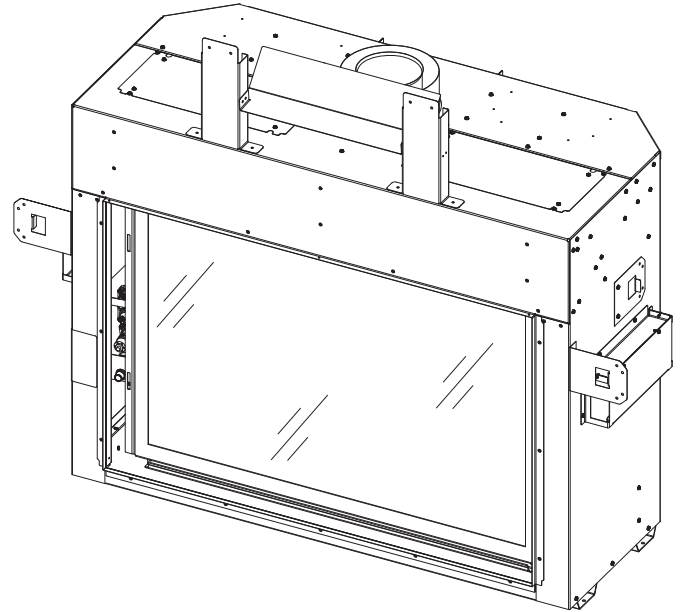


# BELLINGHAM 38 BELLINGHAM 38 BW

## INSTALLATION AND OPERATION MANUAL

Models #BHM-38 & #BHM-38-BW  
Direct Vent Gas Fireplaces

English and French installation manuals are available through your local dealer. Visit our website [www.kozyheat.com](http://www.kozyheat.com).  
Les manuels d'installation en français et en anglais sont disponibles chez votre détaillant local. Visitez [www.kozyheat.com](http://www.kozyheat.com).



### ⚠ 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.

This appliance may be installed in an aftermarket, permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

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

## ⚠ DANGER



**HOT GLASS WILL  
CAUSE BURNS**

**DO NOT TOUCH GLASS  
UNTIL COOLED**

**NEVER ALLOW CHILDREN  
TO TOUCH GLASS**

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

**INSTALLER: Leave this manual with the appliance.  
CONSUMER: Retain this manual for future reference.**



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

# CONGRATULATIONS!

We welcome you as a new owner of a Kozy Heat gas fireplace. Kozy Heat products are designed with superior components and materials, and assembled by trained craftsmen who take pride in their work. To ensure you receive a quality product, the burner and valve assembly are 100 percent test-fired, and the complete fireplace is thoroughly inspected before packaging. Our commitment to quality and customer satisfaction has remained the same for over 40 years. We offer a complete line of gas, wood, and electric fireplaces, along with stylish accessories to complement any decor. Adding a fireplace is one of the best ways to increase the value of your home, and we are proud to offer a network of dealers throughout the country to help make your experience everything you imagine. We pride ourselves in being dedicated not only to functionality and reliability, but also customer safety. We offer our continual support and guidance to help you achieve the maximum benefit and enjoyment from your Kozy Heat gas fireplace.

Jim Hussong  
President



Dudley Hussong  
Board Chairman



## Homeowner Reference Information

*We recommend you record the following information:*

Model Name: \_\_\_\_\_

Date purchased/installed: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Location of fireplace: \_\_\_\_\_

Dealership Purchased from: \_\_\_\_\_

Dealer phone: \_\_\_\_\_

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





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## 1.1 Appliance Certification

Laboratory: PFS in Cottage Grove, Wisconsin


Standards:

ANSI Z21.88-2017/CSA 2.33-2017, Vented Gas Fireplace Heaters

CSA 2.17 2017, Gas-Fired Appliances for Use at High Altitudes

This installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1.

## 1.2 California Proposition 65 Warning

 **WARNING:** This product can expose you to chemicals including Carbon Monoxide, that is an externally vented by-product of fuel combustion, which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## 1.3 Requirements for the Commonwealth of Massachusetts

*The following requirements reference various Massachusetts and national codes not contained in this manual.*

For all sidewall 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 (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:

### 1.3.1 Installation of Carbon Monoxide Detectors

At time of installation of side wall horizontally 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 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 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.

### 1.3.2 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.

### 1.3.3 Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum 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 no less the one-half inch (½) in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".

### 1.3.4 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.

### 1.3.5 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.

### 1.3.6 Manufacturer Requirements

#### 1.3.6.1 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.

#### 1.3.7 Gas Equipment Venting System NOT Provided

When the manufacturer of Product Approved side wall horizontally vented gas 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 systems" 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.

## 2.0 SPECIFICATIONS

### 2.1 Heating Specifications

	Natural Gas	Propane
Maximum Input Rating	43,500 Btu/h (12.75 kW)	43,500 Btu/h (12.75 kW)
Minimum Input Rating	17,000 Btu/h (4.982kW)	16,500 Btu/h (4.836 kW)
Manifold Pressure (High)	3.8"WC (0.95 kPa)	11"WC (2.74 kPa)
Manifold Pressure (Low)	1.1"WC (0.27 kPa)	2.9"WC (0.72 kPa)
Orifice Sizes (DMS)	Front: #50 Rear: #39	Front: #61 Rear: 1.65mm

#### 2.1.1 Altitude Adjustment

*This appliance may be installed at higher altitudes. Please refer to National Fuel Gas Code ANSI Z223.1/NFPA 54, CSA-B149.1 Natural Gas and Propane Installation Code, local authorities, or codes having jurisdiction in your area regarding derate guidelines.*

##### 2.1.1.1 US Installations

Refer to the American Gas Association guidelines for the gas designed appliances derating method. For elevations above 2,000' (610m), input ratings are to be reduced by 4% for each 1,000' (305m) above sea level.

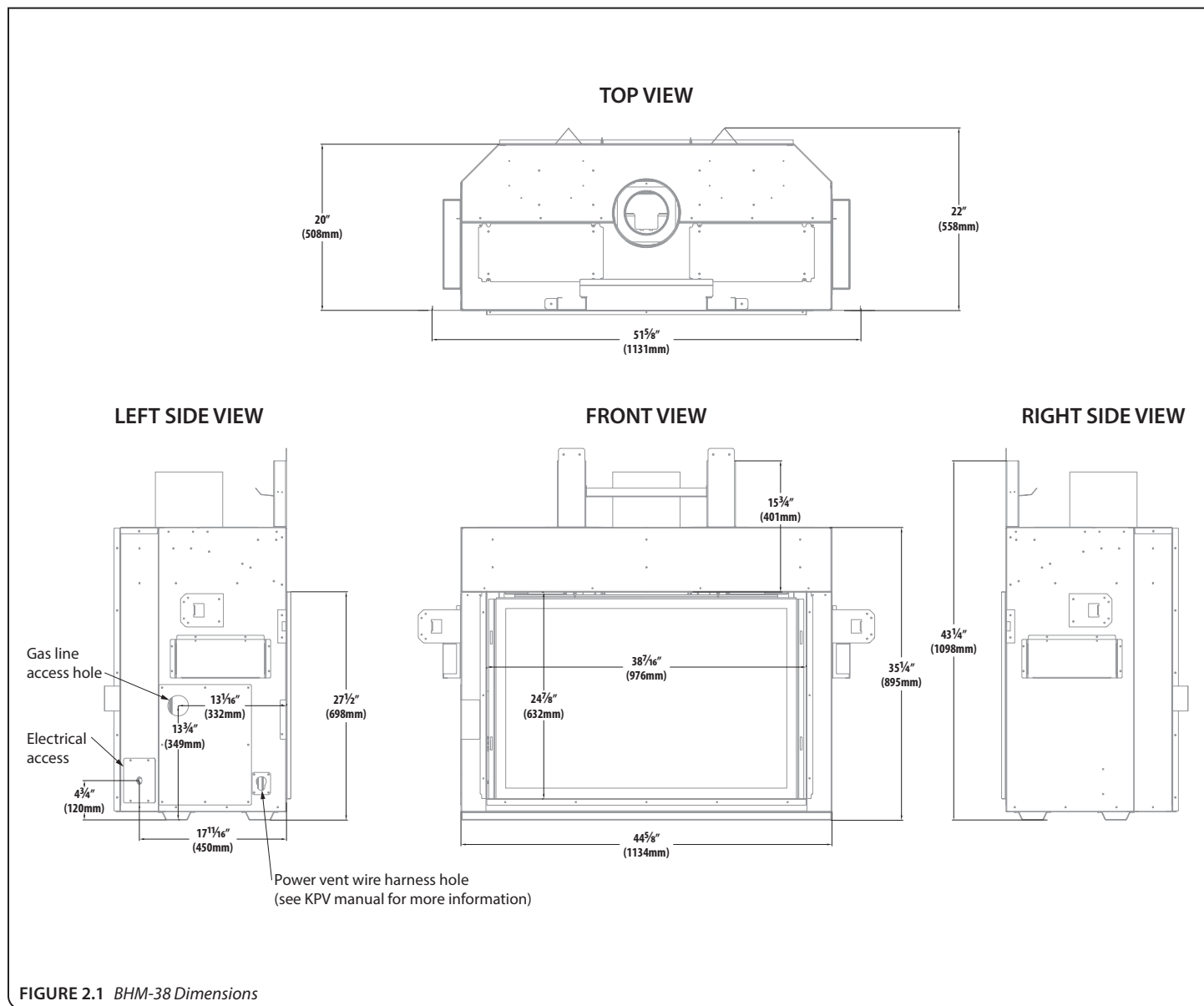
##### 2.1.1.2 Canadian Installations

When the appliance is installed at elevations above 4,500' (1,372m), the certified high altitude rating shall be reduced at the rate of 4% for each additional 1,000' (305m).

### 2.2 Electrical Specifications

- The junction box in this appliance requires 120VAC, 60Hz, and 6 Amps.
- Verify the household breaker is shut off prior to working on any electrical lines.
- The AC power supply to this appliance must be hot at all times and shall not have a switch installed in it.

## 2.3 Appliance Dimensions



## 2.4 Safety Barrier Screen and Surround

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

If the safety barrier screen becomes damaged, the barrier shall be replaced with Hussong Mfg. Co., Inc. barrier for this appliance.

Refer to FIGURE 2.2 below for dimensions and identification of the safety barrier.

For installation instructions, refer to section 4.2, SAFETY BARRIER AND SURROUND on page 38.

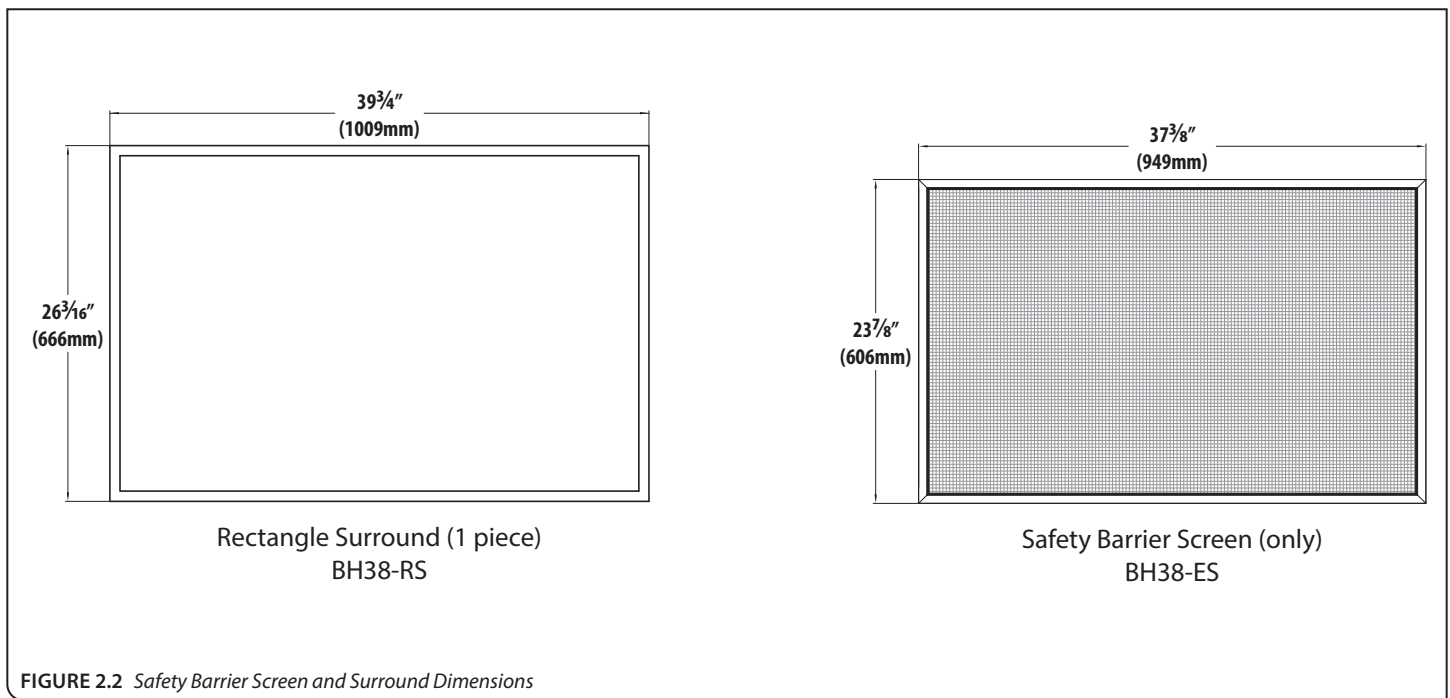


FIGURE 2.2 Safety Barrier Screen and Surround Dimensions

## 3.1 Installation Planning

This appliance offers several design options for managing the heat produced by this fireplace.

### Read all documentation for your specific installation and design options prior to appliance installation.

- Standard Installation** will be outlined in this manual in sections marked 'standard installation' and must be followed *if no design options (vented cavity and Komfort Zone Kit) are to be used. The fireplace chamber and ceiling minimum height must be 88" (2235mm) for all design options.*

If planning a standard installation with the use of a heat transfer kit(s) (HTK-EXT and/or HTK-INT), the standard framing dimensions will still apply.
- Heat Transfer Kit(s)** allows you to transfer heat to a specific area inside your home (interior) or directly outside (exterior). This appliance can have (2) heat transfer kits installed at the same time. It can be up to two of the same heat transfer kits, or a combination of interior and exterior kits. See the HTK-EXT and/or HTK-INT manuals for further information.

**If you are planning a standard installation with the use of an exterior and/or interior kit,** the minimum dimensions listed in this section will apply for your framing installation. You will still need to remove the cover plates as instructed in section 3.7.1 on page 20. If you are installing a heat transfer kit with the use of a Komfort Zone Kit or vented cavity option, the minimum requirements applicable to those options must be adhered to.
- Vented Cavity** offers the option to leave a minimum sized opening in the fireplace cavity, allowing for heat reduction above the fireplace. This option allows for combustible facing materials above the fireplace, heat reduction for a TV mounted above the fireplace, and lower mantel clearances. Refer to section 3.8 on page 23.

**All vented cavity options** have the same minimum chamber and ceiling dimension requirements as the standard installation dimensions in this section. **The fireplace chamber and ceiling minimum height must be 88" (2235mm) for all design options.**
- Komfort Zone Kit (KZK)** offers the option to redistribute radiant heat through plenum(s). This option allows for combustible facing materials above the fireplace, heat reduction for a TV above the fireplace, and lower mantel clearances. See section 3.7.2, KOMFORT ZONE KIT on page 21.

**If installing a Komfort Zone Kit (#KZK-038 or #KZK-1510A),** the framing requirements may be different than the standard dimensions listed in this section. Please reference the manual included with your kit before completing all fireplace framing and other installation considerations.
- Kozy Power Vent** is a fan-powered mechanical draft vent system (horizontal terminations only) for use with any of the design options listed above. It is easier to convert the fireplace for use with the #KPV before framing in the fireplace. If you convert the fireplace for use with the #KPV after fireplace installation, you will have to remove the control board. See section 8.5, CONTROL BOARD (page 58) for access to the control board before and after installation.

- If planning to convert to propane, it is easier to complete the gas conversion before framing in the fireplace. See the #LCK-BH38-SPB manual for complete conversion instructions. If you convert the fireplace to propane after fireplace installation, you will have to remove the control board. See section 8.5, CONTROL BOARD (page 58) for access to the control board before and after installation.

**Please read the instructions in this manual carefully for your specific installation.**

### 3.1.1 Appliance Placement Considerations

**WARNING: Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**

- This appliance must be installed on a level surface capable of supporting the fireplace and venting. Determine your vent requirements before framing your appliance. If installing #KPV Kozy Power Vent, please reference the manual included with the kit.
- This fireplace may be installed in a bedroom.
- Please be aware of the large amount of heat this fireplace will produce when determining a location.

### 3.1.2 Moving the Appliance

This appliance is heavy. We recommend a team lift when moving, placing, and positioning the appliance.

On both sides of the appliance, there are lift handles that allow a hand lift (no sharp edges), or allow a 2" x 4" piece of lumber to be inserted inside the lift handles, as shown in FIGURE 3.1.

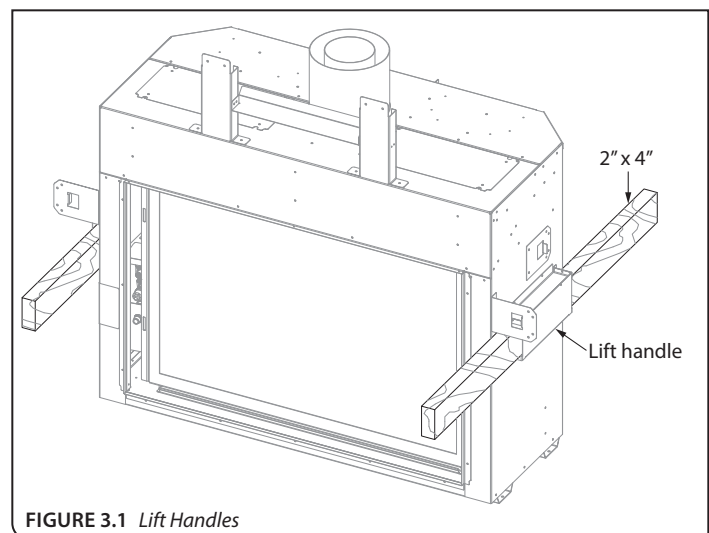


FIGURE 3.1 Lift Handles

## 3.2 Nailing Flange

### *Assembly and Installation*

**CAUTION:** *Never permanently remove these assemblies from the fireplace—they must be secured regardless of finish material used.*

*The nailing flanges MUST BE INSTALLED for all applications.*

*Refer to FIGURE 3.2 below for nailing flange installation.*

1. Remove (2) nailing flanges from the right and left side of the fireplace.
2. Align nailing flanges with holes on the outside corners of fireplace, with the stand-off flanges on the nailing flanges facing

away from the fireplace.

3. Secure the nailing flanges to the fireplace with screws (provided) through the slots in nailing flanges.
4. Bend perforation on nailing flange until parallel with fireplace face. Do not bend toward fireplace face.
5. **UNTIL ALL FRAMING REQUIREMENTS ARE COMPLETED:** Position framing stud against the small stand-off (located on backside of nailing flange). Secure with nails or screws.
  - **When installed, the nailing flanges provide the minimum 3½" (89mm) clearance from the sides of the fireplace to framing.**

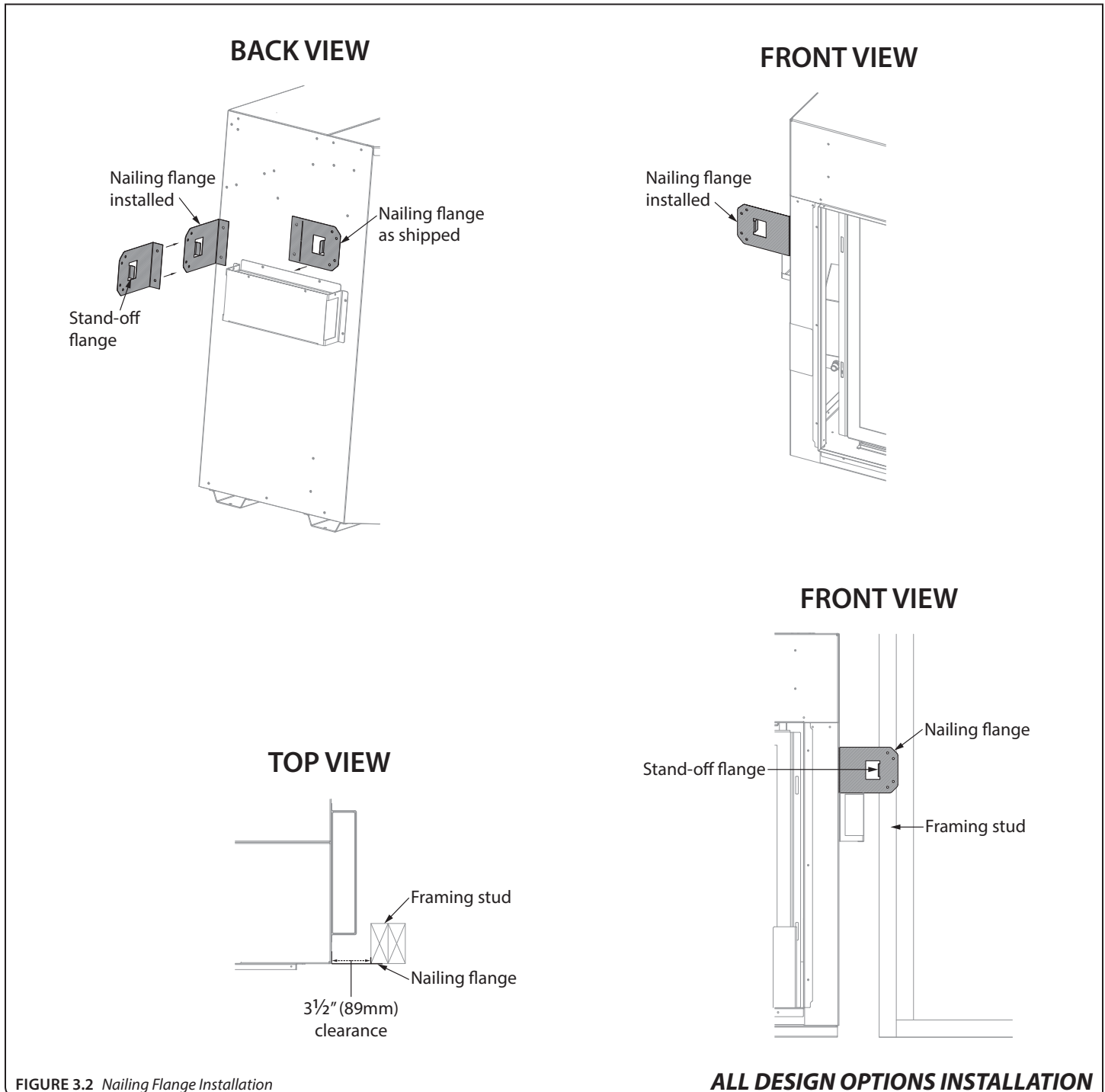


FIGURE 3.2 *Nailing Flange Installation*

**ALL DESIGN OPTIONS INSTALLATION**



### 3.3 Stand-off Assembly & Header Heat Shield *Assembly and Installation*

The stand-off assembly and header heat shield must be formed and secured to the fireplace before installing in the framed opening.

**WARNING:** The stand-off assembly and header heat shield **MUST BE INSTALLED** in order to maintain clearance requirements for standard installation. These clearances must be maintained. See FIGURE 3.3 below for installation.

Refer to section 3.7.2.1 on page 22 for stand-off assembly installation for vented cavity and Komfort Zone Kit installations.

The stand-off assembly provides:

- Minimum distance to header
- Contact point for non-combustible material above the fireplace
- Attachment for the header heat shield

1. Locate the stand-off assembly and header heat shield on top of the fireplace, as shipped.
2. Form the header heat shield as shown.
3. Attach the header heat shield to the stand-off assembly, (4) screws total (provided in the components part packet).
4. Align the holes on the bottom of the stand-off assembly with the holes on top of the fireplace. Secure with (4) screws total.
5. Remove and save screws securing the back stand-off brackets. Form the back stand-off heat shields as shown. Secure using screws previously removed and included in the components packet.

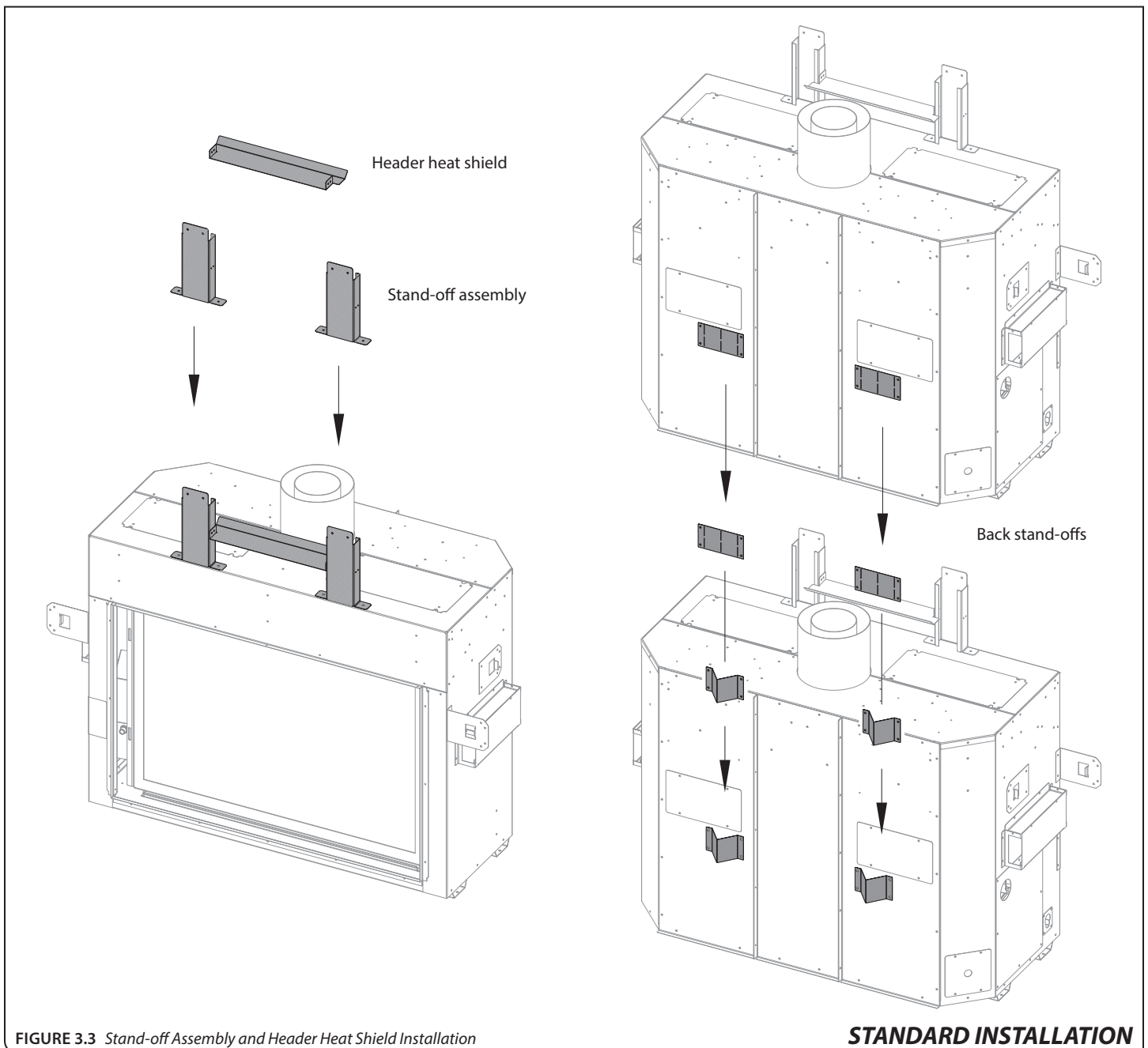


FIGURE 3.3 Stand-off Assembly and Header Heat Shield Installation

**STANDARD INSTALLATION**

### 3.4 Clearances to Combustibles

See FIGURE 3.4 below for minimum clearances for typical installation options.

<i>Table 3.1, Minimum Fireplace Clearances to Combustible Material</i>		
From fireplace top stand-off brackets	0"	0mm
From fireplace left and right stand-off brackets	0"	0mm
From fireplace back stand-off brackets	0"	0mm
From fireplace corners	2"	51mm
From fireplace front	36"	914mm
Fireplace side finishing edge to adjacent sidewall trim	3"	76mm
Fireplace side finishing edge to adjacent sidewall	6"	152mm
Fireplace top finishing edge to 3/4" (19mm) mantel trim	12"	305mm
Mantel 6" (152mm) deep from fireplace top finishing edge	15-1/2"	394mm
Minimum height of fireplace enclosure	88"	2235mm
Base of the fireplace to ceiling	88"	2235mm
Fireplace top finishing edge to ceiling	60-1/2"	1537mm
Any horizontal venting within the fireplace enclosure	17-1/8"	435mm

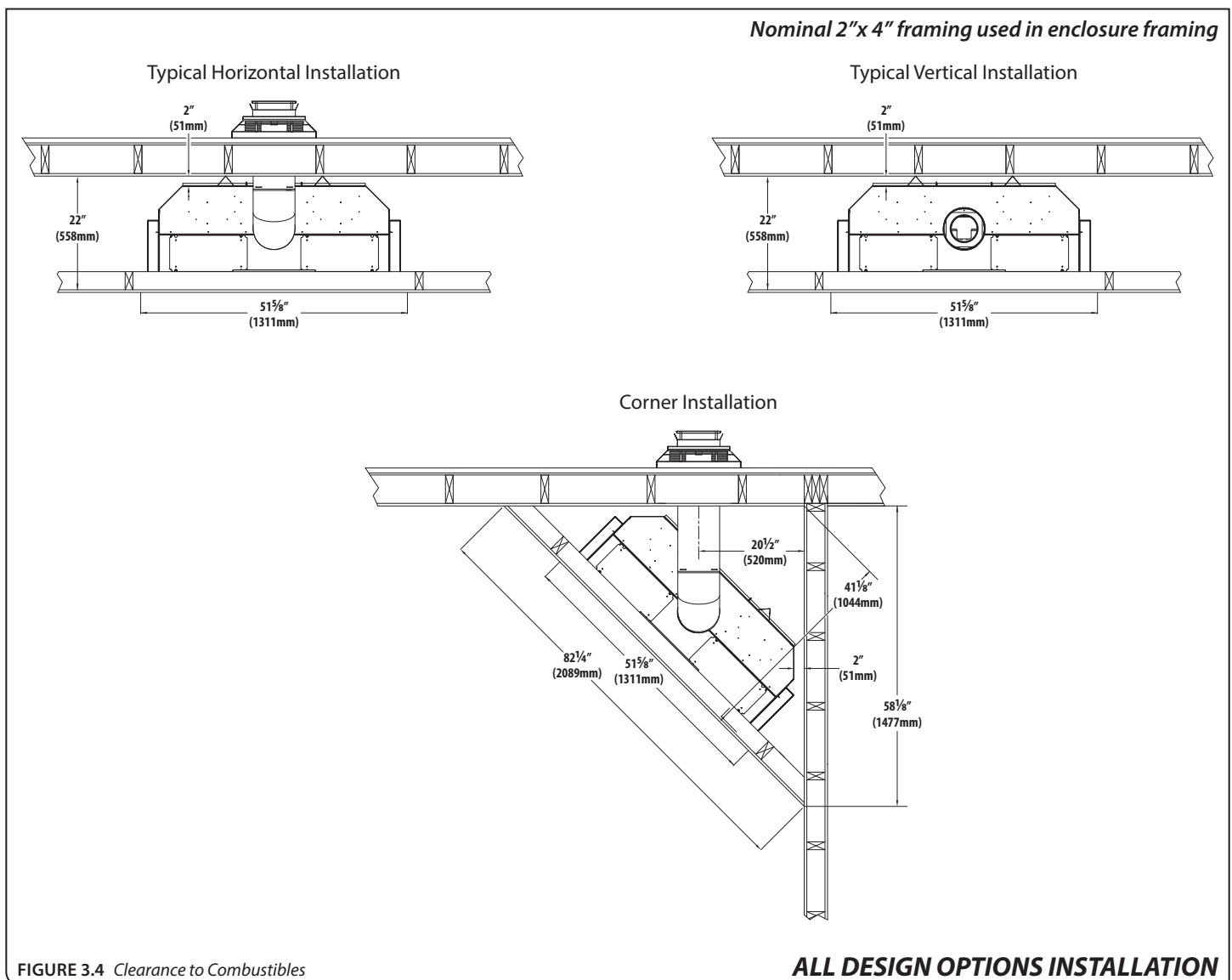


FIGURE 3.4 Clearance to Combustibles

**ALL DESIGN OPTIONS INSTALLATION**

## 3.5 Rough Framing

### 3.5.1 Rough-in Wall Enclosure

**WARNING:** Provide adequate clearance in front of the fireplace for barrier removal, component access, gas line installation, service access, etc.

**CAUTION:** Cold air transfer area. The fireplace enclosure must comply with all clearances as outlined in this manual, and be constructed in compliance with local building codes. Outside walls should be insulated to prevent cold air from entering room.

Rough-in dimensions outlined in FIGURE 3.5 below are the same for all design options and must be followed.

- Floor protection in front of the fireplace is not required. Combustible material may be used if installing a hearth extension. Consider the thickness of the hearth extension finishing material if building a fireplace platform. The hearth may be flush with the bottom finishing edge of the fireplace.
- The bottom of the fireplace must be placed directly on a wood or non-combustible surface (not linoleum or carpet). If this appliance is to be installed directly on carpeting, tile, or other combustible material other than wood flooring, this appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

- This fireplace may be elevated off the floor, provided it is properly supported by framing materials and maintains ceiling clearances. If installed above floor level, a solid, continuous platform must be constructed below the fireplace.
- If masonry (optional) is to be used, prepare the foundation necessary for the full masonry load.

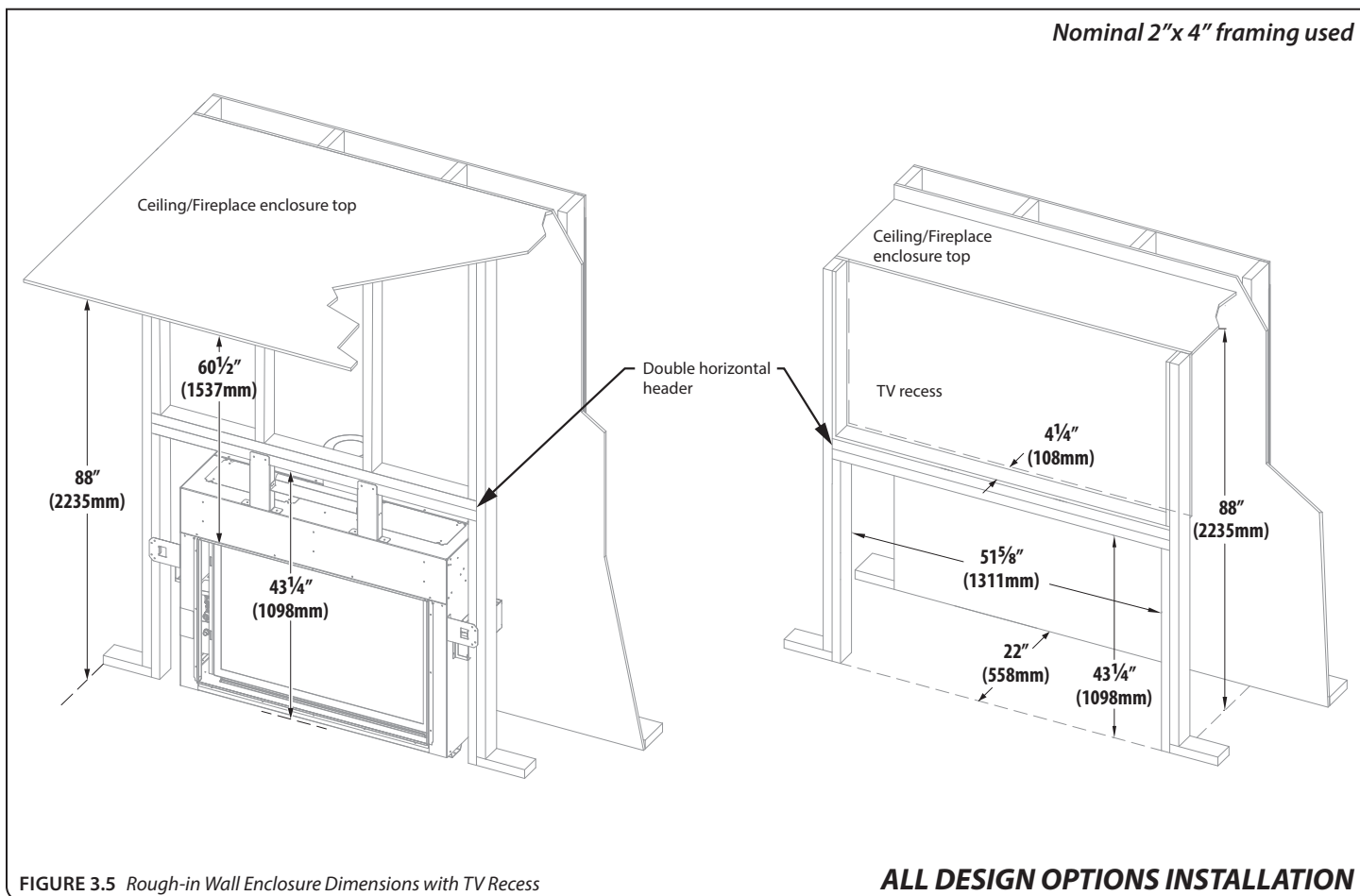
#### 3.5.1.1 TV Recess Construction

**WARNING:** All clearances to venting must be maintained.

Mounting a television above a fireplace is a common practice. Mantel depth, ceiling heights, and wall and mantel construction material all affect television surface temperatures. Most television manufacturers specify in their instructions that a television should not be installed on, near, or above a heat source.

Television location rests solely on the homeowner. It is the home owner's responsibility that the preferred TV mounting and mantel design will not exceed the listed maximum operation temperature of their electronic goods.

**Tests performed determined that television surface temperatures did not exceed 150°F (66°C) when a 4¼" (108mm) deep recess is constructed above the fireplace. See FIGURE 3.5 below.**



### 3.5.2 Rough-in Vent Termination

#### Natural Draft Installations

The following information applies to all standard, Komfort Zone Kit, and vented cavity design options when venting with natural draft. If using Koxy Power Vent #KPV, please reference the manual included with the kit.

#### 3.5.2.1 Requirements

This is a cold air transfer area. The fireplace enclosure must comply with all clearances as outlined in this manual, and be constructed in compliance with local building codes. Outside walls should be insulated to prevent cold air from entering room.

Exterior vent termination location must be in compliance with section 6.0, **TERMINATION LOCATIONS** on page 44.

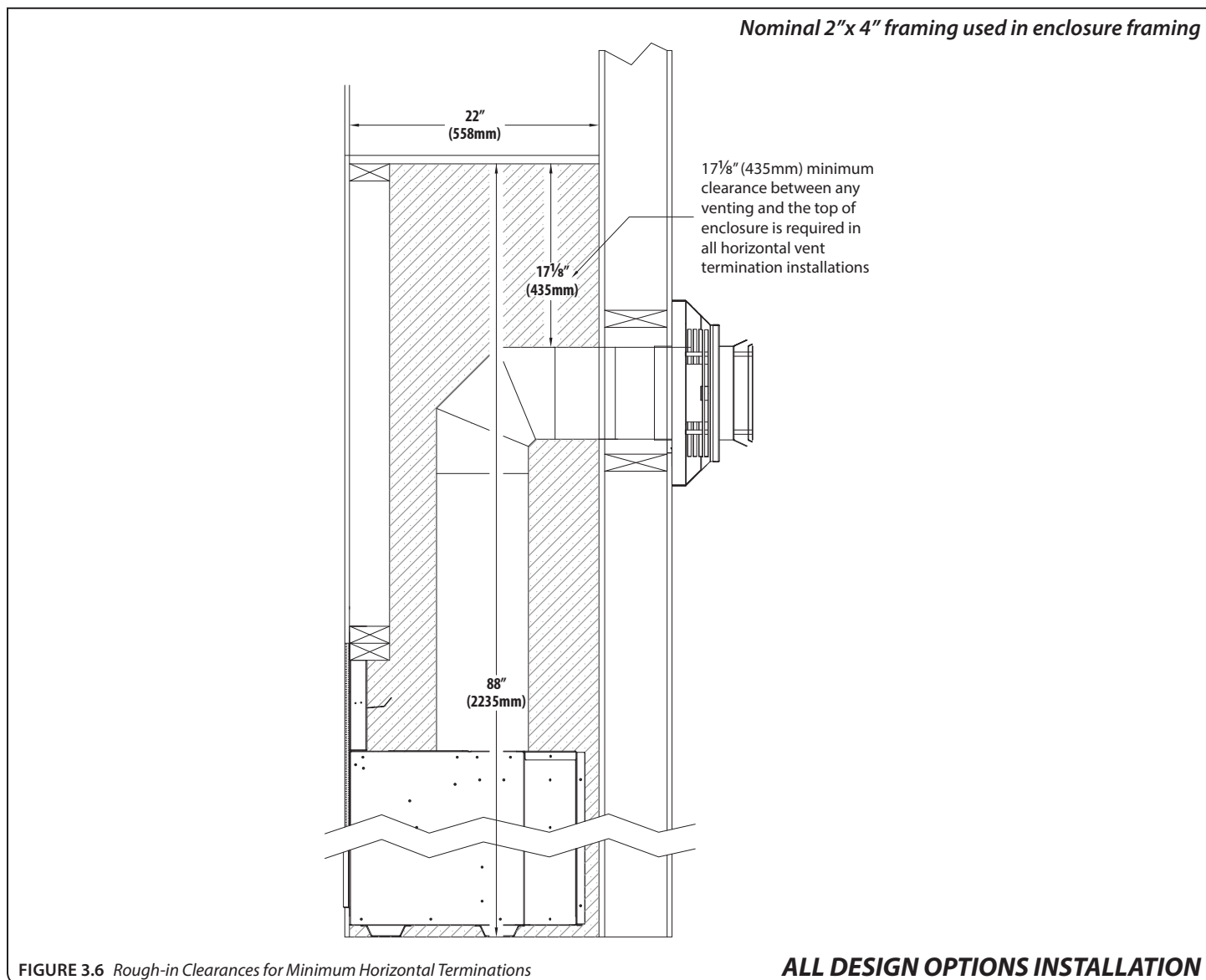
**IMPORTANT - METAL FAB VENT SYSTEM :** When installing Metal Fab vent pipe, an adapter must be used. This will increase the minimum height for the center of the vent pipe by 3-1/4" (83mm) when framing the wall pass through for horizontal terminations.

#### 3.5.2.2 Clearances

- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained.

Refer to **FIGURE 3.6** below for the following clearances.

- A minimum of 1" (25mm) clearance from the top surface on the horizontal pipe must be maintained.
- A minimum of 1" (25mm) clearance on the sides and bottom surfaces on the horizontal pipe must be maintained.
- A minimum of 17-1/8" (435mm) clearance from any venting to the enclosure top is required in all horizontal vent termination installations. The horizontal pipe after the wall pass-through must maintain a 1" (25mm) clearance to combustibles on all surfaces of the pipe.



### 3.5.2.3 Vertical Terminations

Follow vent pipe manufacturer's installation instructions for vertical terminations.

Attic insulation shields may be insulated using unfaced insulation products listed as non-combustible per ASTM E 136.

### 3.5.2.3 Horizontal Terminations

**WARNING: Do not recess the vent cap into wall or siding.**

**IMPORTANT: Horizontal vent sections require 1/4" (6mm) rise for every 12" (305mm) of travel for natural draft applications.**

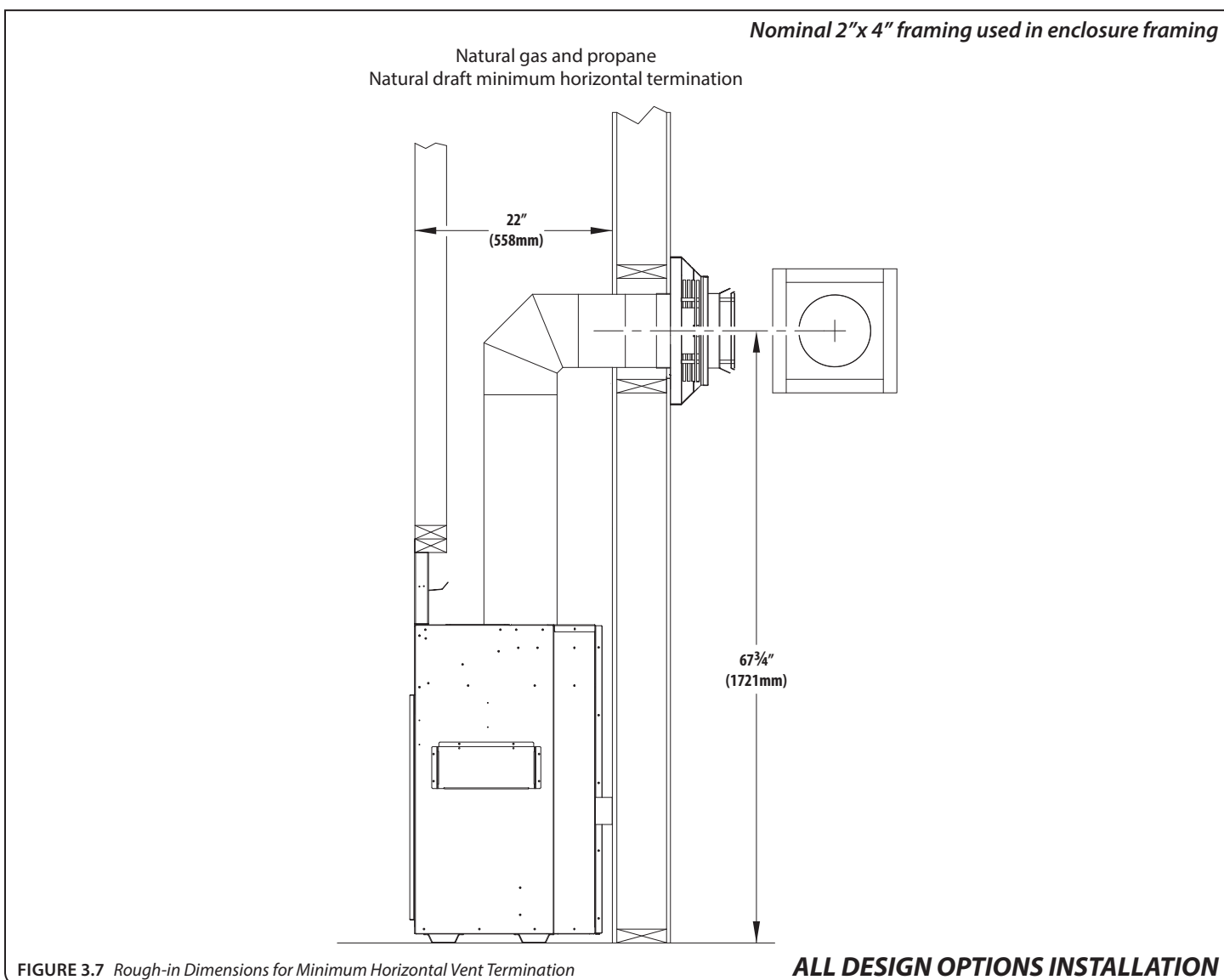
Wall thimble products that comply with the required 1" (25mm) top clearance to combustibles must be installed for all horizontal vent runs that pass through interior or exterior walls. These wall thimble products may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.

Elbows listed with approved vent systems for this appliance vary in vertical length. Please consult the vent manufacturer's instructions to determine the elbow dimension used for installation. Adjust the wall pass-through rough opening dimensions to maintain clearance requirements.

### 3.5.2.4 Wall Pass Through Framing Instructions

Follow **FIGURE 3.7** below for minimum rough-in dimensions.

1. Measure from floor level of the fireplace to the center of where the vent pipe will penetrate the wall. The dimension in **FIGURE 3.7** is used with a Simpson DuraVent elbow.
  2. Cut and frame an opening in the wall to allow the vent system to run level through the wall pass-through.
  3. Follow the vent pipe manufacturer's installation instructions for natural draft vent installation.
- Vent pipe dimensions are tested with listed Simpson Duravent pipe. Other manufacturers product dimensions may vary.



### 3.6 Outdoor Covered Fireplace Installation

An outdoor covered fireplace installation allows a fireplace to be installed in an outdoor covered area, where the appliance is protected from direct precipitation.

Based on your design options and installation choices, follow your specific requirements pertaining to your installation.

Follow the instructions and illustrations on this page and the following page for installation procedures.

#### 3.6.1 Safety Screen Barriers

Hussong Mfg. Co., INC. highly recommends to use black painted safety barriers in outdoor installations. Other screen barriers that incorporate a plated or patina finish are highly susceptible to oxidation and discoloration.

#### 3.6.2 Requirements

- Calculate your roof overhang dimensions following **FIGURE 3.8** below.
- The continuous insulated building envelope and weatherproof membrane are not to be interrupted by fireplace installation. See **FIGURE 3.9** on the following page.
- Fireplace operation is approved from 40°F to 110°F.
- All wiring connections shall be in accordance with outdoor requirements of NECA NFPA 70.
- All clearances and requirements in your appliance manual must be adhered to.

**Outdoor covered fireplace installation continues on page 18**

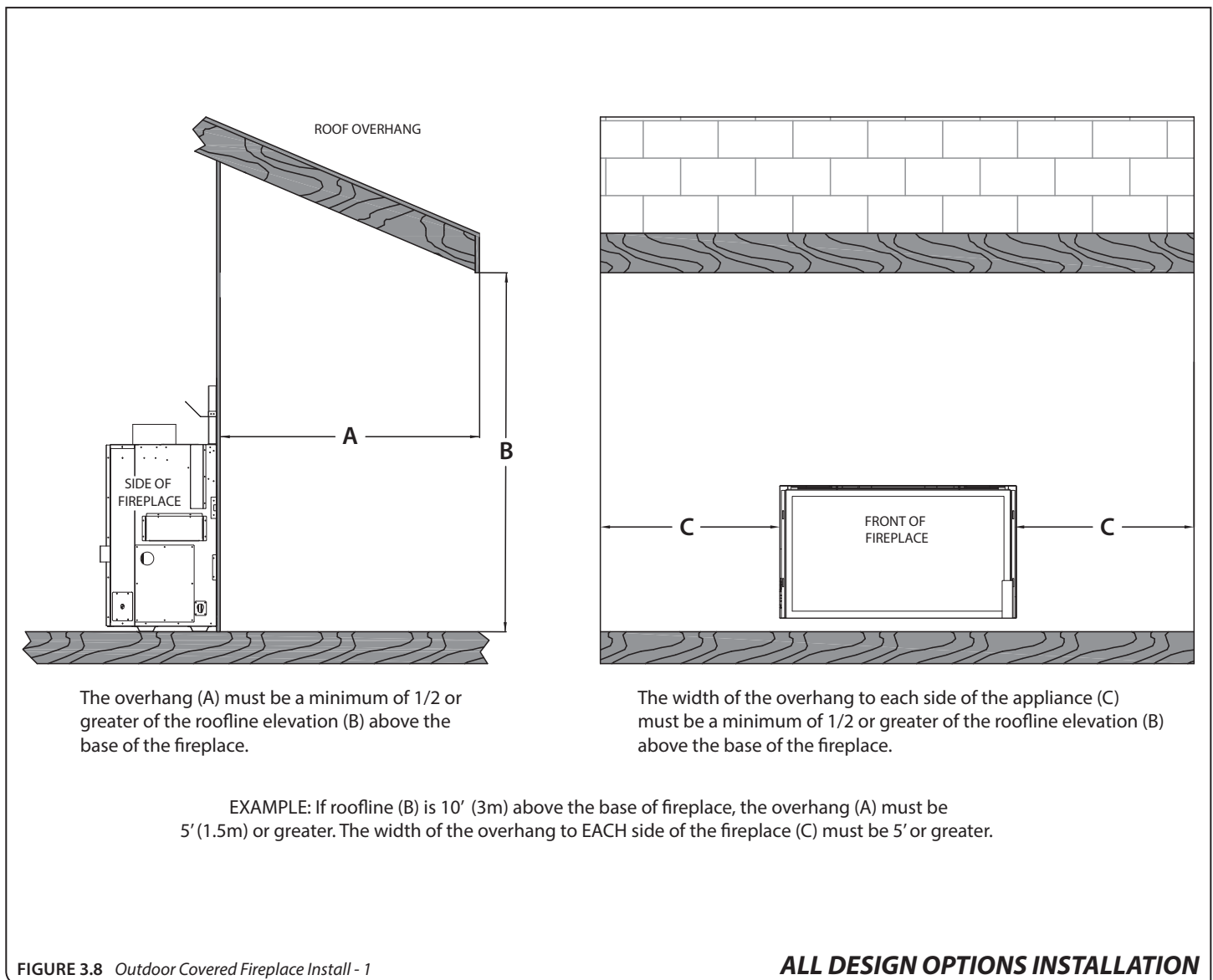


FIGURE 3.8 Outdoor Covered Fireplace Install - 1

Outdoor covered fireplace installation continued from 19

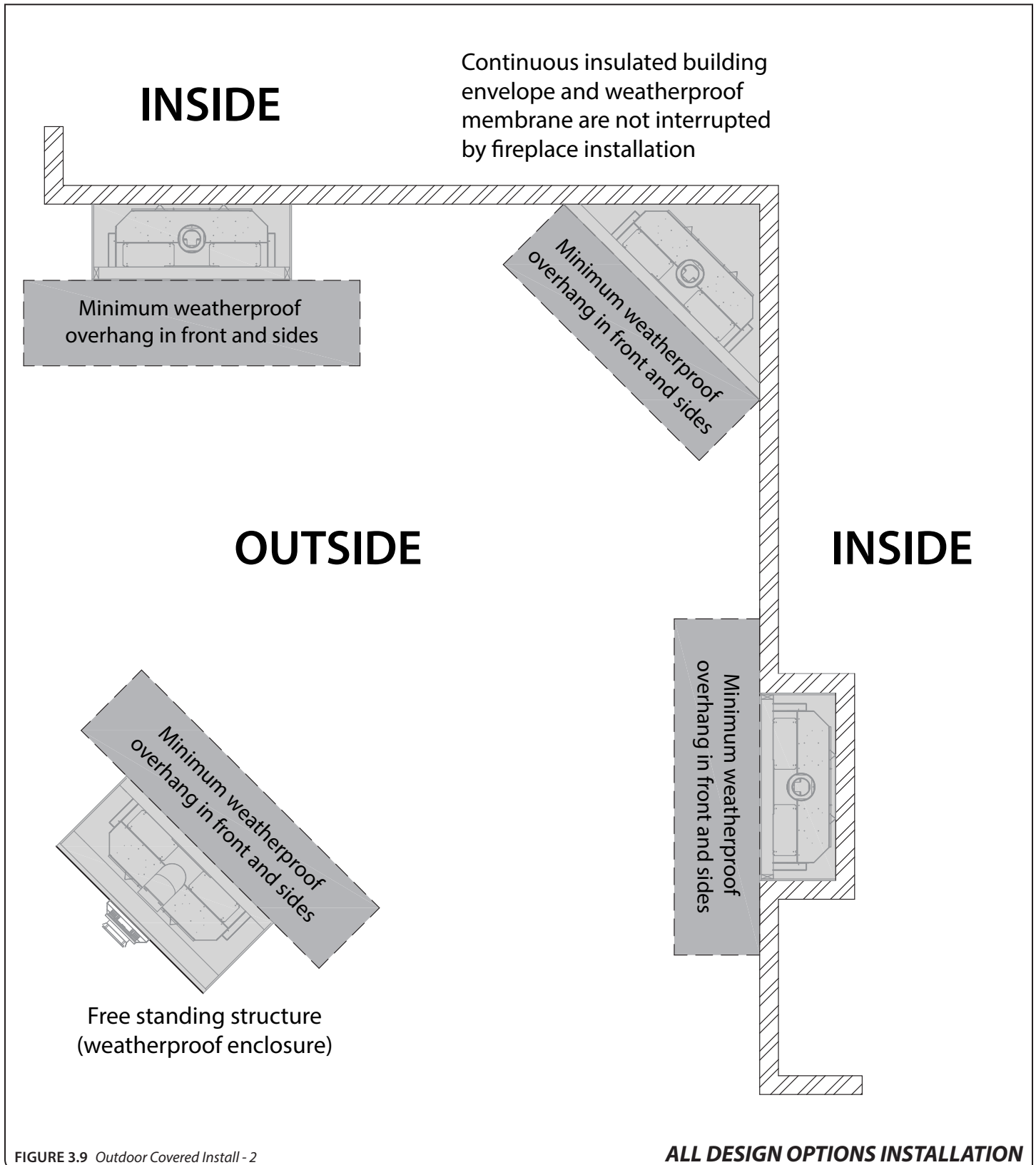


FIGURE 3.9 Outdoor Covered Install - 2

## 3.7 Heat Management

### *Preparation Overview*

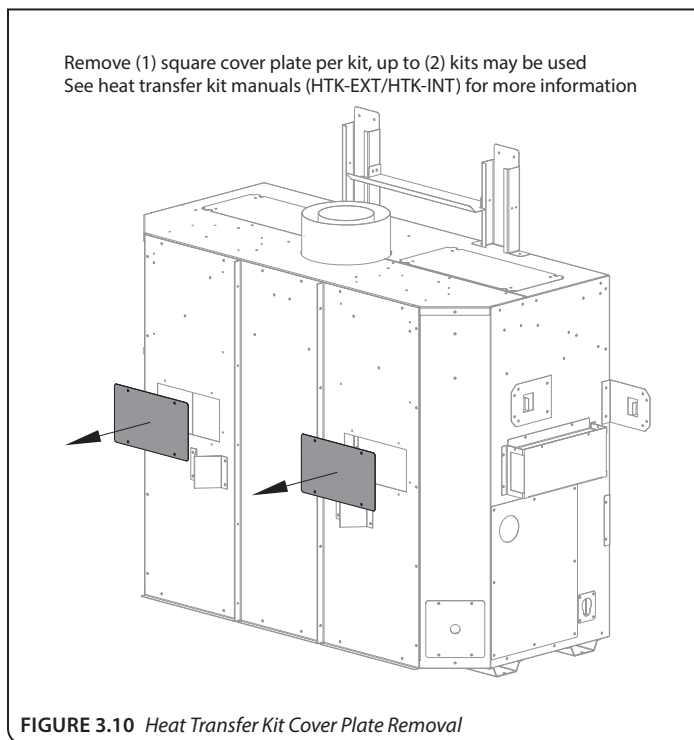
The following sections outline the process of preparing the fireplace for heat transfer kits, Komfort Zone Kits, and vented cavity design options. Please reference the manual(s) included with your chosen heat management system.

For vented cavity installation instructions, refer to section 3.8, **VENTED CAVITY** (page 23).

### 3.7.1 Exterior and Interior Heat Transfer Kit

This appliance can have (2) heat transfer kits installed at the same time. It can be up to two of the same heat transfer kit or a combination of interior and exterior kits.

If you are planning to install a heat transfer kit, remove (1) square cover plate for each heat transfer kit installed. The cover plates are located on the rear of the outer shell of the appliance shown in **FIGURE 3.10**. Refer to your heat transfer kit manual(s) for more information.



**FIGURE 3.10** *Heat Transfer Kit Cover Plate Removal*

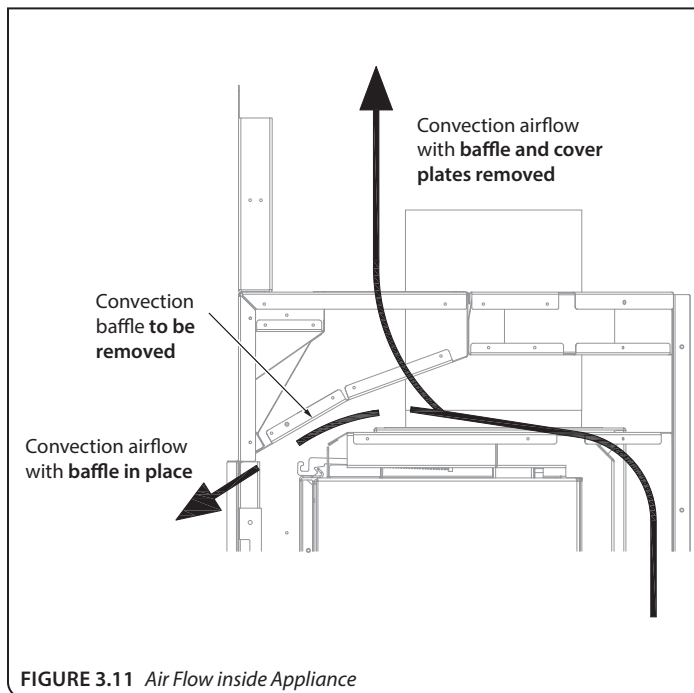


### 3.7.2 Vented Cavity and Komfort Zone Kits

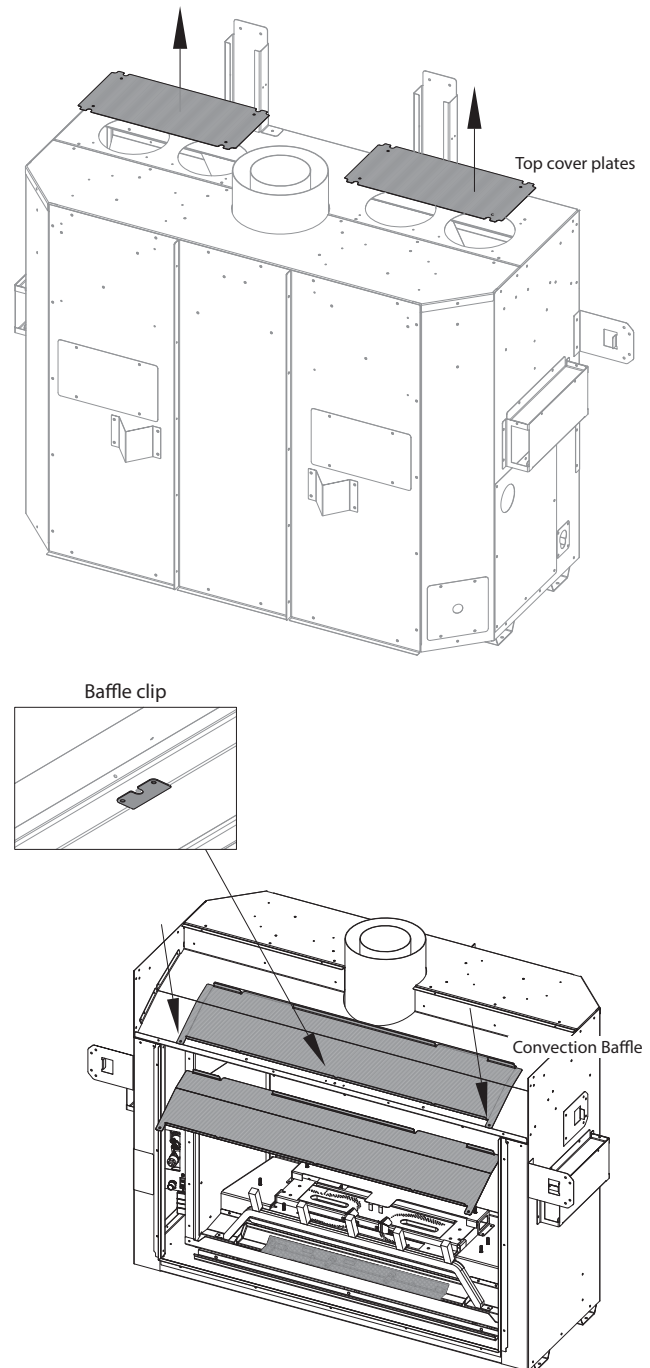
*The vented cavity design options and Komfort Zone Kits have specific framing requirements, mantel requirements, and exterior trim dimensions.*

- All framing requirements in section 3.5, **ROUGH FRAMING** will apply to all vented cavity and Komfort Zone Kit installations.
- All minimum required dimensions must be maintained after all finishing materials are installed.
- The appliance convection baffle and outer shell plates must be removed for heat distribution required vented cavity framing designs and Komfort Zone Kit installations, as shown in **FIGURE 3.11**.

1. Remove the (2) top cover plates, (4) screws each. See **FIGURE 3.12**.
2. Remove convection baffle. The baffle is secured by the baffle clip by (2) screws located in the front center, and (2) screws behind the upper edge of the fireplace opening. See **FIGURE 3.12**. Recycle this panel as it is no longer needed.



Komfort Zone Kit installations and vented cavity options must remove (2) top cover plates and convection baffle



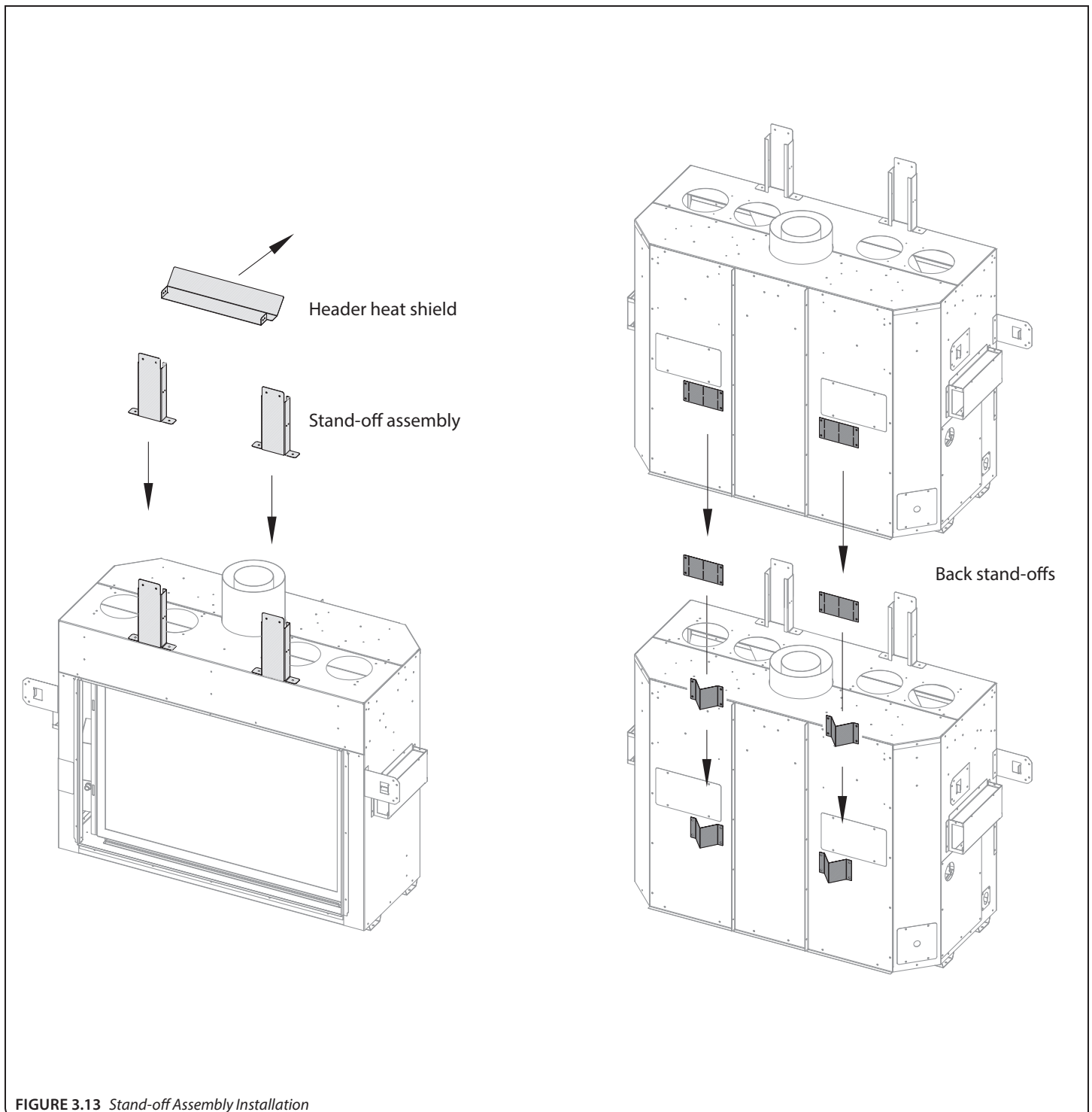
### 3.7.2.1 Header Heat Shield Removal

The header heat shield can be removed to ease vented cavity and Komfort Zone Kit installations.

The top standoff assembly must be installed for minimum distance to header and a contact point for non-combustible material above the fireplace. The back stand-offs must be installed. See **FIGURE 3.13** below.

1. Remove (4) screws securing the header heat shield to the stand-off assembly.

2. Discard header heat shield.
3. Align the holes on the bottom of the stand-off assembly with the holes on top of the fireplace. Secure with (4) screws total.
4. Remove and save screws securing the back stand-off brackets. Form the back stand-off heat shields as shown. Secure using screws previously removed and included in the components packet.



**FIGURE 3.13** Stand-off Assembly Installation

## 3.8 Vented Cavity

### 3.8.1 Clearance to Sprinkler

- In a situation where a sprinkler head is installed within the proximity of a vented cavity air discharge opening, **FIGURE 3.14** MUST be followed.
- The distance between a sprinkler head and discharge opening cannot be less than 60" (1524mm) in length at every point from the origin of the discharge opening. You must also verify the sprinkler head sensor is set to the proper heat setting so it does not activate when the room heats up from the fireplace being operated normally.
- Please follow local building codes to determine what temperature setting is relevant for your installation.

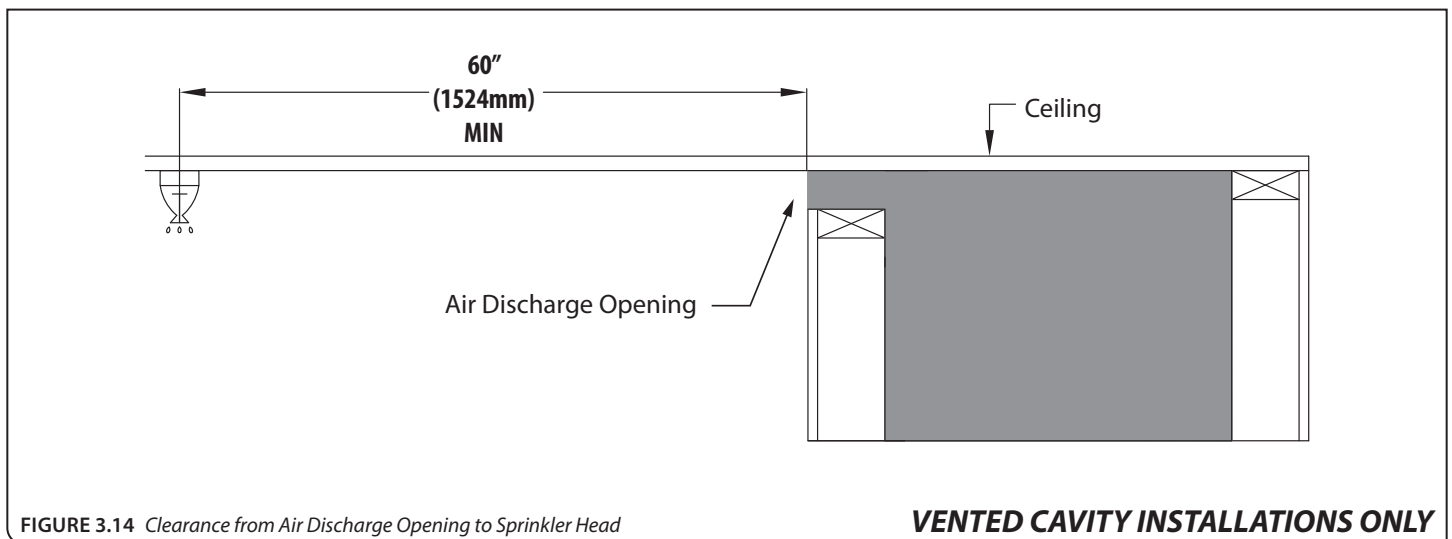


FIGURE 3.14 Clearance from Air Discharge Opening to Sprinkler Head

**VENTED CAVITY INSTALLATIONS ONLY**

### 3.8.2 Single Opening Vented Cavity Option

Enclosure measurements must maintain minimum specifications as outlined in section 3.5, ROUGH FRAMING (page 15). Minimum dimensions for the air discharge **MUST BE** maintained after all finishing materials are installed.

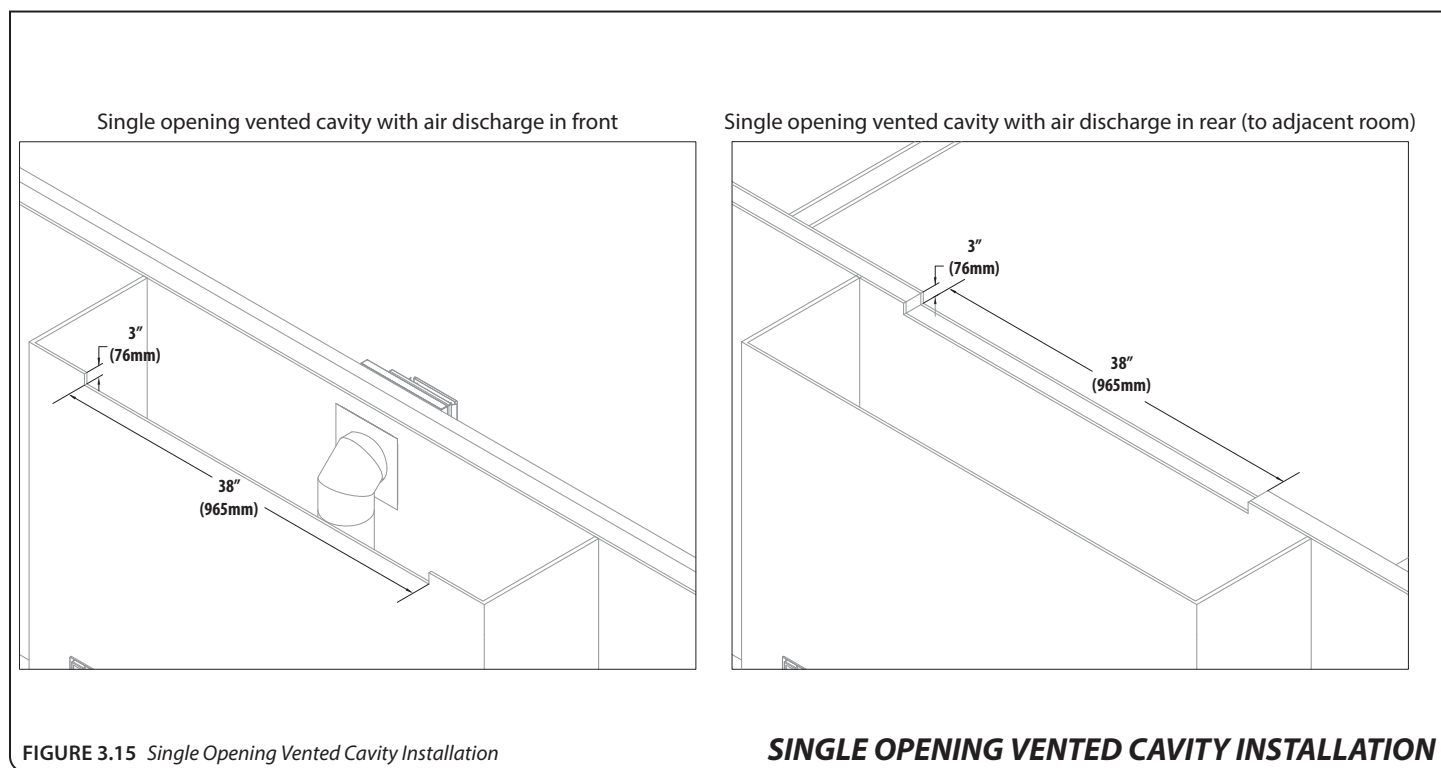
**NOTE:** The single opening vented cavity option allows the use of 19 gauge (or less) 1/2" x 1/2" hardware mesh to prevent any items from entering the vented cavity. This hardware mesh is optional and the **ONLY** approved item for use within the air discharge opening.

**WARNING:** Do **NOT** cover or place any items in the air discharge opening area. Grilles and louvers are **NOT** allowed.

**WARNING:** Failure to comply with these instructions could create a fire hazard. Ensure air flow within the air discharge opening is not restricted in any way.

These are minimum dimensions shown for the air discharge opening, and the opening may be increased, if desired, as long as all requirements are followed. It is recommended to limit your opening size for aesthetic purposes and to avoid items falling into the enclosure.

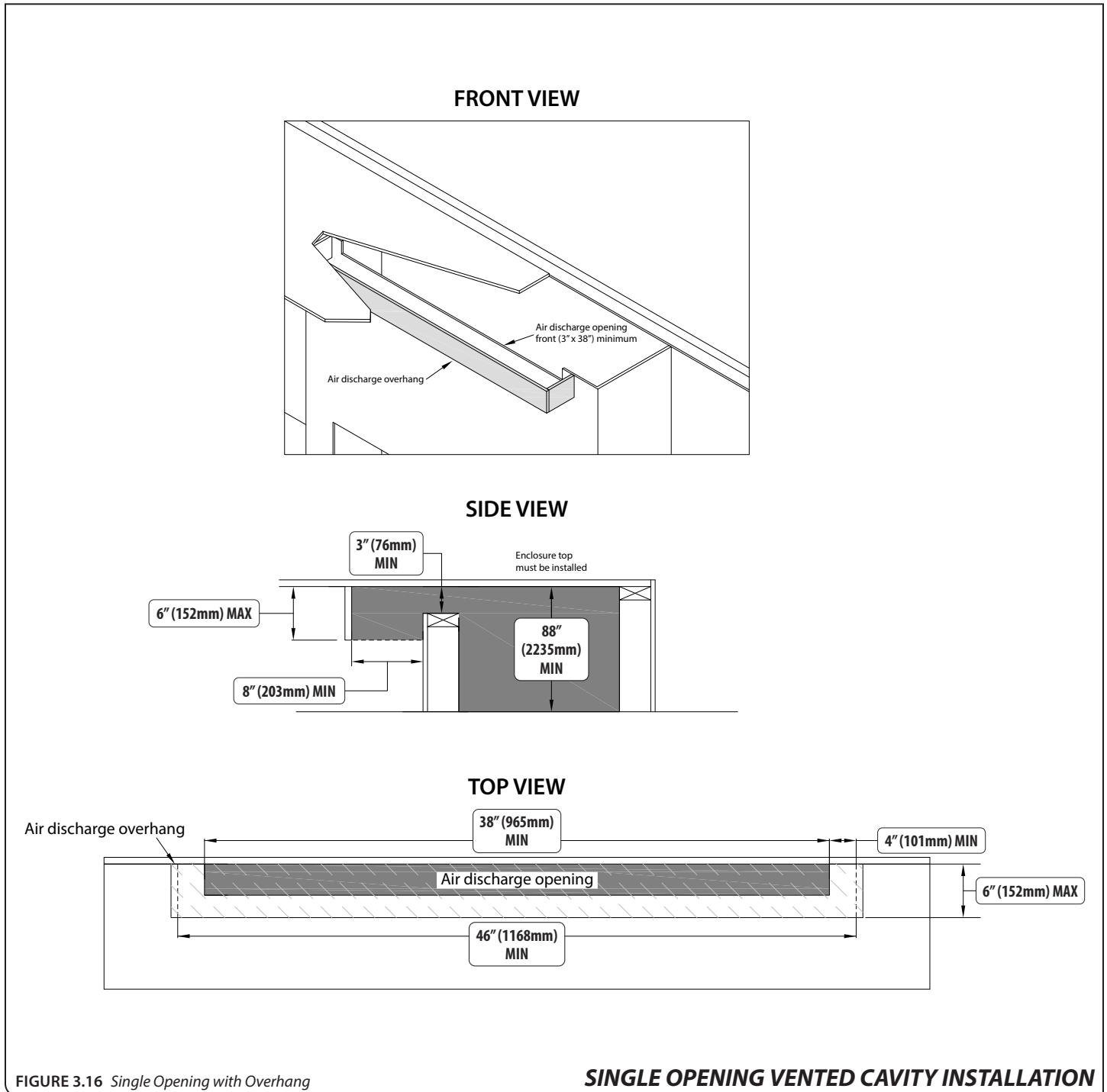
- **FIGURE 3.15** shows the minimum required dimensions for the vent cavity air discharge opening.
- This single 3" (height) x 38" (width) air discharge opening can be located at the front of the fireplace chamber, or located at the rear of the fireplace chamber (to an adjacent room).
- Hot air will exit to the room where the air discharge opening is located.



### 3.8.2.1 Single Opening Vented Cavity

#### Alternative Installations

- FIGURE 3.16 shows an alternative installation for the single opening vented cavity installation with an air discharge overhang in front of the air discharge opening. This installation method can provide a means to visually hide the air discharge opening.



### 3.8.2.1 Single Opening Vented Cavity Option

*Alternative Installations (cont.)*

- **FIGURE 3.17** shows the installation of crown molding or similar trim work that goes up to the edge of the air discharge opening. 12" (305mm) is the maximum length of the molding or trim projection and you must maintain 3" (76mm) clearance for the full length of crown molding/trim projection. This molding or trim cannot decrease the minimum opening requirement.

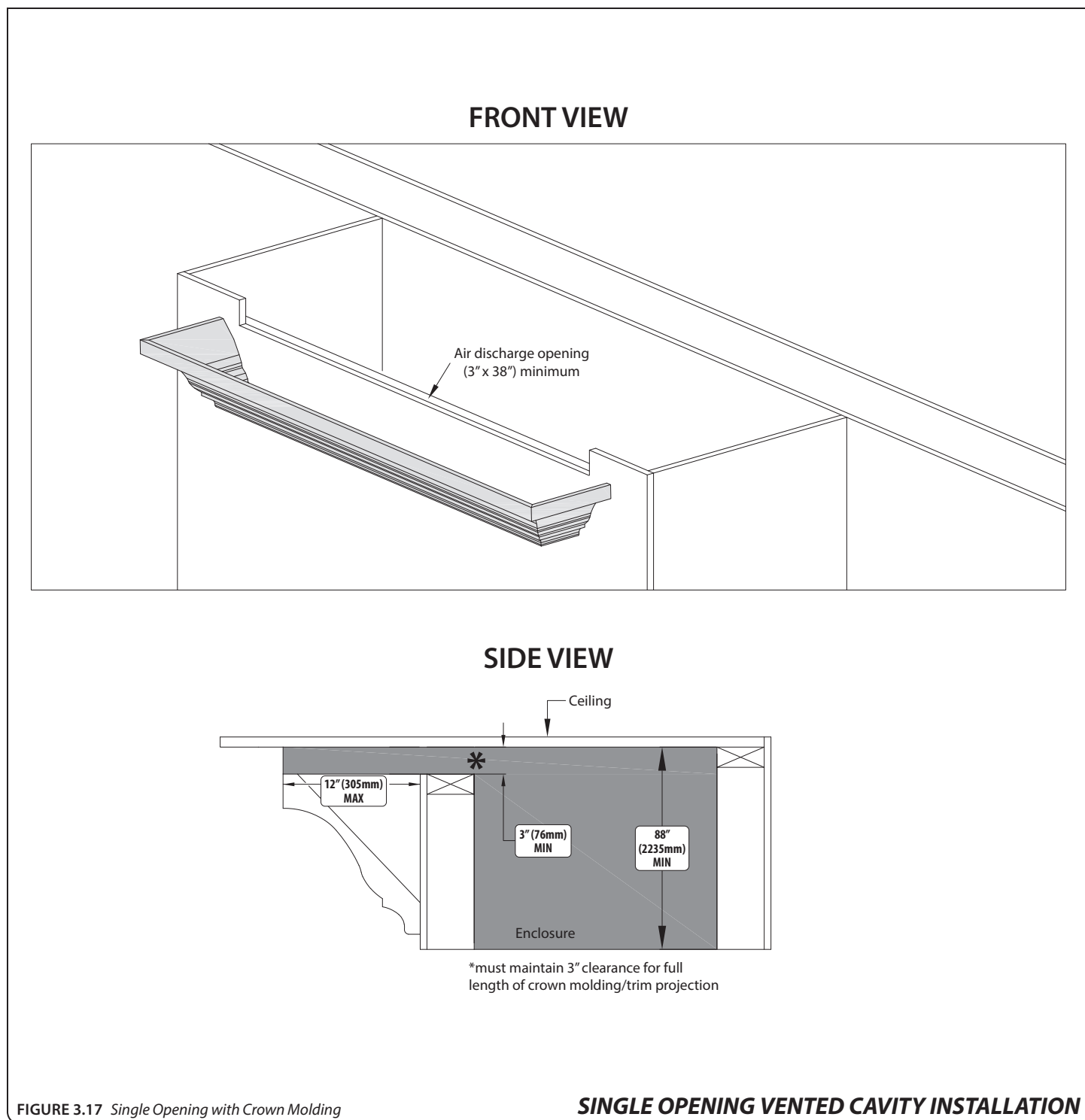


FIGURE 3.17 *Single Opening with Crown Molding*

### 3.8.2.1 Single Opening Vented Cavity

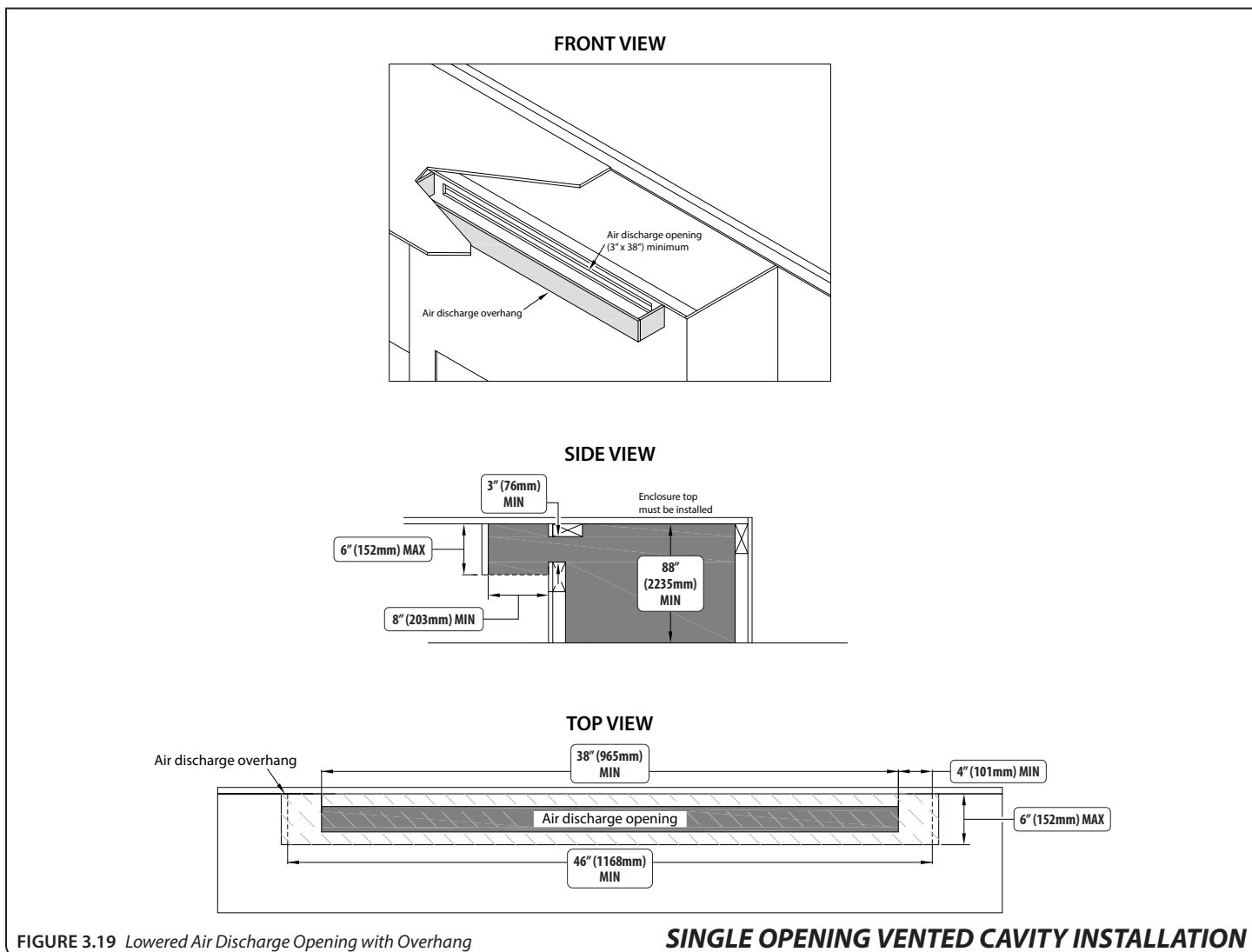
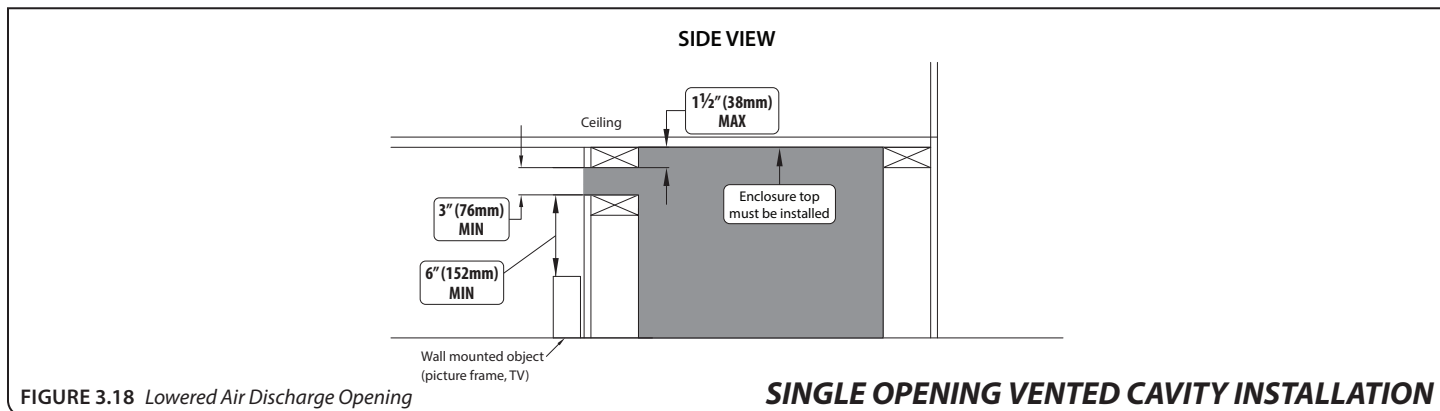
#### Alternative Installations (cont.)

- FIGURE 3.18** shows an alternative installation method where you cap off the fireplace cavity so the air discharge opening can be located farther down the fireplace chamber. 1-1/2" (38mm) is the maximum drop for framing the air discharge opening to the fireplace enclosure top. This avoids trapping heat in the upper areas of the vented cavity enclosure. If you cap the fireplace cavity off, it cannot have any vent pipe

running through the top without a ceiling firestop.

Framing the outlet any lower than 1-1/2" (38mm) will cause over heating and create a fire hazard. This installation method can alleviate any possible concerns with paint discoloration from heat or dust.

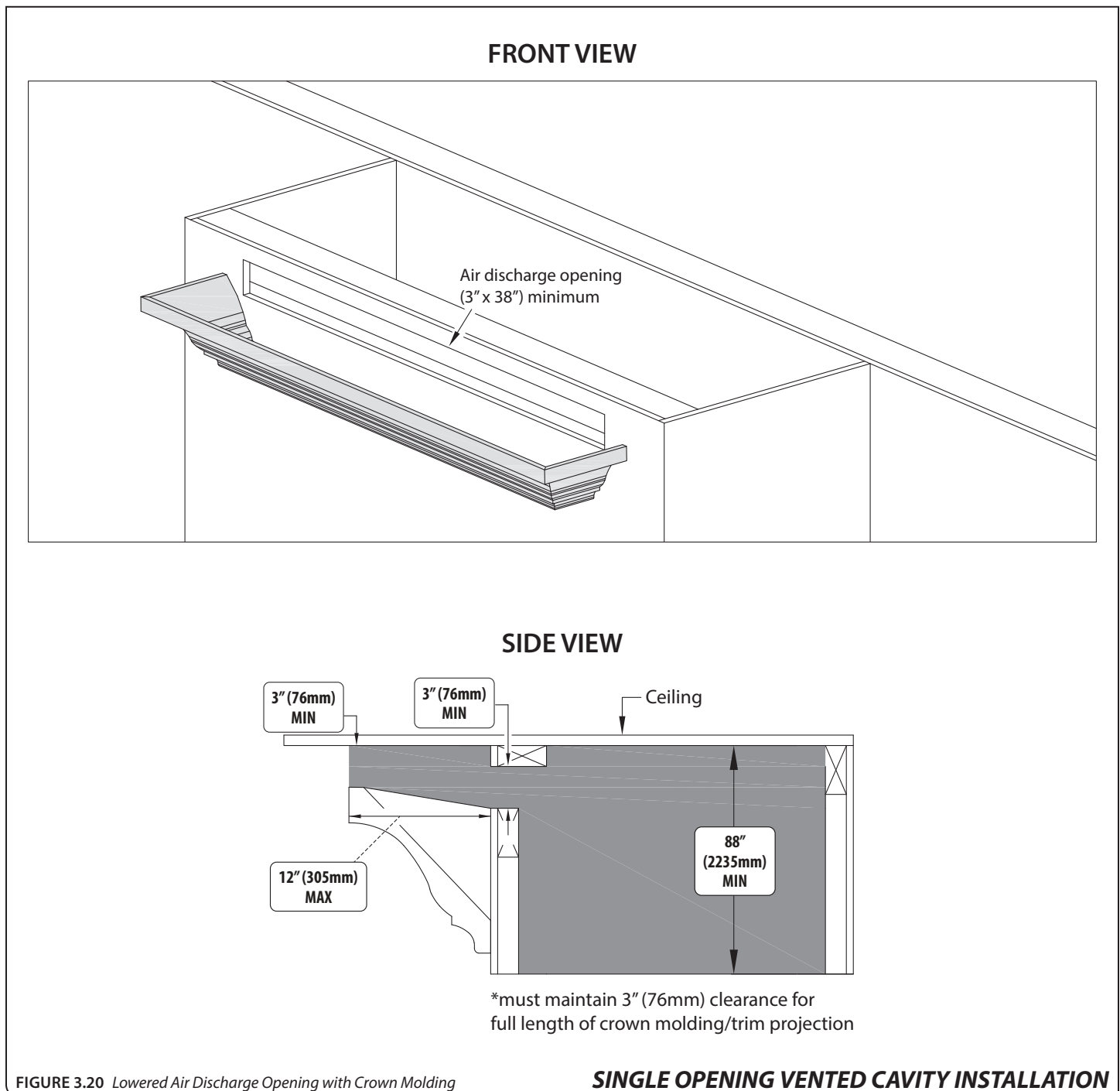
- FIGURE 3.19** is shown with an air discharge overhang in front of the lowered air discharge opening. This optional installation method can provide a means to visually hide the air discharge opening.



### 3.8.2.1 Single Opening Vented Cavity Option

*Alternative Installations (cont).*

- **FIGURE 3.20** shows the installation of crown molding or similar trim work that goes up to the edge of the lowered air discharge opening. 12" (305mm) is the maximum length of the molding or trim projection and you must maintain 3" (76mm) clearance for the full length of crown molding/trim projection. This molding or trim cannot decrease the minimum opening requirement.



**FIGURE 3.20** Lowered Air Discharge Opening with Crown Molding



### 3.8.3 Top Vented Cavity Option

**WARNING:** Enclosure measurements must maintain minimum framing specs as outlined in section 3.5, ROUGH FRAMING (page 15). Minimum dimensions for the air discharge opening **MUST BE** maintained after all finishing materials are installed.

**NOTE:** The top vented cavity option allows the use of 19 gauge (or less) 1/2" x 1/2" hardware mesh to prevent any items from entering the vented cavity. This hardware mesh is optional and the **ONLY** approved item for use within the air discharge opening.

**WARNING:** Do **NOT** cover or place any items in the air discharge opening area. Grilles and louvers are **NOT** allowed.

**WARNING:** Failure to comply with these instructions could create a fire hazard. Ensure air flow within the air discharge opening is not restricted in any way.

These are minimum dimensions shown for the air discharge opening, and the opening may be increased, if desired, as long as all requirements are followed. It is recommended to limit your opening for aesthetic purposes and to avoid items falling into the enclosure.

- **FIGURE 3.21** shows the minimum 1-1/2" (38mm) clearance from the fireplace enclosure top to the ceiling in all three sides of the enclosure.

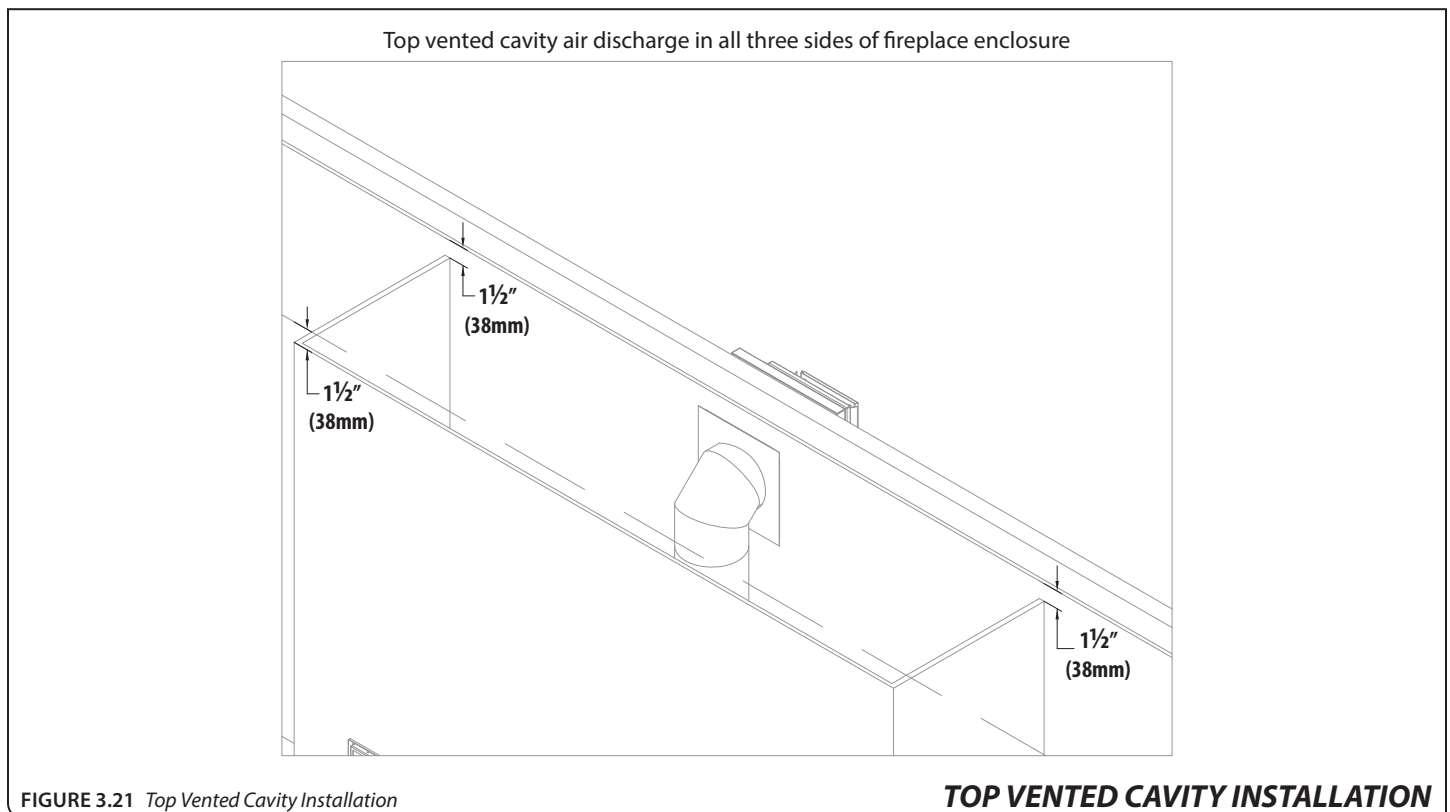


FIGURE 3.21 Top Vented Cavity Installation

### 3.8.3.1 Top Vented Cavity Option

#### Alternative Installations

- FIGURE 3.22 shows the installation of crown molding or similar trim work that goes up to the edge of the air discharge opening. 12" (305mm) is the maximum length of the molding or trim projection and you must maintain 1-1/2" (38mm) clearance for the full length of crown molding/trim projection. This molding or trim cannot decrease the minimum opening requirement.

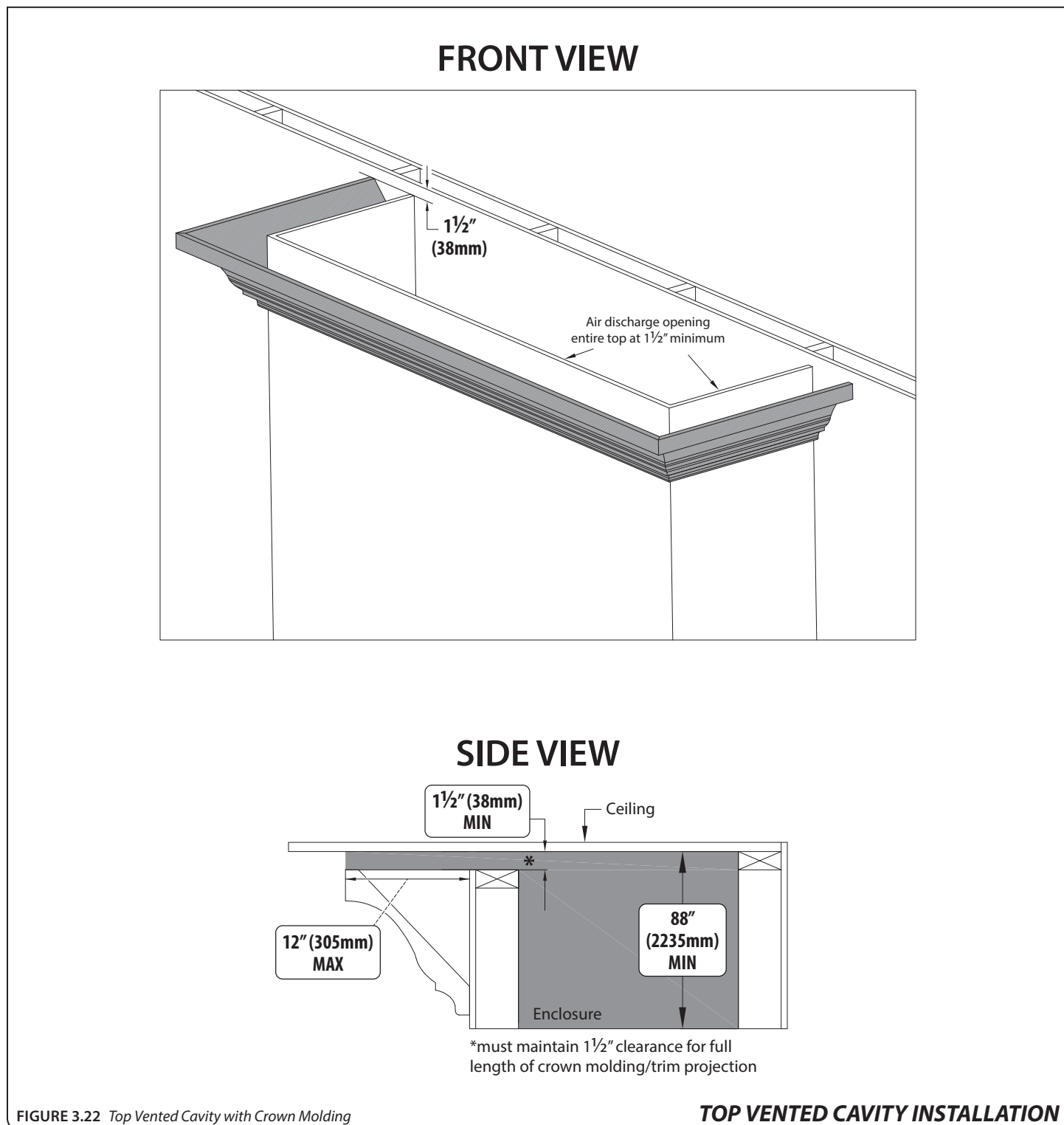


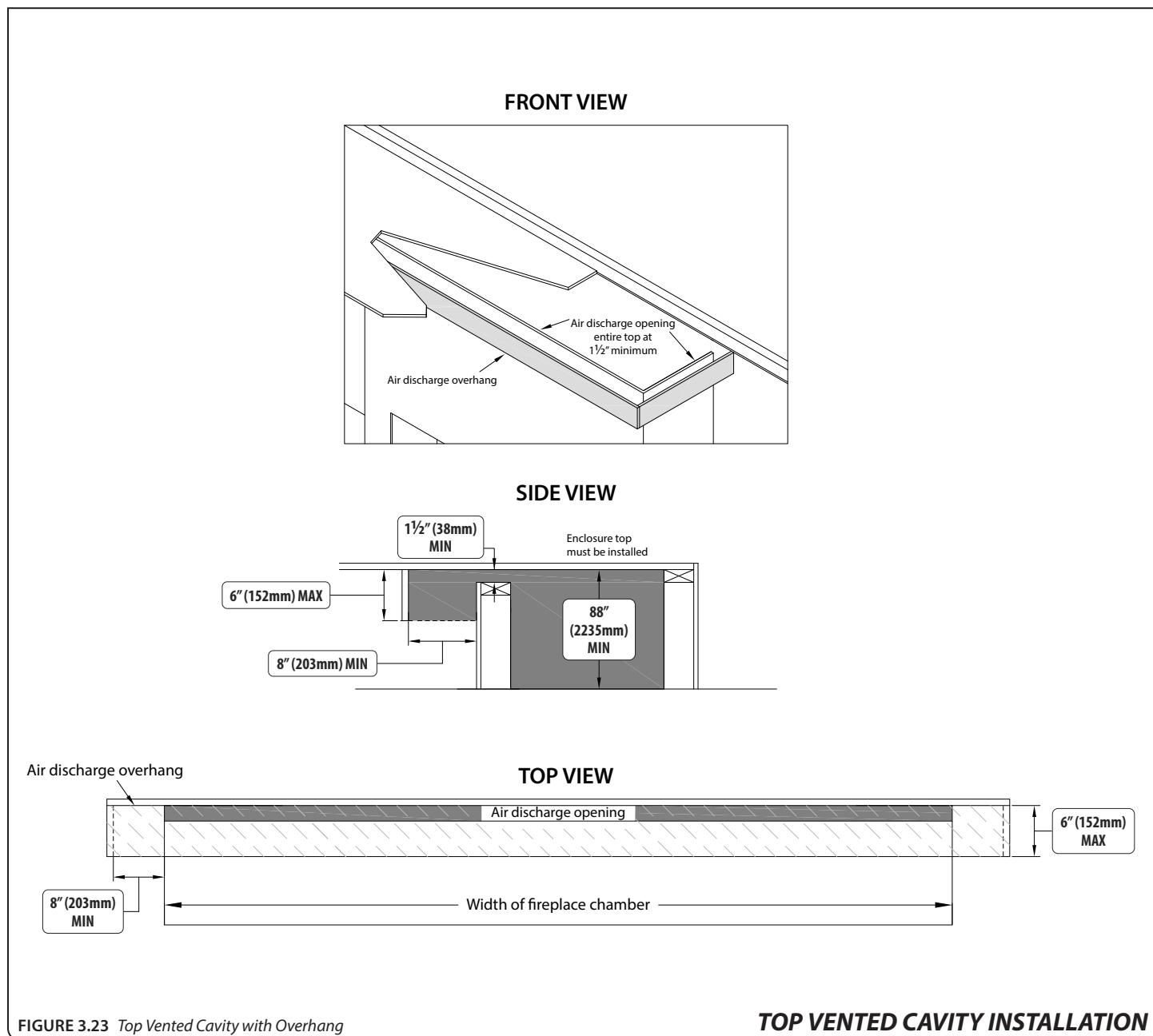
FIGURE 3.22 Top Vented Cavity with Crown Molding

### TOP VENTED CAVITY INSTALLATION

### 3.8.3.1 Top Vented Cavity Option

*Alternative Installations (cont.)*

- FIGURE 3.23 shows an alternative installation for the top vented cavity option with an air discharge overhang in front of the air discharge opening. This installation method can provide a means to visually hide the air discharge opening.



### 4.1 Standard Installation

#### Facing and Finishing Requirements

**WARNING:** Maintain all minimum clearances to combustibles from the appliance and vent system.

**NOTE:** See section 4.3, (page 39) for additional mantel, hearth, and sidewall clearances for vented cavity and Komfort Zone Kit installations.

#### 4.1.1 Mantel and Hearth Requirements

**WARNING:** All minimum clearances to combustible material **MUST** be maintained.

- **Combustible Mantel Projections:** As referenced in **FIGURE 4.1** (page 33), the 3/4" mantel trim can start at 12" (305mm) above the top finishing edge with a 6" (152mm) mantel starting at 15-1/2" (394mm) above the top finishing edge. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel.
- **Combustible Hearth:** As referenced in **FIGURE 4.1** (page 33), the bottom finishing edge can be flush with the top of the hearth.
- **Non-combustible Mantel Projections:** A minimum vertical clearance of 6" (152mm) above the top finishing edge to a maximum 6" (152mm) depth of a non-combustible mantel. Follow projection 1" (25mm) up for every 1" (25mm) deeper. See **FIGURE 4.2** on page 34.
- **Mantel Leg:** Follow "Side Combustible Clearance" below. See **FIGURE 4.3** on page 35.
- **Side Combustible Clearance:** 1" (25mm) combustible side trim projection starts at 3" (76mm) from the side finishing edge. After the first 6" (152mm) from the side finishing edge, the combustible side trim projection is unlimited (unrestricted). See **FIGURE 4.3** on page 35.

#### 4.1.2 Adjacent Sidewall Requirements

- The adjacent sidewall minimum clearance is 6" (152mm) from the side finishing edges of the fireplace. See **FIGURE 4.3** on page 35.

#### 4.1.3 Facing Requirements

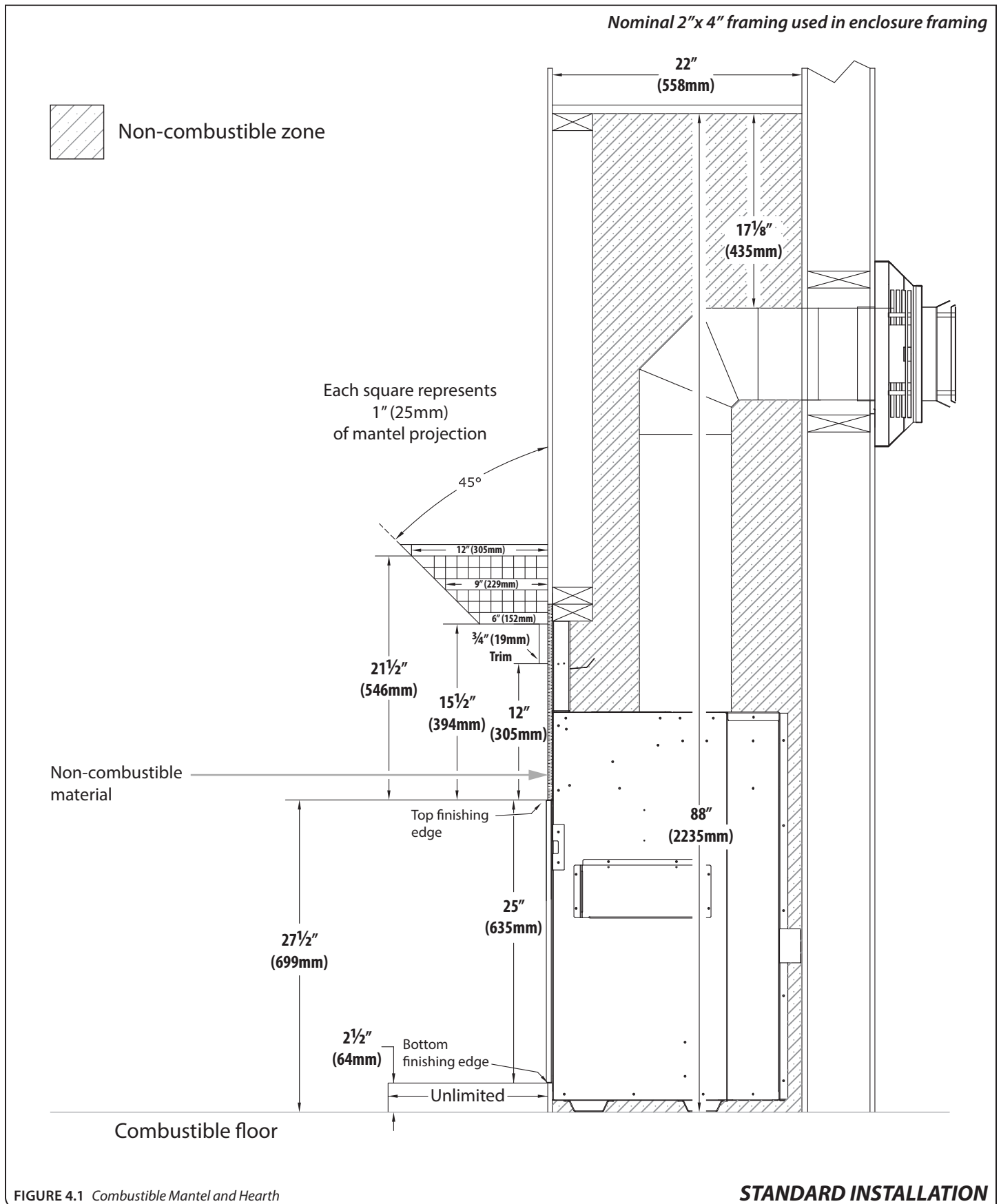
- Non-combustible material is required at the top and sides of the fireplace. This fireplace is designed to accommodate non-combustible facing material up to 1/2" (13mm) thick. See **FIGURE 4.5** on page 37 for dimensions.
- Install facing material up to the finishing edge that surrounds the glass frame assembly. Do not apply any material beyond this point. The glass frame assembly must be removable.
- It is acceptable to pre-drill holes and to use self-tapping screws prior to attaching the non-combustible material to the top and sides of the fireplace face. Screws can only penetrate the fireplace outer shell up to 1/2" (13mm) in the allowed areas.

#### 4.1.4 Finishing Recommendations

**NOTE:** The surface area above the appliance may be affected by high temperatures emitted from this appliance. To help avoid or reduce the possibility of the sheetrock to crack, Hussong Mfg. Co., Inc. recommends the following methods:

- Ensure the non-combustible material and sheetrock are dry and dust free.
- For taping and mudding seams, we recommend heat resilient tape, mesh and joint compounds, such as Durabond. Joint compound must be cured as per manufacturer's recommendations.
- For a painted surface, use a high quality acrylic latex primer and finish coat. Avoid flat or light-colored paints to prevent discoloring.

**4.1.1 (cont.) Combustible Mantel Projections and Combustible Hearth**



**4.1.1 (cont).** *Non-combustible Mantel Projections*

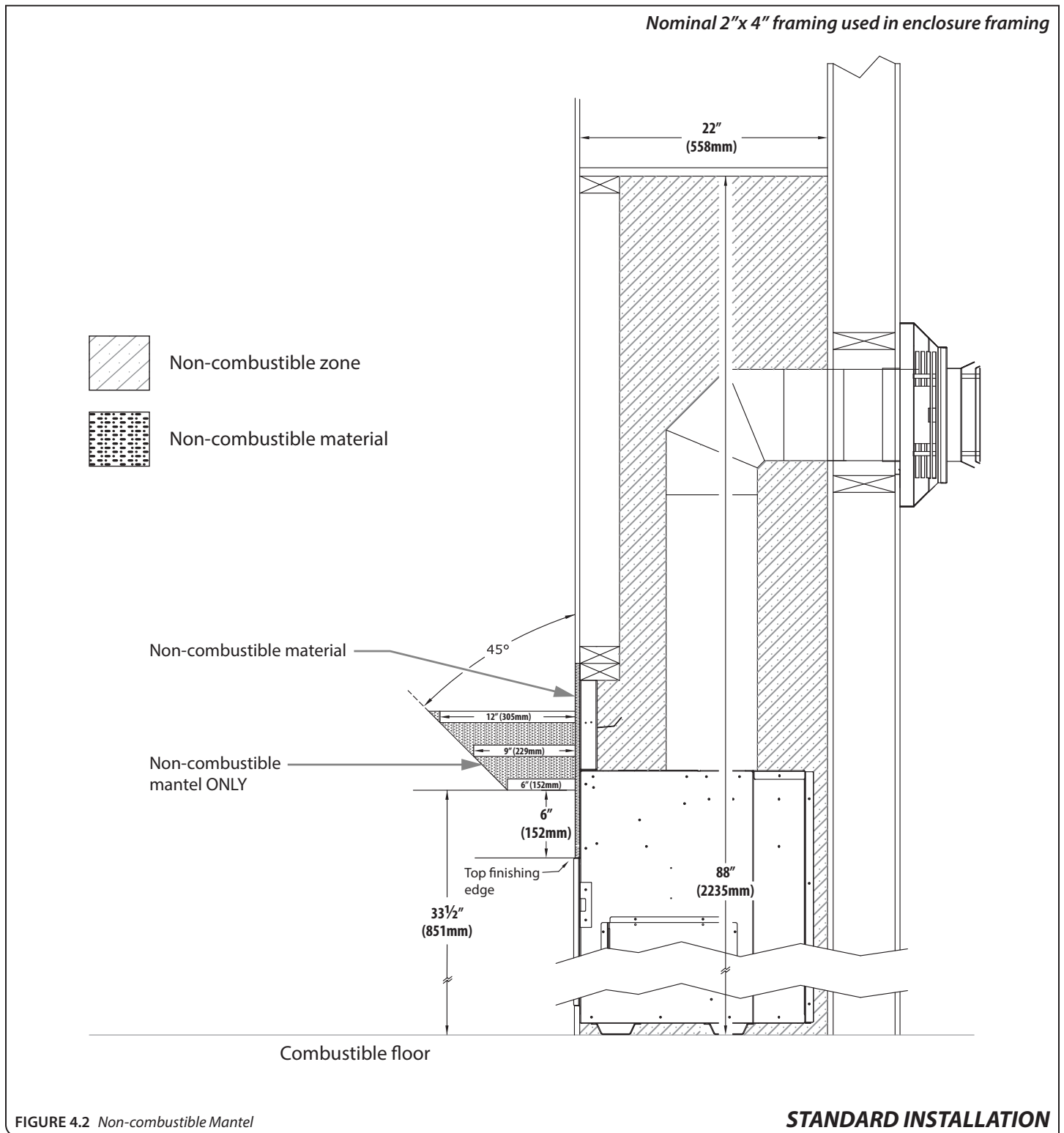


FIGURE 4.2 *Non-combustible Mantel*

4.1.1 (cont.) & 4.1.2 Adjacent Sidewall Requirements, Mantel Leg, Side Combustible Clearance

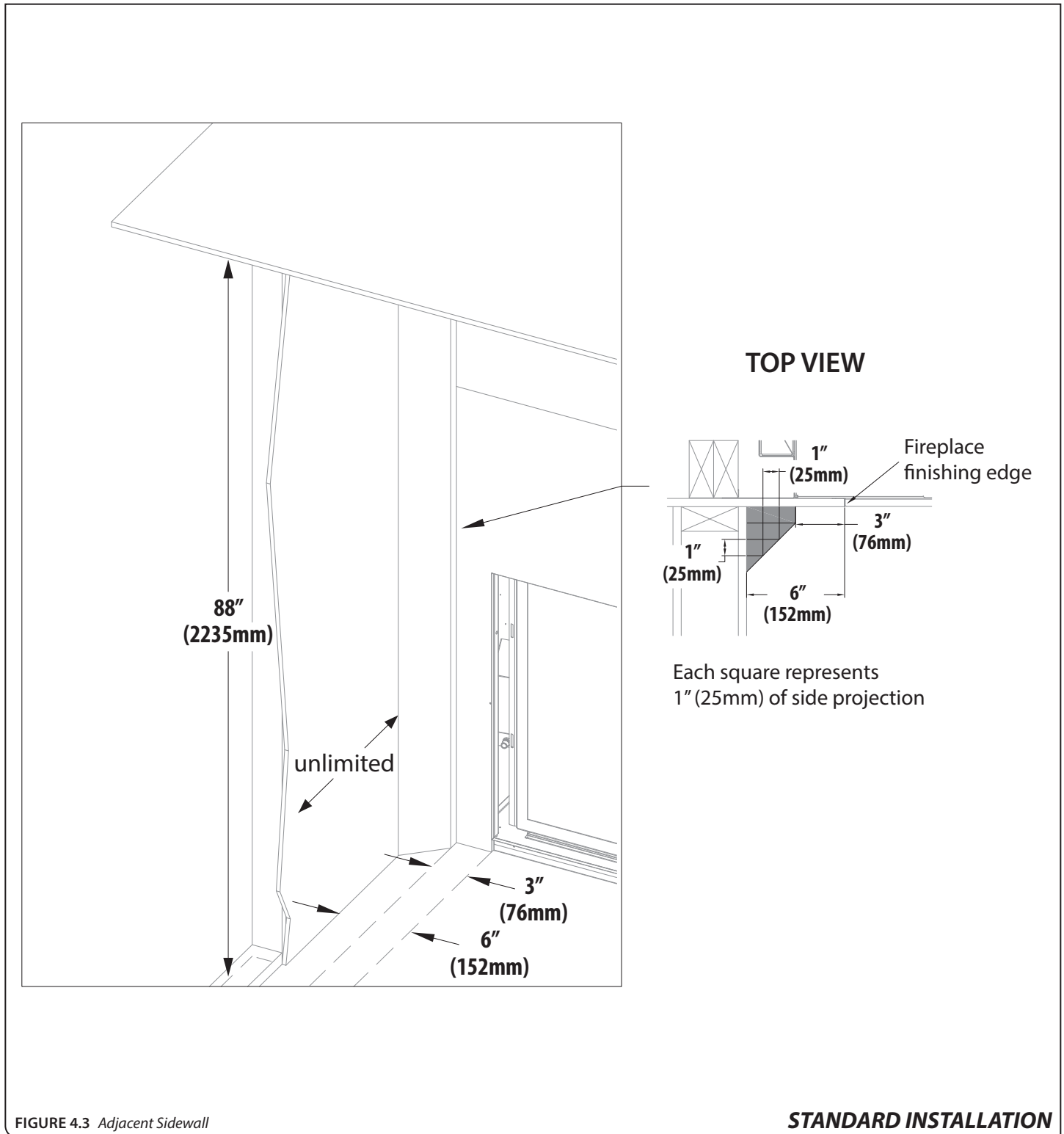


FIGURE 4.3 Adjacent Sidewall

4.1.3 (cont.) Facing Requirements

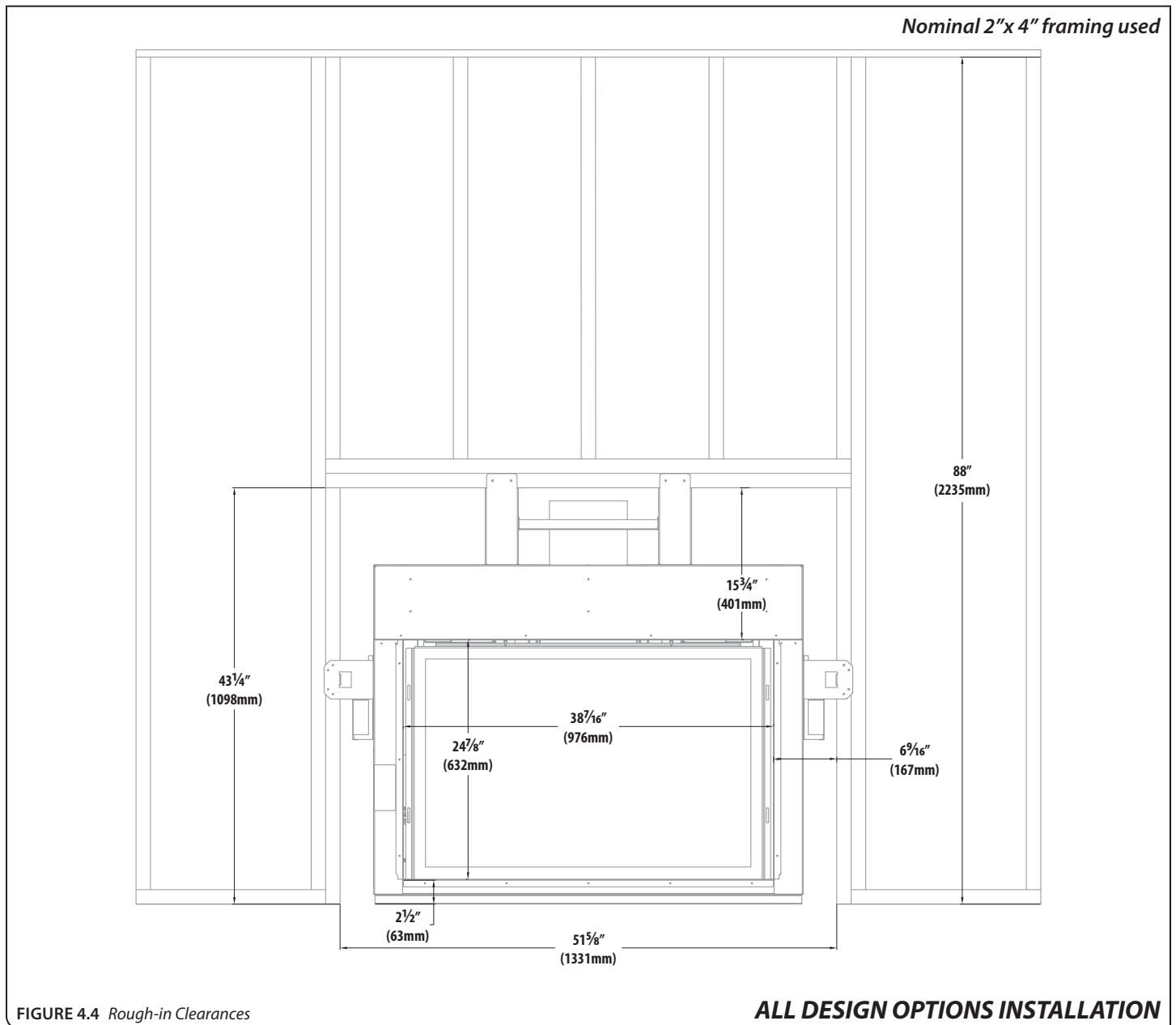
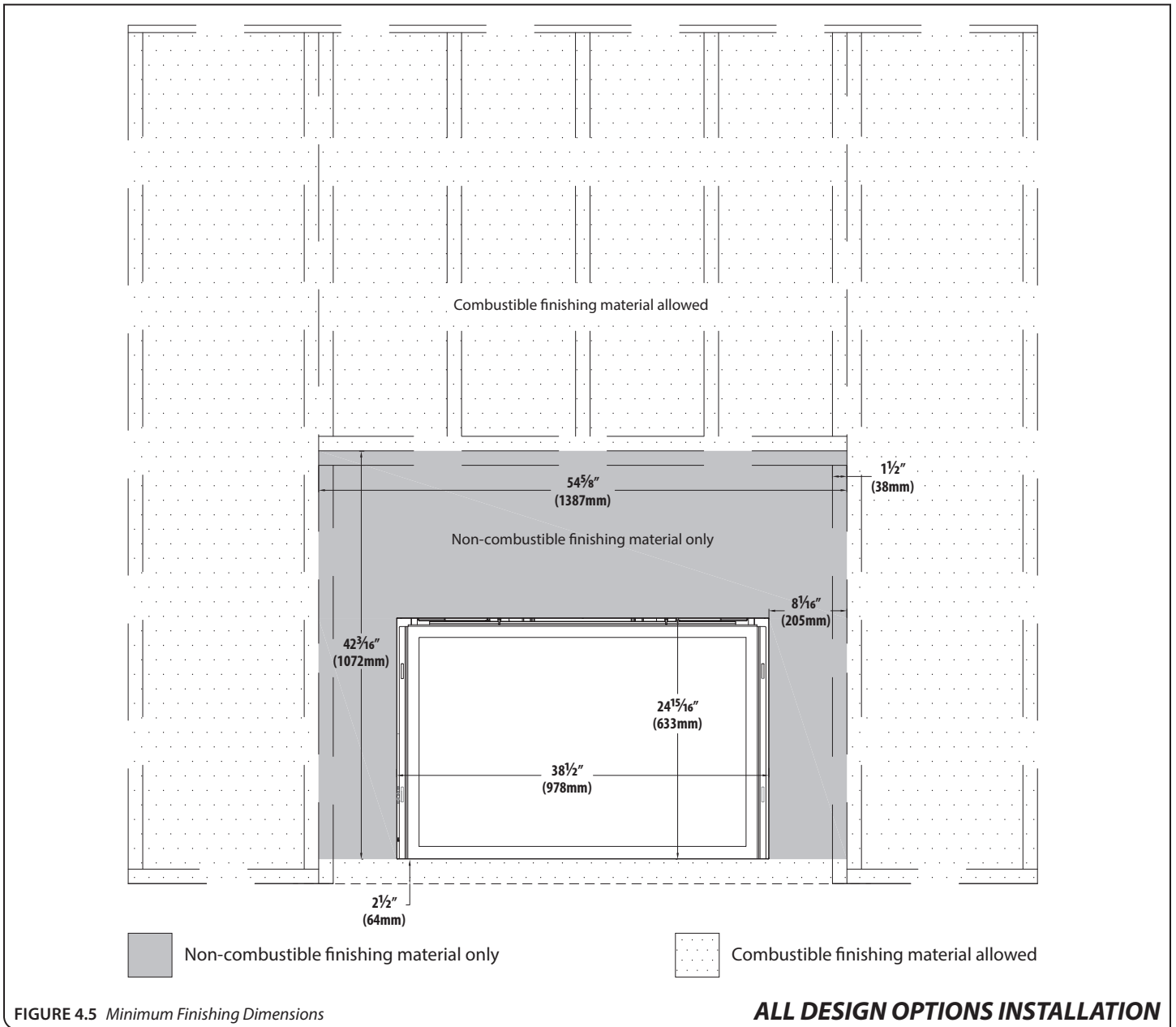


FIGURE 4.4 Rough-in Clearances



4.1.3 (cont.) *Facing Requirements*



## 4.2 Safety Barrier and Surround

### Installation

#### 4.2.1 Safety Barrier Screen (#BH38-ES)

1. Locate the (4) slots ([2] on each side) located on each side of the glass valance.
  2. There are two mounting options based on notched tab position. See **FIGURE 4.6** below for a flush or a recessed mount.
  3. Align the notched tabs, located on the back of the safety barrier screen, with the slots on the glass valance for the desired mount.
  4. Raise the safety barrier screen front slightly into slots and allow the tabs to lower into position.
- To remove safety barrier screen: lift the screen up and out of slots.

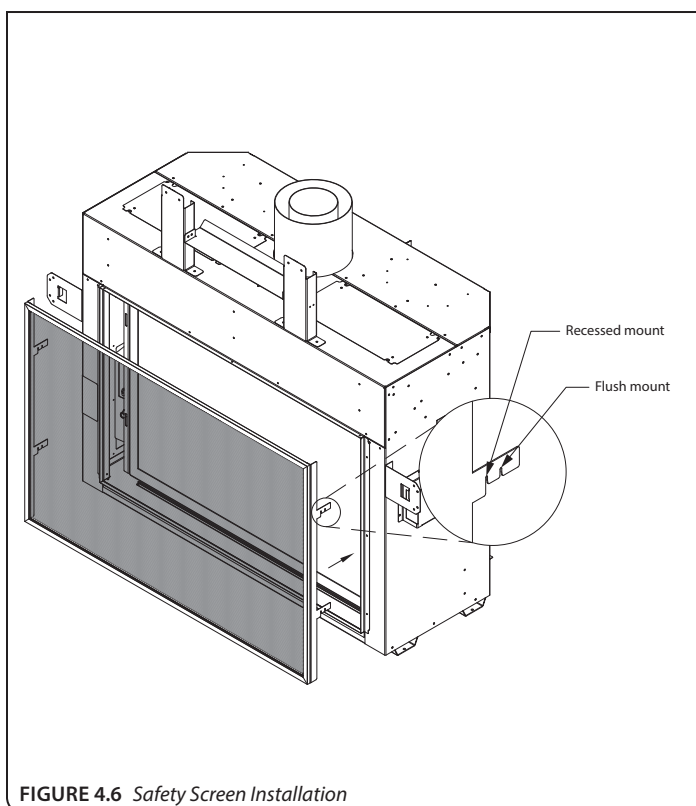


FIGURE 4.6 Safety Screen Installation

#### 4.2.2 Optional Surround (#BH38-RS)

**IMPORTANT:** The optional surround must be attached before fireplace installation.

Kit includes: (1) surround; (4) screws

1. Insert the rectangle surround into the opening of the fireplace.
2. Align the slots in the surround with the holes in the inner edge of the outer shell of the fireplace (**FIGURE 4.7**). Adjust the depth to accommodate finishing material.
3. Secure the surround to the fireplace with the provided (4) screws.

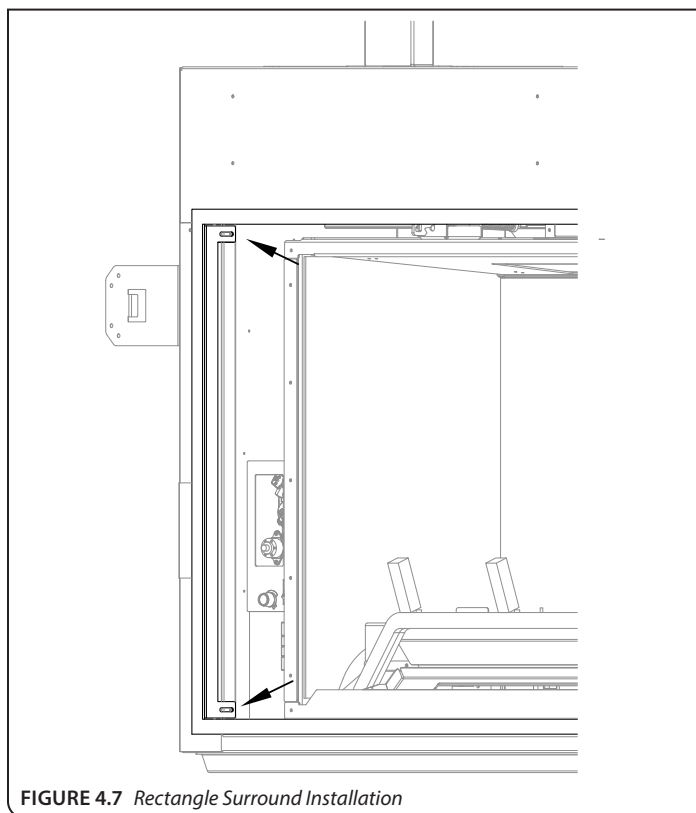


FIGURE 4.7 Rectangle Surround Installation

## 4.3 Vented Cavity and Komfort Zone Kit

### Facing and Finishing Requirements

**WARNING:** Maintain all minimum clearances to combustibles from the appliance and vent system.

**WARNING! RISK OF FIRE:** The following facing and finishing options are for use ONLY when using an optional vented cavity or Komfort Zone Kit with the convection baffle and cover plates removed. DO NOT follow these options unless you are using the vented cavity option.

### 4.3.1 Mantel and Hearth Requirements

**WARNING:** All minimum clearances to combustible material MUST be maintained.

- **Combustible Hearth and Mantel Projections:** - See FIGURE 4.8 on page 40 for Vented Cavity and Komfort Zone Kit facing and finishing clearances.
- **Mantel Leg:** Follow side combustible clearance below. See FIGURE 4.9 on page 41.
- **Side Combustible Clearance:** 1" (25mm) combustible side trim projection can be flush with the side finishing edge. After 6" (152mm), this projection is unlimited. See FIGURE 4.9 on page 41.

### 4.3.2 Adjacent Sidewall Requirements

- The adjacent sidewall minimum clearance is 6" (152mm) from the side finishing edge of the fireplace. See FIGURE 4.9 on page 41.

### 4.3.3 Facing Requirements

- Non-combustible material is required at the top and sides of the fireplace. This fireplace is designed to accommodate non-combustible facing material up to 1/2" (13mm) thick. See FIGURE 4.5 on page 37.
- Install facing material up to the finishing edge that surrounds the glass frame assembly. Do not apply any material beyond this point. The glass frame assembly must be removable.
- It is acceptable to pre-drill holes and to use self-tapping screws prior to attach the non-combustible material to the top and sides of the fireplace face, screws can only penetrate the fireplace outer shell up to 1/2" (13mm).

### 4.3.4 Finishing Recommendations

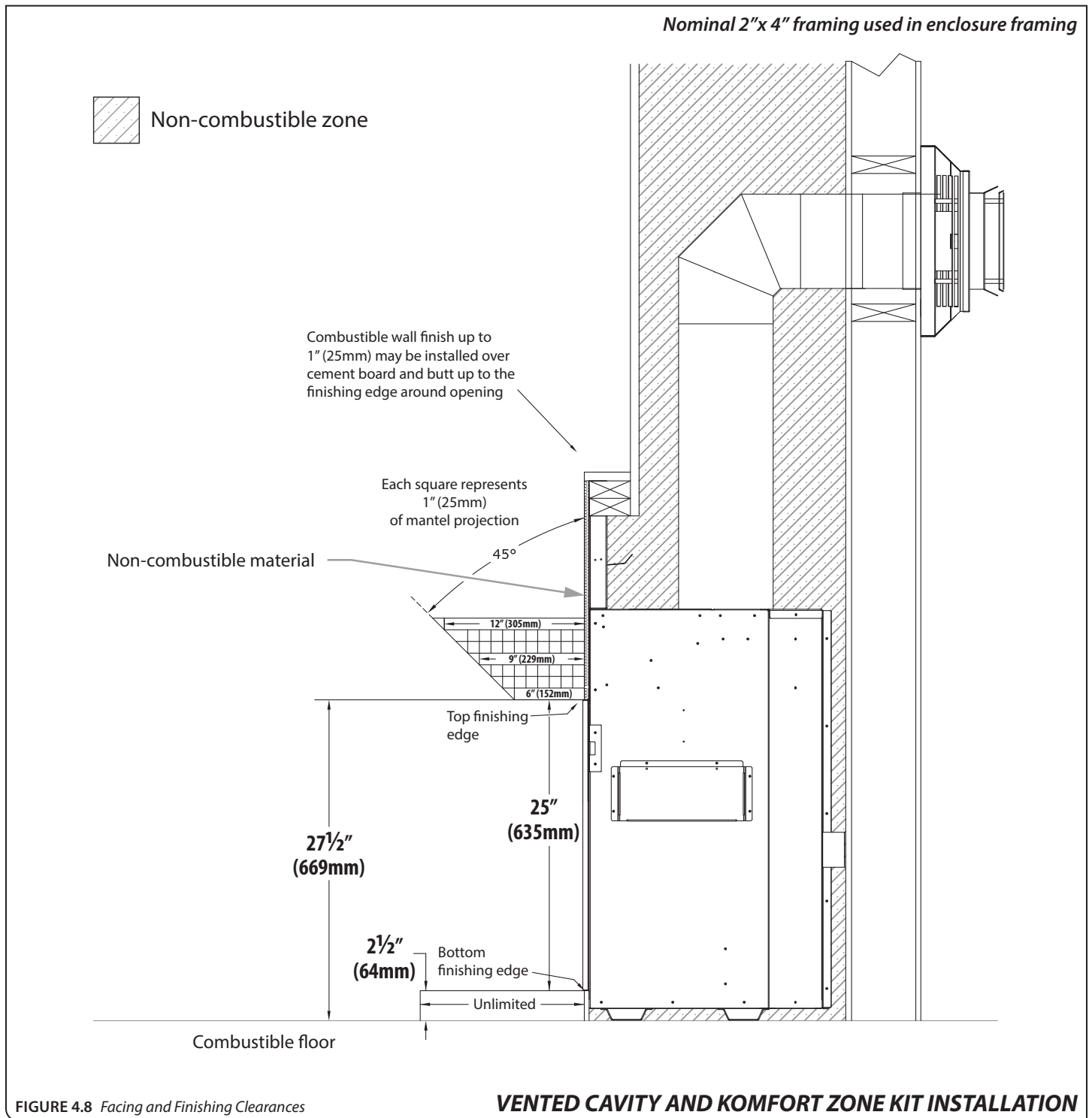
**NOTE:** The surface area above the appliance may be affected by high temperatures emitted from this appliance. To help avoid or reduce the possibility of the sheetrock to crack, Hussong Mfg. Co., INC. recommends the following methods:

- Ensure the non-combustible material and sheetrock are dry and dust free.
- For taping and mudding seams, we recommend heat resilient tape, mesh and joint compounds, such as Durabond. Joint compound must be cured as per manufacturer's recommendations.
- For a painted surface, use a high quality acrylic latex primer and finish coat. Avoid flat or light-colored paints to prevent discoloring.

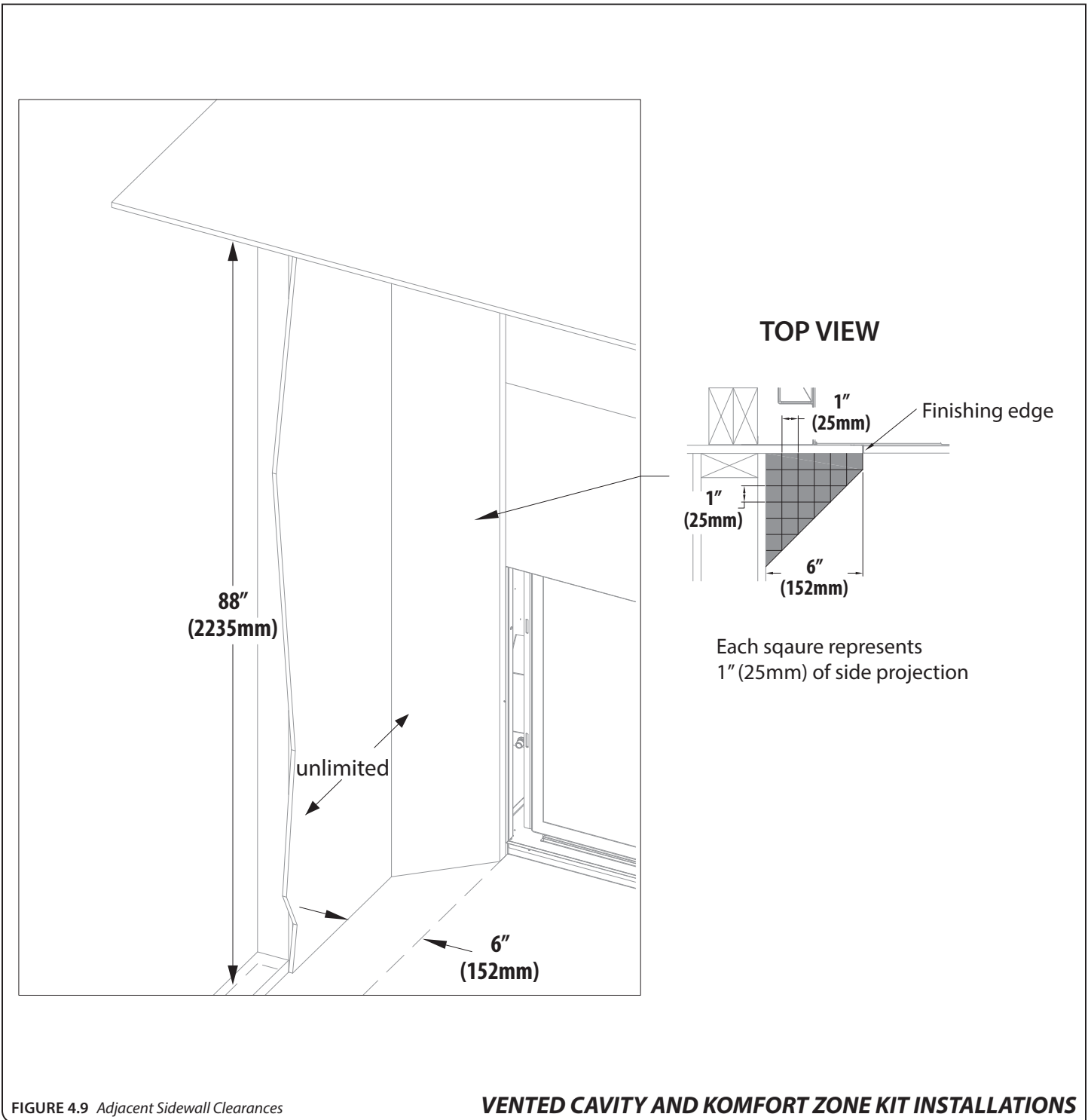
### 4.3.4.1 Combustible Wall Finish

- FIGURE 4.10 on page 42 shows installation of combustible wall finish up to 1" (25mm) thick for Vented Cavity and Komfort Zone Kit(s) installations. For KZK-1510A and KZK-038 installations, reference the manuals included with the kit.
- Finishing materials cannot block the required vented cavity discharge opening requirements.
- This combustible material goes on any required non-combustible materials as shown in FIGURE 4.5 on page 37.
- This 1" (25mm) combustible material is able to go down to the fireplace finishing edge and up to the air discharge opening.

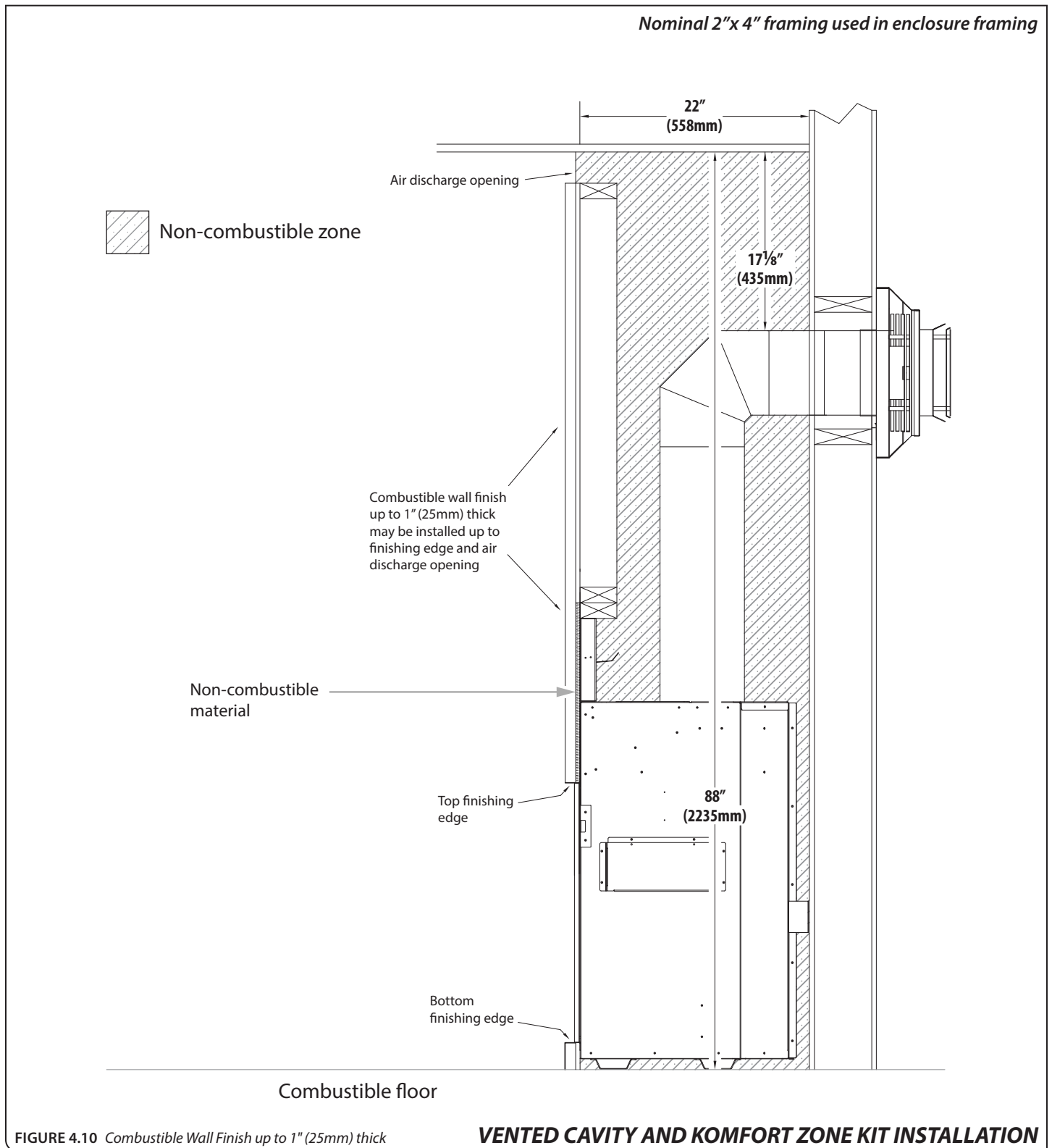
**4.3.1 (cont).** Combustible Mantel Projection and Combustible Hearth



**4.3.2 (cont).** *Adjacent Sidewall Requirements, Mantel Leg, Side Combustible Clearance*



4.3.4.1 (cont). Combustible Wall Finish



## 5.1 Gas Conversion

The gas conversion kit is sold separately.

**ATTENTION:** The conversion shall be carried out in accordance with the requirements of the provincial authorities having jurisdiction and in accordance with the requirements of the ANSI Z223.1 installation code.

This fireplace is manufactured for use with natural gas. Follow the instructions included with the conversion kit if converting to propane.

## 5.2 Gas Line Installation

**CAUTION:** Installation of the gas line must only be done by a qualified person in accordance with local building codes, if any. If not, follow ANSI Z223.1. Commonwealth of Massachusetts installations must be done by a licensed plumber or gas fitter.

**NOTE:** The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at pressures in excess of ½ psi (3.5 kPa). For test pressures equal to or less than ½ psi (3.5 kPa), the appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve.

- A listed (and Commonwealth of Massachusetts approved) 1/2" (13mm) tee handle manual shut-off valve and flexible gas connector are to be connected to the 1/2" (13mm) control valve inlet. If substituting for these components, please consult local codes for compliance.
- This fireplace is equipped with a 3/8" (10mm) x 24" (610mm) long flexible gas connector and manual shut-off valve.
- Run gas line into fireplace into the access hole provided. Refer to **FIGURE 2.1, BHM-38 DIMENSIONS** on page 9. The gas line should be run to the point of connection where the shut-off valve and flexible gas line will connect.
- Do not run gas line in a manner that would obstruct fan operation.
- For high altitude installations, consult the local gas distributor or the authority having jurisdiction for proper rating methods.

**Table 5.1, Inlet Gas Supply Pressures**

Fuel	Minimum Pressure	Maximum Pressure
Natural Gas	5" WC (1.25 kPa) 7" WC (1.74 kPa) <i>recommended</i>	10.5" WC (2.62 kPa)
Propane	12" WC (2.99 kPa) <i>recommended</i>	13" WC (3.24 kPa)

# 6.0 TERMINATION LOCATIONS

## 6.1 Natural Draft Vertical Vent Termination

**WARNING:** This appliance must not share or be connected to a chimney flue serving a separate solid-fuel burning appliance.

Refer to FIGURE 6.1 below for vertical vent terminations clearances.

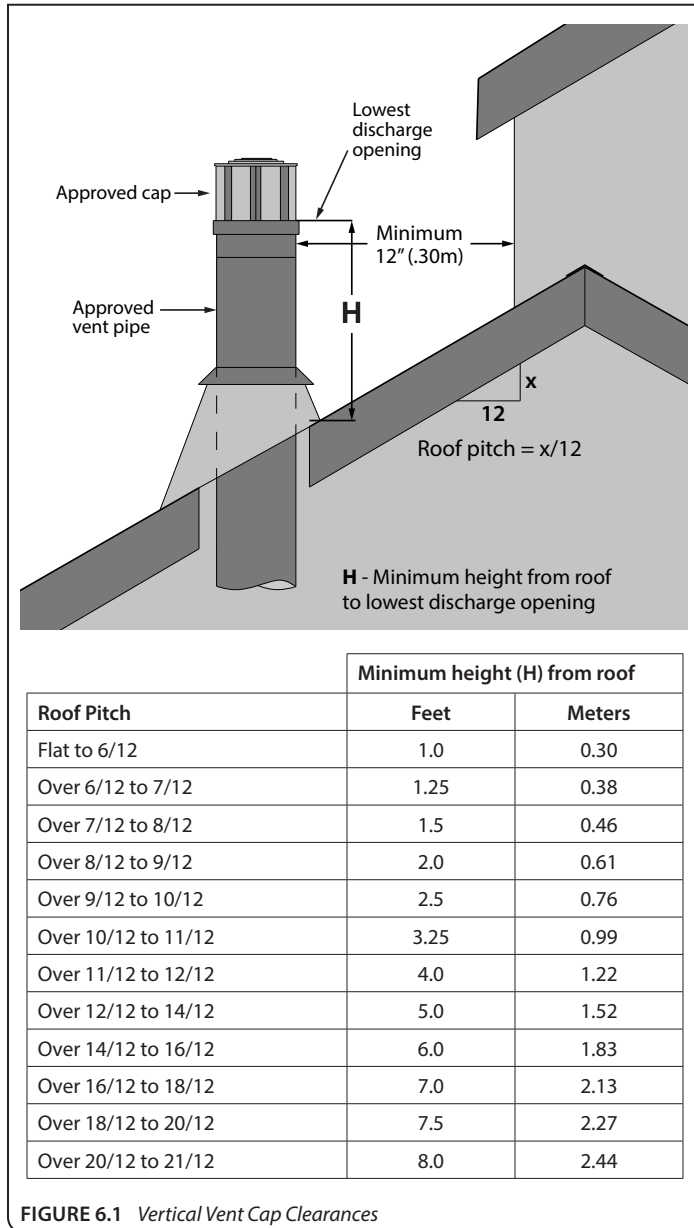


FIGURE 6.1 Vertical Vent Cap Clearances



## 6.2 Natural Draft Minimum Vent Termination Clearances

Refer to FIGURE 6.2 and the table below for vent termination clearance locations.

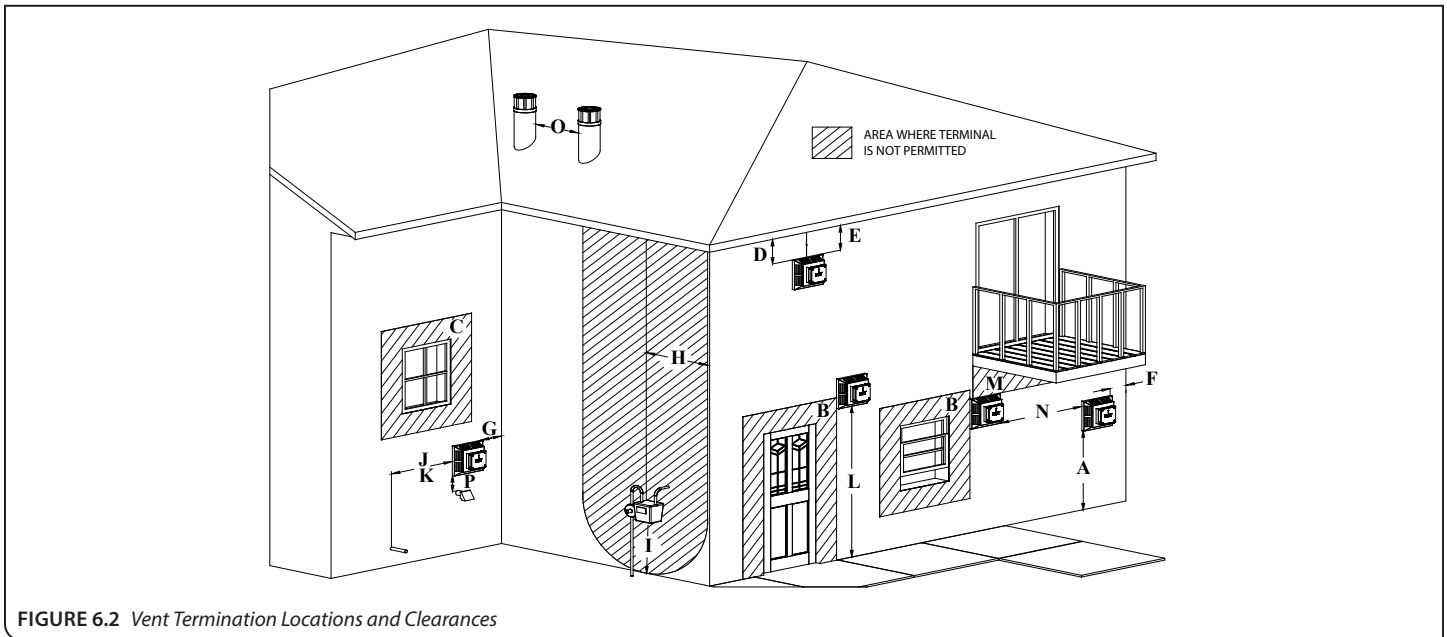


FIGURE 6.2 Vent Termination Locations and Clearances

		Canadian installations	US installations
A	Clearance above grade, veranda, porch, deck, or balcony	12" (30cm)	12" (30cm)
B	Clearance to window or door that may be opened	12" (30cm)	9" (23cm)
C	Clearance to permanently closed window (recommended to prevent condensation on window)	12" (30cm)*	12" (30cm)*
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the edge of the terminal	24" (61cm)*	24" (61cm)*
E	Clearance to unventilated soffit	12" (30cm)*	12" (30cm)*
F	Clearance to outside corner	0" (0cm)*	0" (0cm)*
G	Clearance to inside corner	0" (0cm)*	0" (0cm)
	Clearance to inside corner - 4" x 6-5/8" reducer with snorkel termination cap	12" (30cm)	12" (30cm)
H	Clearance to each side of center line extended above meter/regulator assembly	3' (91cm) within a height 15' (4.5m) above the meter/regulator assembly	*
I	Clearance to service regulator vent outlet	3' (91cm)	*
J	Clearance to non mechanical air supply inlet to building or the combustion air inlet to any other appliance	12" (30cm)	9" (23cm)
K	Clearance to mechanical air supply inlet	6' (1.83m)	3' (91cm) above if within 10' (3m) horizontally Massachusetts: 10' (3m)
L	Clearance above paved sidewalk or paved driveway located on public property	7' (2.13m)†	*
M	Clearance under veranda, porch, deck, or balcony	12" (30cm)‡	12" (30cm)
N	Clearance between two horizontal terminations	12" (30cm)	12" (30cm)
O	Clearance between two vertical terminations (may be same height)	12" (30cm)	12" (30cm)
P	Above furnace exhaust or inlet	12" (30cm)	12" (30cm)

\* Clearance in accordance with local installation codes and the requirements of the gas supplier.

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

‡ Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

VINYL SOFFIT, VINYL CEILING, AND VINYL OVERHANG DISCLAIMER: Clearances to heat resistant material (i.e. wood, metal). This does not include vinyl. Hussong Manufacturing Co., Inc. will not be held responsible for heat damage caused from terminating under vinyl overhangs, vinyl ceilings, or vinyl ventilated/unventilated soffits.

# 7.0 VENTING

## 7.1 Approved Vent Systems

This appliance is equipped for use with a 5" (127mm) exhaust by 8" (203mm) air intake co-axial vent pipe system.

This appliance is approved for use for Kozy Heat Power Venting #KPV (sold separately).

This appliance is approved for use with manufacturers (horizontal and vertical terminations): American Metal Products (Ameri-Vent), BDM, ICC, Metal Fab\*, Olympia Chimney Supply, Inc., Selkirk, and Simpson DuraVent. See sections 7.1.1 and 7.1.2.

**\*WHEN INSTALLING METAL FAB VENT SYSTEM** with this appliance adapter part number 5DDA must be used. See section 3.5.2, **ROUGH-IN VENT TERMINATION** on page 16 for more information.

This appliance can be adapted to use 4" diameter aluminum flexible pipe by any listed vent manufacturer when used in combination with an existing minimum 7" ID Class A metal/masonry chimney. Refer to section 7.5 on page 51 for more information.

This appliance can be adapted to use 3" x 3" flexible co-linear vent pipes with a 4" x 6-5/8" reducer when used in combination with an existing minimum 6" x 8" ID masonry or 7" ID Class A metal chimney. Refer to section 7.6 on page 52 for more information.

The approved vent configurations listed in this manual are shown with rigid pipe. Listed vent systems (in sections 7.1.1 and 7.1.2) with flexible pipe can be installed following the vent manufacturer's installation instructions.

Refer to the vent manufacturer's installation manual for complete installation instructions. Installation must conform with the requirements and restrictions specified in this manual.

### 7.1.1 Approved 5" x 8" Vent Systems

Vent Manufacturer	Vent Cap Part Number
American Metal Products (Ameri-Vent)	5DHCS 5DHC 5DVC 5D14S 5D36S
BDM	DVR8-HCP DVR8-HC DVR8-VCLP DVR8-VCH
Simpson DuraVent	58DVA-HC 58DVA-VCH 58DVA-VC 58DVA-VCE
ICC	TM-5HT TM-5RHT TM-5SVT - <i>wind/rain shield 4SVTS must be used</i>
Metal Fab (Adapter 5DDA must be used)	5DHT 5DVT
Olympia Chimney Supply, Inc.	VDV-HC05 VDV-VC05 VDV-VCH05

Vent Manufacturer	Vent Cap Part Number
Selkirk	5DT-HC 5DT-HCR 5DT-VT 5DT-VC 5DT-ST14 5DT-ST36

### 7.1.2 Approved 4" x 6-5/8" Vent Systems

This appliance may be reduced from a 5" x 8" to a 4" x 6-5/8" vent system using a vent reducer from an approved vent system. Refer to the vent pipe manufacturer's installation manual for more information.

Vent Manufacturer	Vent Cap Part Number
American Metal Products (Ameri-Vent)	4DHCS 4DHC 4DVC 4D14S 4D36S
BDM	DVR6-HCP DVR6-VCLP DVR6-VCH
Simpson DuraVent	46DVA-HC 46DVA-VCH 46DVA-VC 46DVA-VCE
ICC	TM-4HT TM-4RHT TM-4SVT - <i>wind/rain shield 4SVTS must be used</i>
Kozy Heat	KPV
Metal Fab	4DHT 4DVT
Olympia Chimney Supply, Inc.	VDV-HC04 VDV-VC04 VDV-VCH04
Selkirk	4DT-HC 4DT-HCR 4DT-VT 4DT-VC

## 7.2 Venting Requirements

**NOTE:** Consult the local and national installation codes to assure adequate combustion and ventilation air is available. Venting requirements apply to both natural gas and propane.

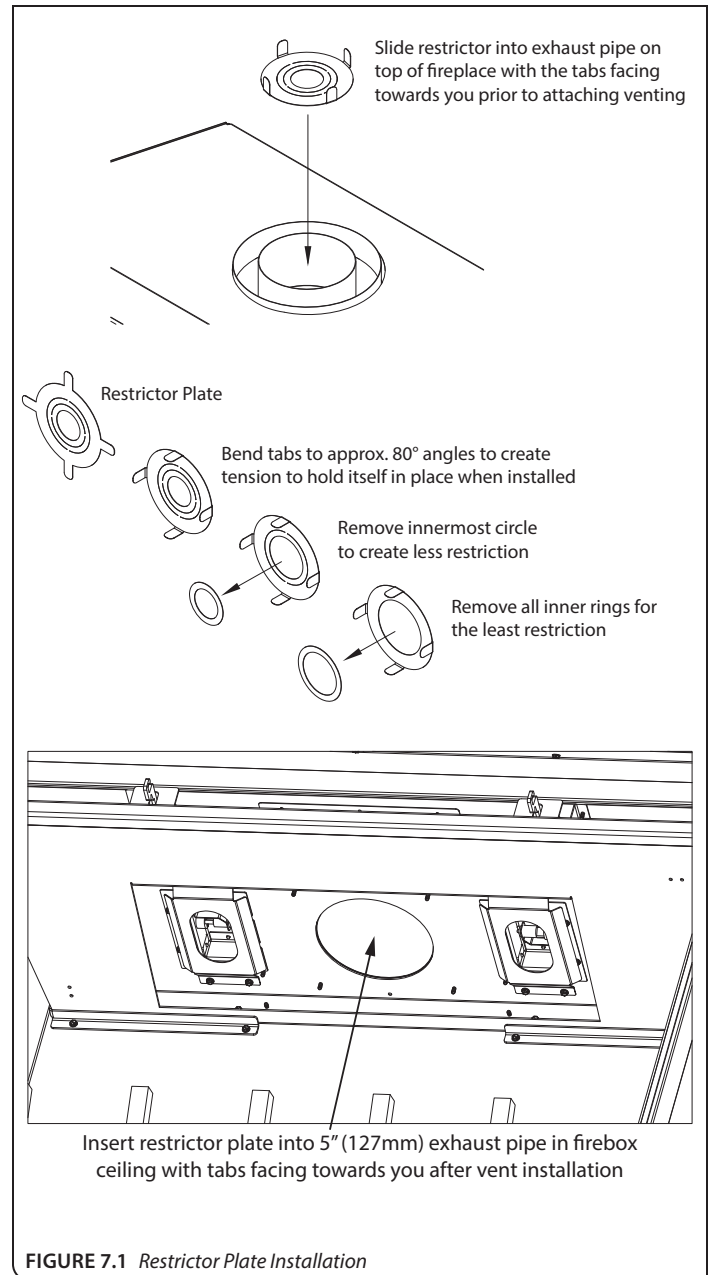
- Flame height and appearance will vary depending upon venting configuration and the type of fuel used.
- Provide a means for checking the vent connection to the appliance after the fireplace is installed.
- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained. Attic insulation shields may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.
- A minimum of 1" (25mm) clearance on the top, sides, and bottom of the horizontal vent pipe must be maintained. Wall thimble products that comply with the required clearances to combustibles must be installed for all horizontal vent runs that pass through interior or exterior walls. These wall thimble products may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.

## 7.3 Natural Draft Vent Restriction

Burner flame appearance and characteristics are affected by altitude, fuel quality, venting configuration, and other factors. To achieve desirable flame appearance, the vent exhaust may be restricted by the restrictor plate (included in components packet).

The restrictor plate is shipped with all inner rings intact, and when installed, provides the most vent restriction. There are (2) inner rings that can be knocked out. The innermost ring knocked out will create less restriction, and the outer most ring knocked out will create the least amount of restriction.

Follow **FIGURE 7.1** for restrictor plate installation before attaching venting or through the baffle if venting is already attached. For vent restriction plate recommendations and adjustments, see section **11.2.2, VENT RESTRICTION** on page 72.



## 7.4 Natural Draft Installation

### 7.4.1 Vertical Terminations

#### *Natural Gas and Propane Installations*

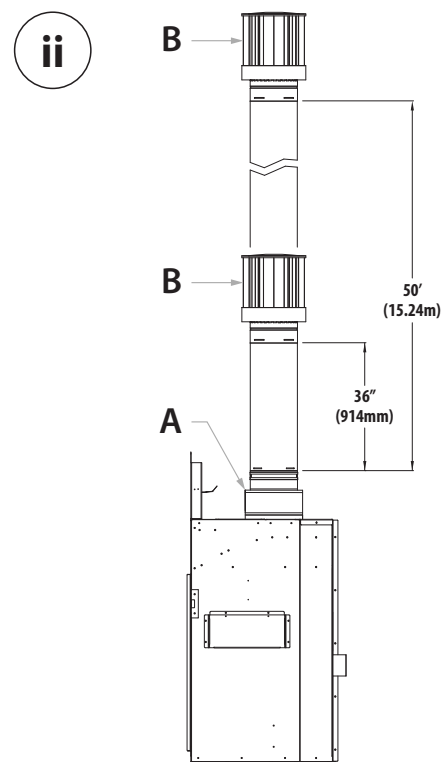
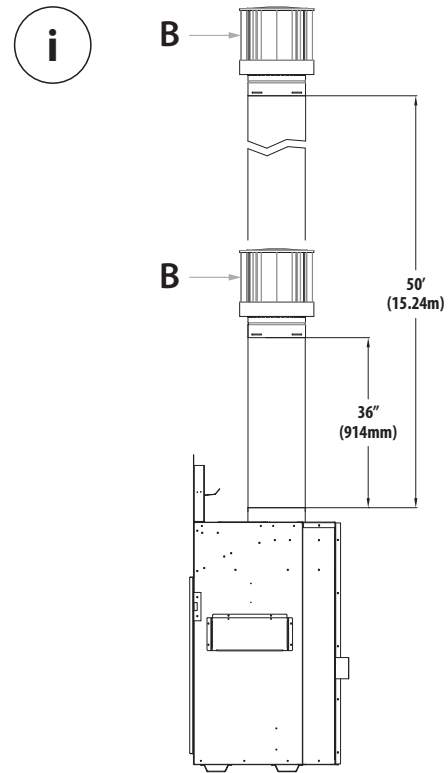
**DIAG. 1 venting configurations are shown with rigid pipe. Listed vent systems (section 7.1 pg. 46) with flexible pipe can be installed following the vent manufacturer's installation instructions.**

- (i) **Minimum / Maximum Vertical Terminations:**  
3' (914mm) minimum vertical length / 50' (15.24m) maximum vertical length + termination cap
- (ii) **Minimum / Maximum Vertical Terminations with Reducer\*:**  
4" x 6-5/8" reducer + 3' (914mm) minimum vertical length / 50' (15.24m) maximum vertical length + termination cap  
\*To use any 45° elbow for vertical terminations with a reducer, the total minimum vertical vent run must be 10' (3.05m). A total of (4) 45° elbows may be used. No 90° elbows are allowed. For every 45° elbow used, 18" (457mm) must be subtracted from maximum venting allowed.

DIAG. 1 NATURAL GAS & PROPANE VERTICAL TERMINATIONS

(A) Reducer

(B) Termination Cap



## 7.4.2 Horizontal Terminations

### Natural Gas and Propane Installations

**IMPORTANT:** Horizontal vent sections require 1/4" (6mm) of rise for every 12" (305mm) of travel.

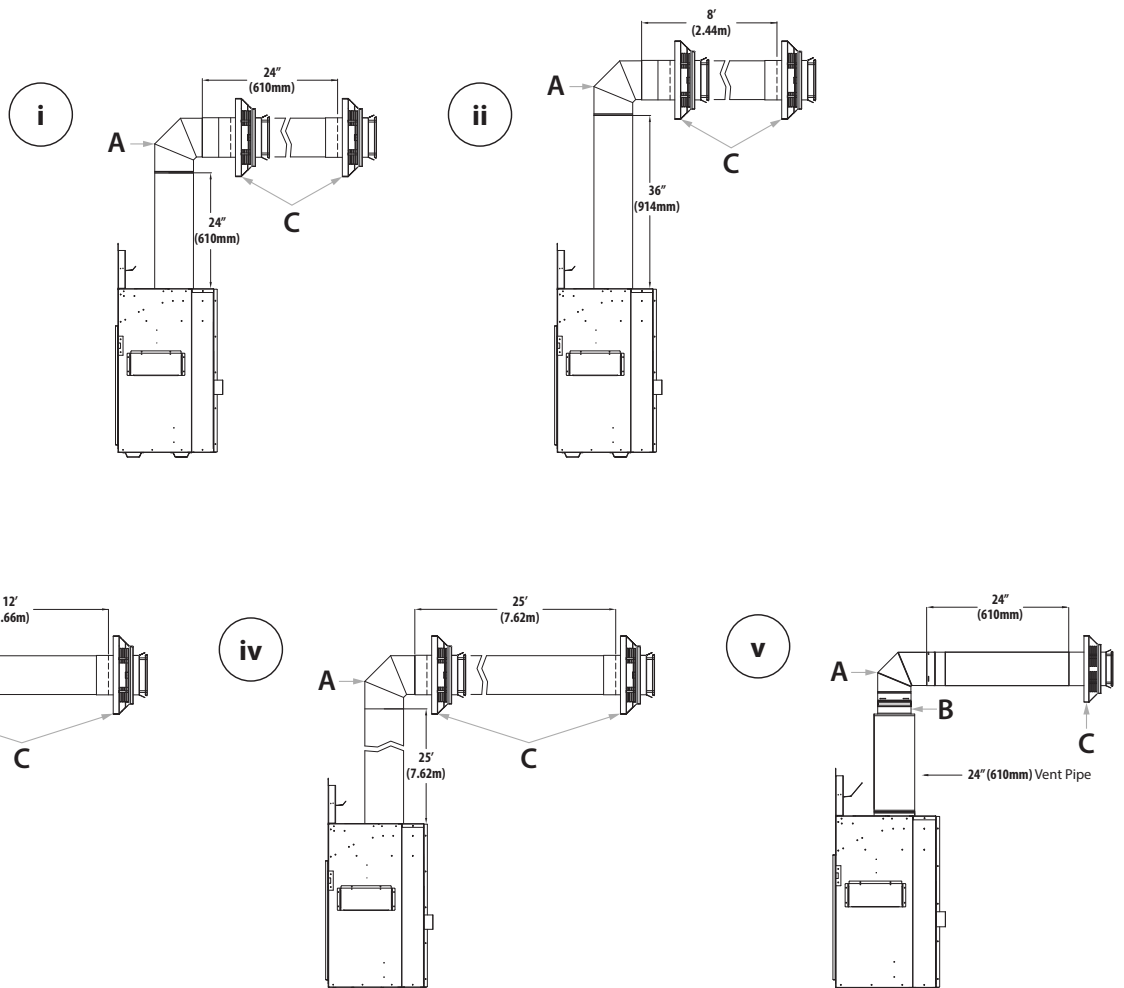
**DIAG. 2 vent configurations are shown with rigid pipe. Listed vent systems (section 7.1 pg. 46) with flexible pipe can be installed following the vent manufacturer's installation instructions.**

- (i) **Minimum 24" Vertical Vent Pipe / Minimum Horizontal**  
24" (610mm) vertical vent pipe + 90° horizontal elbow + termination cap
- (i) **Minimum 24" Vertical Vent Pipe / Maximum Horizontal**  
24" (610mm) vertical vent pipe + 90° horizontal elbow + 24" (610mm) maximum horizontal + termination cap
- (ii) **Minimum 36" Vertical Vent Pipe / Minimum Horizontal**  
36" (914mm) vertical vent pipe + 90° horizontal elbow + termination cap
- (ii) **Minimum 36" Vertical Vent Pipe / Maximum Horizontal**  
36" (914mm) vertical vent pipe + 90° horizontal elbow + 8' (2.44m) maximum horizontal + termination cap

- (iii) **Minimum 48" Vertical / Minimum Horizontal**  
48" (1219mm) vertical vent length + 90° horizontal elbow + termination cap
- (iii) **Minimum 48" Vertical / Maximum Horizontal**  
48" (1219mm) vertical vent length + 90° horizontal elbow + 12' (3.66m) maximum horizontal + termination cap
- (iv) **Maximum Vertical / Minimum Horizontal**  
25' (7.62m) maximum vertical vent length + 90° horizontal elbow + termination cap
- (iv) **Maximum Vertical / Maximum Horizontal**  
25' (7.62m) maximum vertical + 90° horizontal elbow + 25' (7.62m) maximum horizontal + termination cap
- (v) **BASEMENT INSTALL - Minimum Vertical / Maximum Horizontal\***  
24" (610mm) minimum 5" x 8" vertical vent pipe + 4" x 6-5/8" reducer + 90° horizontal elbow + 24" (610mm) maximum horizontal + termination cap  
\*Air shutter opening must be adjusted. Refer to section 11.2.1, BURNER VENTURI on page 71.  
Natural gas: front 3/8" (9mm) rear 3/8" (9mm)  
Propane: front 1/2" (13mm) rear 5/8" (16mm)

DIAG. 2 NATURAL GAS & PROPANE HORIZONTAL TERMINATIONS

- (A) 90° Elbow
- (B) Reducer
- (C) Termination Cap



### 7.4.3 Combination Venting

#### Natural Gas and Propane Installations

Vent termination must be within the shaded area in FIGURE 7.2.

FIGURE 7.2 is shown with rigid pipe. Listed vent systems (section 7.1 pg. 46) with flexible pipe can be installed following the vent manufacturer's installation instructions.

25' (7.6m) maximum vertical rise + 25' (7.6m) maximum horizontal run = 50' (15.2m) of total length

- Maximum of (5) 90° elbows. For each additional 90° elbow used after the first elbow, 3' (914mm) must be subtracted from maximum venting allowed.
- (2) 45° degree elbows may be used in place of (1) 90° elbow. For each 45° elbow used, 18" (457mm) must be subtracted from maximum venting allowed.

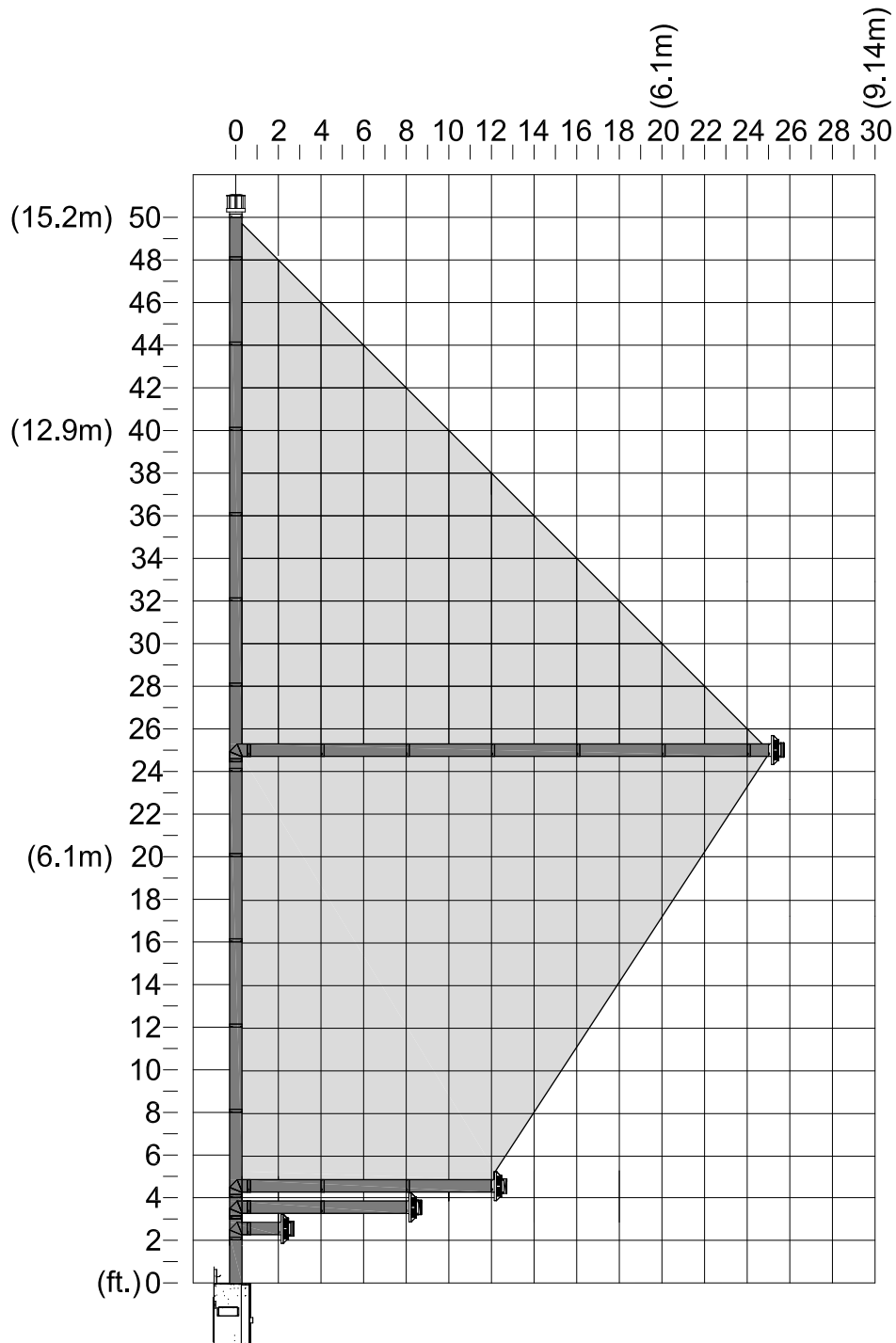


FIGURE 7.2 Combination Venting

## 7.5 Class A Chimney/Masonry Chimney Conversion

This appliance is approved to be adapted for Class A/Masonry Chimney conversion with kits utilizing a 4" (102mm) flexible exhaust by any vent manufacturers listed in section 7.1, **APPROVED VENT SYSTEMS** on page 46.

Before conversion, have the existing installation inspected by a qualified chimney sweep or professional installer. The existing chimney system must be in serviceable condition, and functionally sound. Before proceeding with following installations, check with local building jurisdiction to verify this type of installation is allowed in your area.

Follow **DIAG. 3** for allowable venting configurations for installation in existing through-the-ceiling, Class A/Masonry chimney. Route the exhaust gases and intake air through the existing Class A/Masonry chimney.

### 7.5.1 4" Flex Pipe Venting Configurations

**IMPORTANT:** Horizontal vent sections require at least 1/4" (6mm) rise for every 12" (305mm) of travel.

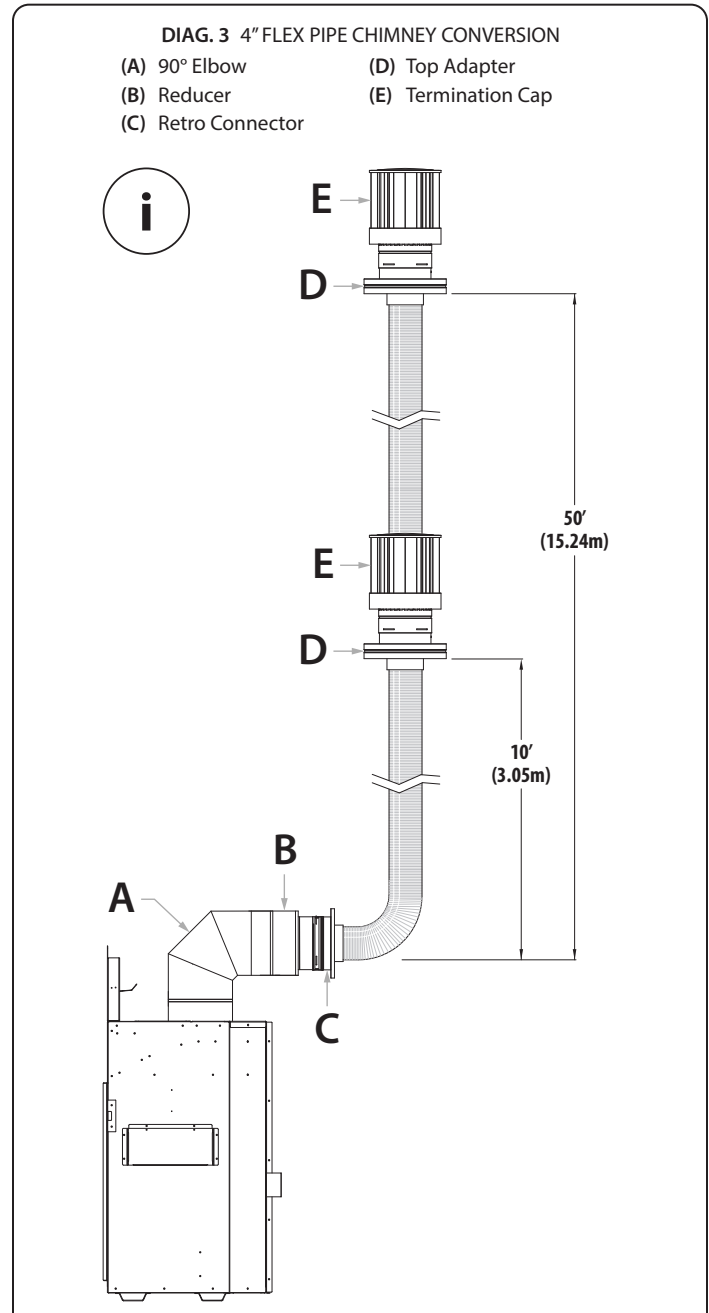
**IMPORTANT:** The vent heat shield assembly must be installed when incorporating minimum horizontal venting off the top of the appliance.

**IMPORTANT:** Care should be taken when installing flexible pipe to avoid a tight bend that may cause abrasion or damage to the flexible pipe.

The vent option listed below allow for a minimum of 0" (0mm) to a maximum of 24" (610mm) horizontal run using rigid or flexible pipe.

(i) **Minimum / Maximum Vertical Terminations:**

90° horizontal elbow + 4" x 6-5/8" reducer + retro connector + 10' (3.05m) minimum length of 4" aluminum flexible pipe / 50' (15.24m) maximum length of 4" aluminum flexible pipe + top adapter + termination cap



## 7.6 Coaxial to Co-Linear Chimney Conversion

Before conversion, have the existing installation inspected by a qualified chimney sweep or professional installer. The existing chimney system must be in serviceable condition, and functionally sound. Before proceeding with following installations, check with local building jurisdiction to verify this type of installation is allowed in your area.

Follow **DIAG. 4** for allowable venting configurations for installation in existing masonry chimney. Route the exhaust gases and intake air through the existing masonry chimney.

### 7.6.1 Coaxial to Co-Linear Venting Configurations

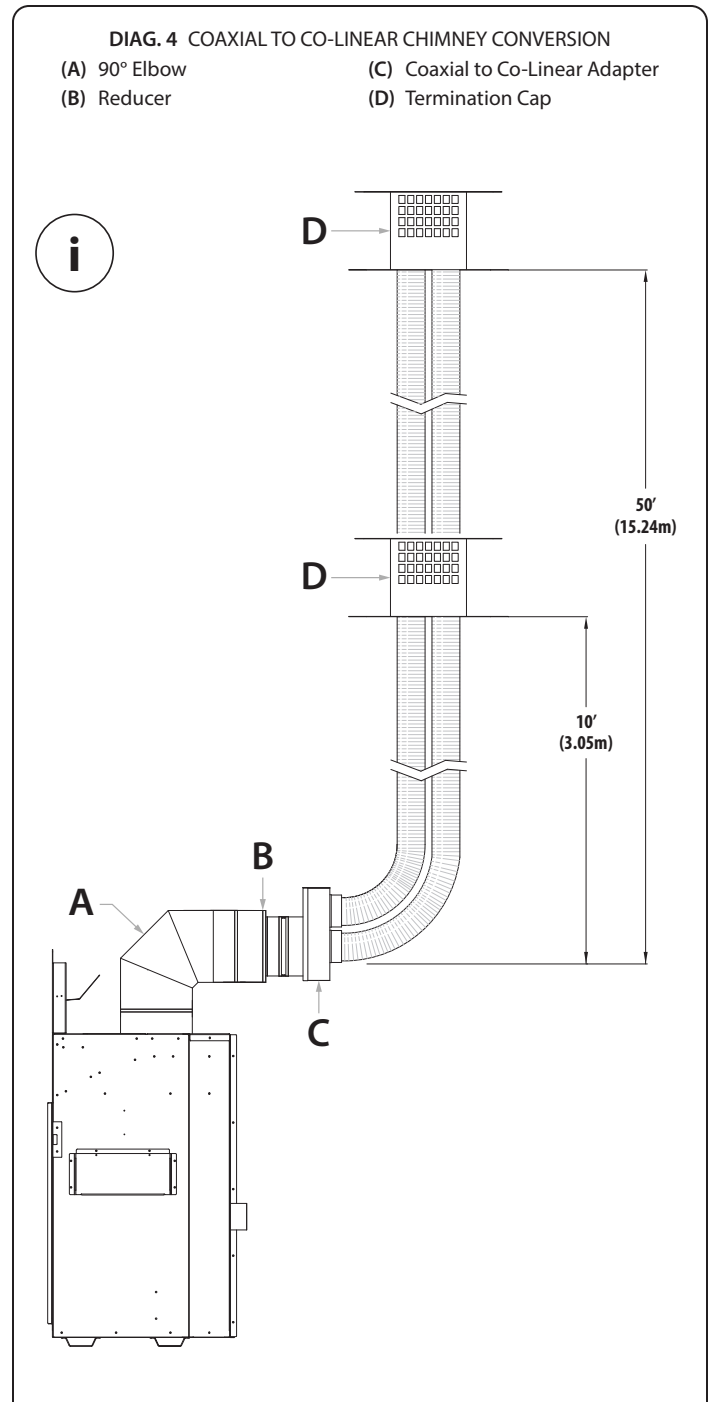
**IMPORTANT:** Horizontal vent sections require at least 1/4" (6mm) rise for every 12" (305mm) of travel.

**IMPORTANT:** Care should be taken when installing flexible pipe to avoid a tight bend that may cause abrasion or damage to the flexible pipe.

The vent option listed below allows for a minimum of 0" (0mm) to a maximum of 24" (610mm) horizontal run using rigid or flexible pipe.

(i) **Minimum / Maximum Vertical Terminations:**

90° horizontal elbow + 4" x 6-5/8" reducer + coaxial to co-linear adapter + 10' (3.05m) minimum length of 3" x 3" aluminum flexible pipe / 50' (15.24m) maximum length of 3" x 3" aluminum flexible pipe + termination cap





# 8.0 FIREPLACE SETUP

## 8.1 Glass Frame Assembly

**WARNING:** Do not operate this fireplace with the glass removed, cracked, or broken. Replacement of the glass assembly should be done by a licensed or qualified service person.

Refer to FIGURE 8.1 with the following instructions.

### 8.1.1 Remove Glass Frame Assembly

**WARNING:** Do not remove the glass assembly when hot.

1. Remove the safety barrier screen.
2. Locate (2) spring-loaded latches securing the glass assembly at the top of the firebox. Use the provided tool to unlatch the latch assemblies from the flange on top of the glass valance.
3. Tilt the top of the glass valance forward and lift up to remove the valance resting on the bottom frame rail.

### 8.1.2 Install Glass Frame Assembly

1. Tilt the top of the glass valance forward and align the glass valance with the bottom frame rail.
2. Use the provided tool to pull the (2) latch assemblies to latch with the flange on top of the glass valance.
3. Reinstall safety barrier screen.

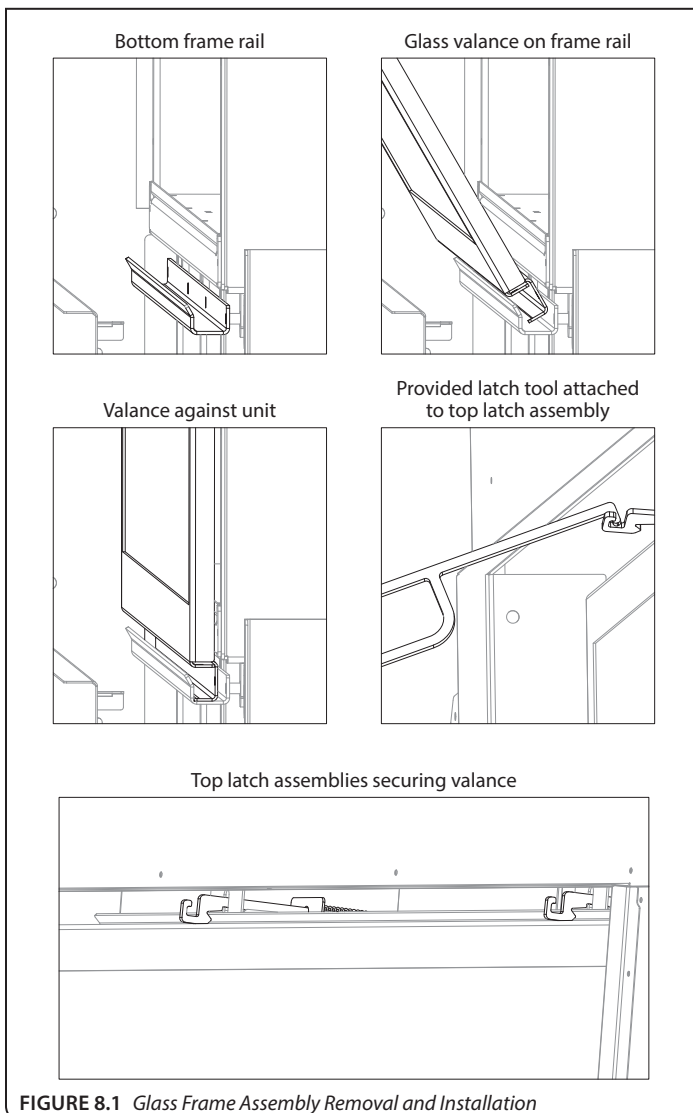


FIGURE 8.1 Glass Frame Assembly Removal and Installation

## 8.2 Gas Valve Access Cover Plate

### Removal and Installation

To access the gas valve, you will need to remove the access cover plate. The cover plate is attached by magnets. Refer to FIGURE 8.2.

1. Remove the safety barrier screen and glass frame assembly.
2. Take the top of the access cover plate and pull it back (towards you).
3. Lift up the access cover plate and pivot out, as shown below.
4. Remove access cover plate from fireplace.
5. To reinstall, follow the drawing below. Align the tabs on the cover plate with the slots in the opening.
6. When finished, reinstall the gas valve access cover plate, glass frame assembly, and safety barrier screen.

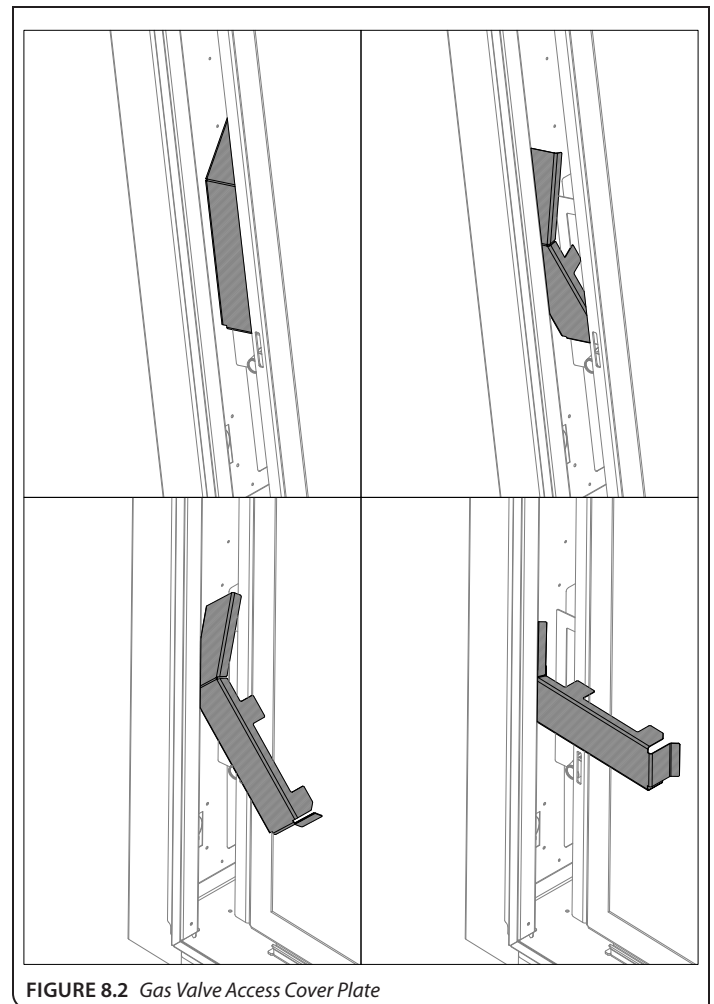


FIGURE 8.2 Gas Valve Access Cover Plate

## 8.3 Panel Installation

**WARNING: RISK OF FIRE! Do not operate this fireplace without a refractory or black glass panel kit installed.**

- Refractory or black glass panels will provide insulation and are required to operate this fireplace.
- If converting to propane, complete the conversion before installing any refractory or black glass panels. Follow instructions included with the kit.

### BEFORE INSTALLATION:

1. Remove the safety barrier screen, glass assembly, and log set (if installed).
2. Locate the (2) screw holes in the rear of the fireplace baffle and the (2) screw holes located on each side of the fireplace baffle. Locate the (4) panel clips shipped with the panels. These clips are shipped flat. Separate the clips at the perforations and bend the metal finger at a 90° angle.

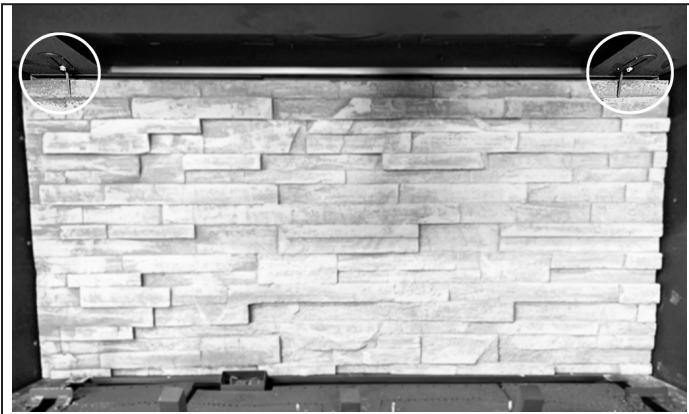


FIGURE 8.3 Back Refractory Panel Installed



FIGURE 8.4 Side Refractory Panel Installed

### 8.3.1 Refractory Panels

1. Install back refractory panel. Secure with panel clips previously bent. See FIGURE 8.3.
2. Install side refractory panels. Secure with (2) panel clips for each side with provided screws. See FIGURE 8.4.

### 8.3.2 Black Glass Panels

**NOTE: The smooth side of the glass panel will face forward in the firebox, with the textured side against the firebox walls.**

*It is recommended to wear clean gloves when handling panels. Handle with care. Use both hands when installing.*

1. Install back black glass panel. Secure with panel clips previously bent with provided screws. Verify black glass is flat against the firebox.
2. Install side black glass panels. Carefully slide the panel on the main log support until you reach the back of firebox as shown in FIGURE 8.5.
3. Secure side panels with refractory clips previously bent. Verify black glass is flat against firebox.



FIGURE 8.5 Side Black Glass Panels Installed

## 8.4 #BH38-500 & #BH38-B501

### Log Set Installation

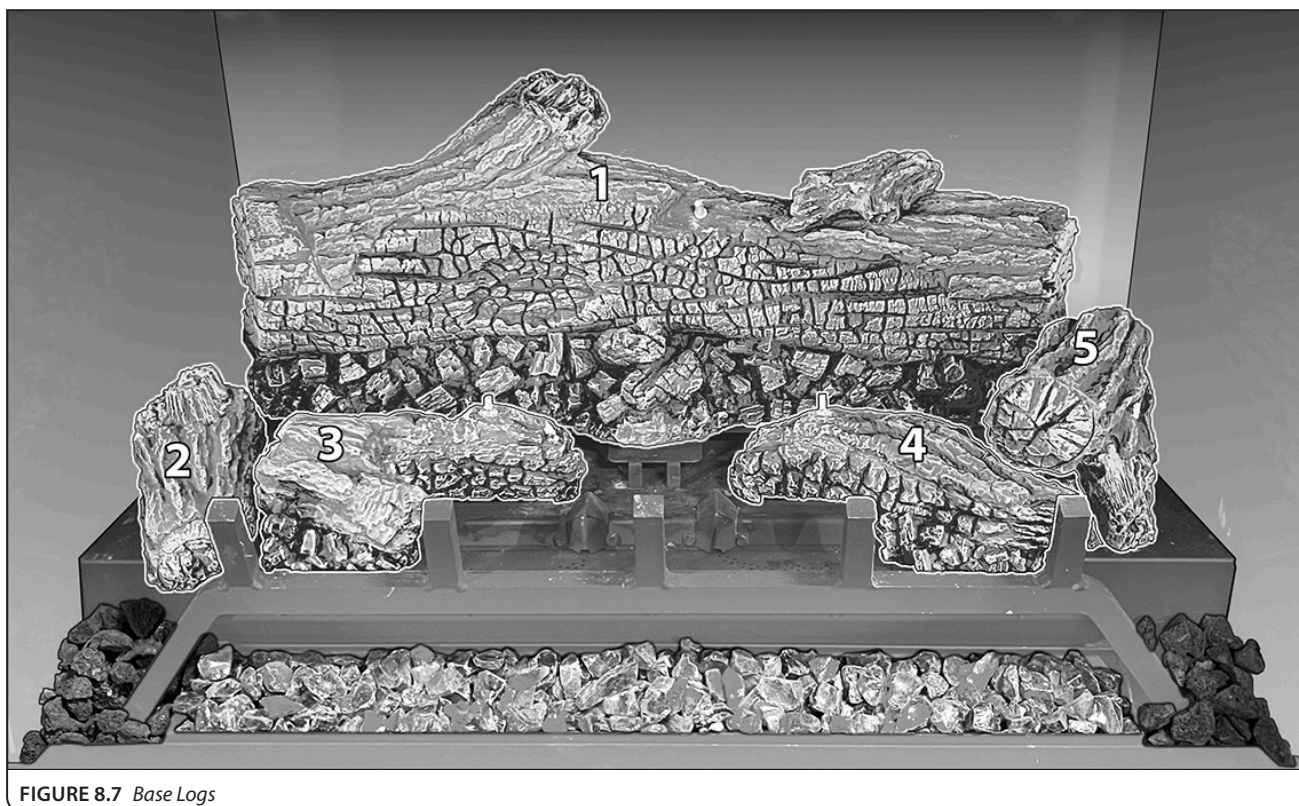
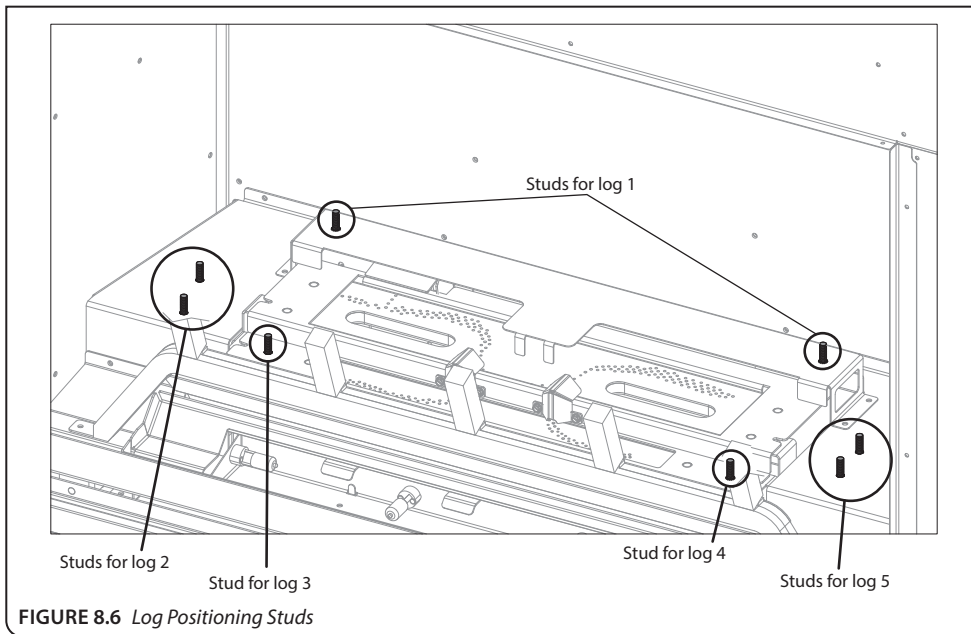
**CAUTION:** Do not place logs directly over burner portholes. Improper log placement may affect flame appearance and cause excessive soot to build upon the logs and glass.

**NOTE:** Your logs may look different than shown. The logs will install the same for both traditional (#BH38-500) and birchwood (#BH38-B501).

- If converting to propane, complete the conversion before installing the log set. Follow the conversion instructions included with the kit.

- Log numbers are located on each log. Refer to the following instructions and illustrations for proper log placement.
1. Align the holes in the bottom of log 1 with the studs on the burner (FIGURE 8.6) and place the log into position at the rear of the firebox, as shown in FIGURE 8.7.
  2. Align the holes in the bottom of logs 2, 3, 4, and 5 with the studs on the burner (FIGURE 8.6) and place the logs into position, as shown in FIGURE 8.7.

#BH38-500 & #BH38-B501 continues on page 56

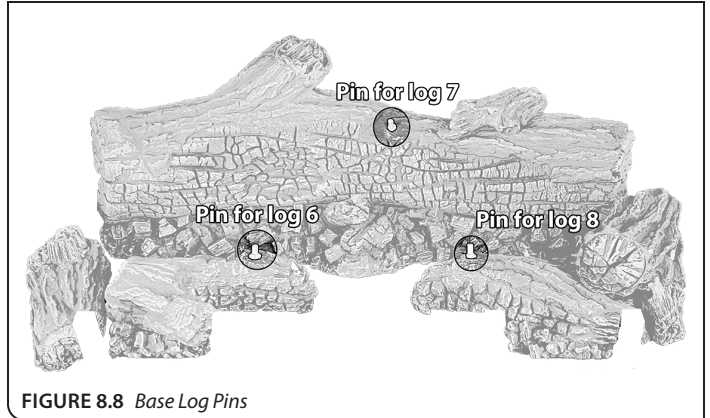




**#BH38-500 & #BH38-B501 continued from page 55**

3. Align the hole in log 6 with the pin in log 3 (FIGURE 8.8) and position as shown in FIGURE 8.9.
4. Align the hole in log 7 with the pin in log 1 (FIGURE 8.8) and position as shown in FIGURE 8.9.
5. Align the hole in log 8 with the pin in log 4 (FIGURE 8.8) and position as shown in FIGURE 8.9.
6. Align the hole in log 9 with the pin log 6 and position as shown in FIGURE 8.9.
7. Set log 10 in position as shown in FIGURE 8.9.
8. Place crushed glass media into the ember bed media tray.

**#BH38-500 & #BH38-B501 continues on page 57**



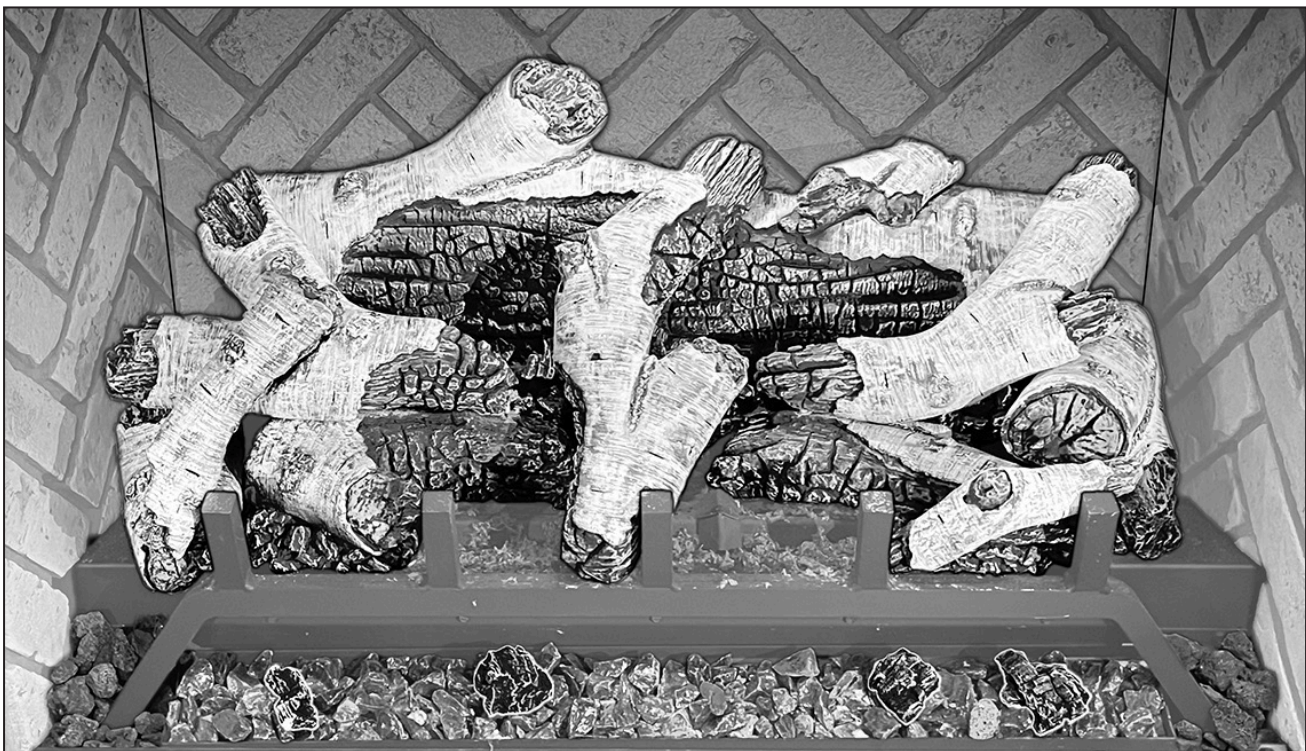


**#BH38-500 & #BH38-B501 continued from page 56**

9. Place (4) charred pieces on top of the ember bed. You may place the pieces at your discretion. See **FIGURE 8.10** and **FIGURE 8.11**.
10. Distribute lava rock at the sides onto the media tray braces and firebox floor.
11. Use a stiff or steel bristle nylon brush to distribute rockwool embers onto logs and burners.



**FIGURE 8.10** BH38-500 Completed Install



**FIGURE 8.11** BH38-B501 Completed Install

## 8.5 Control Board

### Access, Removal and Installation

**WARNING:** Avoid burns or personal property damage by using appropriate protection to remove any components if the burner and/or pilot have been burning.

**WARNING:** DO NOT operate this appliance without the sealing gasket in place. If the sealing gasket is damaged, it must be replaced.

**CAUTION:** Check all connections for leaks with soapy water, whether field or factory made.

### 8.5.1 Control Board Access Cover

On the left side of the unit, there is a control board access cover that allows access to the control board without removing components from the firebox.

For access, remove (8) screws securing cover to the outer shell, as shown in **FIGURE 8.12**. Reinstall when finished.

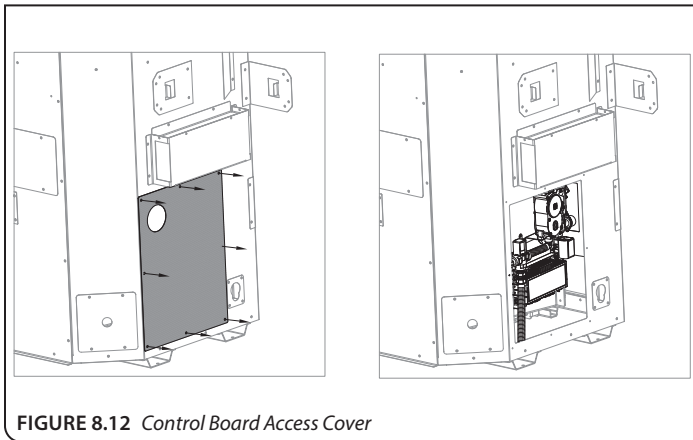


FIGURE 8.12 Control Board Access Cover

### 8.5.2 Control Board Removal

Use **FIGURE 8.13** and **FIGURE 8.14** for guidelines to remove the control board.

1. Disconnect electrical power.
2. Locate the manual valve upstream of the appliance connector and close valve.
3. Remove the safety barrier screen and glass frame assembly.
4. Remove log set and lava rock.
5. Remove refractory panel set or black glass panel set. Locate the (4) panel clips securing panels on the sides and the rear of the fireplace baffle. Loosen screws securing panel clips and remove panels.
6. Remove media tray.
7. Remove the log rack, (1) screw on each side.
8. Remove the log plate located at the rear of the firebox, (2) screws each side.
9. Remove the rear burner venturi bracket. Remove the screw securing the bracket and pull the bracket forward.
10. Remove the rear burner. Remove (1) screw on each side securing the rear burner and slide it to the right off of the burner orifice.

**Control board access, removal and installation continues on page 59**

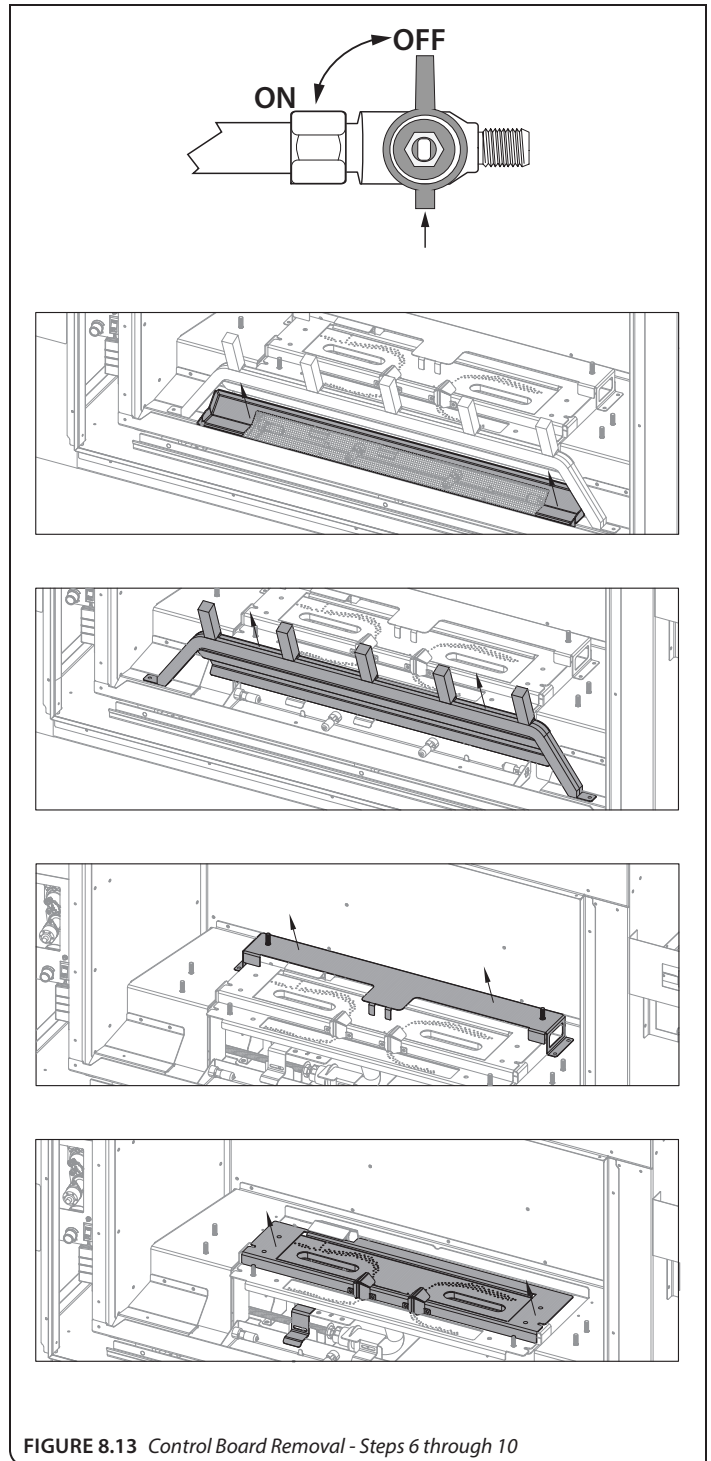


FIGURE 8.13 Control Board Removal - Steps 6 through 10



**Control board access, removal and installation continued from page 58**

11. Remove the front burner venturi bracket. Remove the screw securing the bracket and pull the bracket forward.
12. Remove the front burner. Remove (1) screw on each side securing the front burner and slide it to the right off of the burner orifice.
13. Remove the left and right media tray braces, (2) screws each.
14. Remove the main log support. There are (2) screws each on the left and right side, and (3) screws on the firebox back wall.
15. Remove and save (10) screws securing the control board.
16. Pull out control board out to reveal the gas line to disconnect the gas line flex tube from fireplace valve, being careful not to damage the sealing gasket.

**8.5.3 Control Board Installation**

Use FIGURE 8.13 and FIGURE 8.14 for guidelines to reinstall the control board.

1. Place control board on the left side of the firebox and reconnect gas line to fireplace valve. **VERIFY SEALING GASKET IS IN PLACE.**
2. Secure the control board with screws previously removed.
3. Reinstall the main log support. Align the holes in the main log support with the holes in the firebox back wall, and in left and right sides of the firebox. Secure with screws previously removed.
4. Reinstall the left and right media tray braces. Secure with (4) screws previously removed.
5. Reinstall the front burner. Position the burner tube venturi over the front burner orifice and secure with (2) screws previously removed.
6. Reinstall the front burner venturi bracket. Align the rear slot on the bracket with the front burner shutter flange and secure the bracket to firebox. Verify burner venturi opening size after installing (refer to section 11.2.1 on page 71).
7. Reinstall the rear burner. Position the burner tube venturi over the rear burner orifice and secure with (2) screws previously removed.
8. Reinstall the rear burner venturi bracket. Align the rear slot on the bracket with the rear burner shutter flange and secure the bracket to firebox. Verify burner venturi opening size after installing (refer to section 11.2.1 on page 71).
9. Reinstall log plate with (4) screws previously removed.
10. Reinstall log rack with (2) screws previously removed.
11. Reinstall media tray.
12. Reinstall refractory set or black glass panel set and secure with panel clips previously removed.
13. Reinstall log set and lava rock.
14. Reinstall the glass frame assembly and safety barrier screen.
15. Turn the manual valve counterclockwise to the ON position.
16. Reconnect electrical power.
17. Verify proper log placement, operation of fireplace, and any electrical components.

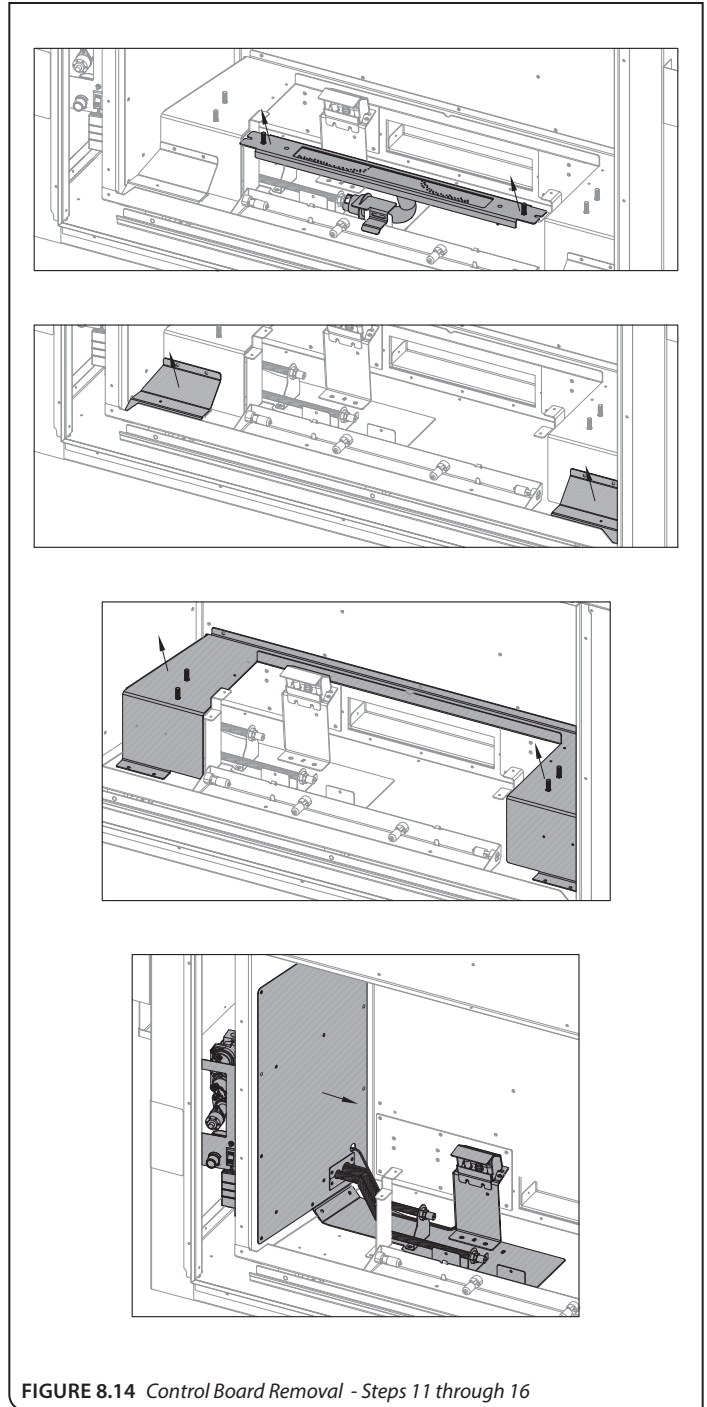


FIGURE 8.14 Control Board Removal - Steps 11 through 16

# 9.0 ELECTRICAL INFORMATION

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

**WARNING - Electrical Grounding Instructions:** This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

## 9.1 Electrical Specifications

This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1.

## 9.2 Wiring Requirements

- Wiring schematics for this appliance are shown in **FIGURE 9.1**.
- The IFC System Module requires 120V of electricity and/or batteries to operate.
- Using the battery back-up will operate the burner only.
- Fan component, top light kit, and auxiliary light kit (ember bed light kit) will not function on battery back up power.

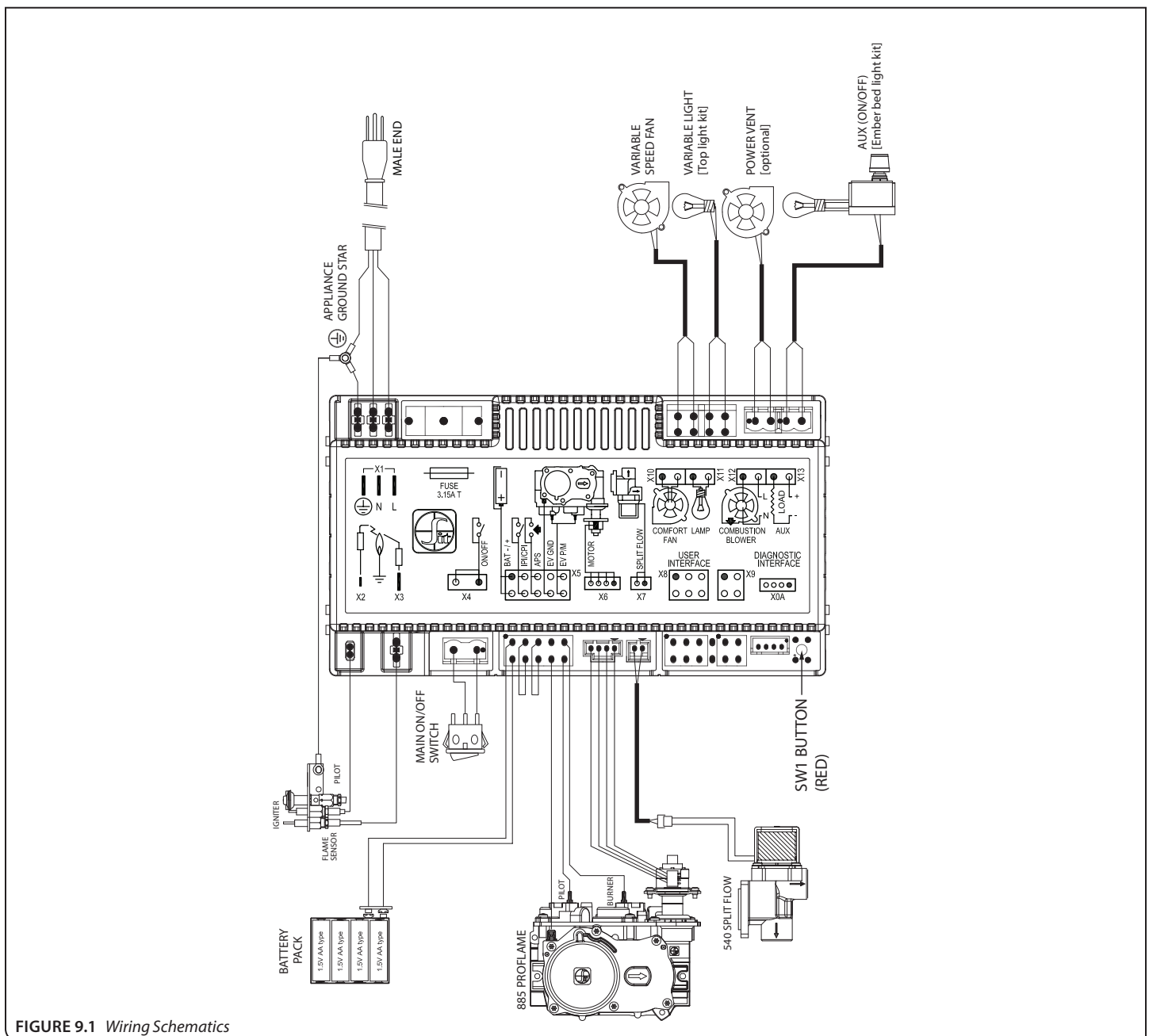


FIGURE 9.1 Wiring Schematics



### 9.3 Outlet Junction Box

This appliance is equipped with a (4) outlet junction box, located on the left side of the unit. There are outlets for connecting the Kozy Power Vent (see #KPV manual for more information), the ember bed light kit, and the control module.

Remove the (4) screws securing electrical access cover to the firebox outer shell for access to the junction box (FIGURE 9.2). Reinstall when finished.

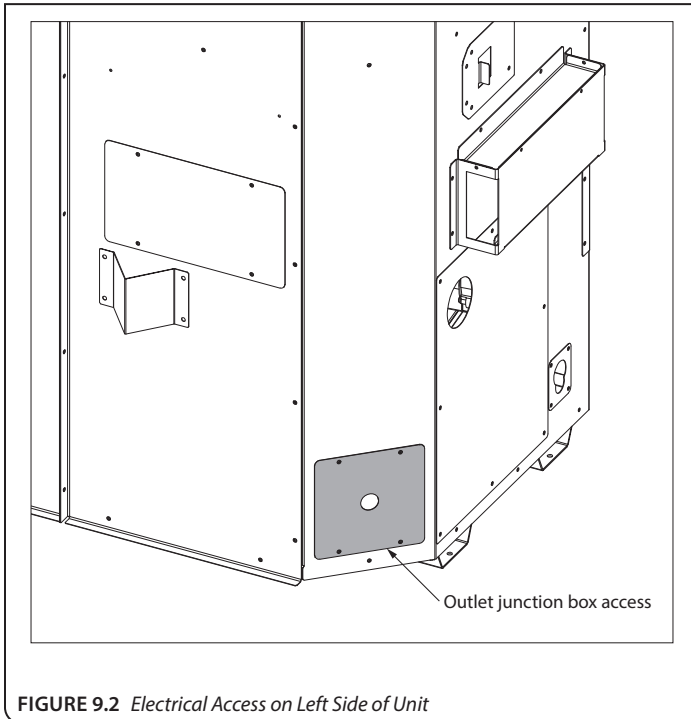


FIGURE 9.2 Electrical Access on Left Side of Unit

### 9.4 Ember Bed Light Kit (auxiliary)

**CAUTION:** Disconnect all electrical power from the fireplace before performing this task.

**ATTENTION:** If converting to propane, complete the conversion before installing any light kit components. Follow instructions provided with the conversion kit (sold separately).

**NOTE:** To avoid damage and prolong the life of the halogen bulbs, never touch with bare hands. Always use a soft cloth when handling.

#### 9.4.1 Install Ember Bed Light Kit

1. Remove the safety barrier screen and glass frame assembly.
2. Remove the media tray (see FIGURE 9.3).
3. Install (4) halogen bulbs (included in component packet) into lamp bases.
4. Reinstall media tray.
5. Reinstall glass frame assembly and safety barrier.

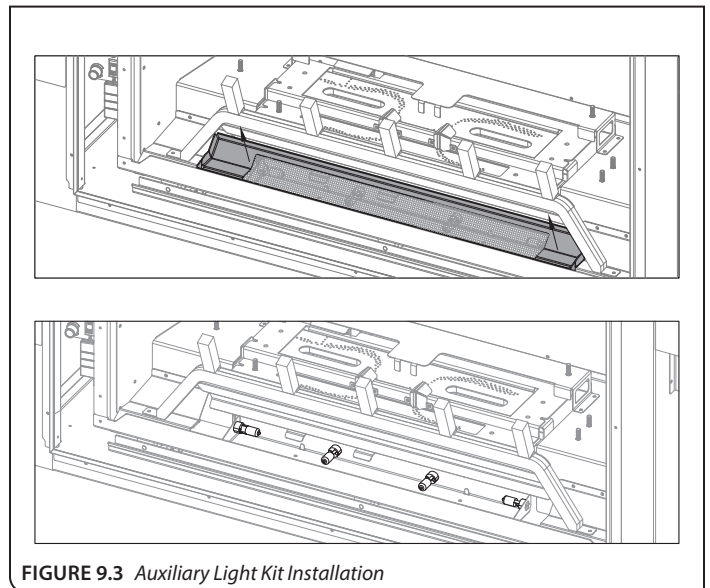


FIGURE 9.3 Auxiliary Light Kit Installation

## 9.5 Top Light Kit #600-TLK

**CAUTION:** Disconnect all electrical power from the fireplace before performing this task.

**NOTE:** To avoid damage and prolong the life of the halogen bulbs, never touch with bare hands. Always use a soft cloth when handling.

### 9.5.1 Install Top Light Kit

1. Remove the safety barrier screen and glass frame assembly (if installed).
2. Remove the top light kit cover assembly, (8) screws total (FIGURE 9.4). Save screws.
3. Install or replace (2) halogen bulbs (included with this kit) into lamp bases.
4. Reinstall top light kit cover assembly with (8) screws previously removed.
5. Reinstall glass frame assembly and safety barrier screen.

Refer to FIGURE 9.5 for wiring.

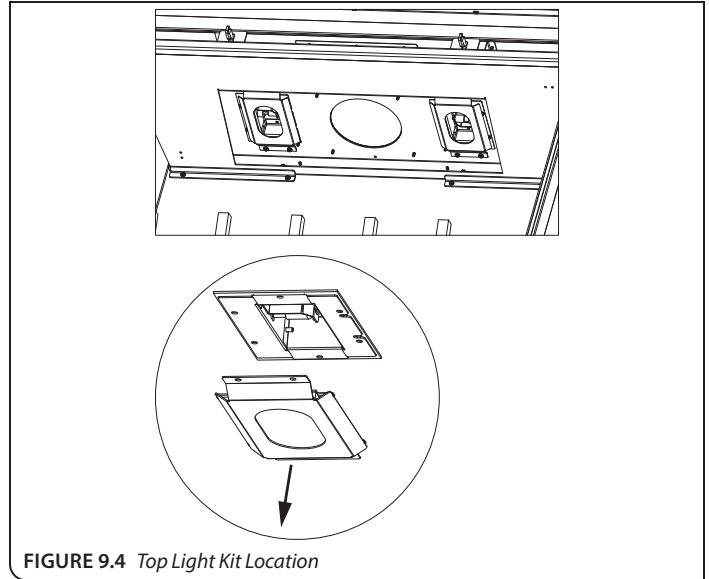


FIGURE 9.4 Top Light Kit Location

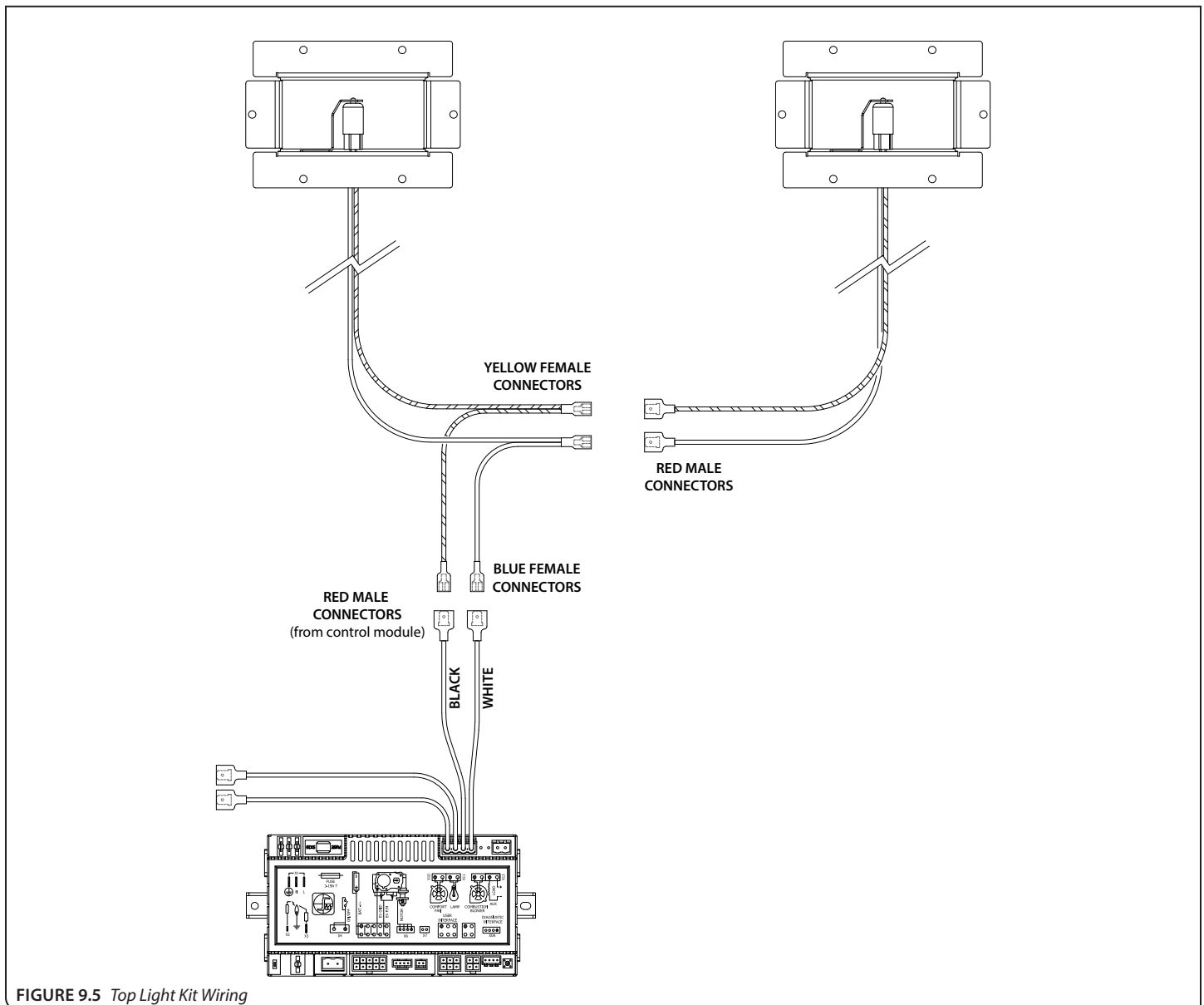


FIGURE 9.5 Top Light Kit Wiring

## FOR YOUR SAFETY READ BEFORE OPERATING

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

- A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- B. **BEFORE OPERATING** smell 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.
- C. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to turn the gas control manual valve. Never use tools. If the valve will not turn by hand, do not 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 that has been under water.

### WARNING

Do not operate appliance with the glass front removed, cracked, or broken. Replacement of the glass should be done by a licensed or qualified service person.

Under no circumstances should any solid fuel (wood, coal, paper, cardboard, etc.) be used in this appliance.



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

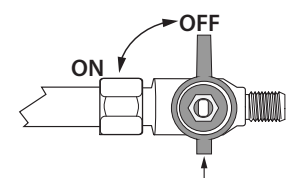
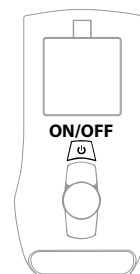
### CAUTION

Clothing or other flammable material should not be placed on or near the appliance.


Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.

## OPERATING INSTRUCTIONS

1. STOP! Read all the safety information above on this page.
2. Press the wireless remote OFF button.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
5. Locate the manual valve installed by your qualified service technician.
6. Turn the manual valve clockwise  to the OFF position.
7. Wait five (5) minutes to clear out any gas. Then, smell for gas, including near the floor. If you smell gas, STOP! Follow 'B' in the safety information above. If you do not smell gas, go to the next step.
8. Turn the manual valve counterclockwise  to the ON position.
9. Turn on all electric power to the appliance.
10. Press the wireless remote ON button.
11. If the appliance will not operate, follow the instructions, "To Turn Off Gas To Appliance" and call your service technician or gas supplier.



## TO TURN OFF GAS TO APPLIANCE

1. Press the wireless remote OFF button.
2. Turn off all electric power to the appliance if service is to be performed.
3. Locate the manual valve installed by your qualified service technician.
4. Turn the manual valve clockwise  to OFF position.

### NOTE

When this fireplace is initially lit, condensation will appear on the glass. This is normal in all gas fireplaces and will disappear after several minutes. A paint smell will occur during the first few hours of burning. It is recommended to leave the fan off during this period to help speed the paint curing process.

This fireplace may produce noises of varying degree as it heats and cools due to metal expansion and contraction. This is normal, and does not affect the performance or longevity of the fireplace.

## 10.1 Setup Proflame 2 IFC Module

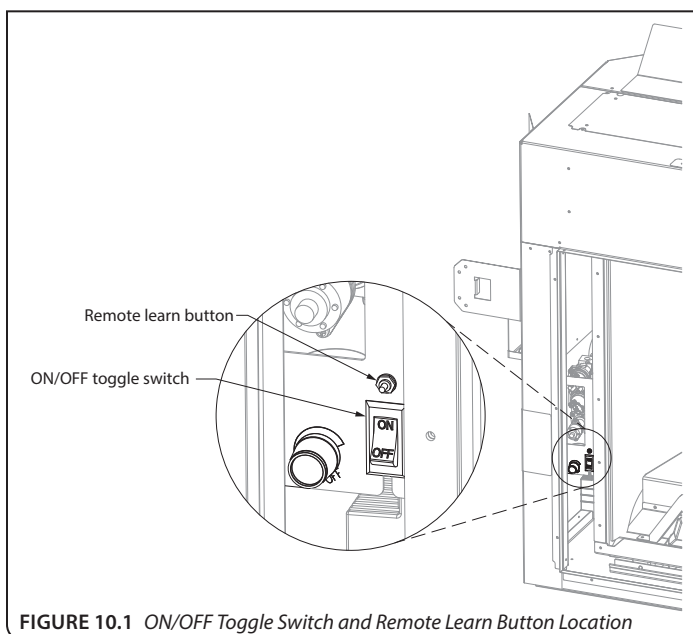
1. Set the main ON/OFF rocker switch in the OFF position.
2. Install (4) AA batteries (not included) into backup battery holder on the control module.
3. Install (3) AAA batteries (included in the components packet) in the remote control battery bay, located at the base of the remote.
4. Connect the IFC Module to an AC power supply.

## 10.2 Initialize the Control System

**IMPORTANT:** Remove all packaging and combustible material from the firebox before initializing the control system.

**NOTE:** Performing the next steps will initiate pilot start-up in manual mode, where the pilot igniter will spark repeatedly. The pilot will ignite if gas is supplied to the fireplace.

1. To access the ON/OFF toggle switch and remote learn button on the left side of the unit, remove the safety barrier screen by lifting up and out of its slots.
2. Locate the remote sync button on the control module access switch on the left side of the fireplace. See **FIGURE 10.1** below.
3. Press the remote sync button. The IFC module will BEEP (3) times and illuminate an amber LED. This indicates the receiver is ready to synchronize with the transmitter.
4. Within (5) seconds, push the ON/OFF button on the remote control. The receiver will BEEP (4) times to indicate the transmitter's command is accepted, and is set to the transmitter's particular code. The pilot will automatically ignite.
5. Press the remote control ON/OFF button again. The pilot will extinguish, confirming the remote control command. The control system is now initialized.
6. Set the main ON/OFF toggle switch to ON position for remote control operation of the main burner and fireplace features.
7. Reinstall safety barrier screen.



**FIGURE 10.1** ON/OFF Toggle Switch and Remote Learn Button Location

## 10.3 Reset the System for Manual Operation

1. Access the toggle switch and remote learn button on the left side of the unit by removing the safety barrier screen by lifting up and out of its slots.
  2. Set the ON/OFF rocker switch to OFF position.
  3. Press and hold the remote sync button until it emits (3) beeps and an amber LED is illuminated.
  4. Within (5) seconds, press the remote sync button again. This will close synchronization with the remote control. The pilot will automatically light.
- Turn the main burner ON by setting the ON/OFF switch in ON position. The main burner will only operate on HI.
  - Turn the main burner OFF by setting the ON/OFF switch in the OFF position. The pilot will remain lit even if burner is turned off, provided CPI mode is turned on.

## 10.4 Automatic Safety Restart

- This system will execute an automatic turn OFF command for approximately (5) seconds within (24) hours of a continued pilot flame ignition to perform a safety check. This allows the system to verify correct safety functions.
- After the turn OFF sequence is completed, the IFC module will re-execute the latest command.

## 10.5 Backup Battery Operation

This appliance will operate on the backup battery pack when electric power is interrupted, or in a power outage. The lifespan of the backup batteries depend on various factors, such as the quality of the batteries, number of ignitions, et cetera.

- When the backup battery pack is low, the IFC module will emit a double-beep while receiving an ON/OFF command.
- No commands will be accepted after this alert until the back up batteries are replaced.
- Once replaced, the IFC module will emit a 'beep' as soon as it is powered.

## 10.6 Control System 7 Day Timeout

- If you have your Proflame 2 system set to CPI (continuous pilot ignition) with **7 consecutive days** without ignition of the main burner, the pilot will turn off. This is a standard safety feature of the SIT Proflame 2 system.
- Once you turn CPI on, the **7** day timer will start. If at any time during the following **7** days your main burner ignites, it will reset the timer back to **7** days.
- See section **10.9.3 PILOT IGNITION SELECTION** (page 66) for more information.

### *How to check if your system is set to CPI:*

The LCD screen will display the snowflake icon.

### *To select the preferred pilot ignition feature,*

1. With the system in the OFF position, press the mode key to index the CPI mode icon.
2. Press the up arrow key to activate CPI.
3. Press the down arrow key to return to IPI. A single 'beep' will confirm reception of the command.

### *To Turn ON the appliance:*

1. With the system in the OFF position, press the remote control ON/OFF key to turn ON the appliance. A single 'beep' will emit from the IFC module to confirm reception of the command.

The LCD screen will display all active icons, and the IFC module will start the ignition sequence.

## 10.7 IFC Module Ignition Sequence

The IFC module will try (2) times for ignition, each lasting approximately (60) seconds, with approximately (35) seconds between each attempt.

1. With the system in OFF position, press the remote control ON/OFF key. Approximately (4) seconds after this key is depressed, the IFC module will generate sparks to the pilot hood.
2. First ignition attempt will generate sparks for (60) seconds.
3. If there is no flame ignition (rectification) within the (60) second time frame, the IFC module will stop generating sparks for approximately (35) seconds.
4. After (35) seconds of wait time, the IFC module will generate sparks for another (60) seconds for the second ignition attempt.
5. If there is no positive rectification after (60) seconds, the IFC module will go into a lock out. The red LED will blink (3) times, in intervals, until the system is reset.

## 10.7.1 Reset IFC Module after Lockout

### 10.7.1.1 ON/OFF Rocker Switch

1. Set the ON/OFF rocker switch to the OFF position.
2. After approximately (2) seconds, move the switch to the ON position. The ignition sequence will start again.

### 10.7.1.2 Remote Control ON/OFF Key

1. Press the remote control ON/OFF key to turn the system OFF.
2. After approximately (2) seconds, press the ON/OFF key again. The ignition sequence will start again.

### 10.7.1.3 Cycling Flame

1. Press the remote control down arrow key during flame adjustment mode to reduce the flame to OFF (indicated by OFF displayed on the LCD screen).
2. After approximately (2) seconds, press the up arrow key. The ignition sequence will start again.

## 10.8 Additional Diagnostic Information

### **Low Battery Condition (<4V) Remote Control:**

- Battery Icon will appear on LCD remote control display.
- Replace batteries.

### **Low Battery Condition (<4V) Battery Backup:**

- The red LED Indicator will blink (1) time in intervals.
- A low double-beep emits from the IFC control module when it receives an ON/OFF command from the remote control.
- Replace Batteries.

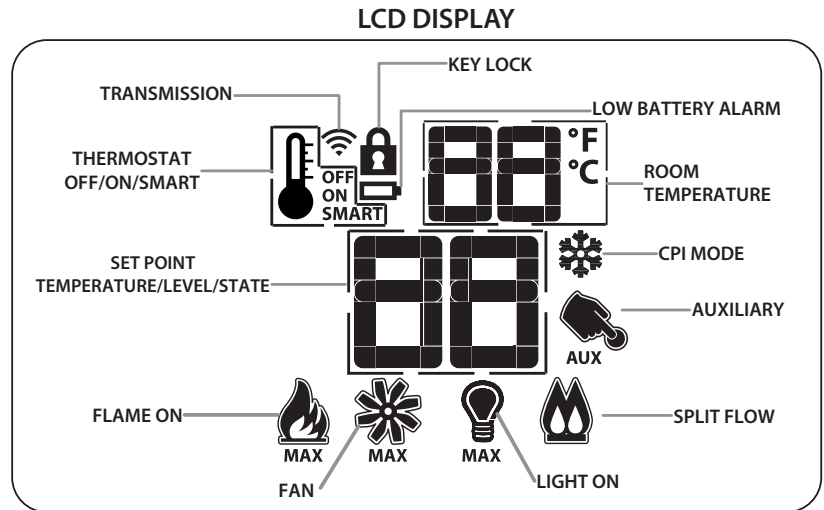
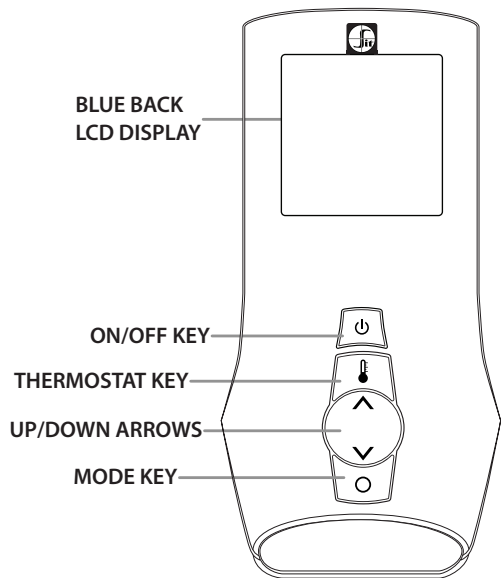
### **Pilot Flame Error Condition:**

- Red LED Indicator will blink (2) times in intervals. Contact your dealer if this occurs.

### **System Lock Out Condition:**

- Red LED Indicator will blink (3) times in intervals.
- Verify gas is turned on.
- Verify sensor is not shorted.
- Follow section **10.2, INITIALIZE THE CONTROL SYSTEM** on page 64.

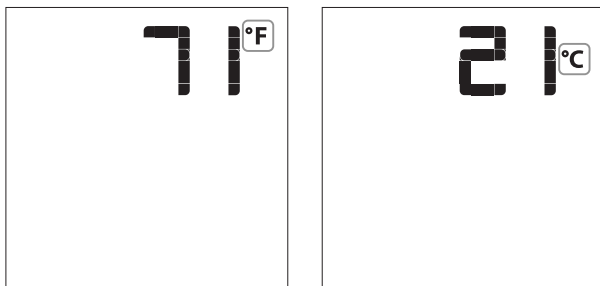
## PROFLAME 2 TRANSMITTER



## 10.9 Remote Control Operation

### 10.9.1 Temperature Display

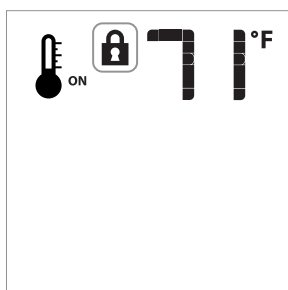
1. With the system in the OFF position, simultaneously press the thermostat key and the mode key to change degrees from °F to °C.
2. Visually check the LCD screen to verify either °F or °C is displayed on the right side of the room temperature display.



### 10.9.2 Key Lock

This function locks the keys to avoid unsupervised operation. Once activated, a lock icon will appear on the LCD screen.

1. Simultaneously press the mode key and the up arrow key to activate or deactivate this function.



### 10.9.3 Pilot Ignition Selection (IPI/CPI)

This system has the option of a continuous (standing) pilot. This feature allows the system to change from a spark-to-pilot system to the standing pilot option. The standing pilot will keep the firebox warm and establish a draft in the vent, which allows the main burner to ignite with less air-flow disruption.

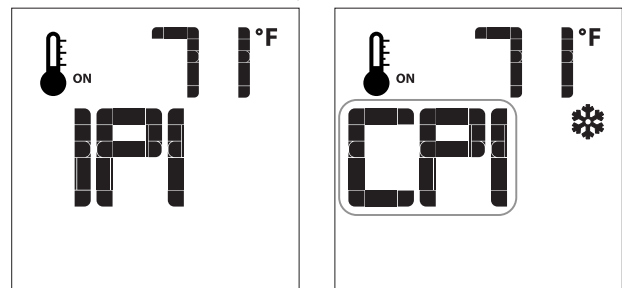
When the system is OFF, the LCD screen will display the snowflake icon during the setup of either IPI or CPI mode. To select the preferred pilot ignition feature,

1. With the system in the OFF position, press the mode key to index the CPI mode icon.
2. Press the up arrow key to activate CPI.
3. Press the down arrow key to return to IPI. A single 'beep' will confirm reception of the command.

When the system is ON,

**IPI mode:** LCD screen will not display the snowflake icon

**CPI mode:** LCD screen will display the snowflake icon



### 10.9.4 Turn ON the Appliance

1. With the system in the OFF position, press the remote control ON/OFF key to turn ON the appliance.  
A single 'beep' will emit from the IFC module to confirm reception of the command.

The LCD screen will display all active icons, and the IFC module will start the ignition sequence.

### 10.9.5 Turn OFF the appliance

1. With the system in the OFF position, press the remote control ON/OFF key to turn ON the appliance.  
A single 'beep' will emit from the IFC module to confirm reception of the command.

The LCD screen will only display the room temperature and its icon, and the IFC module will turn off the main burner.

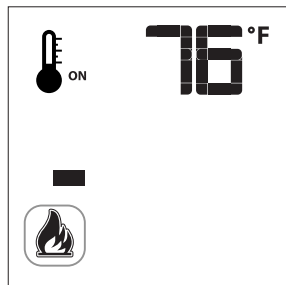
### 10.9.6 Remote Control Flame Adjustment

This control system has (6) flame levels. If the smart thermostat operation is activated, then the manual adjustment of the flame height will be disabled.

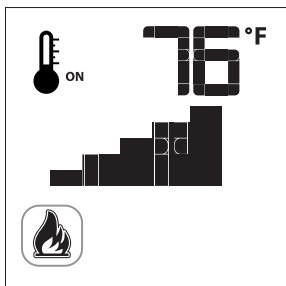
1. Verify the system is in the ON position and the flame level is set at maximum.
2. Press the down arrow key once to reduce flame height by one level until the flame is turned off.
3. Press the up arrow key once to increase flame height by one step. If the up arrow key is pressed while the system is on, but the flame is off, the flame will ignite on HI.
4. A single 'beep' will confirm reception of the command.



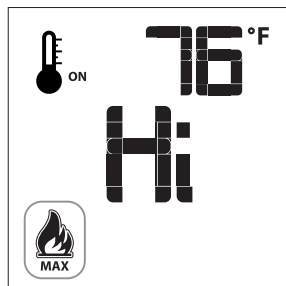
Flame off



Flame Level 1



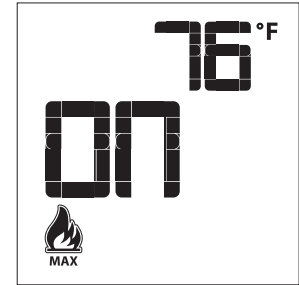
Flame Level 5



Flame Level Maximum

### 10.9.6.1 Deactivate Flame Modulation

1. Verify all (3) AAA batteries are installed in the remote control battery bay.
2. Remove (1) AAA battery.
3. Press and hold the on/off key and the mode key at the same time.
4. Reinsert (1) AAA battery.
5. While still holding the on/off key, let go of **ONLY** the mode key.
6. Index over to the flame graphic on the LCD screen to edit. Use the up or down arrow key to choose 'ON' or 'OFF'.

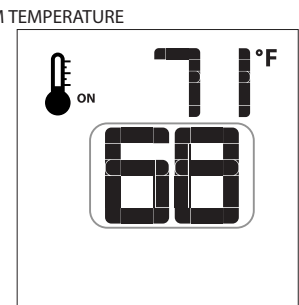
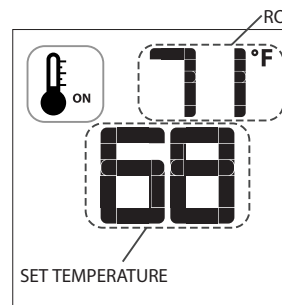


### 10.9.7 Remote Control Thermostat Operation

#### 10.9.7.1 Room Thermostat

The remote control can operate as a room thermostat. The thermostat can be set to a desired temperature to control a room's comfort level. To activate this function,

1. Press the thermostat key. The LCD screen will display a temperature bulb graphic, the room temperature and set temperature.
2. To adjust the set temperature, press the up or down arrow keys until the desired temperature is displayed on the LCD screen.

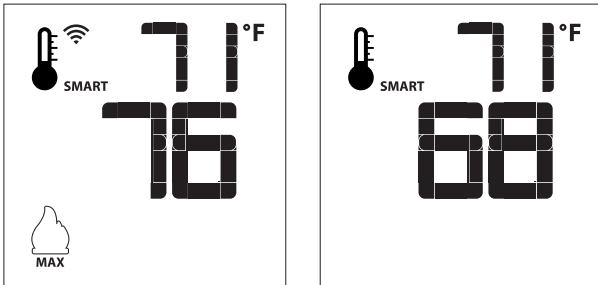




### 10.9.7.2 Smart Thermostat

The smart thermostat function will adjust the flame height based on the set temperature and the actual room temperature. The smart thermostat function automatically adjusts the flame down when the room temperature reaches the set point. To activate this function,

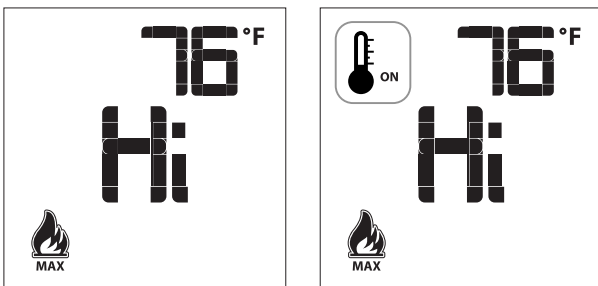
1. Press the thermostat key until the 'SMART' appears on LCD screen on the right side of the temperature bulb graphic.
2. To adjust the set temperature, press the up or down arrow keys until the desired temperature is displayed on the LCD screen.



### 10.9.7.3 Deactivate Remote Control Thermostat Operation

The thermostat operation function can be deactivated. The remote control will still operate the main burner on and off, and function flame, fan, and light modulation. To deactivate this function,

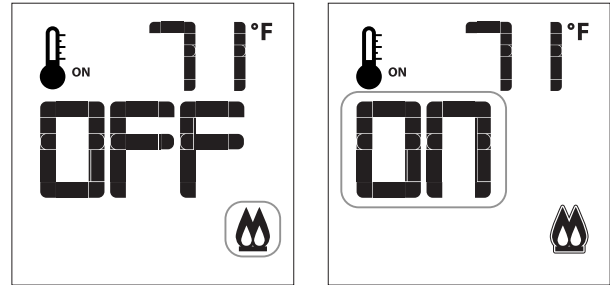
1. Verify all (3) AAA batteries are installed in the remote control.
  2. Remove (1) AAA battery.
  3. While reinserting the battery, push and hold the thermostat key. The temperature bulb graphic will not be displayed on the LCD screen.
- To reactivate remote thermostat operation, follow the same key sequence procedure above. The temperature bulb graphic will reappear on the LCD screen.



### 10.9.8 Split Flow Control

The secondary burner is controlled by the split flow. To activate this function,

4. Press the mode key to index to the split flow mode icon.
5. Press the up arrow key to activate the secondary burner.
6. Press the down arrow key to turn the secondary burner off. A single 'beep' will confirm the reception of the command.



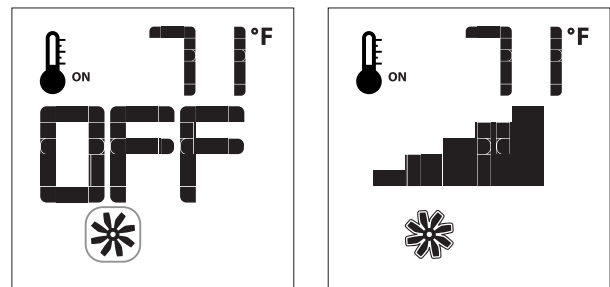
### 10.9.9 Fan Speed Control

Fan speed can be adjusted through (6) speeds. To activate this function,

1. Press the mode key to index to the fan control icon.
2. Press the up or down arrow keys to turn on, off, or to adjust fan speed.

**Thermostat mode:** Fan(s) have a (5) minute delay time when the fireplace is let. This allows time for heat to build in fireplace before fan operation. The fan will continue to operate for approximately (12) minutes after the fireplace has been turned off.

**Manual mode:** Fan(s) will operate at previous setting. There is no delay in start up or stop time.

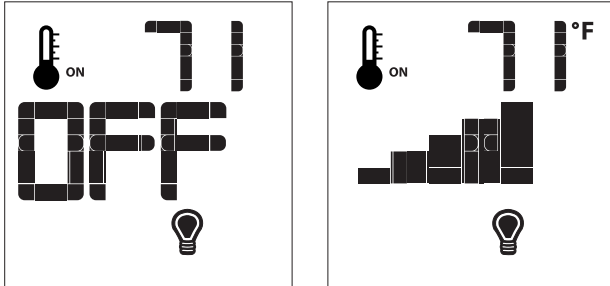




### 10.9.10 Top Accent Light Kit

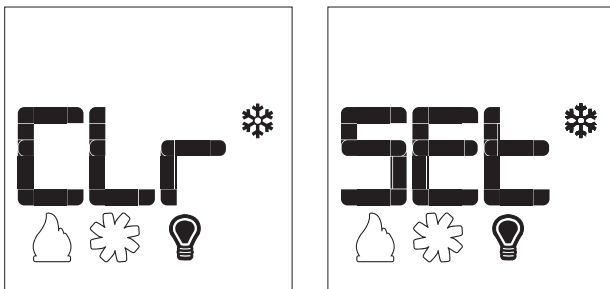
The top light intensity can be adjusted through (6) levels.

1. Press the mode key to index to the light icon.
2. Press the up or down arrow keys to adjust the intensity level.
3. A single 'beep' will confirm reception of the command.



#### 10.9.10.1 Deactivate Light Kit Modulation

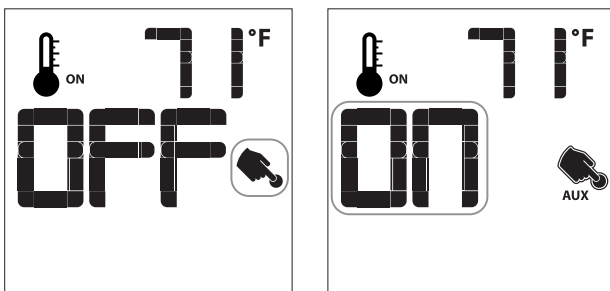
1. Verify all (3) AAA batteries are installed in the remote control battery bay.
2. Remove (1) AAA battery.
3. Press and hold the on/off key and the mode key at the same time.
4. Reinsert (1) AAA battery.
5. While still holding the on/off key, let go of **ONLY** the mode key.
6. Index over to the bulb graphic on the LCD screen to edit. Use the up or down arrow key to choose 'SET' or 'CLR'.



### 10.9.11 Ember Bed Light Kit (auxiliary)

The auxiliary function controls ON/OFF function the ember bed light kit. To activate this function,

1. Press the mode key to index to the AUX icon.
2. Press the up arrow key to turn the ember bed light kit ON.
3. Press the down arrow key to turn the ember bed light kit OFF.
4. A single 'beep' will confirm reception of the command.



### 10.9.11.1 Adjust Ember Bed Light Kit Intensity

The ember bed light kit intensity can be adjusted by using the ember bed light kit modulator knob located on the left side of the firebox (FIGURE 10.2). To adjust,

1. Remove the safety barrier screen by lifting the screen up and out of the slots.
2. Turn the knob counterclockwise to decrease the light intensity.
3. Turn the knob clockwise to increase the light intensity.
4. Reinstall safety barrier screen when finished. Raise the safety screen front slightly into slots and allow tabs to lower into position.

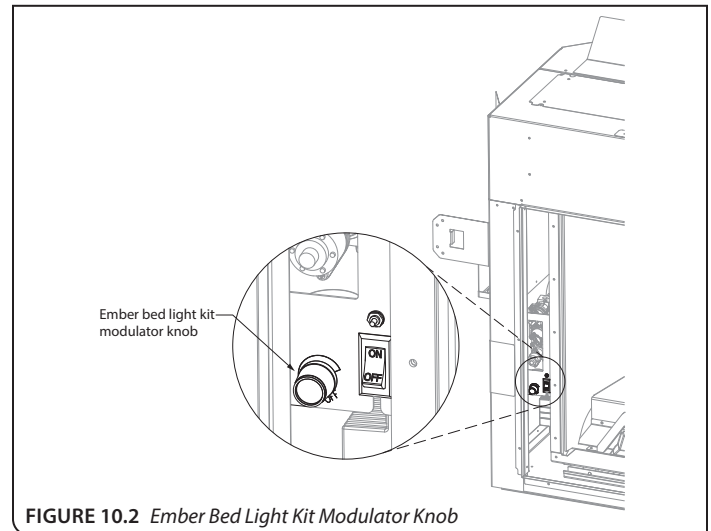
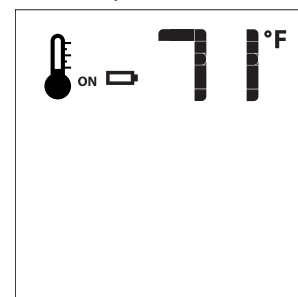


FIGURE 10.2 Ember Bed Light Kit Modulator Knob

### 10.9.12 Remote Control Low Battery Detection

Remote control battery lifespan depends on various factors including battery quality, number of ignitions, changes to room thermostat set point, etcetera.

- When the remote control batteries are low, a battery icon will appear on the LCD display before all battery power is lost.
- When the batteries are replaced, this icon will disappear.



## 11.1 Pressure Testing

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

**IMPORTANT:** Pressure check taps for manifold (outgoing) and inlet (incoming) pressure have been incorporated into the valve. The pressure tap marked OUT measures outgoing pressure. The pressure tap marked IN measures incoming pressure.

### 11.1.1 Inlet Pressure Test

**NOTE:** Make sure to apply these incoming pressure test with all other gas appliances on, or at full capacity, in the house for proper pressure reading.

**IMPORTANT:** If the inlet pressure reading is too high or too low, contact the gas company. Only a qualified gas service technician should adjust incoming gas pressure.

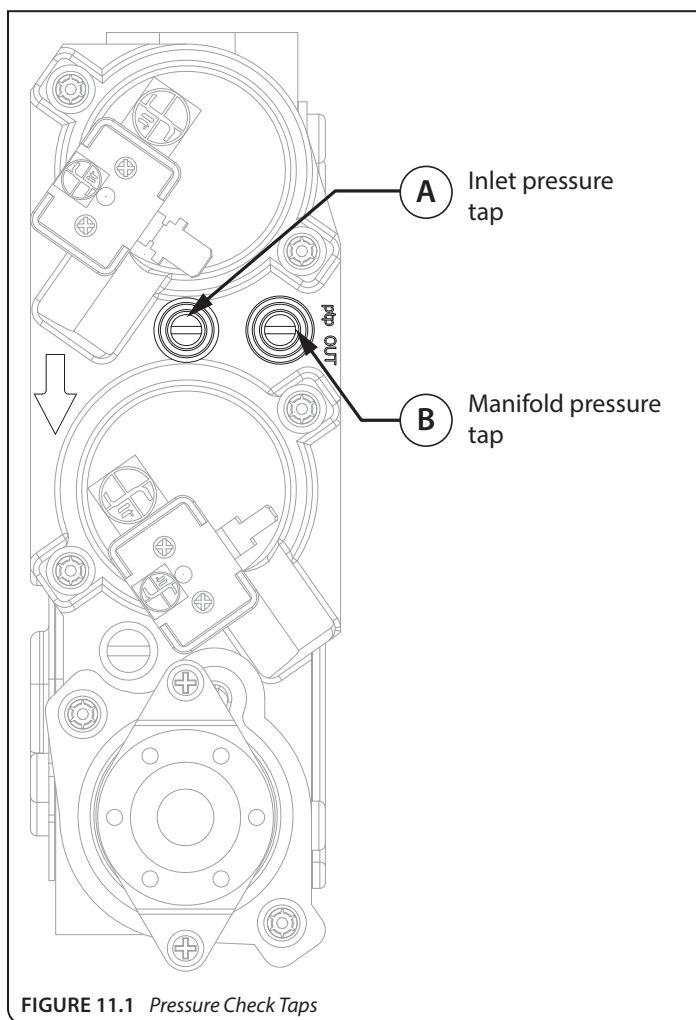
1. Loosen the inlet (IN) pressure tap by turning screw counter-clockwise. See (A) in **FIGURE 11.1**.
2. Attach manometer using a 1/4" (6mm) I.D. hose.
3. Light pilot and burner. Check pressure to ensure it is between the minimum and maximum recommended pressure settings (**TABLE 11.1**).
4. Turn off burner and pilot.
5. Disconnect hose and tighten the inlet (IN) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
6. Relight pilot and burner. Then reattach manometer to the inlet pressure tap (A) to verify the tap is completely sealed. Manometer should read no pressure.

### 11.1.2 Manifold Pressure Test

1. Light pilot.
2. Loosen manifold (OUT) pressure tap by turning screw counter-clockwise. See (B) in **FIGURE 11.1**.
3. Attach manometer to pressure tap using a 1/4" (6mm) I.D. hose.
4. Light burner. Check manometer reading. Refer to **TABLE 11.2**.
5. Turn burner and pilot off.
6. Disconnect manometer hose and tighten the manifold (OUT) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
7. Attach the manometer to the manifold pressure tap (B) to verify it is completely sealed. The manometer should read no pressure when pilot and burner are on.

Fuel	Natural Gas	Propane
Gas Supply	Min - Max	Min - Max
Inlet Pressure Tap (A)	5" - 10.5" WC (1.25 - 2.62 kPa)	12" - 13" WC (2.99 - 3.24 kPa)

Fuel	Natural Gas	Propane
Gas Supply	Low - High	Low - High
Manifold Pressure Tap (B)	1.1" - 3.8" WC (0.27 - 0.95 kPa)	2.9" - 11" WC (0.72 - 2.74 kPa)



**FIGURE 11.1** Pressure Check Taps

## 11.2 Burner Flame Adjustments

**WARNING:** To avoid property damage or personal injury, allow the fireplace ample time to cool before making any adjustments.

Burner flame appearance and characteristics are affected by altitude, fuel quality, venting configuration, and other factors. After installation, this appliance may need additional adjustments to achieve optimum flame appearance and visual aesthetics.

### 11.2.1 Burner Venturi

**WARNING:** VENTURI ADJUSTMENT MUST BE DONE BY A QUALIFIED SERVICE TECHNICIAN.

When this appliance is first lit, the burner flames will appear blue. During the first 15 minutes of operation, flame appearance will gradually turn to the desired yellow appearance. If the flames remain blue, or become dark orange with evidence of sooting (black tips), adjustment of the air shutter opening may be necessary.

Regardless of venturi orientation, closing the air shutter will achieve a desired yellow flame, but may produce soot on the glass. Opening the air shutter will cause a short, blue flame that may lift off the burner.

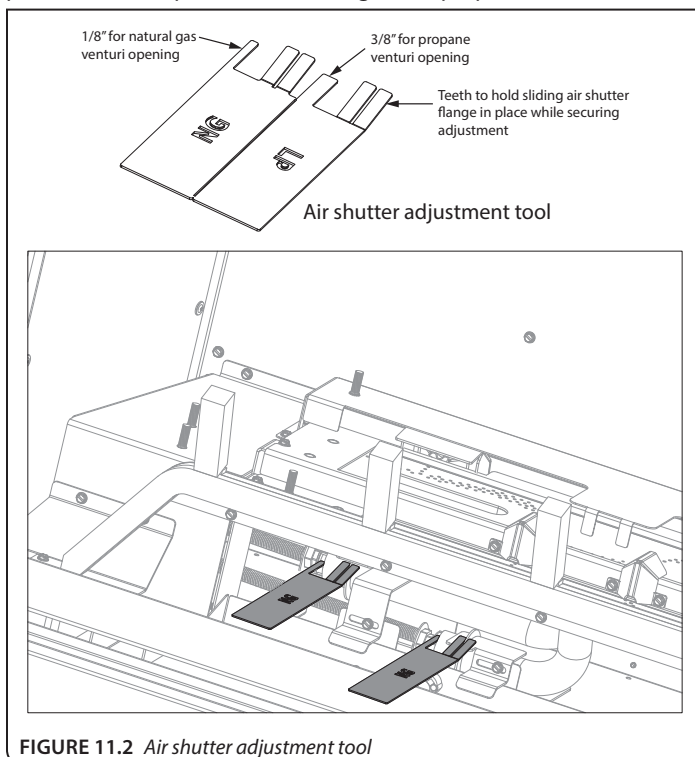
Slight adjustments to the venturi opening will create dramatic results. Adjust at slight increments until desired look is achieved.

**NOTE:** If soot is present on the logs, check log placement (section 8.4, LOG SET INSTALLATION, pg. 55) before adjustment.

**Table 11.3, Factory Set Venturi Openings**

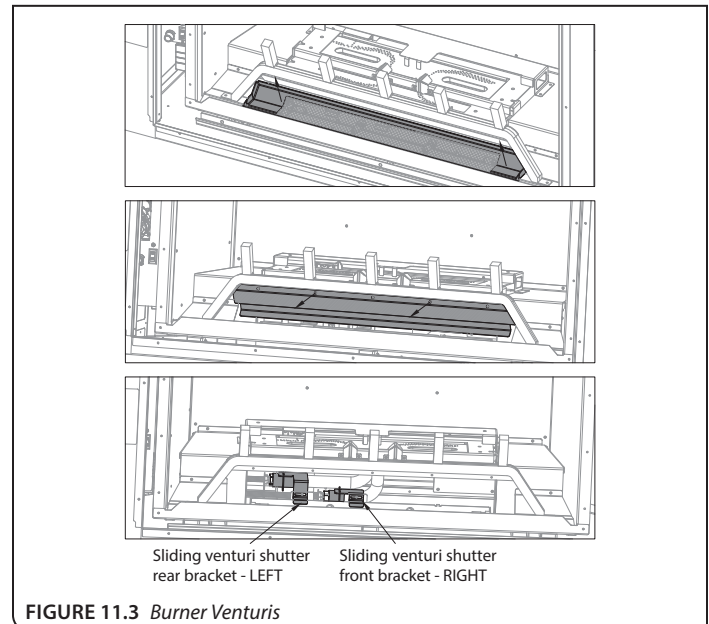
Fuel	Front Burner Venturi	Rear Burner Venturi
Natural Gas	1/8" (3.175mm)	1/8" (3.175mm)
Propane	3/8" (9.525mm)	3/8" (9.525mm)

In the small components packet included with this appliance, there is an air shutter adjustment tool to measure the factory set opening for the sliding venturi shutters, as shown in FIGURE 11.2. Bend at the pre-cut line to separate the natural gas and propane tools.

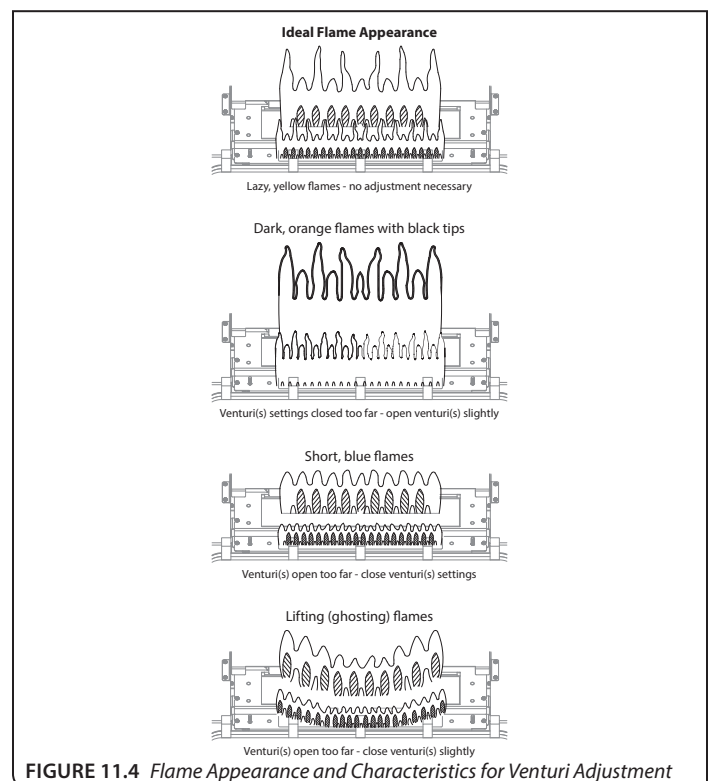


**FIGURE 11.2** Air shutter adjustment tool

1. Remove the safety barrier screen, glass frame assembly and media tray.
2. Remove the flange attached to the log rack, (5) screws. See **FIGURE 11.3**.
3. Loosen the screws on the venturi brackets and adjust the venturi as necessary. See flame adjustment guidelines in **FIGURE 11.4**. Re-tighten screws when finished.  
**Moving the sliding venturi shutter brackets(s) to the right opens the air shutter opening and increases air.**  
**Moving the sliding venturi shutter bracket(s) to the left closes the air shutter opening and decreases air.**
4. Reinstall all components previously removed.



**FIGURE 11.3** Burner Venturis



**FIGURE 11.4** Flame Appearance and Characteristics for Venturi Adjustment

### 11.2.2 Vent Restriction (after installation)

**WARNING:** To avoid property damage or personal injury, allow the fireplace ample time to cool before making any adjustments.

**WARNING:** Improper vent installation may cause the burner flames to lift or “ghost.” Perform a visual check on flame appearance after restriction adjustment to ensure proper performance.

Vertical terminations may display an active, compact flame. If this appearance is not desirable, a restrictor plate may need to be installed or modified after vent termination installation. Access to the vent exit for restriction can be reached through the fireplace baffle.

Refer to TABLE 11.4 and FIGURE 11.6 for flame appearance adjustments. Allow the fireplace to burn for 15 minutes before making any adjustments.

#### 11.2.2.1 Restrictor Plate Installation

1. Remove the safety barrier and the glass frame assembly.
2. Locate the 5" (127mm) exhaust pipe in the firebox ceiling.
3. Bend the tabs on the restrictor plate (included in components packet) to approximately 80° angles. This will create tension when the restrictor plate is inserted into the exhaust pipe.
4. Insert restrictor plate into the 5" (127mm) exhaust pipe with the tabs pointing towards you.
5. Reinstall all components previously removed.

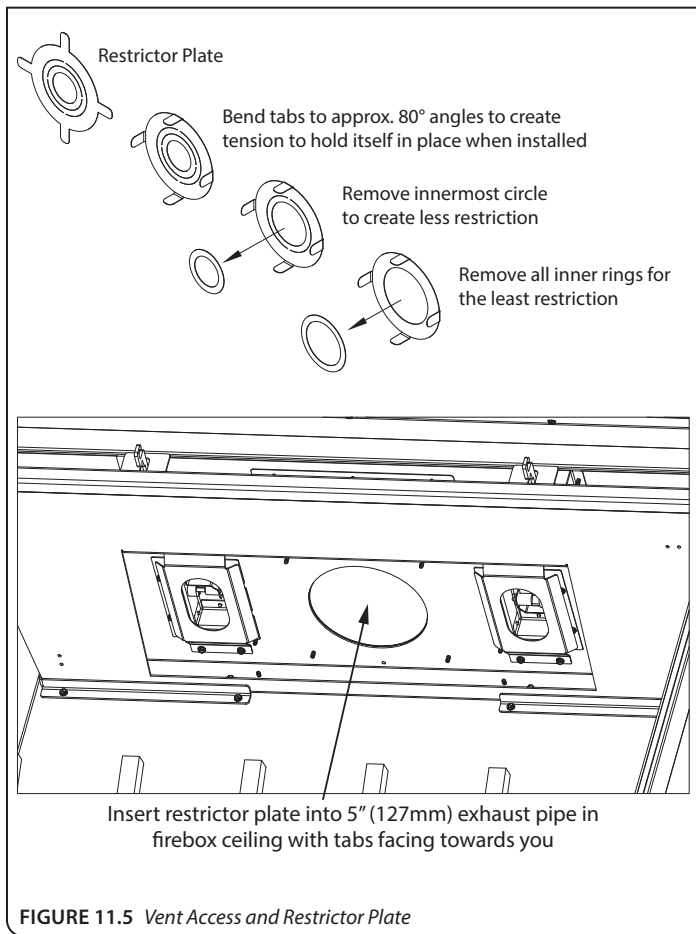


FIGURE 11.5 Vent Access and Restrictor Plate

#### 11.2.2.2 Restrictor Plate Modification

1. Remove the safety barrier and the glass frame assembly.
2. Remove the restrictor plate by pulling it down and out of the 5" (127mm) exhaust pipe. Make necessary modifications to achieve desired flame appearance.
3. Insert restrictor plate into the 5" (127mm) exhaust pipe with the tabs pointing towards you.
4. Reinstall all components previously removed.

Table 11.4, Restrictor Plate Adjustment Guidelines		
Flame Appearance	Draft Problem	Solution
Short, flickering	Excessive draft Not enough restriction	Add restrictor plate
Lifting or ghosting*	Insufficient draft	Remove inner ring(s) on restrictor plate, or; remove restrictor plate
*If flames continue to lift or ghost after opening the restrictor plate and verifying correct vent installation, shut off the gas supply and call a qualified service technician.		

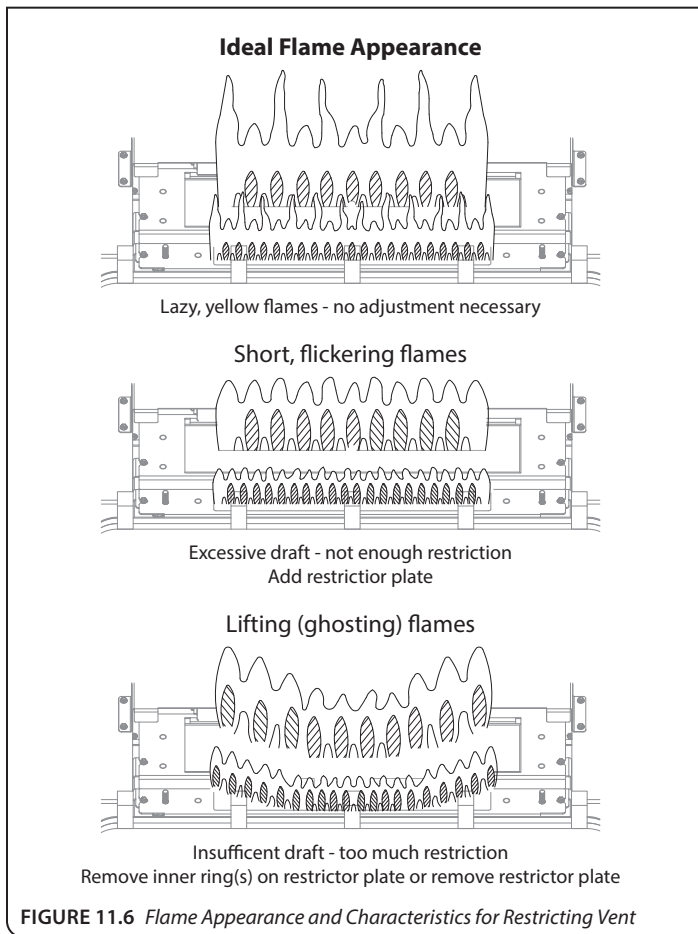


FIGURE 11.6 Flame Appearance and Characteristics for Restricting Vent

# 12.0 TROUBLESHOOTING

**ATTENTION:** Troubleshooting must be performed by a qualified technician.

Before proceeding with the steps in the following troubleshooting guide,

- Verify proper 120VAC power supply to the control module.
- Verify the control module battery pack and the remote control batteries are fresh and installed with correct polarity.
- Verify all connections between the wire harnesses and the system components are proper and positive.
- Verify the communication link is established between the remote control and the IFC module.
- Verify inlet pressure meets the recommended inlet pressure. If necessary, adjust line pressure regulator.

Issue	Cause	Solution
<b>Pilot will not light</b>	Electrical power interrupted or disconnected	Restore electrical power to appliance or use battery back-up.
	Wiring disconnection	Ensure batteries are fully charged if using battery back-up as power source. Use wiring schematic in this manual to determine that all wiring connections are secure and correct.
	Gas supply turned off	Check remote shut-off valves from the appliance. Usually there is a valve near the main gas line. There may be more than (1) valve between the appliance and main gas line.
<b>Pilot will not stay lit</b>	No propane in tank	Check propane tank. Refill if necessary.
	Low gas pressure	Consult a plumber or a gas supplier. Can be caused by situations such as a bent line, too narrow diameter or pipe, or a low line pressure.
	Pilot flame not making contact with the flame rectification sensor on the pilot assembly	Verify the pilot flame envelopes the top of the flame sensor and extends far enough onto burner for ignition. To adjust pilot flame, turn pilot adjustment screw on the gas valve clockwise to decrease flame, and counterclockwise to increase flame.
	Pilot adjustment screw not sealed	Seal pilot adjustment screw. Do not over-tighten.
<b>Pilot flame always on, or will not extinguish</b>	Control system set to CPI mode	Set control system to IPI mode.
<b>Main burner flame will not light</b>	ON/OFF rocker switch in OFF position	Switch rocker switch to ON position.
	Gas supply turned off	Check for multiple shut-offs in the supply line. Verify gas supply is turned on.
	Low gas supply	Consult with plumber or gas supplier. Check propane tank. Refill if necessary.
	Wiring disconnection or improper wiring	Check for faulty or incorrect wiring. Refer to section 9.0, <b>ELECTRICAL INFORMATION</b> on page 60.
	Plugged main burner orifice	Remove blockage.
	Pilot flame	Verify the pilot flame is properly directed to ignite burner. See pilot flame troubleshooting above.
	Remote control not working properly	Replace batteries.
	No call for heat	Verify remote control is powered ON and thermostat operation is turned OFF.

Issue	Cause	Solution
<b>Pilot and burner extinguish while in operation</b>	No propane in tank	Check propane tank. Refill if necessary.
	Incorrect glass assembly installation	Refer to section 8.1, <b>GLASS FRAME ASSEMBLY</b> on page 53.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.
	Improper pitch on horizontal venting	1/4" (6mm) rise for every 12" (305mm) of travel is required on horizontal venting
	Exhaust vent pipe leaking exhaust gases back into firebox	Check for leaks and repair if necessary.
	Excessive draft	A restrictor may need to be installed or modified. Refer to section 11.2.2 <b>VENT RESTRICTION</b> on page 72.
<b>Soot appears on glass</b>	Improper log placement	Refer to section 8.4, <b>#BH38-500 &amp; #BH38-B501 LOG SET INSTALLATION</b> on page 55.
	Improper venturi setting	Venturi air shutter may need to be opened slightly to allow more air into the gas mix. Refer to section 11.2.1, <b>BURNER VENTURI</b> on page 71.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.
<b>Flame burns blue and lifts off burner</b>	Improper venturi setting	The venturi air shutter may need to be closed slightly to allow less air into the gas mix. Refer to section 11.2.1, <b>BURNER VENTURI</b> on page 71.
	Incorrect vent cap installation	Adjust if necessary.
	Blockage or leakage of the vent system	Check the vent pipes for leaks, and the vent cap for debris. Repair the vent pipes or remove debris from vent cap, if necessary.
<b>No reaction to command</b>	Battery back batteries or remote control batteries low	Replace batteries.
	No communication between remote control and IFC module	Reprogram remote control to IFC module. Refer to section 10.2, <b>INITIALIZE THE CONTROL SYSTEM</b> on page 64.
	A maximum number of failed ignitions or flame restorations has been reached	Reset IFC module. Refer to section 10.7, <b>IFC MODULE IGNITION SEQUENCE</b> on page 65.



**ATTENTION:** Installation and repair should only be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning might be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean. Use a vacuum to clean all components.

**WARNING:** The appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.

## 13.1 Firebox

**Performed by:** Qualified Service Person

**Frequency:** Annually

**Action:**

- Vacuum and clean any debris in the firebox that is not supposed to be there.
- Inspect and operate the bottom latch assembly. Verify the assembly is free from obstruction to operate. The handles must have spring tension but be able to move forward freely.

## 13.2 Fan

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

**Performed by:** Qualified Service Person

**Frequency:** Every 6 months

**Action:**

- Disconnect the fan from electrical current and vacuum.
- The bearings are sealed and require no oiling.

## 13.3 Vent System

**NOTE:** If the vent-air intake system is disassembled for any reason, reinstall per instructions provided with installation. If installing Kozy Power Vent (#KPV), please reference the manual included with the kit. For natural draft vent installation, refer to section 7.0, VENTING on page 46.

**Performed by:** Qualified Service Person

**Frequency:** Annually

**Action:**

- Examination of the vent system is required.
- Inspect the condition of vent and vent terminal for sooting or obstruction and correct if present.
- The flow of combustion and ventilation air must not be obstructed.

## 13.4 Glass Assembly

**CAUTION:** Do not operate appliance with the glass assembly removed, cracked, or broken. Use protective gloves to handle any broken or damaged glass assembly components.

**WARNING:** Do not use substitute materials.

**WARNING:** Avoid striking or slamming glass assembly. Avoid abrasive cleaner. DO NOT clean glass while it is hot.

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

**Performed by:** Homeowner

**Frequency:** Annually

**Action:**

- Prepare a work area large enough to accommodate the glass assembly on a flat, stable surface.
- Remove safety screen and glass frame assembly.
- Clean glass window with a suitable fireplace glass cleaner using a soft cloth. Abrasive cleaners must not be used. Be careful not to scratch the glass when cleaning.
- Reinstall glass assembly and safety screen. Do not operate fireplace without safety screen.

**Performed by:** Qualified Service Person

**Frequency:** Annually

**Action:**

- Clean glass window with a suitable fireplace glass cleaner using a soft cloth. Abrasive cleaners must not be used. Be careful not to scratch the glass when cleaning.
- Inspect the glass for cracks, scratches, and nicks.
- Verify the glass assembly is properly intact and not damaged.
- Replace the glass and the assembly #701-062T as necessary.
- Only Hussong Mfg. Co., Inc. will supply the replacement of glass assembly as a complete unit.

## 13.5 Burner and Pilot System

Certain components may be removed for easier access to the control compartment. Refer to section 8.5, **CONTROL BOARD** on page 58 for instructions. Verify gas supply is turned on and filled. Consult with plumber or gas supplier as necessary.

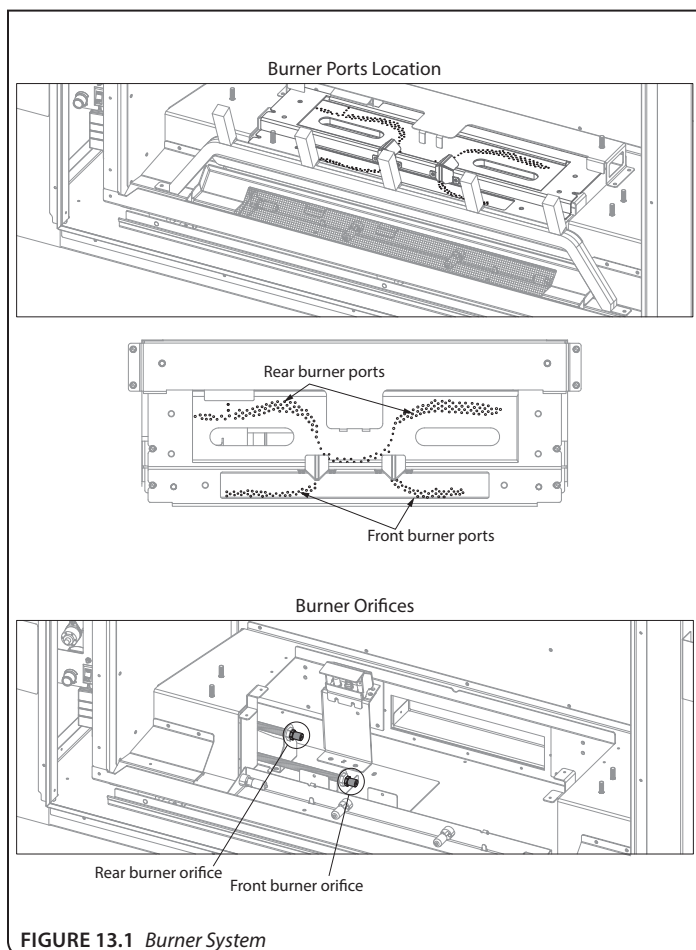
Refer to **FIGURE 13.1** for burner system components and **FIGURE 13.2** for correct flame appearance for the burner and pilot system.

**Performed by:** Qualified Service Person

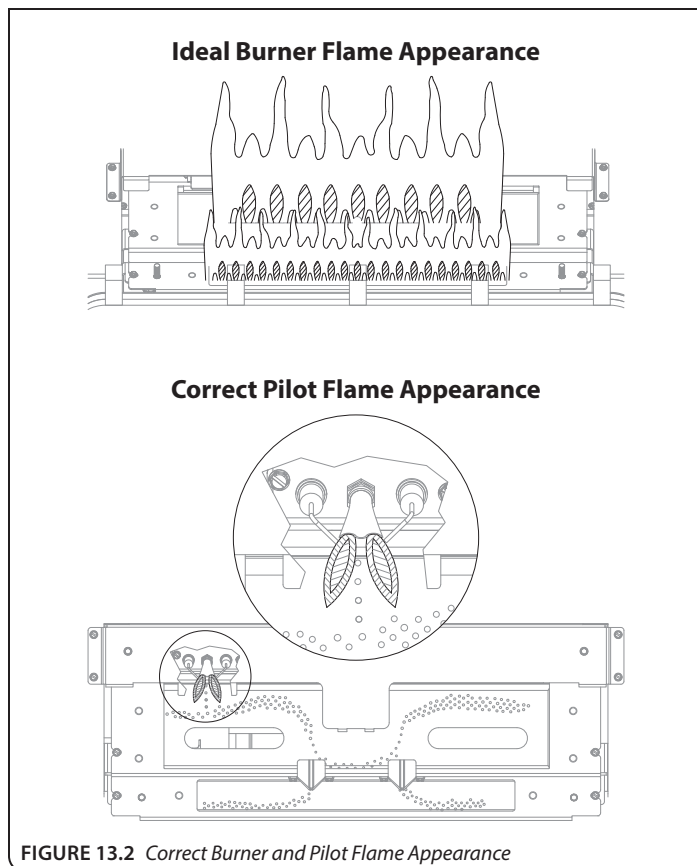
**Frequency:** Annually

**Action:**

- Vacuum all components of the burner system.
- Check all accessible gas-carrying tubes, connections, pipes and other components for leaks.
- Inspect the operation of the flame safety system Pilot or Flame rectification device. Visually check pilot light when in operation.
- Inspect and ensure the lighting of the main burner occurs within (4) seconds of the main gas valve opening. Check for faulty or incorrect wiring and correct or replace as necessary. Inspect primary air openings (burner ports) for blockage, especially near the pilot.
- Visually check burner flame pattern when in operation. Flames should be steady, not lifting or floating.
- Test and measure the flame failure response time of the flame safety system. It must de-energize the safety shutoff in no more than (30) seconds.



**FIGURE 13.1** Burner System



**FIGURE 13.2** Correct Burner and Pilot Flame Appearance



# 14.0 REPLACEMENT PARTS LIST

Replacement parts are available through your local dealer. Contact your local dealer for availability and pricing.

The following warning is for replacement parts for this appliance.

**WARNING:** This product can expose you to chemicals including Lead, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

BHM-38 CONTROL BOARD AND PARTS			
BH38-170	Control Board - Natural Gas	700-114	Pilot Orifice - Propane #.014 LP
BH38-171	Control Board - Propane	700-504	Valve Step Motor - Natural Gas
700-567	SIT IPI Gas Valve - Natural Gas	700-504-1	Valve Step Motor - Propane
700-567-1	SIT IPI Gas Valve - Propane	700-224W	24" WhisperFlex Gas Line - Black
700-759	Proflame 2 IFC Board	700-224F	24.50" Flare x Brazed Fitting
700-653	IFC Wire Harness Assembly	700-225F	18" Flex Tube - Valve to Burner
700-ANT	Proflame 2 IFC External Antenna	700-250	Natural Gas Burner Orifice FRONT #50
700-350A	Main Line Wire Harness - 42"	700-239	Natural Gas Burner Orifice REAR #39
700-656	On/Off Wire Harness	700-261	Propane Burner Orifice FRONT #61
700-756	Battery Back-up	700-165M	Propane Burner Orifice REAR 1.65mm
700-655	Fan/Light Kit Wire Harness	NCK-BH38-SPB	Conversion Kit - Natural Gas
900-596A	Pilot Assembly - Natural Gas	LCK-BH38-SPB	Conversion Kit - Propane
900-596A-1	Pilot Assembly - Propane	BH38-035F	Front Burner Assembly
700-604	540 Split Flow	BH38-035B	Rear Burner Assembly
700-081	Flexible PSE Pilot Tubing	BH38-035H	Burner Shutter
700-508	Transmitter (Remote Control) with Split Flow	BH38-035VT	Air Shutter Adjustment Tool
700-123	Pilot Orifice - Natural Gas #.023 NG	BH-VCP	Valve Cover Plate

GLASS AND GLASS GASKET	
701-062T	23.75" x 35.75" Glass with Gasket
900-006	1-1/8" Glass Gasket with Adhesive
BH38-005	Replacement Valance

SAFETY BARRIER	
BH38-ES	Safety Barrier Screen (only)

ADDITIONAL COMPONENTS	
900-086	5" (127mm) Restrictor Plate
700-203	Manual Gas Shut-off Valve
JOR-GLT	Glass Latch Tool

FAN KIT	
BH38-028	Fan Assembly

LIGHT KITS	
BH38-LKT	Ember Bed Light Kit
600-698	5 lb (2.268kg) Ember Panel Crushed Glass
600-TLK	Top Light Kit
600-676	20W 120V Halogen Bulb

Hussong Manufacturing Co., Inc.  
 204 Industrial Park Drive PO Box 577  
 Lakefield, MN 56150-0577, USA

**BHM-38 & BHM-38-BW**

TRADITIONAL LOG SET	
BH38-500	10 Piece Log Set
BH38-1	#BH38 1 Log
BH38-2	#BH38 2 Log
BH38-3	#BH38 3 Log
BH38-4	#BH38 4 Log
BH38-5	#BH38 5 Log
BH38-6	#BH38 6 Log
BH38-7	#BH38 7 Log
BH38-8	#BH38 8 Log
BH38-9	#BH38 9 Log
BH38-10	#BH38 10 Log
600-715	1/2" Lava Rock
900-REMB	Rock Wool Embers

REFRACTORY PANEL SETS	
BH38-CB900	Chicago Brick Refractory Set
BH38-L900	Ledgestone Refractory Set
BH38-HB900	Herringbone Refractory Set

BIRCHWOOD LOG SET	
BH38-B501	10 Piece Log Set
BH38-B1	#BH38 B1 Log
BH38-B2	#BH38 B2 Log
BH38-B3	#BH38 B3 Log
BH38-B4	#BH38 B4 Log
BH38-B5	#BH38 B5 Log
BH38-B6	#BH38 B6 Log
BH38-B7	#BH38 B7 Log
BH38-B8	#BH38 B8 Log
BH38-B9	#BH38 B9 Log
BH38-B10	#BH38 B10 Log
600-715	1/2" Lava Rock
900-REMB	Rock Wool Embers

BLACK GLASS PANEL SET	
BH38-BG900	Black Glass Panel Set

Hussong Manufacturing Co., Inc.  
 204 Industrial Park Drive PO Box 577  
 Lakefield, MN 56150-0577 USA  
**BHM-38 & BHM-38-BW**

## Warranty Coverage

Hussong Manufacturing Company, Inc. (Hussong Mfg.) warrants this Kozy Heat gas appliance from the date of purchase to the original purchaser, that it is free of defects in materials and workmanship at the time of manufacture. Registering your fireplace warranty does not require any documents to be sent in to Hussong Mfg. Please retain your proof of purchase reflecting the date of purchase along with the serial number and model of your fireplace for any future warranty claims.

*If a defect is noted within the warranty period, the customer should contact their authorized dealer for service within 30 days.*

### 30 Days: Parts & Labor\*

- Paint
- Light bulbs
- Gasket material
- Glass media and media dam

### Year 1: Parts & Labor\*

- All parts and material except the items listed in the 30 day warranty and any exclusions or limitations that may apply.  
*\*Hussong Mfg. will issue labor reimbursement to an authorized dealer only. Hussong Mfg. will not be liable for charges occurred as a result of any service performed by a non-authorized service provider, without pre-authorization.*

### Years 2 through Lifetime: Parts Only

- Firebox
- Heat Exchanger
- Logs
- Burner tube or pan
- Outer shell
- Heat shield(s)
- Front Viewing Glass (thermal shock only)
- Refractory Firebox liner (excluding enamel and glass panels)

## EXCLUSIONS AND LIMITATIONS

1. This appliance must be installed by a licensed, authorized service technician or contractor. It must be installed, operated and maintained at all times in accordance with the instructions in the owner's manual or the warranty is void.
2. This warranty is nontransferable and is made to the original purchaser only.
3. This warranty excludes standard wear and tear of the appliance which is considered normal usage over time.
4. Discoloration and some minor expansion, contraction or movement of certain parts, resulting in noise, is normal and not a defect.
5. Warranty is automatically voided if the appliance's serial number and/or testing label is removed or if the appliance is altered or tampered with in any way.
6. Warranty is void if the appliance is subject to submersion in water or prolonged periods of dampness or condensation. Any damage to any part of the appliance due to water or weather damage which is the result of, but not limited to, improper chimney/venting installation will also render this warranty void.
7. This warranty does not cover installation and operational related problems such as environmental conditions, nearby trees, buildings, hilltops, mountains, inadequate venting or ventilation, excessive offsets, negative air pressures caused by any mechanical systems.
8. Chimney components and other Non-Hussong Mfg. accessories used in conjunction with the installation of this appliance are not covered under this warranty.
9. Damage to plated surfaces or accessories, if applicable, caused by scratches, fingerprints, melted items or other external sources left on the surfaces from the use of cleaners is not covered under this warranty.
10. It is expressly agreed and understood that this warranty is Hussong Mfg.'s sole obligation and purchaser's exclusive remedy for defective fireplace equipment. Hussong Mfg. is free of liability for any damages caused by this appliance, as well as inconvenience expenses and materials. Incidental or consequential damages are not covered by this warranty. In some states, the exclusion of incidental or consequential damage may not apply. Hussong Mfg. shall not be held to implied warranties and this warranty shall replace all previous warranties.
11. This limited lifetime warranty is the only warranty supplied by Hussong Mfg. Any warranties extended to the purchaser by the dealer/distributor, whether expressed or implied, are hereby disclaimed and the purchaser's recourse is expressly limited to the warranties set forth herein.
12. Any part repaired or replaced during the limited warranty period will be warranted under the terms of the limited warranty for a period not to exceed the remaining term of the original limited warranty.
13. Any replacement part repaired after the warranty period will include a 90 day parts coverage
14. Hussong Mfg. may require the defective part to be returned using a pre-authorized RGA number or a photo of the defective component. Failure to provide either can result in a denied claim.
15. This warranty does not cover the appliances ability to heat a desired space, as there are many factors that can impact the heating performance in each home. Consideration should be implied to the appliance's location, room size, home design, environmental conditions, insulation, and tightness of the home.
16. Hussong Mfg. reserves the right to make changes at any time, without notice, in design, material, specifications, and prices. Hussong Mfg. reserves the right to discontinue models and products.