

# Installation Manual

## Installation and Appliance Setup

**INSTALLER:** Leave this manual with party responsible for use and operation.  
**OWNER:** Retain this manual for future reference.

**NOTICE:** DO NOT discard this manual!

# HEAT & GLO™

Where everything comes together

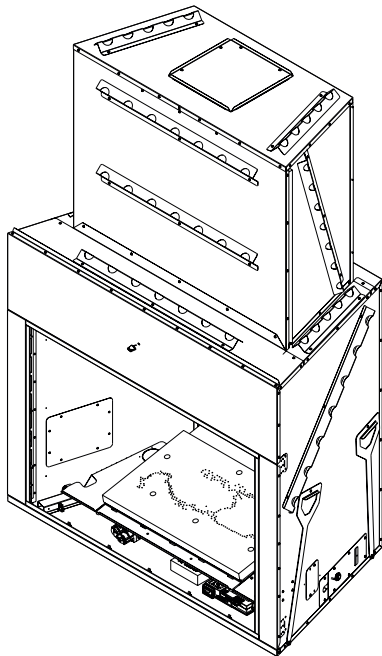
### Models:

**PHOENIX42-IFT**

**PHX42-HK-TR-B** Hearth Kit

**PHX42-HK-GLA-B** Hearth Kit

**GAS-FIRED**



**▲ WARNING:**  
**FIRE OR EXPLOSION HAZARD**  
Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

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

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.

## ▲ Safety Alert Key:

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

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➔ = Contains updated information.

# Installation Standard Work Checklist


## ATTENTION INSTALLER: Follow this Standard Work Checklist

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

**Customer:** \_\_\_\_\_  
**Lot/Address:** \_\_\_\_\_

**Date Installed:** \_\_\_\_\_  
**Location of Fireplace:** \_\_\_\_\_  
**Installer:** \_\_\_\_\_  
**Dealer/Distributor Phone #** \_\_\_\_\_  
**Serial #:** \_\_\_\_\_

**Model :** PHOENIX42-IFT

 **WARNING! Risk of Fire or Explosion!** Failure to install appliance according to these instructions could lead to a fire or explosion.

<b>Appliance Install</b>	<b>YES</b>	<b>IF NO, WHY?</b>
Verified that the chase is insulated and sealed. (Pg. 13)	<input type="checkbox"/>	_____
Verified clearances to combustibles.(Pg.10-12)	<input type="checkbox"/>	_____
Fireplace is leveled and secured. (Pg. 24)	<input type="checkbox"/>	_____
<b>Venting/Chimney Section 7 (Pg 25-30)</b>		
Venting configuration complies to vent diagrams.	<input type="checkbox"/>	_____
Venting installed, locked and secured in place with proper clearance.	<input type="checkbox"/>	_____
Firestops installed.	<input type="checkbox"/>	_____
Attic insulation shield installed.	<input type="checkbox"/>	_____
Exterior wall/Roof flashing installed and sealed.	<input type="checkbox"/>	_____
Terminations installed and sealed.	<input type="checkbox"/>	_____
<b>Electrical Section 8 (Pg 31-33)</b>		
Unswitched power (110-120 VAC) provided to the appliance.	<input type="checkbox"/>	_____
Power vent electrical harness properly connected to appliance and termination cap.	<input type="checkbox"/>	_____
<b>Gas Section 9 (34-35)</b>		
Proper appliance for fuel type.	<input type="checkbox"/>	_____
Was a conversion performed?	<input type="checkbox"/>	_____
Leak check performed and inlet pressure verified.	<input type="checkbox"/>	_____
Verified proper air shutter setting for installation type.	<input type="checkbox"/>	_____
<b>Finishing Section 10 (Pg 36-37)</b>		
Combustible materials not installed in non-combustible areas.	<input type="checkbox"/>	_____
Verified all clearances meet installation manual requirements.	<input type="checkbox"/>	_____
Mantels and wall projections comply with installation manual requirements.	<input type="checkbox"/>	_____
<b>Appliance Setup Section 11 (Pg 38-44)</b>		
All packaging and protective materials removed (inside & outside of appliance).	<input type="checkbox"/>	_____
Refractories, logs, mineral wool, lava rock and vermiculite installed correctly.	<input type="checkbox"/>	_____
Accessories installed properly.	<input type="checkbox"/>	_____
Decorative front properly installed.	<input type="checkbox"/>	_____
Manual bag and all of its contents are removed from inside/under		
the appliance and given to party responsible for use and operation.	<input type="checkbox"/>	_____
Started appliance and verified no gas leaks exist.	<input type="checkbox"/>	_____

**Hearth & Home Technologies recommends the following:**

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

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

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

➔ = Contains updated information.

# 1 Product Specific and Important Safety Information

## A. Appliance Certification

**MODELS:** Phoenix42-IFT  
**LABORATORY:** Underwriters Laboratories, Inc. (UL)  
**TYPE:** VENTED DECORATIVE GAS APPLIANCES  
**STANDARD:** ANSI Z21.50-2016/CSA 2.22-2016

This product is listed to ANSI standards for “Vented Decorative Gas Appliances” and applicable sections of “Gas Fired Appliances for Use at High Altitudes”.

Vented decorative gas appliance: not a source of heat; not for use with solid fuel.

Certified for installation in a bedroom or bedsitting room in the U.S., provided that the room has a volume of at least 3250 cubic square feet (50 ft<sup>3</sup>/1000 BTU/hr)

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

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

## B. BTU and Air Flow Specifications

Models (U.S. or Canada)		Maximum Input BTU/h	Orifice Size (DMS)
Phoenix42-IFT (NG)	(0-2000 FT)	65,000	.161 (#20)
Phoenix42-IFT (Propane)	(0-2000 FT)	65,000	.098 (#40)

Air Flow: 350 CFM

Débit d'air: 350 9.91 m<sup>3</sup>/min



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

## C. High Altitude Installations

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

When installing above 2000 feet elevation:

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

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

## D. 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.

## E. Combustible Materials Specification

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

## F. Electrical Codes

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

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

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

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

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

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

### Approved Carbon Monoxide Detectors

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

### Signage

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

## Inspection

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

## Exemptions

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

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

## MANUFACTURER REQUIREMENTS

### Gas Equipment Venting System Provided

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

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

### Gas Equipment Venting System NOT Provided

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

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

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

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

# 2 Getting Started

## A. Design and Installation Considerations

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

Before installing, determine the following:

- Where the appliance is to be installed.
- The vent system configuration to be used.
- Gas supply piping requirements.
- Electrical wiring requirements.
- Framing and finishing details.
- Whether optional accessories—devices such as a screen front or sound kit—are desired.

**Note:** The location of the power vent termination cap should be taken into consideration. HHT recommends that the cap be positioned to minimize the effects of wind, rain & snow on the termination cap.

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



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

## B. Tools and Supplies Needed

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

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

## C. Inspect Appliance and Components

- Carefully remove the appliance and components from the packaging.
- This appliance requires the use of a power vent termination cap (supplied).
- Vent system components, logs, firebox refractory lining are shipped separately.
- Report to your dealer any parts damaged in shipment, particularly the condition of the glass.
- **Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

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

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

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

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

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

## D. Negative Pressure

**WARNING! Asphyxiation Risk!** Severe negative pressure caused by weather, home design or other devices can impact appliance operation and cause spillage of combustion fumes and soot. The appliance needs to draft properly to operate safely.

This power vented appliance uses room air for combustion. It is imperative that provisions for adequate combustion and ventilation air be made.

Items to consider are:

- While this appliance can operate in environments of -15 Pascals, it is recommended the room be at a neutral pressure.
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the appliance.
- Avoid installing the appliance in locations where fans, windows or drafts can impact appliance performance.
- Installation of optional outside air kits.

# 3 Framing and Clearances

## A. Appliance/Decorative Front Dimension Diagrams

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

Note: All standoffs measure 1 inch

Model	Pounds
PHOENIX42-IFT	265
PHX42-HK-TR-B	190
PHX42-HK-GLA-B	190

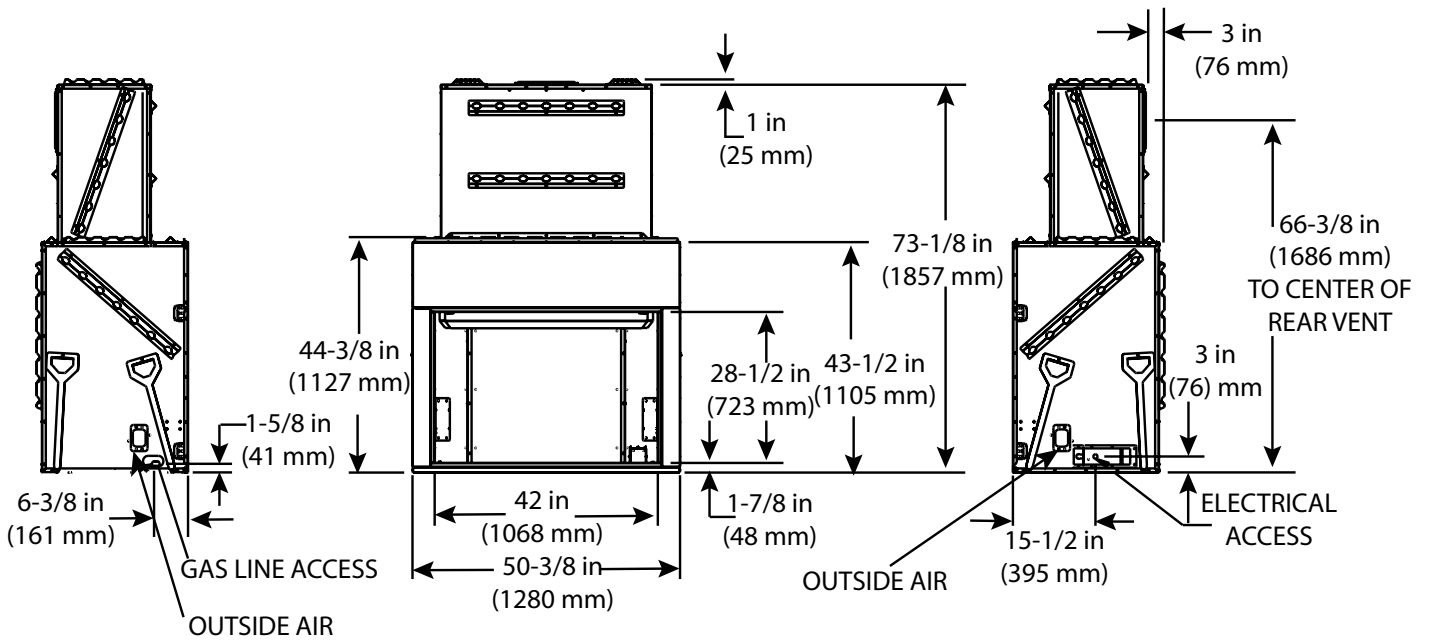
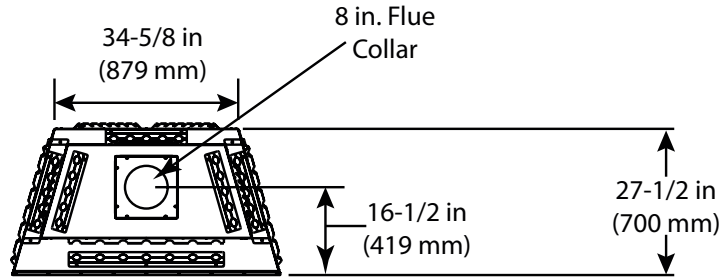
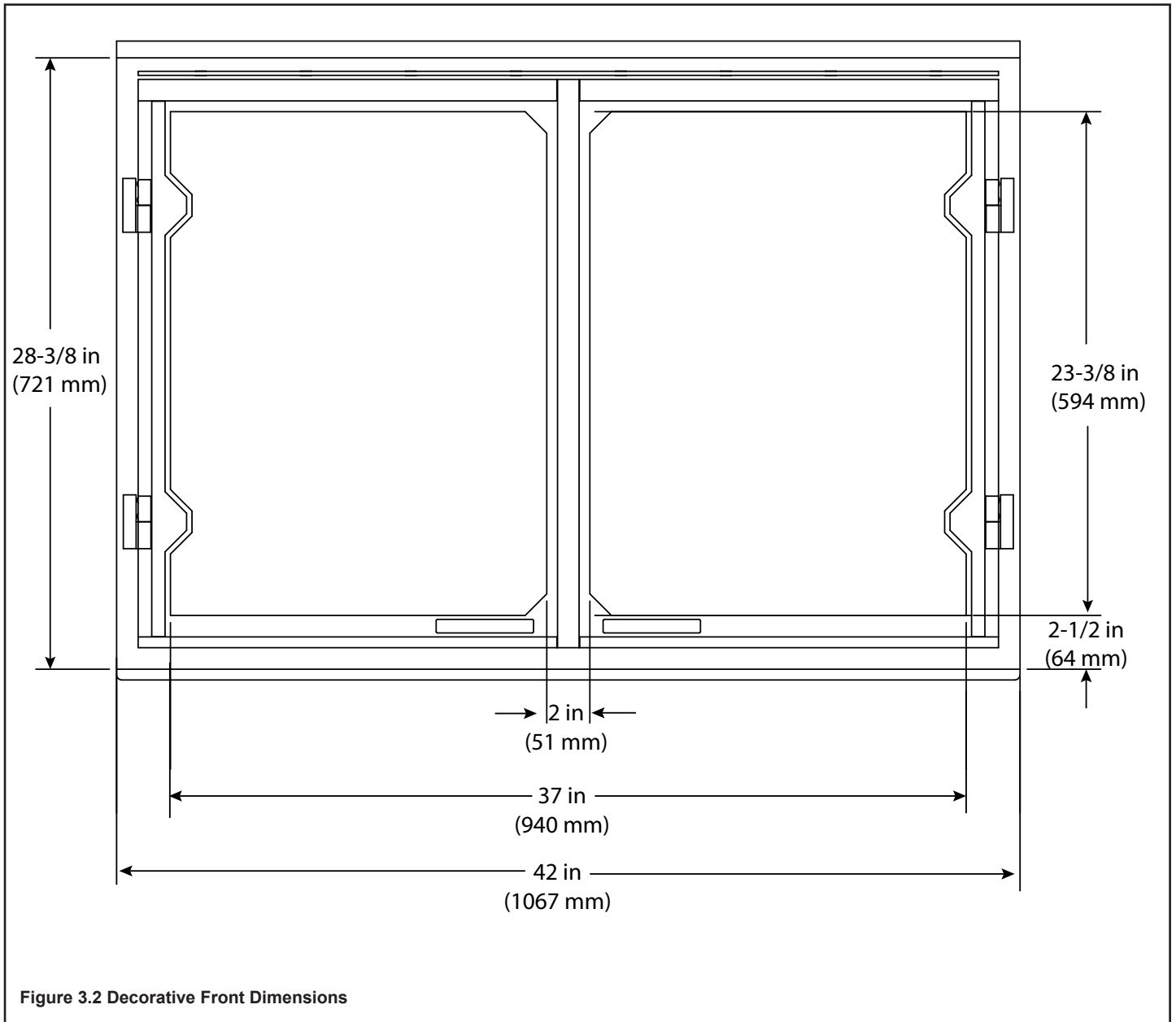


Figure 3.1 Appliance Dimensions



# GV80BK Screen Front

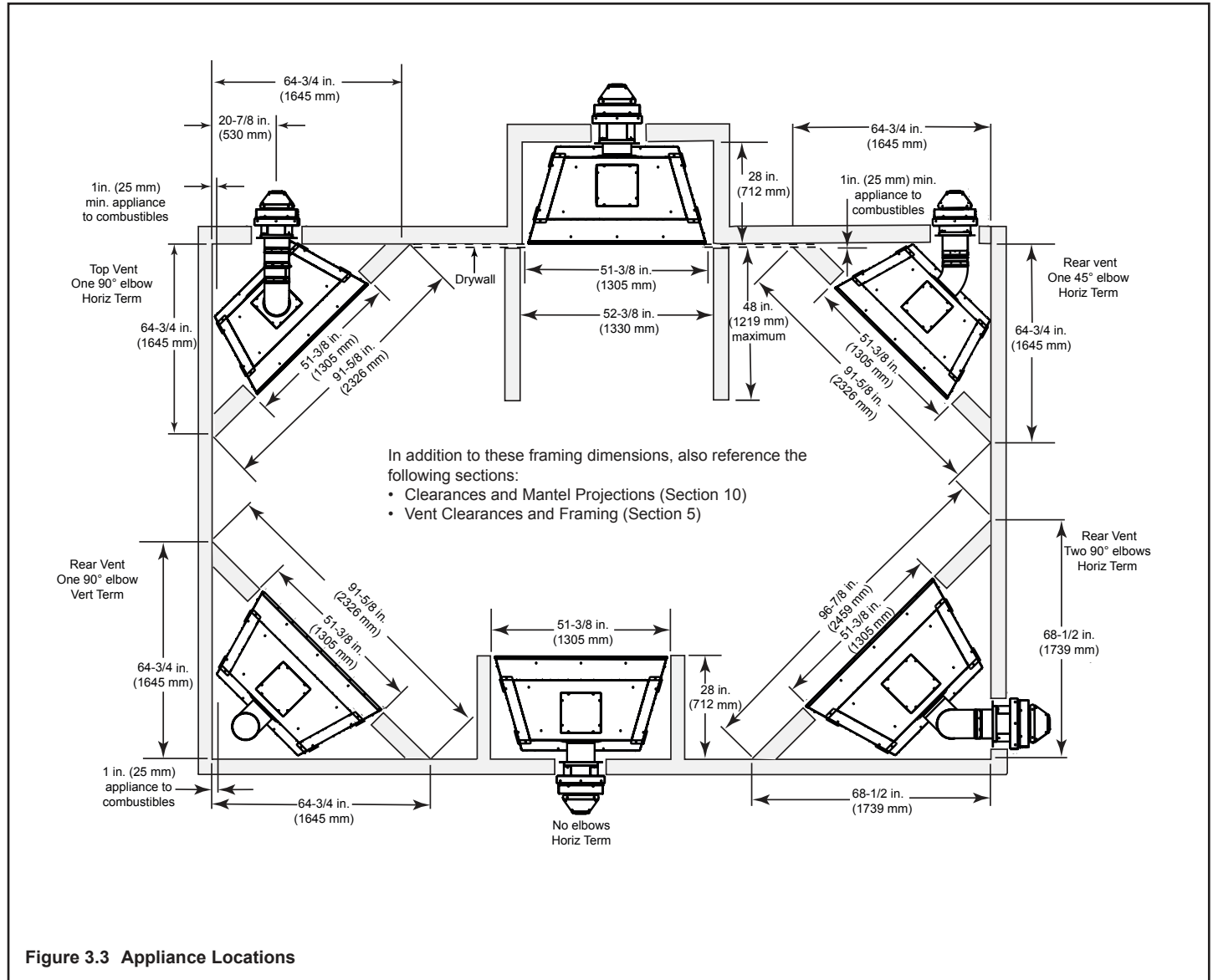


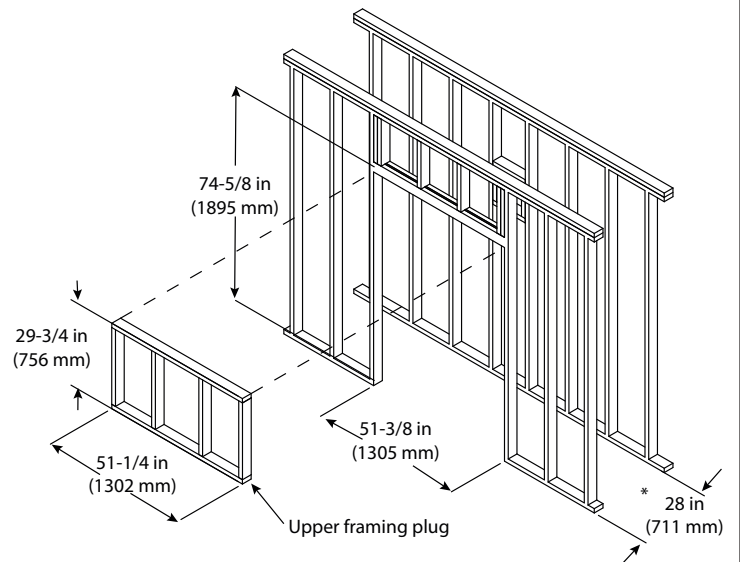
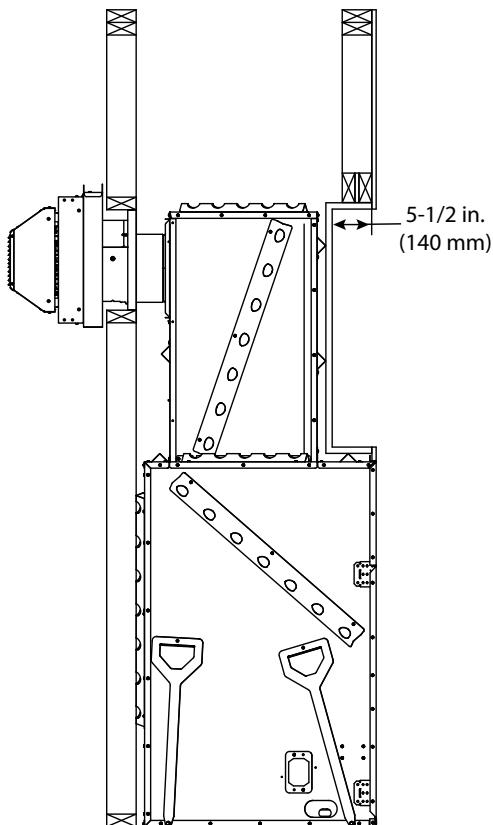
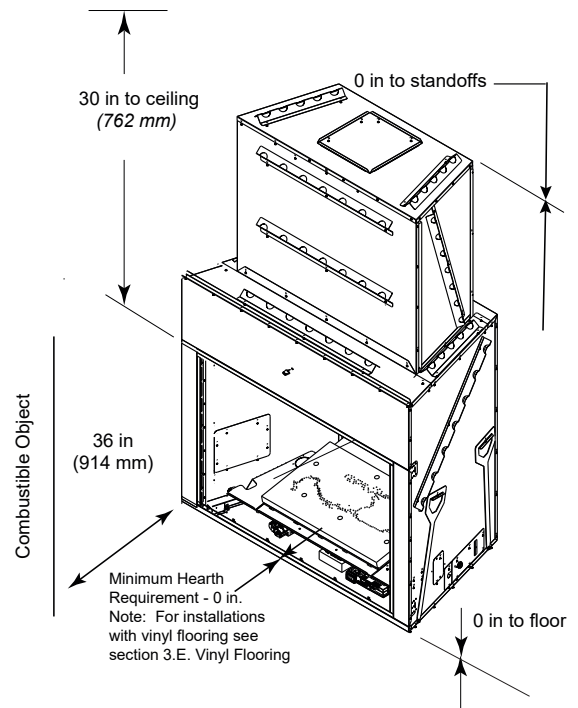
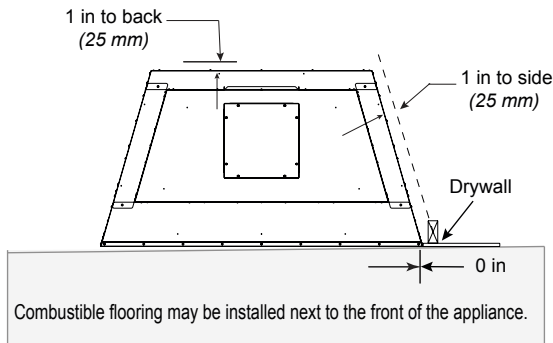
## B. Clearances to Combustibles

When selecting a location for the appliance it is important to consider the required clearances to walls. See Figure 3.3 below and Figure 3.4 on next page.

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

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





\* If the inside of the framed cavity is to be finished, the framing dimensions must include the finished surface. If drywall is to be attached to the rear wall, the depth must be measured from the drywall surface.  
\* Add 9-1/4 inches to framing depth for an elbow vented off the rear of the appliance.

Figure 3.4 Clearances to Combustibles

### C. TV Good Faith Guidelines.

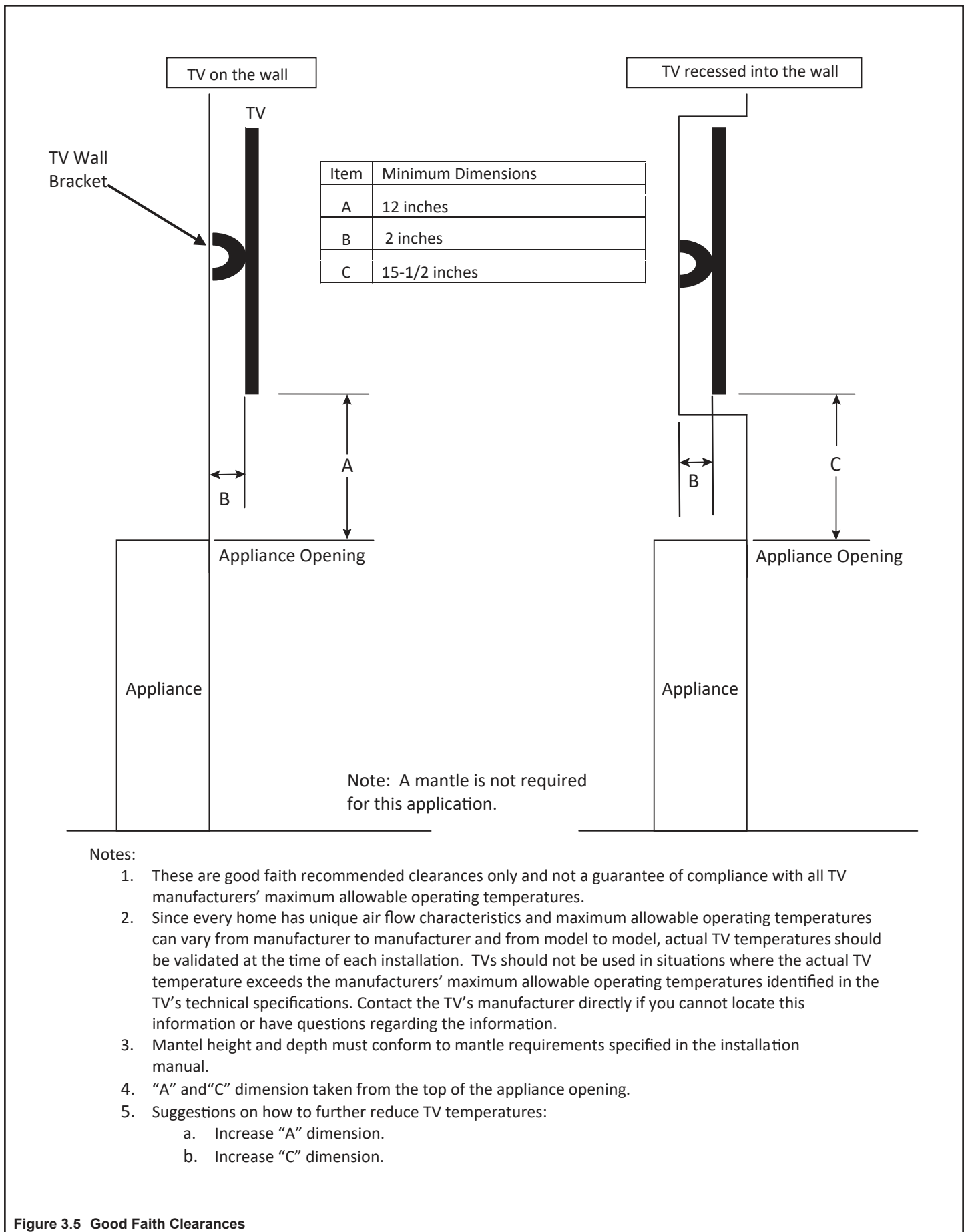


Figure 3.5 Good Faith Clearances

## D. Constructing the Appliance Chase

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

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

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

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

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

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

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

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

## E. Floor Protection

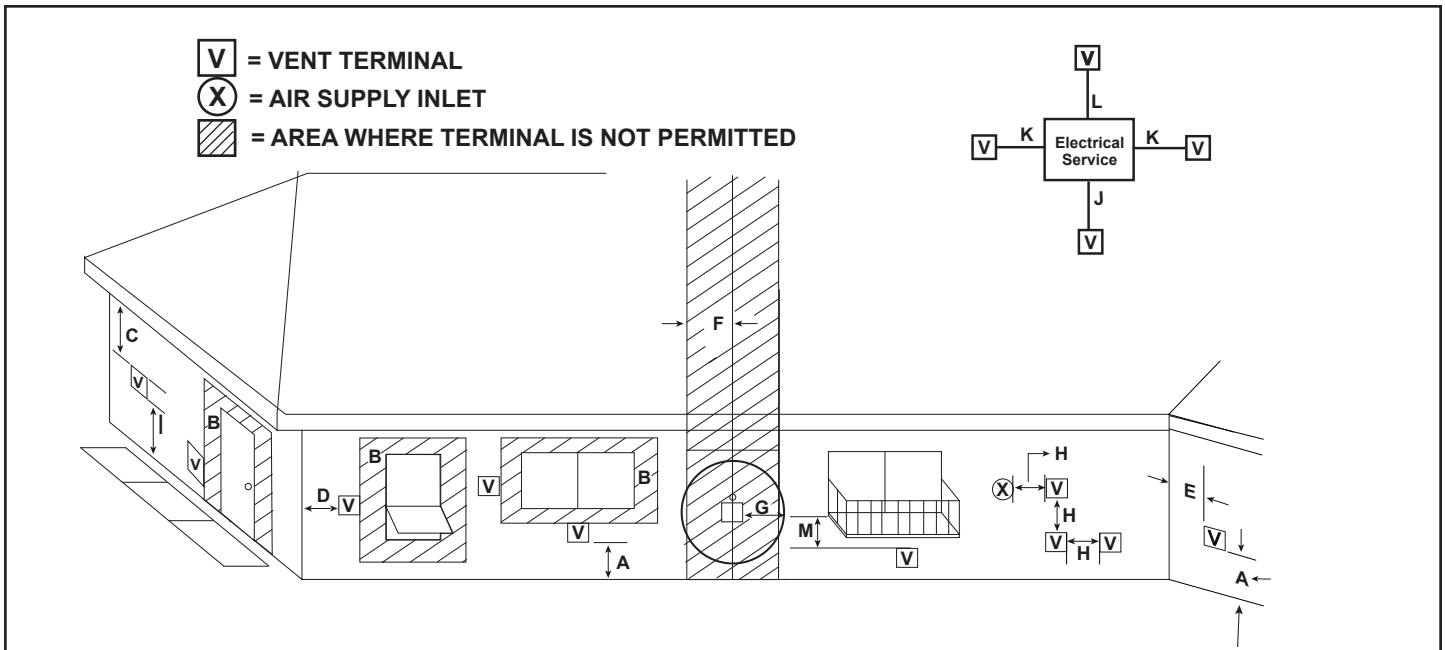
### Vinyl Flooring

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

**NOTICE:** Clearances that do not meet the minimum guidelines could result in damage or buckling to the vinyl flooring and is done at the installer's risk.

# 4 Termination Location and Vent Information

## A. Chimney Diagram

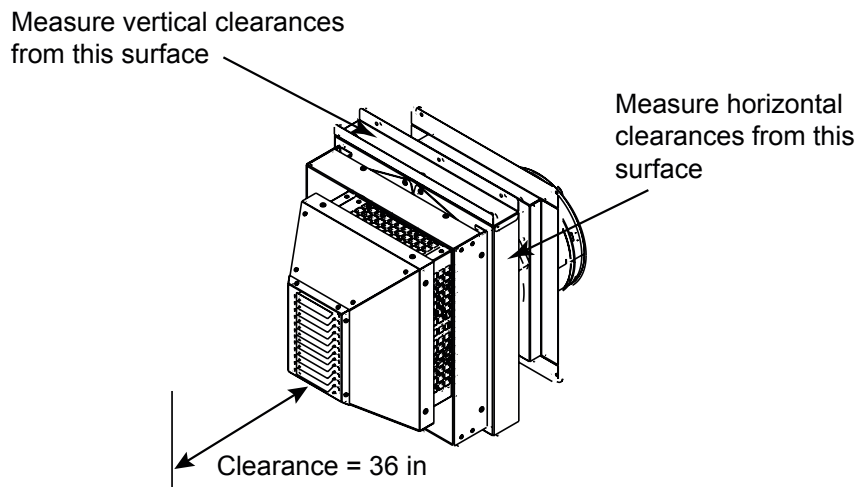


Vent Termination Clearance Requirements					
A	Clearance above grade, veranda, porch, deck or balcony	1' (12")	I	On <b>public</b> property: Clearance above paved sidewalk or a paved driveway.	7' (84")
B	Clearance above an operable window, door or gravity air inlet	1' (12")	J	Clearance below electrical service	30"
	Clearance below an operable window, door or gravity air inlet	1' (12")	K	Clearance from sides of electrical service	6"
	Clearance to side of an operable window, door or gravity air inlet	1' (12")	L	Clearance above electrical service	1' (12")
	Clearance to a non-operable window or door	1' (12")		<i>Note: Location of the vent termination must not interfere with access to the electrical service</i>	
C	Clearance below unventilated soffit	18"	M	Clearance under veranda, porch, deck, balcony or overhang	18"
	Clearance below ventilated soffit	18"		Clearance under veranda, porch, deck, balcony or overhang (vinyl or composite)	30"
	Clearance below vinyl soffit	30"			
D	Clearance to an outside corner	6"			
E	Clearance to an inside corner	1' (12")			
F	Not to be installed above a gas meter/ regulator assembly within 3 feet horizontally from the center-line of the regulator (Canada)	3' (36")			<i>Note: Only permitted when veranda, porch, deck or balcony is fully open on a minimum of 2 sides beneath the floor</i> <i>Note: Power exhauster terminations shall be located not less than 10 ft. from lot lines and adjacent buildings.</i>
G	Clearance to gas service regulator vent outlet	3' (36")			
H	Clearance above a mechanical (powered) air supply inlet if within 10ft horizontally. Does not apply to the combustion air intake of a direct vent appliance.	3' (USA)			
		6' (Canada)			
	<i>Note: A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.</i>				

Figure 4.1 Minimum Clearances for Termination

(cont.)

## Chimney Diagram (cont.)



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

- **LOCAL CODES OR REGULATIONS MAY REQUIRE DIFFERENT CLEARANCES.**
- Vent system termination is **NOT** permitted in screened porches.
- Vent system termination is permitted in porch areas with two or more sides open.
- Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

Figure 4.2 Minimum Clearances for Termination

## B. Approved Pipe

This appliance is approved for use with Hearth & Home Technologies SLG venting system. Refer to Section 12.A for vent component information and dimensions.

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

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

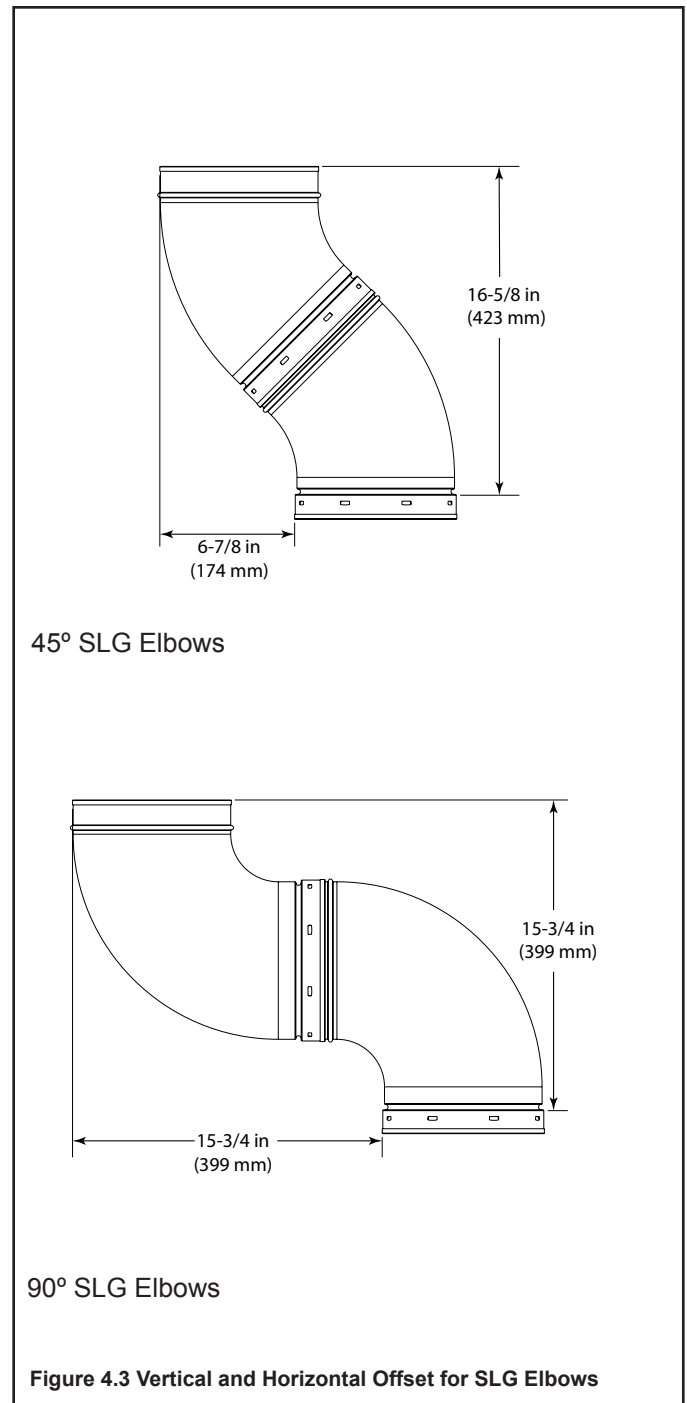
**WARNING! Risk of Fire or Asphyxiation.** This appliance requires a separate vent. **DO NOT** vent to a pipe serving a separate solid fuel burning appliance.

## C. Use of Elbows

- A maximum of three 90° elbows (or six 45°) may be used in any vent configuration.
- Each 90° elbow, whether installed vertically or horizontally, counts as two feet towards the total vent run.
- Each 45° elbow, whether installed vertically or horizontally, counts as one foot towards the total vent run.
- Elbows may be placed back to back anywhere in the system.
- Any 90° elbow may be replaced with two 45° elbows.

**WARNING:** Elbows may NOT be installed in a downward direction.

Figure 4.3 shows the vertical and horizontal offsets for SLG elbows.

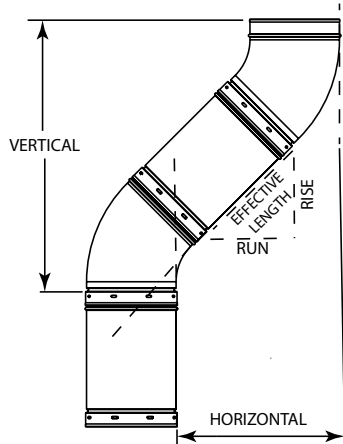




## D. Measuring Standards

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

- Pipe measurements are shown using the effective length of pipe. See Figure 4.4 for information on effective length of pipe components.
- Total vent length is measured from the start of the vent run, to the end of the vent run, including straight pipe as well as elbows.
- Horizontal pipe installed level with no rise.



SLG Pipe	Effective Length		Rise/Run	
	Inches	Millimeters	Inches	Millimeters
SLG4	2-3/4	70	2	49
SLG6	4-3/4	121	3-3/8	85
SLG12	10-3/4	273	7-5/8	193
SLG24	22-3/4	578	16-1/8	409
SLG36	34-3/4	883	24-5/8	624
SLG48	46-3/4	1187	33	840

SLG Pipe	Horizontal		Vertical	
	Inches	Millimeters	Inches	Millimeters
SLG4	8-7/8	225	18-5/8	473
SLG6	10-1/4	260	20	508
SLG12	14-1/2	368	24-1/4	616
SLG24	23	584	32-3/4	832
SLG36	31-1/2	800	41-1/4	1048
SLG48	39-7/8	1013	49-5/8	1260

Figure 4.4 Elbow Chart

## ⚠ WARNING



Fire Risk.

PHOENIX models must be power vented using the termination cap supplied with the appliance. Failure to vent properly could cause overheating and fire.

- The PHOENIX comes standard with a 2 minute pre-purge function designed to remove gas from the appliance and establish a positive draft for the vent system.
- The PHOENIX comes standard with a 20 minute post-purge function designed to eliminate condensation in the venting system components.

## E. Vent Diagrams

As shown in Figure 4.5, many different top vent or vent configurations are possible with the PHOENIX appliance, however there are few general rules that must be followed:

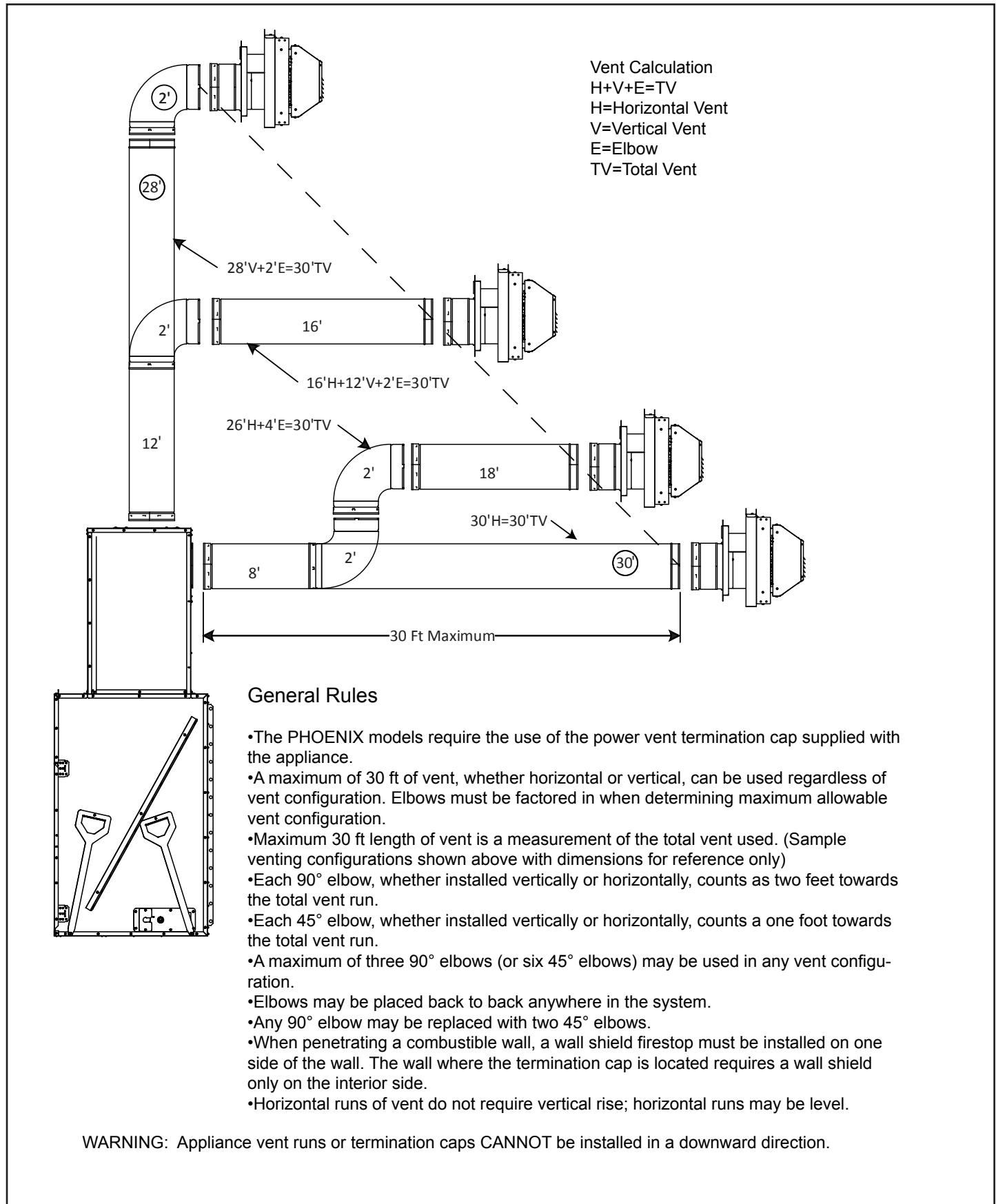


Figure 4.5 Venting

**WARNING:** Elbows may NOT be installed in a downward direction.

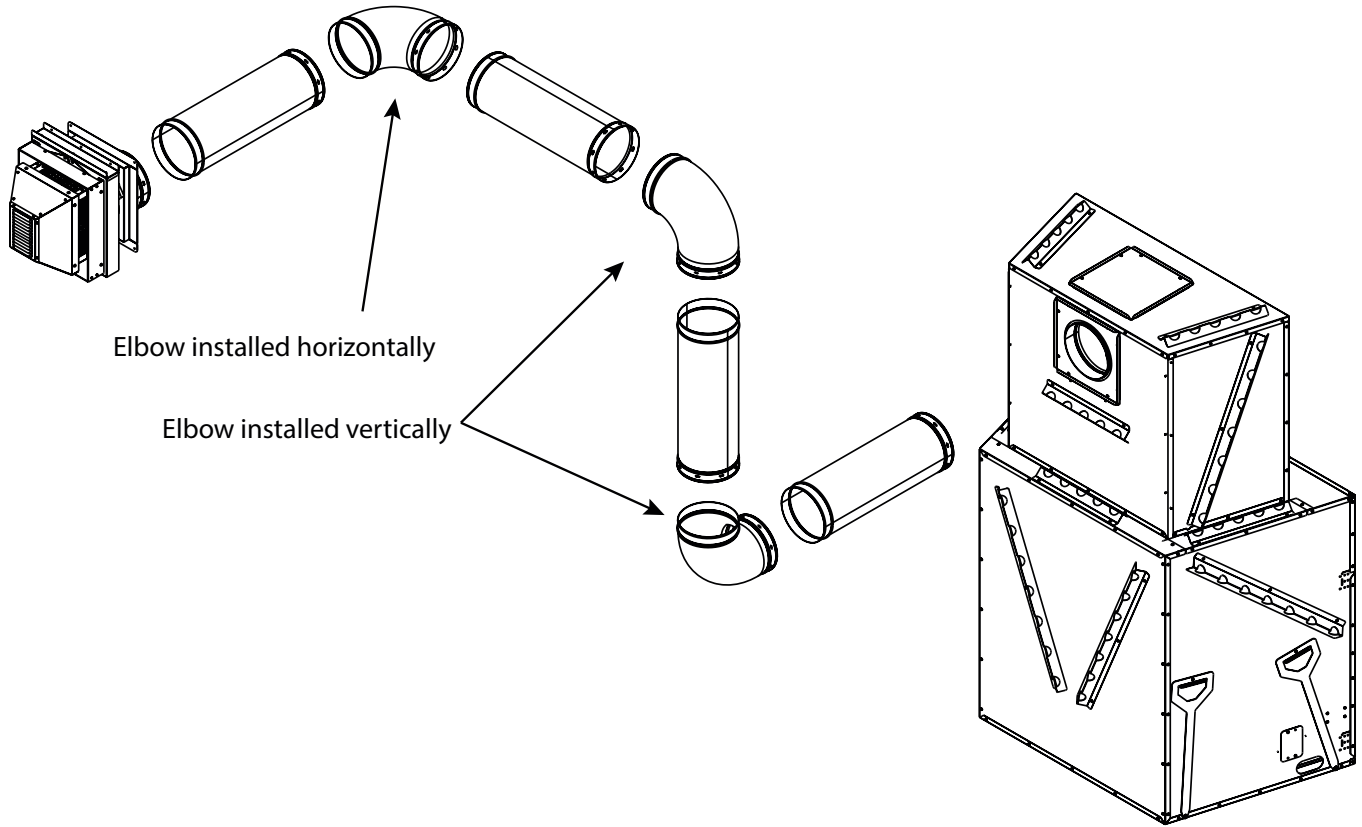


Figure 4.6 Elbow installation Options

# 5 Vent Clearances and Framing

## A. Pipe Clearances to Combustibles

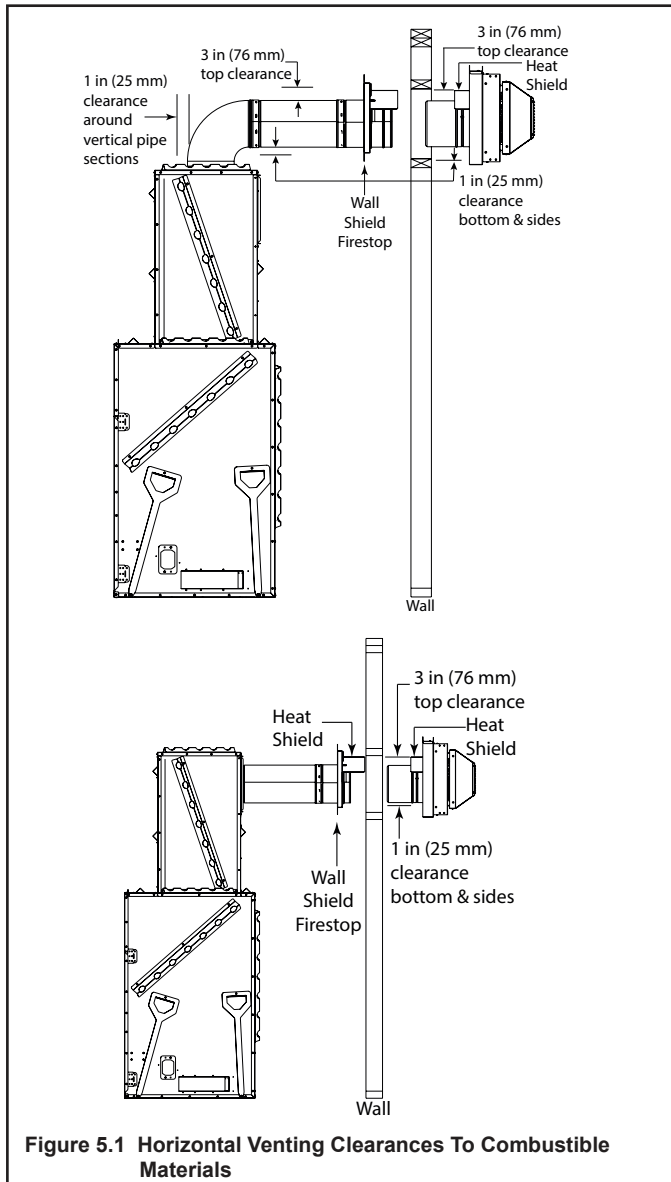
**WARNING! Risk of Fire! Maintain air space clearance to vent. DO NOT pack insulation or other combustibles:**

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

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

**Note:** Heat shields MUST overlap by a minimum of 1-1/2 in. (38 mm).

- **SLG heat shield** - designed to be used on a wall 4 in. to 7 in. (102 mm to 178 mm) thick.
- If wall thickness is less than 4 in., the existing heat shields must be field trimmed. If wall thickness is greater than 7 in. a DVP-HSM-B and SLG-D-EXT will be required.



**Figure 5.1 Horizontal Venting Clearances To Combustible Materials**

## B. Wall Penetration Framing/Firestops

### Combustible Wall Penetration

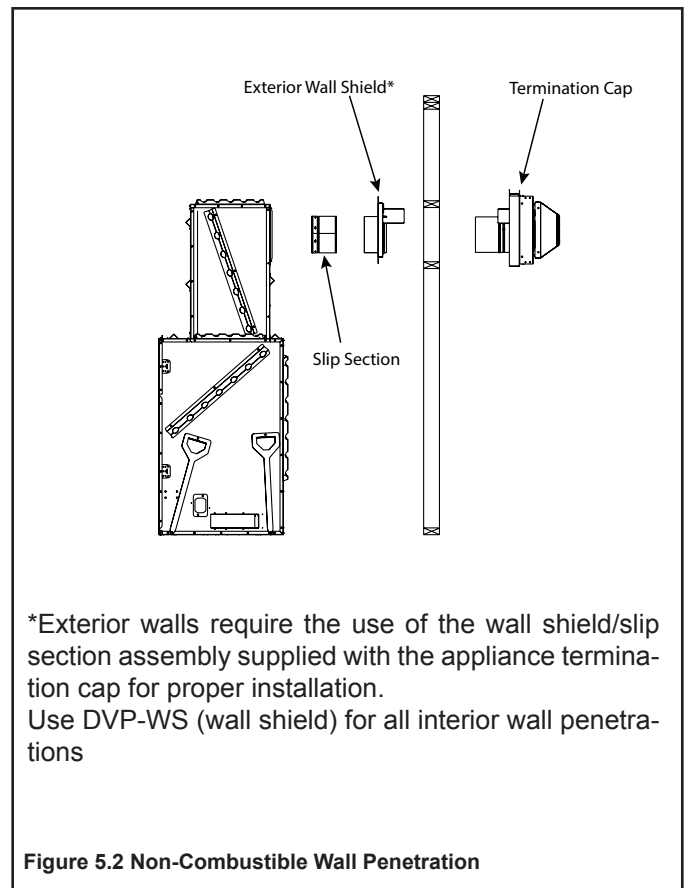
Whenever a combustible wall is penetrated, you must frame a hole for the wall shield firestop(s). The wall shield firestop maintains minimum clearances and prevents cold air infiltration.

- The opening must be framed on all four sides using the same size framing materials as those used in the wall construction.
- The PHOENIX appliance is supplied with a wall shield specifically designed for use on the inside of the exterior wall in which the termination cap is to be located. A minimum of 1-1/2 in. (38 mm) overlap of attached heat shields must be maintained.
- A wall shield (DVP-WS) must be placed on one side of the interior walls. See Section 7.E for information regarding the installation of a horizontal termination cap.

### Non-Combustible Wall Penetration

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

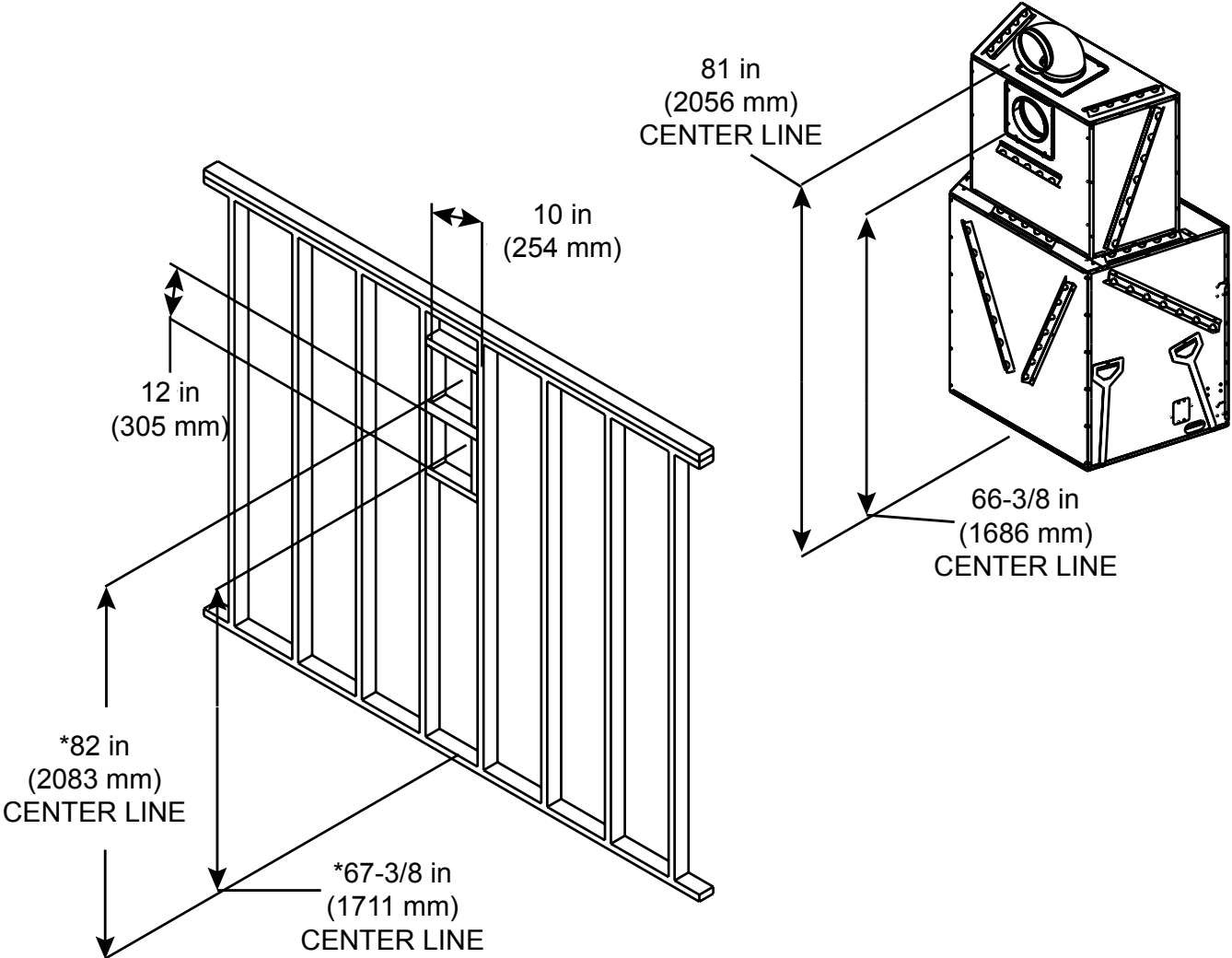
Whenever a non-combustible wall is penetrated, the wall shield firestop is only required on one side and no heat shield is necessary.



**Figure 5.2 Non-Combustible Wall Penetration**

\*Exterior walls require the use of the wall shield/slip section assembly supplied with the appliance termination cap for proper installation. Use DVP-WS (wall shield) for all interior wall penetrations

DO NOT PACK WITH INSULATION OR OTHER MATERIAL



\*Shows center of vent framing hole for top or rear venting. The center of the hole is one (1) in. (25.4 mm) above the center of the horizontal vent pipe.

Figure 5.3 Wall Penetration

### C. Ceiling Firestop/Floor Penetration Framing

A ceiling firestop (SLG-FS) **MUST** be used between floors and attics.

- Frame an opening 10 in. by 10 in. (254 mm by 254 mm) whenever the vent penetrates a ceiling/floor (see Figure 5.3).
- Frame the area with the same sized lumber as used in ceiling/floor joist.
- The ceiling firestop may be installed above or below the ceiling joists when installed with an attic insulation shield (UNIV-AS2). It must be under joists between floors that are not insulated. Refer to Figure 5.4.
- Secure in place with nails or screws.

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

### D. Install Attic Insulation Shield

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

The International Fuel Gas Code requires an attic shield constructed of 26 gauge minimum steel that extends at least 2 in. (51 mm) above insulation.

- Attic insulation shields must meet specified clearances to combustible materials and be secured in place.
- An attic insulation shield kit (UNIV-AS2) is available from Hearth & Home Technologies. Contact your dealer to order. Install attic insulation shield according to instructions included with kit.

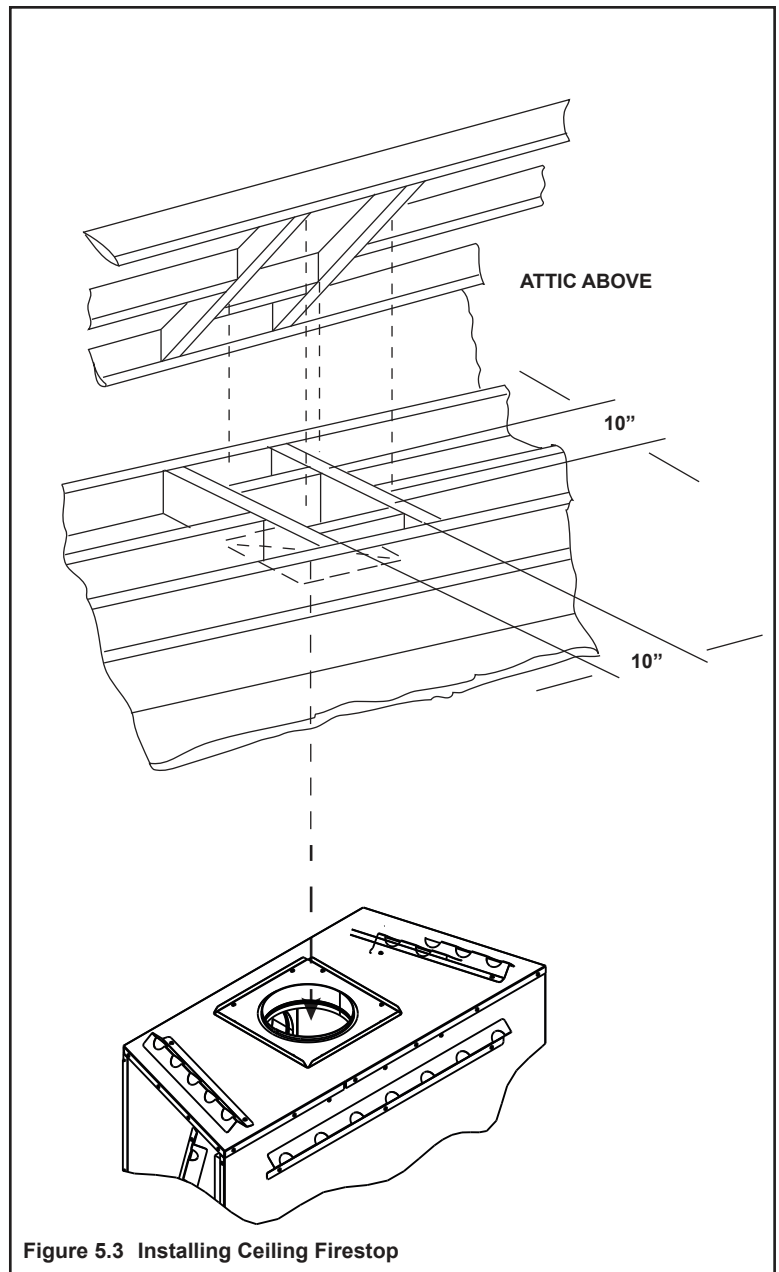


Figure 5.3 Installing Ceiling Firestop

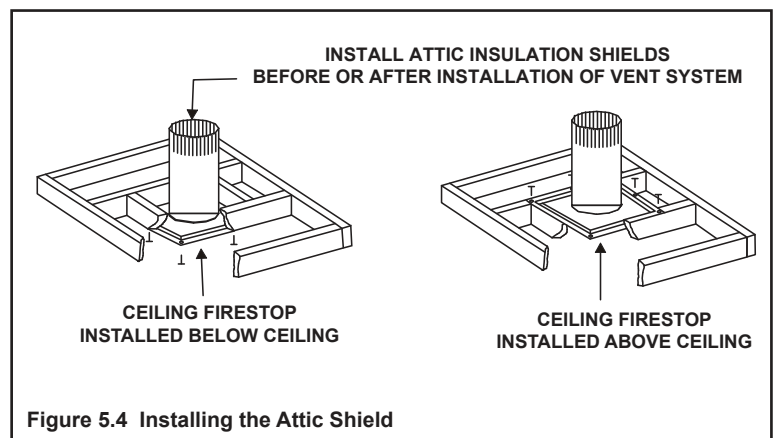


Figure 5.4 Installing the Attic Shield

# 6 Appliance Preparation

## A. Vent Collar Preparation

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

The PHOENIX appliance is shipped with the vent collar installed in the rear vent position. If top venting is required, the vent collar will need to be moved from the rear of the appliance to the top of the appliance.

- Remove the (8) screws that attach the cover plate and vent collar box to the rear of the appliance.

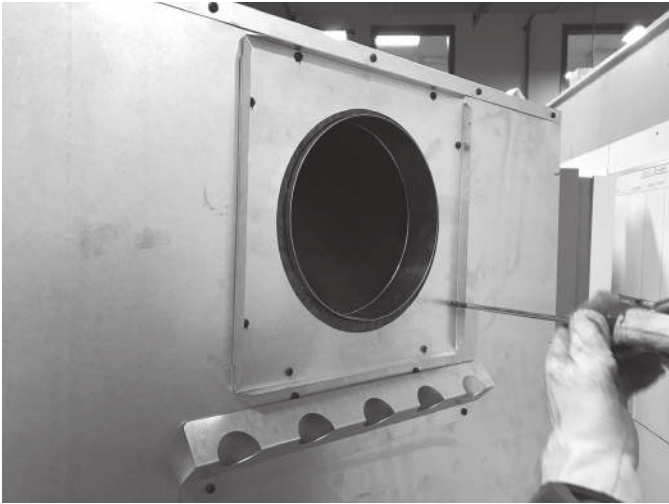


Figure 6.1

- Remove the cover plate and vent collar box with insulation from the rear of the appliance.

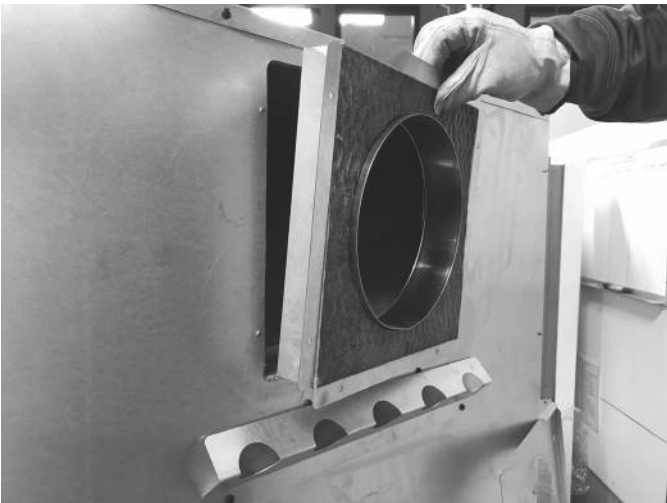


Figure 6.2

- Remove the (8) screws that attach the solid cover plate and vent box to the top of the appliance.

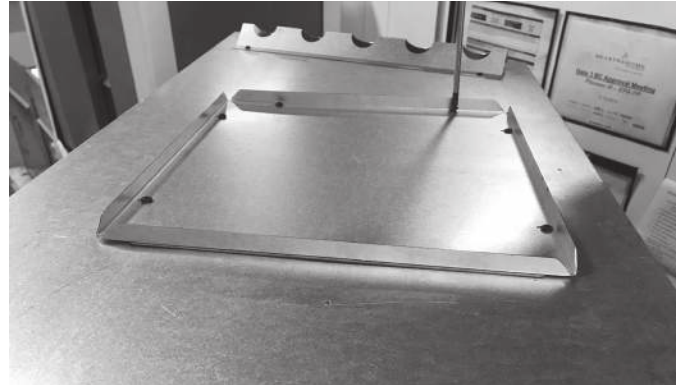


Figure 6.3

- Relocate the solid cover plate and vent box with insulation from the top of the appliance to the rear of the appliance and replace (8) screws.



Figure 6.4

- Install the cover plate and vent collar with insulation to the top of the appliance and replace (8) screws.

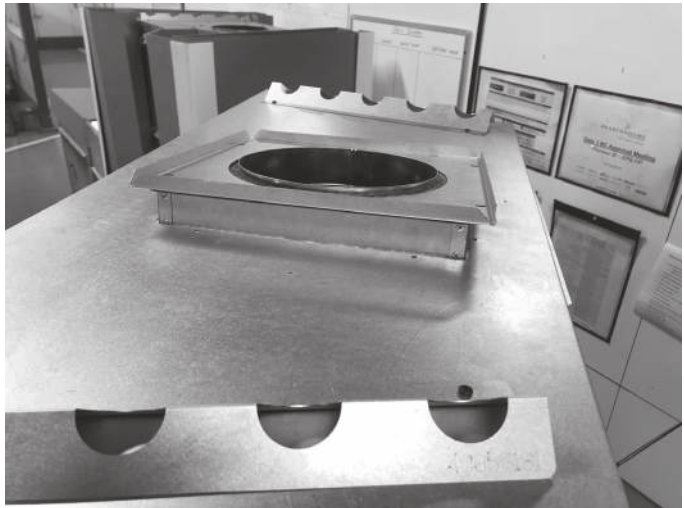


Figure 6.5

## B. Securing and Leveling the Appliance

**WARNING! Risk of Fire!** Prevent contact with:

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

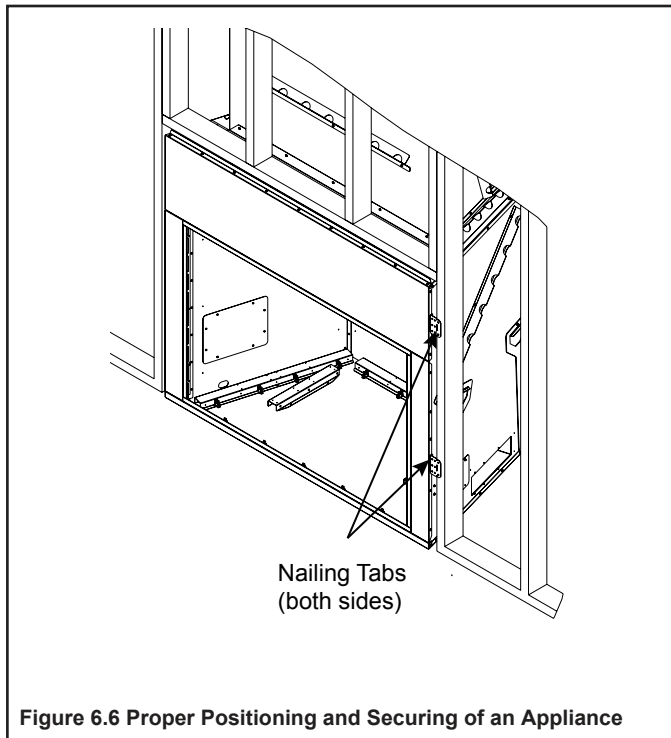
Block openings into the chase to prevent entry of blown-in insulation. Make sure insulation and other materials are secured.

**DO NOT** notch the framing around the appliance standoffs.

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

The diagram shows how to properly position and secure the appliance. See Figure 6.6. Nailing tabs are provided to secure the appliance to the framing members.

- Bend out nailing tabs on each side.
- Place the appliance into position.
- Keep nailing tabs flush with the framing.
- Level the appliance from side to side and front to back.
- Shim the appliance as necessary. It is acceptable to use wood shims underneath the appliance.
- Secure the appliance to the framing by using nails or screws through the nailing tabs.
- Install upper framing plug after unit is set in place. See Figure 3.4.



## C. Installing Optional Outside Air Kit(s)

**CAUTION! Risk of cuts/abrasions/flying debris.** Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

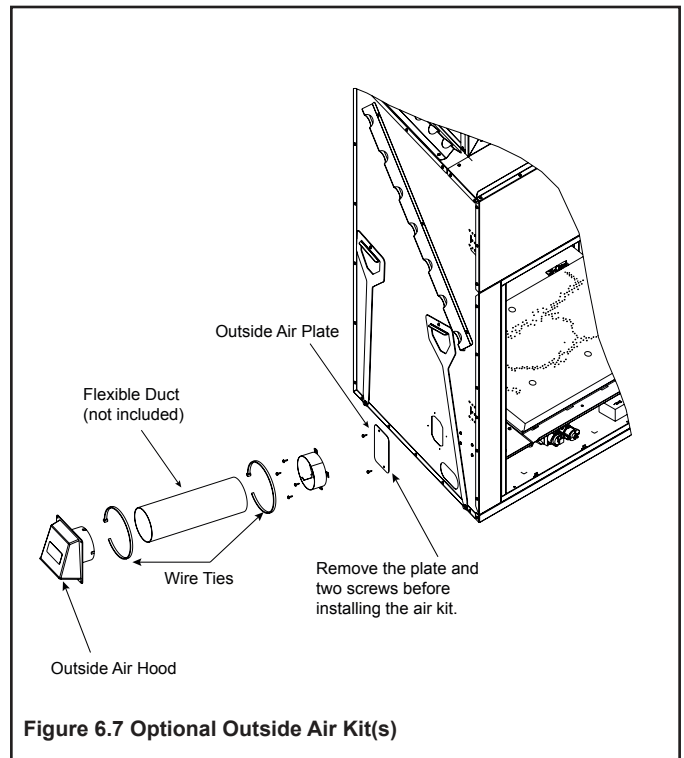
**WARNING! Risk of fire/asphyxiation. DO NOT** draw outside combustion air from:

- Wall, floor or ceiling cavity.
- Enclosed space such as an attic or garage.
- Close proximity to exhaust vents or chimneys. (Refer to page 14, Termination Location and Vent Information.

Fumes or odor may result.

Instructions:

- The outside air kit(s) can only be installed on the left and/or right side of the appliance. See Figure 6.7.
- Refer to the installation instructions provided with the kit.



- Hearth & Home Technologies, Inc. recommends using UL181 Class 0 or Class 1 rigid or flexible ducting.
- Secure flex duct with metal tape, screws, or wire ties.



# 7 Venting and Chimneys

## A. Assemble Vent Sections

### Attach SLG Vent Pipe to the Appliance

**Required:** All SLG pipe joints, starter collar joints, slip section joints and elbow joints must be secured with a minimum of three screws. Screws must be no longer than 1/2 in. (13 mm).

**Note:** Do not use screws to secure the wall shield slip section to the exterior wall shield.

**Note:** The end of the pipe section with the lanced tabs (A) will face towards the appliance.

- Attach the first pipe section to the appliance starter collar
- Push pipe section until all lanced tabs snap in place
- Secure pipe section to the appliance starter collar with a minimum of three screws

**Required:** All SLG pipe joints, starter collar joints, slip section joints, firestops and elbow joints shall be sealed using one of the methods listed below.

- Apply aluminum foil tape (300°F minimum continuous exposure rated) to the outside of the connecting joint after joining and securing sections. On horizontal pipe runs, it is recommended that the tape seam is positioned on the bottom side of the vent pipe.
- OR Apply a bead of 100% silicone sealant (300°F minimum continuous exposure rated) inside of the female pipe joint prior to joining and securing sections. See Figure 7.1
- OR Apply a bead of 100% silicone sealant (300°F minimum continuous exposure rated) to the outside of the connecting joint after joining and securing sections.

### Assemble Pipe Sections

- Start the lanced end of pipe section A over the outer of pipe section B. See Figure 7.2
- Once vent sections are started, push together firmly until all lanced tabs lock into place. See Figure 7.3
- Secure pipe sections together with a minimum of three screws

**Notice:** Chimney sections cannot be disassembled once locked together. Plan ahead!



Figure 7.1 High Temperature Silicone Sealant

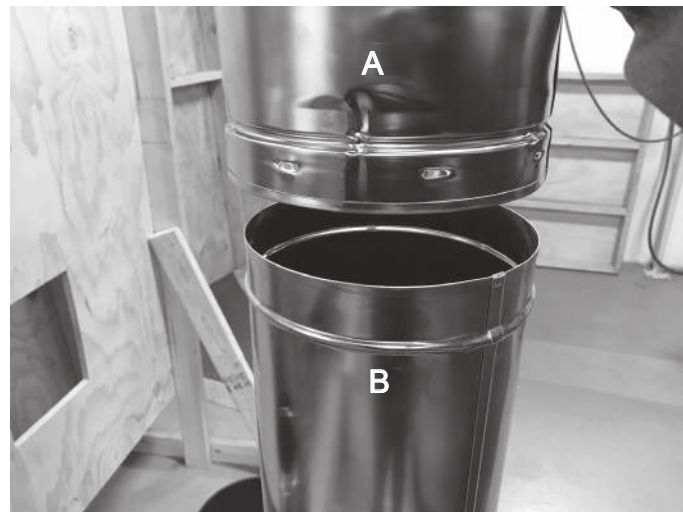


Figure 7.2

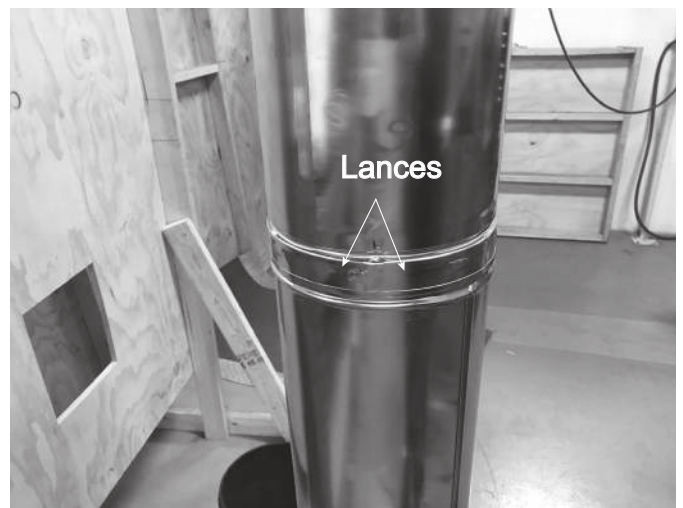


Figure 7.3

## B. Assemble Slip Sections

Note: The SLG6A and SLG12A slip sections are designed to be used in conjunction with any length of straight SLG vent pipe. Slip sections are not to be used with elbows.

- Slide the non-beaded end of slip section inside the male beaded end of SLG pipe section. See Figure 7.4.
- Slide together to the desired length. Always maintain a minimum of 1-1/2 in. (38 mm) overlap between the SLG vent section and slip section.

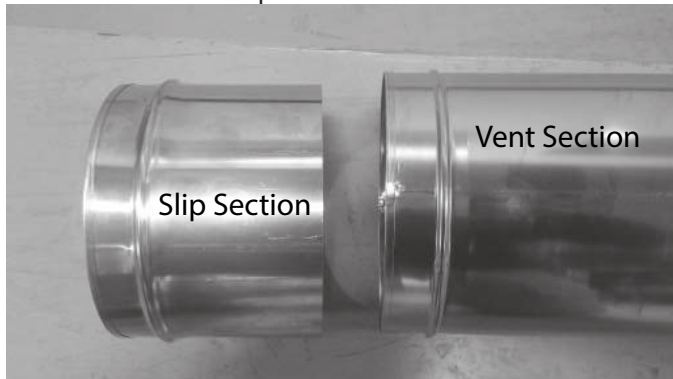


Figure 7.4 Slip Section

- Secure SLG vent section and slip section at desired length with a minimum of (3) screws. See Figure 7.5.

**NOTICE:** If slip section is too long, slip section can be cut to the desired length provided that a 1-1/2 in. (38 mm) minimum overlap between the SLG vent section and slip section is maintained.

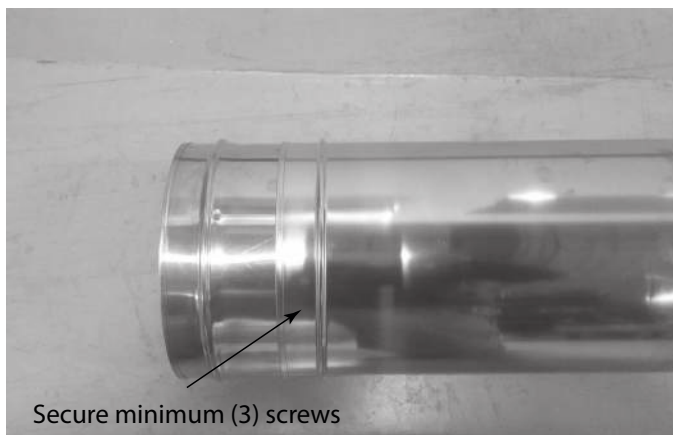


Figure 7.5 Screws into Slip Section

## C. Secure the Vent Sections

- Vertical runs originating off the top of the appliance, with no offsets, must be supported every 8 ft. (2.44 m) after the maximum allowed 25 ft. (7.62 m) of unsupported rise.
- Vertical runs originating off the rear of the appliance, or after any elbow, must be supported every 8 ft. (2.44 m).
- Horizontal runs must be supported every 5 feet (1.52 m).
- Vent supports or plumbers strap (spaced 120° apart) may be used to support vent sections. See Figures 7.6 and 7.7.
- Wall shield firestops may be used to provide horizontal support to vent sections.

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

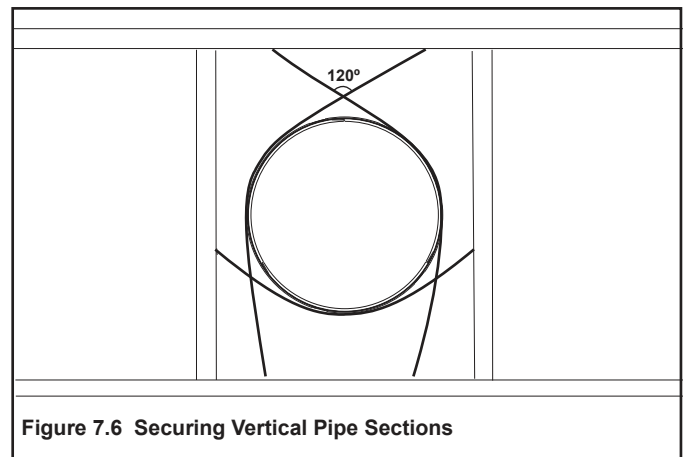


Figure 7.6 Securing Vertical Pipe Sections

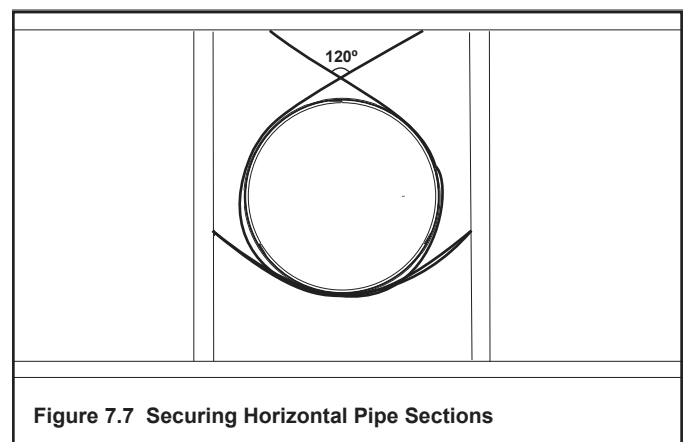


Figure 7.7 Securing Horizontal Pipe Sections

## D. Vertical Termination Requirements

- Vertical vent terminations are NOT permitted on the PHOENIX product. If a vertical vented installation is necessary, a chase must be constructed, that maintains minimum clearances to combustible materials, to allow the horizontal termination cap to be used.

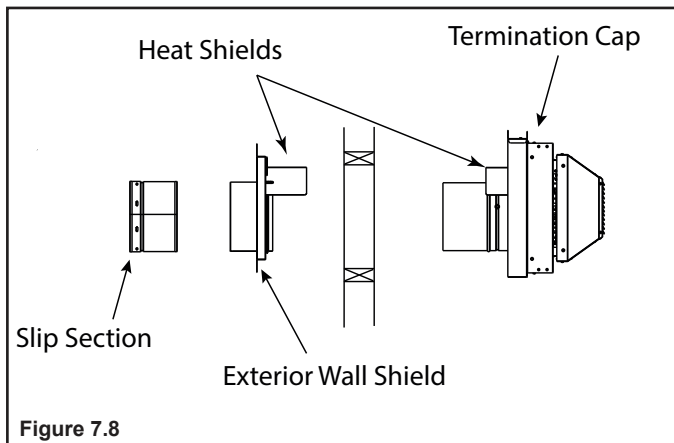
**Note:** Proper termination clearances to windows, doors, electrical service, etc. must be maintained as shown in Section 4 of this manual.

## E. PHOENIX Termination Requirements

**WARNING! Risk of Fire!** The PHOENIX product is safety tested and listed for use with the SLG vent system **ONLY!** The SLG vent system and power vent termination cap, are unique to the PHOENIX product and **CANNOT** be used on any other appliance.

The PHOENIX appliance includes a termination cap, exterior wall shield and slip section. The termination cap and wall shield **MUST** be used together. See Figure 7.8.

**Note:** The location of the power vent termination cap should be taken into consideration. HHT recommends that the cap be positioned to minimize the effects of wind, rain & snow on the termination cap.

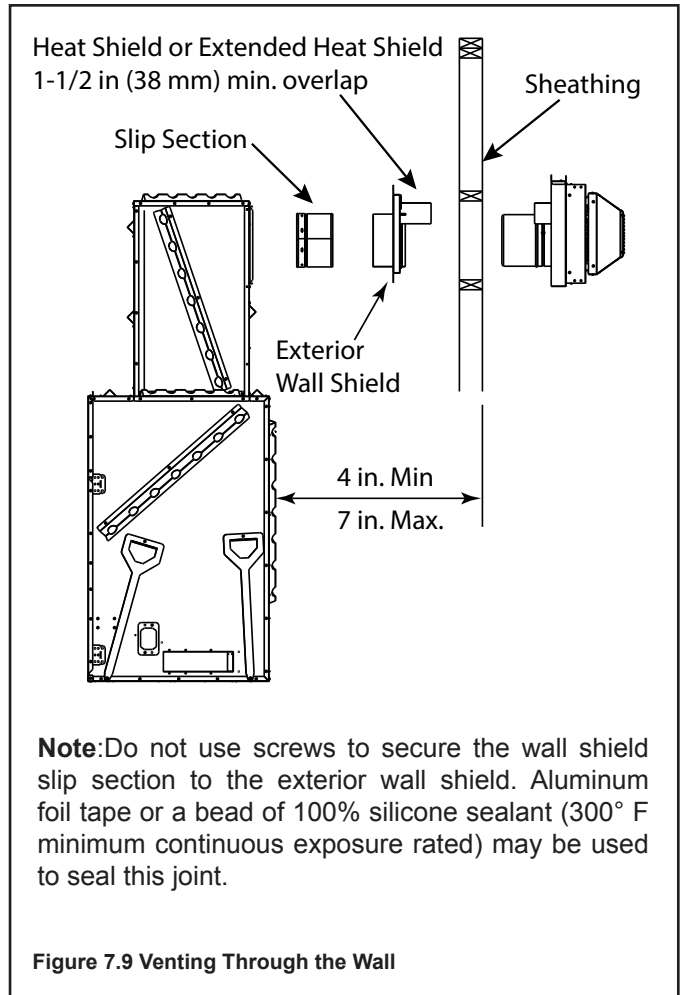


When properly installed the damper collar must overlap into the wall shield vent pipe. A minimum of 1-1/2 in. (38 mm) overlap is required for both the damper collar and heat shields. The damper collar and heat shields are designed for use on finished wall thicknesses ranging from 4 in. minimum to 7 in. maximum. If the wall thickness is greater than 7 in., a damper collar extension and extended heat shield must be used.

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

- **DO NOT** remove the heat shields attached to the wall shield or the termination cap (shown in Figure 7.8).
- Heat shields must overlap 1-1/2 in. (38 mm) minimum.

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



## Damper Collar Extension & Extended Heat Shields:

- If the wall thickness does not allow the required 1-1/2 in. (38 mm) overlap when installed, an extended heat shield and damper collar extension must be used. Refer to vent components diagrams in the back of this manual.
- Use a damper collar extension and extended heat shield if the finished wall thickness is greater than 7 in. (178 mm). Note: The damper collar extension and extended heat shield may need to be cut to length, maintaining sufficient length for a 1-1/2 in. (38 mm) overlap.
- Attach the damper collar extension to the damper collar on the termination cap and attach with minimum of (3) screws. See Figure 7.10.

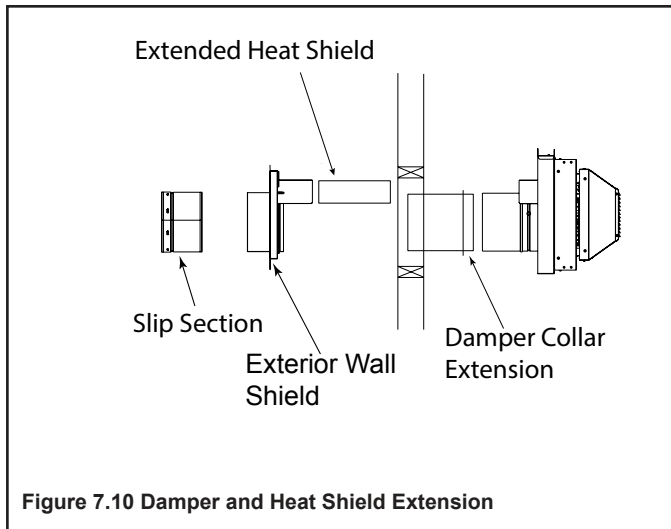


Figure 7.10 Damper and Heat Shield Extension

- Attach the extended heat shield to either of the existing heat shields using the screws supplied with the extended heat shield.
- Rest the small leg on the extended heat shield on top of the pipe section to properly space it from the pipe section.

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

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

- 1-1/2 (38 mm) minimum overlap of flue telescoping section is required. Failure to maintain overlap could cause overheating and fire.
- Vent termination must not be recessed in the wall. Siding may be brought to the edge of the cap base.
- Flash and seal as appropriate for siding material at outside edges of cap.
- When installing a horizontal termination cap, follow the cap location guidelines as prescribed by current **ANSI Z223.1** and **CAN/CGA-B149** installation codes and refer to Section 4 of this manual.

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

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

## Installing the Termination Cap

**Note:** Proper termination clearances to windows, doors, electrical service, etc. must be maintained as shown in Section 4 of this manual.

**Note:** The appliance, wire harness, vent, wall shields and firestops must be located, supported, and secured prior to mounting the termination cap. See Figure 7.11.

Wire Harness pass-through hole should be sealed with a 100% silicone sealant (300°F minimum continuous exposure rated).

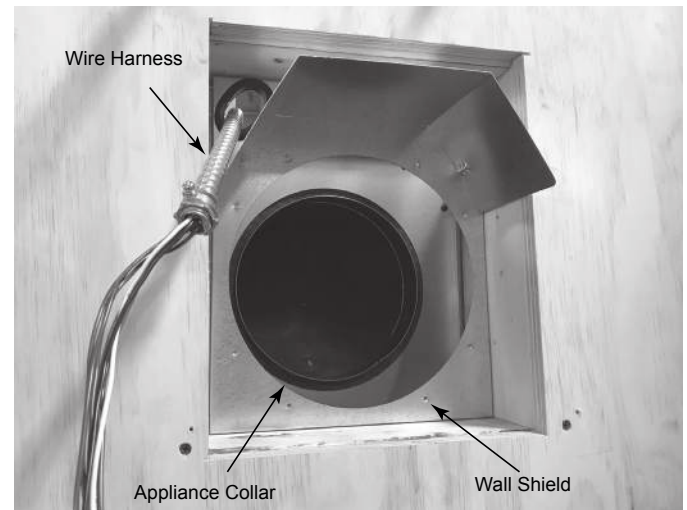


Figure 7.11

- Insert the lanced end of the female slip section through the wall shield and connect to unit collar, on minimum vent installations, or the last section of vent pipe for longer vent runs. See Figure 7.12.



Figure 7.12

- Insert the male slip section into the female slip section. See Figure 7.13.

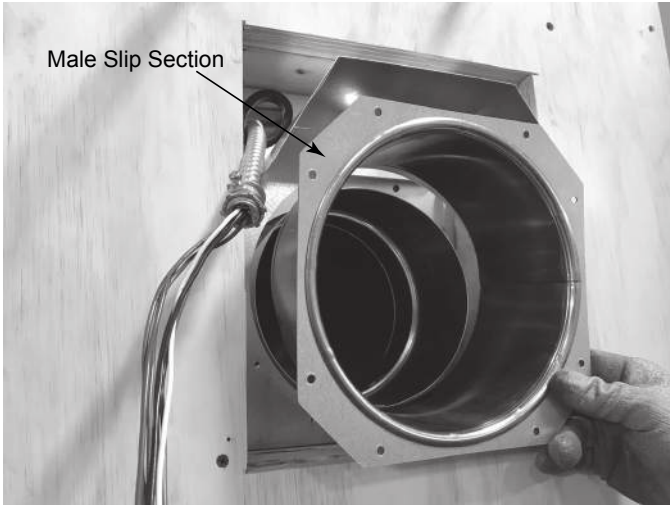


Figure 7.13

- Slide slip section pieces together until mounting plate is tight to wall shield and secure with (8) screws. See Figure 7.14.



Figure 7.14

- Remove motor assembly from cap base (8) screws. See Figure 7.15.

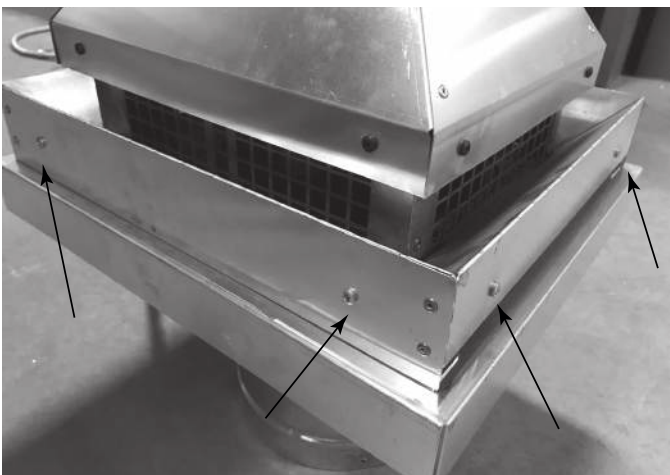


Figure 7.15

- Position the cap base on exterior wall, level, and secure with (4) screws provided. When properly installed, the damper collar must extend into the wall shield a minimum of 1-1/2 inches. See Figure 7.16.

**Note:** Damper blade should move freely and be clear of any obstructions.

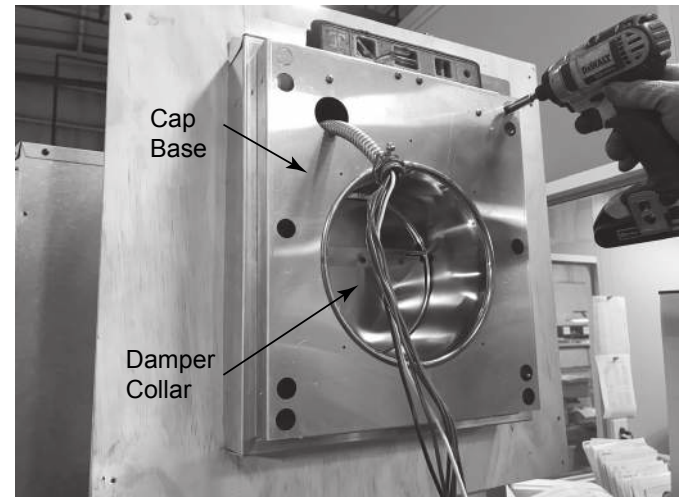


Figure 7.16

- Remove louvered cover from motor assembly, (8) screws. See Figure 7.17.

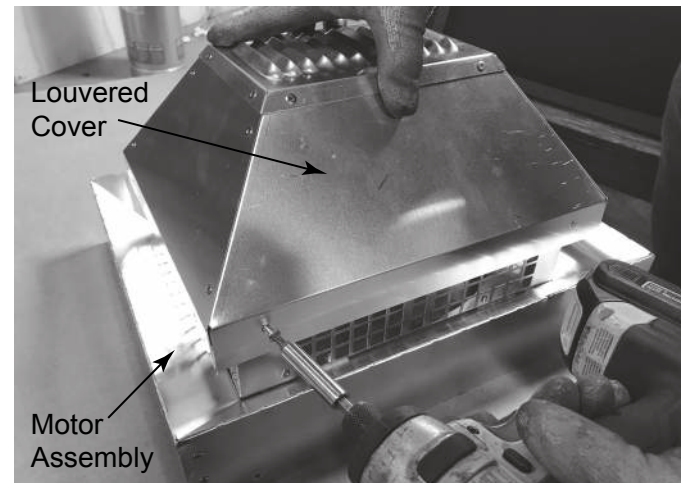


Figure 7.17

- Remove wire harness retaining plate from motor assembly, (2) screws. See Figure 7.18

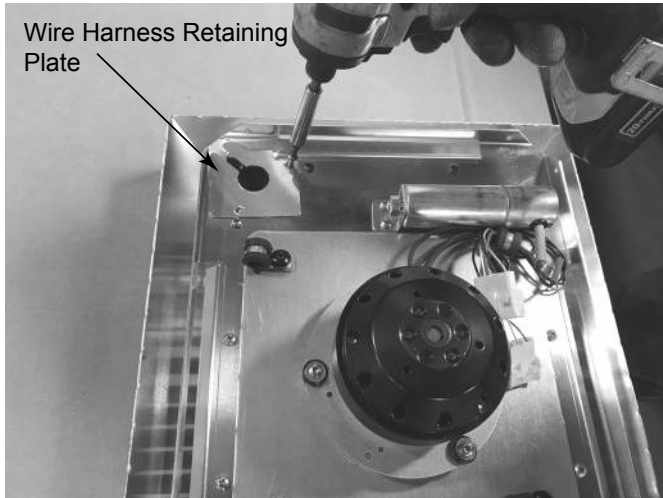


Figure 7.18

- Route wire harness through motor assembly and retaining plate, secure with Romex connector. Reattach retaining plate to motor assembly, (2) screws. Install motor assembly onto cap base and secure with (8) screws. See Figure 7.19.

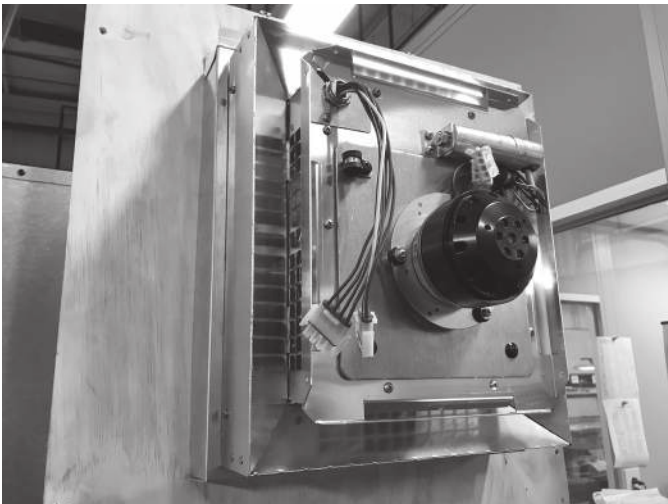


Figure 7.19

- Plug wire harness connectors into motor assembly connectors and secure wire harness and motor wires with retaining clips (2) as shown. See Figure 7.20.

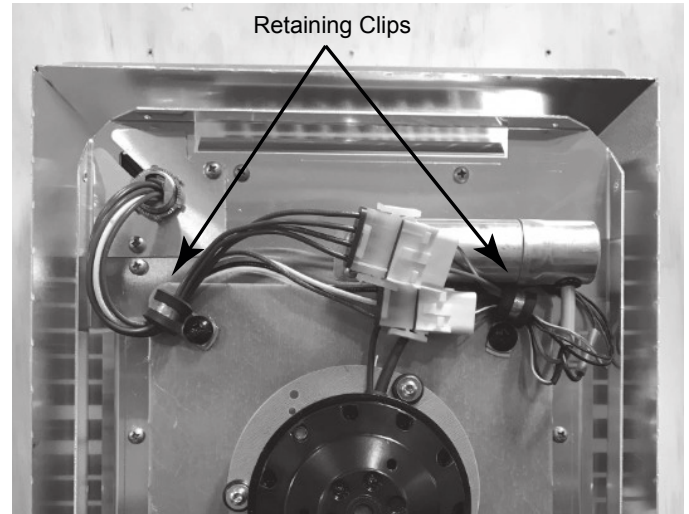


Figure 7.20

- Reattach louvered cover, (8) screws. See Figure 7.21.

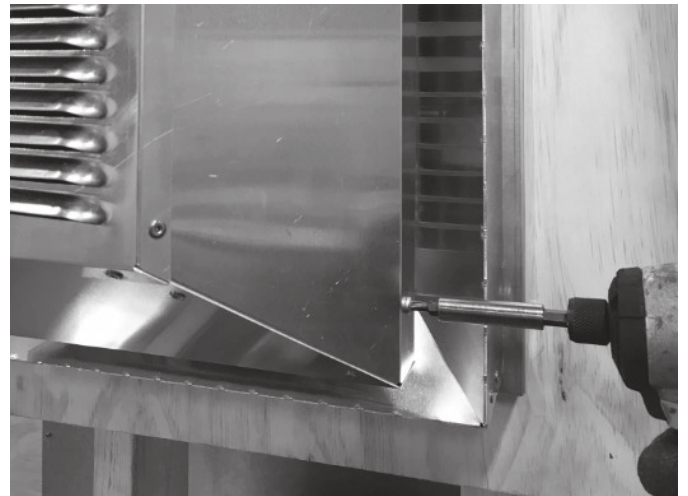


Figure 7.21

## F. Shrouds

Enclosing the termination cap within the decorative shroud is NOT permitted.

# 8 Electrical Information

## A. General Information

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

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

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

## Accessory Cable and Junction Box Installation

The PHOENIX product is a power vented appliance and therefore requires a 110-120VAC power supply from the appliance to the termination cap for proper operation. Accessory cables are available from your dealer in several different lengths depending on the necessary vent configuration.

### Accessory Cable Installation

- Remove side access cover, (2) screws. See Figure 8.1.

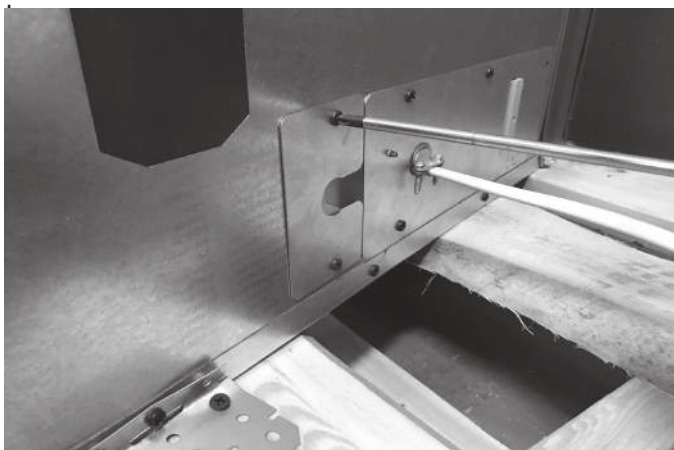


Figure 8.1 Access Cover

- Route accessory cable wires through access cover and secure with cable connector.
- Route accessory cable wires through appliance shell and reinstall access cover with (2) screws. See Figure 8.2.

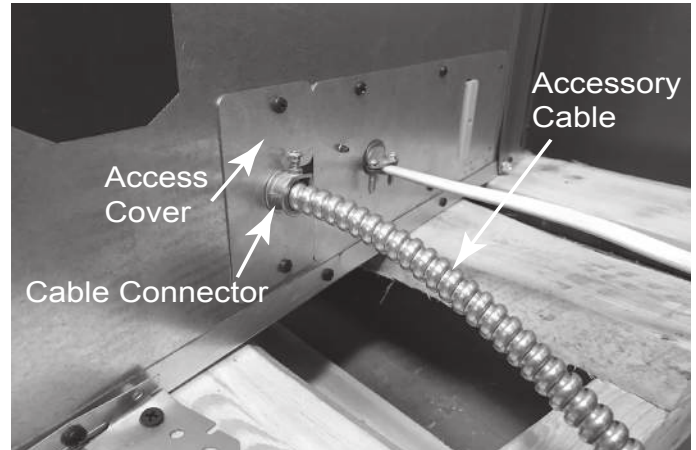


Figure 8.2 Accessory Cable

- Inside of the appliance, route accessory cable wires through cable retainers as shown. See Figure 8.3.
- Plug 3-pin and 4-pin connectors into the appropriate connector B and D on the power vent control module. See Figure 8.3.

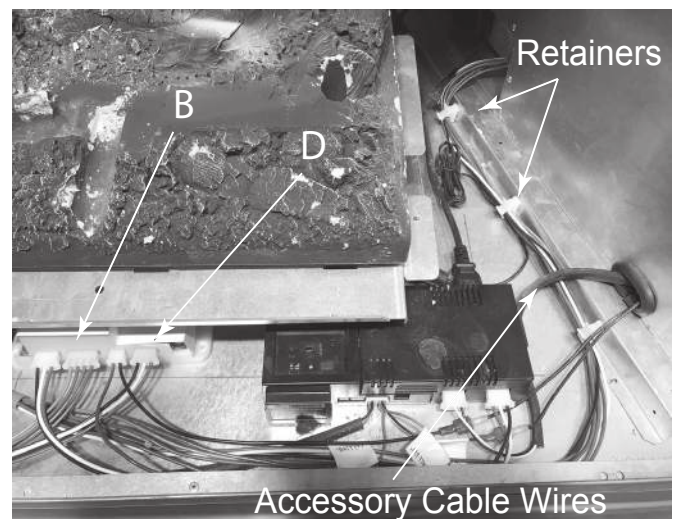


Figure 8.3 Connectors

## Wiring the Junction Box

Junction box wiring on the PHOENIX product can be done from either inside or outside of the appliance. However, for ease of installation, it is recommended that the appliance junction box be wired from outside of the appliance.

If the junction box is wired from OUTSIDE appliance:

- Remove the (6) screws attaching the junction box assembly to the outer shell. Pull junction box assembly out to disengage it from the outer shell. See Figures 8.4 and 8.5.

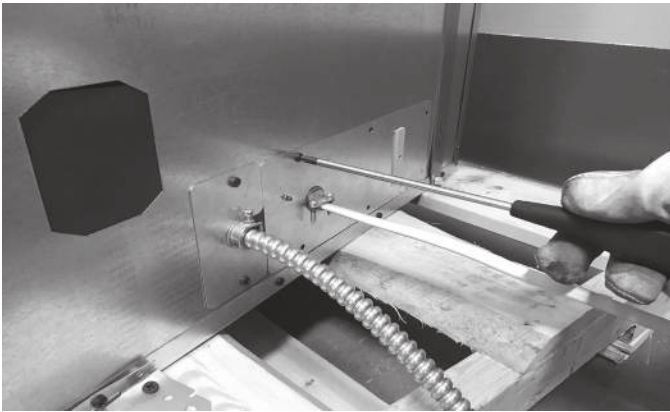


Figure 8.4 Junction Box Assembly Removal

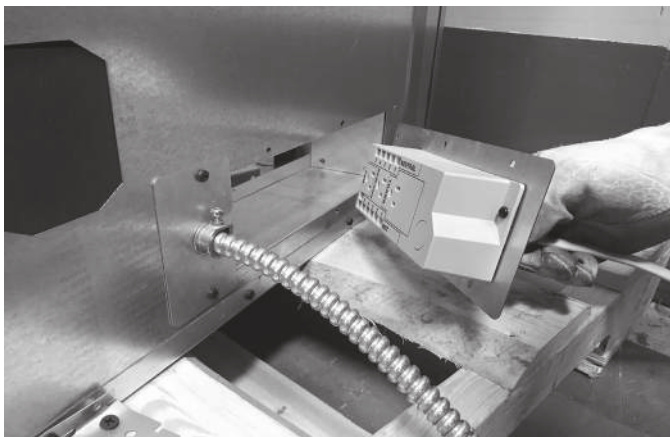


Figure 8.5 Junction Box Assembly

- Remove the screw attaching the junction box to the cover plate, rotate the junction box inward to disengage it from the cover plate. See Figure 8.6.

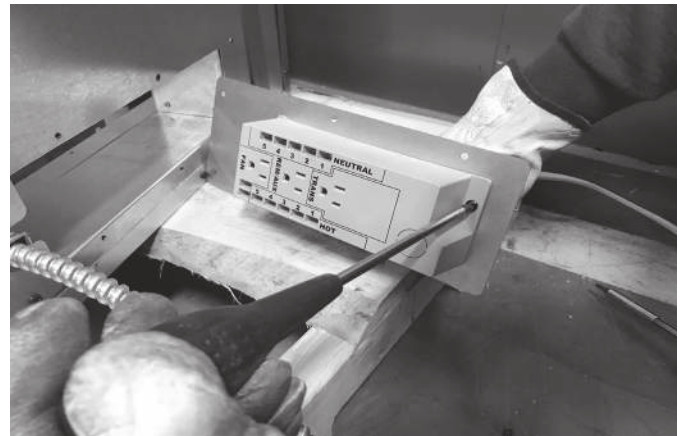


Figure 8.6 Junction Box Removal

- Install electrical wires from outside the appliance through the hole in the cover plate and secure wires with a Romex connector.
- Make all necessary wire connections to the junction box and reattach the junction box to the cover plate, and junction box to appliance outer shell. See Figure 8.7.

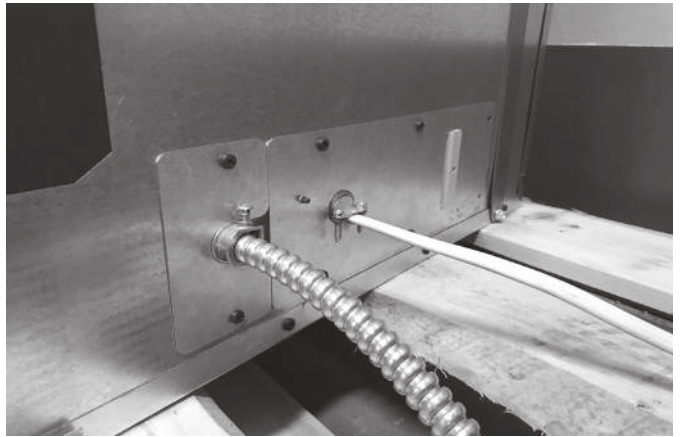


Figure 8.7 Reattaching Junction Box

## Electrical Service and Repair

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

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

## B. Wiring Requirements

### PHOENIX System Wiring

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

**WARNING! Risk of Shock or Explosion! DO NOT** wire PHOENIX appliance junction box to a switched circuit.

- Refer to Figure 8.9 PHOENIX Wiring Diagram.
- This appliance is equipped with an Intellifire touch control system which operates on a 6VDC system.



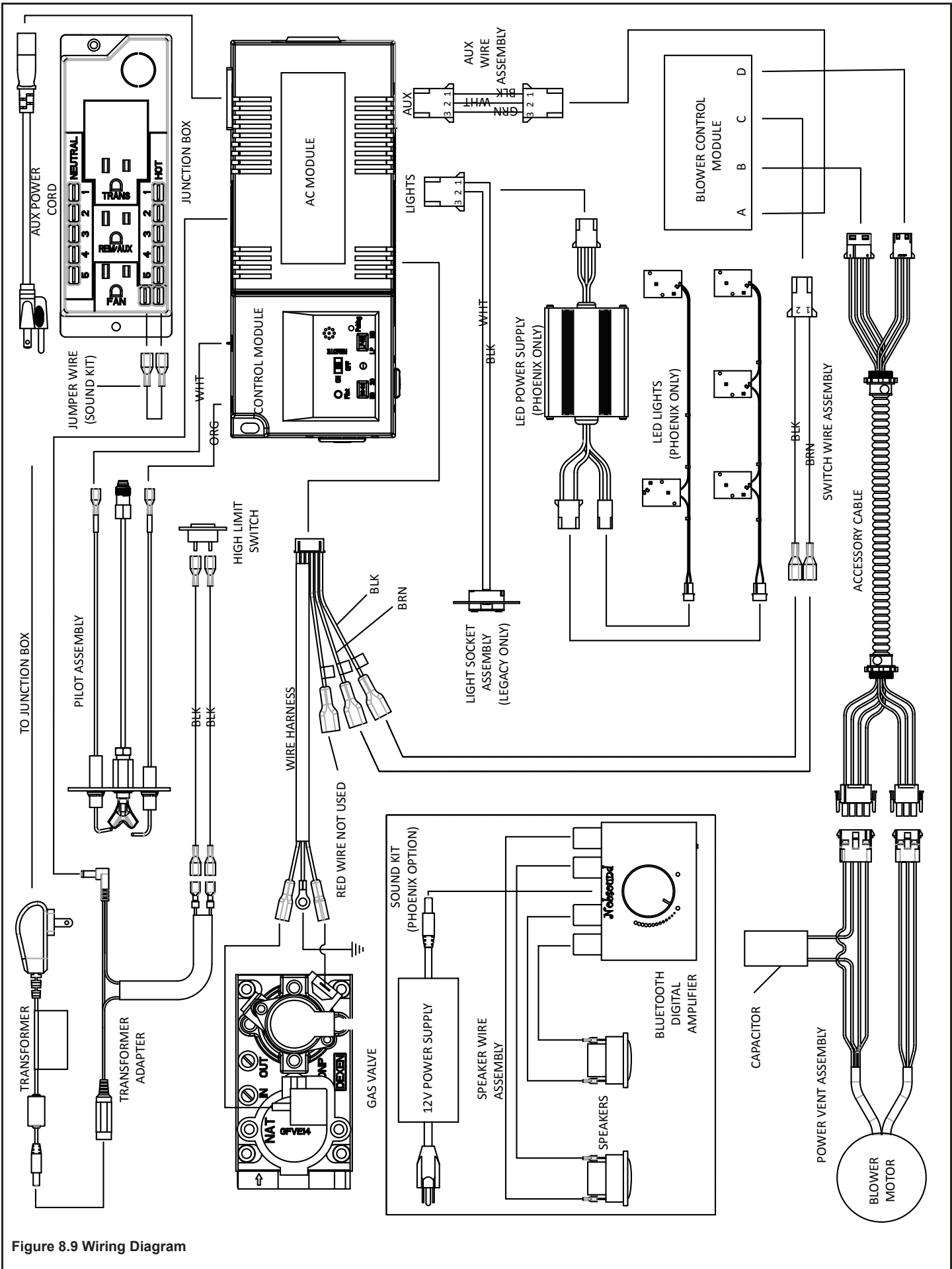


Figure 8.9 Wiring Diagram

# 9 Gas Information

## A. Fuel Conversion

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

## B. Gas Pressure


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

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

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

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

**⚠ WARNING**



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

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

**Note:** Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI 223.1. Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter).

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

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

## C. Gas Connection

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

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

- A small amount of air will be in the gas supply lines.
- WARNING! Risk of Fire or Explosion!** Gas build-up during line purge could ignite.
- Purge should be performed by qualified service technician.
  - Ensure adequate ventilation.
  - Ensure there are no ignition sources such as sparks or open flames.

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

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

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

## D. High Altitude Installations

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

When installing above 2000 feet elevation:

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

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

## E. Air Shutter Setting

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

- The PHOENIX air shutter is set to its minimum opening at the factory. A small amount of light soot on the logs is normal, but soot should not build-up to form “nuggets”.
- On units converted to burn propane, the air shutter should be removed.

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

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



Fig 9.1 Air Shutter Natural Gas

## Air Shutter Settings

MODEL	GAS TYPE	AIR SHUTTER
Phoenix42-IFT	NG	Minimum
Phoenix42-IFT	Propane	Open (Removed)

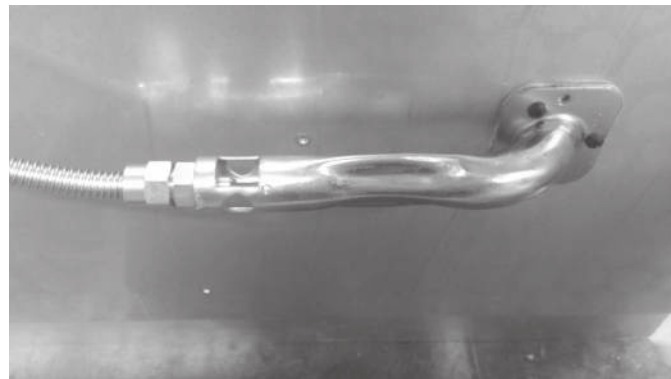


Fig 9.2 Air Shutter Removed Propane Gas

# 10 Finishing

## A. Facing Material

- **Metal front faces may be covered with non-combustible materials only.**
- Appliance may be recessed a maximum of 12 inches into non-combustible framing/finishing materials above and on the sides of the appliance.
- Facing and/or finishing materials must not interfere with air flow through the front of the appliance, access for service or the operation of optional mesh doors.
- Facing and/or finishing materials must never overhang into the appliance opening.
- See Section 10.C for combustible and non-combustible finishing material thickness requirements.
- Observe all clearances when applying combustible materials.
- Seal joints between the finished wall and appliance top and sides using a 300° F minimum sealant.

**WARNING! Risk of Fire! DO NOT** apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual. Overlapping materials could ignite and will interfere with proper operation of doors and louvers.

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

## B. Mantel and Wall Projections

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

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

### Combustible/Noncombustible Mantels

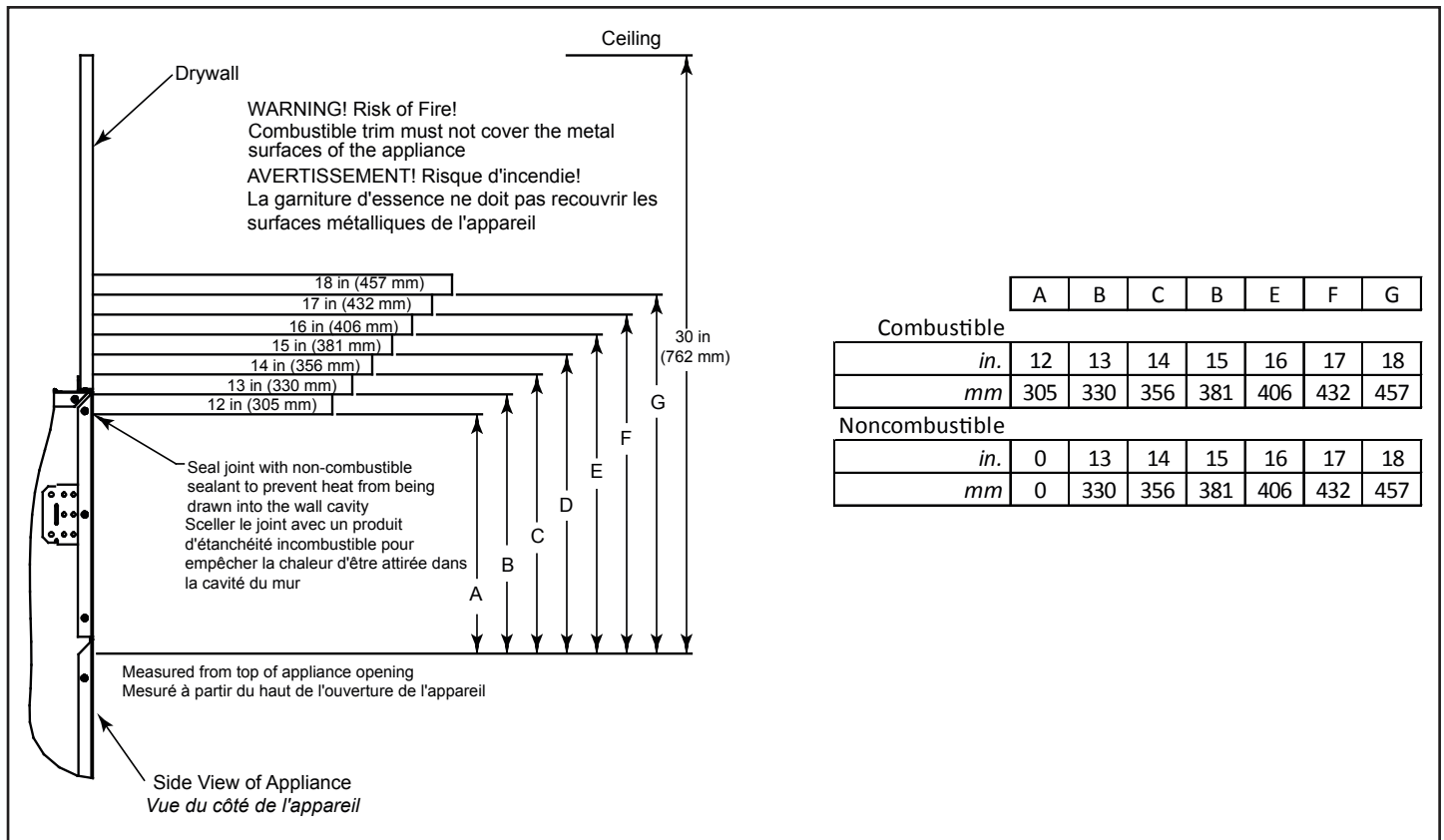


Figure 10.1 Minimum Vertical and Maximum Horizontal Dimensions of Combustible and Noncombustible

## Combustible or Non-Combustible Mantel Legs or Wall Projections

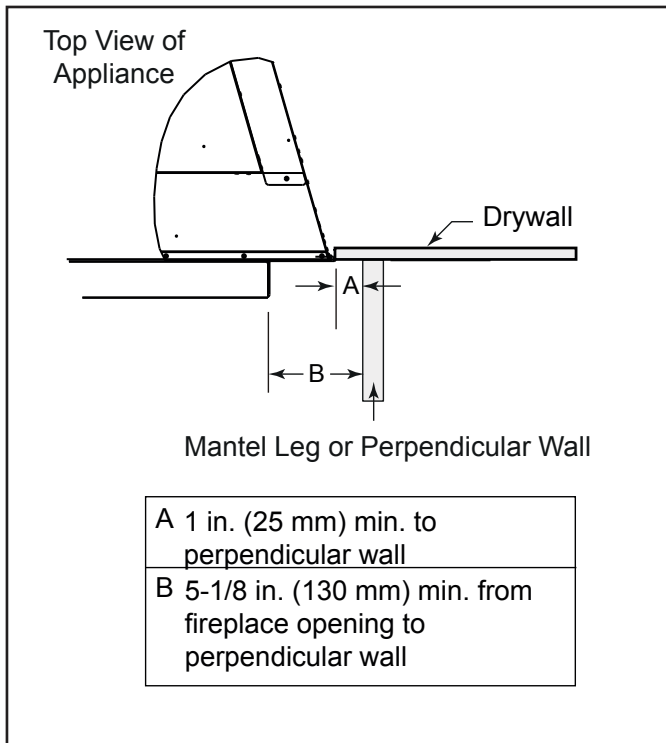


Figure 10.2 Combustible Mantel Leg or Wall Projections (Acceptable on both sides of opening)

## C. Decorative Front Dimensions for Finishing

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

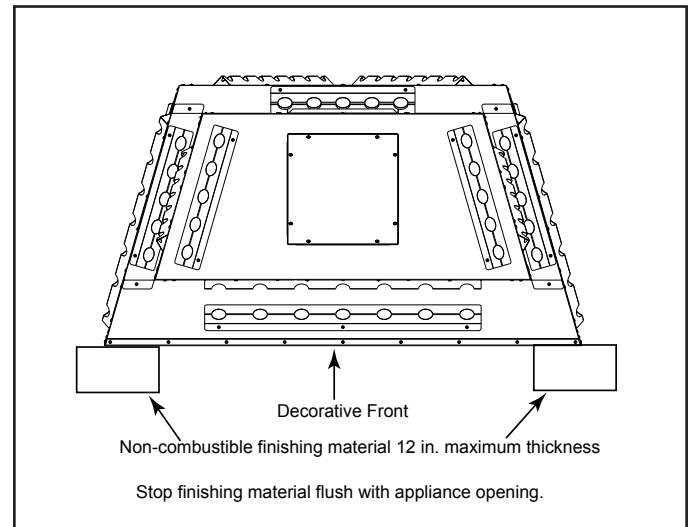


Figure 10.3 Non-Combustible Finishing Material (top and sides of appliance)

# 11 Appliance Setup

## A. Remove the Shipping Materials

Remove the shrink film, corrugated top cap, bottom cap and column protectors from the appliance. The appliance should look as shown in Figure 11.1.

Remove shipping materials from inside or underneath the firebox.

Note: Termination cap will need to be removed for use during appliance installation. To protect the appliance burner and controls from damage during construction, leave Burner Cover and Control Cover in place until final appliance setup.

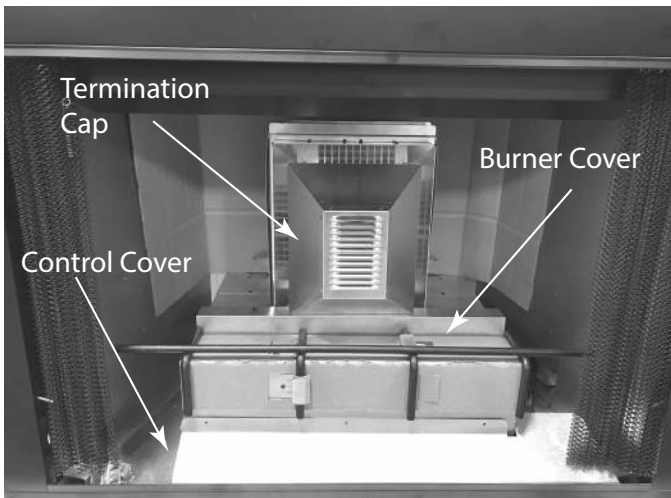


Figure 11.1 Appliance Unwrapped

## B. Clean the Appliance

- Clean/vacuum any sawdust that may have accumulated inside the firebox or underneath in the control cavity.
- Remove Control Cover by removing the (3) screws securing Control Cover to front of Burner Cover.
- Remove Burner Cover by removing the (4) screws securing Burner Cover to Burner Assembly.
- Remove (2) Hearth Refractory Brackets and Grate Assembly from Burner Cover for installation later.

## C. Power Vent Speed Control

The PHOENIX appliance comes equipped with a power vent speed control, designed to maintain a preset blower speed, depending on vent length. The control has two speed settings: speed one (S1) and speed two (S2). The default speed from the factory is set to S1.

See chart below:

Total Vent Length*	Speed Setting
0' to 10'	Speed One (S1)
Over 10' to 30'	Speed Two (S2)

- \*Refer to Section 4, "Termination Location and Vent Information" for help calculating total vent length.
- The power vent speed control is located in the appliance valve compartment. See Figure 11.2.

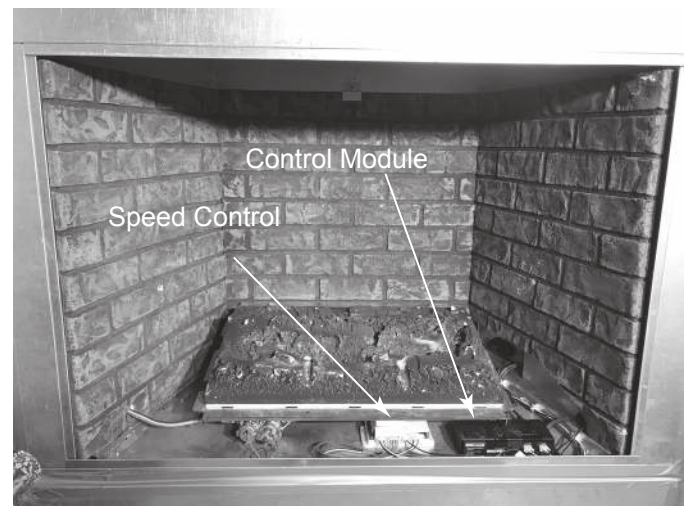


Figure 11.2 Power Vent Speed Control Location

- When setting blower speed, make sure the Control Module switch is set to "REMOTE".
- Using the handheld remote control, turn the appliance to the "ON" setting. The appliance begins its two minute pre-purge cycle and the vent blower turns on. The S1 LED, located on the top of the speed control, becomes illuminated.

Note: Reference the Homeowner's Manual for instructions about remote setup and operation.

- Press the speed select button to cycle through and select proper speed settings for your installation. See Figure 11.3.
- **IMPORTANT;** Mark the appropriate speed using the S1 or S2 box located on the speed control label for future reference. See Figure 11.3.

Note: The selected speed is now the default speed setting whenever the appliance is placed into operation.

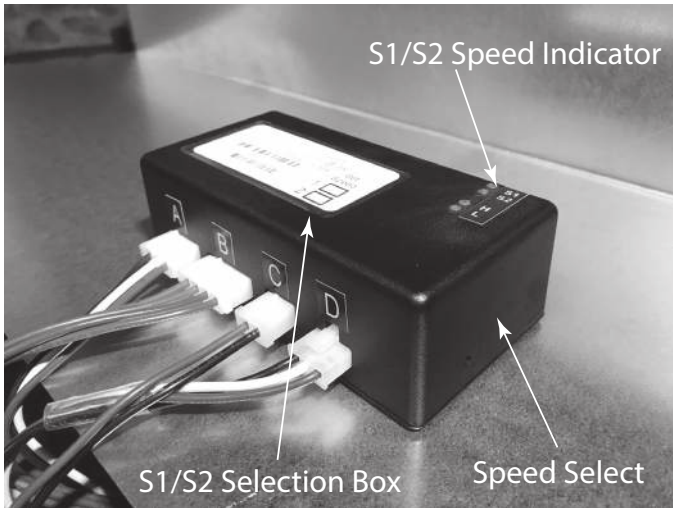


Figure 11.3

## D. Refractory Kit

The PHOENIX appliance hearth kit includes either traditional style fiber refractory or black glass refractory.

The refractory kit(s) include the following:

- Back Refractory
- Left & Right Side Refractory
- Left & Right Side Hearth Refractory
- Left, Right & Middle Front Hearth Refractory

Note:

- When installing black glass refractory kit, HHT recommends that the burner assembly be removed to aid in installation.
- For ease of installation, the optional speaker kit should be installed in conjunction with installation of refractory kit.

## Glass Refractory Installation

Note: Unpack glass refractory panels carefully to avoid damaging the panels.

- Remove smoke shield (5) screws and set the smoke shield aside. See Figure 11.4.

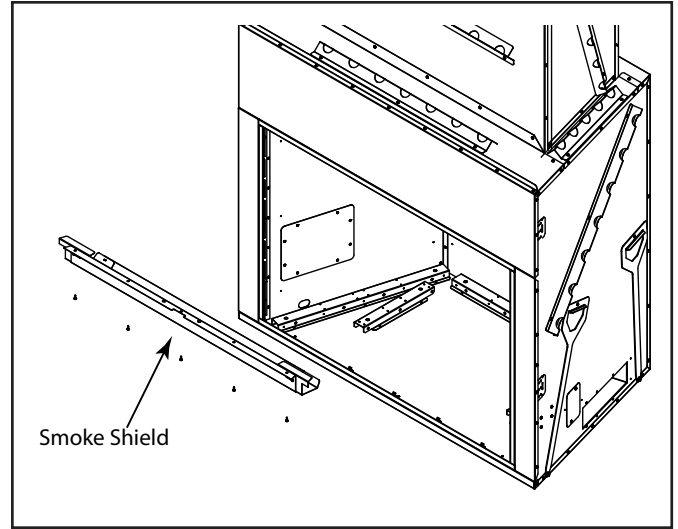


Figure 11.4 Smoke Shield

- Install the glass refractory brackets (6), into the mounting holes located in the appliance inner shell, using the screws provided (3 screws per bracket). Install the rear brackets first, followed by the side brackets. See Figure 11.5.

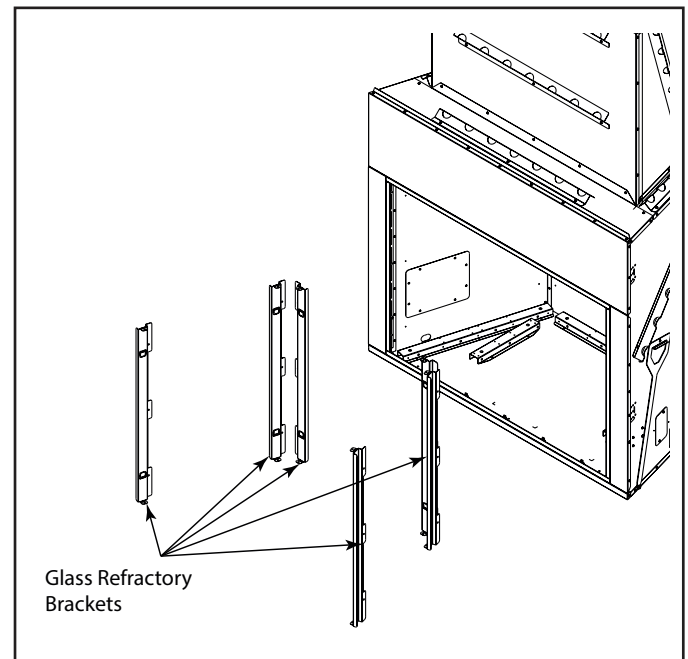


Figure 11.4 Glass Refractory Brackets

### Back Glass Panel

- Bend up (2) lower retaining tabs on rear refractory brackets, set the back glass panel on rear brackets. See Figure 11.7. Bend down (2) upper retaining tabs to secure glass panel in place. Proper Back Glass Panel orientation shown below.

### Left Glass Panel

- Bend up (2) lower retaining tabs on left refractory brackets, set the left glass panel on left brackets. See Figure 11.7. Bend down (2) upper retaining tabs to secure glass panel in place.

### Right Glass Panel

- Bend up (2) lower retaining tabs on right refractory brackets, set the right glass panel on right brackets, bend down (2) upper retaining tabs to secure glass panel in place. See Figures 11.6 & 11.7.

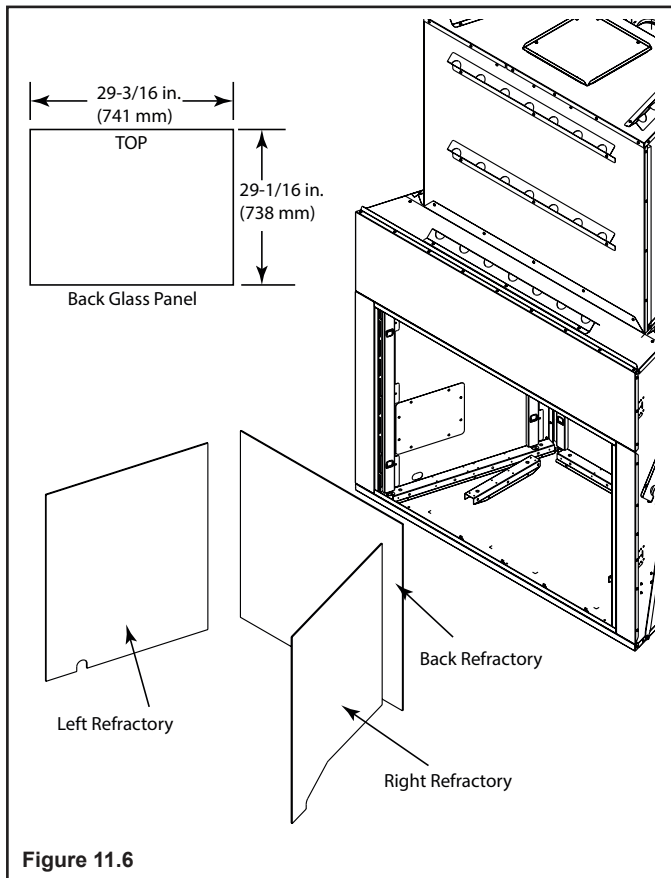


Figure 11.6

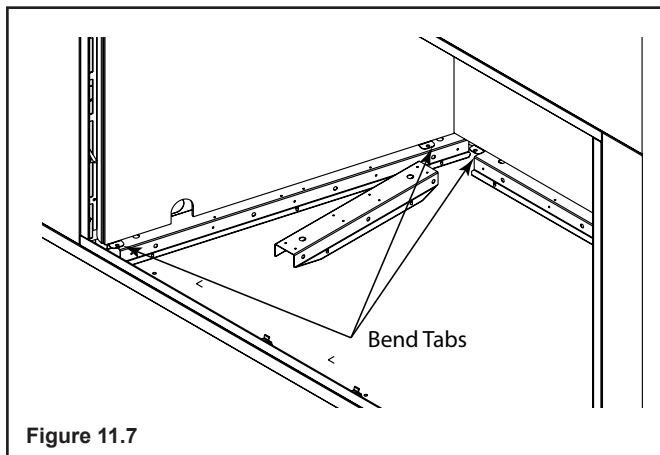


Figure 11.7

Continue to "Reinstalling the Smoke Shield" section.

### Fiber Refractory Installation

**Note:** Unpack refractory panels carefully to avoid damaging the panels.

- Remove smoke shield (5) screws and set the smoke shield aside. See Figure 11.4.
- Set Back Refractory in place and secure with (1) refractory retainer. See Figure 11.8.

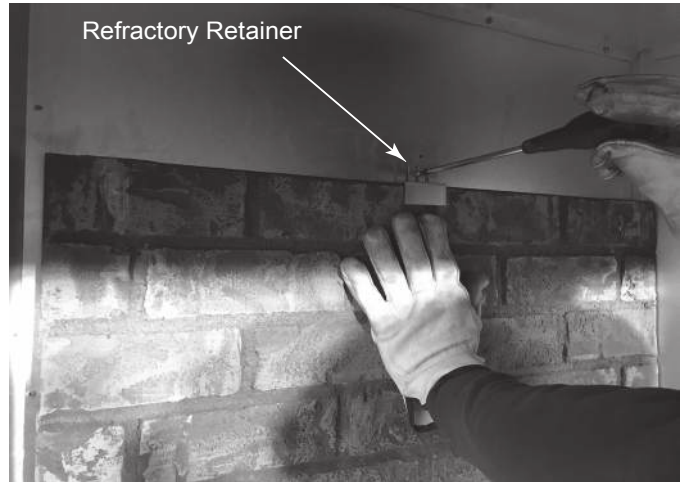


Figure 11.8

- Set Left & Right Side Refractories in place. See Figure 11.9.



Figure 11.9



### Reinstalling the Smoke Shield

- Reinstalling the smoke shield: loosen screws securing the smoke shield side extensions, (2) screws per side, and adjust extensions inward on the smoke shield. Reinstall smoke shield to appliance, (5) screws. Adjust smoke shield side extensions towards the outside of the appliance until they are tight against the left and right side refractories. Tighten (2) screws per side to lock side extensions in place. See Figure 11.10.

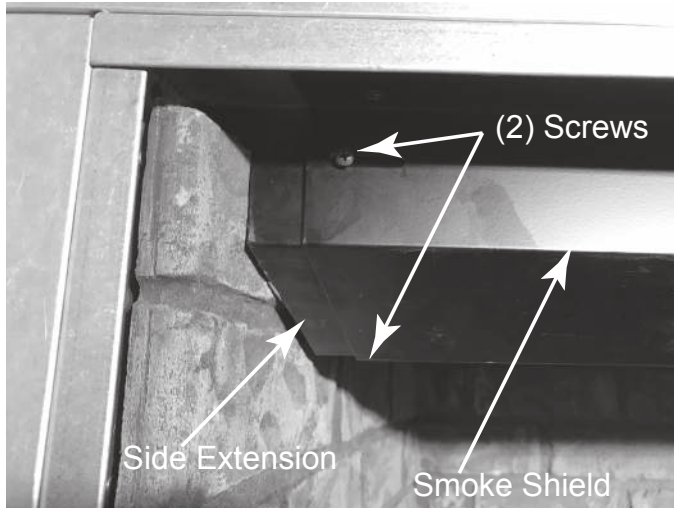


Figure 11.10

- Install Left & Right Side Hearth Refractory Brackets, as shown, and secure with (3) screws each. See Figure 11.11.

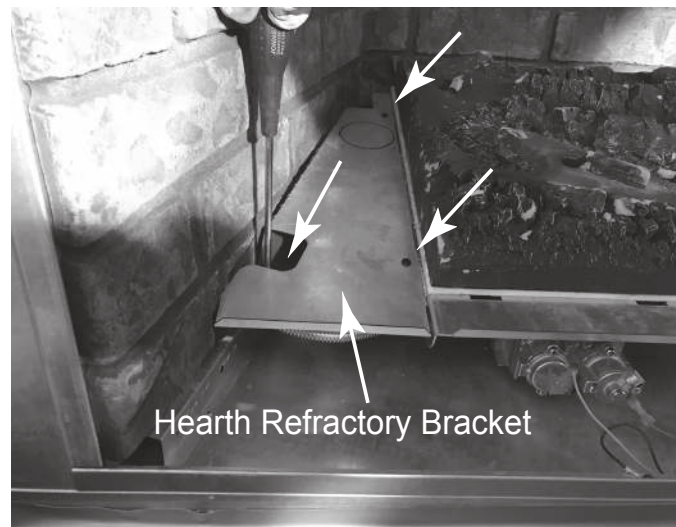


Figure 11.11

- Set Left & Right Side Hearth Refractories onto side brackets, as shown. Position side hearth refractories as shown. See Figure 11.12.

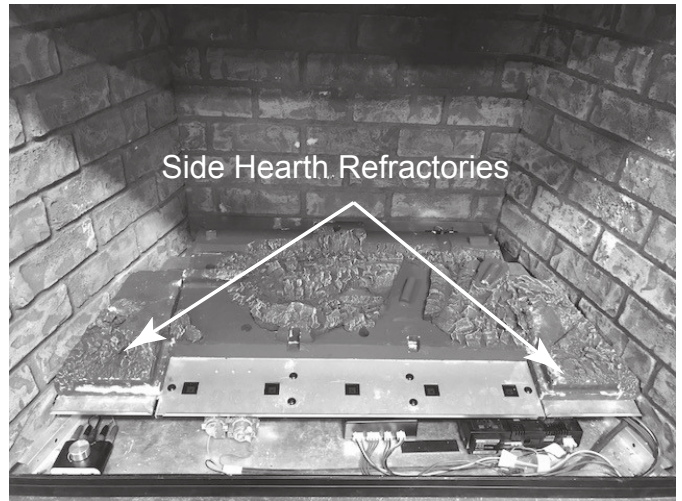


Figure 11.12

- Set Left, Right & Middle Front Hearth Refractories between the front edge of the burner and the front edge of the Phoenix appliance. Install Grate Assembly and fill ember area with TECO SIL media as shown. See Figure 11.13.

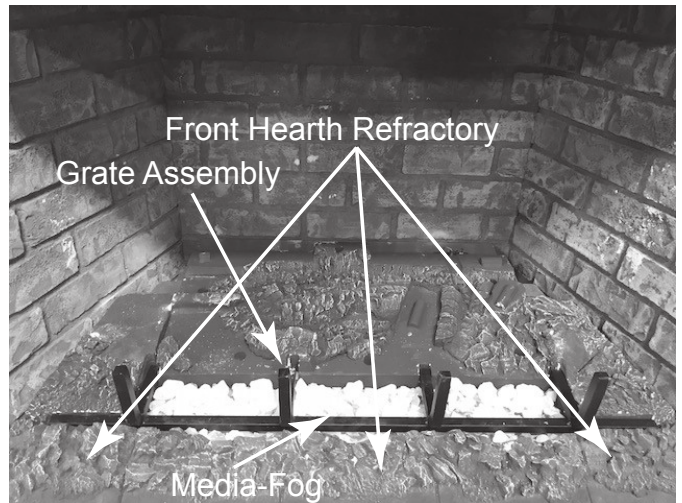


Figure 11.13

## E. Log Installation Instructions

- Locate the back log by placing the two notches on bottom of the log on to the two locating points on rear of burner top. See Figure 11.14.

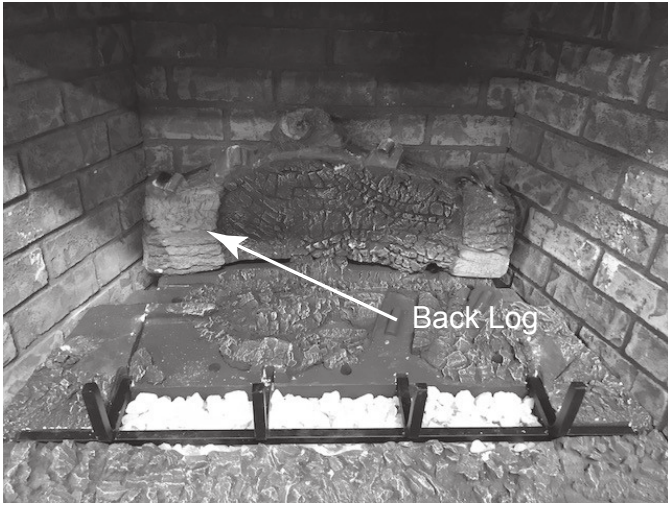


Figure 11.14

- Locate the left middle log lower by placing the two notches on bottom of left middle log on to the two locating points on burner top. See Figure 11.15.

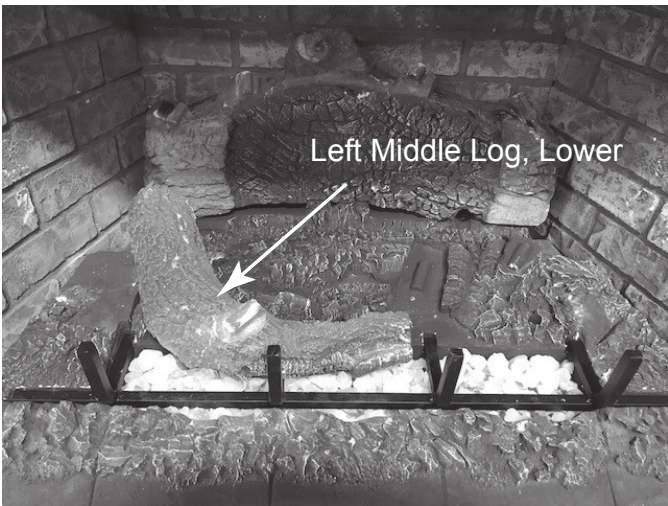


Figure 11.15

- Locate the right middle log by placing the notch on bottom rear of right middle log on to the locating point of burner top. The front of right middle log will interlock with left front log. See Figure 11.16.

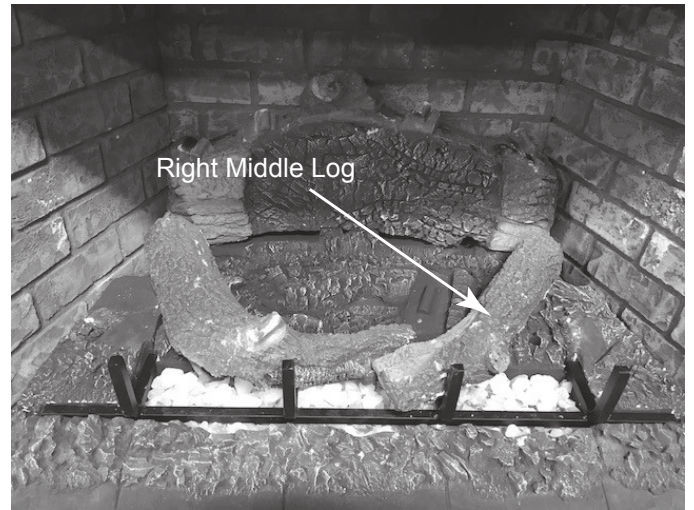


Figure 11.16

- Locate the right front log by placing the notch on bottom of right front log on to the locating point on burner top. See Figure 11.17.

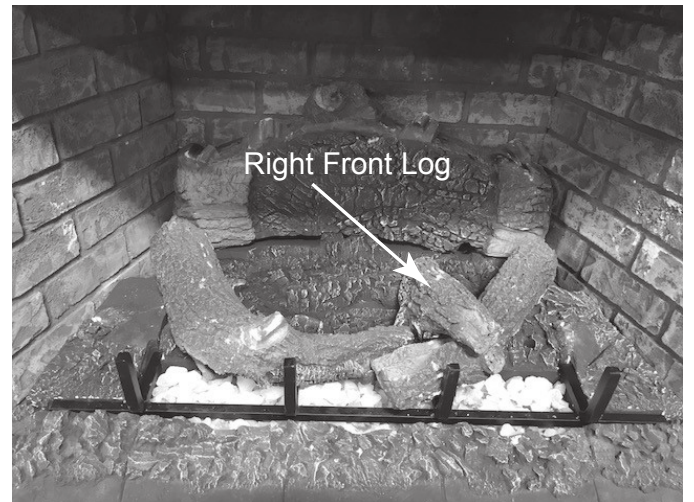


Figure 11.17

- Locate the right top log by placing the notch on bottom of right top log on to the locating point on top of rear log. Front of log will fit around right grate bar. See Figure 11.18.

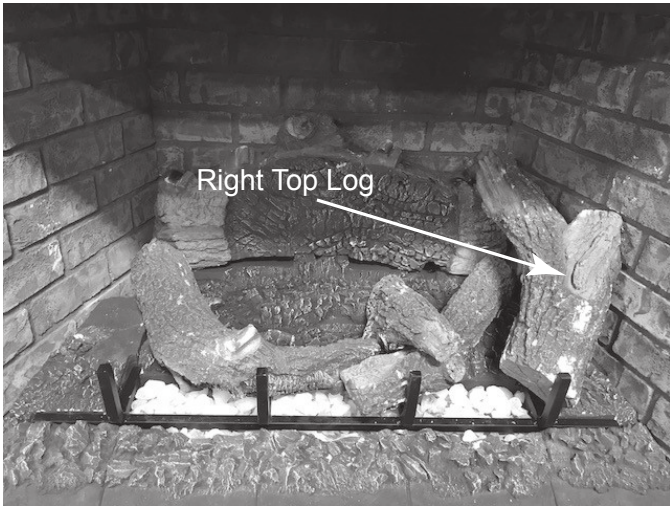


Figure 11.18

- Locate the left middle log, upper by placing the two notches on bottom of log on to the locating points on top of rear log and burner top. See Figure 11.19.

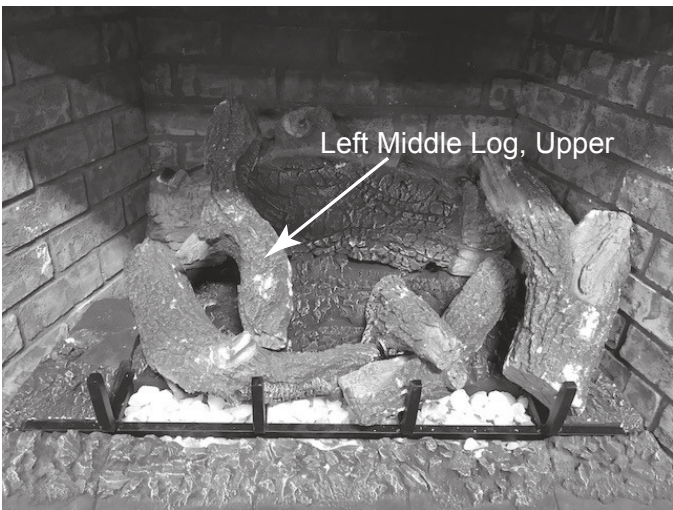


Figure 11.19

- Locate the left top log by placing the notch on bottom of log on to the locating point on top of rear log. Front of log will fit around left grate bar. See Figure 11.20.

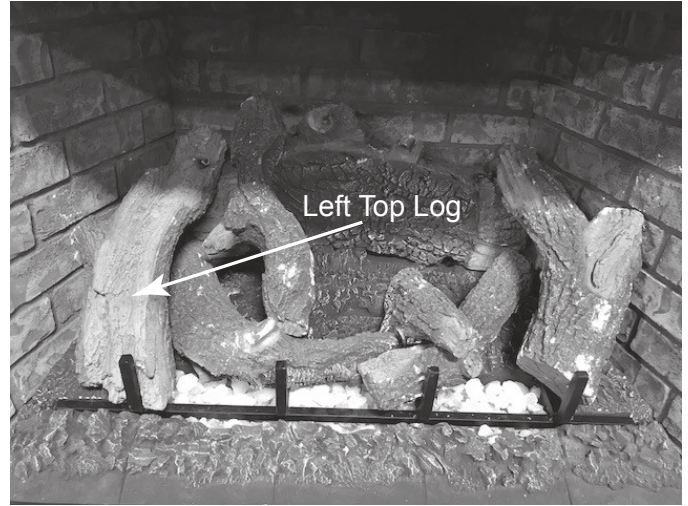


Figure 11.20

- Locate the center top log by placing the notch on bottom of log on to the locating point on top of rear log. Notch on front of log will fit on locating point on top of left middle log. Right part of log should rest on top of right front log. See Figure 11.21.

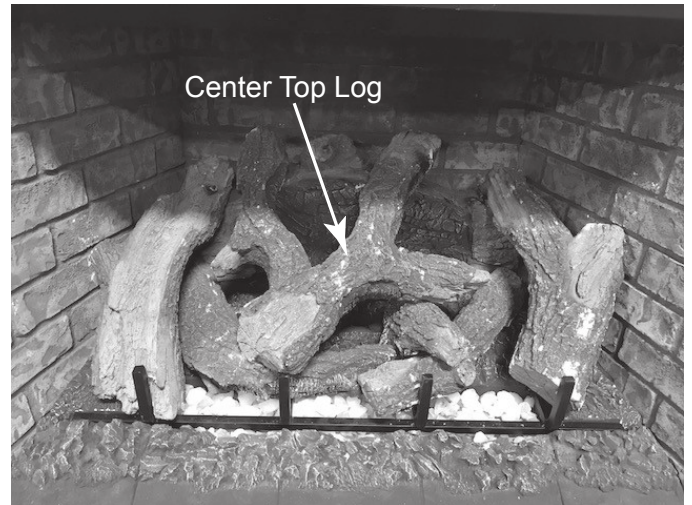


Figure 11.21

## F. Place the Mineral Wool

**WARNING! Risk of Explosion!** Follow mineral wool placement instructions. Replace mineral wool material annually. Improperly placed mineral wool interferes with proper burner operation.

- Mineral wool is shipped with this gas appliance.
- Place a small amount of 1/2 in. diameter pieces (dime-size) mineral wool on the burner pan as shown in Figure 11.18. The mineral wool may be placed loosely over the port holes in the burner pan. Do NOT press them onto or into the burner port holes. This will provide the “glowing embers” look.
- It is not necessary to use the entire bag. Save the remaining mineral wool for future use.

## G. Place the Lava Rock

Place lava rock on lower hearth panels, NOT burner, using just enough to accent formed embers and/or cover panel seams. See Figure 11.22. It is not necessary to use the entire bag. Save the remaining amount for future use.

## H. Install Optional Mesh Doors

Refer to instructions included with the optional mesh door kit for proper installation.

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

### **⚠ WARNING**

#### **RISK OF EXPLOSION!**



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

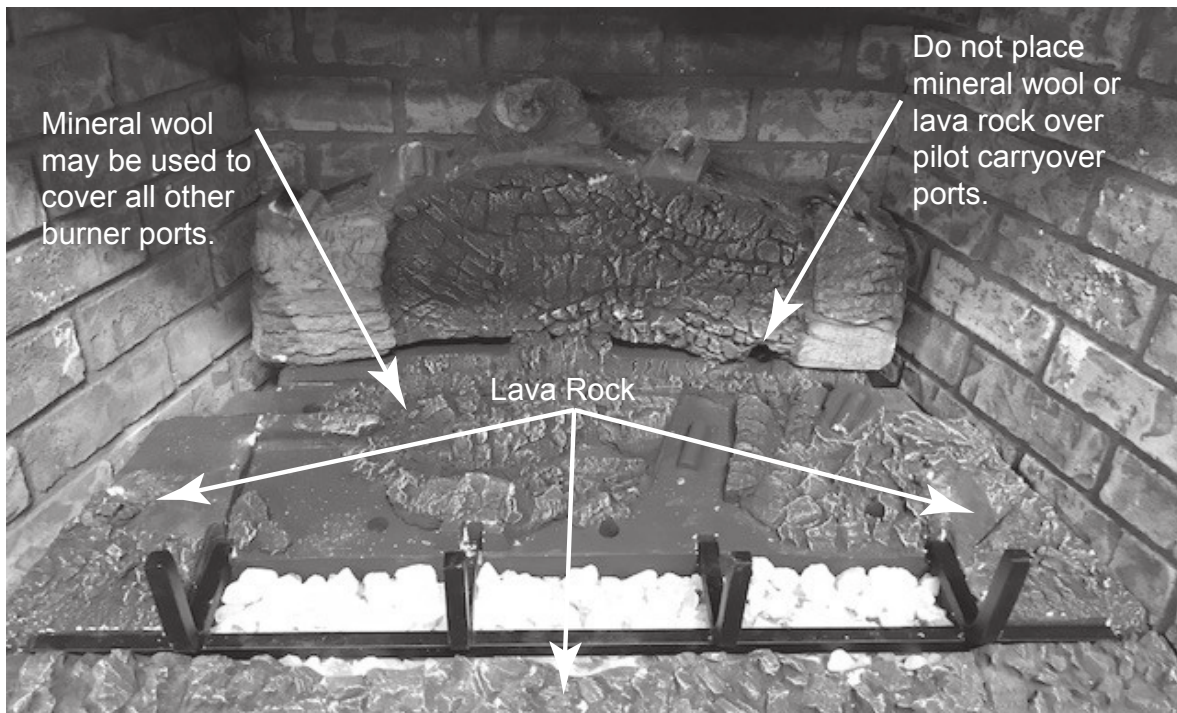


Figure 11.22 Placement of Mineral Wool and Lava Rock

# 12 Reference Materials

## A. Vent Components Diagrams

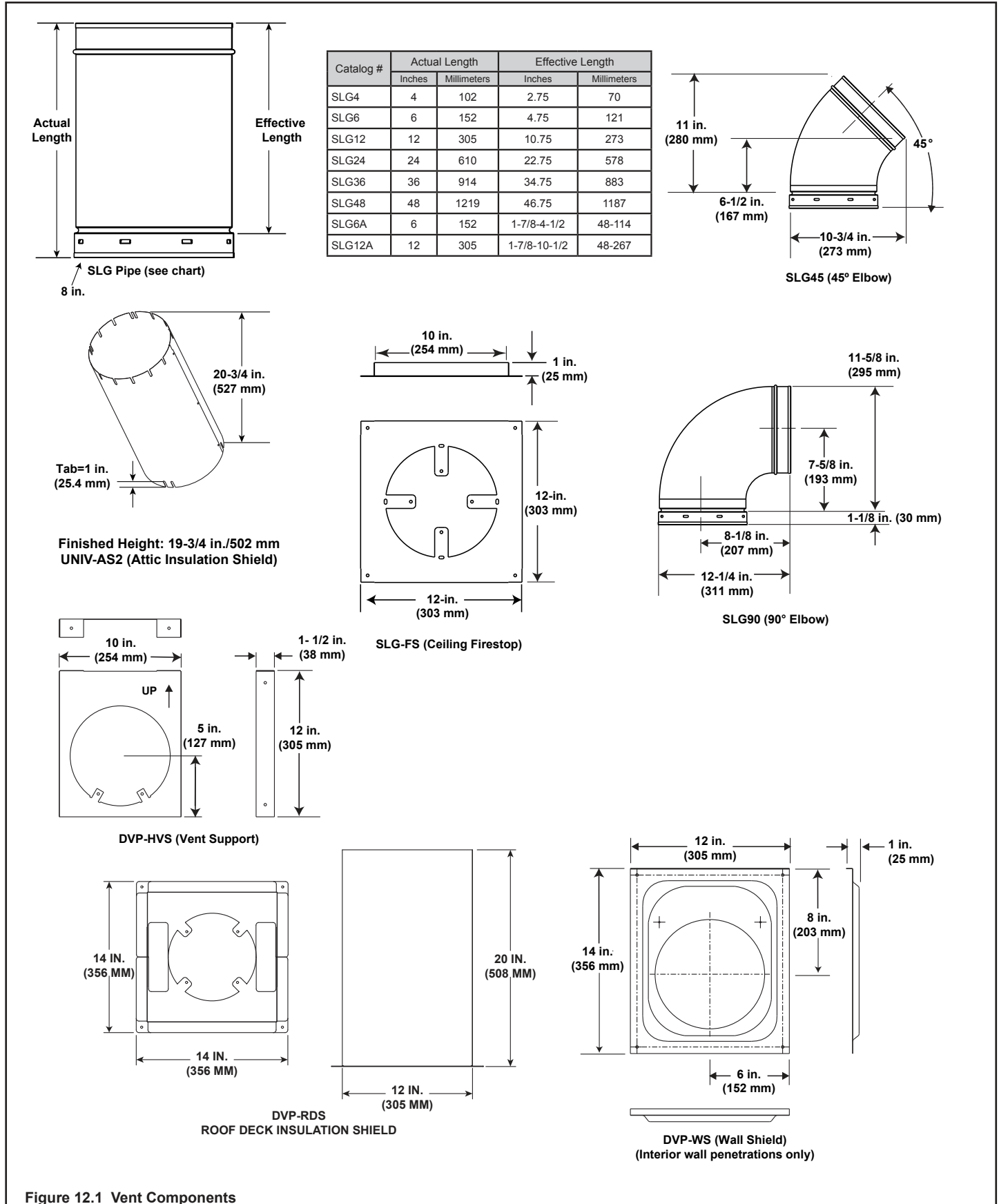
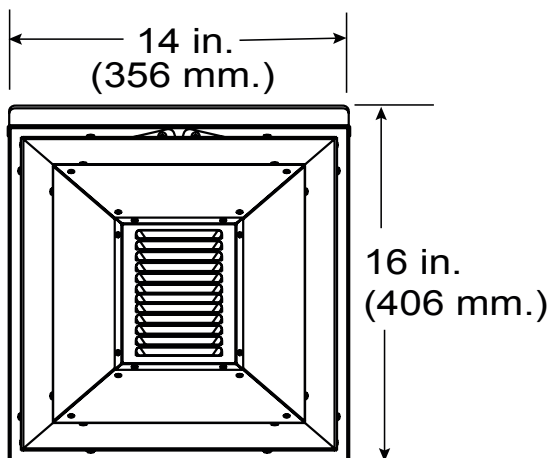
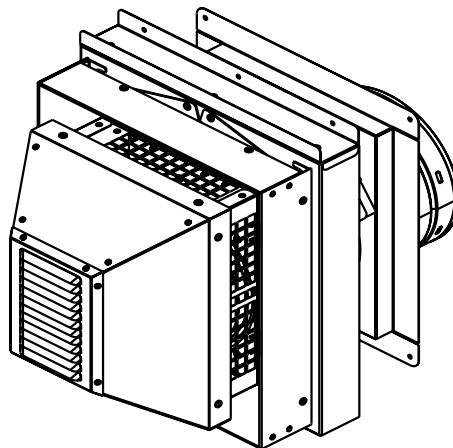


Figure 12.1 Vent Components

## A. 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 in. (102 mm. to 178 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 in. (178 mm.) a DVP-HSM-B and SLG-D-EXT collar extension is required.



**Termination Cap**  
(included with appliance)

Minimum Effective Length	Maximum Effective Length
4 in.	7 in.
102 mm	178 mm

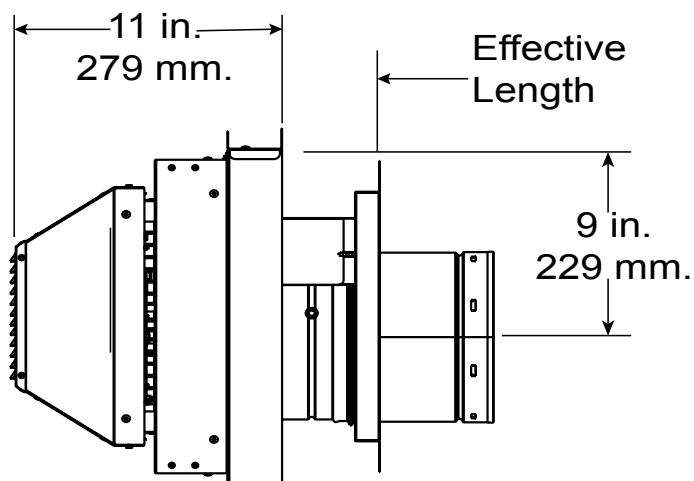
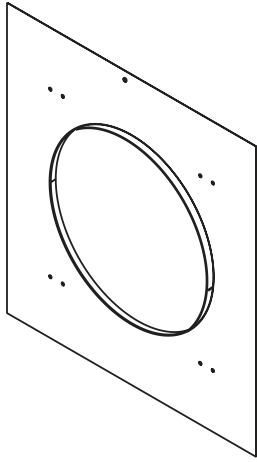
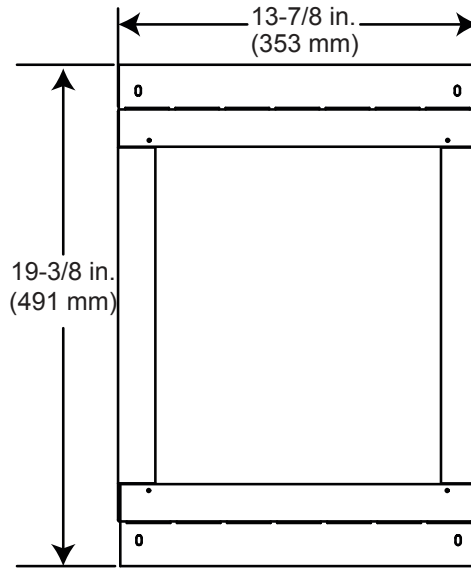


Figure 12.2 Vent Components

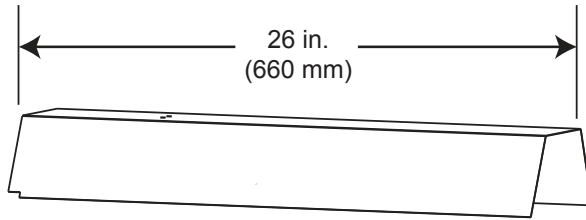
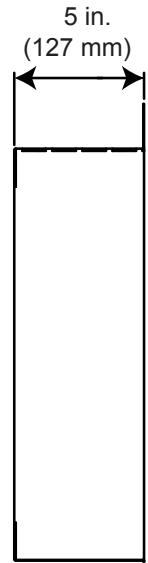
**A. Vent Components Diagrams (continued)**



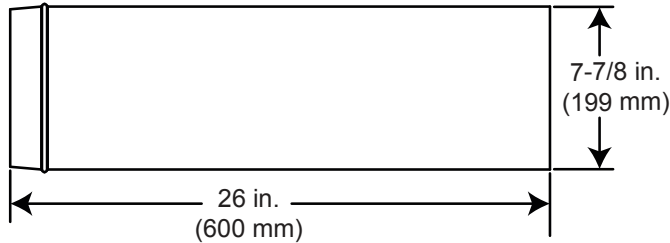
**DVP-TRAPFL**  
Flashing



**SLG-BEK**  
Brick Extension Kit



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



**SLG-D-EXT**  
Collar Extension

**Figure 12.3 Vent Components**

## B. Accessories

### Remote Controls, Wall Controls and Wall

#### Switches

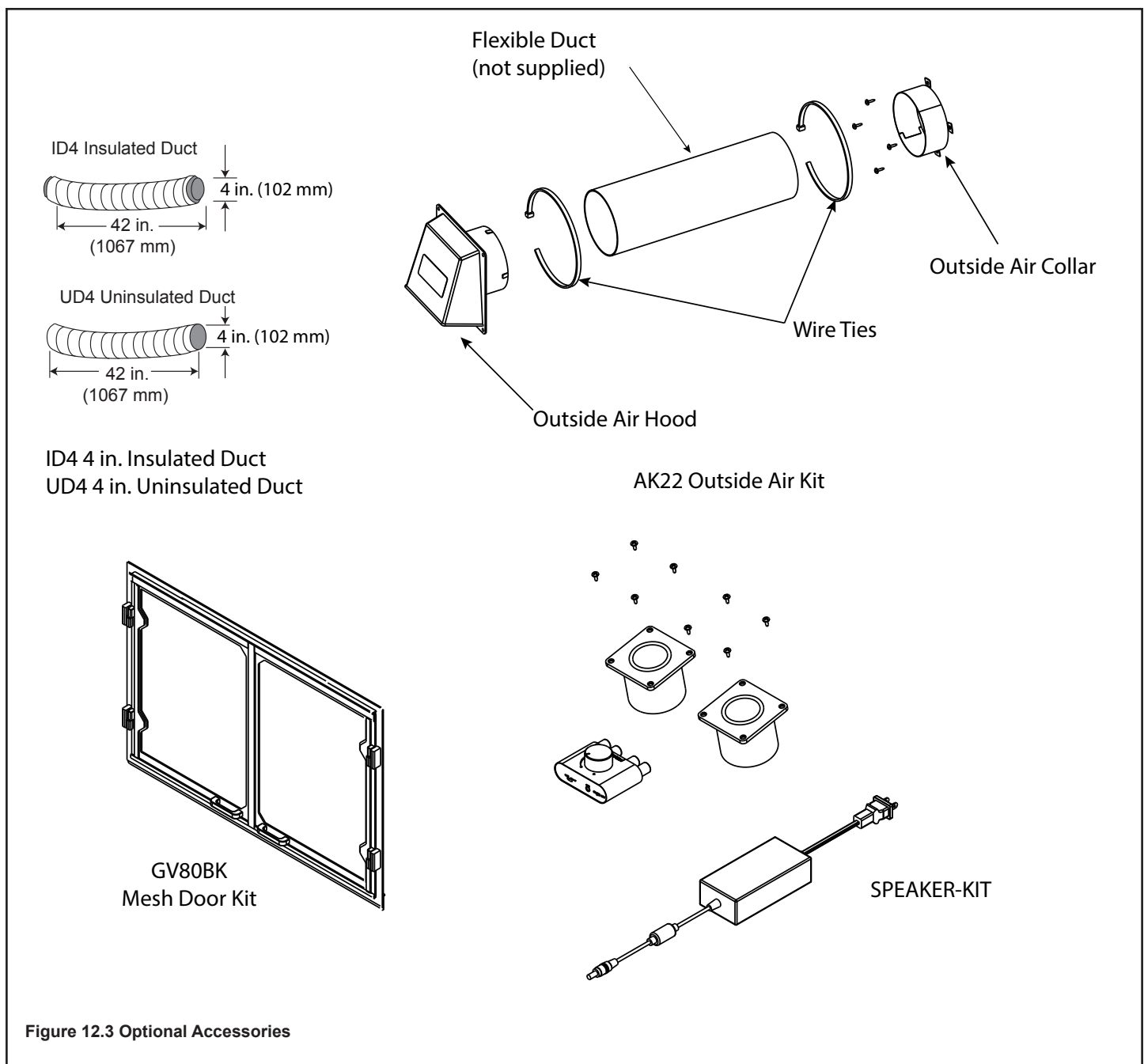
Follow the instructions supplied with the control installed to operate your fireplace:

For safety:

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

See your dealer if you have questions.

## C. Optional Accessories





Heat & Glo, a brand of Hearth & Home Technologies  
7571 215<sup>th</sup> Street West, Lakeville, MN 55044  
[www.HeatnGlo.com](http://www.HeatnGlo.com)

Please contact your Heat & Glo dealer with any questions or concerns.  
For the location of your nearest Heat & Glo dealer,  
please visit [www.HeatnGlo.com](http://www.HeatnGlo.com).

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