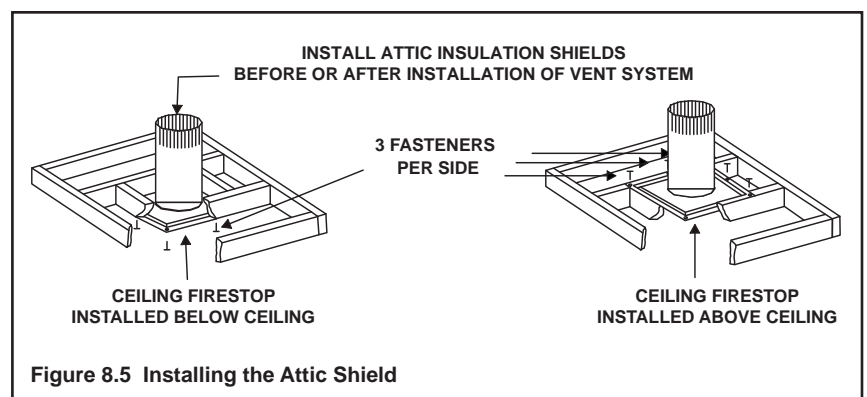
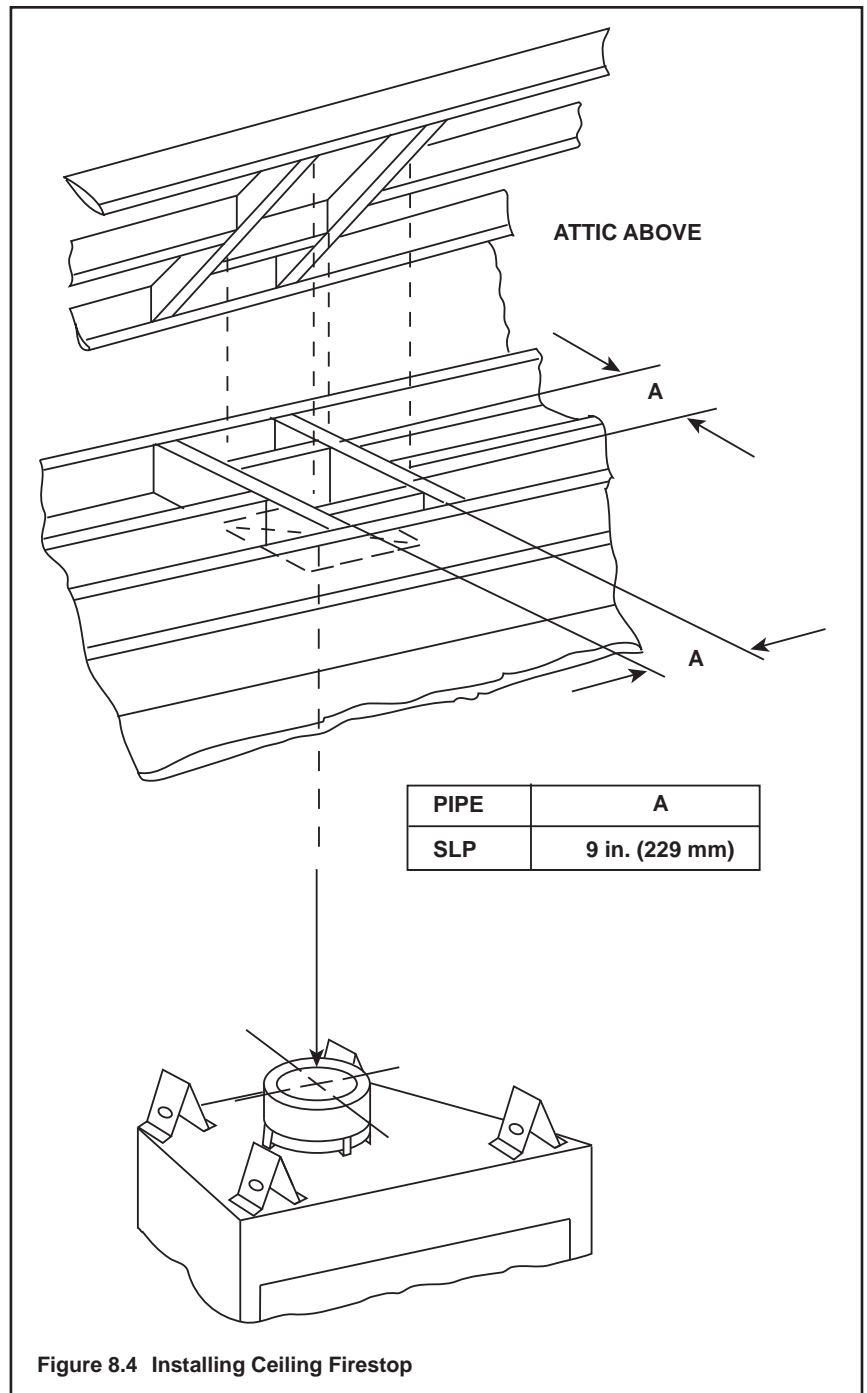


## C. Install the Ceiling Firestop

A ceiling firestop **MUST** be used between floors and attics.

- **SLP pipe only** - Frame opening 9 in. x 9 in. (229 mm x 229 mm) whenever the vent penetrates a ceiling/floor (see Figure 8.4).
- Frame the area with the same sized lumber as used in ceiling/floor joist.
- The ceiling firestop may be installed above or below the ceiling joists when installed with a attic insulation shield. It must be under joists between floors that are not insulated. Refer to Figure 8.5.
- Secure with three fasteners on each side.

**WARNING! Risk of Fire! DO NOT pack insulation around the vent. Insulation must be kept back from the pipe to prevent overheating.**



## D. Install Attic Insulation Shield

**WARNING! Fire Risk. DO NOT** allow loose materials or insulation to touch vent. Hearth & Home Technologies Inc. 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.

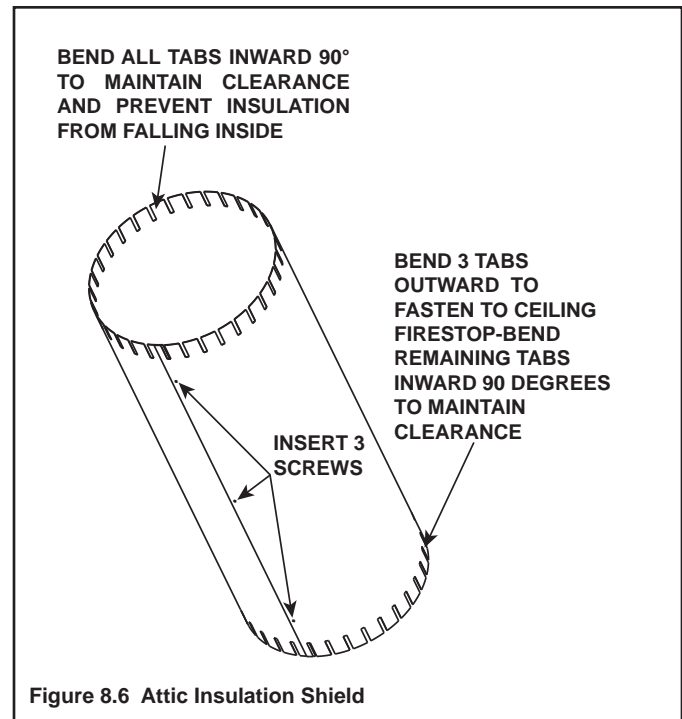
Attic shields must meet specified clearance and be secured in place.

### Flat Ceiling Installation

- Remove one shield from box.

**NOTICE:** Cut previously installed batt insulation to make room for the attic insulation shield.

- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend three tabs on the bottom of the shield outward to allow attachment to the ceiling firestop.
- Bend the remaining bottom tabs inward 90° to maintain the air space between the pipe and the shield. Set the shield on the ceiling firestop and attach to the firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blown insulation from getting between the shield and vent pipe, and to maintain air space clearance.



### Vaulted Ceiling Installation

- Remove one shield from box.

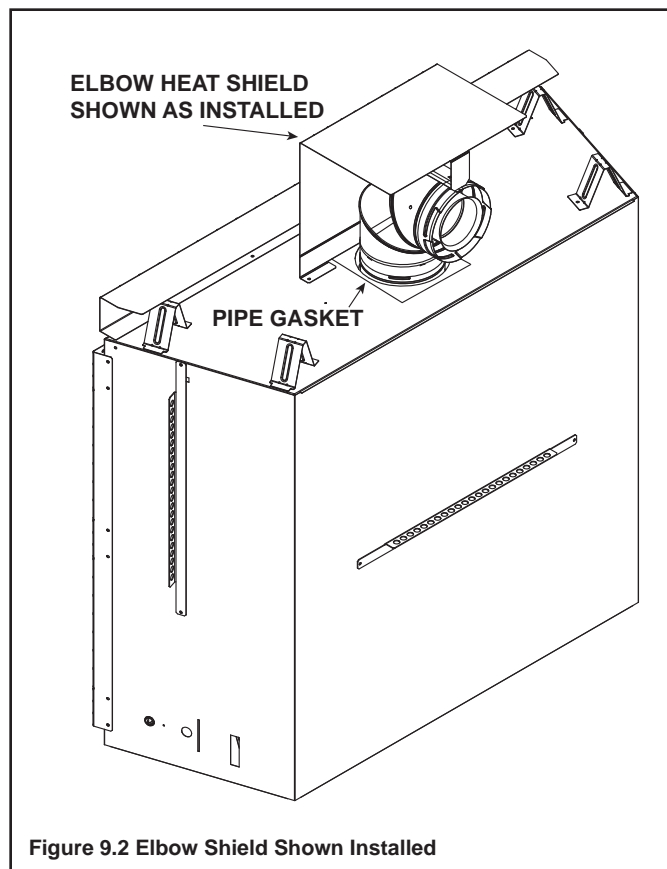
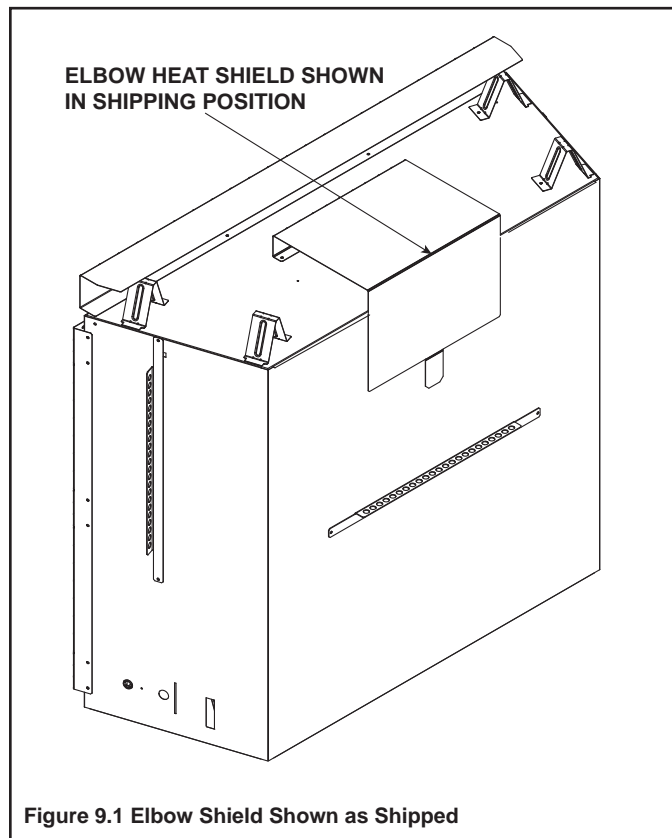
**NOTICE:** Cut previously installed batt insulation to make room for the attic insulation shield.

- Cut the attic insulation shield (if application is for vaulted ceiling) to fit your ceiling pitch. Snip cut edge to recreate 1 in. bend tabs all the way around the bottom.
- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend three tabs on the bottom of the shield outward to allow attachment to the ceiling firestop.
- Bend the remaining bottom tabs inward 90° to maintain the air space between the pipe and the shield. Set the shield on the ceiling firestop and attach to the firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blown insulation from getting between the shield and vent pipe, and to maintain air space clearance.

## 9 Appliance Preparation

### A. Top Vent

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



If venting with a 90 degree elbow directly off of the top of the appliance, the elbow heat shield must be repositioned as shown in Figure 9.2.

If venting vertically or using a straight section of vertical pipe, remove the elbow heat shield and discard by removing the two 1/4 in. screws that secure the elbow heat shield to the top of the fireplace.

For all venting applications, ensure that the pipe gasket is in place before attaching any pipe section. This gasket is shipped in place around the starting collar. See Figure 9.2.



## B. 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

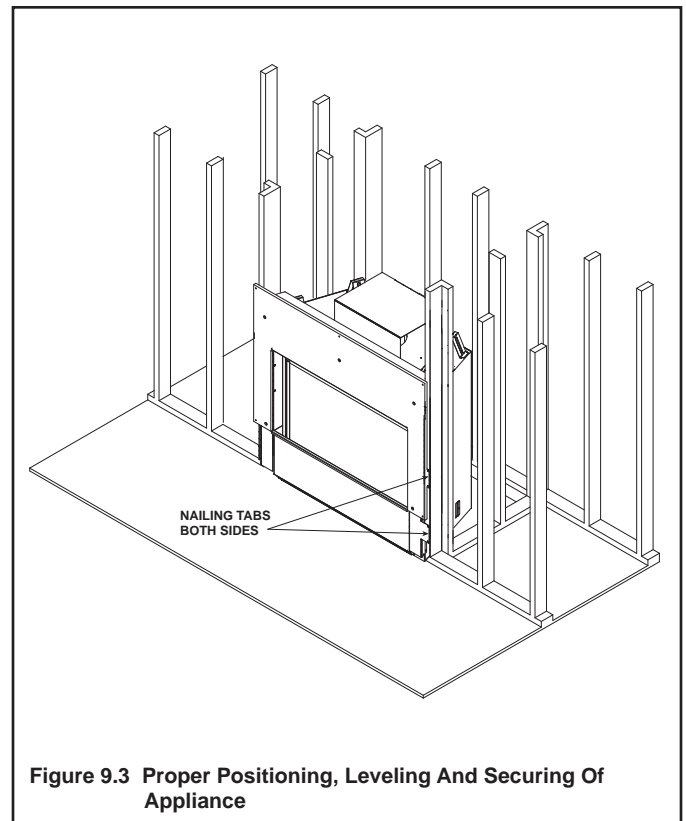
*Block openings into the chase to prevent entry of blown-in insulation. Make sure insulation and other materials are secured.*

**DO NOT** notch the framing around the appliance standoffs. Failure to maintain air space clearance may cause overheating and fire.

For details on setting the appliance in the framing, refer to section 13.A. Figure 9.3 shows how to properly position, level, and secure the appliance. Nailing tabs are provided to secure the appliance to the framing members.

- 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.
- Secure the appliance to the floor by inserting two screws through the pilot holes at the bottom of the appliance.

Figure 9.3 shows the fireplace installed on the floor. However, this fireplace can be elevated off the floor provided that the fireplace is properly supported by framing materials and the ceiling clearances are maintained.



**Figure 9.3 Proper Positioning, Leveling And Securing Of Appliance**

# 10 Installing Vent Pipe (SLP Pipe)

## A. Assemble Vent Sections

To attach the first vent component to the starting collars of the appliance:

- Lock the vent components into place by sliding the pipe section onto the collar.
- Align the seam of the pipe and seam of collar to allow engagement. Rotate the vent component to lock into place. Use this procedure for all vent components. See Figure 10.1.
- Slide the gasket over the first vent section and place it flush to the appliance. This will prevent cold air infiltration. Caulk with a minimum of 300°F continuous exposure rating may be used to hold the part in place.
- Continue adding vent components, locking each succeeding component into place.
- Ensure that each succeeding vent component is securely fitted and locked into the preceding component.

### Commercial, Multi-family (Multi-level exceeding two stories), or High-Rise Applications

For Installation into a commercial, multi-family (multi-level exceeding two stories) or high-rise applications: All outer pipe joints must be sealed with silicone with a minimum of 300°F continuous exposure rating, including the slip section that connects directly to the horizontal termination cap.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections. See Figure 10.2
- Only outer pipes need to be sealed. All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed in this manner, unless otherwise stated.

**WARNING! Risk of Fire or Explosion! DO NOT break silicone seals on slip sections. Use care when removing termination cap from slip pipe. If slip section seals are broken during removal of the termination cap, vent may leak.**

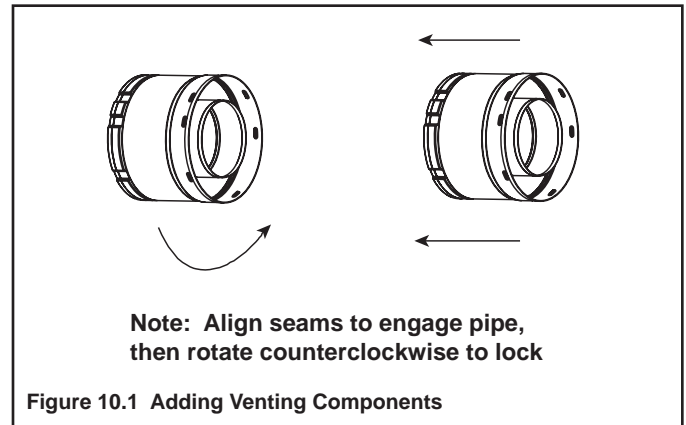


Figure 10.2 High Temperature Silicone Sealant

## B. Assemble Slip Sections

- Slide the inner flue of the slip section into the inner flue of the pipe section and the outer flue of the slip section over the outer flue of the pipe section. See Figure 10.3.
- Slide together to the desired length.

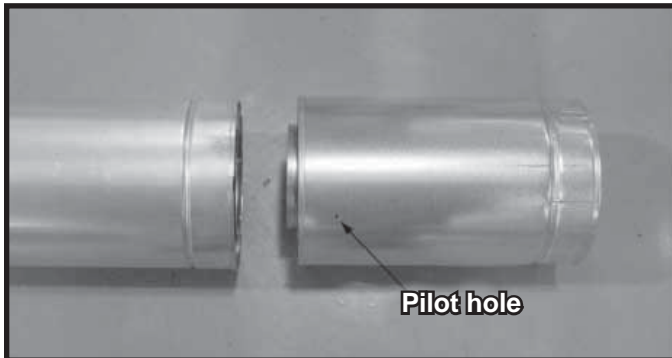


Figure 10.3 Slip Section Pilot Holes

- Maintain a 1-1/2 in. (38 mm) overlap between the slip section and the pipe section.
- Secure the pipe and slip section with two screws no longer than 1/2 in. (13 mm), using the pilot holes in the slip section. See Figure 10.4.

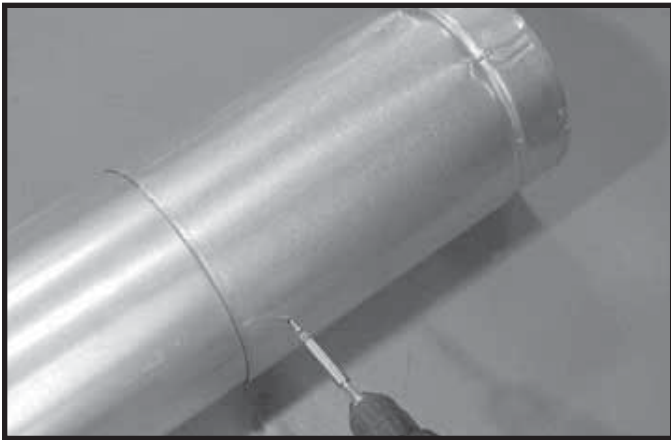


Figure 10.4 Screws into Slip Section

- Continue adding pipe as necessary following instructions in "Assembling Pipe Sections."

**NOTICE:** If slip section is too long, the inner and outer flues of the slip section can be cut to the desired length.

**NOTICE:** When installing a vent system with an HRC termination cap, all pipe system joints shall be sealed using a silicone sealant with a minimum of 300°F continuous exposure rating.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections.
- Only outer pipes are sealed, sealing the inner flue is not required.
- All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed.

## C. Secure The Vent Sections

- Vertical runs of pipe must be supported every 8 ft. (2.44 m).
- Horizontal sections must be supported every 5 feet (1.52 m).
- Vent supports or plumbers strap (spaced 120° apart) may be used to support. See figures 10.5 and 10.6.
- Wall shield firestops may be used to provide horizontal support.
- Ceiling firestops have tabs that may be used to provide vertical support.

**WARNING! Risk of Fire, Explosion or Asphyxiation!** Improper support may allow vent to sag and separate. Use vent run supports and connect vent sections per installation instructions. **DO NOT** allow vent to sag below connection point to appliance.

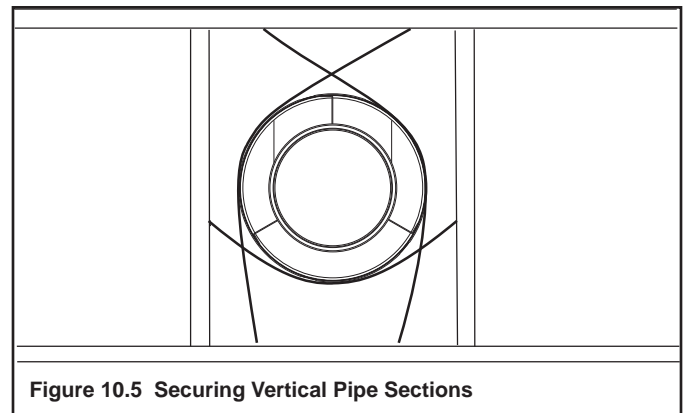


Figure 10.5 Securing Vertical Pipe Sections

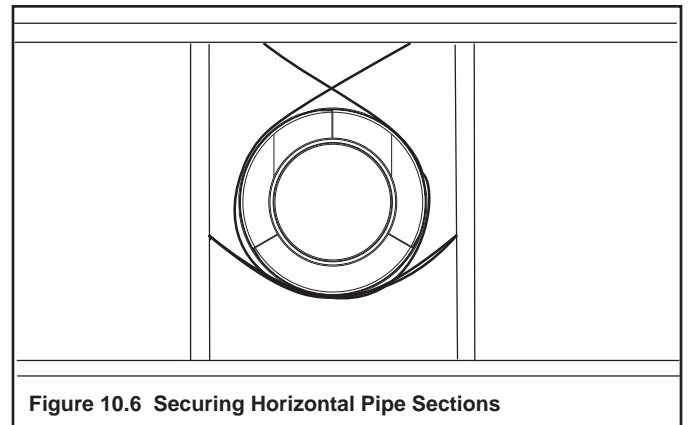


Figure 10.6 Securing Horizontal Pipe Sections

## D. Disassemble Vent Sections

- Rotate either section (see Figure 10.7) so the seams on both pipe sections are aligned as shown in Figure 10.8.
- Pull carefully to separate the pieces of pipe.

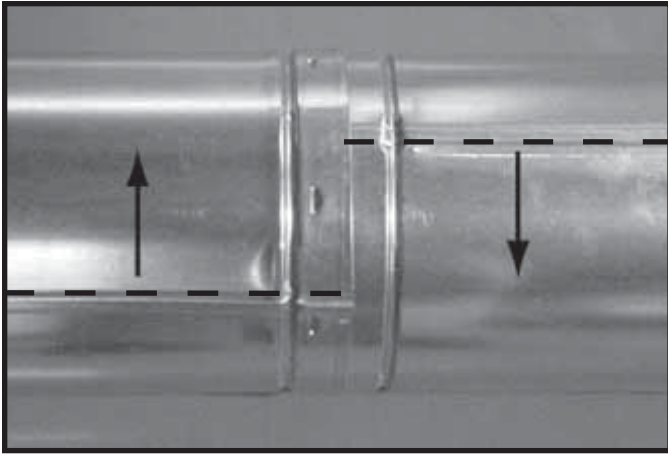


Figure 10.7 Rotate Seams for Disassembly

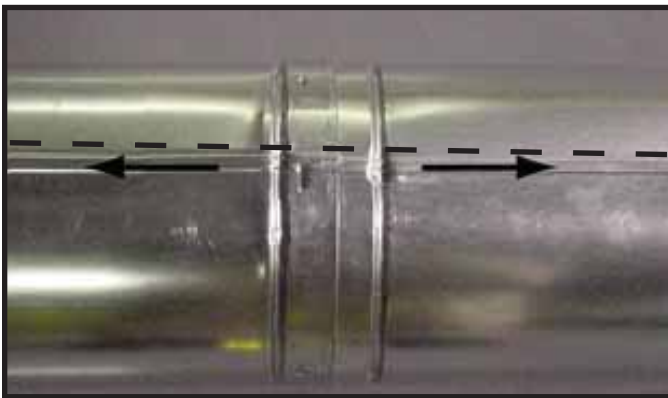


Figure 10.8 Align and Disassemble Vent Sections

- Lower the support box through the hole in the roof until its bottom is at least 2 in. (51 mm) below the ceiling (Figure 10.9).
- Level the support box both vertically and horizontally and temporarily tack it in place through the inside walls into the roof sheathing.
- Use tin snips to cut the support box from the top corners down to the roof line and fold the resulting flaps to the roof. See Figure 10.10.
- Nail the flaps to the roof AFTER running a bead of non hardening sealant between the flaps and the roof.

**WARNING! Risk of Fire!** Clean out ALL materials from inside the support box and complete the vertical vent run and termination.

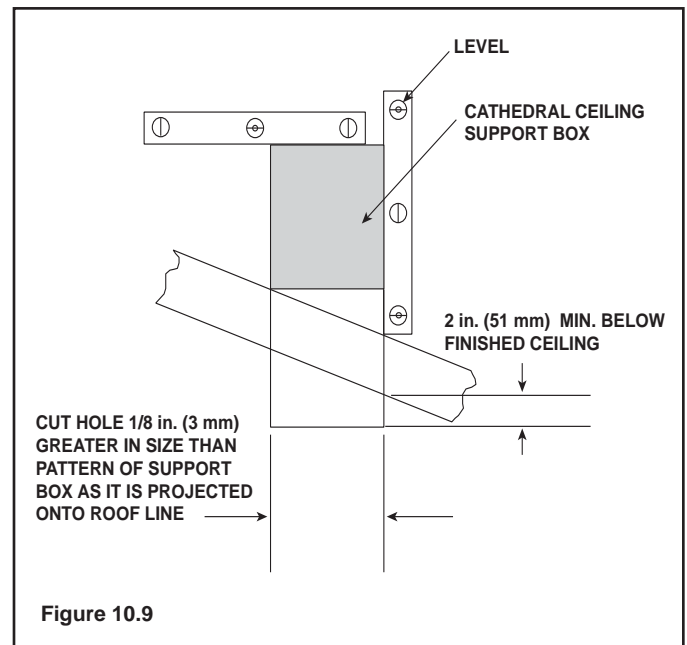


Figure 10.9

## E. Install Decorative Ceiling Components

A decorative ceiling thimble can be installed on a flat ceiling through which the vent passes. The decorative ceiling thimble is used to cover the firestop.

- Seal the gap between the vent pipe and firestop using silicone sealant with a minimum of 300°F continuous exposure rating to prevent cold air infiltration.
- Install the decorative ceiling thimble by sliding it up to the ceiling and attaching it using the provided screws.

A decorative cathedral ceiling support box can be installed on a cathedral ceiling through which the vent passes.

- Use a plumb-bob to mark the center line of the venting system on the ceiling and drill a small hole through the ceiling and roof at this point. Locate the hole and mark the outline of the cathedral ceiling support box on the outside roof.
- Remove shingles or other roof covering as necessary to cut the rectangular hole for the support box. Cut the hole 1/8 in. (3 mm) larger than the support box outline.

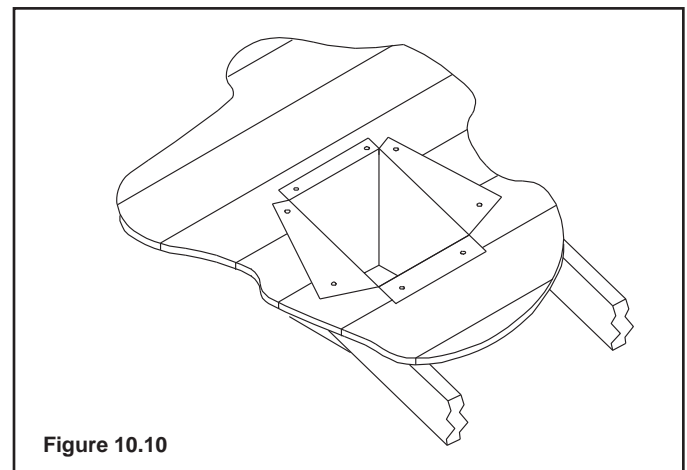
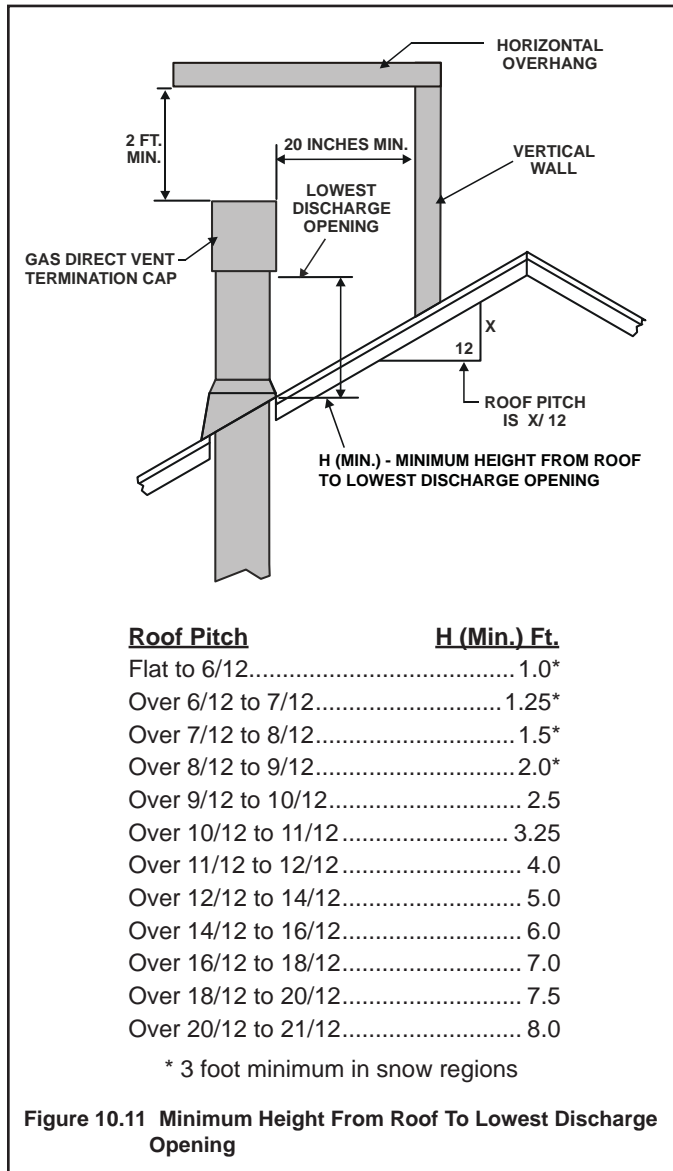


Figure 10.10

## F. Install Metal Roof Flashing

- See minimum vent heights for various pitched roofs (Figure 10.11) to determine the length of pipe to extend through the roof.
- Slide the roof flashing over the pipe sections extending through the roof as shown in Figure 10.12.



**NOTICE:** Failure to properly caulk the roof flashing and pipe seams may permit entry of water.

- Caulk the gap between the roof flashing and the outside diameter of the pipe.
- Caulk the perimeter of the flashing where it contacts the roof surface. See Figure 10.12.
- Caulk the overlap seam of any exposed pipe sections that are located above the roof line.

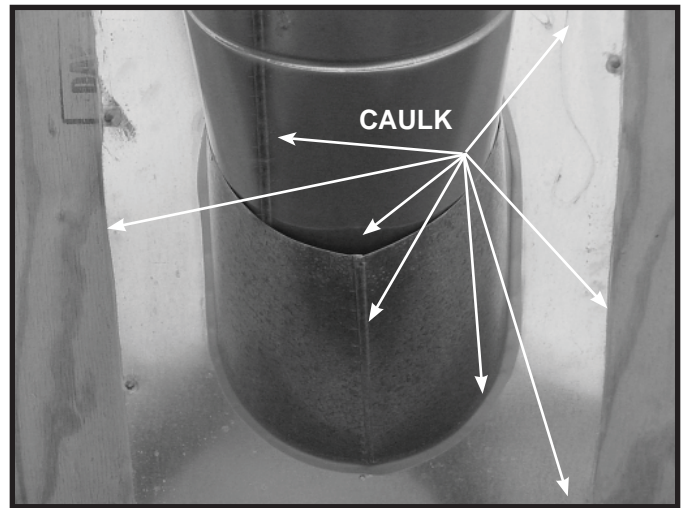


Figure 10.12

## G. Assemble and Install Storm Collar

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

- Connect both halves of the storm collar with two screws (see Figure 10.13).
- Wrap the storm collar around the exposed pipe section closest to the roof and align brackets. Insert a bolt (provided) through the brackets and tighten the nut to complete the storm collar assembly. Make sure the collar is tight against the pipe section.
- Slide the assembled storm collar down the pipe section until it rests on the roof flashing (see Figure 10.14).
- Caulk around the top of the storm collar (see Figure 10.15).

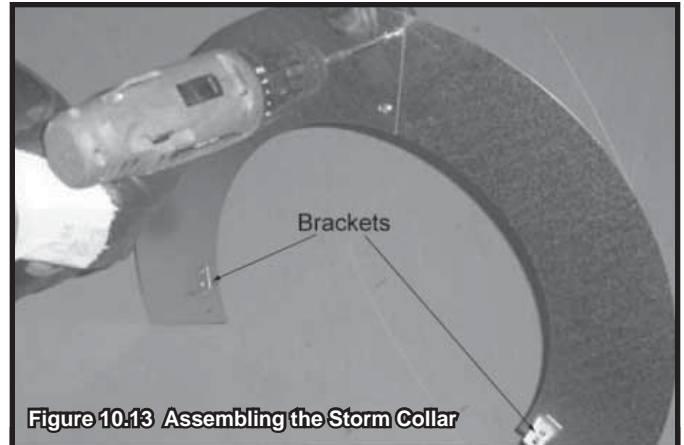


Figure 10.13 Assembling the Storm Collar



Figure 10.14 Assembling the Storm Collar Around the Pipe



## H. Install Vertical Termination Cap

- Attach the vertical termination cap by sliding the inner collar of the cap into the inner flue of the pipe section while placing the outer collar of the cap over the outer flue of the pipe section.
- Secure the cap by driving three self-tapping screws (supplied) through the pilot holes in the outer collar of the cap into the outer flue of the pipe (see Figure 10.15).



Figure 10.15

## I. Install Decorative Wall Components

A decorative wall thimble can be installed on wall through which the vent passes. The decorative wall thimble is used to cover the firestop.

- Slide the decorative wall thimble over the last section of horizontal pipe before connecting the termination cap to the pipe.
- Once the pipe section and the termination cap have been connected, slide the wall thimble up to the interior wall surface and attach with screws provided. See Figure 10.16.

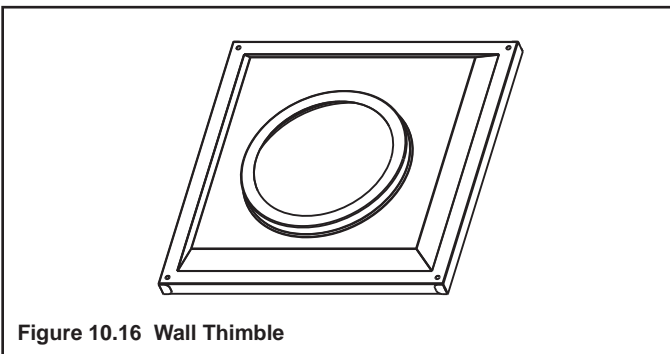


Figure 10.16 Wall Thimble

## J. Heat Shield Requirements for Horizontal Termination

**WARNING! Risk of Fire!** To prevent overheating and fire, heat shields must extend through the entire wall thickness.

- **DO NOT** remove the heat shields attached to the wall shield firestop and the horizontal termination cap (shown in Figure 10.17).
- Heat shields must overlap 1-1/2 in. (38 mm) minimum.

There are two sections of the heat shield. One section is factory-attached to the wall shield firestop. The other section is factory-attached to the cap. See Figure 10.17.

If the wall thickness does not allow the required 1-1/2 in. (38 mm) heat shield overlap when installed, an extended heat shield must be used.

- If the wall thickness is less than 4 in./102 mm (DVP) or 4-3/8 in./ 111 mm (SLP), the heat shields on the cap and wall shield firestop must be trimmed. A minimum 1-1/2 in. (38 mm) overlap **MUST** be maintained.
- Use an extended heat shield if the finished wall thickness is greater than 7-1/4 in. (184 mm).
- The extended heat shield may need to be cut to length maintaining sufficient length for a 1-1/2 in. (38 mm) overlap between heat shields.
- Attach the extended heat shield to either of the existing heat shields using the screws supplied with the extended heat shield. Refer to vent components diagrams in the back of this manual.
- Rest the small leg on the extended heat shield on top of the pipe section to properly space it from the pipe section.

**Important Notice:** Heat shields may not be field constructed.



## K. Install Horizontal Termination Cap

**WARNING! Risk of Fire!** The telescoping flue section of the termination cap **MUST** be used when connecting vent.

- 1-1/2 (38 mm) minimum overlap of flue telescoping section is required.

Failure to maintain overlap may cause overheating and fire.

- Vent termination must not be recessed in the wall. Siding may be brought to the edge of the cap base.
- Flash and seal as appropriate for siding material at outside edges of cap.
- When installing a horizontal termination cap, follow the cap location guidelines as prescribed by current **ANSI Z223.1** and **CAN/CGA-B149** installation codes and refer to Section 6 of this manual.

**CAUTION! Risk of Burns!** Local codes may require installation of a cap shield to prevent anything or anyone from touching the hot cap.

**NOTICE:** For certain exposures which require superior resistance to wind-driven rain penetration, a flashing kit and HRC caps are available. When penetrating a brick wall, a brick extension kit is available for framing the brick.

**Note:** When using termination caps with factory-supplied heat shield attached, no additional wall shield firestop is required on the exterior side of a combustible wall.

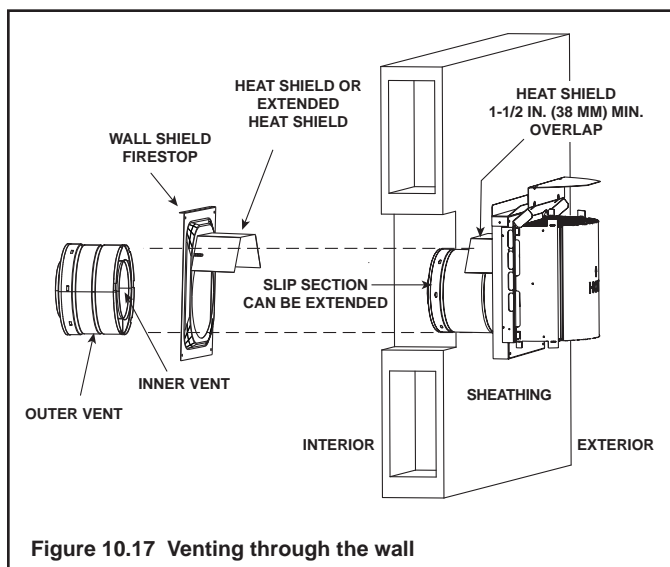


Figure 10.17 Venting through the wall

# 11 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

- 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.

**WARNING! Risk of Fire or Explosion! High pressure will damage valve. Low pressure may cause explosion.**

- 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.

### ⚠ WARNING



- Fire Risk.  
Explosion Hazard.  
High pressure will damage valve.
- Disconnect 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.

**Note:** This appliance does include a manual gas shutoff valve that is located in the valve compartment. This manual gas shutoff valve is accessible for service by removing the base pan, burner assembly and valve plate. See Figure 11.1.

The lower access cover panel is removable if finishing material has not been previously installed.

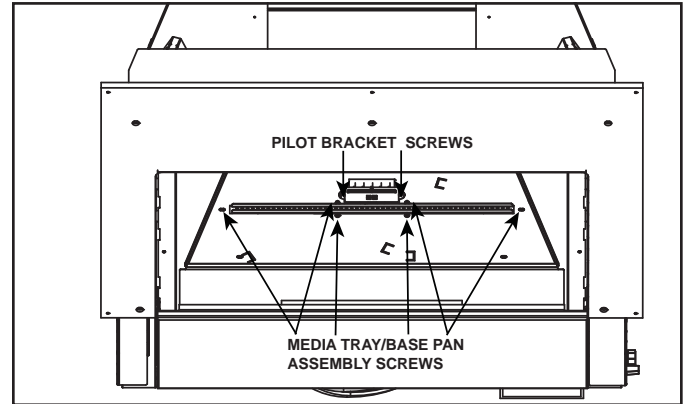


Figure 11.1 Cover Tray Removal

## Access Through the Valve Assembly

The lower access cover panel is removable if finishing material has not been previously installed.

Remove Media Tray, Burner Assembly, and Base pan.

To access components:

1. Remove eleven screws around perimeter of valve plate that secure valve plate to the firebox bottom. See Figure 11.2.
2. Lift the valve plate from the back so that the gas valve can clear the valve plate hole in the bottom the firebox. See Figure 11.3.



Figure 11.2. Remove Valve Plate Screws



Figure 11.3. Remove Valve Plate

3. Set the valve bracket on the front lip of the firebox bottom. Turn "off" the ball valve. Disconnect gas valve from the gas flex ball valve assembly at the pressure fitting. See Figure 11.4.

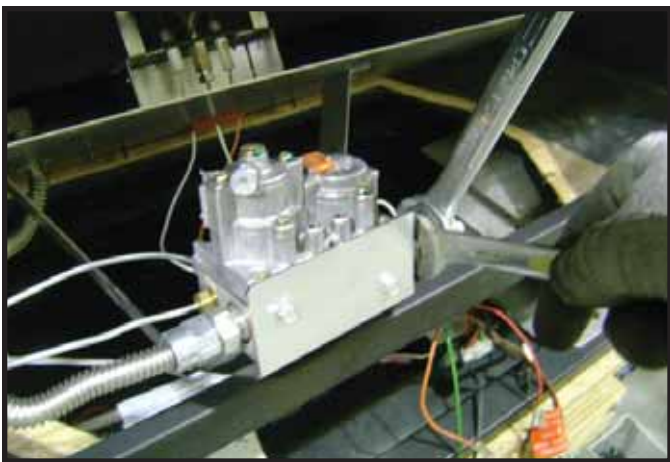


Figure 11.4. Disconnect Gas Valve

4. Lift the valve assembly up and out to make necessary service or repair.

**Note:** Install the gas supply line in accordance with local codes, if any. If not, follow ANSI 223.1. 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.

### Valve Pressure Taps

The pressure taps are available through the front of the appliance. The decorative mesh front and fireplace gas assembly must be removed to gain access to the pressure taps. See Figure 11.5.

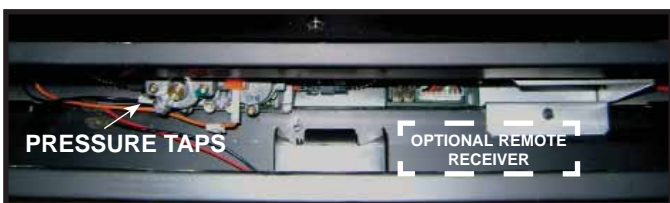


Figure 11.5 Valve Pressure Taps and Remote Receiver Location

**Note:** The manifold and inlet pressure tabs can be accessed from the front of the fireplace when valve assembly is installed.

## C. Gas Connection

- Refer to Section 16 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 caulked with caulk 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) connection on manual shutoff valve.

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

- A small amount of air will be in the gas supply lines.

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

- Purge should be performed by qualified service technician.
- 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.

**WARNING! Risk of Fire! DO NOT** change valve settings. This valve has been preset at the factory.

## 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 burner orifice 4% for each 1000 feet above 2000 feet.
- In CANADA: Reduce burner orifice 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

# 12 Electrical Information

## A. Wiring Requirements

**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 110-120 VAC. This is required for use of optional accessories (standing pilot ignition) or 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 VAC voltage cannot be shared within the same wall box.

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

## B. IntelliFire Ignition System Wiring

- Wire the appliance junction box to 110 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 12.2, 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.

## C. Optional Accessories Requirements

- This appliance may be used with a wall switch, wall mounted thermostat and/or a remote control.

**NOTE:** Install optional remote receiver adjacent to battery pack. See Figure 11.5.

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

### Optional Remote Control Receiver and Battery Pack Location

Batteries are to be installed only when battery power is required. Because of the limited accessibility to valve cavity, the position of the battery pack, IPI control module, and optional remote control receiver locations must be installed as shown in Figure 12.1.

The battery pack, control module, and remote control receiver can be accessed through the air space between the firebox front and the lower-front finishing cover panel. The decorative front and glass assembly must be removed to access these components.

The battery pack is attached with velcro to the inside of the lower cover panel. The IPI control module and the remote control receiver are placed on the firebox bottom.

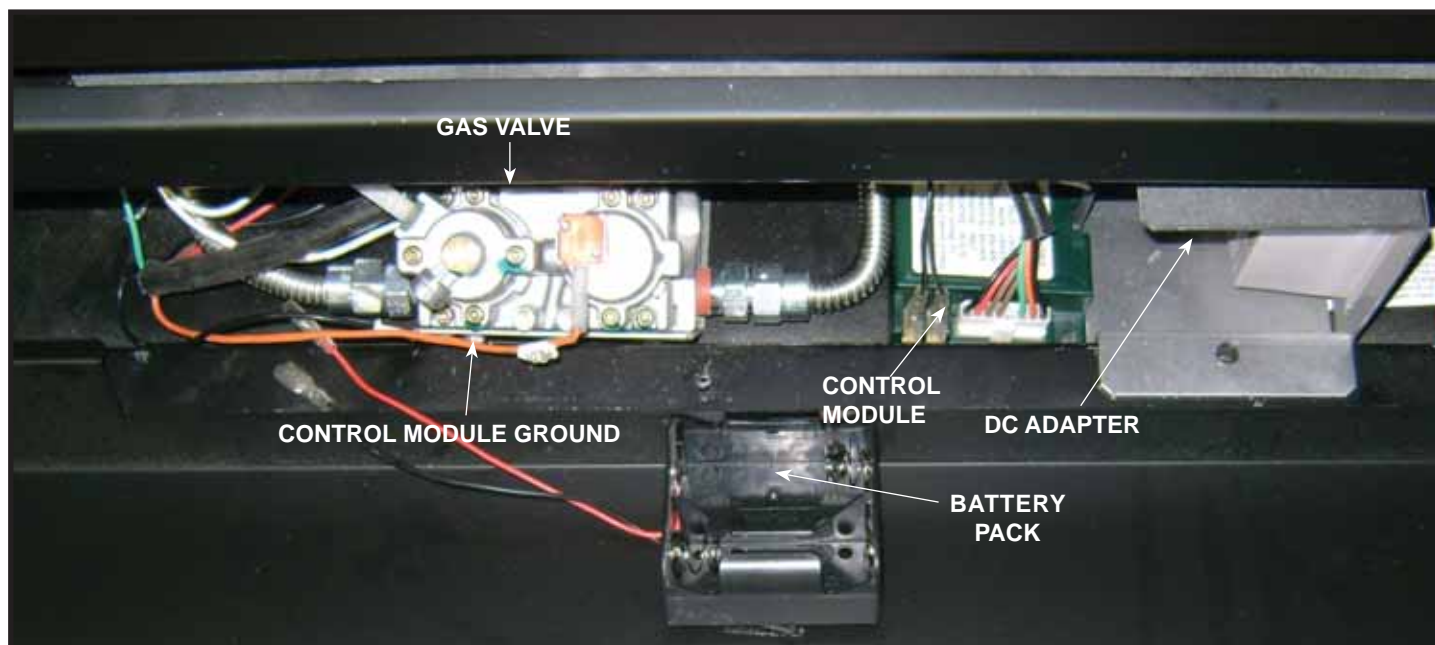
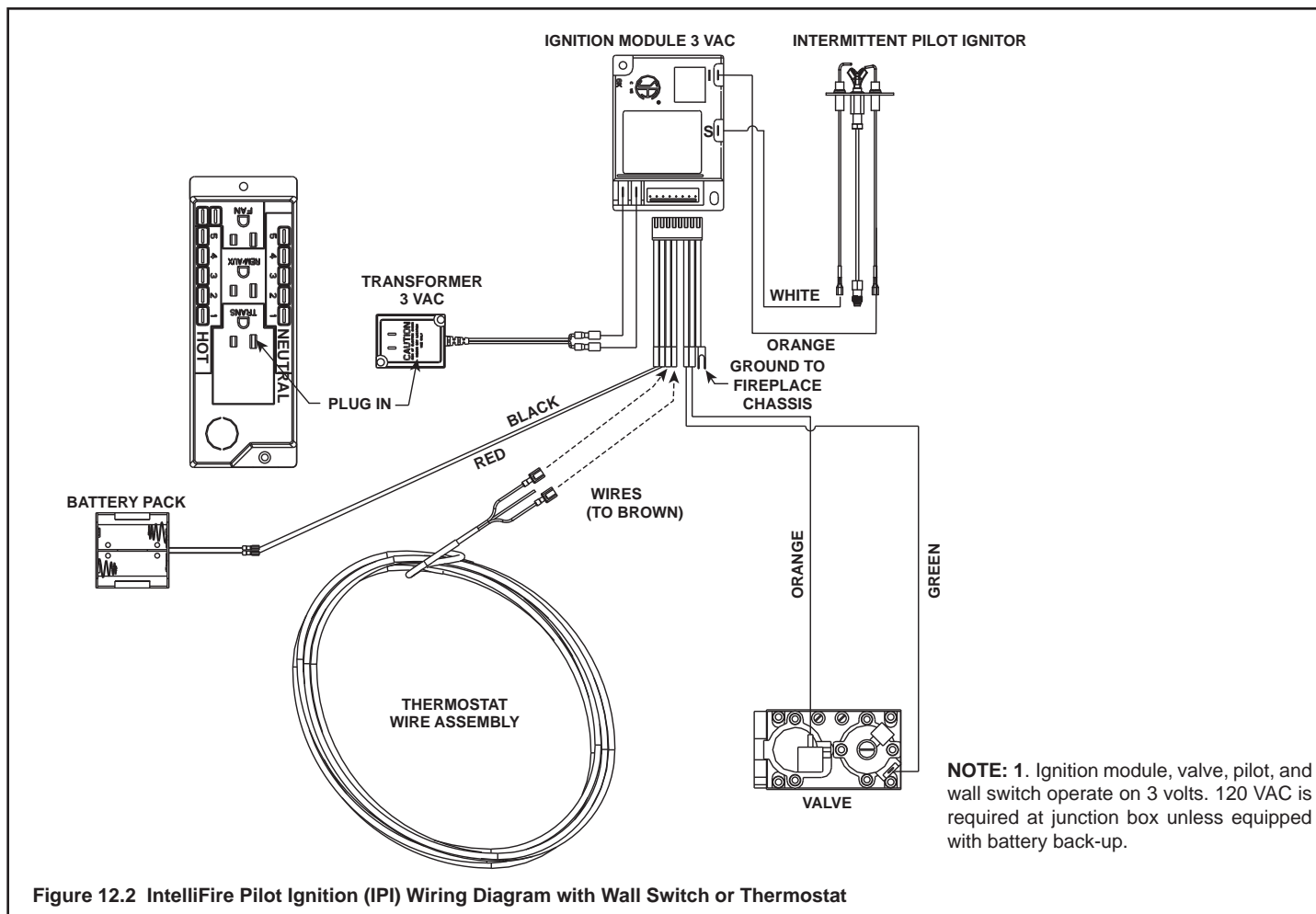


Figure 12.1 Valve Cavity





## D. Electrical Service and Repair

**WARNING! Risk of Shock!** Label all wires prior to disconnection when servicing controls. Wiring errors can 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.

**Note:** There is an alternative access to the junction box. This can be accessed by removing the valve assembly. See Section 11.

## E. Junction Box Installation

1. Bend junction box heat shield to the right along the perforated hand bends.
2. Remove the one screw located in front of the junction box.
3. Remove the plastic electrical knockout slug in the top of the junction box.
4. Install wire strain (not included) and route wire through wire strain fitting.
5. Make the connections inside the junction box to the 120V wire. Connect the green wire to the ground nut, the black wire to the black wire and the white wire to the white wire.
6. Reinstall the junction box.
7. Reposition the junction box heat shield such that it is positioned over the junction box.

# 13 Finishing

## A. Framing and Finishing Instructions

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

### Finishing Instructions

It is important to follow the framing and finishing instructions to ensure proper placement of fireplace into the surrounding framing/finishing materials.

Wall sheathing materials 1/2 in. thick are specified in this installation manual to properly align with the factory-installed non combustible material.

**WARNING! Risk of Fire! DO NOT** remove the factory-installed non-combustible board or cover it with combustible material, such as:

- Drywall (gypsum board)
- Plywood
- Materials that do not meet the ASTM E 136 Non-combustibility standard (below).

*Removal of factory-installed, non-combustible board and/or use of materials not meeting the ASTM E 136 standard may cause fire.*

### 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** and **UL763** shall be considered non-combustible materials.

### Setting the Fireplace into the Framing

Unlike many traditional, single-sided Heatilator fireplaces, this fireplace is recessed into surround framing. The left and right nailing tabs were designed for the RAVE4013I-C model as a means to ensure the fireplace is recessed to the correct location within the framing materials.

1. Bend two nailing tabs away from fireplace 180 degrees on both left and right nailing tabs. See Figure 13.1.
2. Screw each nailing tab to the adjoining framing material. Ensure that the 1 inch air space clearance is maintained on the sides of the fireplace.

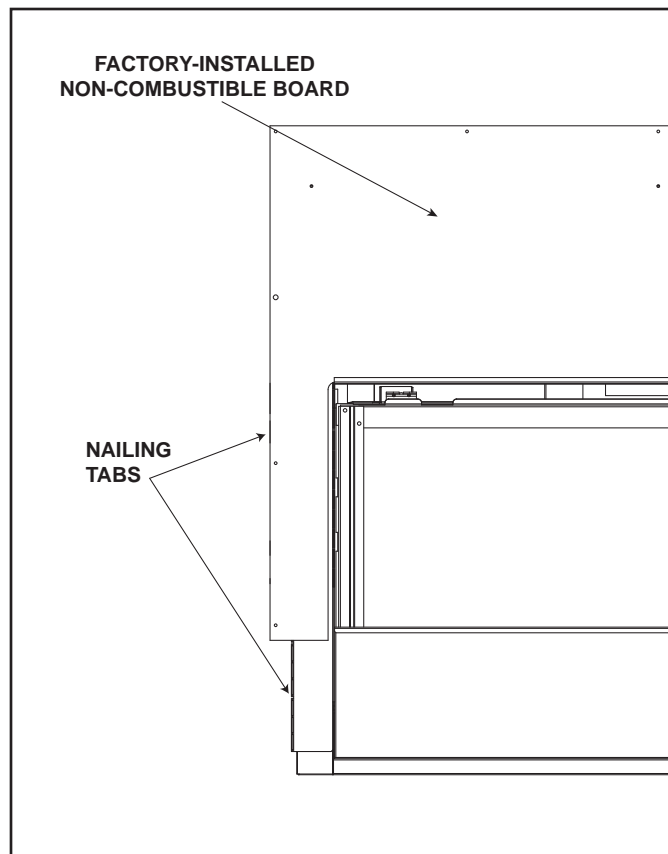
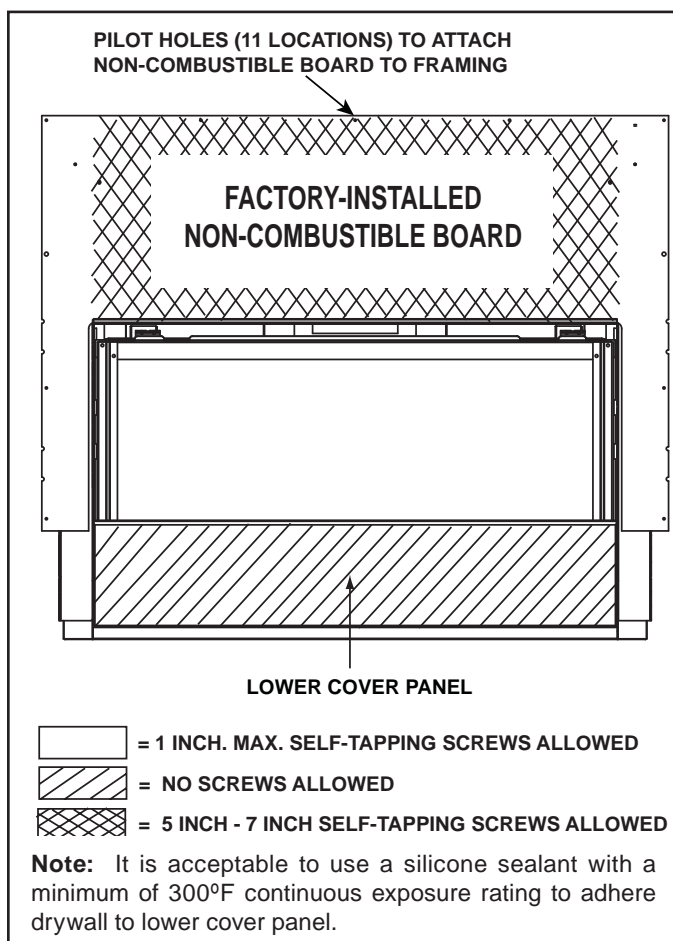


Figure 13.1 Nailing Tabs Installation Position



**WARNING! Risk of Fire! Maintain specified air space clearances to combustibles.**

*Failure to comply with these instructions may cause a fire or cause the appliance to overheat.*



**Figure 13.2 Finishing Details**

**CAUTION! Risk of Glass Damage and Cuts! DO NOT** drill or install any type of screw or fastener into the lower cover panel. Sharp screw or fastener tips may penetrate and break the glass or cause cuts.

**Note:** Refer to Section 13.C regarding installation details associated with the Inside and Overlap Fit methods.

The RAVE4013I-C must be finished using either the Deco or Illusion decorative fronts. See Figures 13.11 and 13.12. The final fireplace installation can be accomplished by either the Overlap Fit or Inside Fit method. Reference Section 13.C regarding installation details associated with the Inside Fit and Overlap Fit methods.

It is acceptable to pre-drill holes and use self-tapped screws in the factory-installed non-combustible board to attach non-combustible backer board for tile, marble, etc. Refer to Figure 13.2 for acceptable screw location and screw length requirements.

Self-tapping screws, up to one inch long, can be installed through the nailing tab and outer three inch edges of the factory-installed non-combustible board to secure the drywall adjacent to the factory-installed non-combustible board. See Figure 13.2.

Do not drill or install screws which may penetrate the lower cover panel as this will restrict required access to the glass, battery-back-up, and remote receiver. See Figure 13.2.

The appliance is designed to accept 1/2 in. wall sheathing materials such as drywall, plywood, wood composites, or non-combustible materials. The type of material used depends whether the installation is an Inside or Overlap Fit Method. Refer to Section 13.C regarding installation details associated with the Inside and Overlap Fit methods.

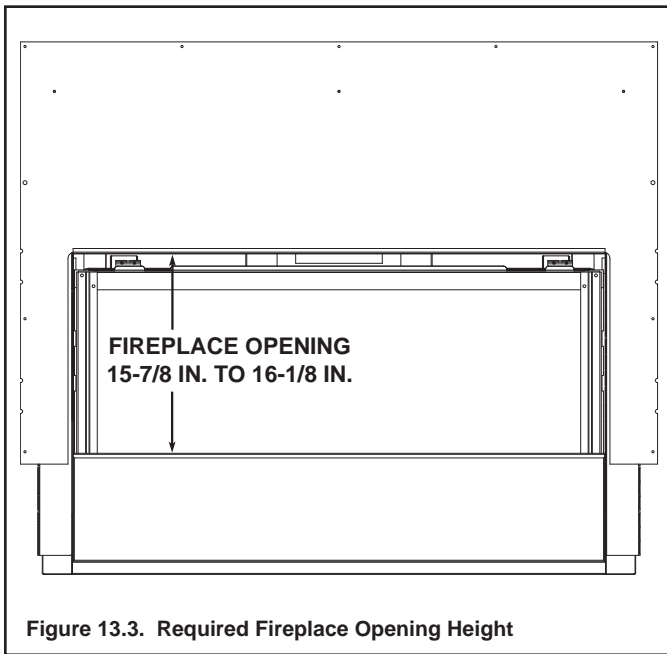
Requirements for finishing to bottom of fireplace opening are specific to decorative fronts as follows:

**DECO:** Non-combustible finish materials maybe installed up to the fireplace opening, covering lower finishing flange.

**ILLUSION:** Requires a minimum of 1 inch clearance to the non-combustible finishing material from the bottom fireplace opening. See Figure 13.9.

The factory-supplied non-combustible board must be used in all installations. It must be directly attached to structural framing adjacent to the appliance. Screw fasteners should be installed in the pilot holes provided in the outer perimeter of the non-combustible board. See Figure 13.2.

The factory-supplied board is designed such that its edges will be at the approximate center of the adjacent framing, assuming it is 1-1/2 in. nominal thickness. This will allow the wallboard joints to occur on the center of the framing where the panels can be fastened properly. If the framing thickness is less than 1-1/2 in. nominal, such as with formed steel systems, then it may be necessary to adjust the adjacent framing dimensions so that the non-combustible board and wallboard joints are centered on the framing.



**Figure 13.3. Required Fireplace Opening Height**

Verify that the lower cover panel is installed correctly, and that the fireplace opening height is between 15-7/8 in. and 16-1/8 in. See Figure 13.3.

**Note:** The lower cover panel must be pushed all the way down. The outer finishing flanges should line up. The fireplace opening must be between 15-7/8 in. and 16-1/8 in. for the decorative fronts to fit correctly. See Figure 13.3.

### Finish and Sealing Joints

All joints between the finished wall sheathing and the appliance must be sealed with non-combustible materials. Sealants, such as caulk or mastic used to seal the gap between the wall and the fireplace, should be rated at a minimum continuous exposure to 300°F. Wall board joints can be taped and sealed with combustible drywall tape.

### Finishing Around Opening with Gypsum Wallboard

Gypsum wallboard (drywall) joints adjacent to the fireplace opening require special attention to minimize potential development of cracking. Hearth and Home Technologies recommends the following steps to minimize potential cracks in the finished drywall around the fireplace opening:

- When installing gypsum wallboard around the fireplace, install the hole for the fireplace opening in a single wallboard sheet, if possible. This will minimize the joints adjacent to the fireplace opening.
- The factory-supplied non-combustible board and the gypsum wallboard must join on the structural framing, where applicable. Wallboard and non-combustible board should be fastened to the framing with at least 1-1/4 in. long screw fasteners, located within 1-1/2 in. from each corner, and at no more than 12 inch intervals along the joint length.
- The wall-board joints should be finished with a Taping Coat, followed by at least two subsequent Finish Coats of joint compound.

- For the initial Taping Coat, it is critical that a general-purpose chemically hardening joint compound, such as SHEETROCK™ Brand Durabond™ Setting-Type Joint Compound, be used to fill the joint and embed the mesh tape. Fiberglass-mesh tape is recommended because it will provide a more crack-resistant joint than one finished with paper tape. Let the Taping Coat properly cure before applying subsequent Finish Coats.
- For the second and third finishing coats, it is acceptable to use a light-weight joint compound and standard application, curing and sanding methods.
- Do not operate the fireplace during the drywall finishing process. Allow the finish coat to cure for at least 24 hours prior to using the appliance.

### Painting

If desired finishing includes a painted wall, 100% acrylic latex with compatible primer is recommended around the appliance. Oil-based or standard acrylic paints may discolor due to heat exposure.

### Wallboard Joint-Crack Prevention and Repair

Wallboard joints around the fireplace will be affected by exposure to elevated temperatures, along with other environmental and structural factors. The specific methods presented in the previous section will help prevent or minimize development of cracks.

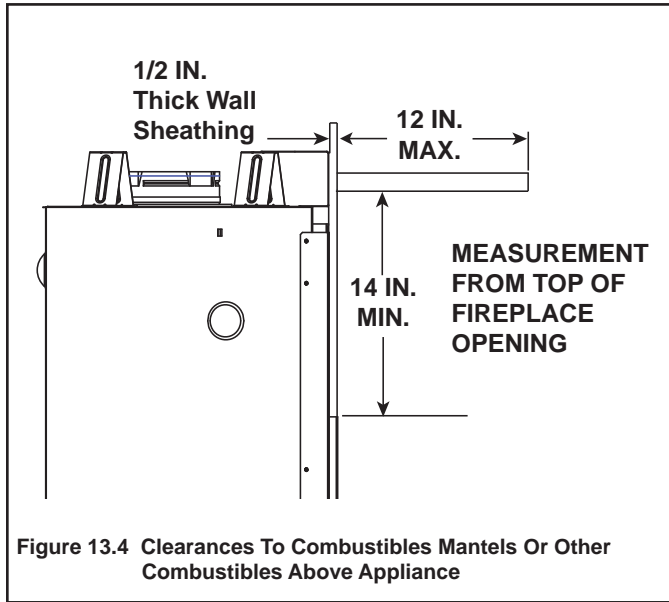
If a crack does emerge adjacent the fireplace, it can be permanently repaired by filling it with spackling paste or paintable latex caulk, followed by repainting.

## B. Mantel and Wall Projections

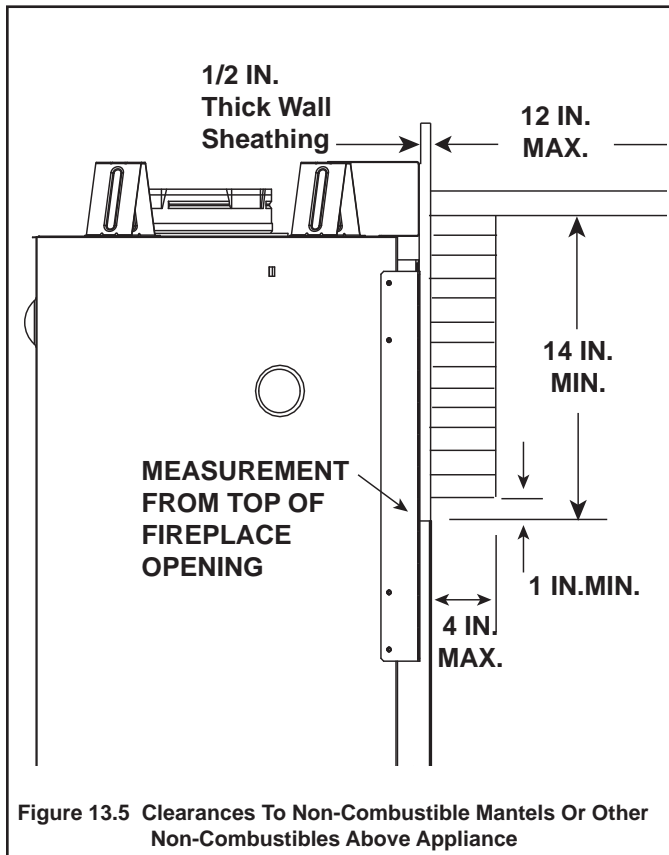
**WARNING! Risk of Fire!** *Comply with all minimum clearances to combustibles as specified. Framing closer than the minimums listed must be constructed entirely of noncombustible materials (i.e., steel studs, concrete board, etc.) Failure to comply could cause fire.*

**Note:** For non-combustible fireplace finish material (marble, stone, etc) specifications refer to Section 13.C.

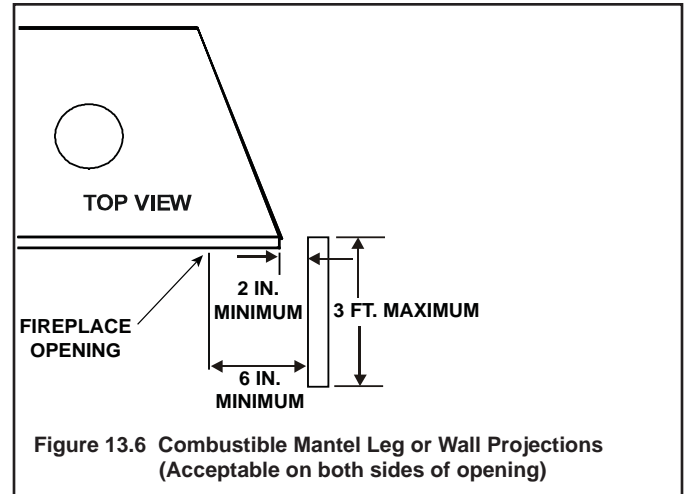
### Combustible Mantels



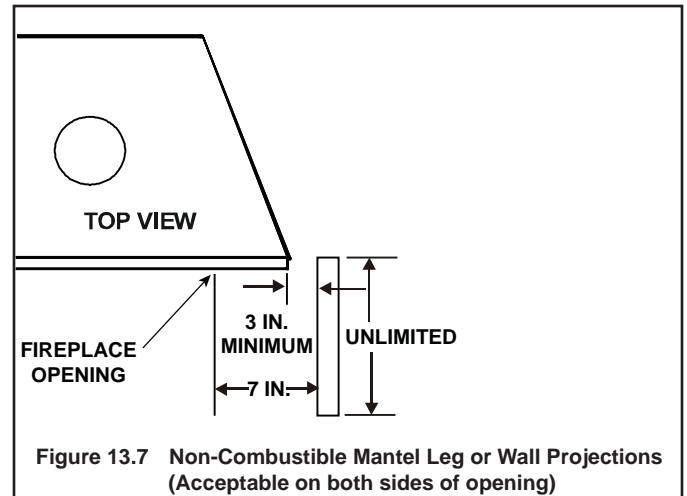
### Non-combustible Mantels



### Combustible Mantel Legs Or Wall Projections Extending Past The Face Of The Fireplace



### Non-combustible Mantel Legs Or Wall Projections Extending Past The Face Of The Fireplace



## C. Facing Material

- Facing and/or finishing materials must not interfere with air flow through louvers, operation of louvers or doors, or access for service.
- Facing and/or finishing materials must never overhang into the glass opening.
- Observe all clearances when applying combustible materials.

**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. Overlapping materials could ignite and will interfere with proper operation of doors and louvers.

**WARNING! Risk of Fire! DO NOT** install drywall or other combustible materials over the factory-installed non-combustible board. Overlapping materials could ignite.

Decorative facing material thickness is measured from the face of the factory-installed non-combustible board. See Figure 13.8.

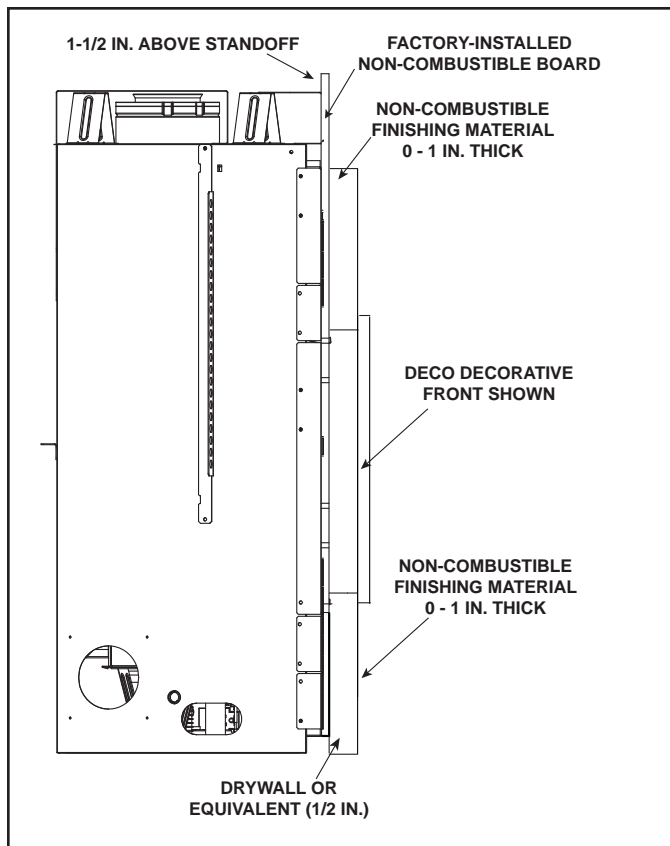


Figure 13.8 Overlap Fit Method (Deco or Illusion Decorative Front)

Both the Deco and Illusion decorative fronts can be installed with an "Overlap" or "Inside Fit" method:

Overlap Requirement: See Figure 13.8 and 13.9

Inside Fit requirement: See Figure 13.10.

## Non-Combustible Finish Materials 0 - 1 inch Thickness-Overlap Fit Method

Both the Deco and Illusion decorative fronts are designed to overlap finish materials 0 inches to 1 inch thick. See Figure 13.8.

**NOTICE:** This one inch maximum not only includes the decorative finish materials (marble, tile, slate, etc) but also the thinset, and adhesive used to attach the decorative finish material.

The non-combustible finish material can be installed up to the fireplace opening covering the top, left and right finishing flanges. See Figure 13.8.

Requirements for finishing to bottom of fireplace opening are specific to decorative fronts as follows:

**DECO:** Non-combustible finish materials maybe installed up to the fireplace opening, covering lower finishing flange.

**ILLUSION:** Requires a minimum of 1 inch clearance to the non-combustible finishing material from the bottom fireplace opening. See Figure 13.9.

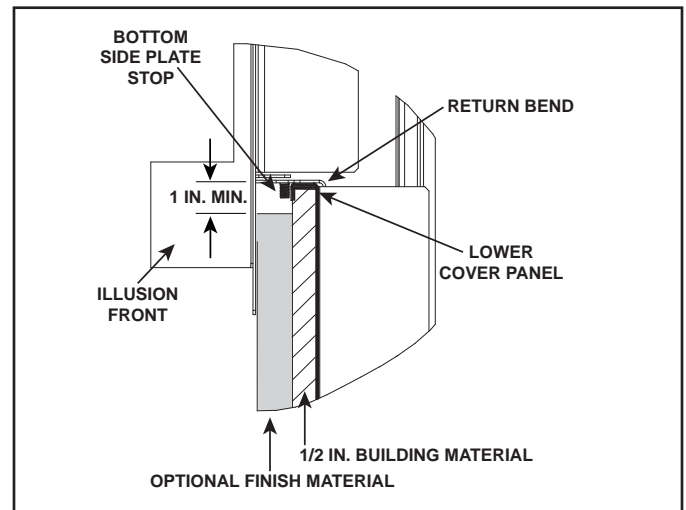


Figure 13.9. Illusion Front, Side View - Bottom Side Plate Installed Over Lower Cover Panel

Reference dimensions for the Deco and Illusion fronts installed on the appliance are shown in Figure 13.14 and Figure 13.15.

## Non-Combustible Finish Materials

### 0 Inches to 4 Inches Thick Inside Fit Method

The Deco and Illusion decorative fronts are approved for inside fit applications. Non-combustible finishing materials up to 4 inches thick can be installed around the front (left, right, top, and bottom).

For inside fit applications, the decorative front must be installed tight to the finishing flanges and must not overlap any finish material.

The Deco front requires a 1/2 inch clearance between the outer edge of the decorative front and inside edge of the surrounding finish materials. HHT recommends that the front be temporarily installed as a template, traced to ensure the finishing materials will fit properly, and then removed.

Reference dimensions for the Deco and Illusion fronts installed on the appliance are shown in Figure 13.13 and Figure 13.14.

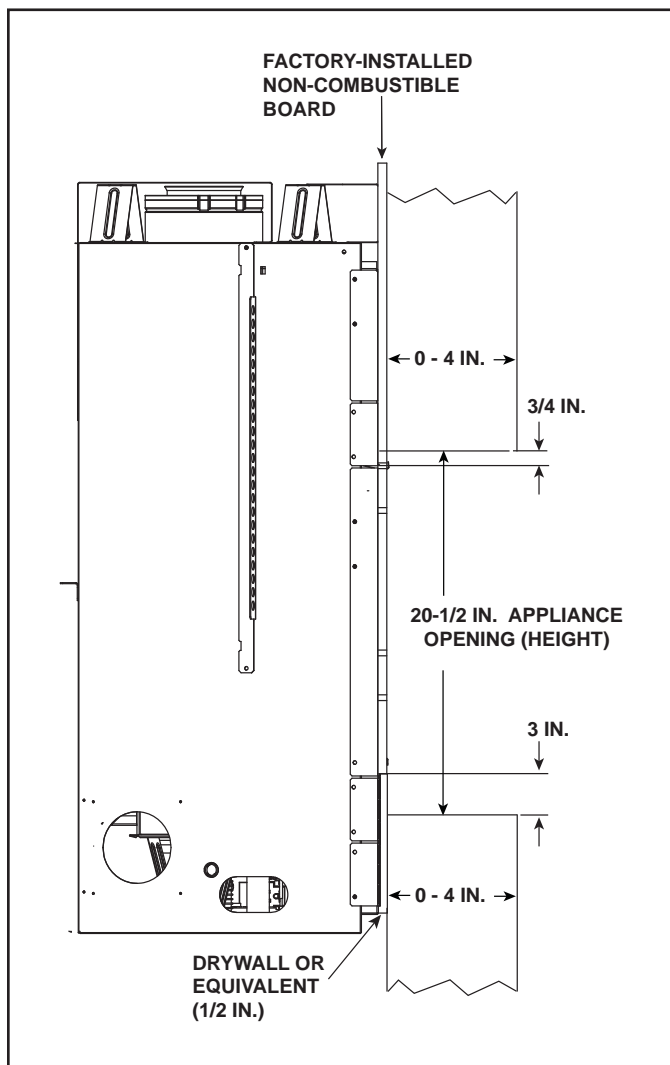


Figure 13.10 Inside Fit Method (Deco Decorative Front Only)

D. Decorative Fronts

**WARNING! Risk of Fire!** A decorative front is required for this model. DO NOT operate this appliance without a decorative front in place.

Only doors certified for use with this appliance model may be used. Contact your dealer for a list of doors that may be used.

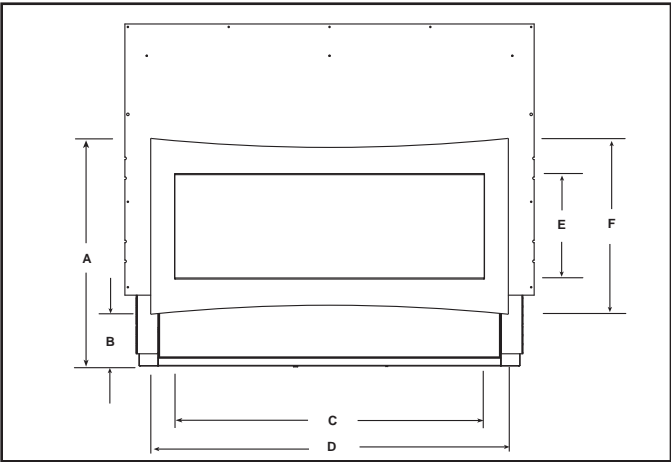
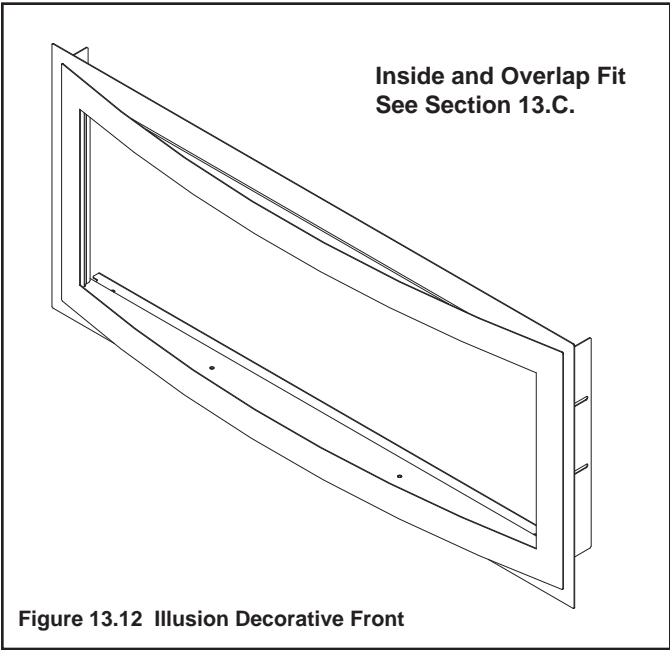
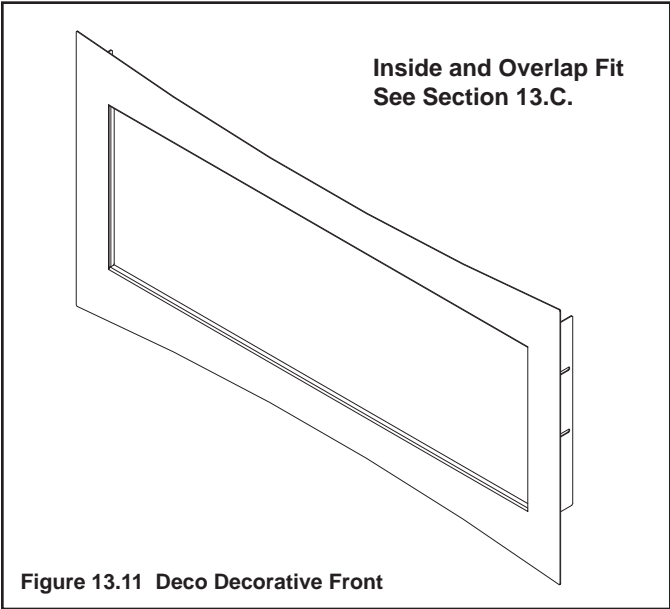


Figure 13.13. Dimensions of Deco Decorative Front

Table 1. Dimensions of Deco Decorative Front

A	Top of decorative front to bottom of appliance.	27-1/2 in.	699 mm
B	Bottom of decorative front to bottom of appliance.	5-3/8 in.	137 mm
C	Inside dimension of decorative front (width).	39 in.	991 mm
D	Outside dimension of decorative front (width).	45 in.	1143 mm
E	Inside dimension decorative front (height).	13 in.	330 mm
F	Outside dimension of decorative front (height).	22-1/8 in.	562 mm

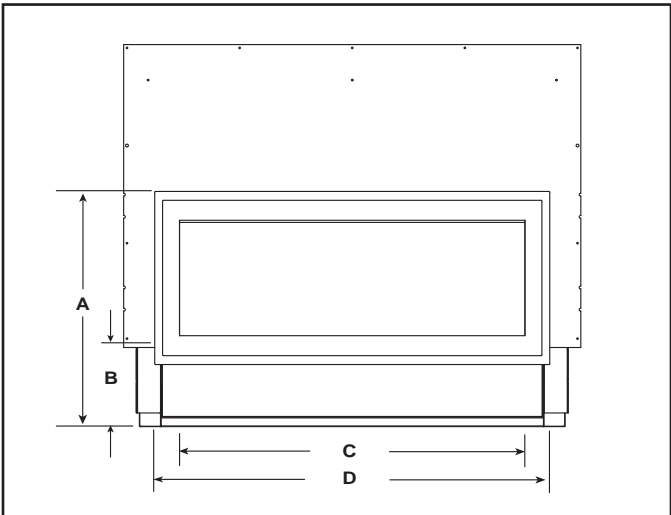


Figure 13.14. Dimensions of Illusion Decorative Front

Table 2. Dimensions of Illusion Decorative Front

A	Top of decorative front to bottom of appliance.	26-7/16 in.	672 mm
B	Bottom of decorative front to bottom of appliance.	6-7/8 in.	175 mm
C	Inside dimension of decorative front (width).	39 in.	991 mm
D	Outside dimension of decorative front (width).	44-1/2 in.	1130 mm
E	Inside dimension decorative front (height).	13 in.	330 mm
F	Outside dimension of decorative front (height).	19-1/2 in.	495 mm

# 14 Appliance Setup

---

## A. Remove Fixed Glass Assembly

See Section 14.E.

## B. Remove the Shipping Materials

Remove shipping materials from inside or underneath the firebox. The standard black rock media and manual bag assembly are also shipped underneath the firebox.

## C. Clean the Appliance

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

## D. 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.***



## E. 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.

### Removing Fixed Glass Assembly

1. Remove the decorative front.
2. Locate the two spring latches that are on the upper left and right of the fireplace.
3. Use both index fingers to release spring latches. See Figure 14.1.
4. Allow glass to tilt forward. Grasp glass on the upper right and left sides and lift glass “up” and “out.”

### Replacing Fixed Glass Assembly

1. Locate glide tabs on lower left and right corners.
2. Grasp glass on upper right and left sides and tilt bottom of glass assembly toward fireplace.
3. Allow of the bottom gasketing of the glass assembly to touch the face of the fireplace.
4. Put pressure on the glass as you allow the glass assembly to drop into the two lower glass clips. See Figure 14.1.
5. Tilt top of glass towards fireplace and engage both top spring latches

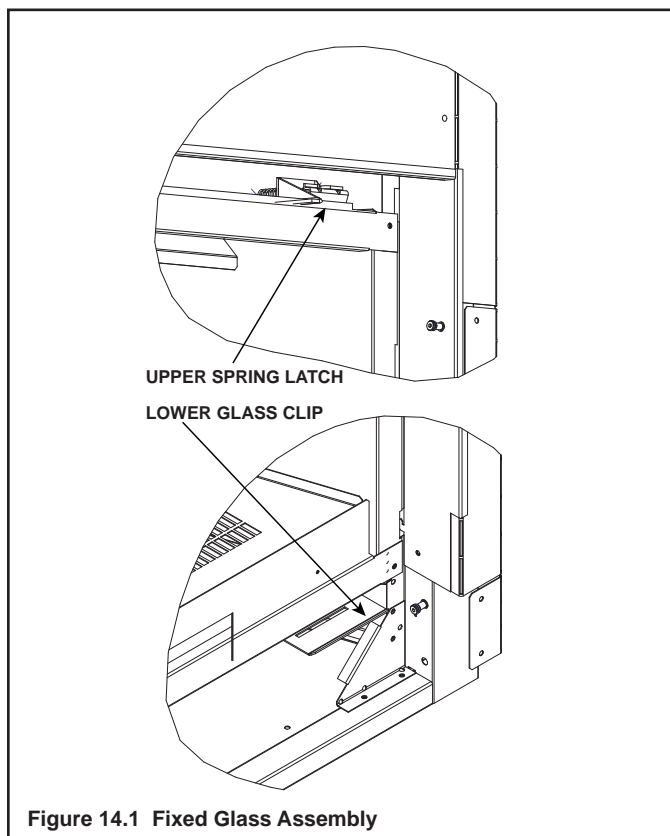


Figure 14.1 Fixed Glass Assembly

## F. Install the Mesh

The mesh front is included with the Deco and Illusion fronts.

1. Remove fixed glass assembly as instructed.
2. Place glass assembly into mesh screen such that the four mesh clips attached to the mesh assembly snap into the four corresponding slots on the fixed glass assembly.

## G. Air Shutter Setting

Air shutter settings may 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 14.2.

- Loosen the 1/4 in. screw.
- Twist shutter to adjust.
- Shutter may be opened for longer horizontal vent runs.
- Do not close the air shutter more than the settings specified below.
- Tighten the screw.

**NOTICE:** If the flames appear to be orange, open the air shutter to prevent residue buildup on the glass.



Figure 14.2 Air Shutter

### Air Shutter Settings

	NG	LP
RAVE4013I-C	3/16 in.	9/16 in.

# 15 Troubleshooting

With proper installation, operation, and maintenance your gas appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service technician in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified service technician. Contact your dealer to arrange a service call by a qualified service technician.

## A. IntelliFire Ignition System

Symptom	Possible Cause	Corrective Action
1. Pilot won't light. The ignitor/module makes noise, but no spark.	a. Incorrect wiring.	Verify "S" wire (white) for sensor and "I" wire (orange) for ignitor are connected to correct terminals on module and pilot assembly.
	b. Loose connections or electrical shorts in the wiring.	Verify no loose connections or electrical shorts in wiring from module to pilot assembly. Verify connections underneath pilot assembly are tight; also verify connections are not grounding out to metal chassis, pilot burner, pilot enclosure, mesh screen if present, or any other metal object.
	c. Ignitor gap is too large.	Verify gap of ignitor to right side of pilot hood. The gap should be approximately .17 in. or 1/8 in. (3 mm).
	d. Module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place a grounded wire about 3/16 in. (5 mm) away from "I" terminal on module. Place ON/OFF rocker switch or wall switch in ON position. If there is no spark at "I" terminal module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode. Replace pilot if necessary.
2. Pilot won't light, there is no noise or spark.	a. No power or transformer installed incorrectly.	Verify that transformer is installed and plugged into module. Check voltage of transformer under load at spade connection on module with ON/OFF switch in ON position. Acceptable readings of a good transformer are between 3.2 and 2.8 volts AC.
	b. A shorted or loose connection in wiring configuration or wiring harness.	Remove and reinstall the wiring harness that plugs into module. Verify there is a tight fit. Verify pilot assembly wiring to module. Remove and verify continuity of each wire in wiring harness. Replace any damaged components.
	c. Improper wall switch wiring.	Verify that 110/VAC power is "ON" to junction box.
	d. Module not grounded.	Verify black ground wire from module wire harness is grounded to metal chassis of appliance.
	e. Module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF rocker switch or wall switch in ON position. If there is no spark at "I" terminal module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode.
3. Pilot sparks, but Pilot will not light.	a. Gas supply.	Verify that incoming gas line ball valve is "open". Verify that inlet pressure reading is within acceptable limits, inlet pressure must not exceed 14 in. W.C.
	b. Ignitor gap is incorrect.	Verify that spark gap from ignitor to pilot hood is .17 in. or 1/8 in (3 mm).
	c. Module is not grounded.	Verify module is securely grounded to metal chassis of appliance.
	d. Module voltage output / Valve/Pilot solenoid ohms readings.	Verify battery voltage is at least 2.7 volts. Replace batteries if voltage is below 2.7.

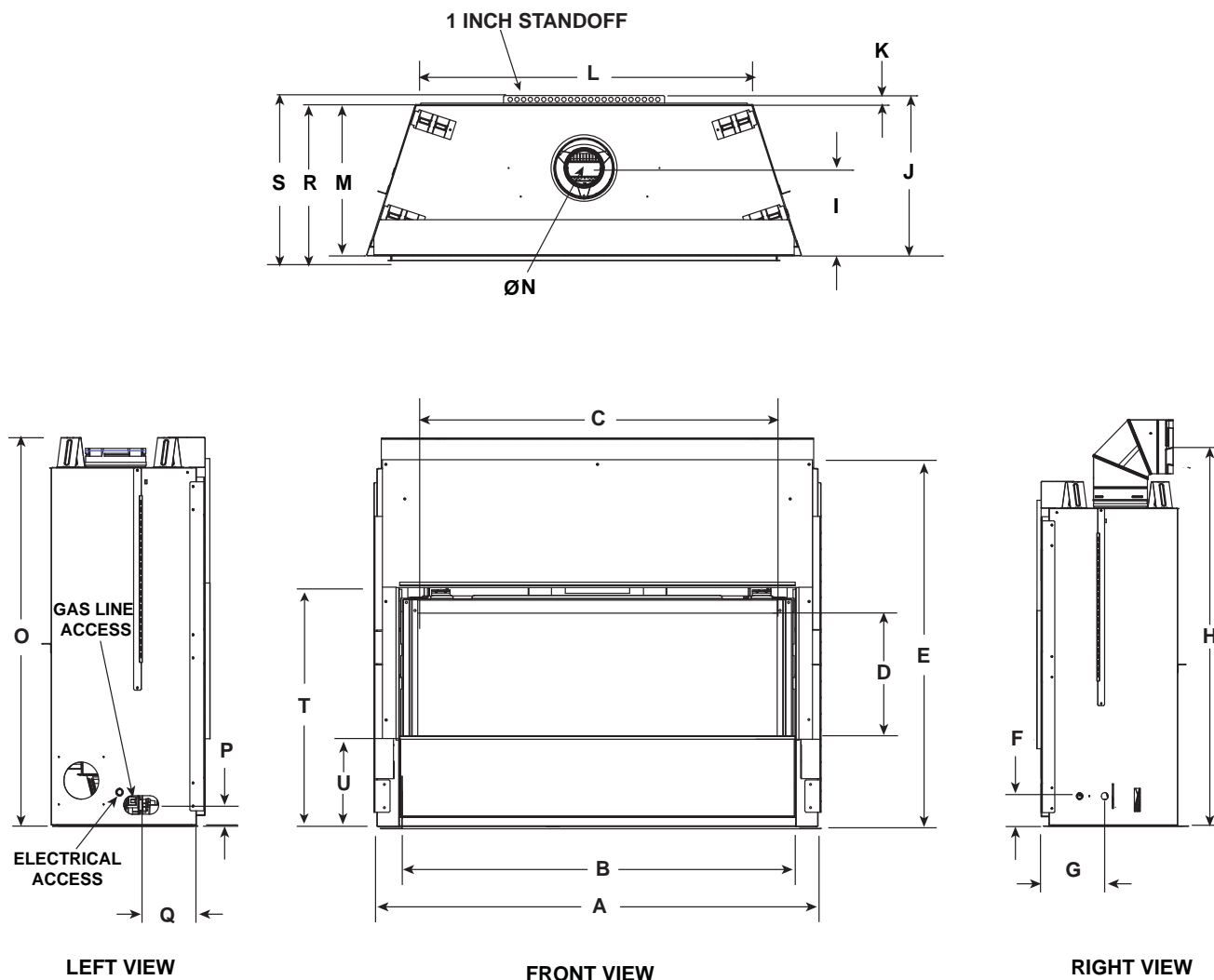
## IntelliFire Ignition System - (continued)

Symptom	Possible Cause	Corrective Action
4. Pilot lights but continues to spark, and main burner will not ignite. (If the pilot continues to spark after the pilot flame has been lit, flame rectification has not occurred.)	a. A shorted or loose connection in flame sensing rod.	Verify all connections to wiring diagram in manual. Verify connections underneath pilot assembly are tight. Verify connections are not grounding out to metal chassis, pilot burner, pilot enclosure or screen if present, or any other metal object.
	b. Poor flame rectification or contaminated flame sensing rod.	With fixed glass assembly in place, verify that flame is engulfing flame sensing rod on left side of pilot hood. Flame sensing rod should glow shortly after ignition. Verify correct pilot orifice is installed and gas inlet is set to pressure specifications. Polish flame sensing rod with fine steel wool to remove any contaminants that may have accumulated on flame sensing rod.
	c. Module is not grounded.	Verify module is securely grounded to metal chassis of appliance. Verify that wire harness is firmly connected to the module.
	d. Damaged pilot assembly or contaminated flame sensing rod.	Verify that ceramic insulator around the flame sensing rod is not cracked, damaged, or loose. Verify connection from flame sensing rod to white sensor wire. Polish flame sensing rod with fine steel wool to remove any contaminants that may have accumulated on flame sensing rod. Verify continuity with a multimeter with ohms set at lowest range. Replace pilot if any damage is detected.
	e. Module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF rocker switch or wall switch in ON position. If there is no spark at "I" terminal module must be replaced. If there is a spark at "I" terminal, module is fine.

# 16 Reference Materials

## A. Appliance Dimension Diagram

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

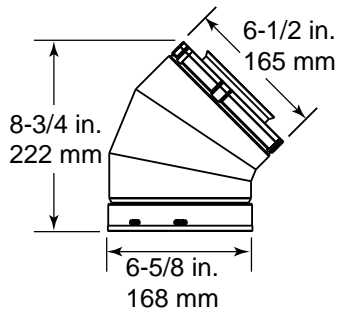


Location	Inches	Millimeters
A	48	1218
B	43	1092
C	39-1/16	993
D	13-1/4	337
E	39-5/8	1006
F	3-9/16	90
G	6-7/8	174
H	47-1/16	1195
I	9-5/16	237
J	16-3/4	425

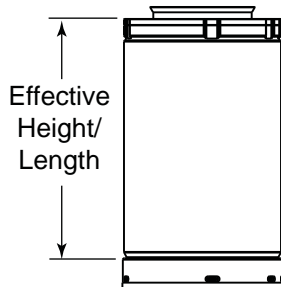
Location	Inches	Millimeters
K	1	25
L	37-3/4	959
M	15-3/4	400
N	6-5/8	168
O	41-3/4	1060
P	2-3/16	55
Q	6	152
R	17-1/4	438
S	18-1/4	464
T	25-7/8	657
U	9-3/4	248

Figure 16.1 Appliance Dimensions

## B. Vent Components Diagrams



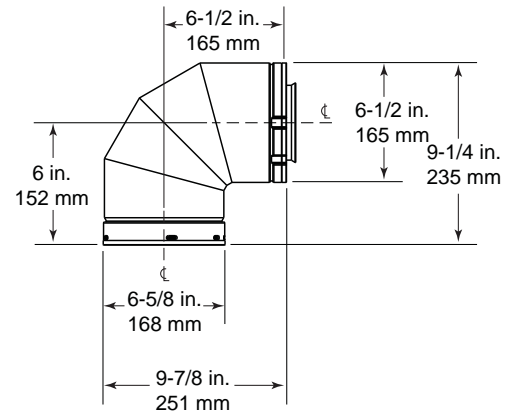
**SLP-45 - 45° Elbow**



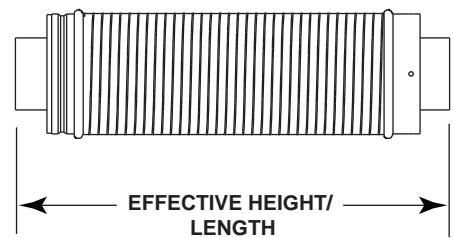
**SLP-PIPE**

**Effective Height/Length**

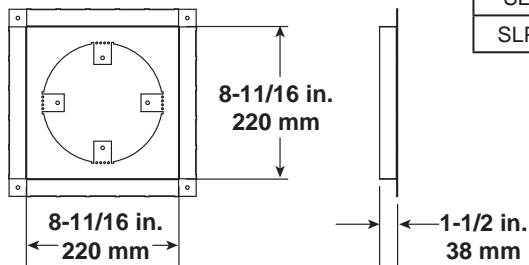
Pipe	inches	mm
SLP4	4	102
SLP6	6	152
SLP12	12	305
SLP24	24	610
SLP36	36	914
SLP48	48	1219
SLP6A	2 - 6	51 - 152
SLP12A	2 - 12	51 - 305
SLP-FLEX-2	24	610
SLP-FLEX-3	36	914
SLP-FLEX-5	60	1524
SLP-FLEX-10	120	3048



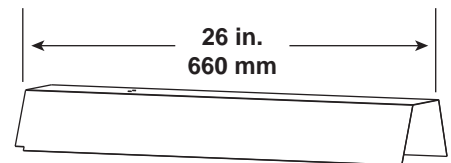
**SLP90- 90° Elbow**



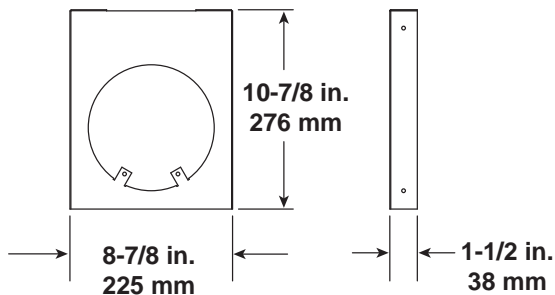
**SLP-FLEX-PIPE**



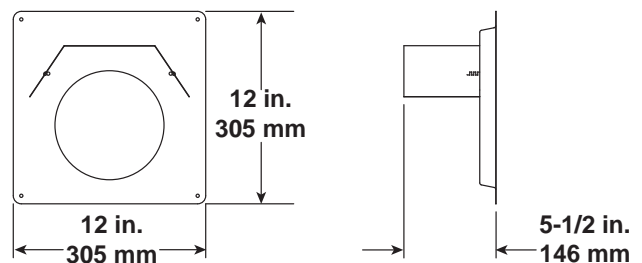
**SLP-FS  
Ceiling Firestop**



**DVP-HSM-B  
Extended Heat Shield**



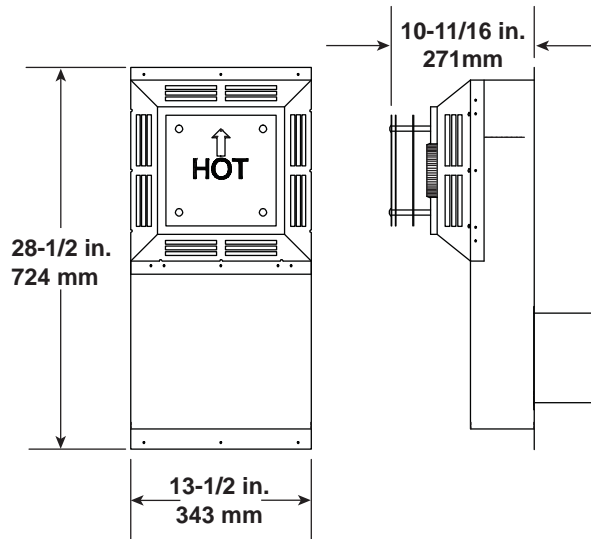
**SLP-HVS  
Horizontal Pipe  
Support**



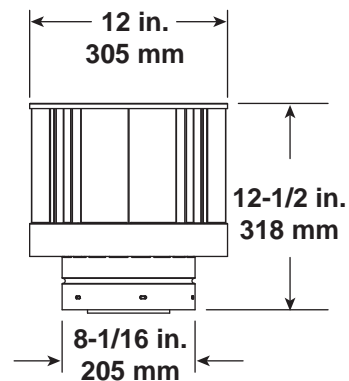
**SLP-WS  
Wall Shield Firestop**

**Figure 16.2 SLP Series Vent Components**

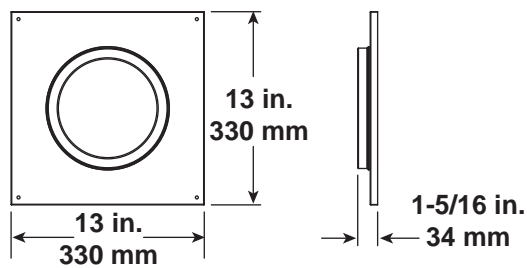
## B. Vent Components Diagrams (*continued*)



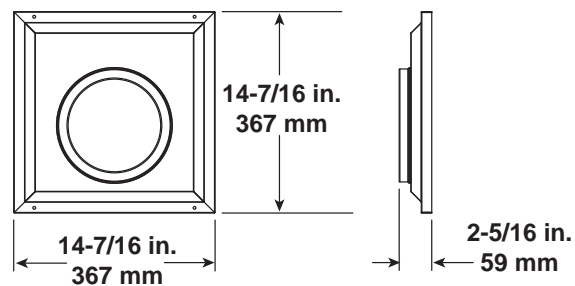
**SLK-SNKD**  
Snorkel  
Termination Cap



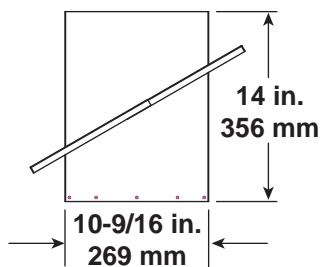
**SLP-TVHW**  
Vertical  
Termination Cap



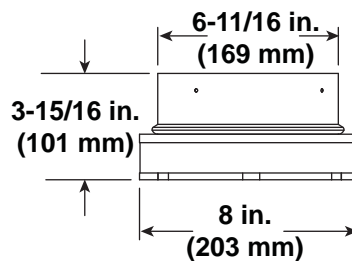
**SLP-DCF-BK**  
Ceiling Firestop  
Black



**SLP-WT-BK**  
Wall Thimble-Black



**SLP-CCS-BK**  
Cathedral Ceiling  
Support Box-Black



**SL-2DVP**  
Adapter

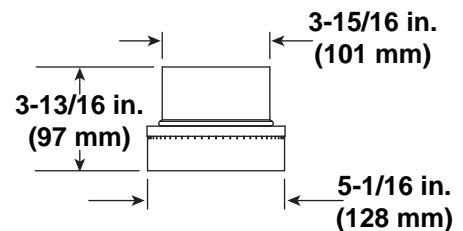
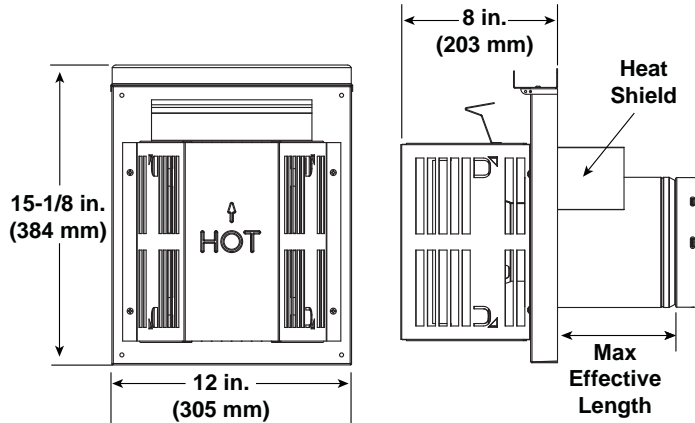


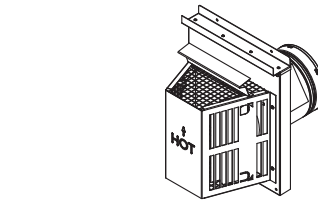
Figure 16.3 SLP Series Vent Components



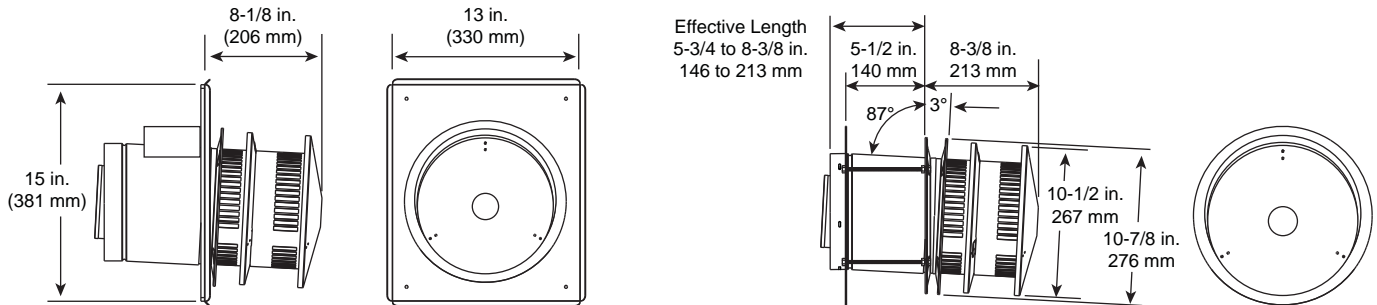
**Note:** Heat shields **MUST** overlap by a minimum of 1-1/2 in. (38 mm). The heat shield is designed to be used on a wall 4 in. to 7-1/4 in. (102 mm to 184 mm) thick. If wall thickness is less than 4 in. (102 mm) the existing heat shields must be field trimmed. If wall thickness is greater than 7-1/4 in. (184 mm) a DVP-HSM-B will be required.



**SLP-TRAP**  
Horizontal Termination Cap



Term Cap	Minimum Effective Length	Maximum Effective Length
Trap1	3-1/8 in.	4-3/4 in.
	79 mm	121 mm
Trap2	5-1/4 in.	9-1/4 in.
	133 mm	235 mm



**CAUTION: THE SLP-HRC-SS AND SLP-HRC-ZC-SS TERMINATION CAPS ARE NOT APPROVED FOR USE WITH PROPANE (LP) FUEL. May lead to elevated glass temperature that may cause tempered glass breakage.**

**SLP-HRC-SS**  
**SLP-HRC-ZC-SS**  
HORIZONTAL TERMINATION CAP

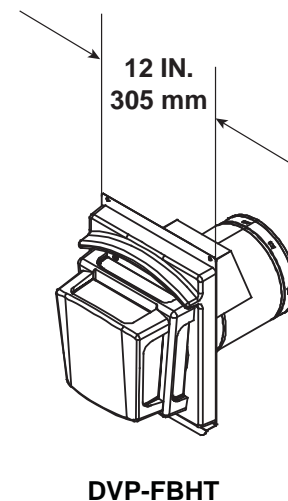
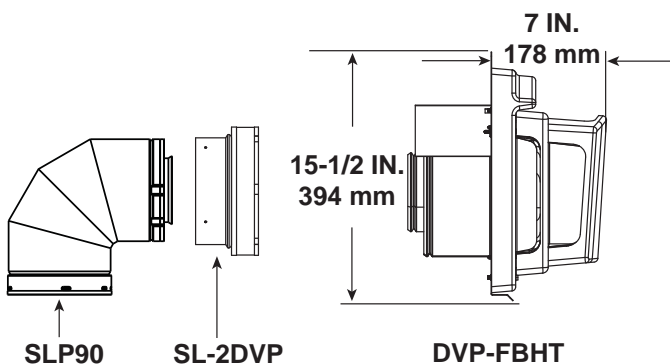
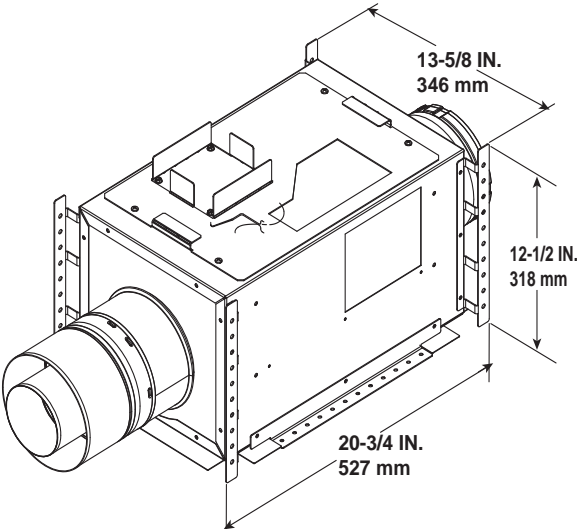


Figure 16.4 SLP Series Vent Components

B. Vent Components Diagrams (continued)

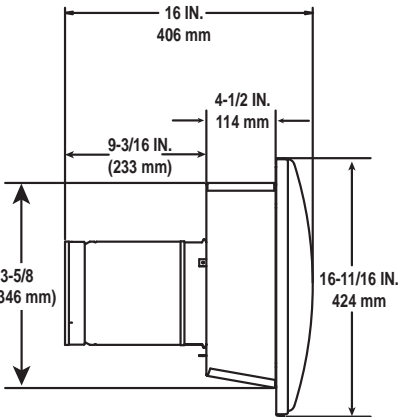
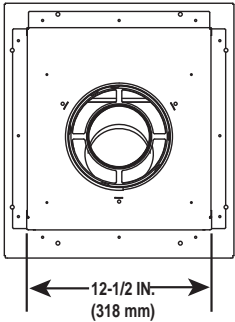
PVI-SLP



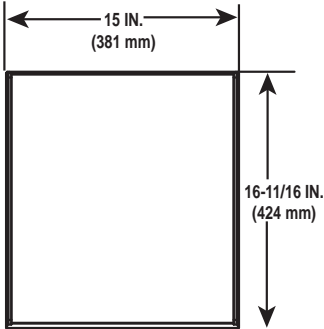
PVI-SLP  
Power Vent Inline

Optional Wire Harness	
DESCRIPTION	PART NUMBER
10 ft. PV Wire Harness	PVI-WH10
20 ft. PV Wire Harness	PVI-WH20
40 ft. PV Wire Harness	PVI-WH40
60 ft. PV Wire Harness	PVI-WH60
80 ft. PV Wire Harness	PVI-WH80
100 ft. PV Wire Harness	PVI-WH100

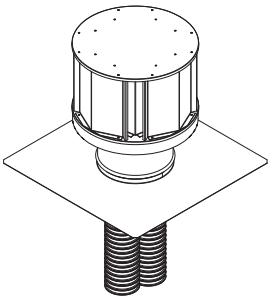
**Note:** Wire harnesses required to power the PVI-SLP connect to the appliance and are ordered separately from PVI-SLP. Contact your dealer to order.



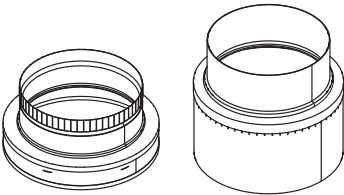
SLP-LPC  
SLP Low Profile Cap



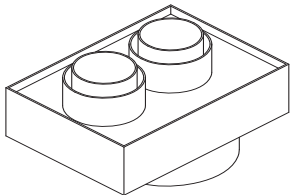
COAXIAL to COLINEAR VENTING



LINK-DV30B  
Flex Liner Kit



DVP-2SL  
Adapter



DV-46DVA-GCL  
Coaxial/Colinear Appliance Connector

Figure 16.5 Vent Components

## B. Vent Components Diagrams

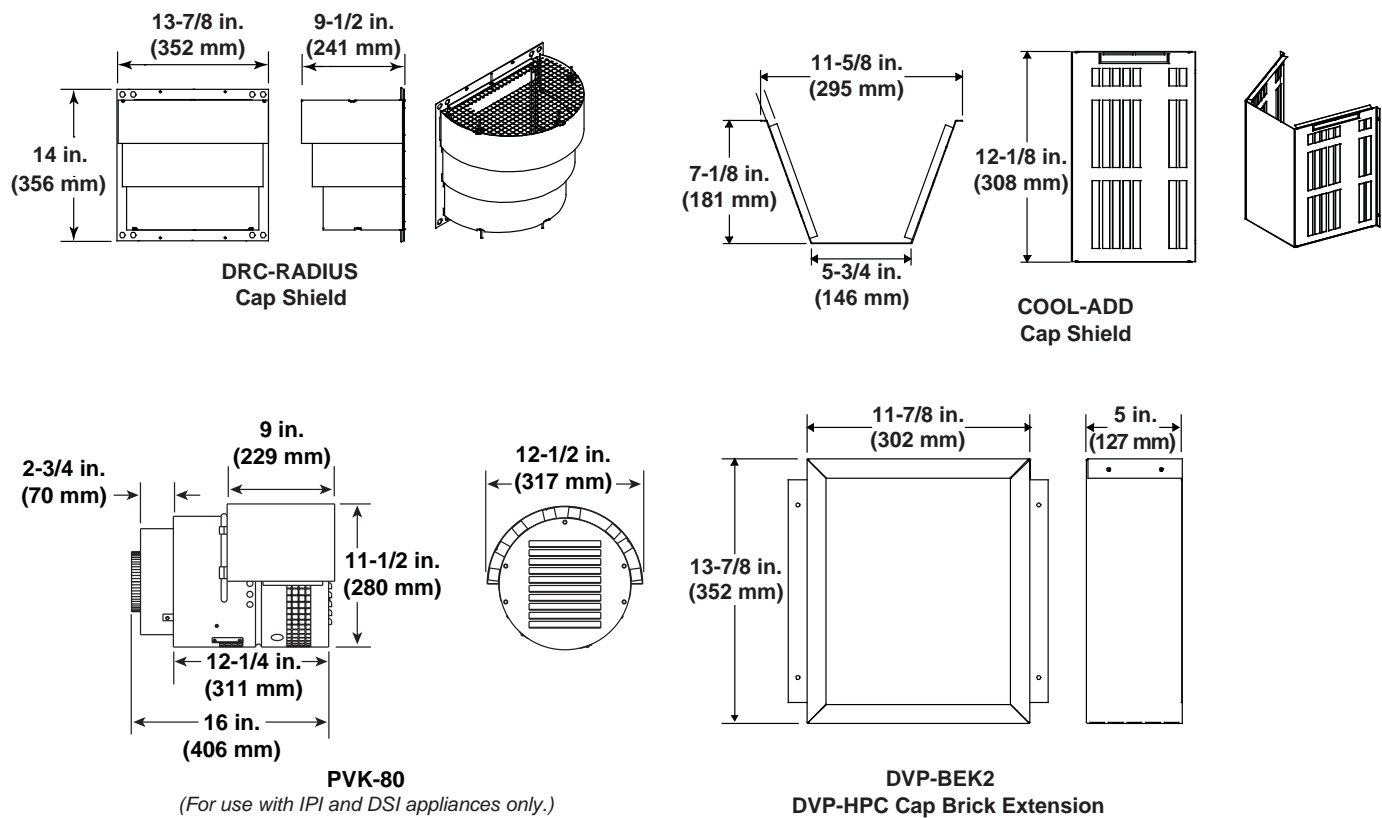
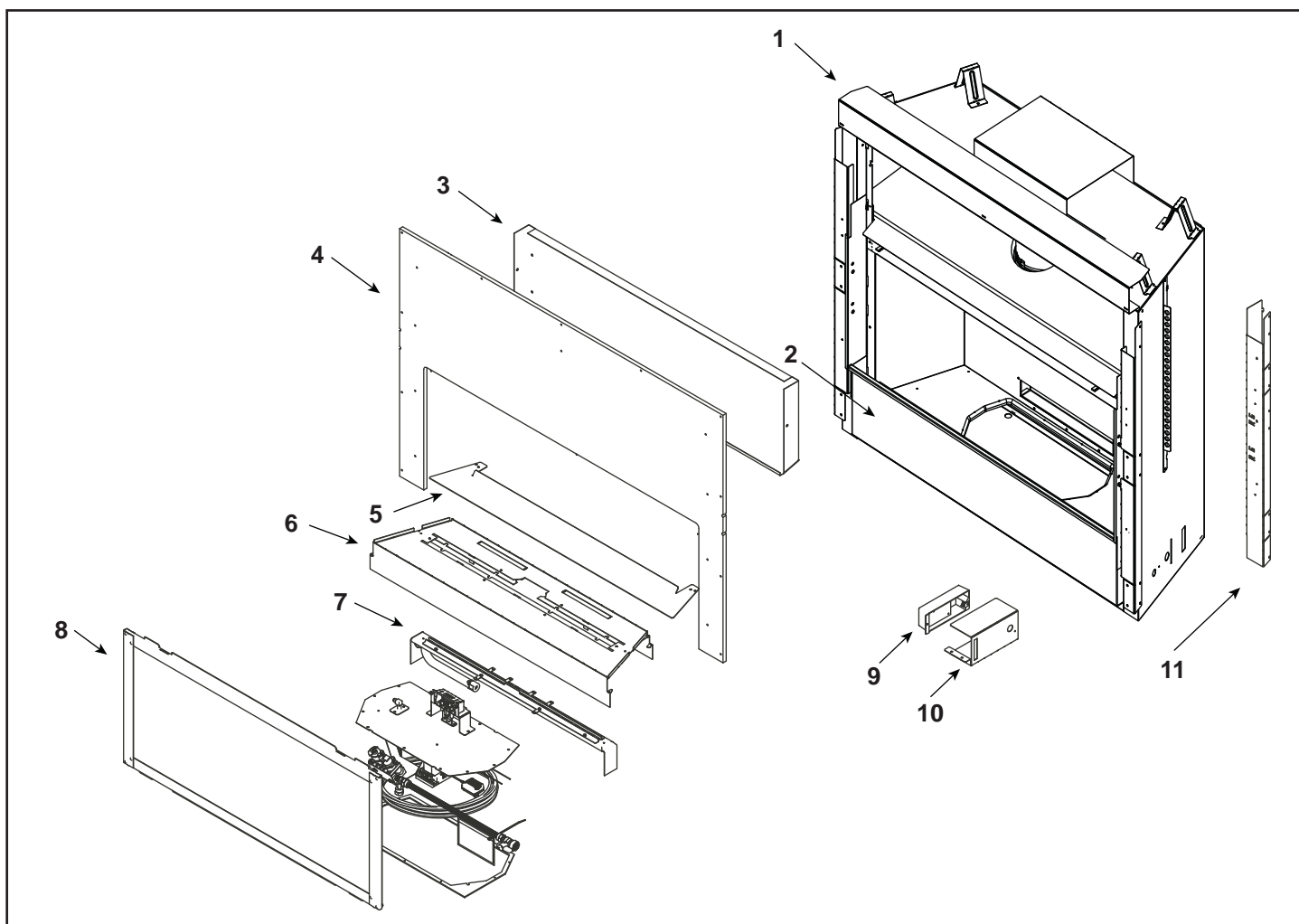


Figure 16.6 Vent Components



**IMPORTANT: THIS IS DATED INFORMATION.** When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



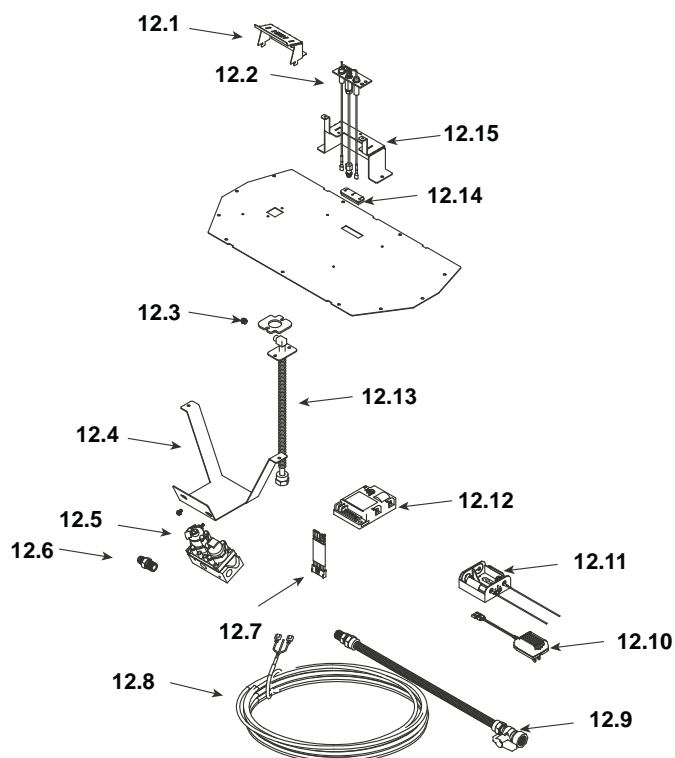
**Stocked  
at Depot**

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
1	Sheet Rock Ledge		2184-147	
2	Lower Cover Panel		2184-103	
3	Top Panel Finishing Edge		2184-102	
4	Non Combustible Board		2198-405	
5	Tray, Clean Cover		2293-117	
6	Base Pan		2292-010	
7	Burner Assembly		2292-007	Y
8	Glass Door Assembly		GLA-SLR	Y
9	Junction box		4021-013	Y
10	Bracket, Junction Box		2195-154	
11	Nailing Tab	Qty 2 req	2198-200	

Additional service part numbers appear on following page.

8/12

### #12 Valve Assembly



IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



**Stocked  
at Depot**

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
12.1	Pilot Hood		2269-123	
12.2	Pilot Assembly NG		2090-012	Y
	Pilot Assembly LP		2090-013	Y
12.3	Orifice NG (#42C)		582-842	Y
	Orifice LP (.057C)		582-057	Y
12.4	Valve Bracket		2269-153	
12.5	Valve NG		593-500	Y
	Valve LP		593-501	Y
12.6	Male Connector	Pkg of 5	303-315/5	Y
12.7	Module Wire Assembly		593-590A	Y
12.8	Thermostat Wire Assembly		2118-170	Y
12.9	Flex Ball Valve Assembly		531-320A	Y
12.10	3 Volt Transformer		593-593A	Y
12.11	Battery Pack		593-594A	Y
12.12	Module		593-592	Y
12.13	Bulkhead W/Flex Tube		383-302A	Y
12.14	Grommet		2118-420	
12.15	Pilot Bracket		2292-127	

Additional service part numbers appear on following page.



69



## D. Contact Information



Heatilator, a brand of Hearth & Home Technologies Inc.  
7571 215th Street West, Lakeville, MN 55044  
[www.heatilator.com](http://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](http://www.heatilator.com).

### - NOTES -

---

---

---

---

---

---

---

---

---

---

### NOTICE



#### DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



This product may be covered by one or more of the following patents: (United States) 5328356, 5601073, 5613487, 5647340, 5890485, 5941237, 5947112, 5996575, 6006743, 6019099, 6053165, 6145502, 6170481, 6374822, 6484712, 6601579, 6769426, 6863064, 7077122, 7098269, 7258116, 7470729 or other U.S. and foreign patents pending.

2000-945

Printed in U.S.A. - Copyright 2012