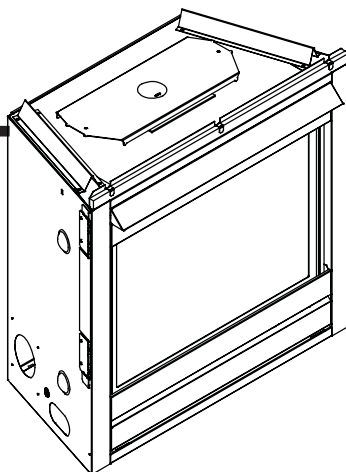


Model: BE-32



CAUTION



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*.

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

⚠ WARNING



HOT! DO NOT TOUCH.
SEVERE BURNS MAY RESULT.
CLOTHING IGNITION MAY RESULT.

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

- Keep children away.
- CAREFULLY SUPERVISE children in same room as appliance.
- Alert children and adults to hazards of high temperatures.
- Do NOT operate with protective barriers open or removed.
- Keep clothing, furniture, draperies and other combustibles 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.

Congratulations

Congratulations on selecting a Hearth & Home Technologies gas appliance—an elegant and clean alternative to wood burning appliances. The Hearth & Home Technologies gas appliance you have selected is designed to provide the utmost in safety, reliability, and efficiency.

As the owner of a new appliance, 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 Hearth & Home Technologies gas appliance will give you years of durable use and trouble-free enjoyment. Welcome to the Hearth & Home Technologies family of appliance products!

Homeowner Reference Information

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

Model Name: _____ Date purchased/installed: _____

Serial Number: _____ Location on appliance: _____

Dealership purchased from: _____ Dealer Phone: _____

Notes: _____

Listing Label Information/Location

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

Type of Gas

Gas and Electric Information

Model Number

Serial Number

This product may be covered by one or more of the following patents: (Nos produits sont couverts par un ou plusieurs des brevets suivants): (United States) 4593510, 4696807, 4766876, 4793322, 4811534, 5000162, 5016609, 5076254, 5113843, 5191877, 5218953, 5263471, 5328356, 5341794, 5347983, 5429495, 5452706, 5542407, 5601073, 5613487, 5647340, 5688558, 5762062, 5775408, 5890485, 5931661, 5941237, 5947112, 5998575, 6008743, 6019099, 6048195, 6053195, 6145502, 6170481, 6237588, 6296474, 6374822, 6413079, 6439228, 6484712, 6543698, 6550687, 6601579, 6672860, 6688302B2, 6715724B2, 6729551, 6736133, 6748940, 6748942, D320652, D445174, D462436; (Canada) 1297749, 2195264, 2225408; or other U.S. and foreign patents pending (ou autres brevets américains et étrangers en attente).

HEARTH & HOME technologies
Hearth & Home Technologies, Inc.
20802 Kensington Blvd., 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.	0000-0000FT.
MAX. INPUT BTUH:	00,000	00,000
MIN. INPUT BTUH:	00,000	00,000
ORIFICE SIZE:	#XXXXX	#XXXXX

IN CANADA

Model:	XXXXXXXX
(Modele):	
Serial	XXXXXXXX
(Serie):	

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➔ = Contains updated information.

1

Listing and Code Approvals

A. Appliance Certification

MODEL: BE-32

LABORATORY: Underwriters Laboratories, Inc. (UL)

TYPE: Direct Vent Gas Appliance Heater

STANDARD: ANSI Z21.88-2002•CSA2.33-M02•UL307B

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

NOT INTENDED FOR USE AS A PRIMARY HEAT SOURCE.

This appliance is tested and approved as either supplemental room heat or as a decorative appliance. It should not be factored as primary heat in residential heating calculations.

B. Glass Specifications

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

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

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

NOTE: 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.

C. BTU Specifications

Models (U.S. or Canada)		Maximum Input BTUH	Orifice Size (DMS)
BE-32 (NG)	US (0-2000 FT)	17,800	46
	CANADA (2000-4500 FT)	16,000	47
BE-32 (LP)	US (0-2000 FT)	15,500	56
	CANADA (2000-4500 FT)	13,680	57

D. High Altitude Installations

U.L. Listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 feet in the U.S.A. and Canada.

When installing this appliance at an elevation above 2000 feet, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 feet above a 2000 foot elevation in the U.S.A., or 10% for elevations between 2000 and 4500 feet in Canada. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.

If installing this appliance at an elevation above 4500 feet (in Canada), check with local authorities.

WARNING

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.

E. Non-Combustible Materials Specification

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

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

F. Combustible Materials Specification

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

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

→ G. 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 gasfitter 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 gasfitter 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) inch 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.

2

Getting Started

A. Design and Installation Considerations

Hearth & Home Technologies 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.



CAUTION

Check building codes prior to installation.

- Installation **MUST** comply with local, regional, state and national codes and regulations.
- Consult local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.


When planning an appliance installation, it's necessary to determine the following information before installing:

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

**WARNING**

Keep appliance dry.

- Mold or rust may cause odors.
- Water may damage controls.





B. Tools and Supplies Needed

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

Reciprocating saw	Framing material
Pliers	Hi temp caulking material
Hammer	Gloves
Phillips screwdriver	Framing square
Flat blade screwdriver	Electric drill and bits (1/4 in.)
Plumb line	Safety glasses
Level	1/2 - 3/4 inch length, #6 or #8 Self-drilling screws
Manometer	Voltmeter
Tape measure	Noncorrosive leak check solution
One 1/4 inch female connection (for optional fan).	

C. Inspect Appliance and Components



**WARNING**

Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
- Do NOT install incomplete components.
- Do NOT install substitute components.

Report damaged parts to dealer.

- Carefully remove the appliance and components from the packaging.
- The vent system components and trim doors are shipped in separate packages.
- The gas logs may be packaged separately and must be field installed.
- 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**

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.

3

Framing and Clearances

NOTE:

- 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.



WARNING



Fire Risk

Provide adequate clearance:

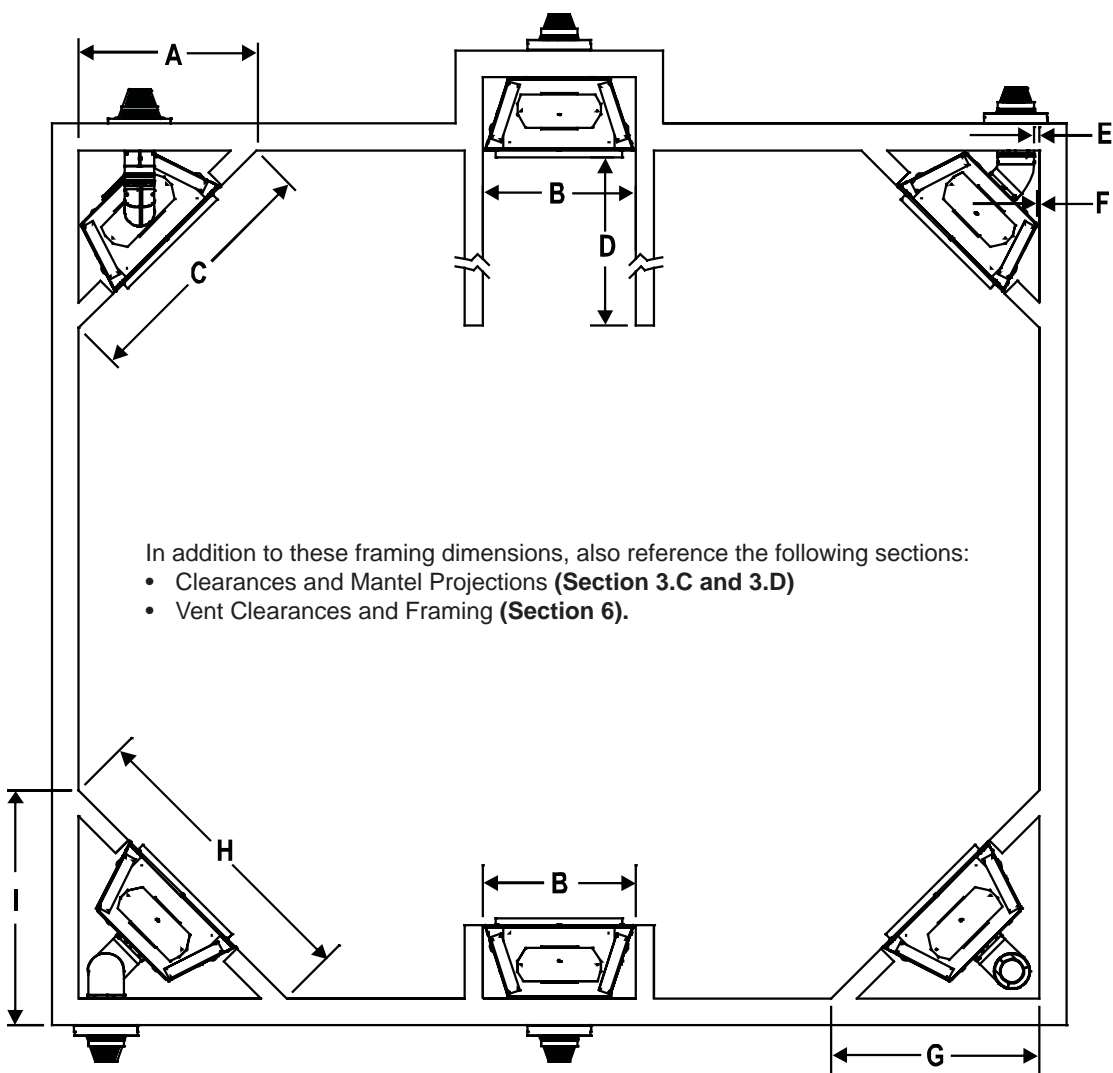
- Around air openings
- To combustibles
- For service access

Locate appliance away from traffic areas.

A. Selecting Appliance Location

When selecting a location for your appliance it is important to consider the required clearances to walls (see Figure 3.1).

NOTE: For actual appliance dimensions refer to **Section 16**.



	A	B	C	D	E	F	G	H	I
Inches	39-3/8	34	55-5/8	37-3/8	1	1/2	46-1/16	65-1/8	52-1/16
mm	1000	864	1413	949	25	13	1170	1654	1322

Figure 3.1 Appliance Locations

B. Constructing the Appliance Chase

A chase is a vertical boxlike structure built to enclose the gas appliance and/or its vent system. Vertical vents that run on the outside of a building may be, but are not required to be, installed inside a chase.

Construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Local building codes **MUST** be checked.

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 high temperature caulk to seal gaps. Gas line holes and other openings should be caulked with

high temp caulk or stuffed with unfaced insulation. If the appliance is being installed on a cement slab, a layer of plywood may be placed underneath to prevent conducting cold up into the room.

C. Clearances

⚠ WARNING



Fire Risk.

Odor Risk.

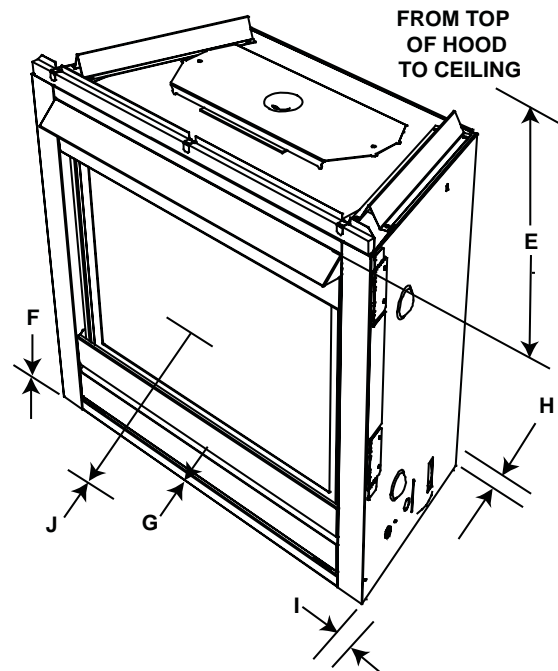
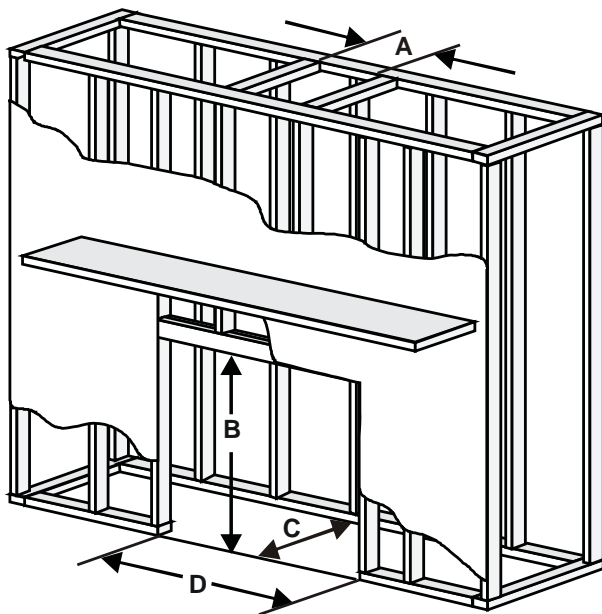
- Install appliance on hard metal or wood surfaces extending full width and depth of appliance.
- Do NOT install appliance directly on carpeting, vinyl, tile or any combustible material other than wood.

⚠ WARNING



Fire Risk.

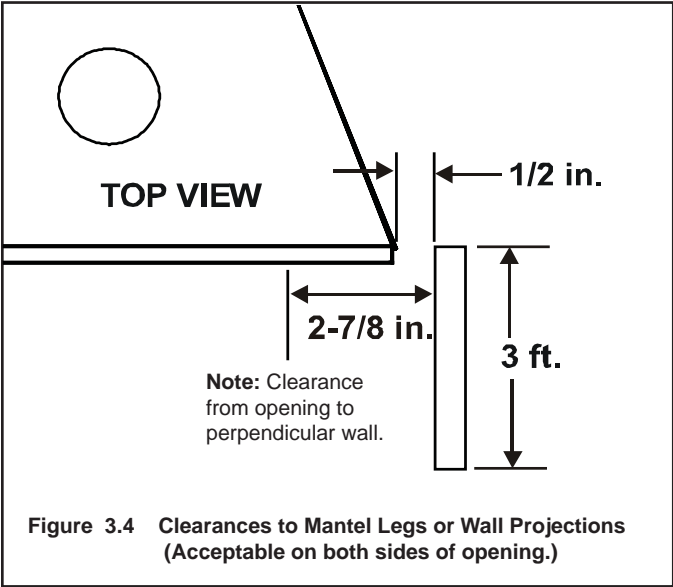
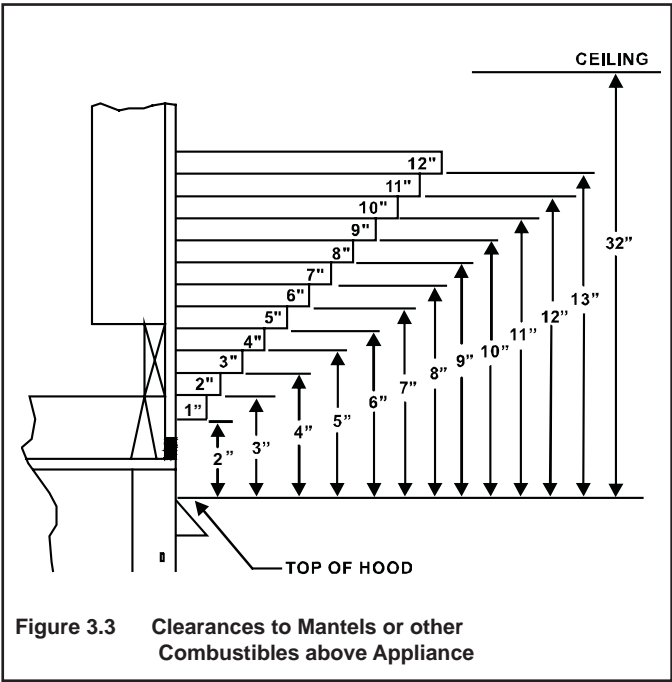
- Construct chase to all clearance specifications in manual.
- Locate and install appliance to all clearance specifications in manual



		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 (From Top of Hood)	Non-Combustible Floor	Combustible Flooring	Behind Appliance	Sides of Appliance	Front of Appliance
SL PIPE	Inches	8-5/8	31	16-1/4	34	32	0	0	1/2	1/2	36
	mm	219	787	413	864	813	0	0	13	13	914
DVP PIPE	Inches	10	31	27-1/2	34	32	0	0	1/2	1/2	36
	mm	254	787	699	864	813	0	0	13	13	914

Figure 3.2 Clearances to Combustibles

D. Mantel Projections



4

Termination Locations

A. Vent Termination Minimum Clearances

WARNING



Fire Risk.

Explosion Risk.

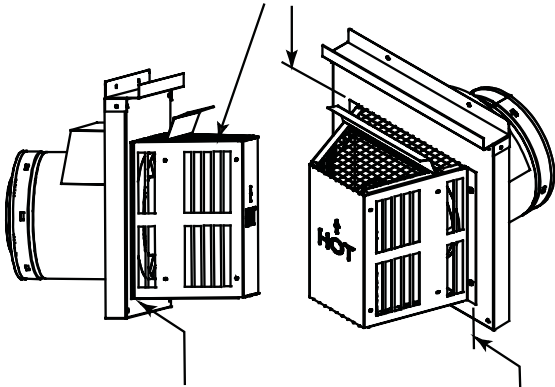
Maintain vent clearance to combustibles as specified.



- Do not pack air space with insulation or other materials.

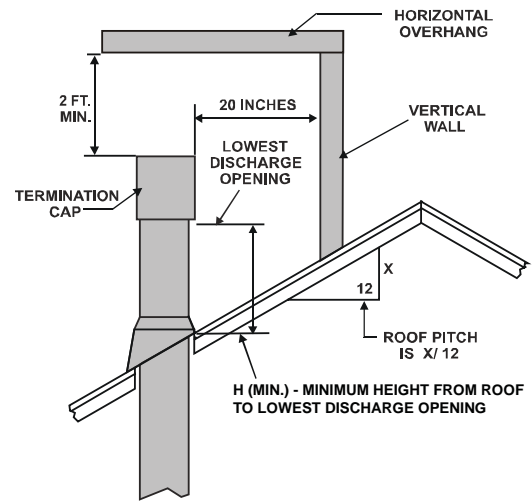
Failure to keep insulation or other materials away from vent pipe may cause fire.

Measure vertical clearances from this surface.



Measure horizontal clearances from this surface.

Figure 4.1 (See Figure 4.4 for specific clearances)

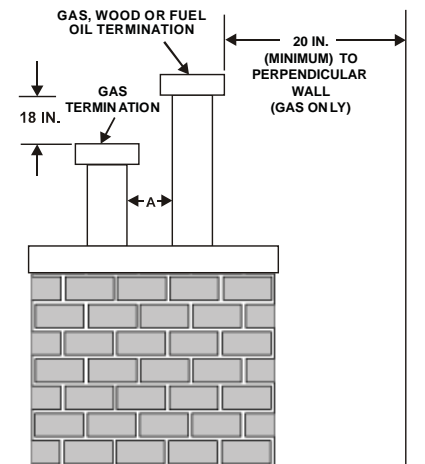


Roof Pitch	H (Min.) Ft.
Flat to 6/12.....	1.0*
Over 6/12 to 7/12.....	1.25*
Over 7/12 to 8/12.....	1.5*
Over 8/12 to 9/12.....	2.0*
Over 9/12 to 10/12.....	2.5
Over 10/12 to 11/12.....	3.25
Over 11/12 to 12/12.....	4.0
Over 12/12 to 14/12.....	5.0
Over 14/12 to 16/12.....	6.0
Over 16/12 to 18/12.....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

* 3 foot minimum in snow regions

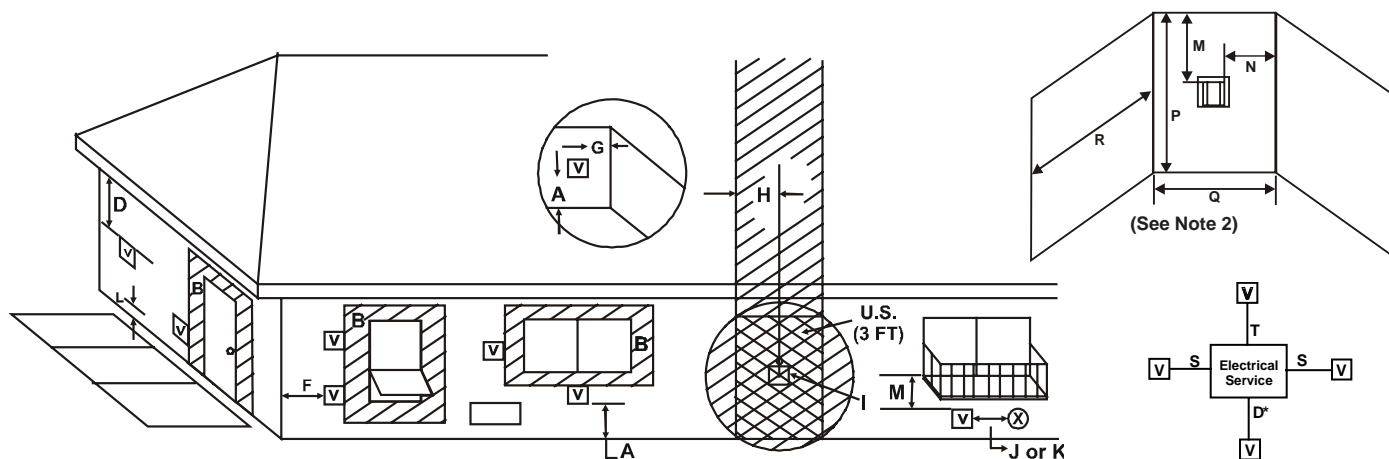
Figure 4.2 Minimum Height from Roof to Lowest Discharge Opening

Figure 4.2 specifies minimum vent heights for various pitched roofs.



	Gas Termination	Wood & Fuel Oil Termination
A	6 in.	20 in.

Figure 4.3 Multiple Vertical Termination



V = VENT TERMINAL

(X) = AIR SUPPLY INLET

[Shaded Area] = AREA WHERE TERMINAL IS NOT PERMITTED

- A = 12 inches.....clearances above grade, veranda, porch, deck or balcony
(See Note 1)
- B = 12 inches.....clearances to window or door that may be opened, or to permanently closed window. (Glass)
- D* = 18 inches.....vertical clearance to unventilated soffit or to ventilated soffit located above the terminal
*30 inches.....for vinyl clad soffits and below electrical service
- F = 9 inches.....clearance to outside corner
- G = 6 inches.....clearance to inside corner
- H = 3 ft. (Canada).....not to be installed above a gas meter/regulator assembly within 3 feet (90 cm) horizontally from the center-line of the regulator
- I = 3 ft. (U.S.A.)
6 ft. (Canada).....clearance to gas service regulator vent outlet
- J = 9 inches (U.S.A.)
12 inches (Canada) clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance

- K = 3 ft. (U.S.A.)
6 ft. (Canada).....clearance to a mechanical (powered) air supply inlet
- L** = 7 ft.clearance above paved sidewalk or a paved driveway located on **public** property
(See Note 1)
- M*** = 18 inches.....clearance under veranda, porch, deck, balcony or overhang
42 inchesvinyl
- S = 6 inchesclearance from sides of electrical service
(See Note 5)
- T = 12 inchesclearance above electrical service
(See Note 5)

Alcove Applications

- N = 6 inchesnon-vinyl sidewalls
12 inchesvinyl sidewalls
- 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	$1/2 \times Q_{ACTUAL}$
$Q_{MIN} = \# \text{ termination caps} \times 3$ $R_{MAX} = (2 / \# \text{ termination caps}) \times Q_{ACTUAL}$		

** a vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.

*** only permitted if veranda, porch, deck or balcony is fully open on a minimum of 2 sides beneath the floor, or meets Note 2.

NOTE 1: On private property where termination is less than 7 feet above a sidewalk, driveway, deck, porch, veranda or balcony, use of a listed cap shield is suggested. (See vents components page)

NOTE 2: Termination in an alcove space (spaces open only on one side and with an overhang) are permitted with the dimensions specified for vinyl or non-vinyl siding and soffits. **1.** There must be 3 feet minimum between termination caps. **2.** All mechanical air intakes within 10 feet of a termination cap must be a minimum of 3 feet below the termination cap. **3.** All gravity air intakes within 3 feet of a termination cap must be a minimum of 1 foot below the termination cap.

Figure 4.4 Minimum Clearances for Termination

NOTE 3: Local codes or regulations may require different clearances.

NOTE 4: Termination caps may be hot. Consider their proximity to doors or other traffic areas.

NOTE 5: Location of the vent termination must not interfere with access to the electrical service.

WARNING: In the U.S: Vent system termination is **NOT** permitted in screened porches. You must follow side wall, overhang and ground clearances as stated in the instructions.

In Canada: Vent system termination is **NOT** permitted in screened porches. Vent system termination is permitted in porch areas with two or more sides open. You must follow all side walls, overhang and ground clearances as stated in the instructions.

Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

CAUTION: IF EXTERIOR WALLS ARE FINISHED WITH VINYL SIDING, IT IS SUGGESTED THAT A VINYL PROTECTOR KIT BE INSTALLED.

5

Vent Information and Diagrams

A. Vent Table Key

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

Symbol	Description
V ₁	First section (closest to appliance) of vertical length
V ₂	Second section of vertical length
H ₁	First section (closest to appliance) of horizontal length
H ₂	Second section of horizontal length

WARNING



Fire Hazard.

Explosion Risk.

Asphyxiation Risk.

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

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



B. Use of Elbows

CAUTION

ALL vent configuration specifications MUST be followed.

- This product is tested and listed to these specifications.
- Appliance performance will suffer if specifications are not followed.

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 5.1).

Two 45° elbows may be used in place of one 90° elbow. On 45° runs, one foot of diagonal is equal to 8.5 inches horizontal run and 8.5 inches vertical run. A length of straight pipe is allowed between two 45° elbows (see Figure 5.1).

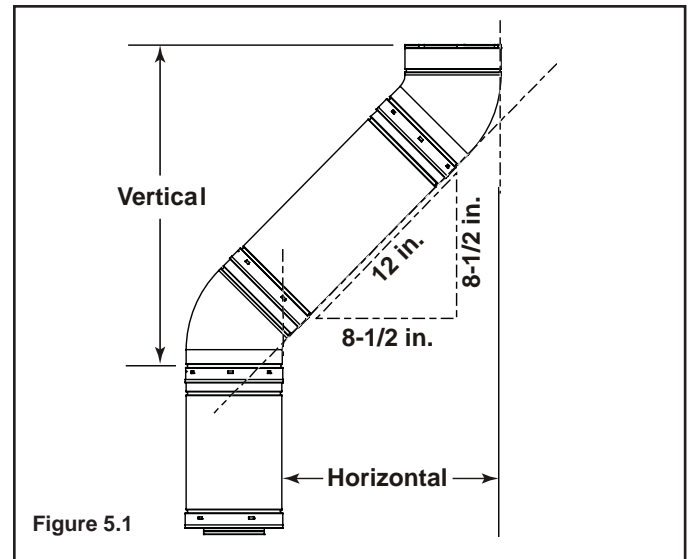


Figure 5.1

C. Measuring Standards

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

1. Pipe measurements are shown using the effective length of pipe (see Figure 5.2).
2. Measurements are made from the appliance outer wrap, not from the standoffs.
3. Horizontal terminations are measured to the outside mounting surface (flange of termination cap) (see Figure 4.1).
4. Vertical terminations are measured to bottom of termination cap.
5. Horizontal pipe installed level with no rise.

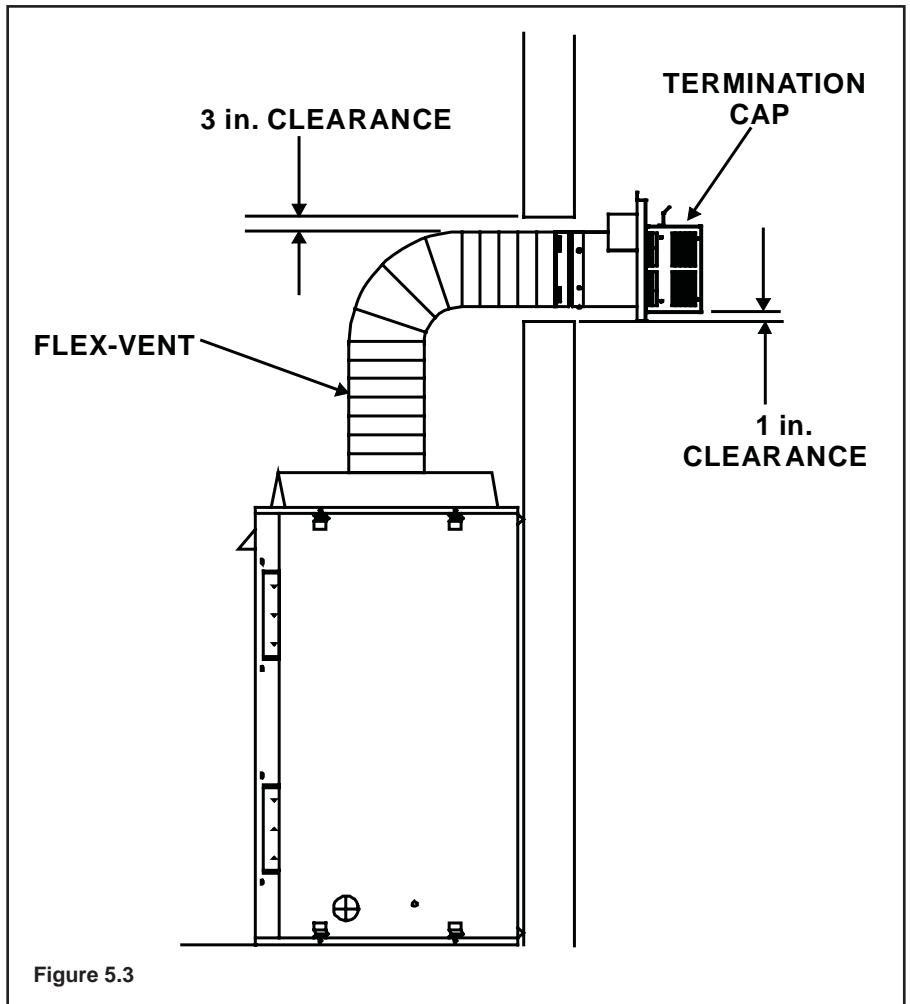
Pipe	Length/ Inches
DVP4	4
DVP6	6
DVP12	12
DVP24	24
DVP36	36
DVP48	48
DVP6A	3 to 6
DVP12A	3 to 12
DVP12MI	3 to 12
DVP24MI	3 to 24

Figure 5.2 DVP Pipe Effective Length


D. Use of Flex Vent


The flex vent must be supported with the spacing between support intervals not exceeding 4 feet, with no more than ½ inch sag between supports.

A support is required at each change in venting direction, and in any location where it is necessary to maintain the necessary clearance to combustibles. A simple “up and out” installation (Figure 5.3) requires only enough support to maintain the necessary clearance to combustibles. However, the vent attachment point and the firestop location are considered to be supports.



E. Vent Diagrams




**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.



1. Top Vent - Horizontal Termination

One Elbow

Note: Use SL Series components only.

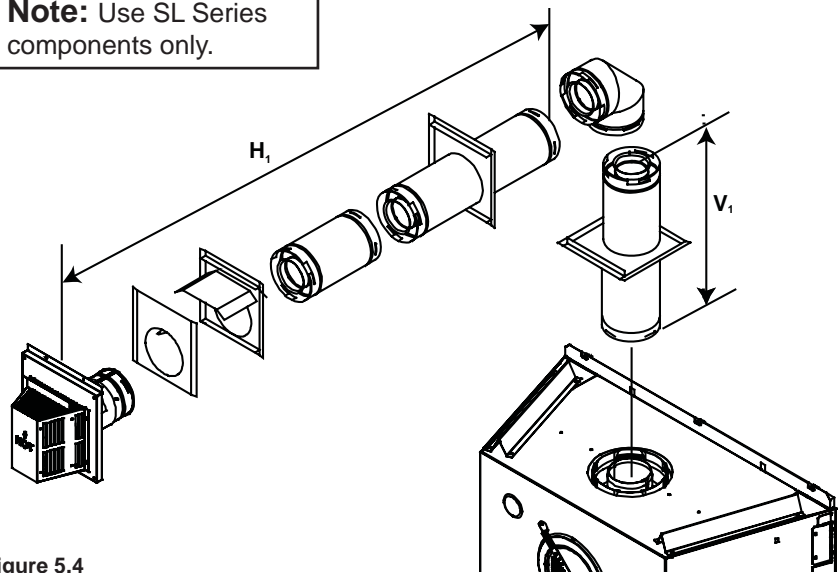


Figure 5.4

V ₁ Minimum		H ₁ Maximum	
Elbow only		1.5 ft	457 mm
1 ft.	305 mm	2 ft.	610 mm
2 ft.	610 mm	4 ft.	1.2 m
3 ft.	914 mm	9 ft.	2.7 m
4 ft.	1.2 m	12 ft.	3.7 m
V ₁ + H ₁ = 30 ft. (9.1 m) Maximum			

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).

Two Elbows

Note: Use SL Series components only.

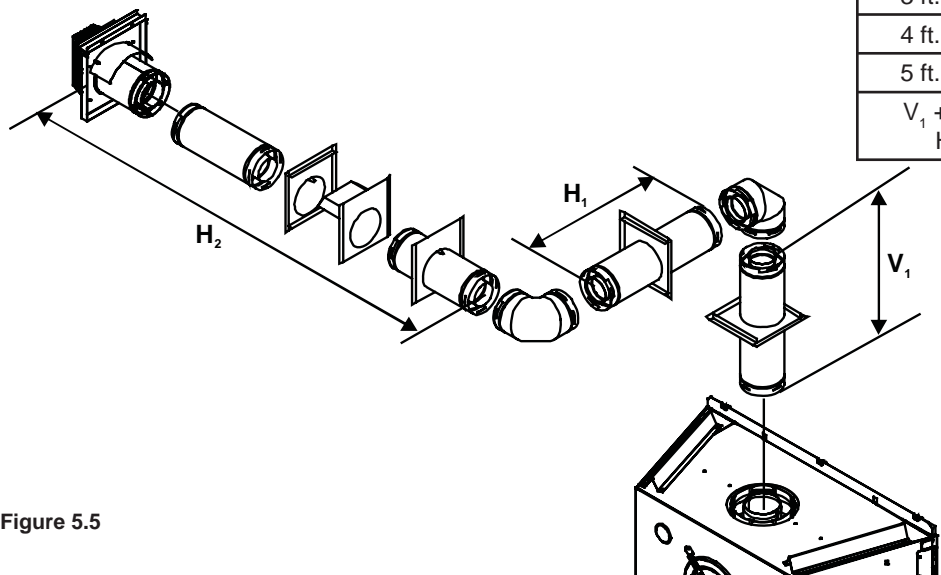


Figure 5.5

V ₁ Minimum		H ₁ + H ₂ Minimum	
6 in.	152 mm	1-1/2 ft.	457 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	8 ft.	2.4 m
5 ft.	1.5 m	10 ft.	3.0 m
V ₁ + H ₁ + H ₂ = 50 ft. (15.2 m) Maximum			
H ₁ + H ₂ = 17 ft. (5.2 m) Maximum			

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).

1. Top Vent - Horizontal Termination - (continued)

Three Elbows

V_1 Min.		H_1 Max.		V_2 Min.		H_2 Max.		$V_1 + V_2$ Min.		$H_1 + H_2$ Max.	
Elbow only		Not allowed		Not allowed		Not allowed		Not allowed		Not allowed	
1-1/2 ft.	457 mm	1 ft.	305 mm	6 in.	152 mm	1 ft.	305 mm	2 ft.	610 mm	2 ft.	610 mm
2-1/2 ft.	762 mm	2 ft.	610 mm	1-1/2 ft.	457 mm	2 ft.	610 mm	4 ft.	1.2 m	4 ft.	1.2 m
3-1/2 ft.	1.1 m	3 ft.	914 mm	1-1/2 ft.	457 mm	3 ft.	914 mm	5 ft.	1.5 m	6 ft.	1.8 m
4-1/2 ft.	1.4 m	4 ft.	1.2 m	1-1/2 ft.	457 mm	1-1/2 ft.	457 mm	6 ft.	1.8 m	6-1/2 ft.	2.0 m
5-1/2 ft.	1.7 m	5 ft.	1.5 m	1-1/2 ft.	457 mm	1-1/2 ft.	457 mm	7 ft.	2.1 m	6-1/2 ft.	2.0 m
$H_1 + H_2 = 8$ ft. (2.4 m) Maximum						$V_1 + V_2 + H_1 + H_2 = 50$ ft. (15.2 m) Maximum					

Note: Use SL 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).

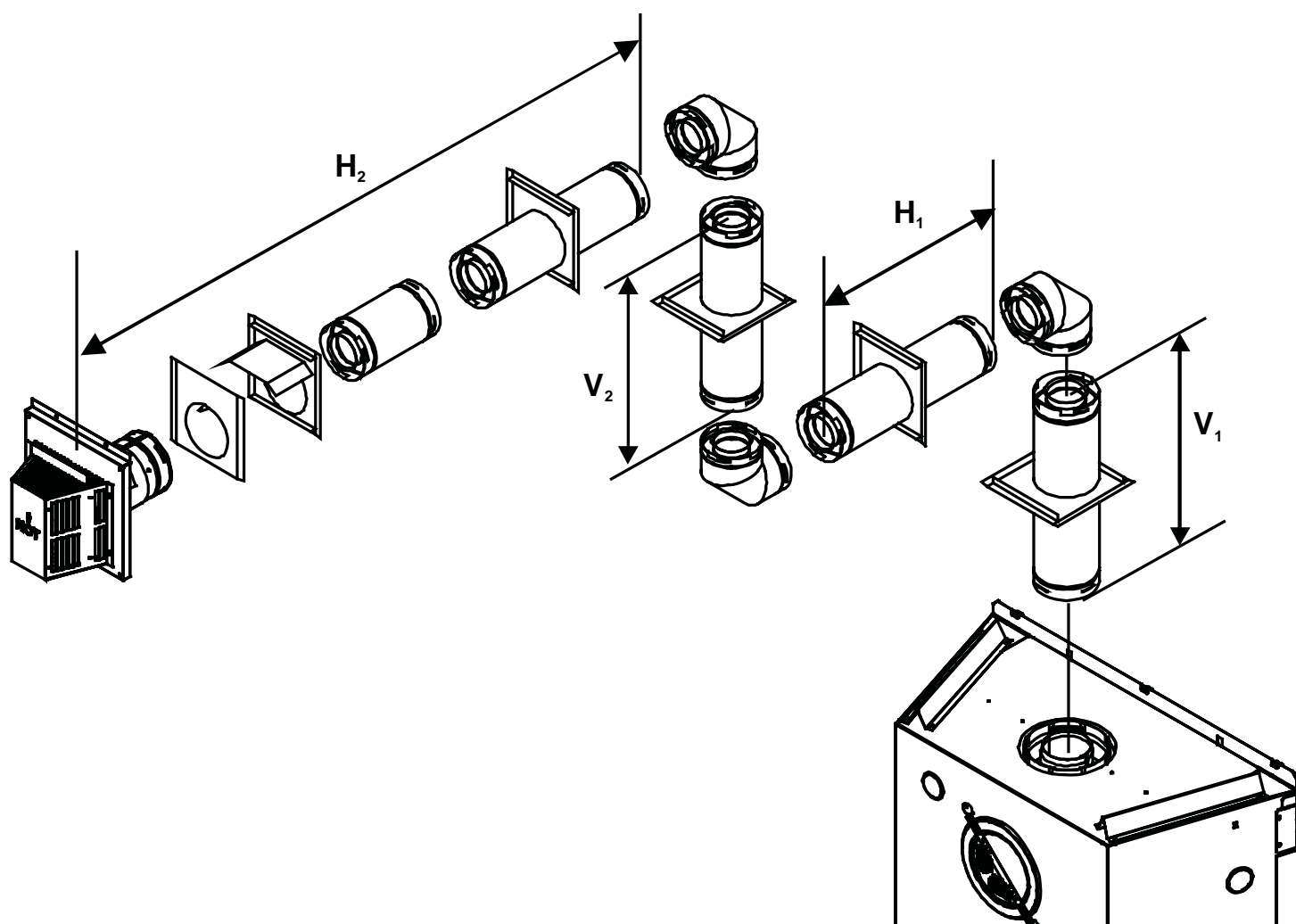
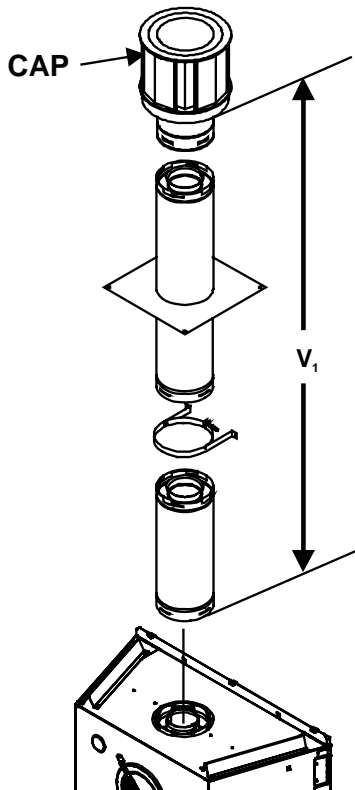


Figure 5.6

2. Top Vent - Vertical Termination

No Elbow

Note: Use SL Series components only.



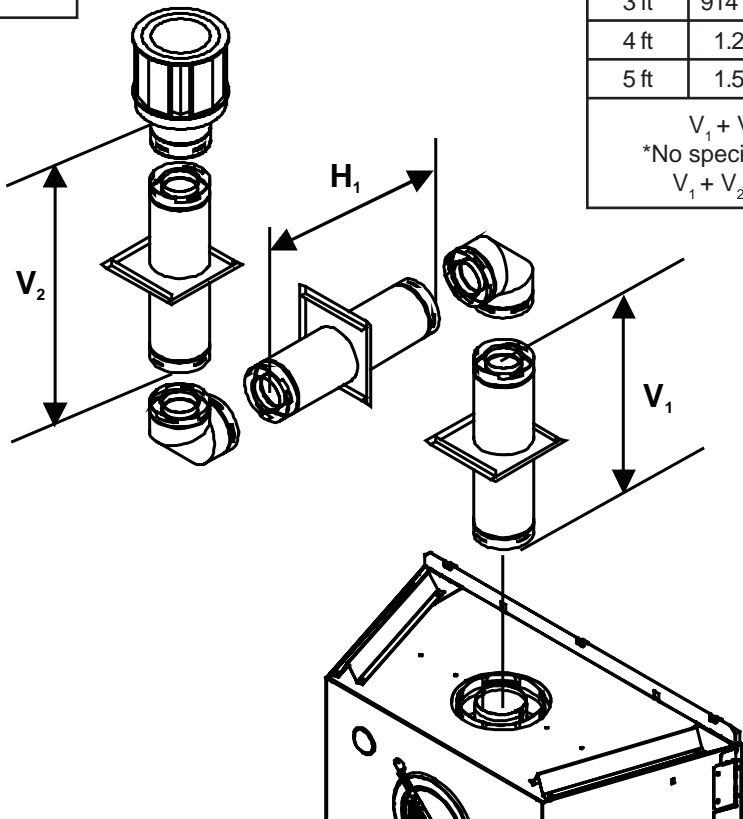
$$V_1 = 41 \text{ ft. Max. (12.5 m)}$$

NOTE: If installing a vertical vent/termination off the top of the appliance, the optional vertical termination baffle should be used.

Figure 5.7

Two Elbows

Note: Use SL Series components only.



V_1		H_1 Maximum		V_2	$V_1 + V_2$ Min.	
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	8 ft	2.4 m	*	*	*
5 ft	1.5 m	12 ft	3.7 m	*	*	*

$V_1 + V_2 + H_1 = 45 \text{ ft (13.7 m) Maximum}$
 *No specific restrictions on this value EXCEPT
 $V_1 + V_2 + H_1$ cannot exceed 45 ft (13.7 m)

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).

Figure 5.8

2. Top Vent - Vertical Termination - (continued)

Three Elbows

Note: Use SL Series components only.

V_1		$H_1 + H_2$		V_2		$V_1 + V_2$ Minimum		$H_1 + H_2$ Maximum	
ELBOW ONLY		0	0	1-1/2 ft	457 mm	1-1/2 ft	457 mm	0	0
1-1/2 ft	457 mm	3 ft	914 mm	*	*	*	*	3 ft	914 mm
2-1/2 ft	762 mm	5 ft	1.5 m	*	*	*	*	5 ft	1.5 m
3-1/2 ft	1.1 m	7 ft	2.1 m	*	*	*	*	7 ft	2.1 m
4-1/2 ft	1.4 m	11 ft	3.4 m	*	*	*	*	11 ft	3.4 m
$H_1 + H_2 = 11 \text{ ft (3.4 m) Maximum}$ $V_1 + V_2 + H_1 + H_2 = 33 \text{ ft (10.1 m) Maximum}$									

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).

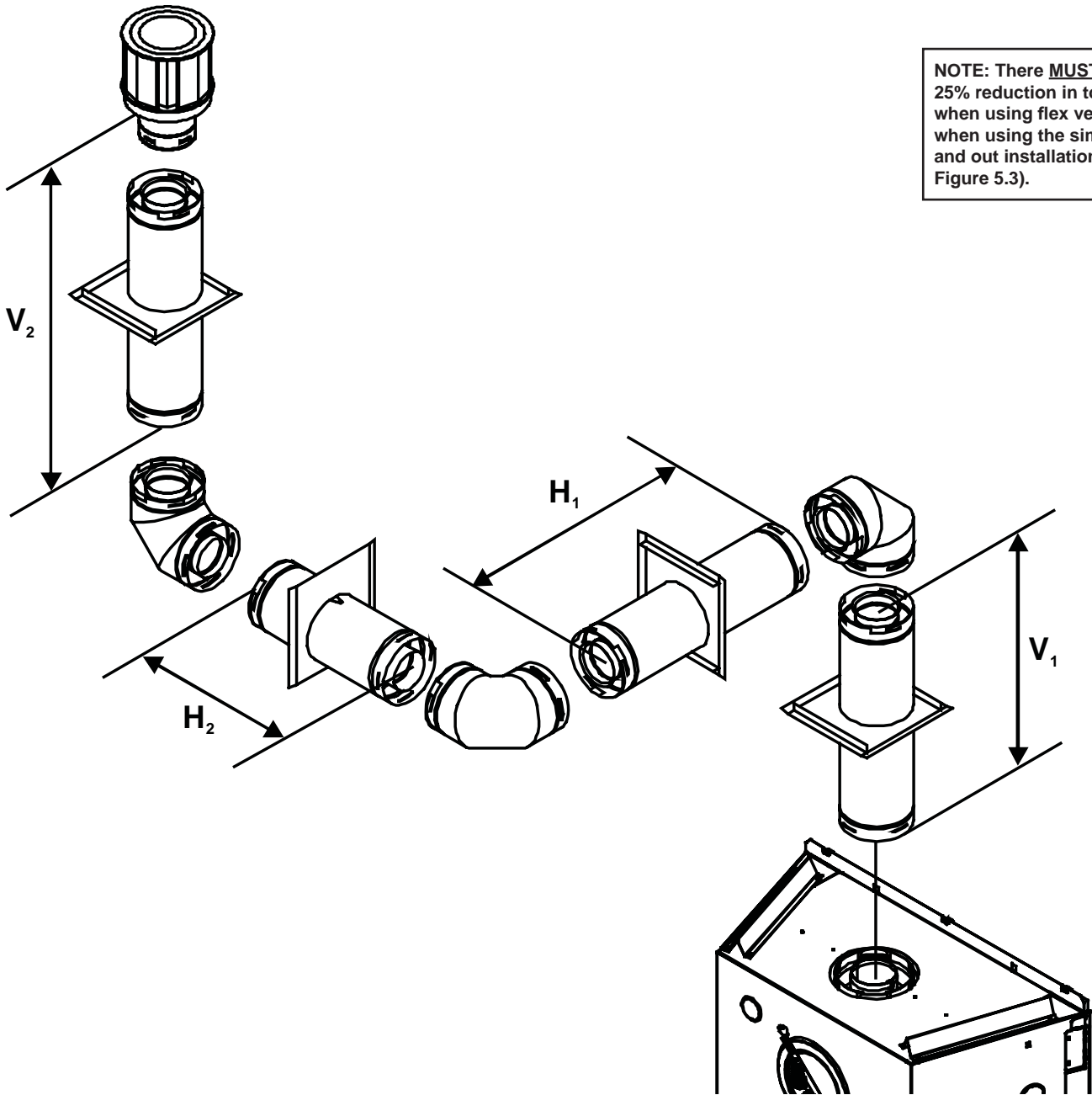


Figure 5.9

3. Rear Vent - Horizontal Termination

No Elbow

$H_1 = 30 \text{ in. (762 mm)}$ Maximum

Note: Use DVP Series components only.

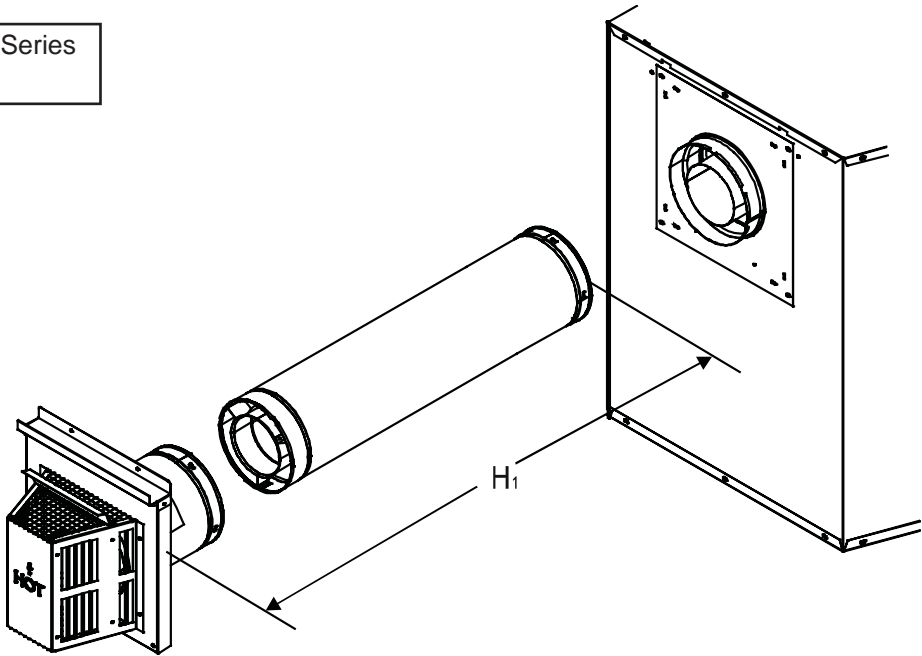


Figure 5.10

Two Elbows

Note: Use DVP Series components only.

H_1 Maximum		V_1 Minimum		H_2		$H_1 + H_2$ Maximum	
6 in.	152 mm	Back to Back 90° Elbows		1-1/2 ft	457 mm	2 ft	610 mm
1-1/2 ft	457 mm	1 ft	305 mm	1 ft	305 mm	2-1/2 ft	762 mm
2-1/2 ft	762 mm	2 ft	610 mm	4 ft	1.2 m	6-1/2 ft	2.0 m
3-1/2 ft	1.0 m	3 ft	914 mm	5 ft	1.5 m	8-1/2 ft	2.6 m
$V_1 + H_1 + H_2 = 30 \text{ ft (9.1 m)}$ Maximum				$H_1 = 8 \text{ ft (2.4 m)}$ Maximum			
				$H_1 + H_2 = 8\text{-}1/2 \text{ ft (2.6 m)}$ Maximum			

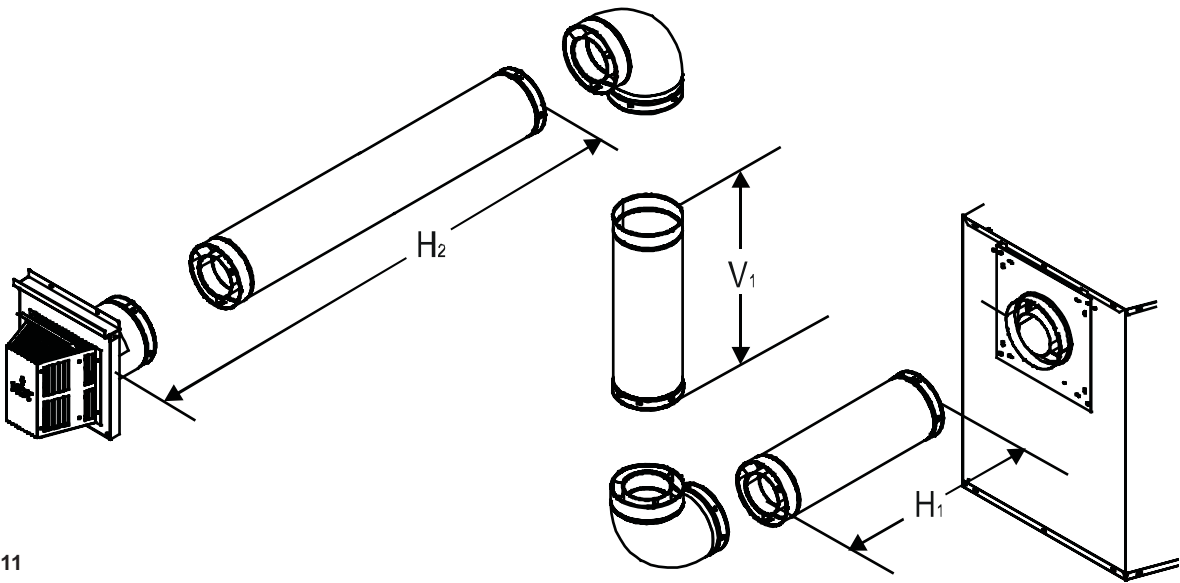


Figure 5.11

3. Rear Vent - Horizontal Termination - (continued)

Three Elbows

Note: Use DVP Series components only.

H ₁ Maximum		V ₁ Minimum		H ₂ +H ₃		H ₁ +H ₂ +H ₃ Maximum	
Elbow Only		0	0	0	0	0	0
1-1/2 ft	457 mm	1 ft	305 mm	1/2 ft	152 mm	2 ft	610 mm
2-1/2 ft	762 mm	2 ft	610 mm	3-1/2 ft	1.1 m	6 ft	1.8 m
3-1/2 ft	1.1 m	3 ft	914 mm	4-1/2 ft	1.4 m	8 ft	2.4 m
V ₁ +H ₁ +H ₂ +H ₃ = 30 ft (9.1 m) Maximum				H ₁ = 3-1/2 ft (1.2 m) Maximum			

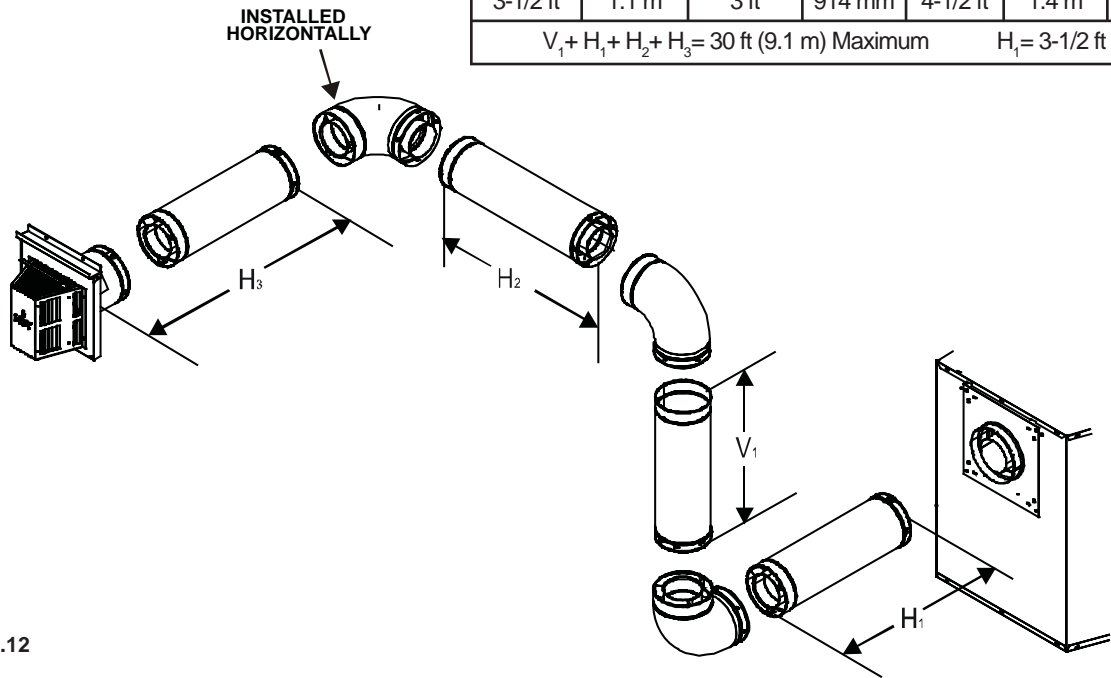


Figure 5.12

4. Rear Vent - Vertical Termination

One Elbow

Note: Use DVP Series components only.

V ₁ Minimum		H ₁ Maximum	
1 ft	305 mm	3 ft	914 mm
2 ft	610 mm	6 ft	1.8 m
3 ft	914 mm	9 ft	2.7 m
4 ft	1.2 m	12 ft	3.7 m
V ₁ +H ₁ = 35 ft (10.7 m) Maximum			
H ₁ = 11 ft (3.4 m) Maximum			

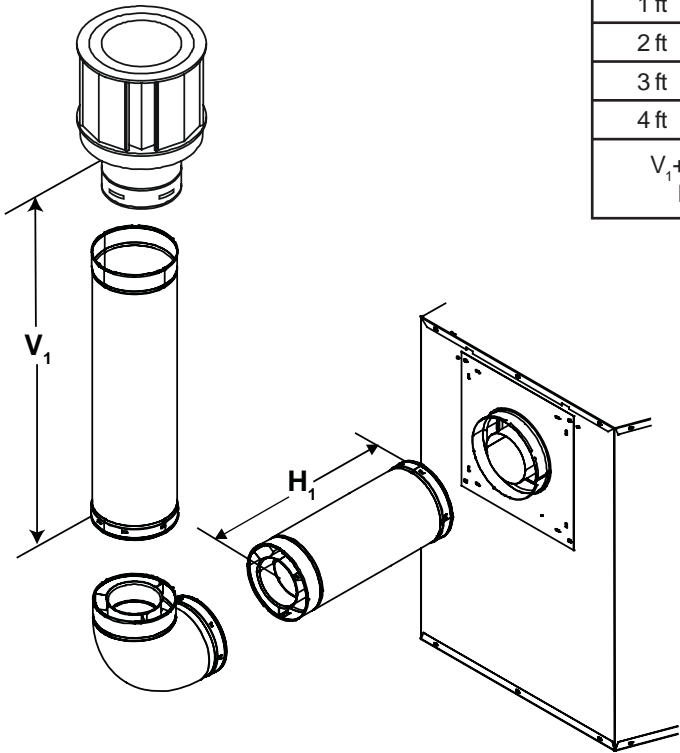


Figure 5.13

4. Rear Vent - Vertical Termination - (continued)

Two Elbows

Note: Use DVP Series components only.

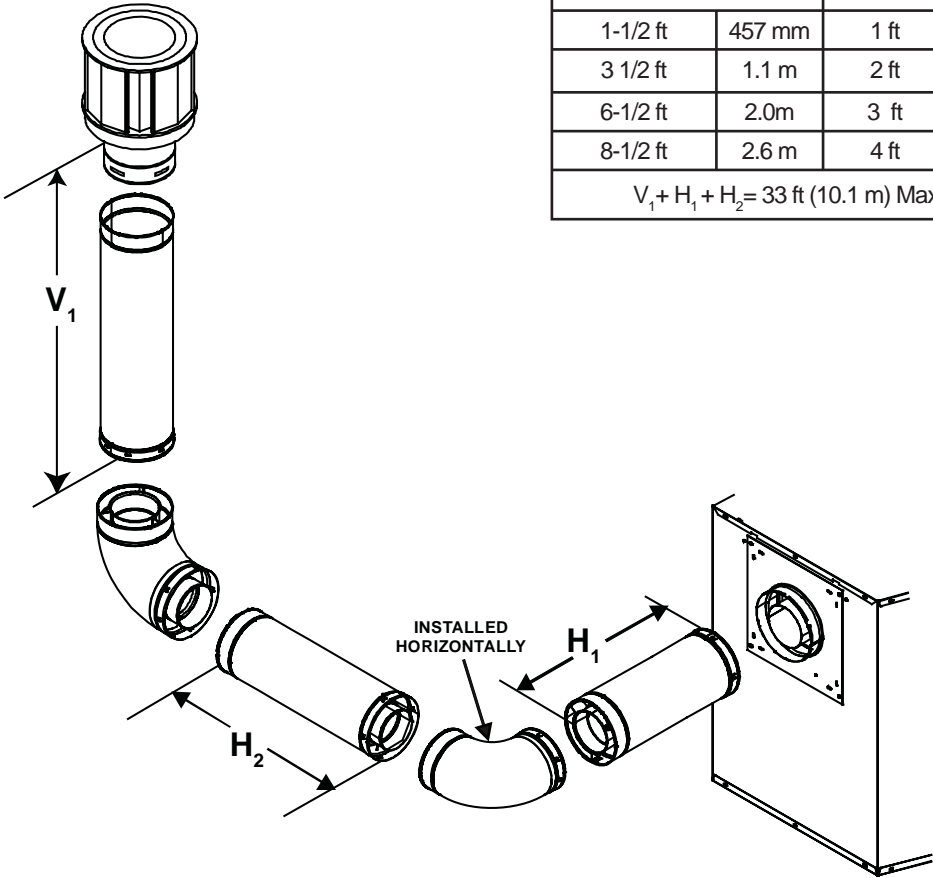


Figure 5.14

6

Vent Clearances and Framing

A. Pipe Clearances to Combustibles

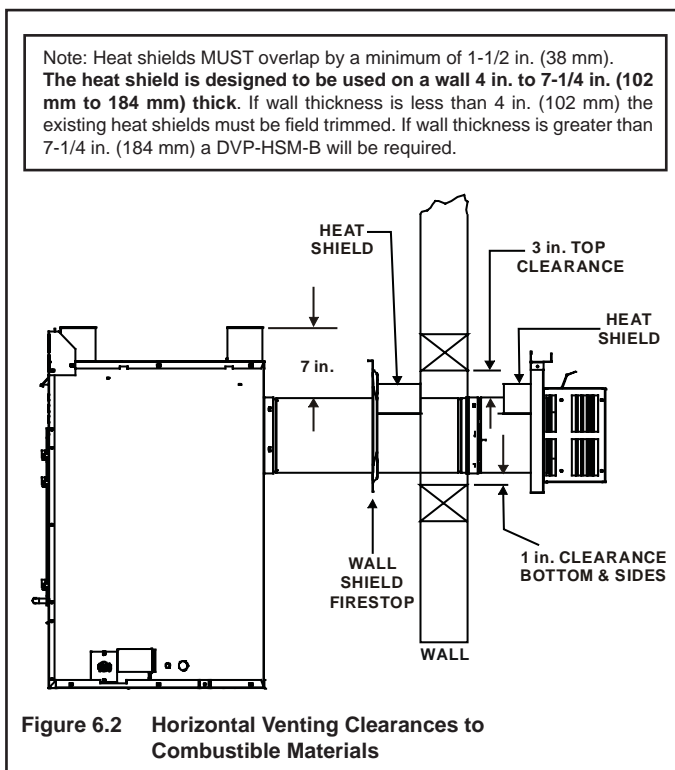
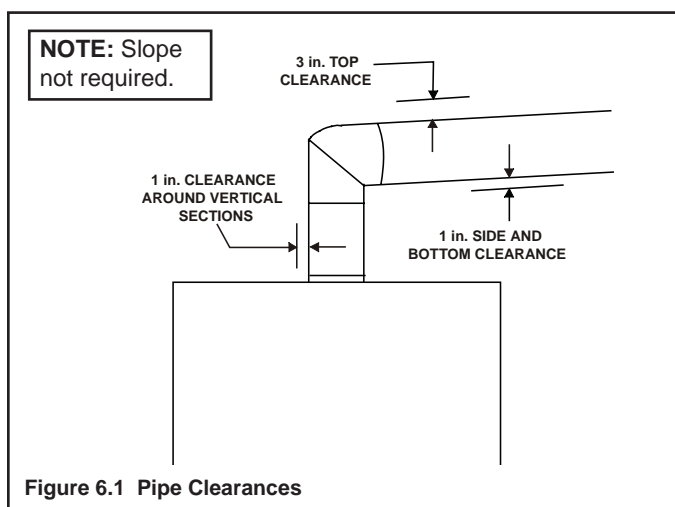
WARNING

Fire Risk.
Explosion Risk.

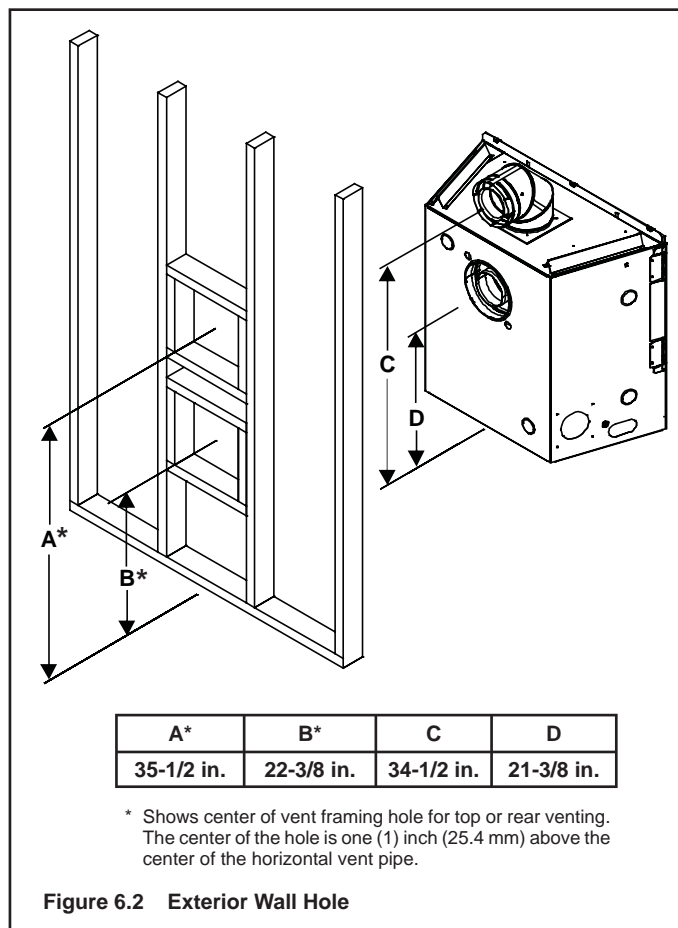
Maintain vent clearance to combustibles as specified.

- Do not pack air space with insulation or other materials.

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



B. Wall Penetration Framing



Combustible Wall Penetration

Frame a hole in a combustible wall for an interior wall shield firestop, (Figure 6.2) whenever a wall is penetrated. Use same size framing materials as those used in the wall construction. The wall shield firestop maintains minimum clearances and prevents cold air infiltration.

Non-Combustible Wall Penetration

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

C. Vertical Penetration Framing

WARNING



Fire Hazard

Keep loose materials or blown insulation from touching the vent pipe.

- National building codes recommend using attic shield to keep loose materials/blown insulation from contacting vent.
- Hearth & Home Technologies requires the use of an attic shield.

Installing the Ceiling Firestop

- Frame an opening 10 inches by 10 inches whenever the vent system penetrates a ceiling/floor (see Figure 6.3).
- Frame the area with the same sized lumber as used in ceiling/floor joist.
- When installing a top vent vertical termination appliance the hole should be directly above the appliance, unless the flue is offset.
- Do not pack insulation around the vent. Insulation must be kept away from the pipe.

Installing Attic Shield

Note: An additional ceiling firestop is not required if attic shield is used.

- Frame opening for attic shield.
- Attic shield may be installed above or below ceiling (see Figure 6.4).
- Secure with three fasteners on each side.
- Fold tabs at top of attic shield in toward vent pipe. Tabs must keep vent pipe centered within shield.
- Field construct additional shield height if insulation is deeper than height of attic shield.

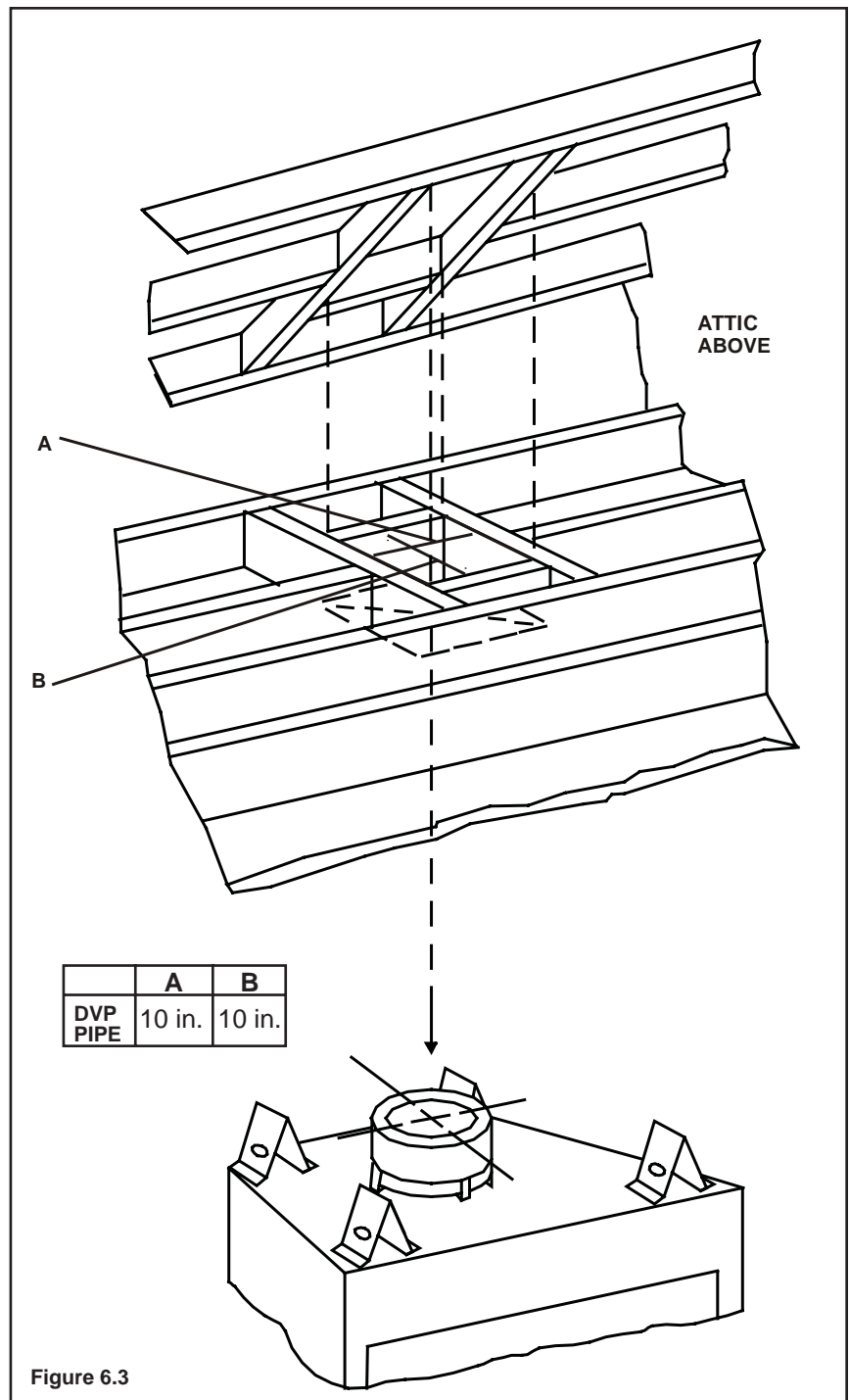


Figure 6.3

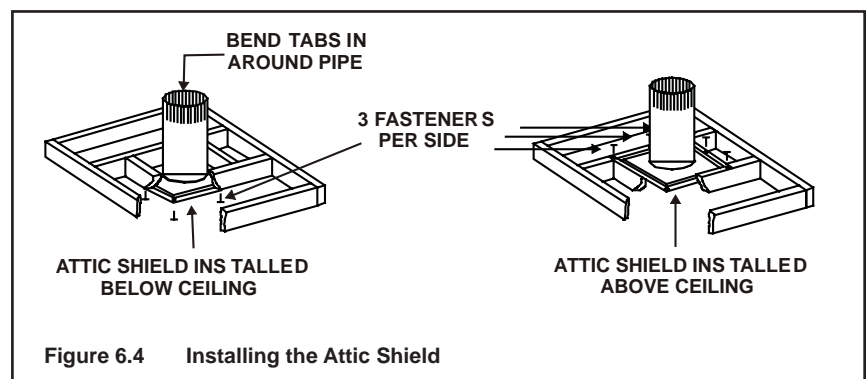


Figure 6.4 Installing the Attic Shield

7

Appliance Preparation

A. Top Vent



Figure 7.1 Remove the cover plate by removing the four screws holding it to the top of the appliance. Remove and discard the cover plate.

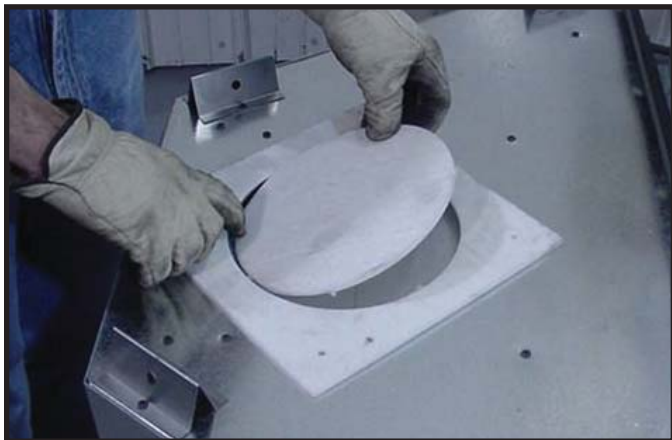


Figure 7.2 Remove the center insulation plug.

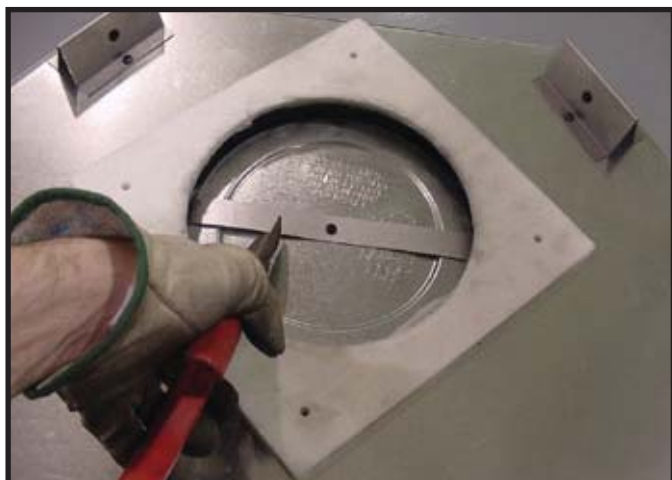


Figure 7.3 Cut the metal retaining band and fold the sides out.

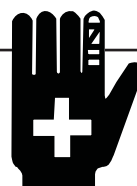


Figure 7.4 Fold the center parts of the retaining band up and use to remove the vent cap.



Figure 7.5 Discard the vent cap, remove and discard the insulation basket. Note: Once the vent cap has been removed it CANNOT be reattached.

Proceed to Section 7. C.



CAUTION

Sharp Edges

- Wear protective gloves and safety glasses during installation.



B. Rear Vent



Figure 7.6 Fold the tabs toward the center of the fire plug (90°) and remove the insulation gasket.



Figure 7.7 Cut the metal retaining band and fold the sides out.



Figure 7.8 Fold the center parts of the retaining band out and use to remove the vent cap.



Figure 7.9 Discard the vent cap, remove and discard the insulation basket. Note: Once the vent cap has been removed it CANNOT be reattached.



Figure 7.10 Attach the first vent section (it will snap into place). Slide the insulation gasket onto the vent section, up against the appliance and over the tabs.

C. Securing and Leveling the Appliance

WARNING



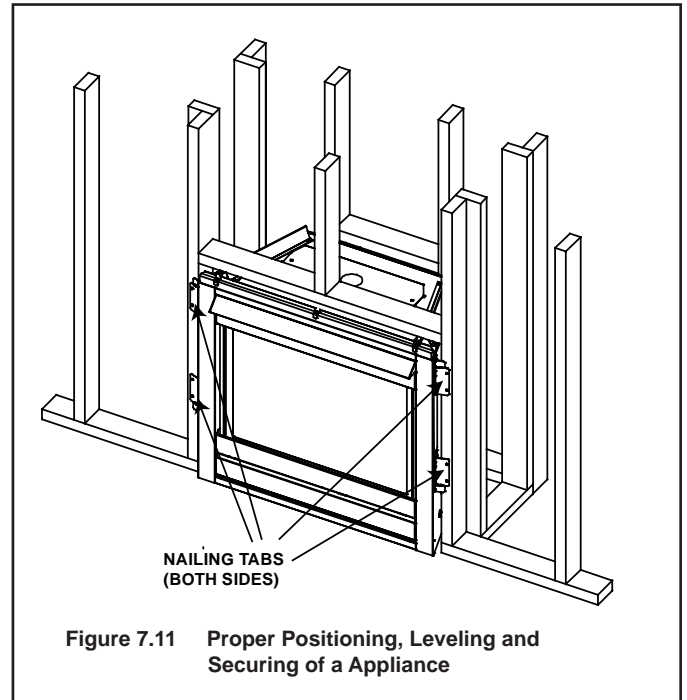
Fire Risk.

- Prevent contact with sagging, loose insulation.
- Do NOT install against combustible materials such as exposed insulation, plastic and insulation backer.

The diagram shows how to properly position, level, and secure the appliance (see Figure 7.11). Nailing tabs are provided to secure the appliance to the framing members.

- Rear venting - refer to Vent Clearances and Framing (**Section 6B**) for hole location.
- Place the appliance into position.
- Level the appliance from side to side and front to back.
- Shim the appliance, as necessary. It is acceptable to use wood shims.
- Bend out nailing tabs on each side.
- Keep nailing tabs flush with the framing.
- Secure the appliance to the framing by using nails or screws through the nailing tabs.

NOTE: Once appliance is setup for top or rear venting, it CANNOT be changed at a later time.



WARNING




Fire Risk.

- ALWAYS maintain specified clearances around the appliance.
- Do NOT notch into the framing around the appliance spacers. Failure to keep insulation, framing or other material away from the appliance may cause fire.

8

Installing Vent Pipes

A. Assembly of Vent Sections (DVP Pipe ONLY)

⚠ WARNING	
	Fire Risk
	Exhaust Fumes Risk
	Impaired Performance of Appliance
	• Overlap pipe slip sections at least 1-1/2 inches.
	• Use pilot holes for screws.
	• Screws must not exceed one inch long.
	• Pipe may separate if not properly joined.

Attaching Vent to the Firebox Assembly

To attach the first pipe section to the collars, slide the male end of the inner vent of the pipe section over the inner collar on the firebox assembly. At the same time, slide the outer flue over the outer collar on the appliance. Push the pipe section into the appliance collar until all the lances (see Figure 8.1) have snapped in place. Tug slightly on the section to confirm it has completely locked into place.

Assembling Pipe Sections

Insert the inner flue of section A into the flared inner flue of section B.

Start the outer flue of section A over the outer flue of section B (see Figure 8.2). **Note:** The end of the pipe sections with the lances/tabs on it will face towards the appliance.

Once both inner and outer flues are started, press section A onto section B firmly until all lances have snapped into place. Check to make sure they have snapped together (see Figure 8.3) and the seams are not aligned (see Figure 8.4). Tug slightly on section A to confirm it has completely locked into place. It is acceptable to use screws no longer than 1 inch to hold outer pipe sections together. If predrilling holes, do NOT penetrate inner pipe.

For 90° and 45° elbows that are changing the vent direction from horizontal to vertical, one screw minimum should be put in the outer flue at the horizontal elbow joint to prevent the elbow from rotating. Use screws no longer than 1 inch. If predrilling screw holes, do NOT penetrate inner pipe.

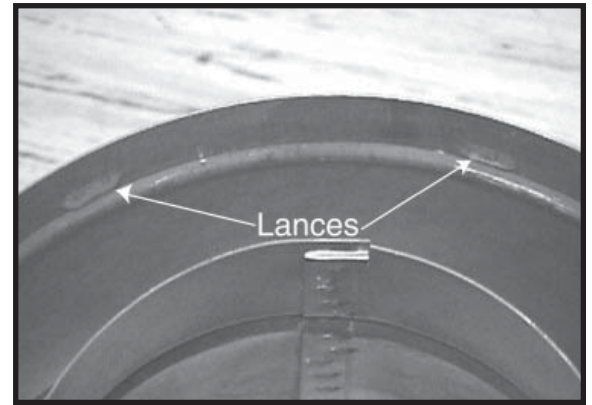


Figure 8.1 Lances

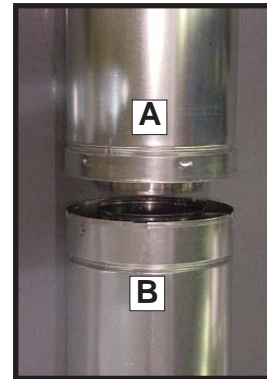
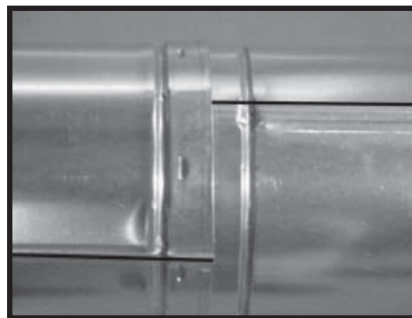


Figure 8.2

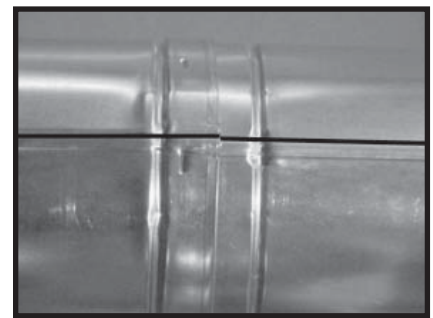


Figure 8.3

Note: Make sure that the seams are not aligned to prevent unintentional disconnection.



CORRECT



INCORRECT

Figure 8.4 Seams

Assembling Minimum Installations (MI) Sections

MI sections are non-unitized so that they can be cut to a certain length. Cut these sections to length from the non-expanded end (see Figure 8.5).

They can then be attached by first connecting the expanded end of the MI inner flue with the inner pipe from the adjacent pipe section and securing with three screws. The expanded portion of the MI inner flue must overlap completely with the unexpanded end of the adjacent pipe section.

The outer flue can then be inserted into the adjacent outer flue expanded end and attached to the next pipe section with three screws. The other end of the MI pipe section can then be attached by fitting another pipe section to it and snapping it together, as normal.

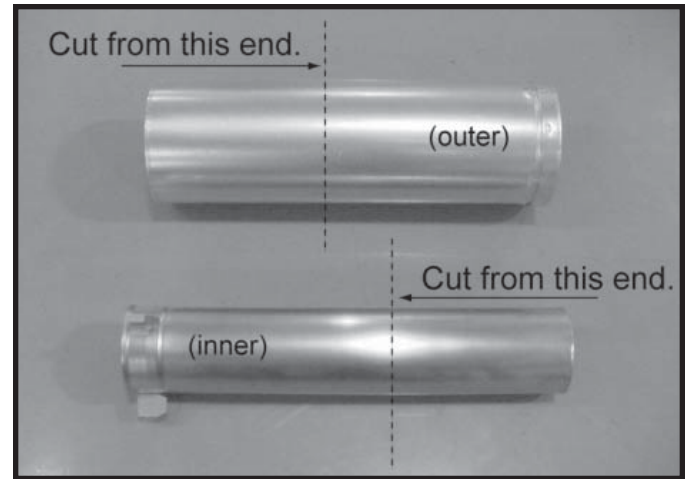


Figure 8.5

Assembling DVP-12A Slip Sections

The outer flue of the slip section should slide over the outer flue of the pipe section and into (inner flue) the last pipe section (see Figure 8.6) .

Slide together to the desired length, making sure that a 1-1/2 inch outer flue overlap is maintained between the pipe section and slip section.

The pipe and slip section need to be secured by driving two screws through the overlapping portions of the outer flues using the pilot holes (see Figure 8.7).

This will secure the slip section to the desired length and prevent it from separating. The slip section can then be attached to the next pipe section.

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

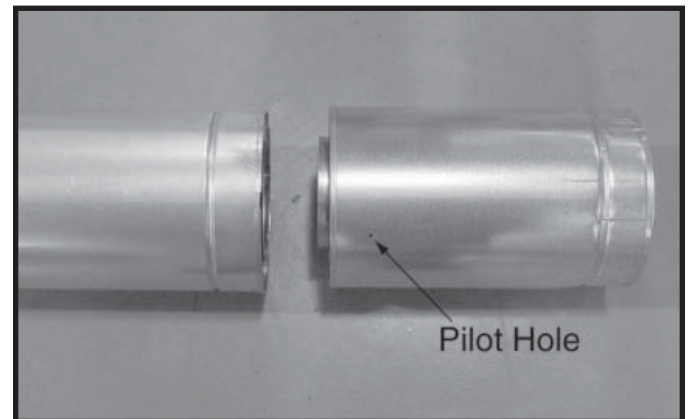


Figure 8.6 Slip Section Pilot Holes

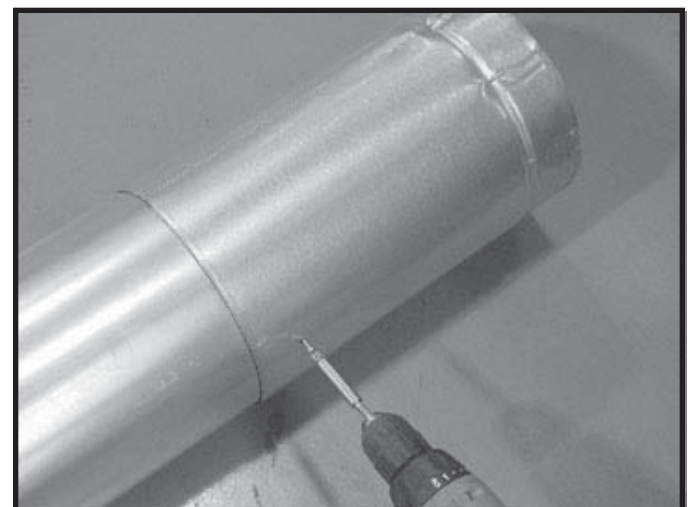


Figure 8.7 Screws into Slip Section

Securing the Vent Sections

Vertical Sections

Vertical sections of pipe must be supported every 8 feet after the 25 foot maximum unsupported rise. The vent support or plumber's strap (spaced 120° apart) may be used to do this (see Figure 8.8).

Horizontal Sections

Horizontal sections of vent must be supported every 5 feet with a vent support or plumber's strap.

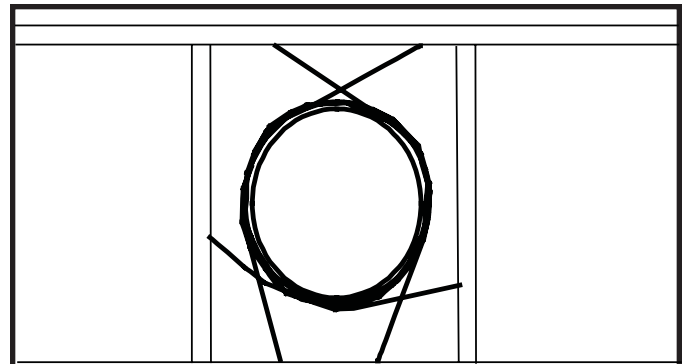


Figure 8.8 Securing Vertical Pipe Sections

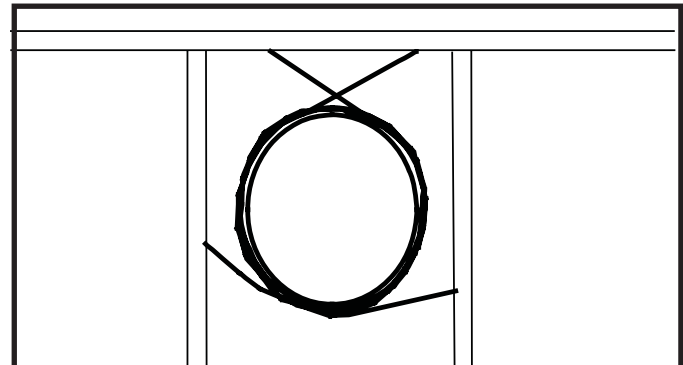





Figure 8.9 Securing Horizontal Pipe Sections

B. Disassembly of Vent Sections (DVP Pipe ONLY)

To disassemble any two pieces of pipe, rotate either section (see Figure 8.10), so that the seams on both pipe sections are aligned (see Figure 8.11). They can then be carefully pulled apart.

 WARNING	
	Fire Risk. Explosion Risk. Combustion Fume Risk.
	Use vent run supports per installation instructions.
	Connect vent sections per installation instructions.
	<ul style="list-style-type: none">• Maintain all clearances to combustibles.• Do NOT allow vent to sag below connection point to appliance.
Improper support may allow vent to sag or separate.	

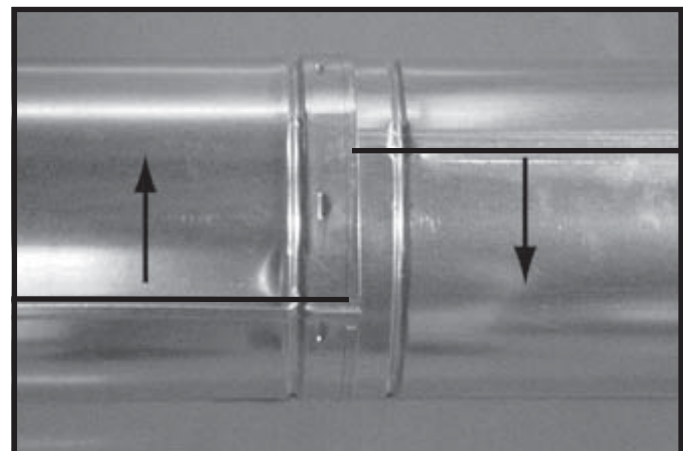


Figure 8.10 Rotate Seams for Disassembly

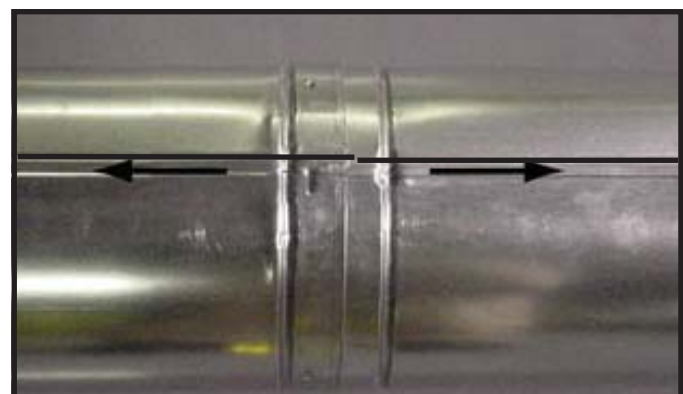




Figure 8.11 Align and Disassemble Vent Sections

Assembly of Vent Sections (SL Series Pipe ONLY)

	WARNING Fire Risk Exhaust Fumes Risk Impaired Performance of Appliance	
<ul style="list-style-type: none">• Ensure vent components are locked together correctly.• Pipe may separate if not properly joined.		

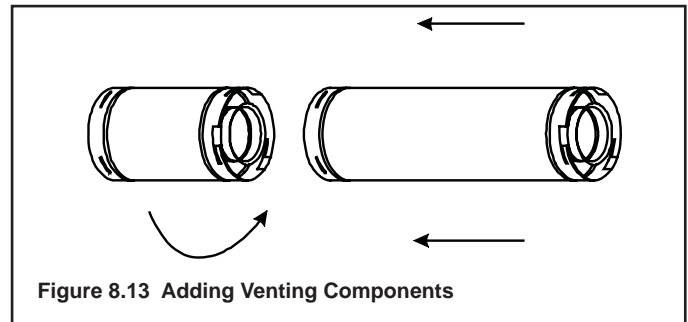
Attach the First Vent Component to Starting Collars

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

- Lock the vent components into place by sliding the concentric pipe sections with four (4) equally spaced interior beads into the appliance collar or previously installed component end with four (4) equally spaced indented sections.
- When the internal beads of each outer pipe line up, rotate the pipe section clockwise about one-quarter (1/4) turn (see Figure 8.13). The vent pipe is now locked together.
- Slide the ceramic fiber pad over the first vent section and place it flush to the appliance. This will prevent cold air infiltration. High temp caulk may be used to hold the part in place. Continue to add vent components.

Continue Adding Vent Components

- 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.
- 90° elbows may be installed and rotated to any point around the preceding component's vertical axis. If an elbow does not end up in a locked position with the preceding component, attach with a minimum of two (2) sheet metal screws.



Install Support Brackets



For Horizontal Runs - The vent system must be supported every five (5) feet of horizontal run by a horizontal pipe support.

To install support brackets for horizontal runs:

- Place the pipe supports around the vent pipe.
- Nail the pipe supports to the framing members.

For Vertical Runs - The vent system must be supported every eight (8) feet (2.4m) above the appliance flue outlet by wall brackets. To install support brackets for vertical runs:

- Attach wall brackets to the vent pipe and secure the wall bracket to the framing members with nails or screws.

WARNING	
	Fire Risk. Explosion Risk. Combustion Fume Risk.
	Use vent run supports per installation instructions. Connect vent sections per installation instructions. <ul style="list-style-type: none">• Maintain all clearances to combustibles.• Do NOT allow vent to sag below connection point to appliance.• Maintain specified slope (if required).
Improper support may allow vent to sag or separate.	

C. Installing Heat Shield and Horizontal Termination Cap (DVP Pipe ONLY)

WARNING



Fire Hazard

Impaired performance of appliance

- Telescoping flue section of termination cap **MUST** be used when connecting pipe section to termination cap.
- Maintain a 1-1/2 inch minimum overlap on telescoping flue section of termination cap.

WARNING



Fire Risk

Exhaust Fumes Risk

Impaired Performance of Appliance

- Overlap pipe slip sections at least 1-1/2 inches.
- Use pilot holes for screws.
- Screws must not exceed 1 inch long.
- Pipe may separate if not properly joined.



Heat Shield Requirements for Horizontal Termination

For all horizontally vented appliances, a heat shield **MUST** be placed one inch above the top of the vent between the wall shield firestop and the base of the termination cap.

There are two sections of the heat shield. One section attaches to the wall shield firestop with two screws. The remaining section is attached to the cap in the same manner.

If the wall thickness does not allow the required 1-1/2 inch heat shield overlap, an extended heat shield must be used.

The extended heat shield will need to be cut to the thickness of the wall and be attached to the wall shield firestop. The small leg on the extended heat shield should rest on the top of the vent (pipe section) to properly space it from the pipe section (see Figure 8.12).

Installing the Horizontal Termination Cap

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.

WARNING



Burn Risk

- Local codes may require installation of a cap shield to prevent anything or anyone from touching the hot cap.

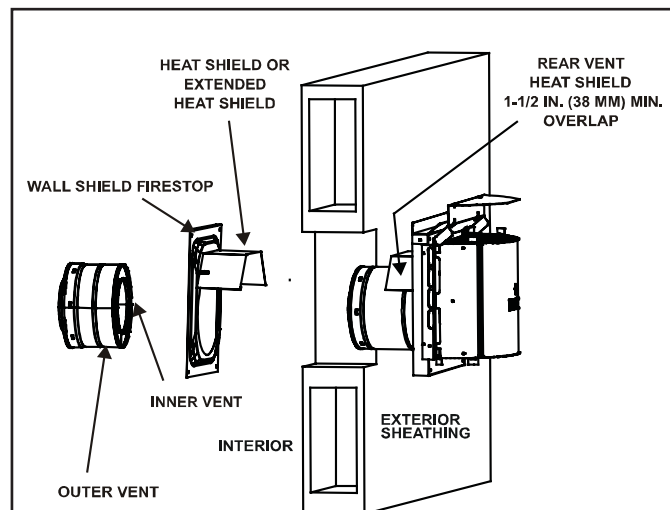




Figure 8.12 Venting through the Wall


NOTE: Where required, an exterior wall flashing is available.

When penetrating a brick wall, a brick extension kit is available for framing the brick.

Installing Wall Shield Firestops and Horizontal Termination Cap (SL Series Pipe ONLY)




WARNING



Fire Risk
Exhaust Fumes Risk
Impaired Performance of Appliance

- Ensure vent components are locked together correctly.
- Pipe may separate if not properly joined.

For Horizontal Runs - Wall shield firestops are **REQUIRED** on both sides of a combustible wall through which the vent passes.

NOTE: Model SLK-01TRD does not need an exterior wall shield firestop on an exterior combustible wall.

To install wall shield firestops for horizontal runs that pass through either interior or exterior walls:

Cut a 10 in. x 10 in. (254 mm x 254 mm) hole for SL-D-series pipe. The center of the framing hole is one (1) inch (25.4 mm) above the center of the horizontal vent pipe.

- Position the wall shield firestops on both sides of the hole previously cut and secure the wall shield firestops with nails or screws.
- The heat shields of the wall shield firestops **MUST BE** placed towards the top of the hole.
- Continue the vent run through the wall shield firestops.

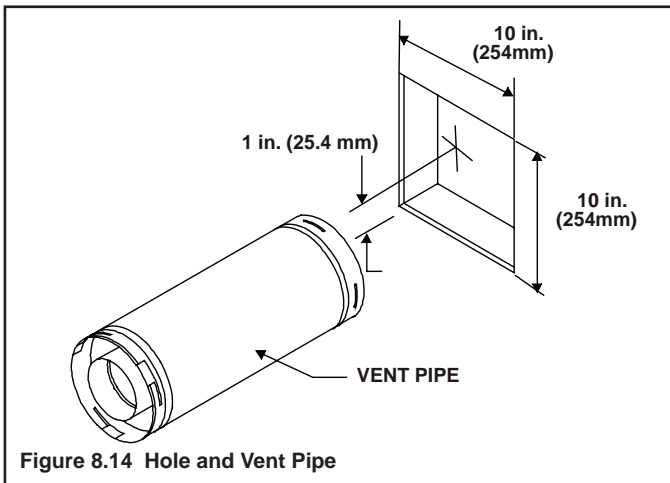


Figure 8.14 Hole and Vent Pipe

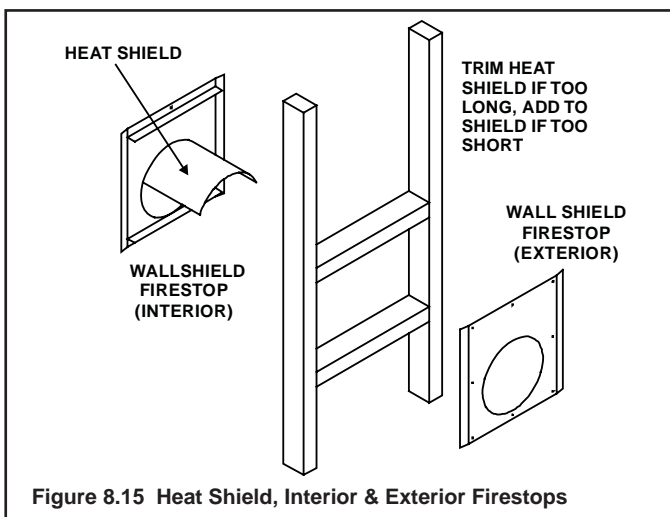





Figure 8.15 Heat Shield, Interior & Exterior Firestops




WARNING



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

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


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


Installing the Horizontal Termination Cap

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 out side 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.




WARNING

Burn Risk

- Local codes may require installation of a cap shield to prevent anything or anyone from touching the hot cap.


WARNING

Do NOT connect a pipe section to a termination cap without using the telescoping flue section found on the termination cap.

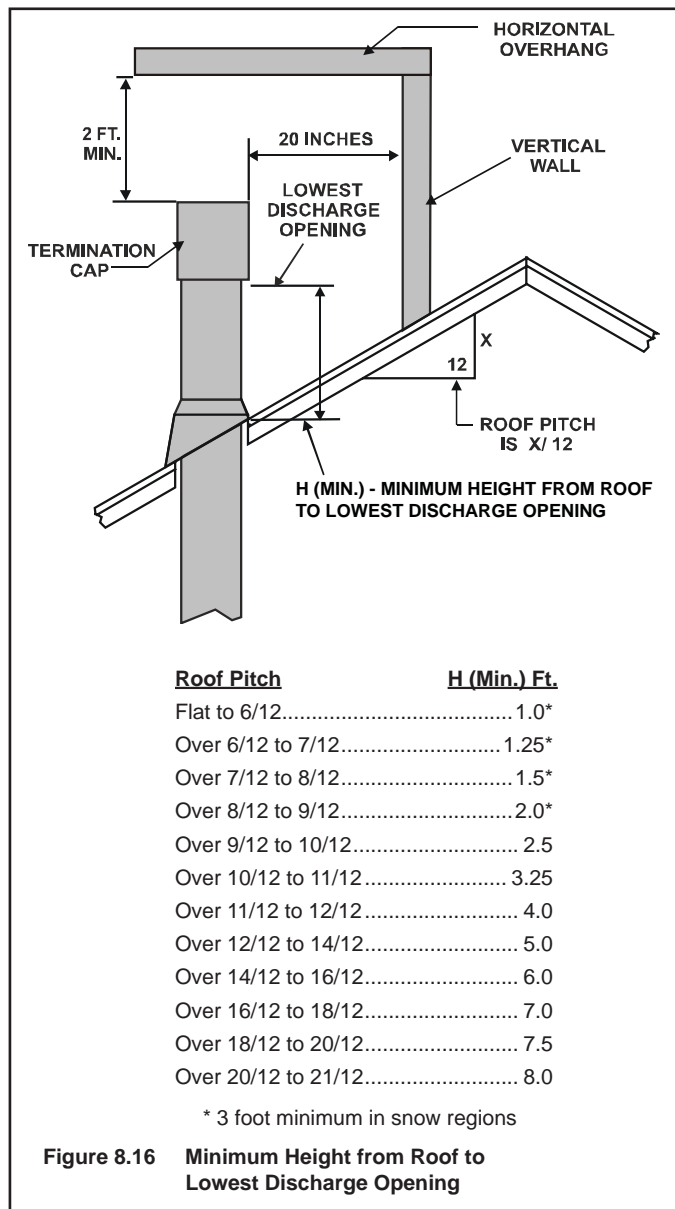
NOTE: Where required, an exterior wall flashing is available.

When penetrating a brick wall, a brick extension kit is available for framing the brick.

D. Installing Roof Flashing and Vertical Termination Cap

To install roof flashing see Figure 8.16.

For installation of vertical termination cap see minimum vent heights for various pitched roofs (see Figure 8.16) .



To attach the vertical termination cap, slide the inner collar of the cap into the inner flue of the pipe section and place the outer collar of the cap over the outer flue of the pipe section.

Secure with three screws into the outer flue. Secure the cap by driving the 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 8.17).

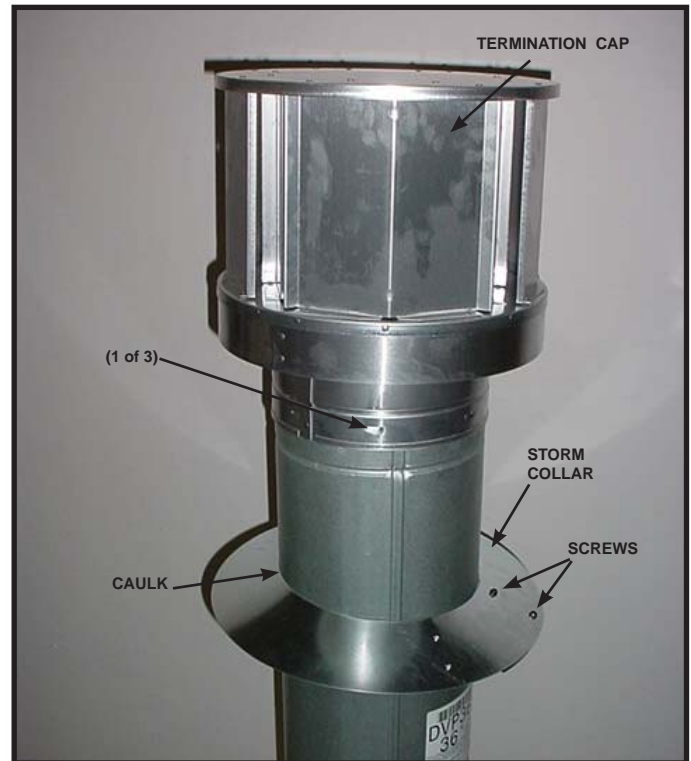




Figure 8.17

WARNING

Fire Risk.
Explosion Risk.
Inspect external vent cap regularly.

- Ensure no debris blocks cap.
- Combustible materials blocking cap may ignite.
- Restricted air flow affects burner operation.

Assembling and Installing Storm Collar

	CAUTION
<p>Sharp Edges</p> <ul style="list-style-type: none">• Wear protective gloves and safety glasses during installation.	
	

Connect both halves of the storm collar with two screws (see Figure 8.18).

Wrap the storm collar around the exposed pipe section and align brackets. Insert a bolt (provided) through the brackets and tighten nut to complete storm collar assembly (see Figure 8.19).

Slide the assembled storm collar down the pipe section until it rests on the roof flashing.

Caulk around the top of the storm collar (see Figure 8.17).



Figure 8.19 Assembling the Storm Collar Around the Pipe

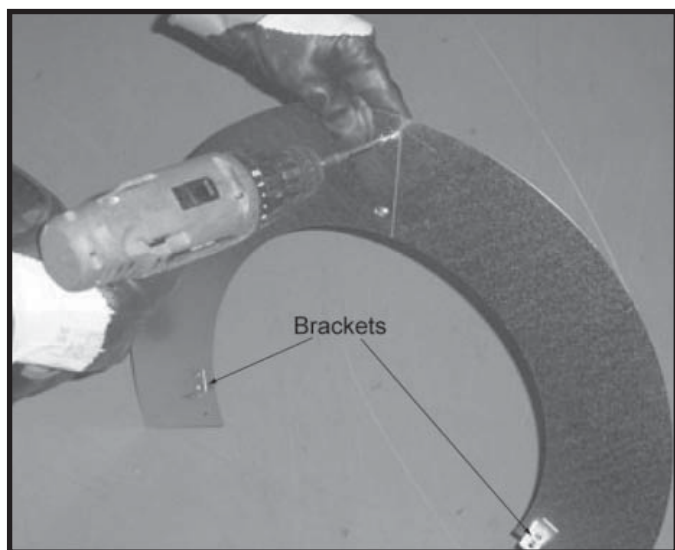


Figure 8.18 Assembling the Storm Collar

9

Gas Information

A. Fuel Conversions

Before making gas connections ensure that appliance being installed is compatible with the available gas type.

Any natural or propane gas conversions necessary to meet the appliance and locality needs must be made by a qualified technician using Hearth & Home Technologies specified and approved parts.

B. Gas Pressures

Proper input pressures are required for optimum appliance performance. Gas line sizing requirements need to be made following NFPA51.

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.

WARNING

Verify inlet pressures.

- High pressure may cause overfire condition.
- Low pressure may cause explosion.
- Verify minimum pressures when other household gas appliances are operating.

Install regulator upstream of valve if line pressure is greater than 1/2 psig.

Pressure requirements for appliance are shown in the table below. Minimum pressures must be met when other household gas appliances are operating.

Pressure	Natural Gas	Propane
Minimum Inlet Pressure	5.0 inches w.c.	11.0 inches w.c.
Maximum Inlet Gas Pressure	14.0 inches w.c.	14.0 inches w.c.
Manifold Pressure	3.5 inches w.c.	10.0 inches w.c.

C. Gas Connection

NOTE: Have the gas supply line installed in accordance with local building 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 inch (13mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 inch (13mm) control valve inlet.

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

Refer to **Reference Section 16** for location of gas line access in appliance.

NOTE: Gas line may be run from either side of the appliance provided the hole in the outer wrap does NOT exceed 2-1/2 inches in diameter and does not penetrate the firebox.



WARNING

Gas Leak Risk

- Support control when attaching pipe to prevent bending gas line.

NOTE: The gap between the supply piping and gas access hole may be caulked with high temperature caulk or stuffed with non-combustible un-faced insulation to prevent cold air infiltration.

- Ensure that gas line does not come in contact with outer wrap of appliance. Follow local codes.
- Incoming gas line should be piped into the valve compartment and connected to the 1/2 inch connection on the manual shutoff valve.

 WARNING	
	<p>Fire or Explosion Hazard</p> <ul style="list-style-type: none"> • Gas buildup during line purge may ignite. • Purge should be performed by qualified technician. • Ensure adequate ventilation. • Ensure there are no ignition sources such as sparks or open flames.



- A small amount of air will be in the gas supply lines. When first lighting appliance it will take a short time for air to purge from lines. When purging is complete the appliance will light and operate normally.



HIGH ALTITUDE INSTALLATIONS

U.L. Listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 feet in the U.S.A. and Canada.

When installing this appliance at an elevation above 2000 feet, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 feet above a 2000 foot elevation in the U.S.A., or 10% for elevations between 2000 and 4500 feet in Canada. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.

If installing this appliance at an elevation above 4500 feet (in Canada), check with local authorities.

 WARNING	
	<p>CHECK FOR GAS LEAKS</p> <p>Explosion Risk Fire Risk Asphyxiation Risk</p> <ul style="list-style-type: none"> • Check all fittings and connections. • Do not use open flame. • After the gas line installation is complete, all connections must be tightened and checked for leaks with a commercially-available, non-corrosive leak check solution. Be sure to rinse off all leak check solution following testing. <p>Fittings and connections may have loosened during shipping and handling.</p>

 WARNING	
	<p>Fire hazard.</p> <p>Do NOT change the valve settings.</p> <ul style="list-style-type: none"> • This valve has been preset at the factory. • Changing valve settings may result in fire hazard or bodily injury.

10


Electrical Information

A. Recommendation for Wire

This appliance uses standing pilot ignition and requires 110-120 VAC be wired to the junction box for use of optional accessories.

NOTE: 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 C221.1**.

B. Connecting to the Appliance



WARNING

Wire 110V to electrical junction box.

Do NOT wire 110V to valve.

Do NOT wire 110V to wall switch.

- Incorrect wiring will damage millivolt valves.

- This appliance may be used with a wall switch, wall mounted thermostat and/or a remote control.
- If using thermostat use one compatible with a millivolt gas valve system.
- Follow parameters for locating thermostat (see individual thermostat instructions) to ensure proper operation of appliance.


- Use low resistance thermostat wire for wiring from ignition system to the wall switch and thermostat.
- Keep wire lengths short as possible by removing any excess wire length.
- Low voltage and 110 VAC voltage cannot be shared within the same wall box.

C. Standing Pilot Ignition System Wiring

- This standing pilot ignition system wiring does not require a 110 VAC supply to operate.
- It is recommended that a 110 VAC junction box be installed for use with a fan or remote control. (See Figure 10.2 for junction box wiring).

CAUTION

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



WARNING

Shock hazard.

- Replace damaged wire with type 105° C rated wire.
- Wire must have high temperature insulation.

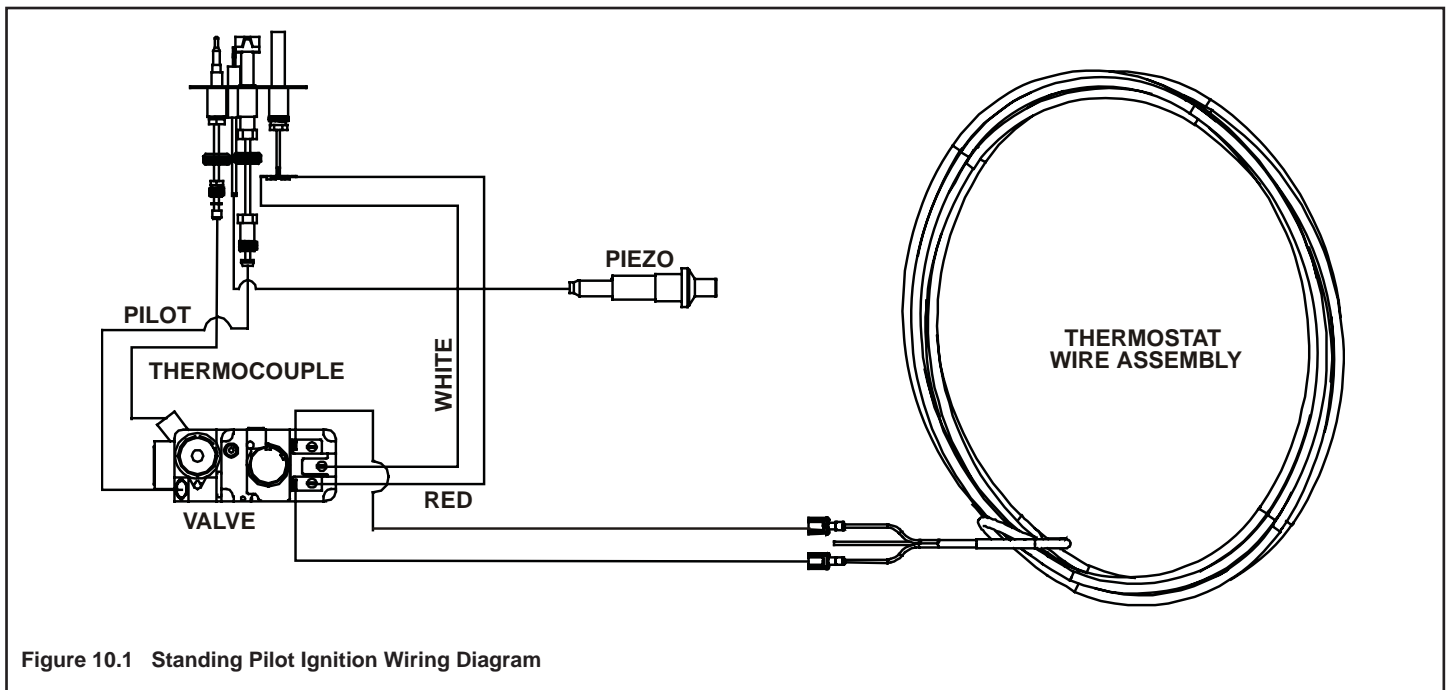
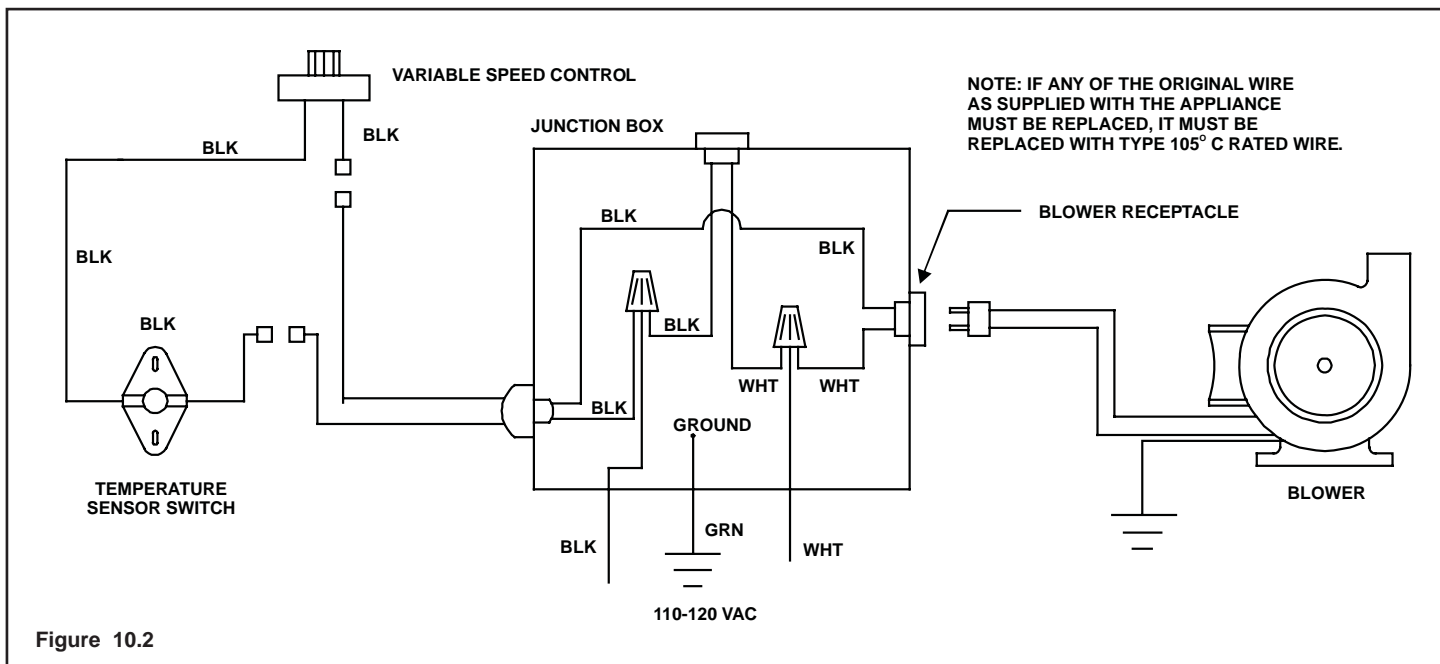


Figure 10.1 Standing Pilot Ignition Wiring Diagram



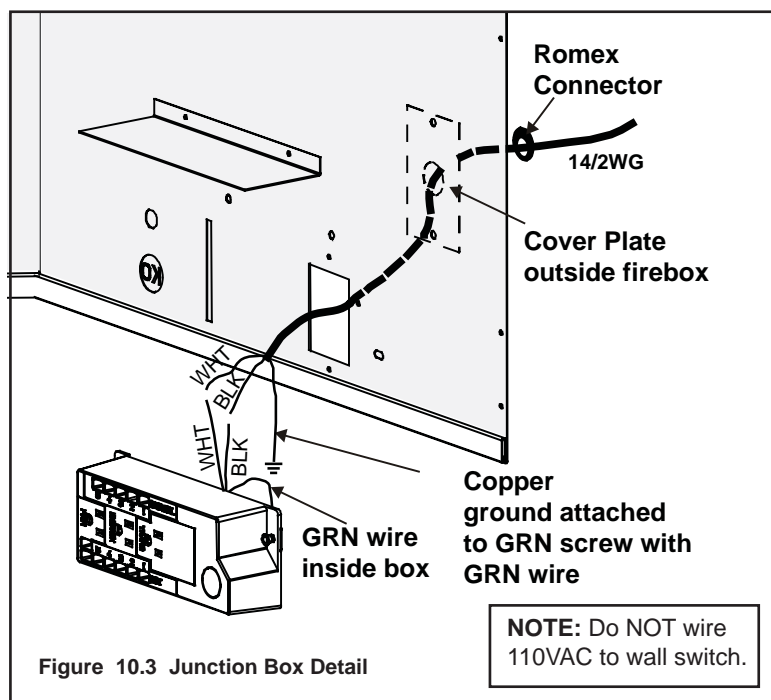
D. Junction Box Installation

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

- Remove the cover plate located on the outer shell - right side (see Figure 10.3).
- Install the supplied Romex™ connector in the cover plate.
- Feed the necessary length of wire through the connector.
- Make all necessary wire connections and reattach the cover plate to the outer shell.

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

- Remove the screw attaching the junction box/receptacle to the outer shell, rotate the junction box inward to disengage it from the outer shell (see Figure 10.3).
- Pull the electrical wires from outside the appliance through this opening into the valve compartment.
- Feed the necessary length of wire through the connector.
- Make all necessary wire connections to the junction box/receptacle and reassemble the junction box/receptacle to the outer shell.



E. Wall Switch Installation for Fan (Optional)

If the box is being wired to a wall mounted switch for use with a fan (See Figure 10.4):

- The power supply for the appliance must be brought into a switch box.
- The power can then be supplied from the switch box to the appliance using a minimum of 14-3 with ground wire.
- At the switch box connect the black (hot) wire and red (switch leg) wire to the wall switch as shown.
- At the appliance connect the black (hot), white (neutral) and green (ground) wires to the junction box as shown.
- Add a 1/4 inch insulated female connector to the red (switch leg) wire, route it through the knockout in the face of the junction box, and connect to the top fan switch connector (1/4 inch male) as shown.

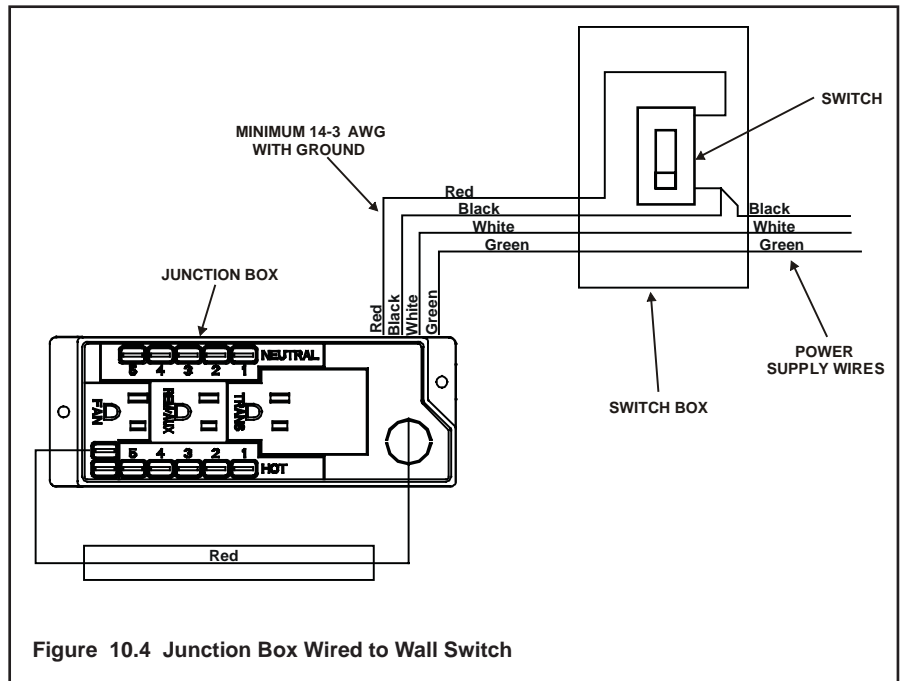


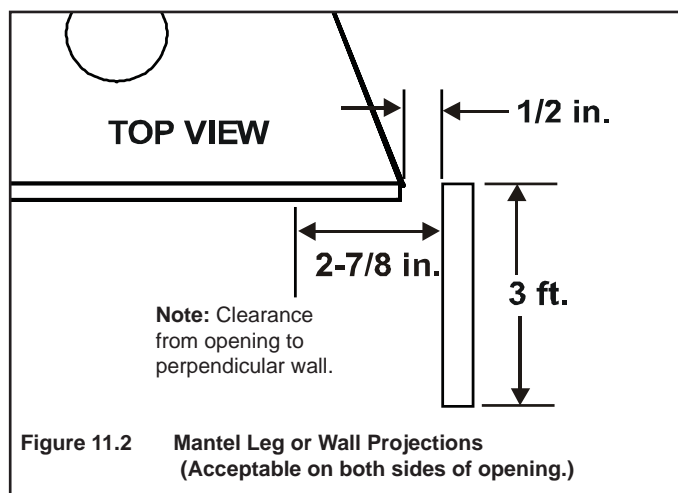
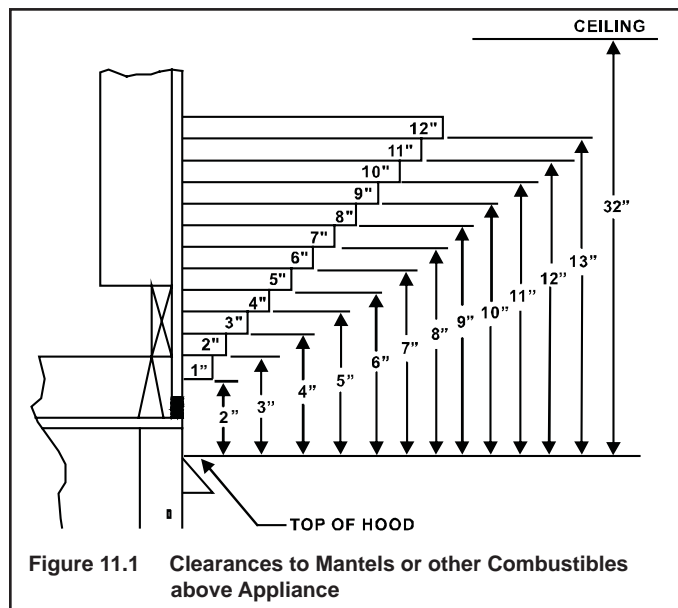
Figure 10.4 Junction Box Wired to Wall Switch

11

Finishing

A. Mantel Projections

Figure 11.1 shows the minimum vertical and corresponding maximum horizontal dimensions of appliance mantels or other combustible projections above the top front edge of the appliance.



B. Facing Material

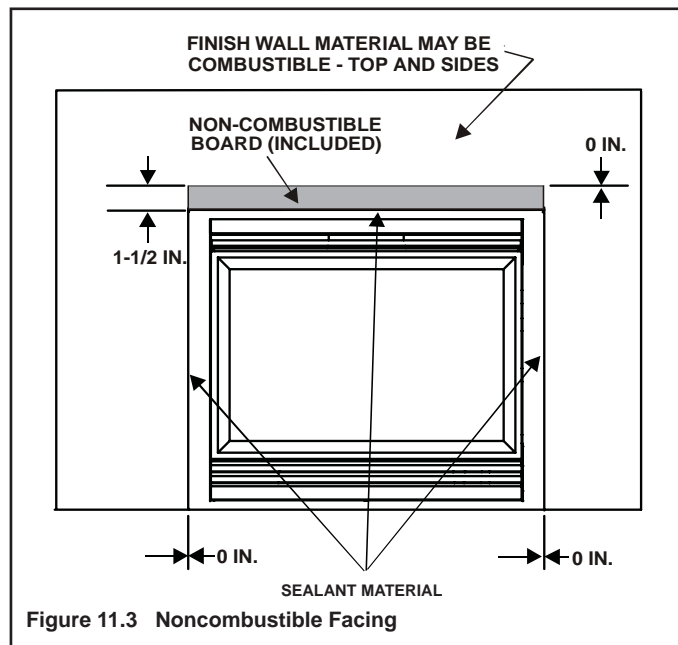
WARNING

Fire Risk.
Do NOT obstruct air inlet or outlet grilles.
Do NOT modify grilles.

- Modifying or covering grilles could cause temperature rise and fire hazard.

Finishing materials must not interfere with:

- Air flow through grilles or louvers.
- Operation of louvers or doors.
- Access for service.



WARNING

Risk of Fire

- Non-combustible clearances **MUST** be maintained.
- Sheetrock, wood or other combustibles must **NOT** be used as sheathing or facing in the non-combustible zone.
- See **Section 11** for proper clearances.
- See **Section 1** for combustible/non-combustible definitions.

NOTE: There are 3 metal tabs holding the non-combustible board in place for shipping. These tabs are to be cut off or bent back before finishing around the appliance front.

WARNING

Fire Risk.

Finish all edges and fronts to clearances and specifications listed in manual.

- Black metal appliance front may be covered with noncombustible material only.
- Do NOT overlap combustible materials onto appliance front.
- Install combustible materials only up to specified clearances on top, front and side.
- Seal joints between the finished wall and appliance top and sides using only a 300°F minimum sealant.

12

Appliance Setup

A. Remove Shipping Materials

Remove shipping materials from inside or underneath the firebox.

B. Clean the Appliance


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

C. Accessories

Install approved accessories per instructions included with accessories. See Service Parts List for appropriate accessories. Refer to **Section 16**.

	WARNING
	<p>Shock or fire risk. Use ONLY optional accessories approved for this appliance.</p> <ul style="list-style-type: none">• Using non-listed accessories voids warranty.• Using non-listed accessories may result in a safety hazard.• Only Hearth & Home Technologies approved accessories may be used safely.

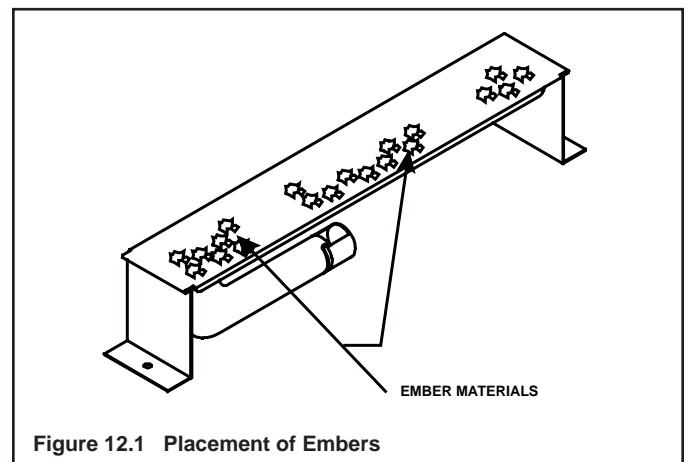
D. Ember and Lava Rock Placement

WARNING	
	<p>Explosion Risk.</p> <ul style="list-style-type: none">• Follow ember placement instructions in manual.• Do NOT place embers directly over burner ports.• Replace ember material annually. <p>Improperly placed embers interfere with proper burner operation.</p>

Placing the Ember Material

Ember material is shipped with this gas appliance. To place the ember material:

- Embers **CANNOT** be placed directly over ports. Care should be taken not to cover the lighting trail of ports (from back to front).
- When placing Glowing Embers® onto the burner care should be taken so that the ports are not covered. Place the dime-size ember pieces near the port holes in the burner top (see Figure 12.1). Failure to follow this procedure will likely cause lighting and sooting problems.



- Place lava rock on base pan on both sides of the burner. Do **NOT** place on burner top.
- Save the remaining ember materials for use during appliance servicing. The embers provided should be enough for 3 to 5 applications.

E. Positioning the Logs

If the gas logs have been factory installed they should not need to be positioned. If the logs have been packaged separately, refer to the following instructions.

Log Assembly: LOGS-BE32



Figure 12.2

CAUTION: Carefully remove the logs from the packaging. Logs are fragile!

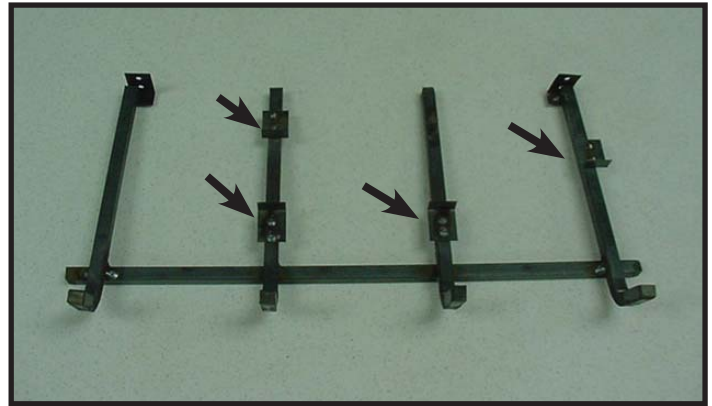


Figure 12.3 **Note:** Arrows indicate log locating tabs.



Figure 12.4 **Note:** Arrow indicates notch in log #1.



Figure 12.5

STEP 1. LOG #1 (SRV2099-701): Place the left notch on Log #1 over the back locating tab and rotate clockwise until the right front hits the stop.



Figure 12.6


STEP 2. LOG #2 (SRV591-703): Place the “Y” of Log # 2 in the far right grate tine and rotate clockwise until the back of the log rests against the log locating tab.




Figure 12.7

STEP 3. LOG #3 (SRV278-702): Place the left side of the log between the left grate tine and the side of the firebox. Rotate log counter-clockwise until the back of the log rests against the log locating tab.

F. Glass Assembly

**WARNING**



Handle glass doors with care.

- Inspect the gasket to ensure it is undamaged.
- Inspect the glass for cracks, chips or scratches.

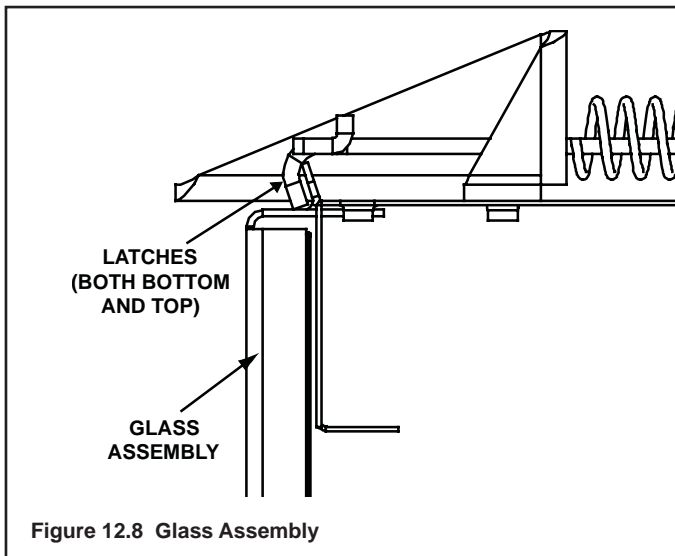
- Do NOT strike, slam or scratch glass.
- Do NOT operate appliance with glass door removed, cracked, broken or scratched.
- Replace glass door assembly as a complete appliance.

Removing Glass Assembly

Pull the four glass assembly latches out of the groove on the glass frame. Remove glass door from the appliance (see Figure 12.8).

Replacing Glass Assembly

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



G. Grilles and Trim

Install optional marble and brass trim surround kits as desired. Marble, brass, brick, tile, or other noncombustible materials can be used to cover up the gap between the sheet rock and the appliance.

Do not obstruct or modify the air inlet/outlet grilles. When overlapping on both sides, leave enough space so that the bottom grille can be lowered and the trim door removed.

Shutter Settings

	NG	LP
BE-32	1/4 in.	1/2 in.

13



Operating Instructions

A. Before Lighting Appliance


This appliance if it has a Standing Pilot ignition system.


Before operating this appliance have a qualified technician:

- Remove all shipping materials from inside and/or underneath the firebox.
- Review proper placement of logs, rockwool, lava rock, and vermiculite.
- 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.
- Ensure that the flow of combustion and ventilation air is not obstructed (front grilles and vent caps).

	WARNING
	<p>Glass door must be in place when appliance is operating.</p> <p>Risk of:</p> <ul style="list-style-type: none">• Combustion Fumes• Fire <p>Do NOT operate appliance with glass door removed.</p> <ul style="list-style-type: none">• Open viewing glass for servicing only. <ul style="list-style-type: none">• Glass door MUST be in place and sealed before operating appliance.• Only use glass door certified for use with appliance.• Glass replacement should be done by qualified technician.

	WARNING
	<p>HOT! DO NOT TOUCH. SEVERE BURNS MAY RESULT. CLOTHING IGNITION MAY RESULT.</p> <p>Glass and other surfaces are hot during operation and cool down.</p> <ul style="list-style-type: none">• Keep children away.• CAREFULLY SUPERVISE children in same room as appliance. <ul style="list-style-type: none">• Alert children and adults to hazards of high temperatures.• Do NOT operate with protective barriers open or removed.• Keep clothing, furniture, draperies and other combustibles away.
<p><i>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 protective barrier removed.</i></p> <p>Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.</p>	

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

	WARNING
<p>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.</p>	

→ B. Standing Pilot Ignition

FOR YOUR SAFETY READ BEFORE LIGHTING

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

- A.** This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING**, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- WHAT TO DO IF YOU SMELL GAS**
- Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- C.** If you cannot reach your gas supplier, call the fire department.
- C.** Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D.** Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

WARNING:

DO NOT CONNECT 110 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.

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 panel(s) removed, cracked or broken. Replacement of the panel(s) 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.

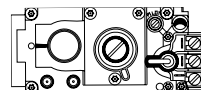
For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

For additional information on operating your
Hearth & Home Technologies fireplace, please refer to www.fireplaces.com.

LIGHTING INSTRUCTIONS

1. Turn off all electric power to the appliance.

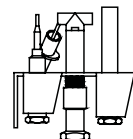
2. Push in gas control knob slightly and turn clockwise to "OFF".



NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.

3. 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 don't smell gas, go to next step.

4. Find the pilot. The pilot is inside combustion chamber next to the main burner.



5. Turn knob on gas control counter clockwise to "PILOT".

6. Push in control knob all the way and hold in. Immediately depress red or black piezo button. It may require several depressions of the red or black piezo button until PILOT lights. If PILOT light does not light after 10 seconds, return to step 3. Continue to hold the control knob in for about one minute after the pilot is lit. Release knob and it will pop back out. Pilot should remain lit. If it goes out, repeat steps 3 through 6.

- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.

- If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.

7. Turn gas control knob counterclockwise to "ON".

8. To light Burner, flip the on/off switch to the "ON" position, and close access grille.

9. Turn on all electric power to the appliance.

TO TURN OFF GAS TO APPLIANCE

1. Turn off all electric power to the appliance if service is to be performed.
2. Open control access panel.
3. Move switch to "OFF" position.
4. Push in gas control knob slightly and turn clockwise to "OFF". Do not force.
5. Close control access panel.

464-903G


C. After Appliance is Lit

Initial Break-in Procedure

When you light the appliance, you may notice that it produces heat which does have an associated odor or smell. If you feel this odor is excessive it may require the initial three to four hour continuous burn on high followed by a second burn up to 12 hours to fully drive off any odor from paint and lubricants used in the manufacturing process. Condensation of the glass is normal.


NOTE: The appliance should be run three to four hours on the initial start-up. Turn it off and let it cool completely. Remove and clean the glass. Replace the glass and run the appliance for an additional 12 hours. This will help to cure the products used in the paint and logs.

During this break-in period it is recommended that some windows in the house be opened for air circulation. This will help avoid setting off smoke detectors, and help eliminate any odors associated with the appliance's initial burning.

	⚠ WARNING Fire Risk. High Temperatures. Keep combustible household items away from appliance. Do NOT obstruct combustion and ventilation air. <ul style="list-style-type: none">• Do NOT place combustible items on top of or in front of appliance.• Keep furniture, draperies away from appliance.
---	---

CAUTION
<ul style="list-style-type: none">• Prevent accidental appliance operation when not attended.• Unplug or remove batteries from remote control if absent or if appliance will not be used for an extended period of time.• Property damage possible from elevated temperatures.

CAUTION
Smoke and odors released during initial operation. <ul style="list-style-type: none">• Open windows for air circulation.• Leave room during initial operation.• Smoke may set off smoke detectors. Smoke and odors may be irritating to sensitive individuals.

	⚠ WARNING Fire Hazard. Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance. <ul style="list-style-type: none">• Do NOT store flammable materials in the appliance's vicinity.• Do NOT use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids in this appliance.• Combustible materials may ignite.
---	---

D. Frequently Asked Questions

ISSUE	SOLUTIONS
Condensation of the glass	This is a result of gas combustion and temperature variations. As the appliance warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn for 20 to 40 minutes.
Odor from appliance	When first operated, this appliance may release an odor for the first several hours. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing. Odor may also be released from finishing materials and adhesives used around the appliance.
Film on the glass	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3 to 4 hours of initial burning to remove deposits left by oils from the manufacturing process. A non-abrasive cleaner such as gas fireplace 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 appliance.
Is it normal to see the pilot flame burn continually?	In an Intellifire ignition system it is normal to see the pilot flame, but it should turn off when ON/OFF is turned off. In a standing pilot system the pilot will always stay on.

14

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 person 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.

A. Standing Pilot Ignition System

Symptom	Possible Causes	Corrective Action
1. After repeated triggering of the red or black piezo ignitor button, the spark ignitor will not light the pilot.	a. Defective ignitor.	Check the spark at the electrode and pilot. If no spark and electrode wire is properly connected, replace the ignitor.
	b. Defective pilot or misaligned electrode (spark at electrode).	Using match, light the pilot. If the pilot lights, turn off the pilot and trigger the red piezo ignitor button again. If the pilot lights, an improper gas/air mixture caused the bad lighting and a longer purge period is recommended. If the pilot will not light, ensure the gap at the electrode and pilot is one-eighth (1/8) inch to have a strong spark. If the gap is OK, replace the pilot.
	c. No gas or low gas pressure.	Check the remote shut-off valves from the fireplace. Usually, there is a valve near the gas main. There can be more than one (1) valve between the fireplace and the main.
	d. No LP in tank.	Check the LP (propane) tank. You may be out of fuel.
2. The pilot will not stay lit after carefully following the lighting instructions.	a. Defective thermocouple.	Check that the pilot flame impinges on the thermocouple. Clean and/or adjust the pilot for maximum flame impingement. Ensure that the thermocouple connection at the gas valve is fully inserted and tight (hand tighten plus 1/4 turn). Disconnect the thermocouple from the valve, place one millivolt meter lead wire on the tip of the thermocouple and the other meter lead wire on the thermocouple copper lead. Start the pilot and hold the valve knob in. If the millivolt reading is less than 15mV, replace the thermocouple.
	b. Defective valve.	If the thermocouple is producing more than 15 millivolts, replace faulty valve.
3. The pilot is burning, there is no burner flame, the valve knob is in the ON position, and the ON/OFF switch is in the ON position.	a. ON/OFF switch or wires defective.	Check the ON/OFF switch and wires for proper connections. Place the jumper wires across the terminals at the switch. If the burner comes on, replace the defective switch. If the switch is OK, place the jumper wires across the switch wires at the gas valve. If the burner comes on, the wires are faulty or connections are bad.
	b. Thermopile may not be generating sufficient millivoltage.	If the pilot flame is not close enough physically to the thermopile, adjust the pilot flame. Be sure the wire connections from the thermopile at the gas valve terminals are tight and that the thermopile is fully inserted into the pilot bracket. Check the thermopile with a millivolt meter. Take the reading at TH-TP&TP terminals of the gas valve. The meter should read 325 millivolts minimum, while holding the valve knob depressed in the pilot position, with the pilot lit, and the ON/OFF switch in the OFF position. Replace the faulty thermopile if the reading is below the specified minimum. With the pilot in the ON position, disconnect the thermopile leads from the valve. Take a reading at the thermopile leads. The reading should be 325 millivolts minimum. Replace the thermopile if the reading is below the minimum.

Troubleshooting *(continued)*

Symptom	Possible Cause	Corrective Action
3. Continued	c. Defective valve.	Turn the valve knob to the ON position. Place the ON/OFF switch in the ON position. Check the millivolt meter at the thermopile terminals. The millivolt meter should read greater than 125mV. If the reading is acceptable, and if the burner does not come on, replace the gas valve.
	d. Plugged burner orifice.	Check the burner orifice for stoppage. Remove stoppage.
	e. Wall switch or wires are defective.	Follow the corrective action in Symptom and Possible Cause 1.a above. Check the switch and wiring. Replace where defective.
4. Frequent pilot outage problem.	a. Pilot flame may be too high or too low, or blowing out (high pressure), causing pilot safety to drop out.	Clean thermocouple and adjust the pilot flame for maximum flame impingement. Follow lighting instructions carefully.
5. The pilot and main burner extinguish while in operation.	a. No LP in tank.	Check the LP (propane) tank. Refill the fuel tank.
	b. Inner vent pipe leaking exhaust gases back into the system.	Check venting system for damage. Replace/repair improperly assembled pipe sections.
	c. Glass too loose and air tight packet leaks in corners after usage.	Replace glass panel assembly.
	d. Bad thermopile or thermocouple.	Replace if necessary.
	e. Improper vent cap installation.	Check for proper installation and freedom from debris or blockage.
6. Glass soots.	a. Flame impingement.	Adjust the log set so that the flame does not excessively impinge on it.
	b. Improper air shutter setting.	Adjust the air shutter located on the control panel.
	c. Debris around air shutter.	Inspect the opening at the base of the burner. NO MATERIAL SHOULD BE PLACED IN THIS OPENING.
7. Flame burns blue and lifts off burner.	a. Insufficient oxygen being supplied.	<p>Ensure that the vent cap is installed properly and free of debris. Ensure that the vent system joints are tight and have no leaks.</p> <p>Ensure that no debris has been placed at the base of, or in the area of the air holes in the center of the base pan beneath the burner.</p> <p>Ensure that the glass is tightened properly on the unit, particularly on top corners.</p>

15

Maintaining and Servicing Appliance

Although the frequency of appliance servicing and maintenance will depend on use and the type of installation, a qualified service technician should perform an appliance checkup at the beginning of each heating season.

WARNING

Risk of injury or property damage.

Before servicing:

- Turn off gas.
- Turn off electricity to appliance.
- Disable remote control, if one is present.
- Ensure appliance is completely cooled.

After servicing:

- Replace any screen or barrier that was removed.
- Reseal and reinstall any venting removed for servicing.

WARNING

Annual inspection by qualified technician recommended.

Check:

- Condition of doors, surrounds and fronts.
- Condition of glass, glass assembly and glass seal.
- Obstructions of combustion and ventilation air.
- Condition of logs.
- Condition of firebox.
- Burner ignition and operation.
- Burner air shutter adjustment
- Gas connections and fittings.
- Obstructions of termination cap.

Clean:

- Glass
- Air passageways, grilles, control compartment
- Burner, burner ports

Risk of:

- Fire
- Delayed ignition or explosion
- Exposure to combustion fumes
- Odors



CAUTION



Handle glass assembly with care.

NOTE: Clean glass after initial 3-4 hours operation. **Longer operation without cleaning glass may cause a permanent white film on glass.**

When cleaning glass door:

- Avoid striking, scratching or slamming glass.
- Do NOT use abrasive cleaners.
- Use a hard water deposit glass cleaner on white film.
- Do NOT clean glass when hot.
- Turn off appliance after 3-4 hours of operation and ALLOW TO COOL.
- Remove and clean glass assembly.
- Replace glass assembly and operate appliance for additional 12 hours.

Refer to maintenance instructions.

WARNING



Inspect external vent cap regularly.

- Ensure no debris blocks cap.
- Combustible materials blocking cap may ignite.
- Restricted air flow affects burner operation.

Inspect	Maintenance Tasks
Doors, Surrounds and Fronts	1. Assess condition of screen and replace as necessary. Recommend addition of screen if one is not present.
	2. Inspect for scratches, dents or other damage and repair as necessary.
	3. Verify no obstructions to airflow through the louvers.
	4. Verify maintenance of proper clearance to combustible household objects.
Gasket Seal, Glass Assembly and Glass	1. Inspect gasket seal and its condition.
	2. Inspect glass panels for scratches and nicks that can lead to breakage when exposed to heat.
	3. Confirm there is no damage to glass or glass frame. Replace as necessary.
	4. Verify that latches engage properly, clip studs are not stripped, and glass attachment components are intact and operating properly. Replace as necessary.
	5. Clean glass. Replace glass assembly if severely coated with silicate deposits that cannot be removed.
Valve Compartment and Firebox Top	1. 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.
	2. Remove any foreign objects.
	3. Verify unobstructed air circulation.
Logs	1. Inspect for broken, damaged, or missing logs. Replace as necessary.
	2. Verify correct log placement and no flame impingement causing sooting. Correct as necessary.
Firebox	1. Inspect for paint condition, warpage, corrosion or perforation. Sand and repaint as necessary.
	2. Replace appliance if firebox has been perforated.
Burner Ignition and Operation	1. Verify burner is properly secured and aligned with pilot or igniter.
	2. Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.
	3. Replace ember materials with new dime-size and shape pieces. Do not block ports or obstruct lighting paths.
	4. Check for smooth lighting and ignition carryover to all ports. Verify there is no ignition delay.
	5. Inspect for lifting or other flame problems.
	6. Verify air shutter is clear of dust and debris.
	7. Inspect orifice for soot, dirt or corrosion.
	8. Verify manifold and inlet pressures. Adjust regulator as required.
	9. Inspect pilot flame strength. Clean or replace orifice as necessary.
	10. Inspect thermocouple/thermopile or IPI sensor rod for soot, corrosion and deterioration. Clean with emery cloth or replace as required.
	11. Verify millivolt output. Replace as necessary.
Venting	1. Inspect venting for blockage or obstruction such as bird nests, leaves, etc.
	2. Confirm that termination cap remains clear and unobstructed by plants, etc.
	3. Verify that termination cap clearance to subsequent construction (building additions, decks, fences or sheds) has been maintained.
	4. Inspect for corrosion or separation.
	5. Verify weather stripping, sealing and flashing remains intact.
	6. Inspect draft shield to verify it is not bent, damaged or missing.
Remote controls	1. Verify operation of remote.
	2. Replace batteries in remote transmitters and battery-powered receivers.
	3. Verify batteries have been removed from battery back-up IPI systems to prevent premature battery failure or leaking.

16

Reference Materials

A. Appliance Dimension Diagram

Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Section 3.

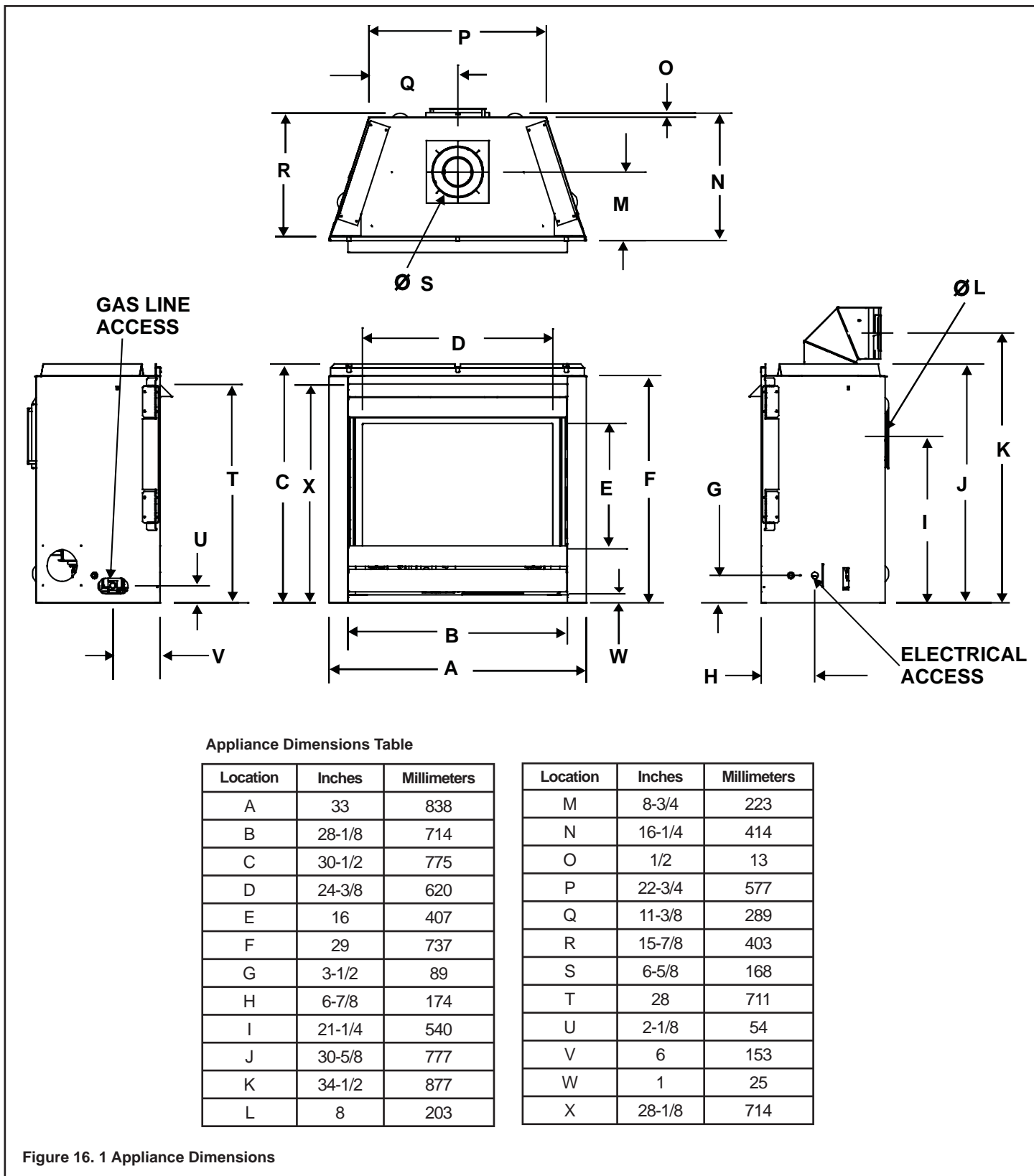
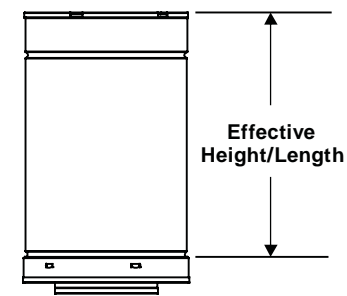


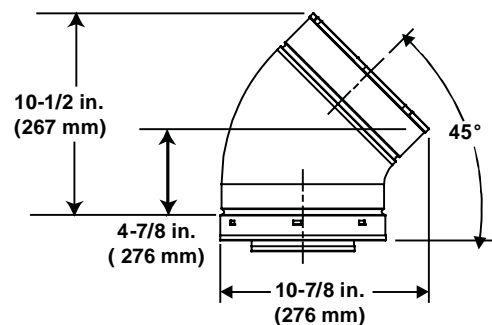
Figure 16. 1 Appliance Dimensions

B. Vent Components Diagrams

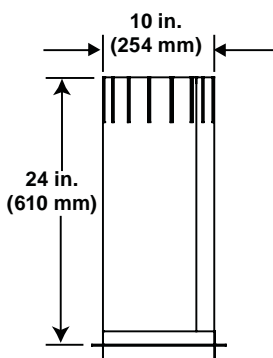


DVP Pipe (see chart)

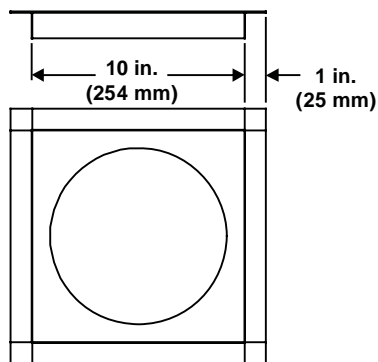
Pipe	Effective Length	
	Inches	Millimeters
DVP4	4	102
DVP6	6	152
DVP12	12	305
DVP24	24	610
DVP36	36	914
DVP48	48	1219
DVP6A	3 to 6	76 to 152
DVP12A	3 to 12	76 to 305
DVP12MI	3 to 12	76 to 305
DVP24MI	3 to 24	76 to 610



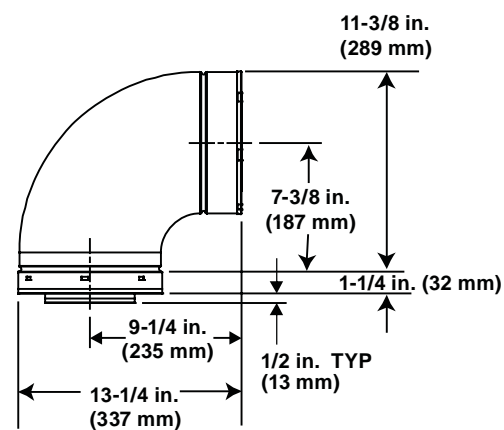
DVP45 (45° Elbow)



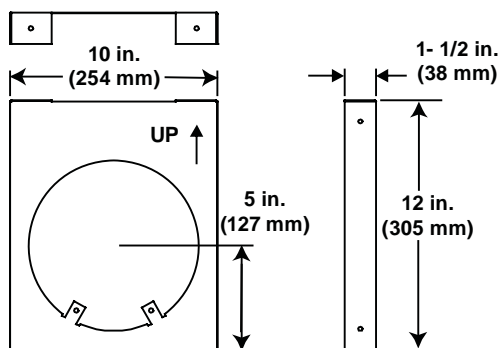
DVP-AS (Attic Shield)



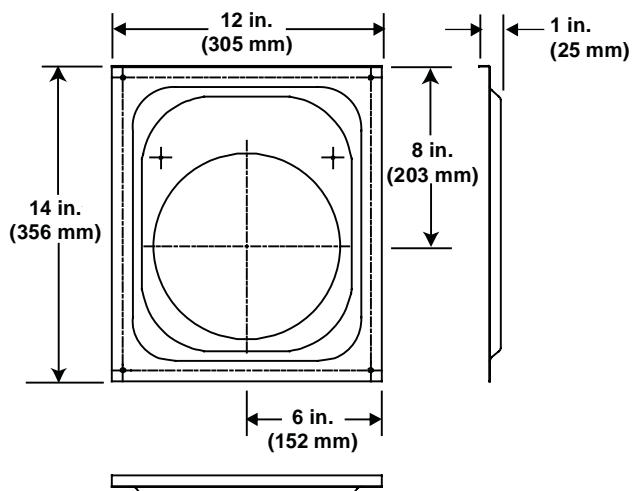
DVP-FS (Ceiling Firestop)



DVP90ST (90° Elbow)



DVP-HVS (Vent Support)



DVP-WS (Wall Shield Firestop)

Figure 16.2 DVP vent components

→ B. Vent Components Diagrams (continued)

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.

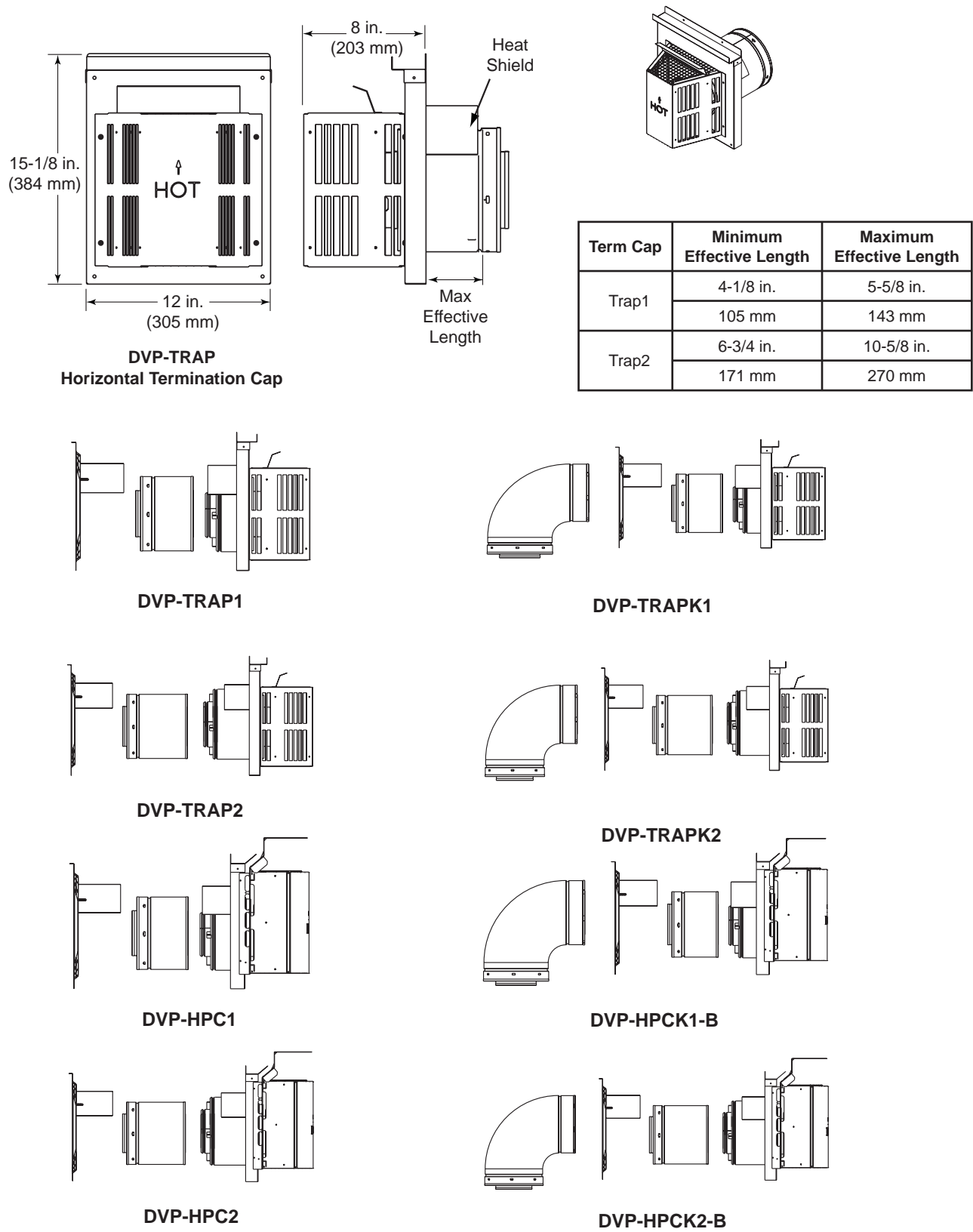
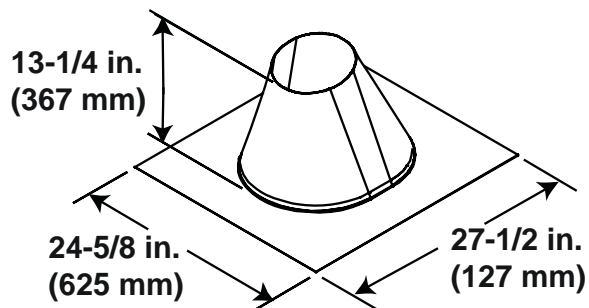
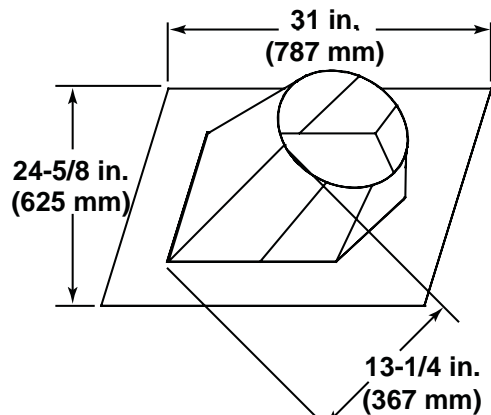


Figure 16.3 DVP vent components

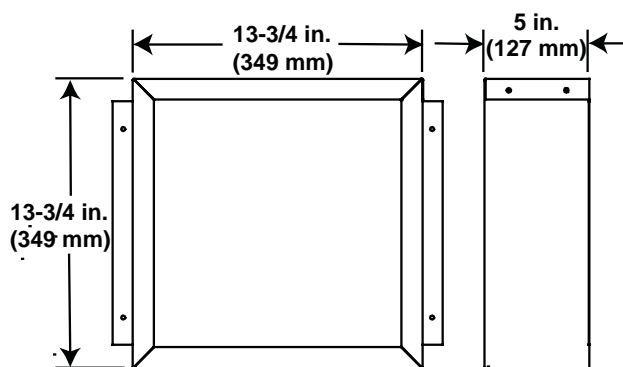
B. Vent Components Diagrams (continued)



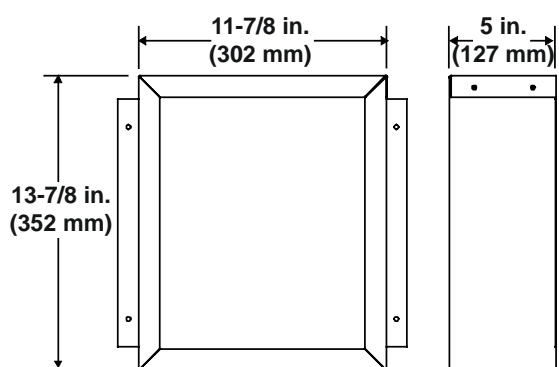
RF6M
Roof Flashing Multi-pak



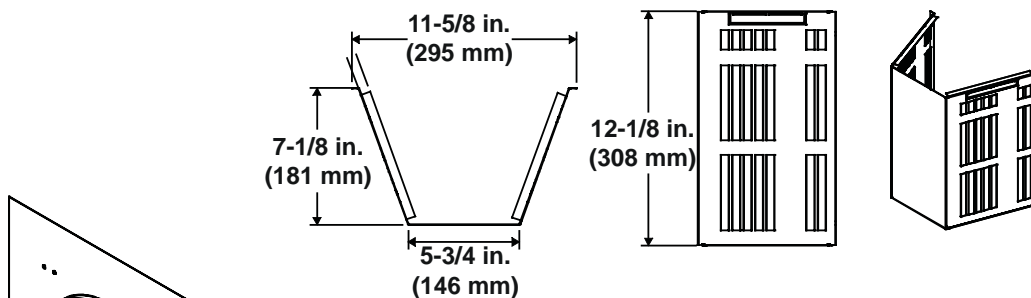
RF12M
Roof Flashing Multi-pak



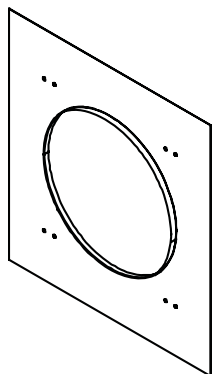
BEK
Trap Cap Brick Extension



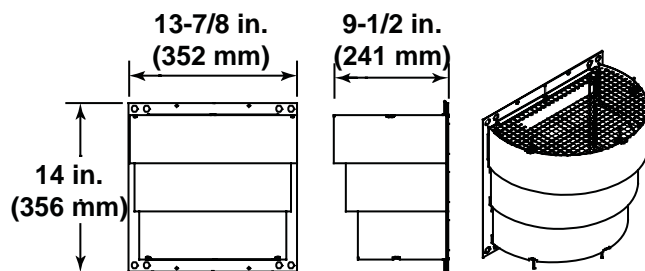
DVP-BEK2
DVP-HPC Cap Brick Extension



COOL-ADD
Cap Shield



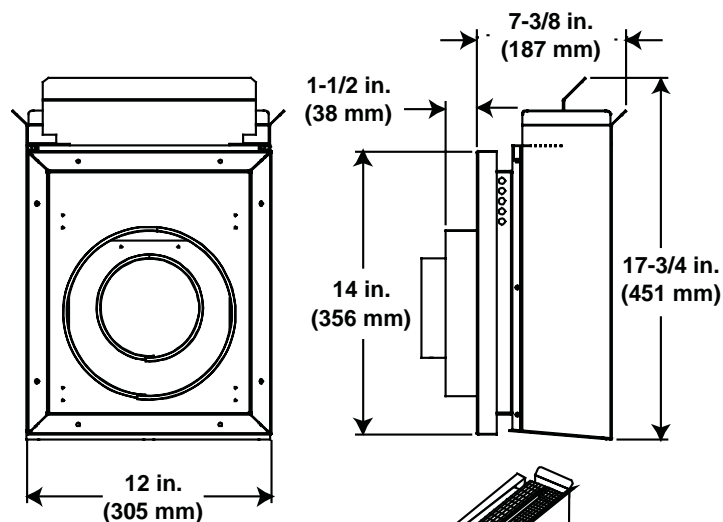
DVP-TRAPFL
Flashing



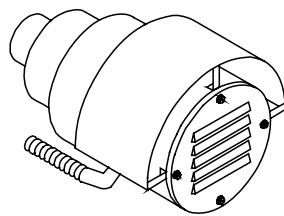
DRC-RADIUS
Cap Shield

Figure 16.4 DVP vent components

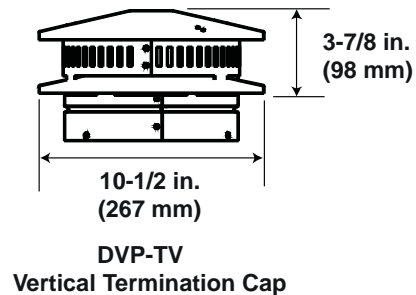
B. Vent Components Diagrams (continued)



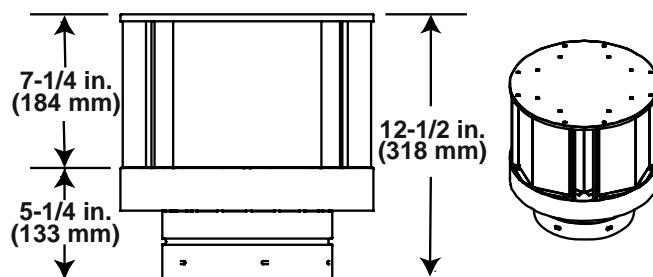
DVP-TB1
Basement Vent Cap



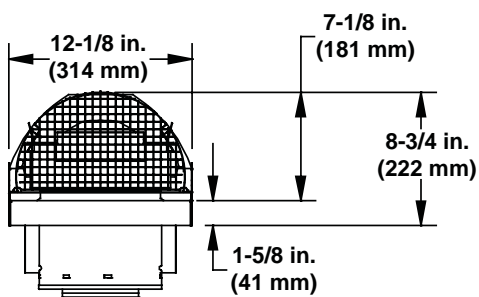
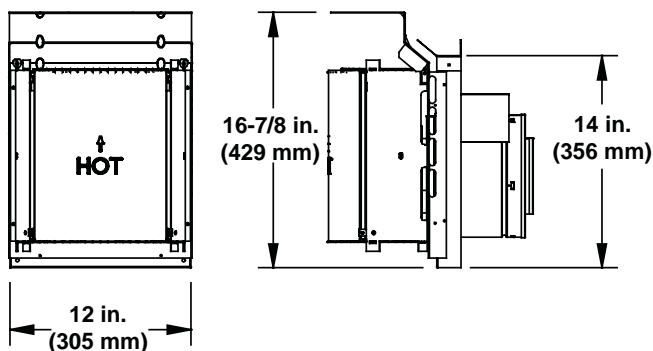
PVK-80
(For use with IPI and DSI appliances only.)



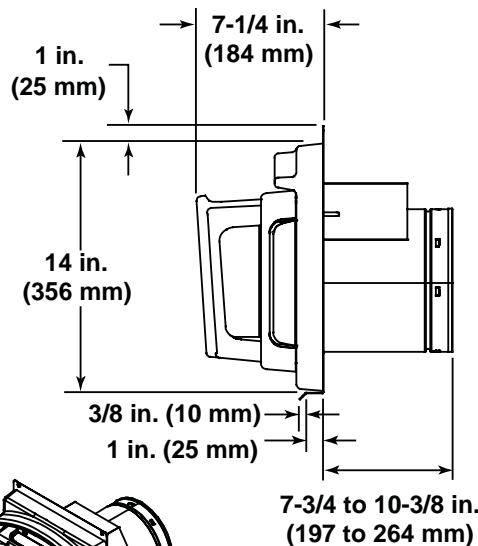
DVP-TV
Vertical Termination Cap



DVP-TVHW
Vertical Termination Cap (High wind)



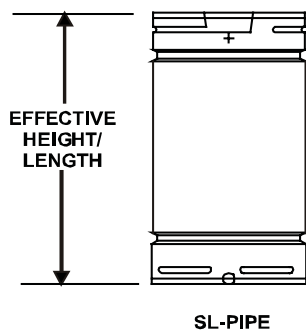
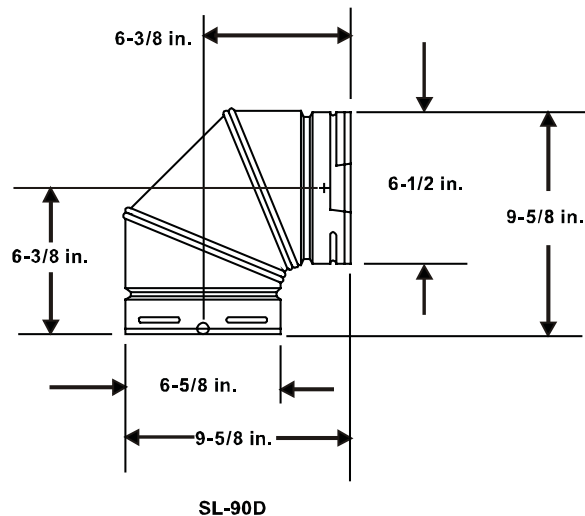
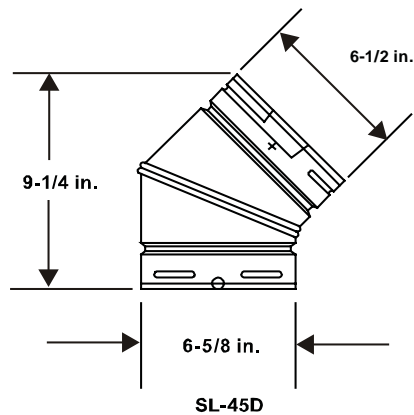
DVP-HPC
High Performance Cap



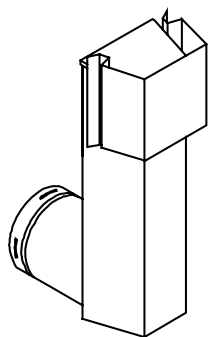
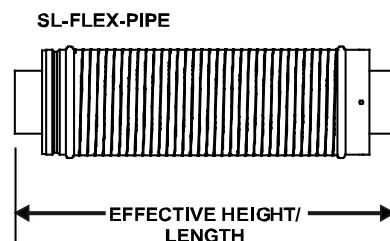
DVP-FBHT
Fire Brick Termination Cap

Figure 16.5 DVP vent components

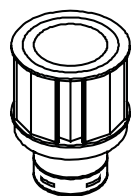
B. Vent Components Diagrams (continued)



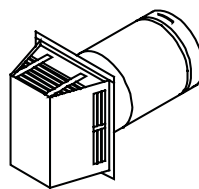
Pipe	Length/Inches
SL-06D	5-3/4
SL-09D	8-3/4
SL-12D	11-3/4
SL-12/17D	11-3/4 to 16-3/4
SL-17/24D	16-3/4 to 23-3/4
SL-24D	23-3/4
SL-36D	35-3/4
SL-48D	47-3/4
SL-FLEX-2	24
SL-FLEX-3	36
SL-FLEX-5	60
SL-FLEX-10	120



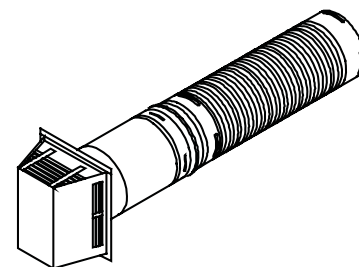
SLK-SNKD
SNORKEL
TERMINATION
CAP*



SLK-991DA
VERTICAL
TERMINATION
CAP



SLK-01TRD
SLK-01TRF
HORIZONTAL
TERMINATION
CAP



SL-FLEX2-01TRF
HORIZONTAL
TERMINATION
KIT

There must be a 25% reduction in total H when using the snorkel cap except when using the simple up and out installation.

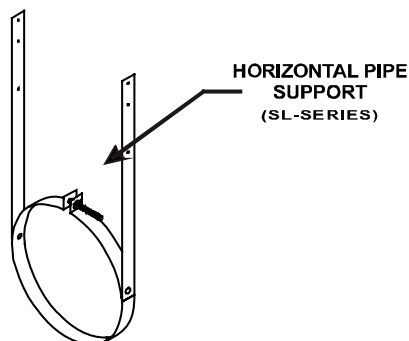
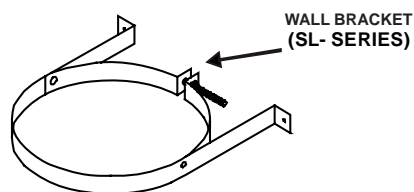
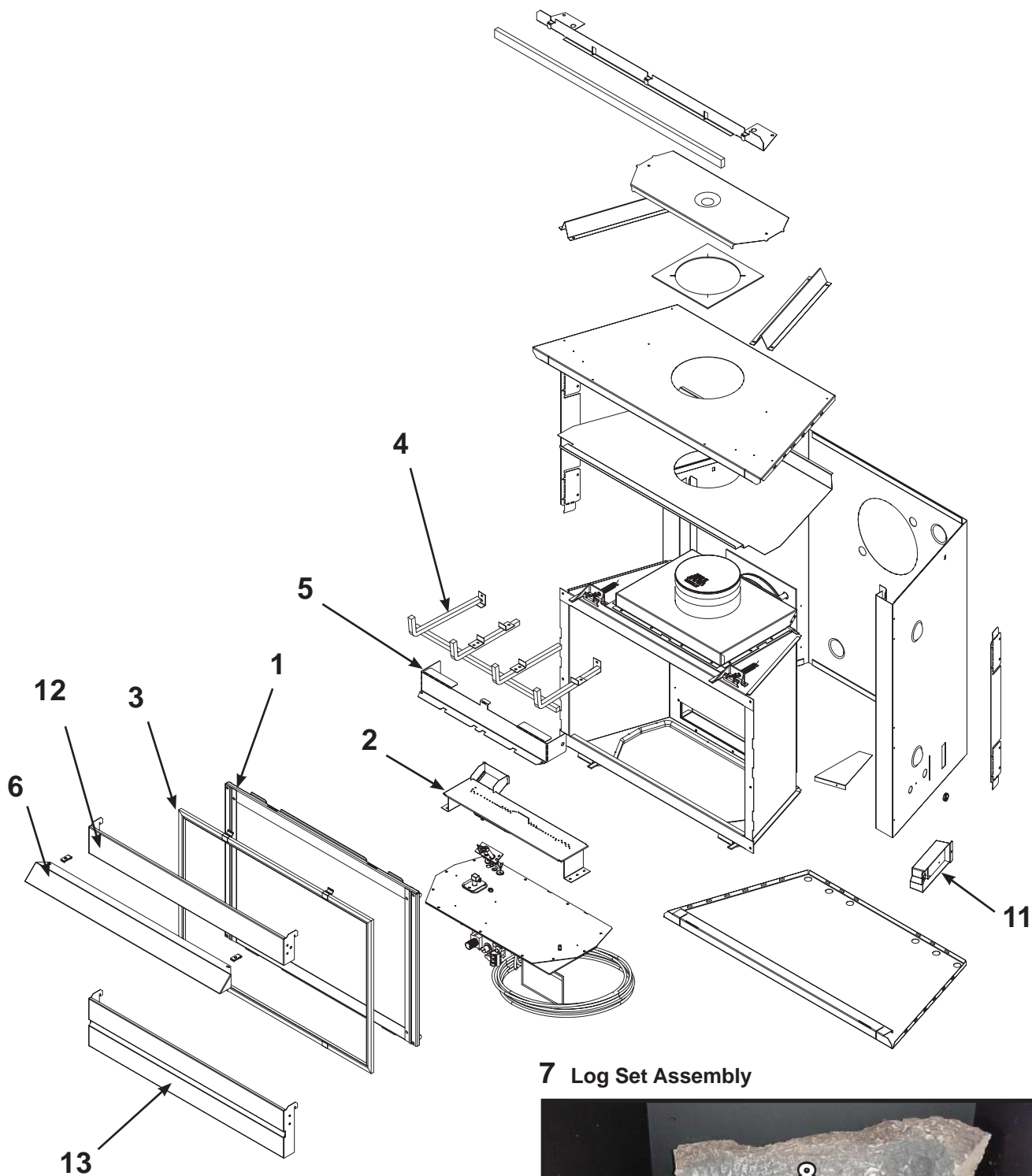
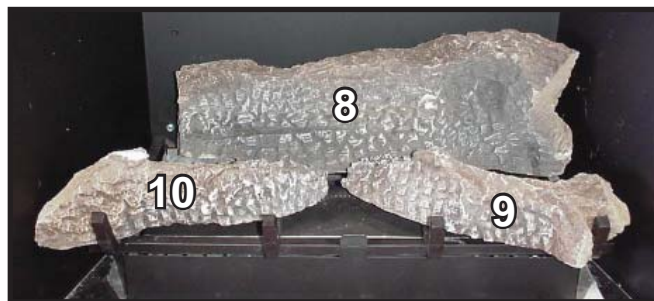


Figure 16.6 SL Series Vent Components



7 Log Set Assembly



Part number list on following page.

→ C. Service Parts List

BE-32

IMPORTANT: THIS IS DATED INFORMATION. The most current information is located on your dealers VIP site. When ordering, supply serial and model numbers to ensure correct service parts.

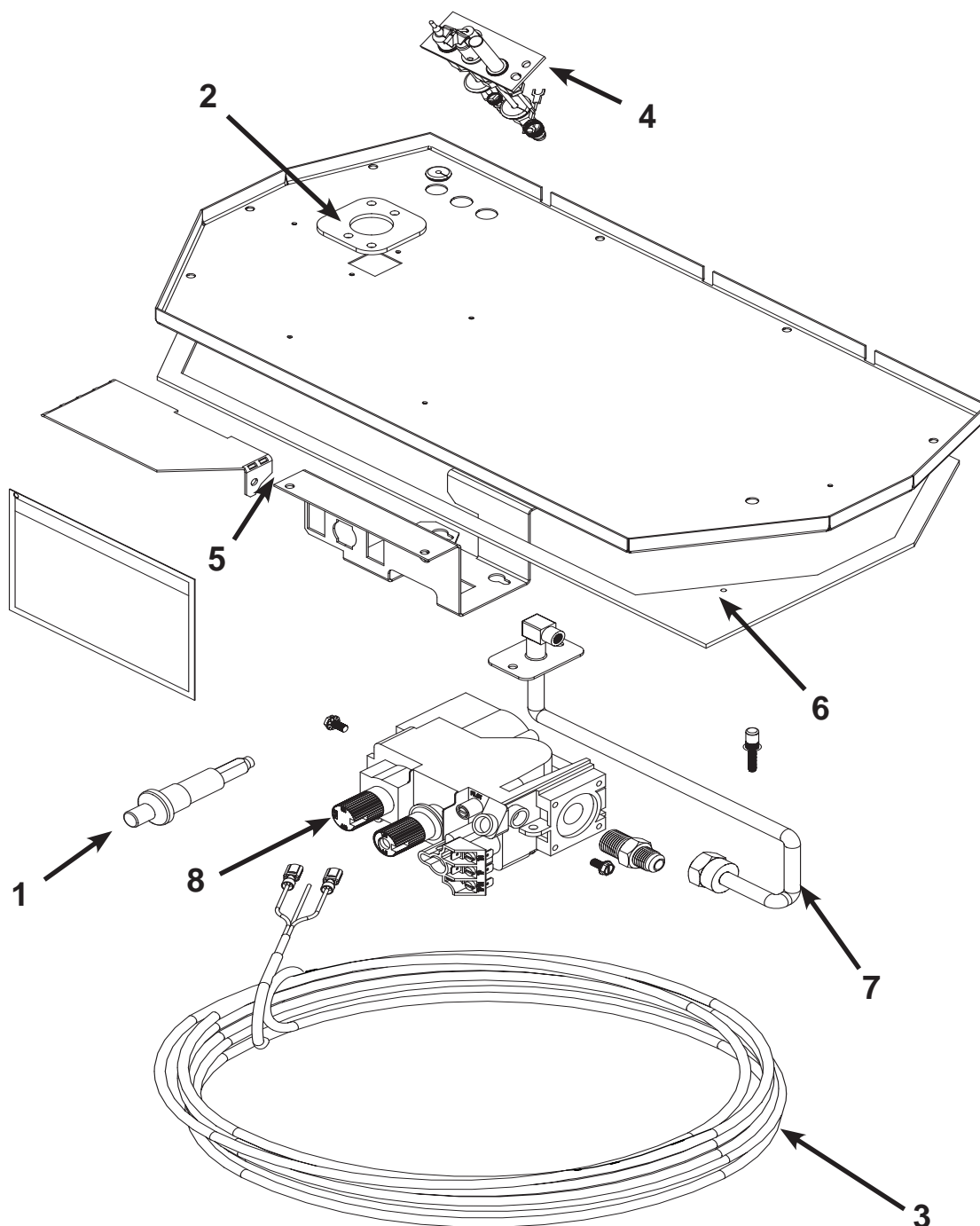


AVAILABLE
TO SHIP IN
24 HOURS

ITEM	DESCRIPTION	SERIAL #	PART NUMBER	↓
1	Glass Door Assembly		GLA-BE32	Y
2	Burner		2099-010	Y
3	Mesh Panel Door		2099-020	
4	Log Grate		2099-006	
5	Grate Support		2099-120	
6	Hood		SRV540-174	
7	Log Set Assembly		LOGS-BE32	Y
8	Log 1		SRV2099-701	
9	Log 2		SRV591-703	
10	Log 3		SRV278-702	
11	Junction Box		100-250A	Y
12	Louver, Top		2099-249	
13	Louver, Bottom		2099-248	
	Lava Rock		705-420	
	Mineral Wool		050-721	
	Glass Latch Assembly		386-122A	Y
	Touch Up Paint		TUP-GBK-12	
	Conversion Kit NG	Pre 10/06 Post 10/06	NGK-BE32 NGKS-BE32	Y
	Conversion Kit LP	Pre 10/06 Post 10/06	LPK-BE32 LPKS-BE32	Y
	Exhaust Restrictor		2089-299	

Additional service part numbers may appear on the following page.

Standing Pilot Ignition Valve Assembly




**AVAILABLE
TO SHIP IN
24 HOURS**

ITEM	DESCRIPTION	SERIAL #	PART NUMBER	↓
1	Piezo Ignitor		291-513	Y
2	Burner Neck Gasket		2045-407	
3	Thermostat Wire Assembly		2045-024	Y
4	Pilot Assembly NG	Pre 10/06 Post 10/06	485-510A 2103-010	Y Y
4	Pilot Assembly LP	Pre 10/06 Post 10/06	485-511A 2103-011	Y Y
5	SIT bracket ADP	Pre 10/06 Post 10/06	2025-101 2025-101/2044-155	
6	Valve Plate Gasket		530-431	
7	Flexible Gas Connector		530-302A	Y
8	Valve NG	Pre 10/06 Post 10/06	060-520 418-500	Y Y
8	Valve LP	Pre 10/06 Post 10/06	060-521 418-501	Y Y
	Burner Orifice NG (#46C)		582-846	Y
	Burner Orifice LP (#56C)		582-856	Y
	Pilot Orifice NG	Pre 10/06 Post 10/06	446-505 2103-116	Y Y
	Pilot Orifice LP	Pre 10/06 Post 10/06	446-517 2103-117	Y Y
	Thermocouple	Pre 10/06 Post 10/06	446-511 2103-511	Y Y
	Thermopile	Pre 10/06 Post 10/06	060-512 2103-512	Y Y
	Baffle (LP Conversion Only)		2099-184	
	Regulator NG	Pre 10/06 Post 10/06	060-504 NGK-11	Y
	Regulator LP	Pre 10/06 Post 10/06	060-516 LPK-11	Y

D. Limited Lifetime Warranty

LIMITED LIFETIME WARRANTY

Hearth & Home Technologies



BASIC ONE-YEAR WARRANTY. HEARTH & HOME TECHNOLOGIES INC., located at 20802 Kensington Boulevard, Lakeville, MN 55044, warrants to the original owner that your new HEARTH & HOME TECHNOLOGIES Gas Appliance (the "Product") will be free from defects in materials and workmanship for a period of one year from the date of installation. During the first year, HEARTH & HOME TECHNOLOGIES will replace or repair, at its discretion, any defective components at its sole cost and expense, including payment of all reasonable labor costs incurred in replacing or repairing such components. This basic warranty is subject to the conditions, exclusions and limitations described below.

EXTENDED LIFETIME COVERAGE. HEARTH & HOME TECHNOLOGIES INC warrants that the firebox, heat exchanger, log(s), and burner will not be defective in material or workmanship during the period the Product is owned by the original owner, subject to the following conditions, exclusions and limitations described below.

CONDITIONS, EXCLUSIONS AND LIMITATIONS:

1. This warranty applies to the original owner only and is nontransferable.
2. This warranty applies only to Products installed in the United States of America or Canada.
3. This warranty is limited to the replacement or repair of defective components or workmanship and HEARTH & HOME TECHNOLOGIES may fully discharge all obligations under this warranty by repairing or replacing, at its discretion, the defective components. The maximum amount recoverable under this warranty is limited to the purchase price of the Product and, if HEARTH & HOME TECHNOLOGIES is unable to provide replacement or repair in an expedient and cost-effective manner, HEARTH & HOME TECHNOLOGIES may discharge all obligations under this warranty by refunding the purchase price of the Product. IN NO EVENT SHALL HEAT & GLO BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY DEFECTS IN THE PRODUCT.
4. Any labor and related repair charges relating to the costs and expenses of replacing or repairing defective components under the Limited Lifetime Warranty are not covered by this warranty, except as provided for under the Basic One-Year Warranty.
5. Components and parts made by other manufacturers, whether sold with the Product or added thereafter, are NOT covered by this warranty unless expressly authorized and approved by HEARTH & HOME TECHNOLOGIES in writing.
6. Any damages caused by environmental conditions, inadequate ventilation or drafting caused by tight sealing construction of the structure, air handling devices such as exhaust fans or forced air furnaces, or other such causes are not covered by this warranty.
7. This warranty will be void if:
 - a) The Product is not installed, operated and maintained in compliance with local building codes and with the instructions in the Installer's Guide, Owner's Guide and Listing Agent Identification Label furnished with the Product.
 - b) Any parts or components made by other manufacturers are added or used in the Product, unless expressly authorized and approved by HEARTH & HOME TECHNOLOGIES INC in writing.
 - c) Any service work is performed on the Product by anyone other than an authorized HEARTH & HOME TECHNOLOGIES representative.
 - d) The Product is damaged due to shipping, improper handling, accident, abuse or misuse.
 - e) Fuels other than those specified in the Installer's Guide and Owner's Guide are used.
 - f) Modification was made to the Product which was not expressly authorized and approved by HEARTH & HOME TECHNOLOGIES in writing.

EXCEPT TO THE EXTENT PROVIDED BY LAW, HEARTH & HOME TECHNOLOGIES INC MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO THE DURATION OF THE WARRANTY SPECIFIED ABOVE.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow exclusion or limitation of incidental or consequential damages, so those limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

If warranty service is needed you should contact your installing dealer and if the installing dealer is unable to provide necessary parts or components, contact the nearest authorized HEARTH & HOME TECHNOLOGIES dealer or supplier.

NOTES TO CUSTOMER:

1. In order to insure proper installation, operation and maintenance HEARTH & HOME TECHNOLOGIES INC strongly recommends annual servicing by an authorized HEARTH & HOME TECHNOLOGIES dealer.
2. Please complete this information and retain this warranty in a safe place for future reference: Installation Date: _____
Model #: _____ Serial #: _____ Installing Contractor: _____
3. HEARTH & HOME TECHNOLOGIES INC reserves the right to make changes at any time, without notice, in design, material, specifications and prices of the Product. HEARTH & HOME TECHNOLOGIES also reserves the right to discontinue styles and products.

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E. Contact Information



Hearth & Home Technologies Inc.
20802 Kensington Boulevard, Lakeville, MN 55044
www.fireside.com

Please contact your Hearth & Home Technologies
dealer with any questions or concerns.
For the location of your nearest Hearth & Home Technologies
dealer, please visit www.fireside.com.

- NOTES -

CAUTION



- Important operating and maintenance instructions included

DO NOT DISCARD THIS MANUAL

- 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) 4593510, 4686807, 4766876, 4793322, 4811534, 5000162, 5016609, 5076254, 5113843, 5191877, 5218953, 5263471, 5328356, 5341794, 5347983, 5429495, 5452708, 5542407, 5601073, 5613487, 5647340, 5688568, 5762062, 5775408, 5890485, 5931661, 5941237, 5947112, 5996575, 6006743, 6019099, 6048195, 6053165, 6145502, 6170481, 6237588, 6296474, 6374822, 6413079, 6439226, 6484712, 6543698, 6550687, 6601579, 6672860, 6688302B2, 6715724B2, 6729551, 6736133, 6748940, 6748942, 6769426, 6774802, 6796302, 6840261, 6848441, 6863064, 6866205, 6869278, 6875012, 6880275, 6908039, 6919884, D320652, D445174, D462436; (Canada) 1297749, 2195264, 2225408, 2313972; (Australia) 780250, 780403, 1418504 or other U.S. and foreign patents pending.

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