

INSTALLATION AND OPERATION MANUAL

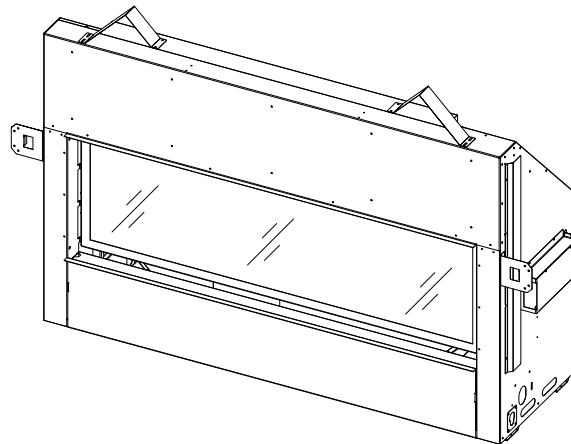
Callaway 50

Model #CLW50

Direct Vent Gas Fireplace

English and French installation manuals are available through your local dealer or website. Visit our website www.kozyheat.com.

Les manuels d'installation en français et en anglais sont disponibles chez votre détaillant local. Visitez 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

INSTALLER: Leave this manual with the appliance.

CONSUMER: Retain this manual for future reference.



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. A conversion kit is supplied with the appliance.



DANGER



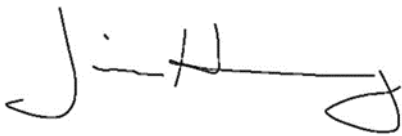
**HOT GLASS WILL
CAUSE BURNS**
**DO NOT TOUCH GLASS
UNTIL COOLED**
**NEVER ALLOW CHILDREN
TO TOUCH GLASS**

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.

CONGRATULATIONS!

Hussong Manufacturing welcomes you as a new owner of a Kozy Heat gas fireplace. Kozy Heat products are designed with superior components and materials, assembled with care 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



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

Homeowner Reference Information

Model Name: _____

Serial Number: _____

Dealership purchased from: _____

Dealership phone number: _____

Notes: _____

We recommend you record the following Information:

Date Purchased / Installed: _____

Location of fireplace: _____

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1.0 Introduction

1.1 Appliance Certification

Laboratory: PFS in Cottage Grove, Wisconsin

Standards:

- ANSI Z21.88-2019/CSA 2.33-2019, 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.

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.

1.3.6.2 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	35,500 Btu/h (10.4 kW)	35,000 Btu/h (10.26 kW)
Orifice Size (DMS)	#34	#51
Minimum Input Rating	18,500 Btu/h (5.4 kW)	18,000 Btu/h (5.2 kW)
Minimum Inlet Pressure	5" WC (1.25 kPa) 7" WC (1.74 kPa) recommended	11"WC (2.74 kPa)
Maximum Inlet Pressure	10"WC (2.49 kPa)	13"WC (3.24 kPa)
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)
Venturi Opening Settings	1/8" (3.2mm) OPEN	1/2" (12mm) OPEN

2.1.2 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.

2.1.2.1 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.

2.1.2.2 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

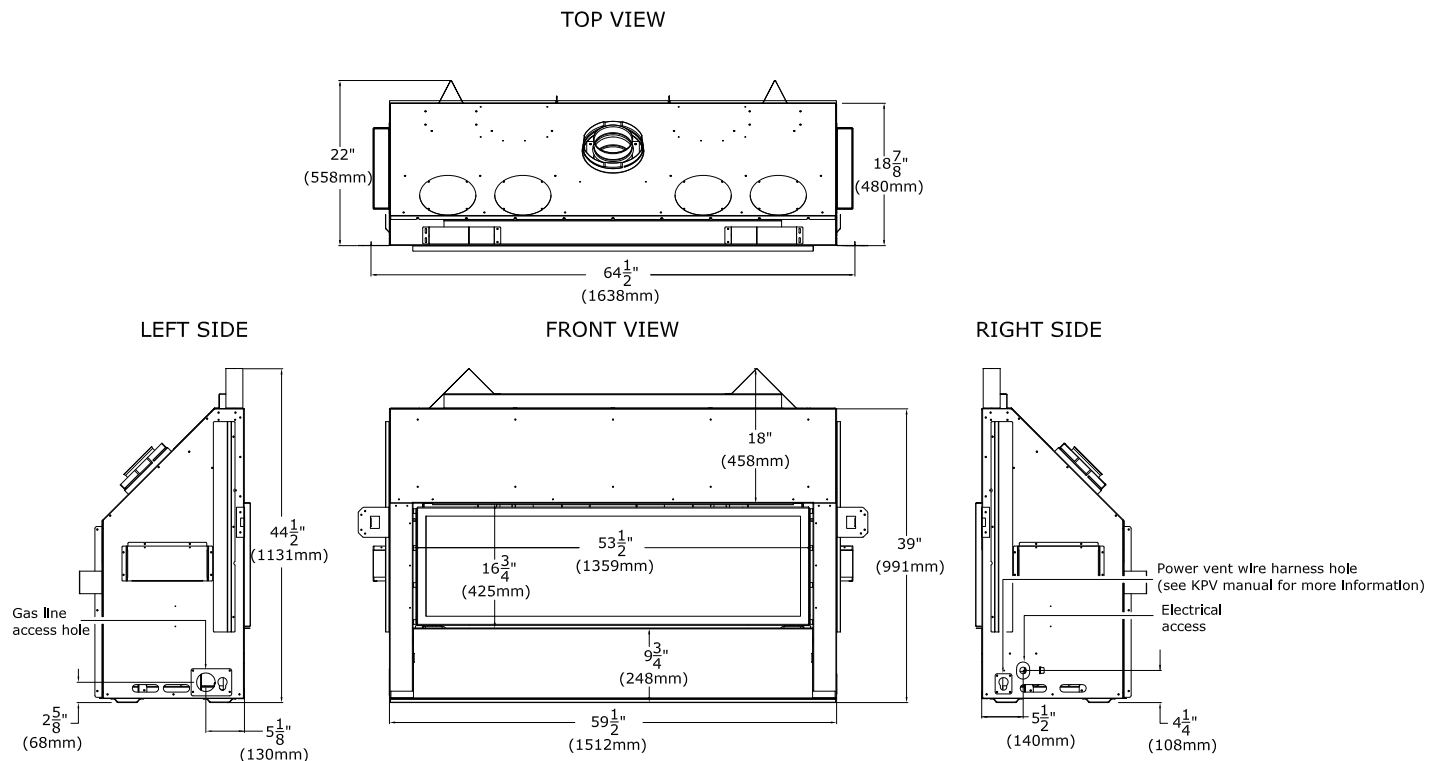


Figure 2.1 - Appliance Dimensions

2.4 Safety Barrier and Optional Surround Information

2.4.1 Safety Barrier

WARNING: 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.

If the barrier becomes damaged, the barrier shall be replaced with Hussong Mfg.’s barriers for this appliance.

Please refer to Section 9.5 Safety Barrier Installation for installation information.

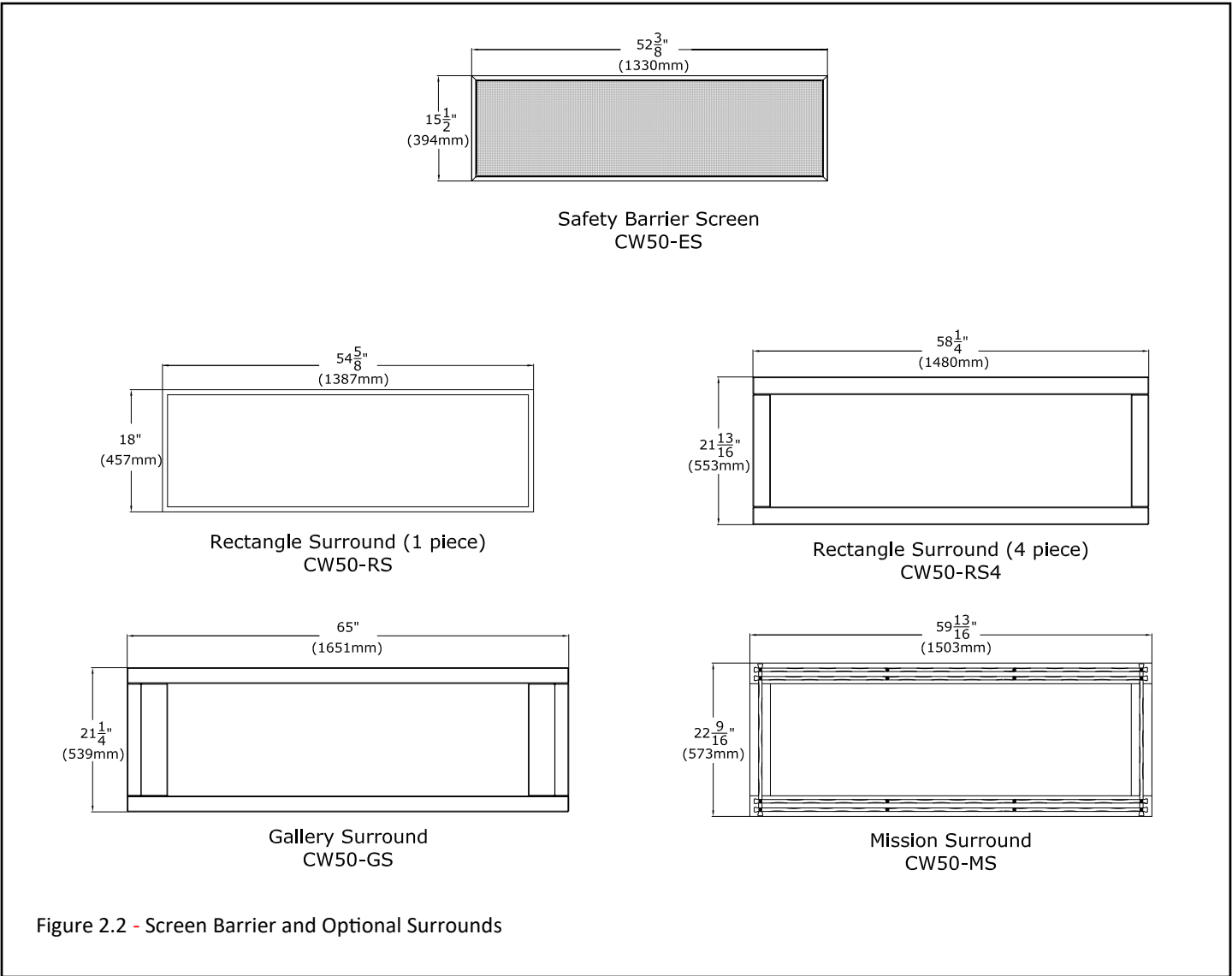
Any safety screen, guard, or barrier removed for servicing an appliance must be replaced prior to operating the appliance

2.4.2 Optional Surrounds

IMPORTANT: Consider the height of hearth finish material when building a fireplace platform. If using a safety screen only, the hearth may be flush with the finishing edge. If using a surround, the bottom of the fireplace surround must be level or higher than the finished hearth extension for proper fit of the optional surround.

Refer to section 5.4, Finishing Guidelines for Optional Surrounds for proper fitting guidelines.

For installation instructions, see section 9.4, Optional Surround Installation.



3.0 Framing

3.1 Appliance Placement Considerations

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

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

FIRE HAZARD: Do NOT install this appliance directly on carpeting, vinyl, or any other combustible material other than wood.

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

WARNING: 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.

Note: Unless otherwise noted all clearances / images in this manual are based off of nominal 2" x 4" framing being used.

- This appliance must be installed on a level surface capable of supporting the fireplace and venting. If possible, place the fireplace in a position where the vent terminates between two studs, eliminating the need for any additional framing.
- 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.
- If planning to convert to Propane, it is easier to complete the gas conversion before installing the fireplace in the framed opening.

3.2 Appliance Installation Options

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

Note: When deciding on which design option suites your application please review all sections throughout this manual and appropriate KZK manuals as different design options have different framing, facing, and finishing options and requirements.

- **Standard Installation** will be outlined in this manual in sections marked 'standard installation' and must be followed if no design options (Vented Cavity or Komfort Zone Kit) are to be used. The fireplace chamber height must be 48" (1219mm) and the ceiling height must be 72" (1829mm) for standard installations.
- **Kozy Power Vent** is a fan-powered mechanical draft vent system (horizontal terminations only) for use with any of the design options listed previously in this section (Standard, Vented Cavity, or Komfort Zone Kit). Reference the #KPV manual for all system requirements. Utilizing the Kozy Power Vent system will not change facing and finishing requirements or safety barrier requirements from the Standard or Komfort Zone Kit design options.

- **Komfort Zone Kit** 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.

If installing a Komfort Zone Kit (#KZK-054 or #KZK-1510A), please reference the manual included with your kit before completing all fireplace framing and other installation considerations.

- **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 above the fireplace, and lower mantel clearances.

All vented cavity options have different minimum chamber and ceiling dimension requirements when compared to the standard installation dimensions in this section. The fireplace chamber and ceiling minimum height must be 76" (1930mm) for all vented cavity options. Reference section 4.3 Vented Cavity Installations, and Section 5.2 Vented Cavity—Facing and Finishing Requirements.

- **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.

Using a Heat Transfer Kit does not change the framing, facing, and finishing requirements of your appliance installation choice (Standard Appliance Installation, Appliance with KZK Installation, or Appliance with Vented Cavity Installation).

3.3 Floor Support and Protection

- 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.
- 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.
- If the appliance is to be installed above floor level, a solid, continuous platform must be constructed below the appliance.

3.4 Setting the Appliance

This section outlines general information on setting the appliance in the framed opening and starting the installation process.

Decide on your appliance installation option mentioned in Section 3.2 before setting the appliance. Your framing requirements, clearance to combustibles, and vent configuration will depend upon this decision.

IMPORTANT: If you are using a Vented Cavity Installation or Komfort Zone Kit and/or Heat Transfer Kit option refer to Section 4.0 for additional preparation steps that must be completed before setting the appliance in the framed opening.

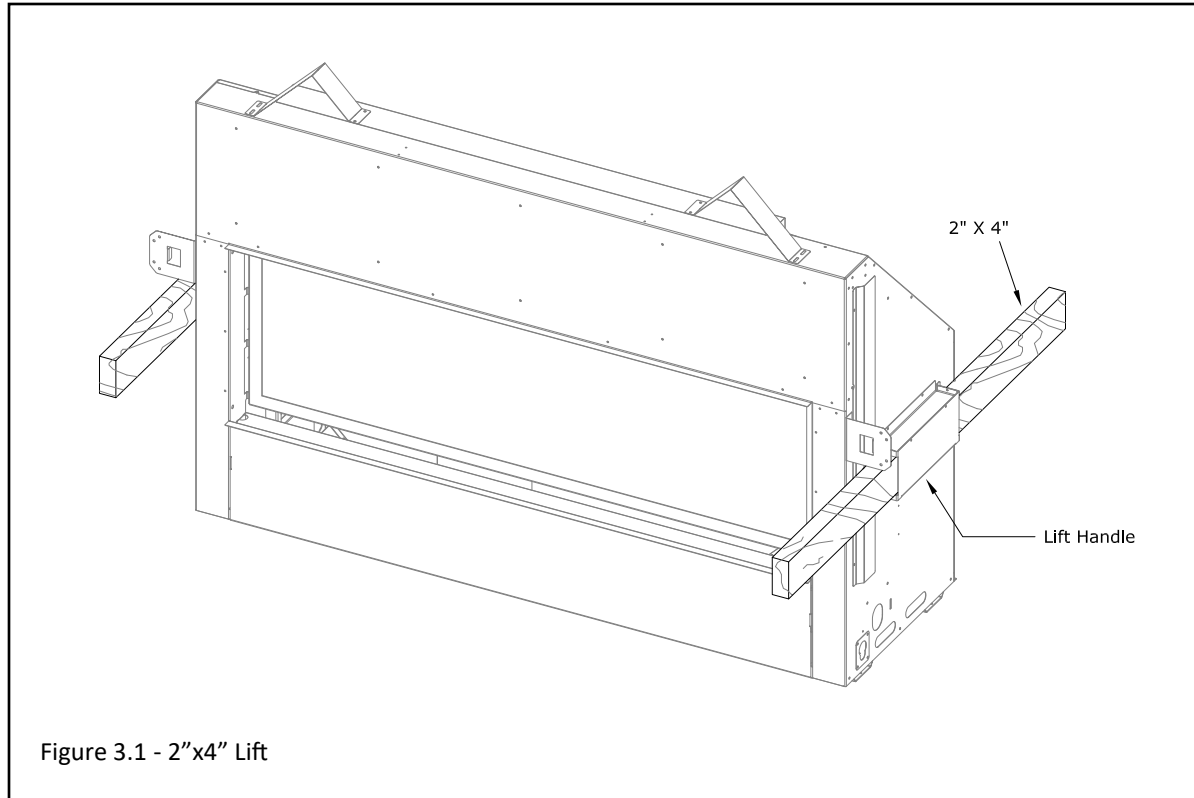
General Procedure

1. Frame your opening based on your selected appliance installation option. Refer to Section 3.8 for information for the framed opening of the standard installation option or Section 4.3 for information on Vented Cavity. If you are using a KZK installation option refer to the KZK manual for framing.
2. Lay out the path for your vent run before installing appliance.
3. Install the nailing flanges on the appliance. Refer to Section 3.6 for assembly and installation. The nailing flanges are where you secure your appliance to the framed opening. The framing will be flush with the appliance when it is installed.
4. Assemble and install the top stand-off assembly. Refer to Section 3.5 for more information on the top stand-off assembly. This stand-off assembly provides the necessary thermal protection of the header.
5. Place the fireplace inside the framed opening and secure the appliance into the framing. The fireplace will be flush with the framing.
6. The next steps would involve installing the KZK (if applicable), vent pipe, connect gas line, connect electrical wiring, and finally finishing material.

3.4.1 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.



3.5 Stand-Off Assembly and Installation

WARNING: The top stand-offs provide the 5-1/2" (139mm) minimum clearance to the header. Use only non-combustible material in this area for the entire width of the fireplace. DO NOT use wood, sheetrock, et cetera, in this zone.

Top stand-off brackets must be formed and attached prior to positioning fireplace into framed opening.

Note: If installing Komfort Zone Kit or Heat Transfer Kit or utilizing a Vented Cavity Installation complete the necessary preparation work before assembling the stand-off assembly.

Note: Screws for the installation steps below are provided in the fireplace components packet.

Installation:

1. Remove and save (4) screws securing the top stand-off brackets onto of the fireplace.
2. Form each stand-off bracket by bending at perforations, as shown.
3. Align the holes in the formed stand-off brackets with the holes on top of the fireplace. Secure with (4) screws previously removed along with (4) screws provided in the fireplace components packet.
4. Remove and save screws securing the back stand-off brackets. Form the back stand-off brackets as shown. Secure using provided screws.

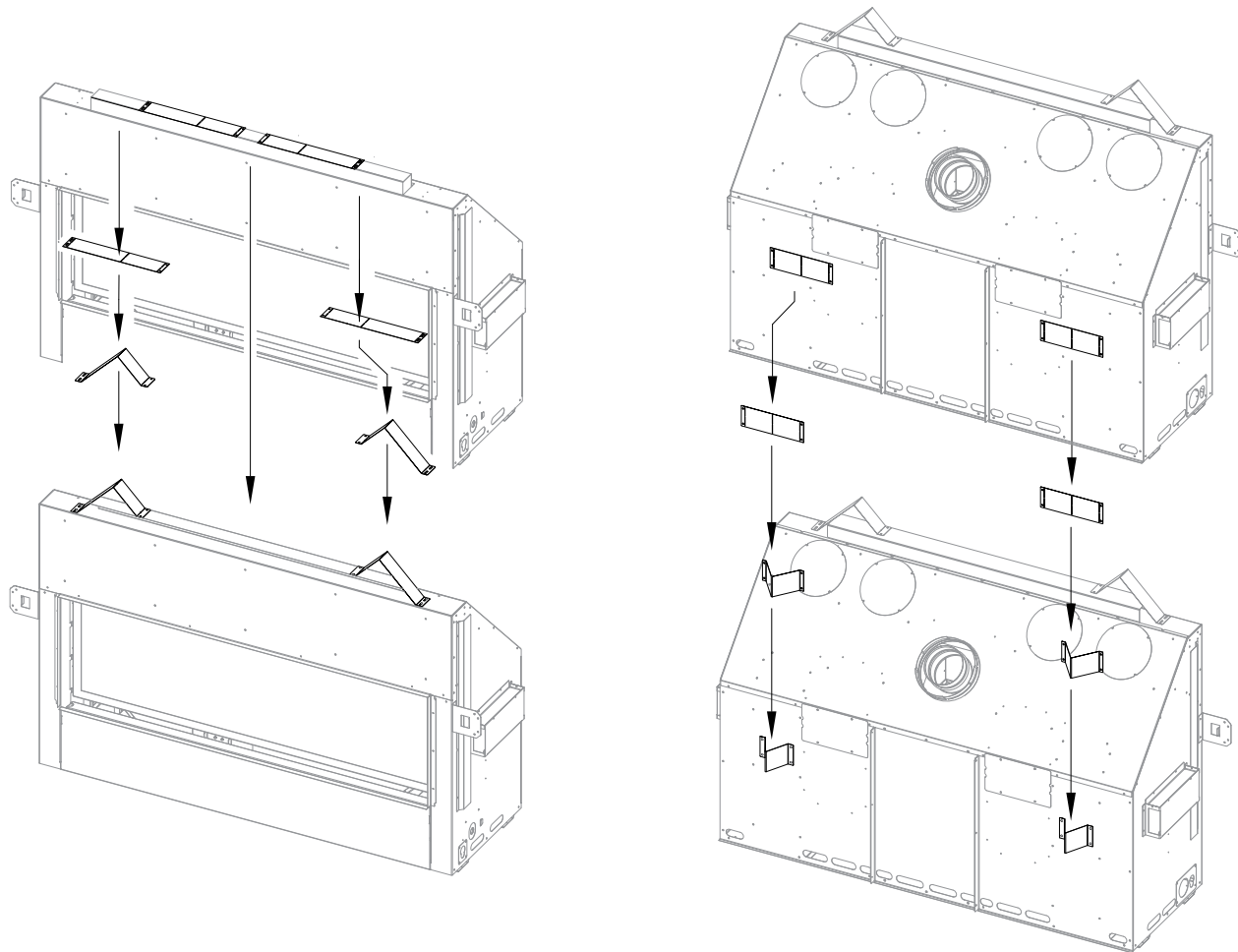


Figure 3.2 - Stand-Off Installation - Applies to All Appliance Installation Options

3.6 Nailing Flange Assembly and Installation

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

1. Remove (2) nailing flanges from the right and left side of the fireplace.
2. Align nailing flange with holes on 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. 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 2-1/2" (64mm) clearance from the sides of the fireplace to framing.

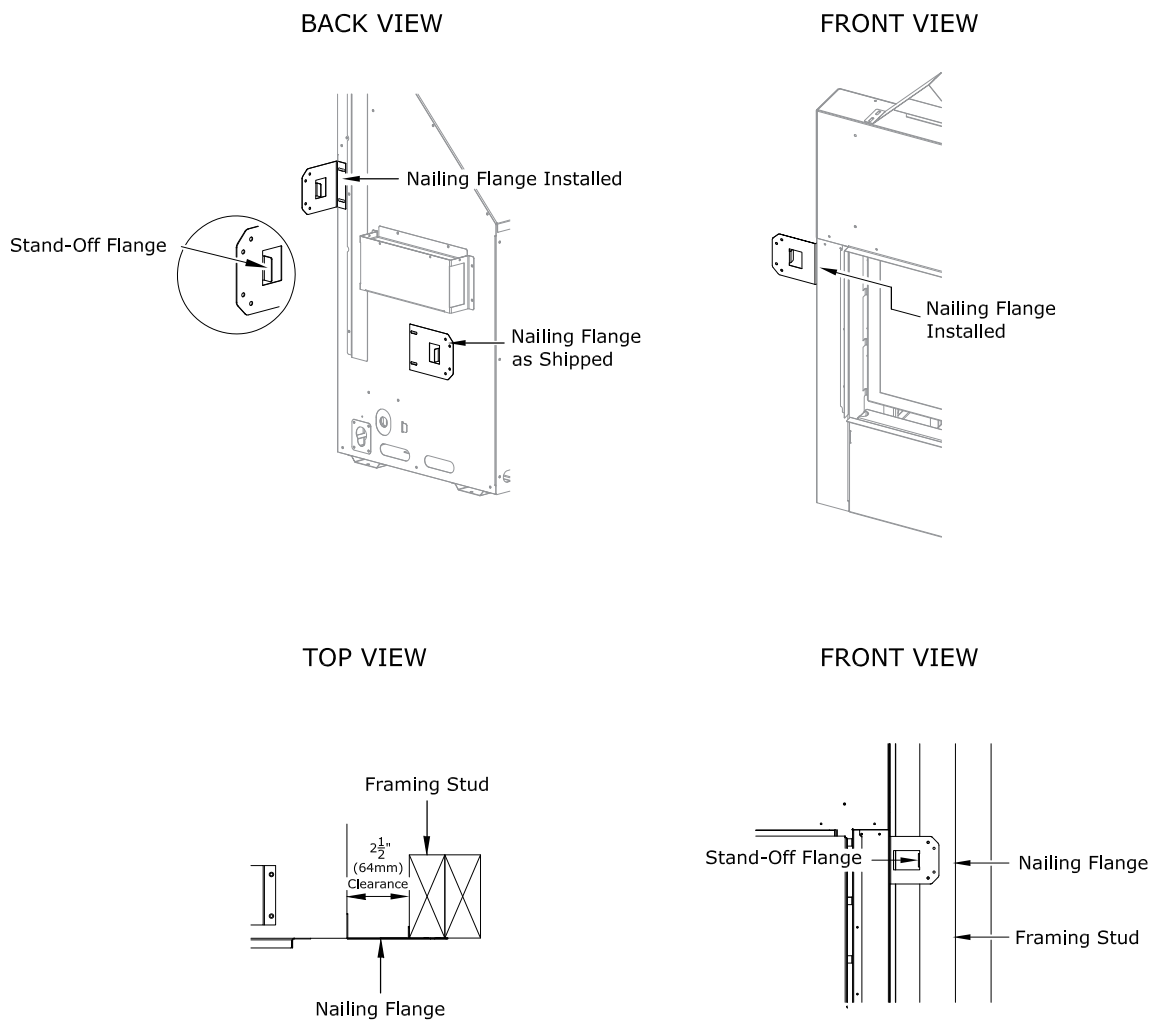


Figure 3.3 - Nailing Flange Installation— Applies to All Appliance Installation Options

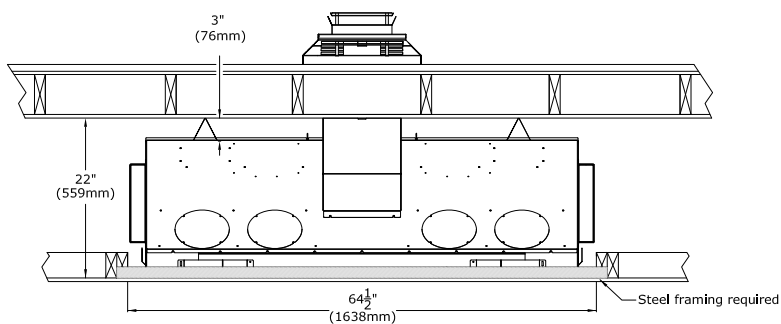
3.7 Clearances to Combustibles

- See Table 3.1 below for minimum clearances for the standard installation option.
- See Figure 3.4 on the following page for typical standard installation options.
- Unless otherwise noted all clearances / images in this manual are based off of nominal 2" x 4" framing being used.

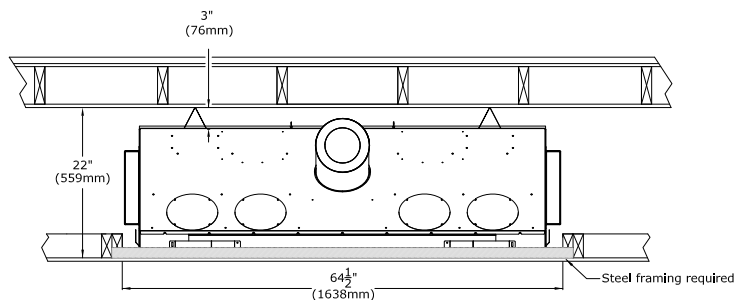
IMPORTANT: Clearances are different when utilizing the Komfort Zone Kit (Part# KZK-054 or KZK-1510A) or Vented Cavity Installation. Please reference Section 4.3 for information on Vented Cavity or the KZK manual included with that kit.

Table 3.1, Minimum Fireplace Clearances to Combustible Material		
Minimum height of fireplace enclosure	48"	1219mm
Base of the fireplace to ceiling	72"	1829mm
From fireplace top stand-off brackets	0"	0mm
From fireplace left and right stand-off brackets (nailing flanges)	0"	0mm
From fireplace back stand-off brackets	0"	0mm
From fireplace corners	3"	76mm
From fireplace front	36"	914mm
Fireplace side finishing edge to adjacent sidewall	0"	0mm
Mantel 6" (152mm) deep from the top finishing edge of the fireplace	21-1/2"	545mm
Mantel 6" (152mm) deep from the base of the fireplace	48"	1219mm

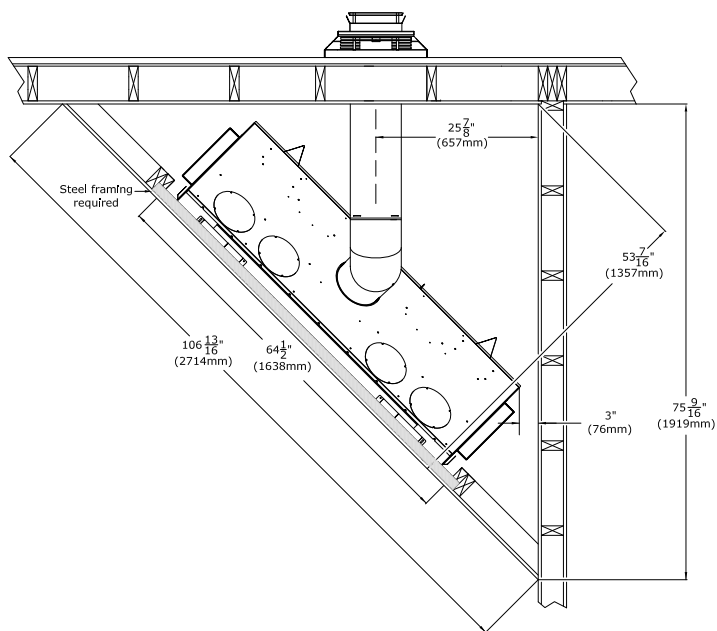
Typical Horizontal Installation



Typical Vertical Installation



Typical Corner Installation



Nominal 2"x4" framing
used in interior
enclosure framing

Figure 3.4 - Typical Appliance Installation - Applies to All Appliance Installation Options

3.8 Standard Installation - Wall Enclosure Rough Framing

3.8.1 Rough Framing

WARNING: Provide adequate clearances around air openings into the combustion chamber. 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 surround fireplace chase 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 on the next page 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. If using an optional surround, the bottom of the fireplace surround must be level or higher than the finished hearth extension for proper fitment. Refer to 5.1 Standard Installation - Facing and Finishing Requirements.
- Framing dimensions should allow for wall covering thickness and fireplace facing materials.
- If masonry (optional) is to be used, prepare the foundation necessary for the full masonry load. A lintel must be used over the top of the appliance to support the added weight of the masonry construction above the fireplace.
- Installation of the CW50-SHD steel header is required (included with the fireplace).

IMPORTANT: If you are installing the fireplace with a KZK refer to the installation instructions shipped with the KZK for framing, facing, and finishing requirements.

IMPORTANT: If you are installing the fireplace with a Vented Cavity refer to the appropriate Vented Cavity sections in this manual for framing, facing, and finishing requirements.

3.8.2 Mounting a Television Above a Fireplace and Television 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.
- If you want a Television above a fireplace it is highly recommended install the fireplace with the KZK installation design option. Refer to Section 3.2 for more information on the KZK design. Install the plenum discharge above the location of a television. This will help distribute heat from below the TV to above the TV. We also recommend the use of a mantel to deflect heat away from the television.
- 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.
- Figure 3.5 shows the minimum dimensions for the standard installation of the fireplace. Anything above the minimum enclosure height of 48" (1219mm) can be capped off with an enclosure top or recessed for standard installation.

Nominal 2" x 4" framing used in interior enclosure framing

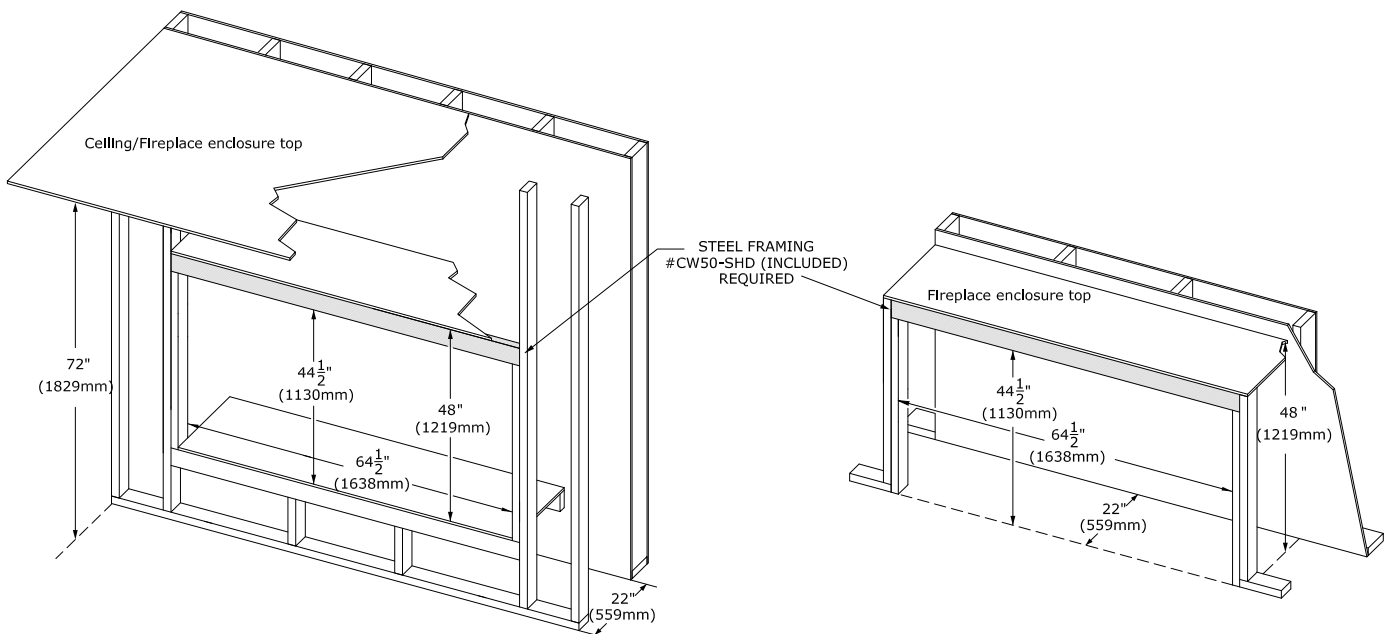
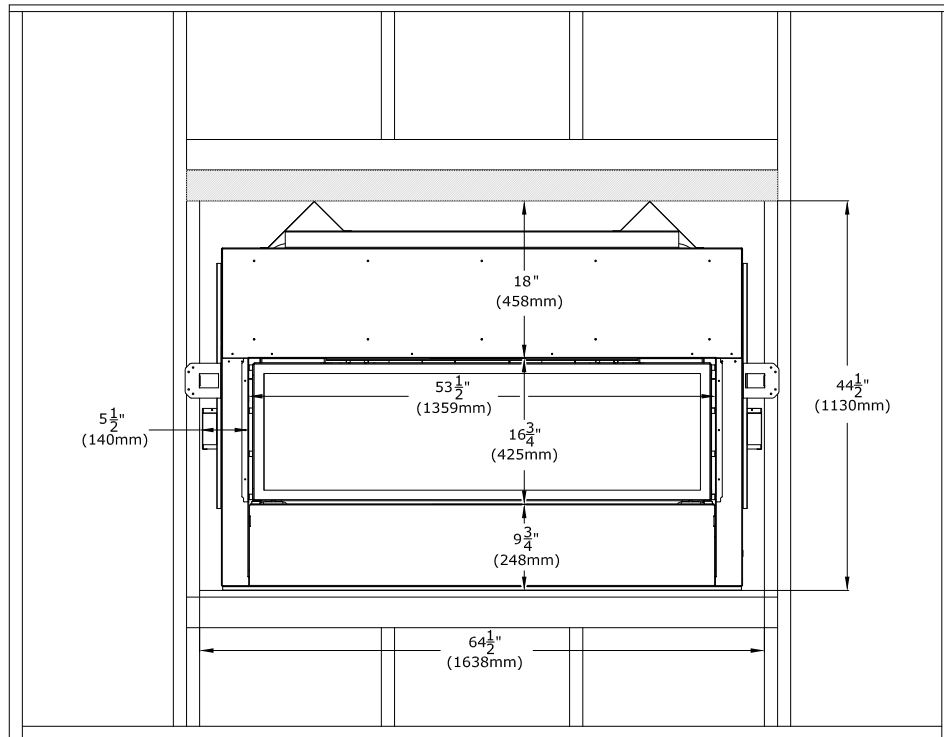


Figure 3.5 - Minimum Appliance Framing - Applies to All Appliance Installation Options

3.9 Vent Termination Framing

The following information applies to all standard, vented cavity, and Komfort Zone Kit design options.

If using Kozy Power Vent #KPV, please reference the manual included with the kit.

3.9.1 Vent Termination Location

- Natural Draft: Exterior vent termination location must be in compliance with section 7.0, TERMINATION LOCATIONS.
- Power Vent System: See the #KPV manual that came with the power vent system for termination location requirements

3.9.2 Clearances

- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained.
- See Section 3.9.6 for vent heat shield installation.
- A minimum of 3" (76mm) 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.

NOTE: 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 as necessary to maintain clearance requirements.

3.9.3 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

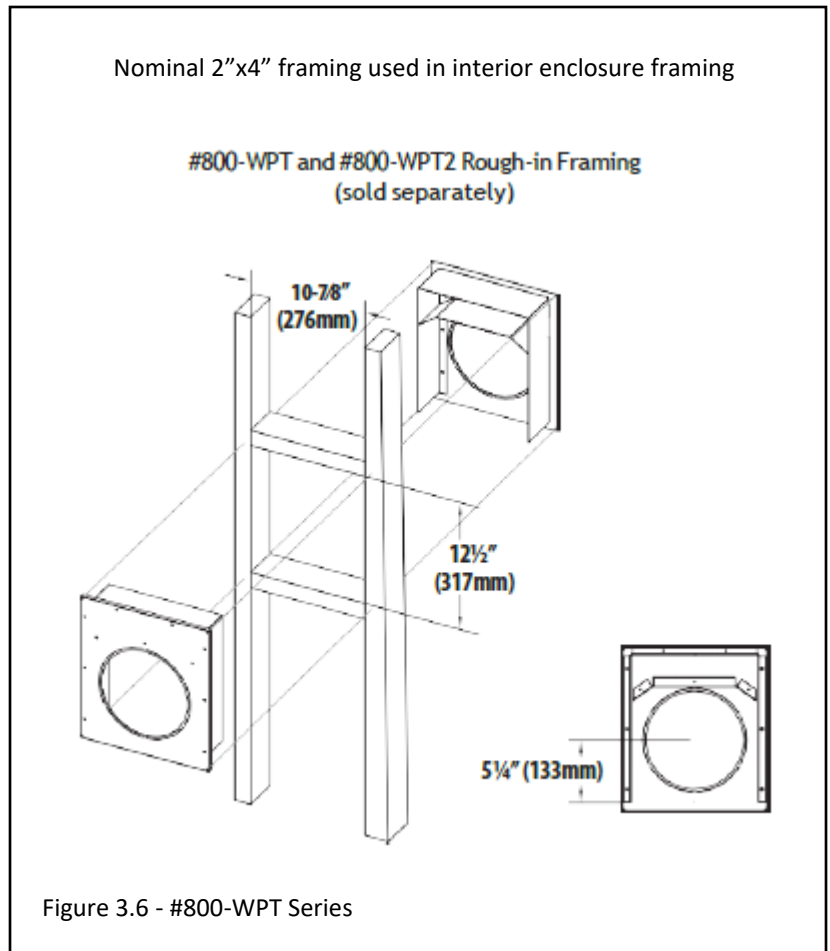
3.9.4 Horizontal Terminations

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.

- Kozy Heat's #800-WPT series, or wall thimble products that comply with the required 3" (76mm) 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.

Instructions on the next page



3.9.5 Wall Pass Through Installation

1. Measure from the floor level of the fireplace to the center of where the vent pipe will penetrate the wall. The dimensions shown in Figure 3.7 are calculated using Simpson DuraVent Pipe.
2. Cut and frame an opening in the wall to allow the vent system to run with a slight rising slope of $\frac{1}{4}"$ through the wall pass-through. Section 8.2 outlines that horizontal vent section require at least $\frac{1}{4}"$ (6mm) rise for ever 12" (305mm) of travel.
3. Follow the vent pipe manufacturer's installation instructions for vent installation.

Other vent pipe manufacturer's product dimensions may vary.

Nominal 2"x4" framing used in interior enclosure framing

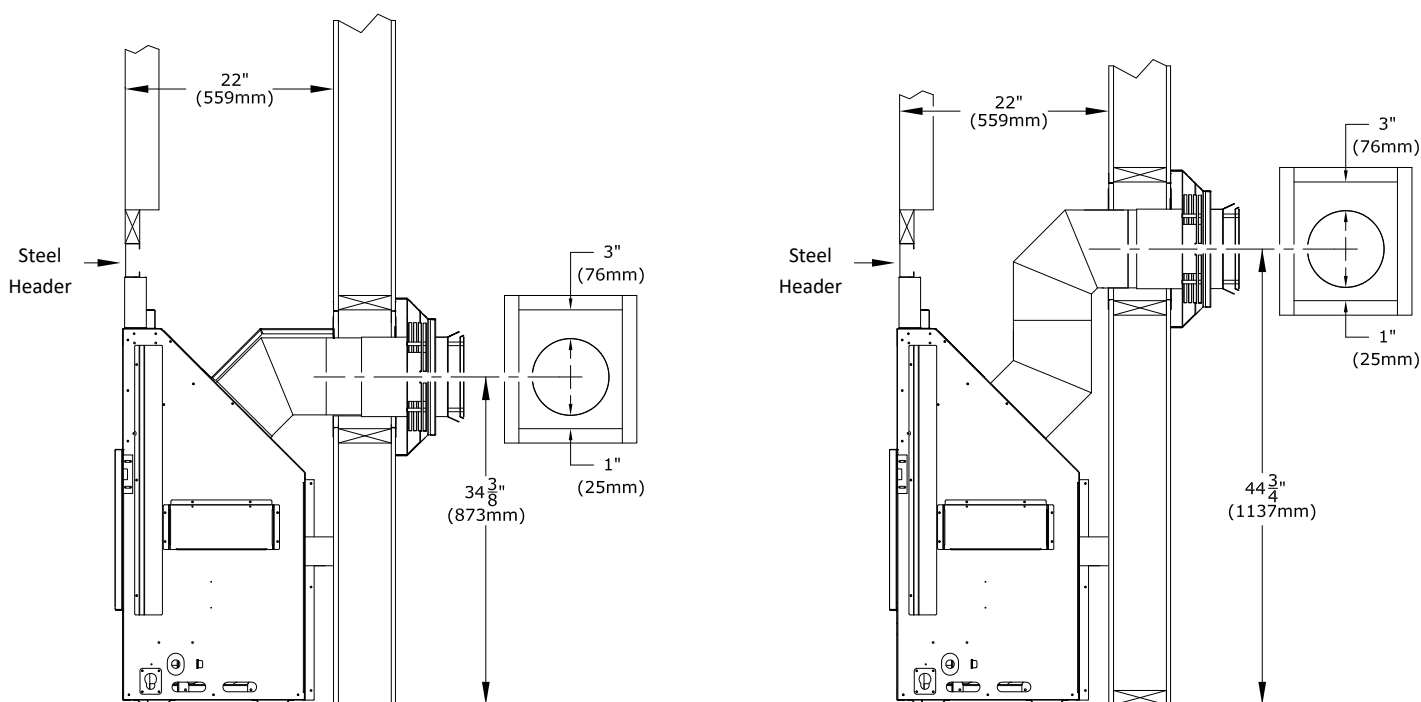


Figure 3.7 - WPT Framing

3.9.6 Vent Heat Shield Installation

Important: The horizontal vent heat shield must be installed when using a horizontal 45° elbow off the back of the appliance.

1. Bend the perforation on the hand-tab down on the horizontal vent heat shield.
2. Locate the (2) screw holes located above the flue outlet on the back of the fireplace.
3. Align the (2) slots on the heat shield with the corresponding (2) screw holes on the back of the fireplace. Secure with the attachment screws (provided). The 1" (25mm) vent stand-off tab will rest on the top of the vent pipe.

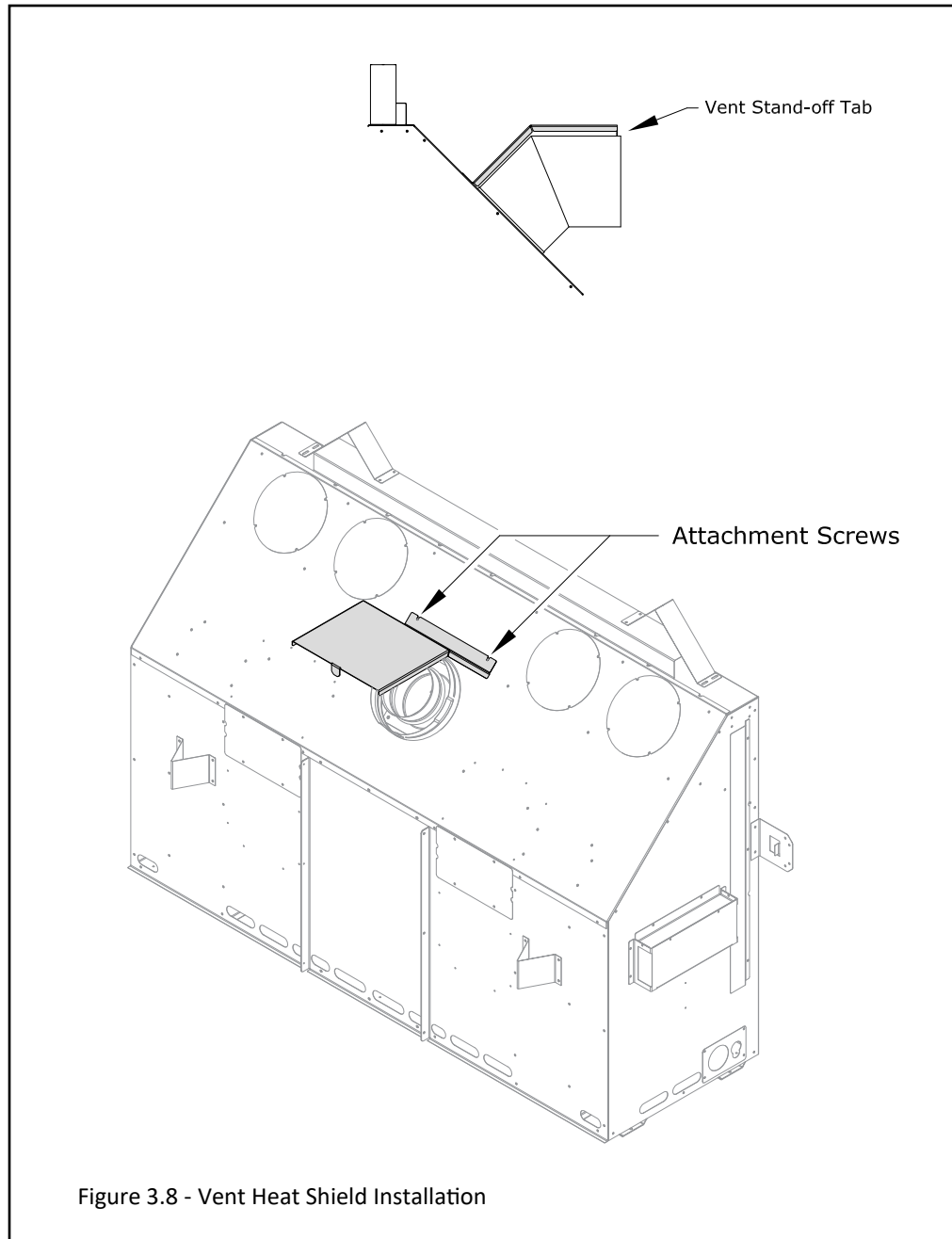


Figure 3.8 - Vent Heat Shield Installation

3.10 Outdoor Covered Fireplace Installation

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

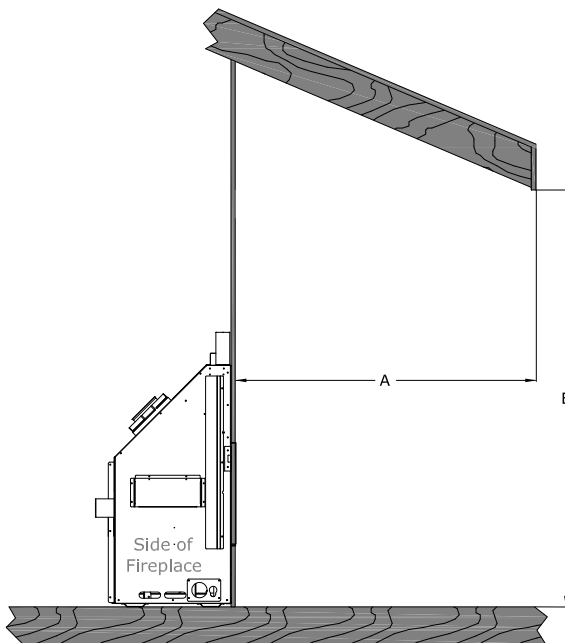
Follow the instructions and illustrations in this section for installation procedures.

3.10.1 Safety Screen Barriers

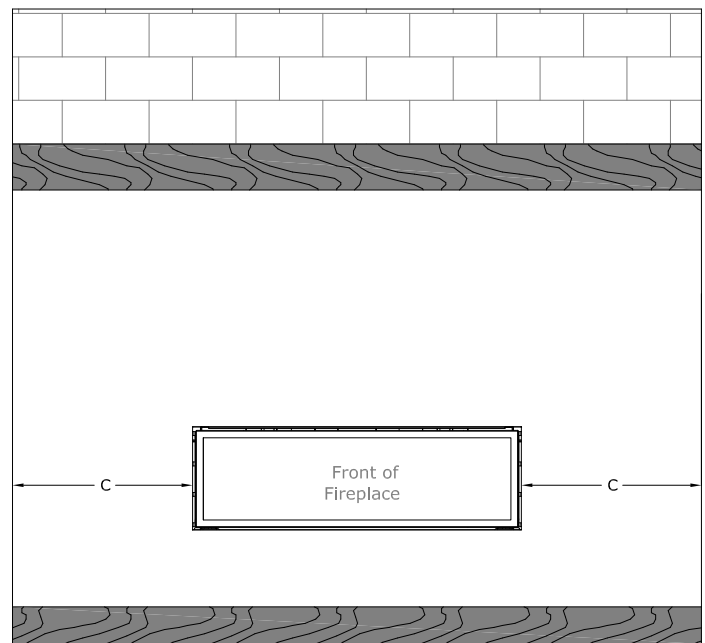
Hussong Mfg. highly recommends to use black painted safety barriers in outdoor installations. Other screen barriers that incorporate a plated or patina finish are highly susceptible to oxidation and discoloration.

3.10.2 Requirements

- The continuous insulated building envelope and weatherproof membrane are not to be interrupted by fireplace installation.
- 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.



The overhang (A) must be a minimum of $\frac{1}{2}$ or greater of the roofline elevation (B) above the base of the fireplace.



The width of the overhang to each side of the appliance (C) must be a minimum of $\frac{1}{2}$ or greater of the roofline elevation (B) above the base of the fireplace.

Example: If the roofline (B) is 10' above the base of the fireplace, the overhang (A) must be 5' or greater and the width of the overhang to each side of the fireplace (C) must be 5' or greater.

Figure 3.9 - Outdoor Covered Installation - Applies to All Appliance Installation Options

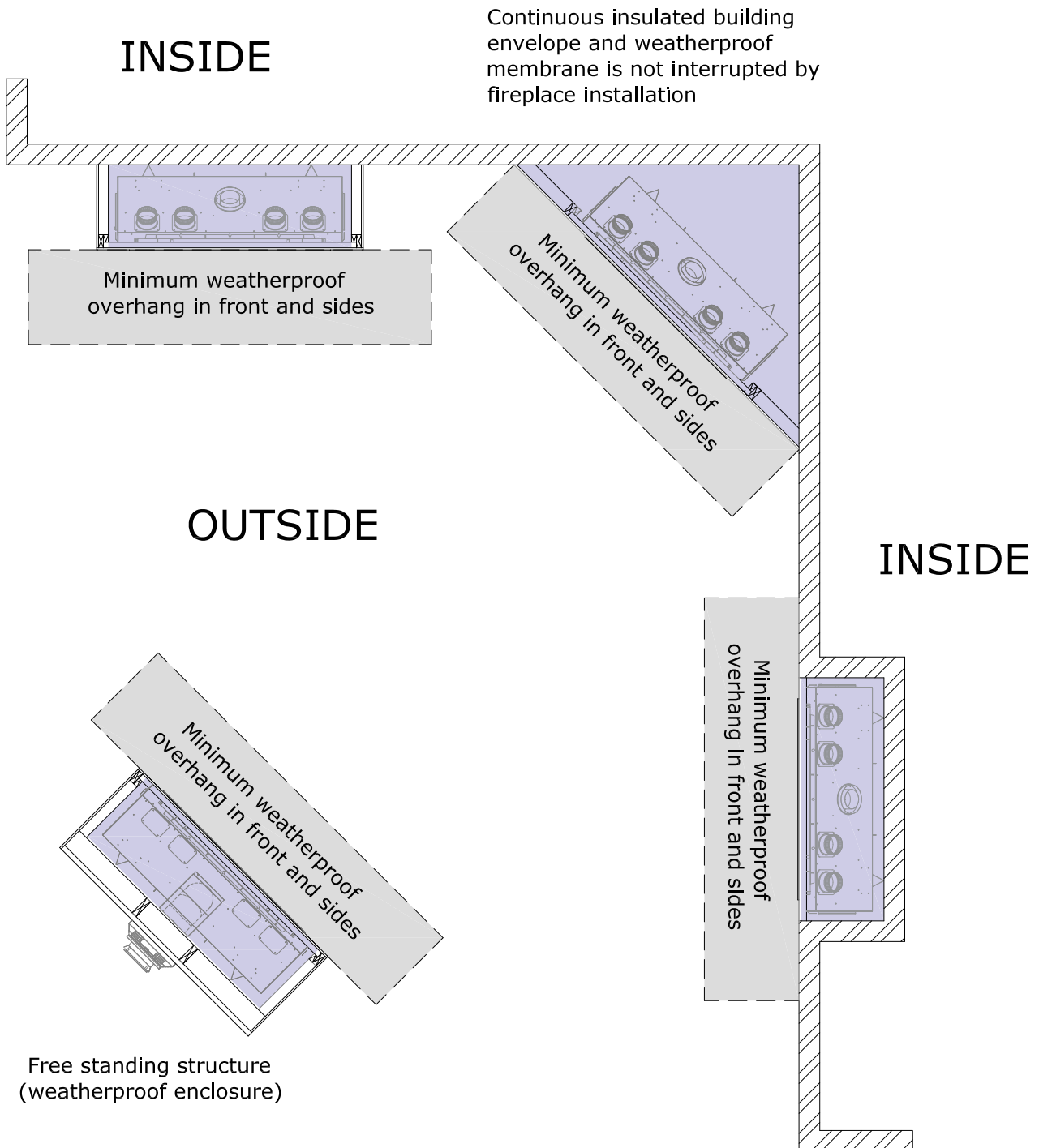


Figure 3.10 - Outdoor Covered Installation - Applies to All Appliance Installation Options

4.0 Heat Management

The following section outlines the process of preparing the fireplace for heat transfer kits, vented cavity, or Komfort Zone Kit. The Komfort Zone Kit (KZK) option offers the ability to redistribute radiant heat through plenum(s). The vented cavity option offers the ability to redistribute heat through opening(s) in your fireplace enclosure. Using a KZK or Vented Cavity option allows for combustible facing materials above the fireplace, heat reduction for a TV above the fireplace, and lower mantel clearances.

- If installing a Komfort Zone Kit (#KZK-054 or #KZK-1510A), the clearance to combustible requirements may be different than the standard dimensions listed for this appliance. Please reference the manual included with your kit before completing all fireplace framing and other installation considerations.

The Komfort Zone Kits have specific framing requirements, mantel requirements, and exterior trim dimensions.

- All minimum required dimensions must be maintained after all finishing materials are installed.
- The appliance cover plates and convection baffle must be removed for Komfort Zone Kit installations, as shown in Figure 4.1 & Figure 4.2.

4.1 Appliance Preparation for Vented Cavity or Komfort Zone Kit.

The appliance convection baffle and cover plates must be removed for heat distribution required by vented cavity designs or KZK options.

Preparation Instructions

1. Remove the (4) circle cover plates. (4) screws per cover plate. See Figure 4.1.
2. Remove the convection baffle from the appliance. The baffle is secured by (2) screws right behind the upper edge of the fireplace opening. See Figure 4.2. Recycle this panel as it is no longer needed.

If installing a KZK refer to the KZK manual for additional information such as framing and finishing requirements.

If proceeding with a Vented Cavity refer to Section 4.3 and Section 5.2.

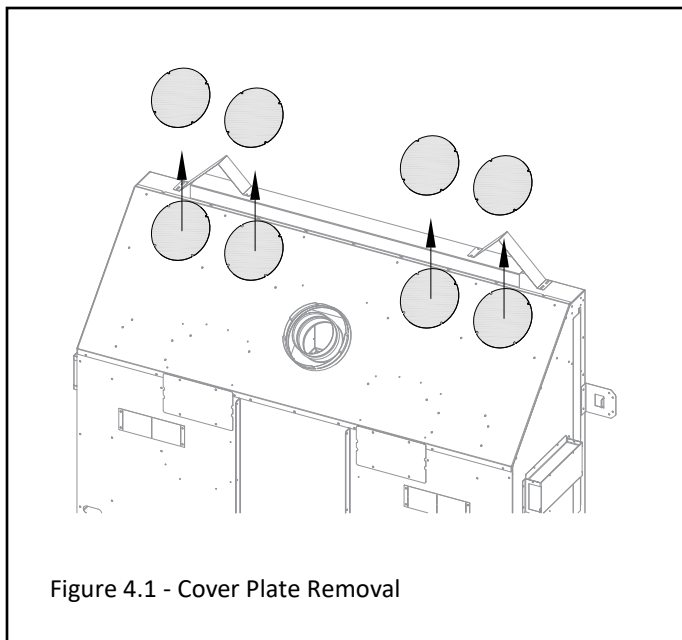


Figure 4.1 - Cover Plate Removal

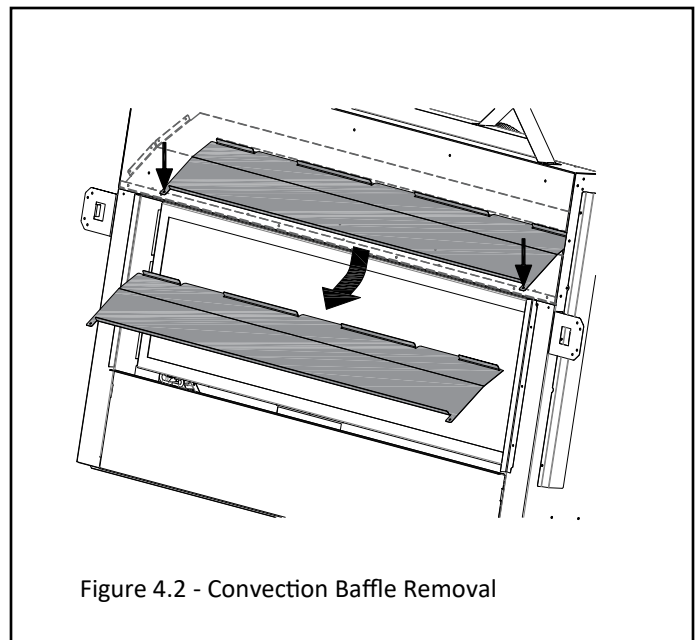


Figure 4.2 - Convection Baffle Removal

4.2 Appliance Preparation for an Interior or Exterior Heat Transfer Kit

Note: It is easier to install the HTK air chute before installing the fireplace into the framed opening.

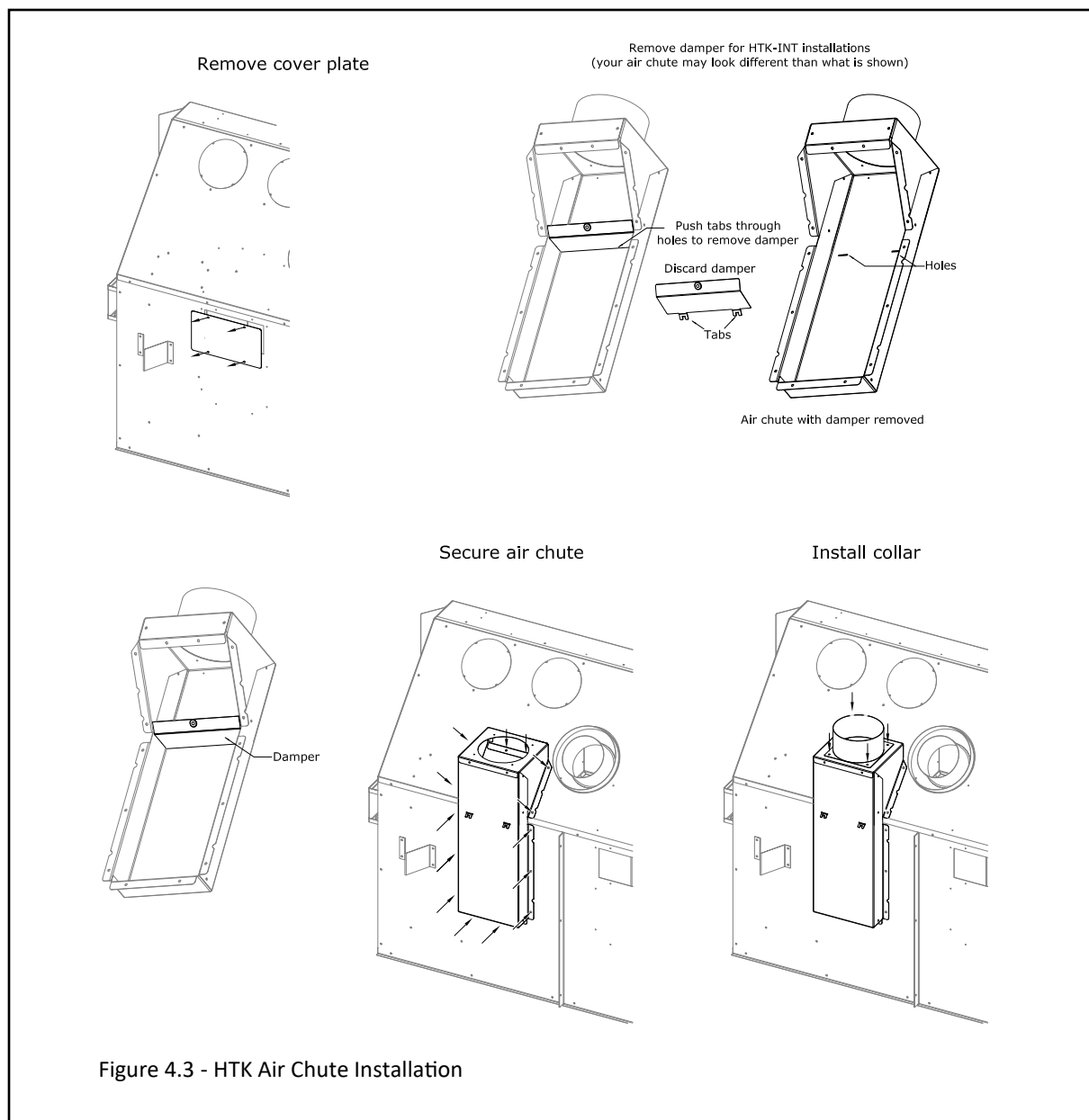
Instructions

1. Remove the heat transfer kit rectangle cover plate on the side of the fireplace that you want the heat transfer kit installed. Save screws. See Figure 4.3.

EXTERIOR KIT INSTALLS (HTK-EXT): Verify the damper lays against the outer shell of the fireplace when in resting position. Ensure the damper will move freely when the fan is engaged.

INTERIOR KIT INSTALLS (HTK-INT): Remove the damper from the heat transfer kit air chute by pushing the metal tabs through the holes, and pulling the damper out of the air chute.

2. Secure the air chute to the fireplace using (4) sheet metal screws previously removed and (10) sheet metal screws provided. Secure the collar on top of the air chute with (4) sheet metal screws.



4.3 Vented Cavity Installation Information

4.3.1 Clearance to Sprinkler

- In a situation where a sprinkler head installed within the proximity to a vented cavity air discharge opening, Figure 4.4 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 heat 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.

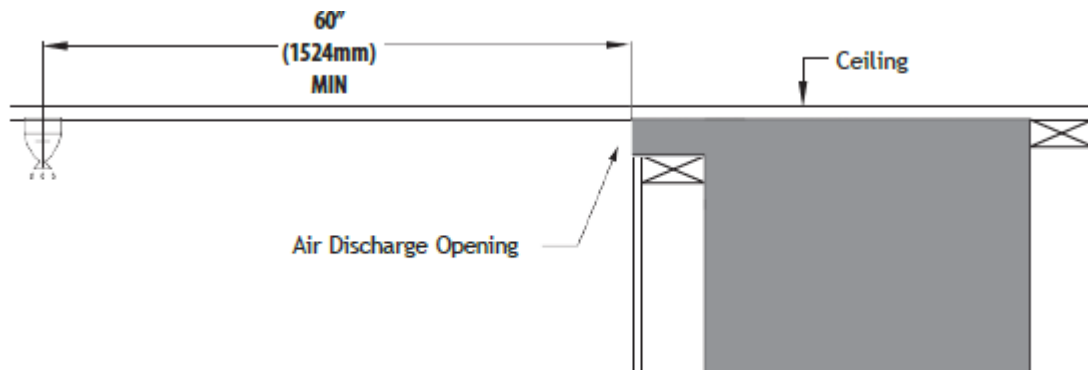


Figure 4.4 - Clearance from Air Discharge Opening to Sprinkler Head - Vented Cavity Appliance Installations Only

4.3.2 Clearance to Combustibles

- Refer to Table 4.1 for combustible clearances in Vented Cavity Installations

Table 4.1, Minimum Fireplace Clearances to Combustible Material

Minimum height of fireplace enclosure	76"	1930mm
Base of the fireplace to ceiling	76"	1930mm
From fireplace top stand-off brackets	0"	0mm
From fireplace left and right stand-off brackets (nailing flanges)	0"	0mm
From fireplace back stand-off brackets	0"	0mm
From fireplace corners	3"	76mm
From fireplace front	36"	914mm
Fireplace side finishing edge to adjacent sidewall	0"	0mm
Mantel 6" (152mm) deep from the top finishing edge of the fireplace	0"	0mm
Mantel 6" (152mm) deep from the base of the fireplace	26-1/2"	673mm

4.3.3 Vented Cavity Wall Enclosure Rough Framing

WARNING: Provide adequate clearances around air openings into the combustion chamber. 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 surround fireplace chase 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.

Figure 4.5 shows the minimum rough-in dimensions for Vented Cavity Installations.

- 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. If using an optional surround, the bottom of the fireplace surround must be level or higher than with the finished hearth extension for proper fitment. Refer to Section 5.2.1 and Section 5.4 for additional details.
- Framing dimensions should allow for wall covering thickness and fireplace facing materials.
- If masonry (optional) is to be used, prepare the foundation necessary for the full masonry load. A lintel must be used over the top of the appliance to support the added weight of the masonry construction above the fireplace.
- Installation of the CW50-SHD steel header is required (included with the fireplace).

4.3.3.1 Mounting a Television Above a Fireplace and Television 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.
- The allowed TV recess of 4-1/4" (108mm) measures from the front of the nominal 2x4 framing to the backside of the finishing material of the pocket, as shown in Figure 4.5.
- Tests performed determined that surface temperatures did not exceed 150°F (66°C) when a 4-1/4" (108mm) deep recess is constructed above the fireplace when installed with the vented cavity installation.

Nominal 2"x4" framing used in interior enclosure framing

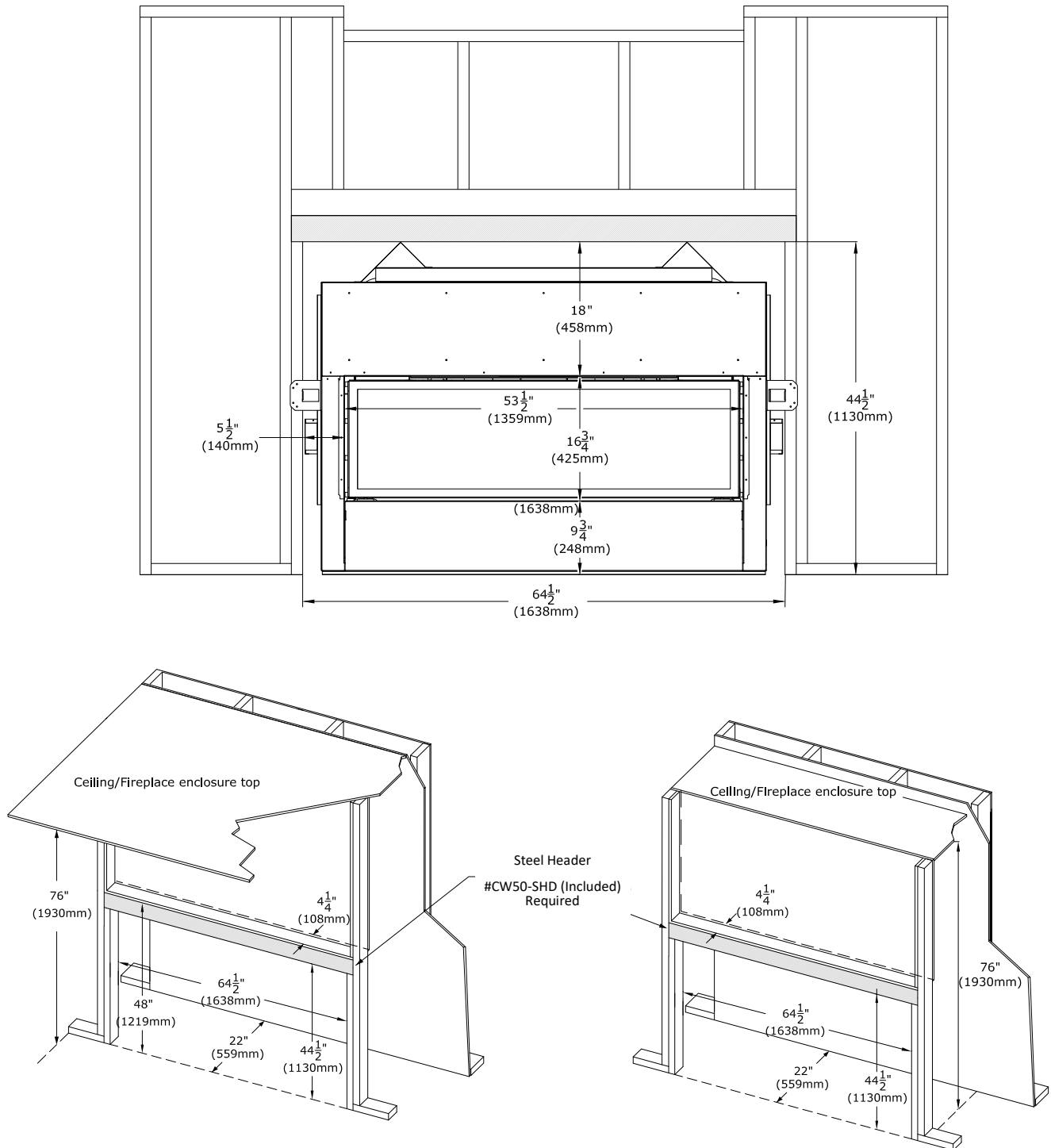


Figure 4.5 - Minimum Rough Framing - Applies to Vented Cavity Appliance Installations Only

4.3.4 Single Opening Vented Cavity Option

WARNING: Enclosure measurements must maintain minimum framing specs as outlined in Section 4.3.3 Vented Cavity Wall Enclosure Rough Framing. Minimum dimensions for the air discharge **MUST BE** maintained after all finishing materials are installed.

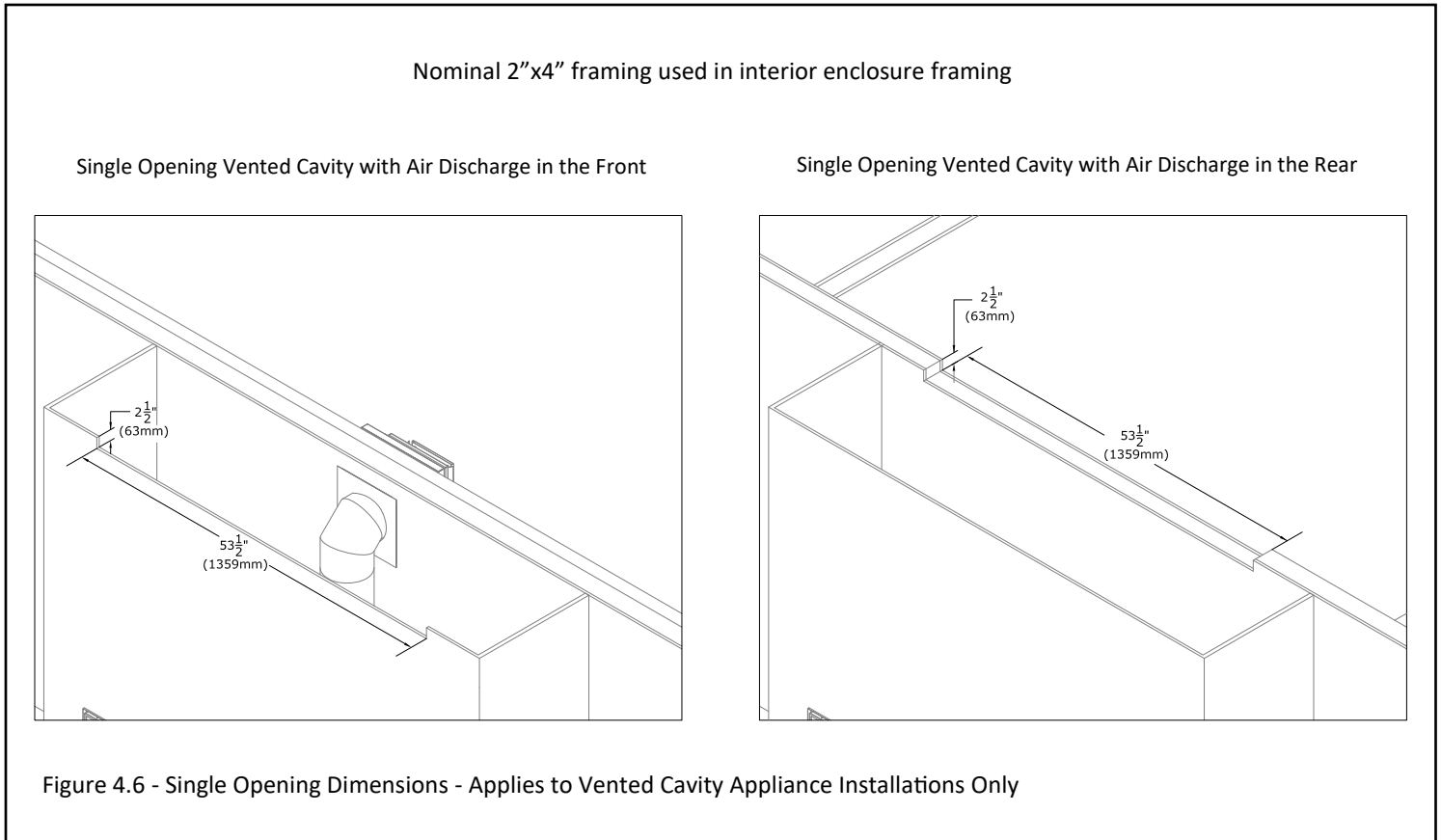
NOTE: The single opening vented cavity option allows the use of 19 gauge (or less) 1/2" x 1/2" hardware mesh to prevent any items from entering the vented cavity. This hardware mesh is optional and the **ONLY** approved item for use within the air discharge opening.

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

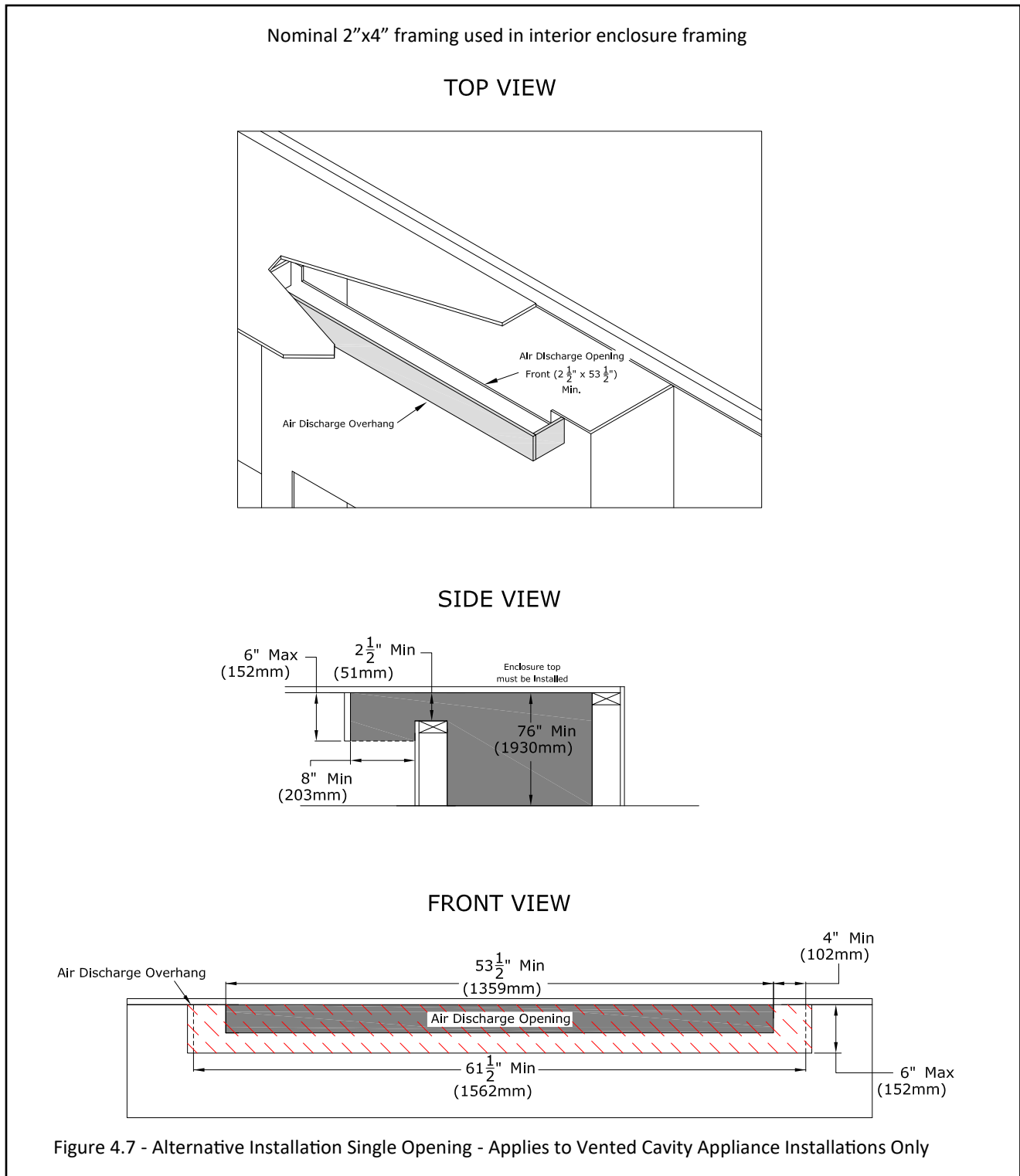
WARNING: Failure to comply with these instructions could create a fire hazard. Ensure air flow within the air discharge opening is not restricted in any way.

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 4.6 shows the minimum required dimensions for the single opening vented cavity air discharge opening.
- This single 2-1/2" x 53-1/2" air discharge opening can be located at the front of the fireplace chamber, or located at the rear of the fireplace chamber.
- Hot air will exit to the room where the air discharge opening is located.



- Figure 4.7 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.



- Figure 4.8 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 2-1/2" (51mm) clearance for the full length of crown molding/trim projection.
- This molding or trim cannot decrease the minimum opening requirement.

Nominal 2"x4" framing used in interior enclosure framing

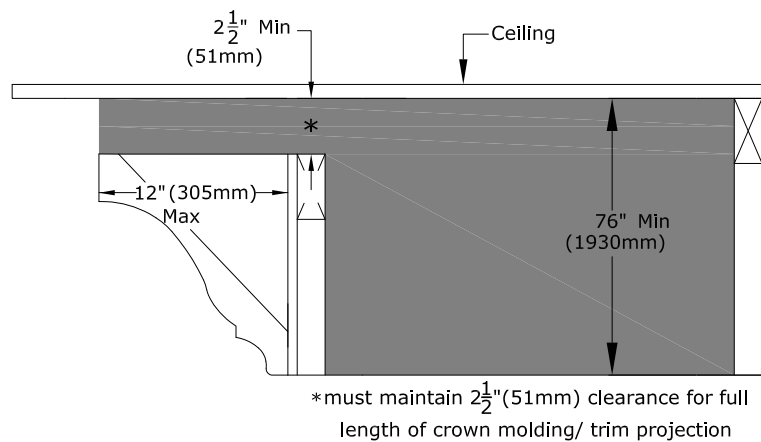
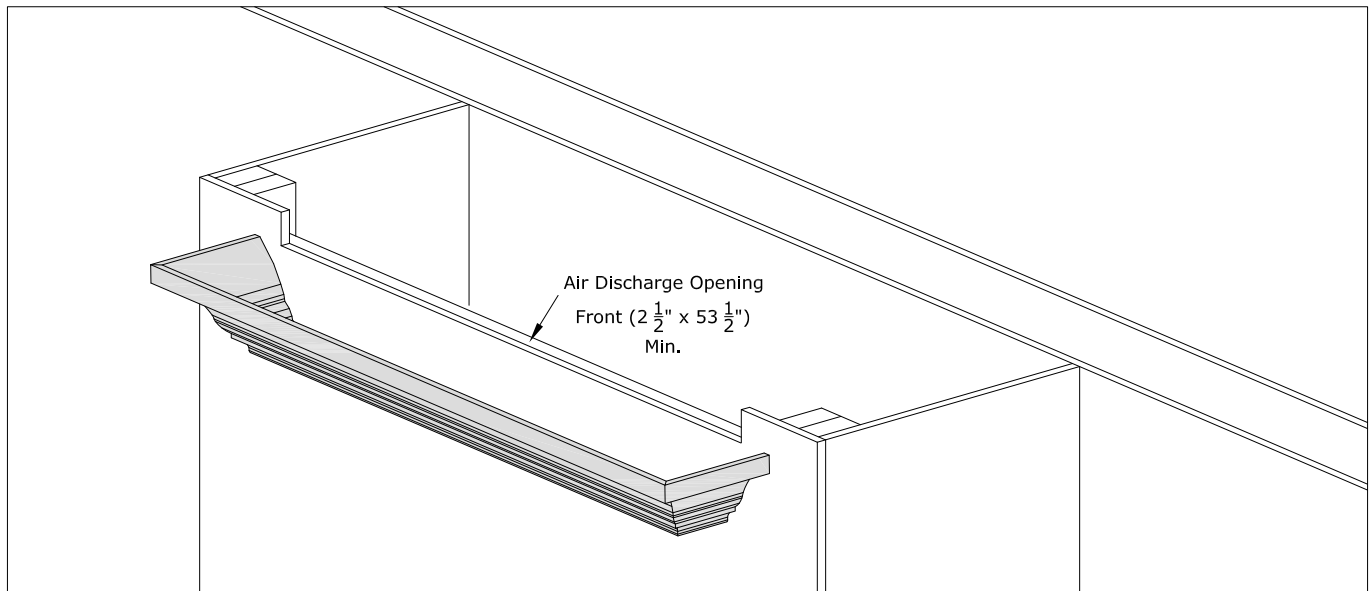
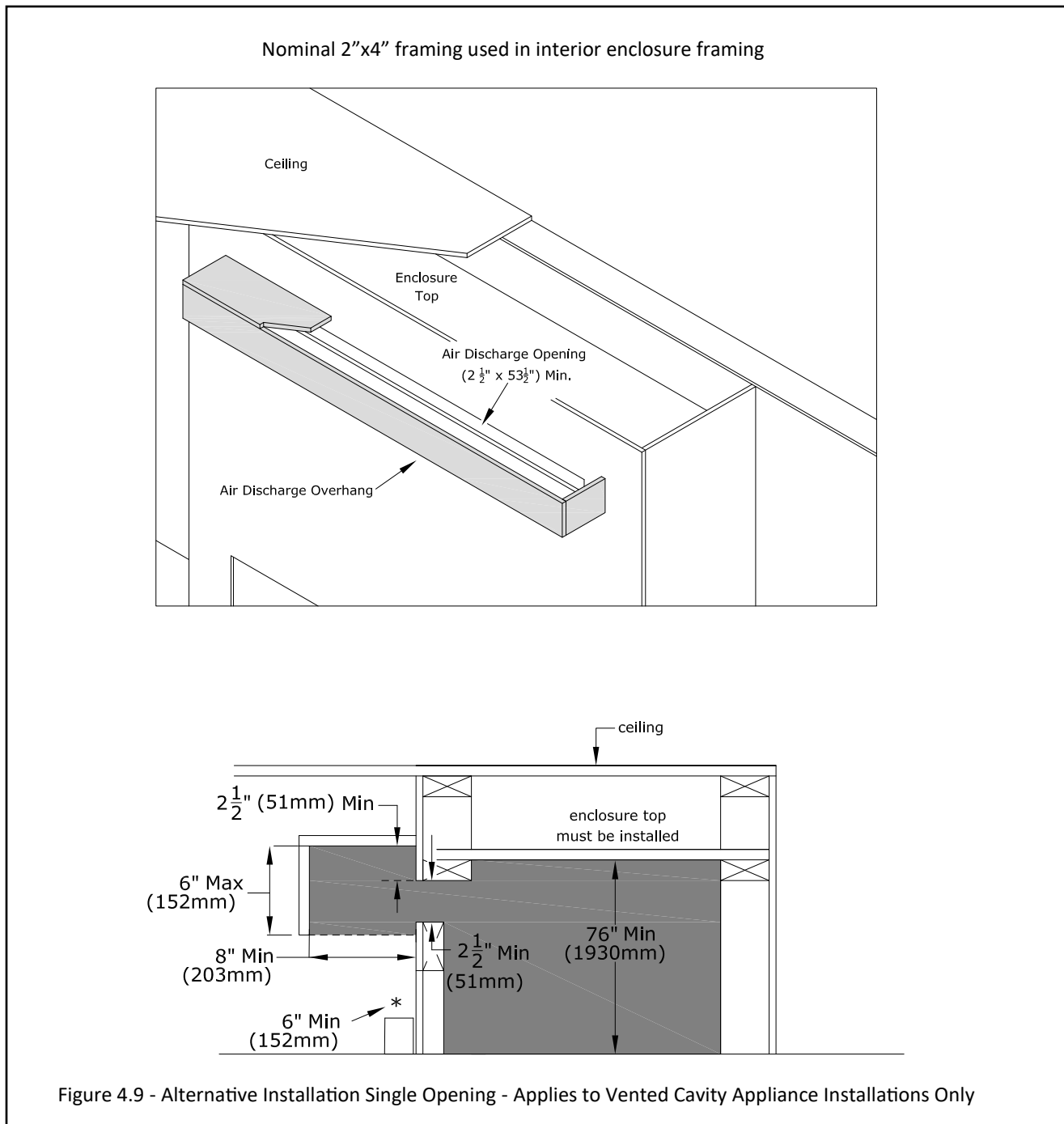


Figure 4.8 - Alternative Installation Single Opening - Applies to Vented Cavity Appliance Installations Only

- Figure 4.9 shows an alternative installation method where you cap off the fireplace cavity with an enclosure top so the air discharge opening can be located further 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. Framing the outlet any lower than 1-1/2" (38mm) will cause overheating and create a fire hazard.
- If you cap the fireplace cavity off, it cannot have any vent pipe running through the top without a ceiling firestop.
- This installation method can alleviate any possible concerns with paint discoloration from heat or dust.
- Figure 4.9 is shown with an air discharge overhang in front of the air discharge opening. This optional installation method can provide a means to visually hide the air discharge opening.



4.3.5 Top Opening Vented Cavity Option

WARNING: Enclosure measurements must maintain minimum framing specs as outlined in Section 4.3.3 Vented Cavity Wall Enclosure Rough Framing. Minimum dimensions for the air discharge **MUST BE** maintained after all finishing materials are installed.

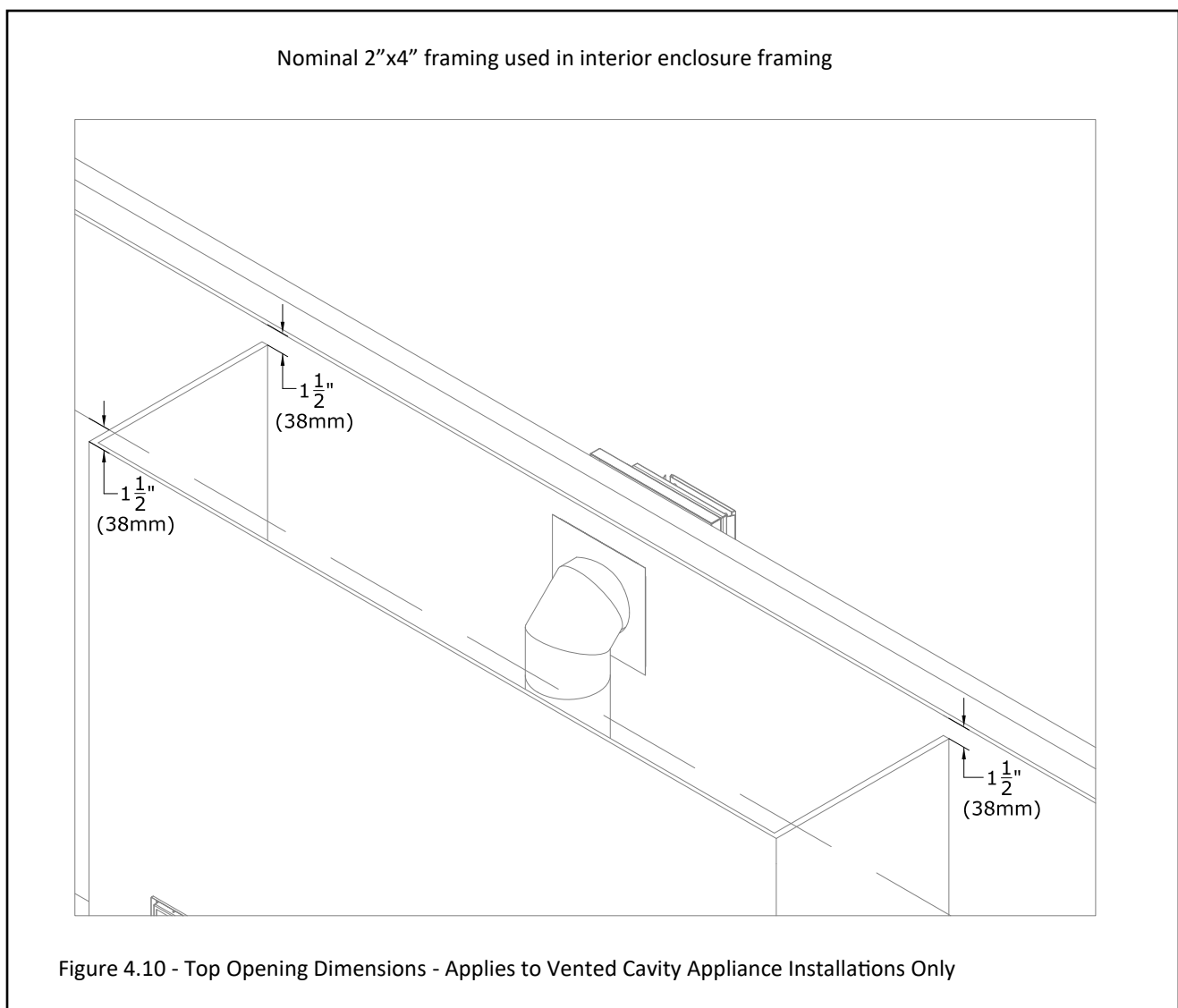
NOTE: The single opening vented cavity option allows the use of 19 gauge (or less) 1/2" x 1/2" hardware mesh to prevent any items from entering the vented cavity. This hardware mesh is optional and the **ONLY** approved item for use within the air discharge opening.

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 for aesthetic purposes and to avoid items falling into the enclosure.

- Figure 4.10 shows the minimum 1-1/2" (38mm) clearance from the fireplace enclosure top to the ceiling, on all three sides of the enclosure.



- Figure 4.11 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.

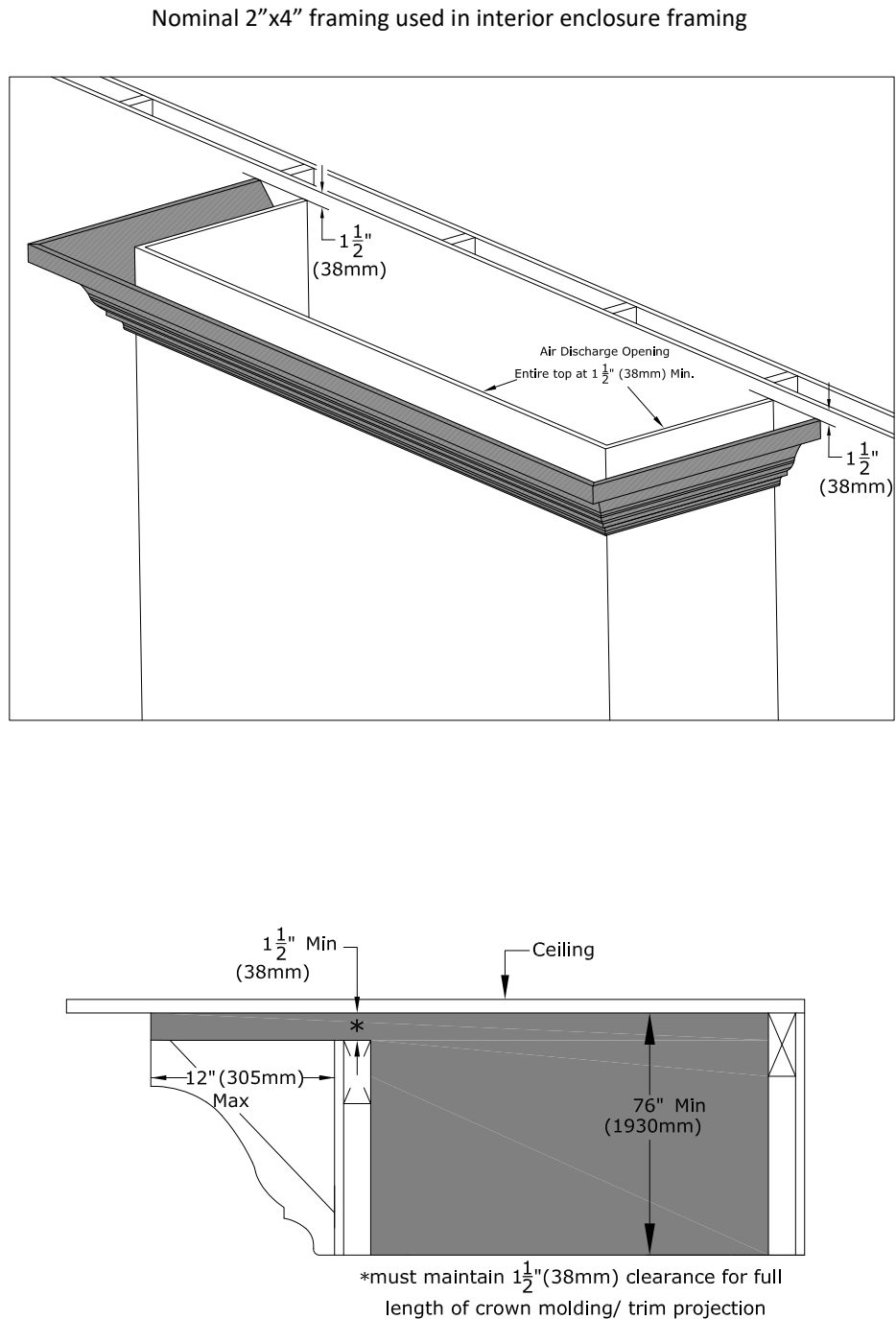
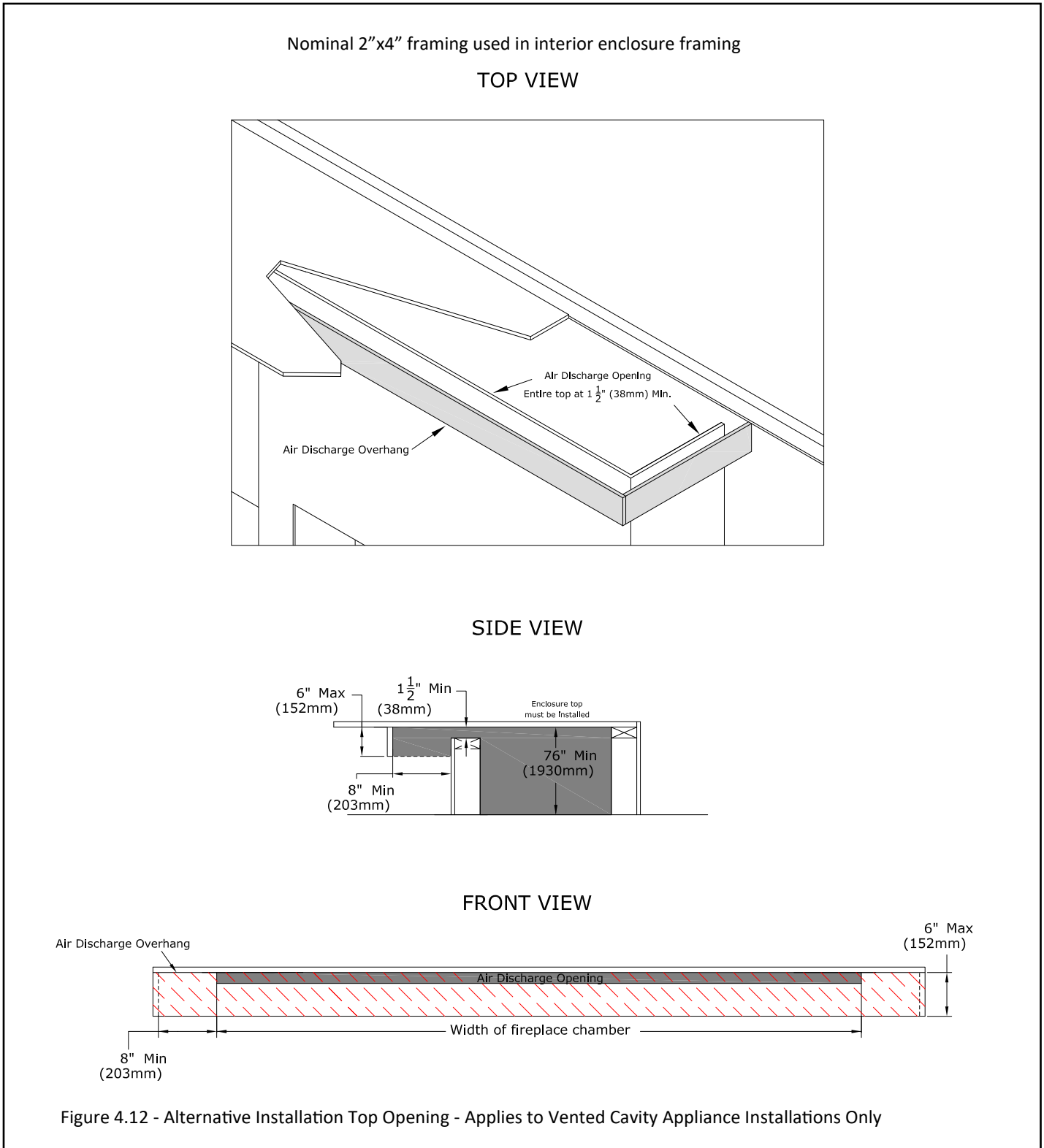


Figure 4.11 - Alternative Installation Top Opening - Applies to Vented Cavity Appliance Installations Only

- Figure 4.12 shows an alternative installation for the top vented cavity option with an air discharge overhang in front and to the sides of the air discharge opening.
- This installation method can provide a means to visually hide the air discharge opening.



5.0 Facing and Finishing

5.1 Standard Installation - Facing and Finishing Requirements

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

Utilizing the Kozy Power Vent system will not change mantel, hearth, sidewall, facing and finishing requirements from the standard design option.

Finishing material cannot obstruct ventilation air.

Note: See Section 5.2 Vented Cavity Facing and Finishing Requirements.

Note: When using a KZK see the manual that ships with the KZK for the applicable facing and finishing requirements.

5.1.1 Combustible Hearth and Mantel Requirements

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

- Combustible Mantel Projections (no surround): As referenced in FIGURE 5.2, the 3/4" mantel trim can start at 18" (457mm) above the fireplace top finishing edge with a 6" (152mm) mantel starting at 21-1/2" (545mm) 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. Refer to Section 5.4 if you are using an optional surround.
- Combustible Hearth: A 14" (356mm) combustible hearth can be installed flush to the fireplace bottom finishing edge if you are not using an optional surround. Hearth projections can increase 1" (25mm) of projection for every 1" (25mm) away from the bottom fireplace finishing edge. Refer to Section 5.4 if you are using an optional surround.
- Mantel Leg: Follow "Combustible Sidewall Clearance" below. See FIGURE 5.4.

5.1.2 Combustible Sidewall Requirements

- Combustible Sidewall Clearance: The adjacent sidewall projection is unlimited and starts at 3" (76mm) from the side of the fireplace. See FIGURE 5.4.
- If installing an optional surround, refer to Measurement 'A' in Figure 5.10.

5.1.3 Non-combustible Mantel Requirements

- Noncombustible Mantel Projections: As referenced in FIGURE 5.3, the 6" (152mm) noncombustible mantel projection can start at 6" (152mm) from the top fireplace finishing edge. Follow projection 1" (25mm) up for every 1" (25mm) deeper.

5.1.4 Non-Combustible Zone

- See Figure 5.5, Non-Combustible Material Zone for the minimum requirement of noncombustible finishing material.
- Paper faced gypsum board, commonly known as drywall; including Type X Fire Rated board is not a non-combustible material. This material is not approved for use as a non-combustible material around the fireplace.
- WonderBoard brand boards are commonly used as a backerboard for tile. WonderBoard backerboard is not a non-combustible material and is not approved for use in the non-combustible material is required around the fireplace.
- Noncombustible facing and finishing materials must meet ASTM E 136.

5.1.5 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. recommends the following methods:

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

Disclaimer: Kozy Heat does not guarantee any materials used around the fireplace. Kozy Heat disclaims any and all liability for any damage to finishing materials including warping, discoloring, cracking, peeling or flaking. This also includes any off-gassing or unpleasant smells from materials when they are heated.

5.1.6 Recommended Installation of Marble and other stone materials

Kozy Heat recommends the following statements when using marble, granite, or other stone finishing materials

- Never use a one-piece marble, granite or natural stone that is cut in a U-shape for finishing material to cover the sides and top areas around the fireplace opening.
- If you use a one piece U-shaped piece of marble, or stone finishing material the material is susceptible to cracking due to thermal expansion
- Refer to the manufacturer and supplier of your finishing material for use in high heat applications like around a fireplace. Ensure the material can be exposed to temperatures greater than 160°F. Kozy Heat does not assume any liability for discoloring, cracking, or other heat related damage.

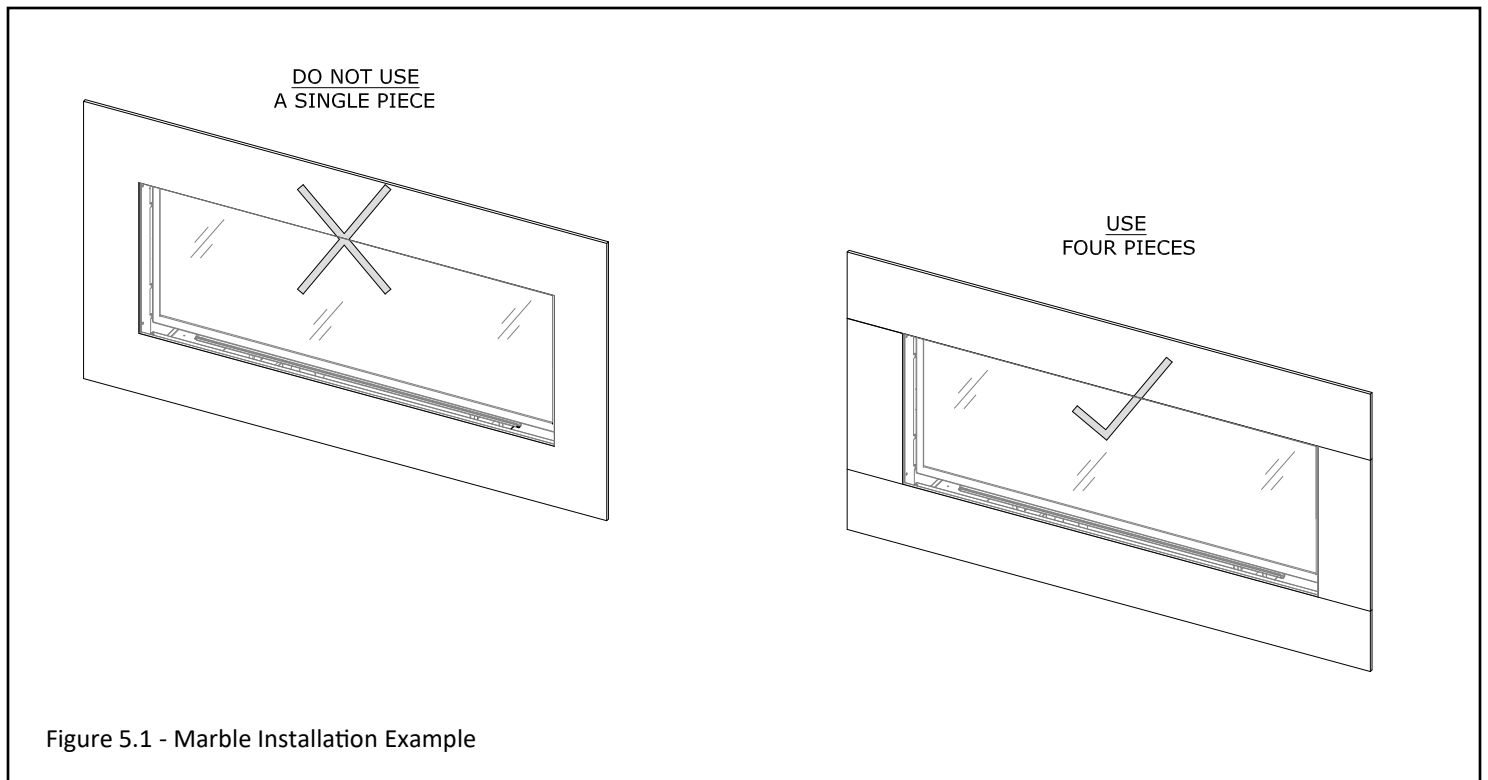


Figure 5.1 - Marble Installation Example

Figure 5.2 shows a 6" (152mm) combustible mantel projection starting 21-1/2" (546mm) up from the top finishing edge of the fireplace. The dimensions shown are allowed in standard installation scenario. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel. A 14" (356mm) combustible hearth is allowed flush at the bottom finishing edge of the fireplace.

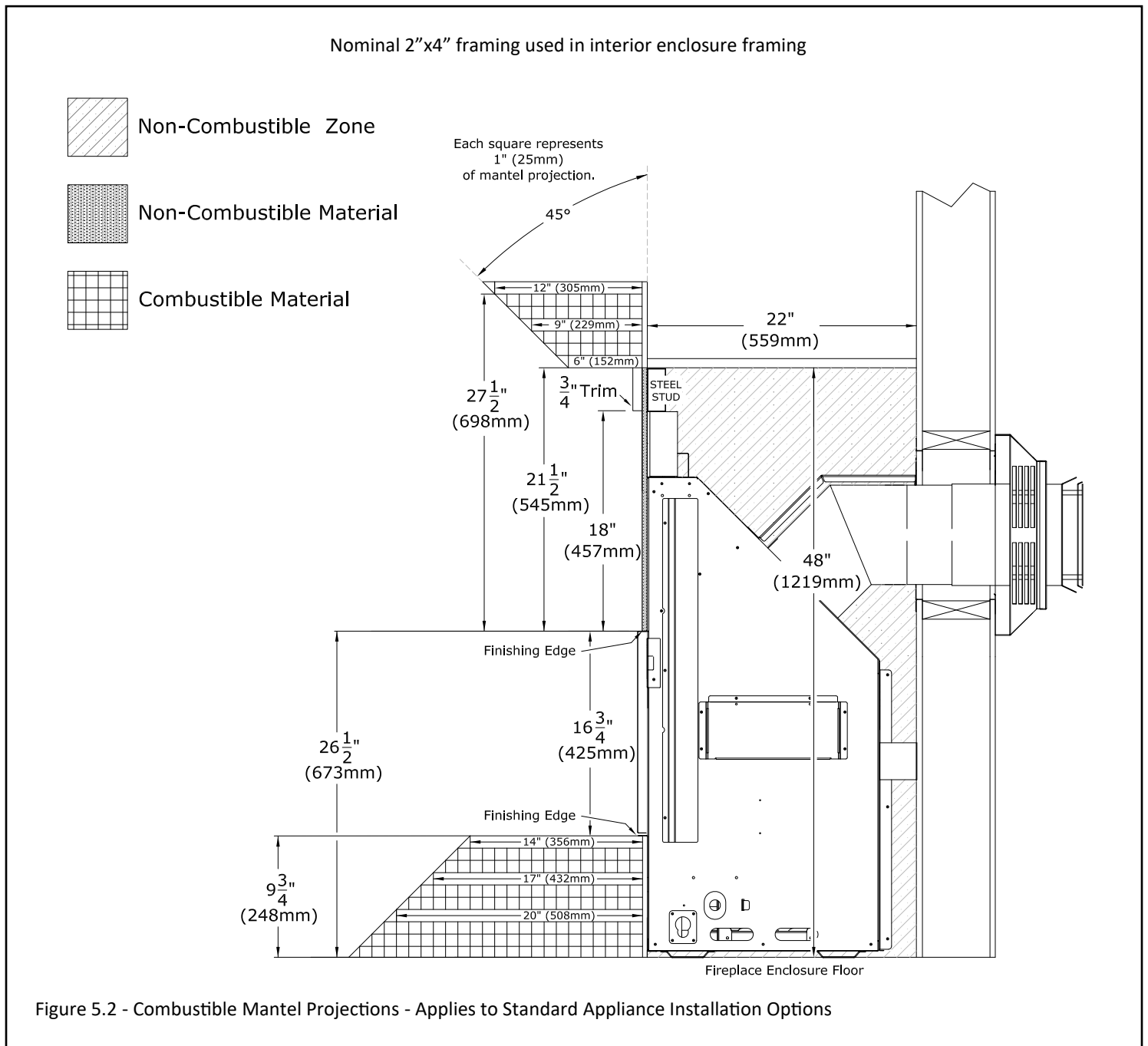


Figure 5.3 shows a 6" (152mm) non-combustible mantel projection starting 6" (152mm) up from the top finishing edge of the fireplace. The dimensions shown are allowed in the standard installation scenario. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel. A 14" (356mm) combustible hearth is allowed flush at the bottom finishing edge of the fireplace.

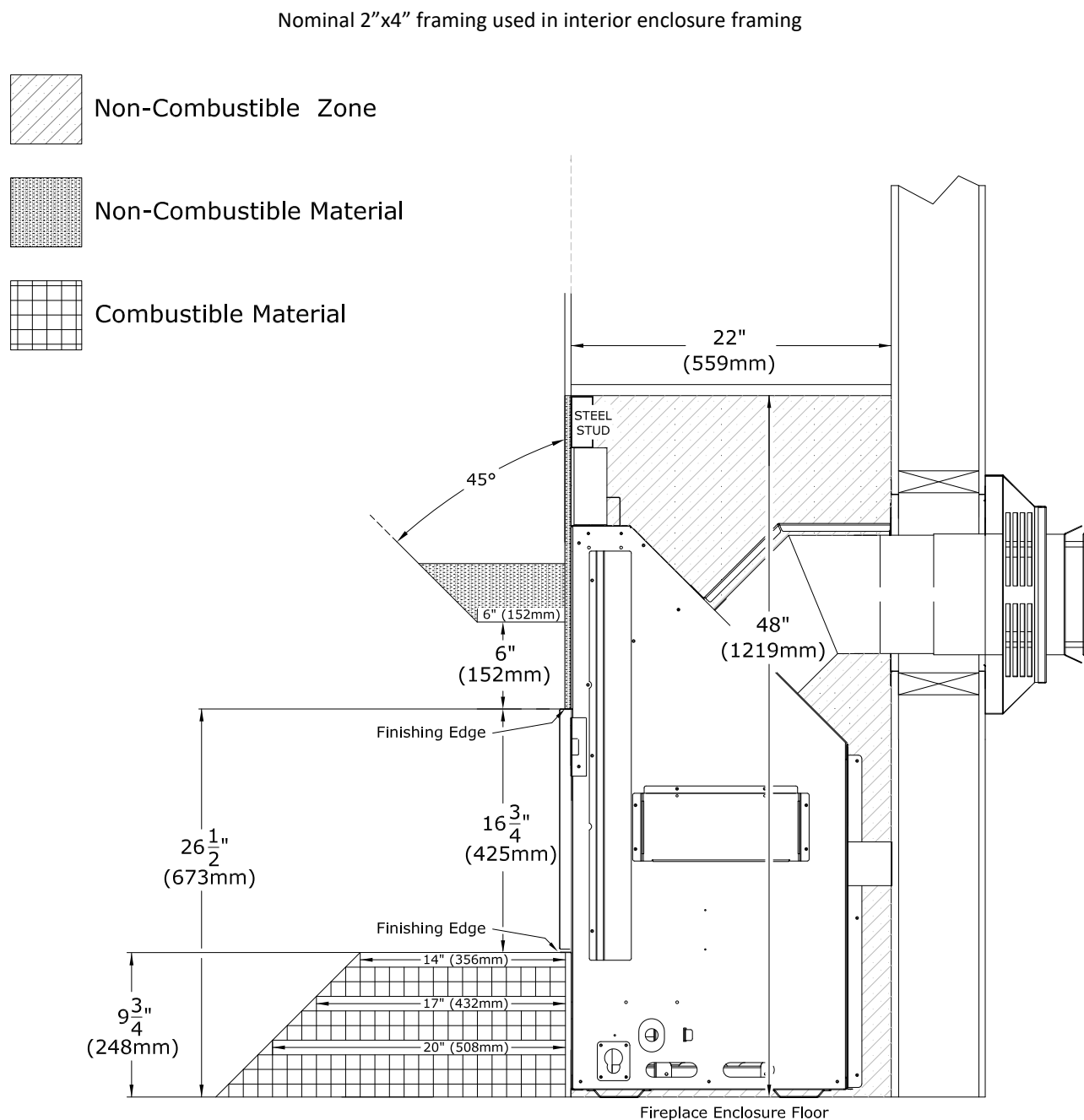
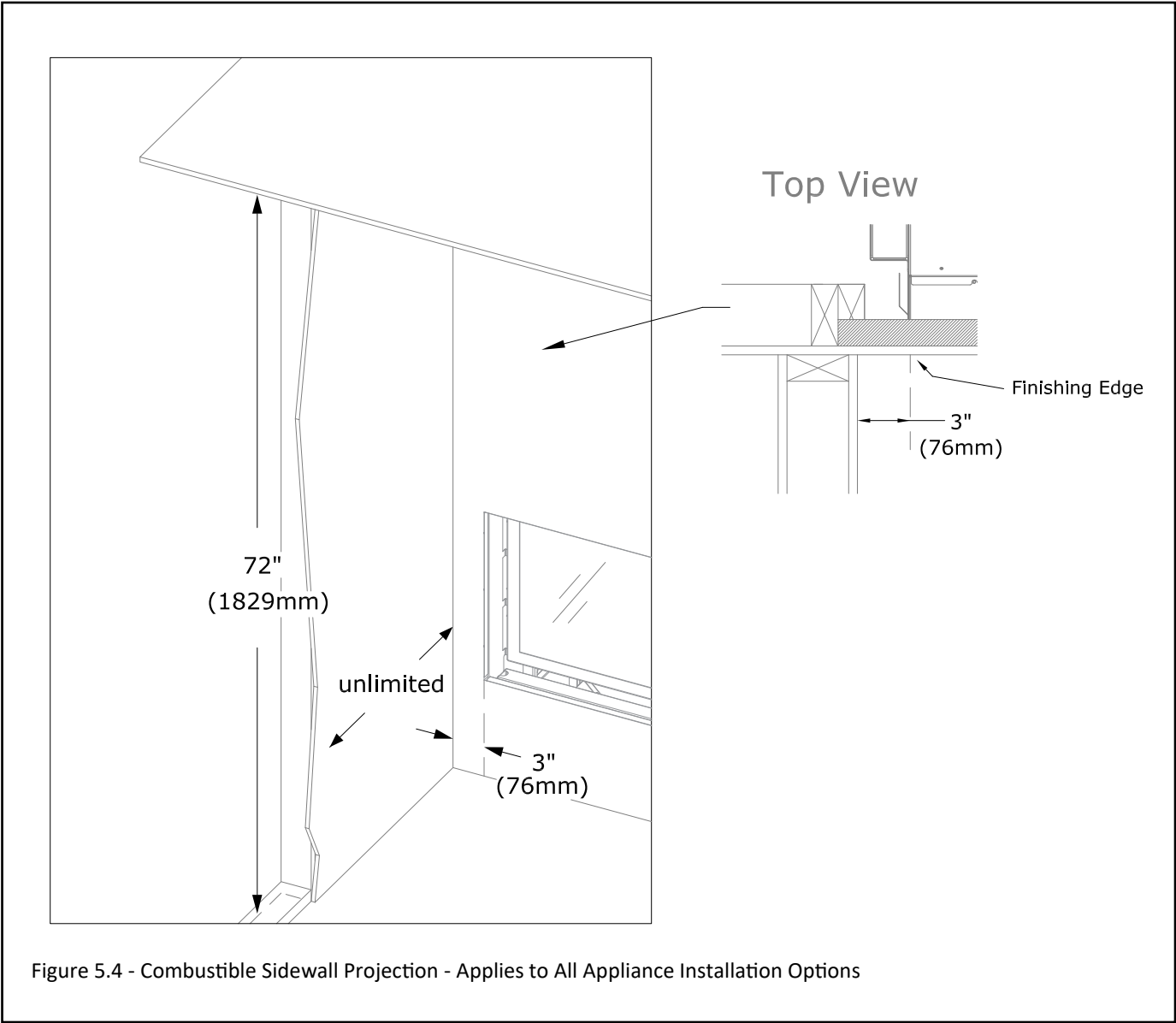


Figure 5.3 - Non-Combustible Mantel Projections - Applies to All Appliance Installation Options

Figure 5.4 shows an unlimited combustable sidewall starting at 3" (76mm) from the side finishing edge of the fireplace.



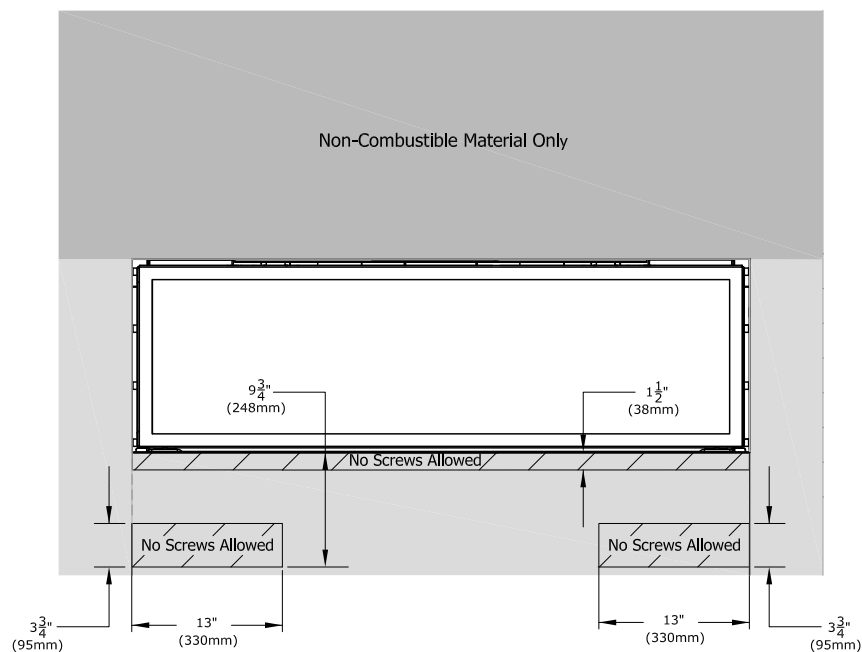
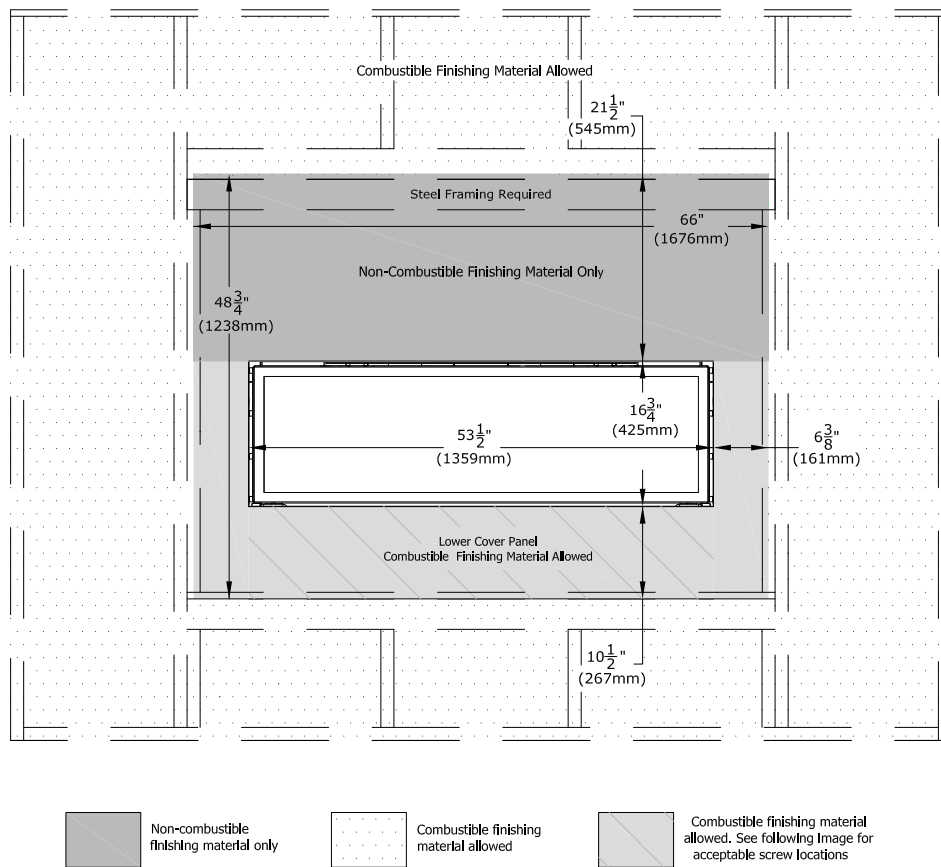


Figure 5.5 - Non-Combustible Finishing Material Requirements - Applies to All Appliance Installation Options

5.2 Vented Cavity - Facing and Finishing Requirements

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

Utilizing the Kozy Power Vent system will not change mantel, hearth, sidewall, facing and finishing requirements from the standard design option.

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

Finishing material cannot obstruct ventilation air.

NOTE: All vented cavity options allow the sidewall to be flush with the fireplace finishing edge (safety screen only), or flush with an optional surround installed.

5.2.1 Combustible Hearth and Mantel Requirements

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

- Combustible Mantel Projections (no surround): As referenced in FIGURE 5.6, the 6" (152mm) mantel can start flush with the top finishing edge. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel. Refer to Section 5.4 if you are using an optional surround.
- Combustible Hearth: A 14" (356mm) combustible hearth can be installed flush to the fireplace bottom finishing edge if you are not using an optional surround. Hearth projections can increase 1" (25mm) of projection for every 1" (25mm) away from the bottom fireplace finishing edge. Refer to Section 5.4 if you are using an optional surround.
- Mantel Leg: Follow "Combustible Sidewall Clearance" below. See FIGURE 5.7.

5.2.2 Adjacent Sidewall Requirements

- Combustible Sidewall Clearance: The adjacent sidewall projection is unlimited and starts at 0" (0mm) from the side of the fireplace. See FIGURE 5.7.
- If installing an optional surround, refer to Measurement 'A' in Figure 5.10.

5.2.3 Non-combustible Mantel Requirements

- Noncombustible Mantel Projections: As referenced in FIGURE 5.3, the 6" (152mm) noncombustible mantel projection can start at 6" (152mm) from the top fireplace finishing edge. Follow projection 1" (25mm) up for every 1" (25mm) deeper.

5.2.4 Non-Combustible Zone

- See Figure 5.5, Non-Combustible Finishing Zone for the minimum requirement of noncombustible finishing material.
- Paper faced gypsum board, commonly known as drywall; including Type X Fire Rated board is not a non-combustible material. This material is not approved for use as a non-combustible material around the fireplace.
- WonderBoard brand boards are commonly used as a backerboard for tile. WonderBoard backerboard is not a non-combustible material and is not approved for use in the non-combustible material is required around the fireplace.
- Noncombustible facing and finishing materials must meet ASTM E 136.

5.2.5 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. recommends the following methods:

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

Disclaimer: Kozy Heat does not guarantee any materials used around the fireplace. Kozy Heat disclaims any and all liability for any damage to finishing materials including warping, discoloring, cracking, peeling or flaking. This also includes any off-gassing or unpleasant smells from materials when they are heated.

5.2.6 Combustible Wall Finish

- Figure 5.8 shows installation of combustible wall finish up to 1" (25mm) thick for Vented Cavity installations.
- 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 5.5.
- This 1" (25mm) combustible material is able to go down to the fireplace finishing edge and up to the air discharge opening, as shown in Figure 5.8.

Figure 5.6 shows a 6" (152mm) combustible mantel projection can start flush with the top finishing edge of the fireplace. The dimensions shown are allowed in Vented Cavity installation scenario. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel. A 14" (356mm) combustible hearth is allowed flush at the bottom finishing edge of the fireplace.

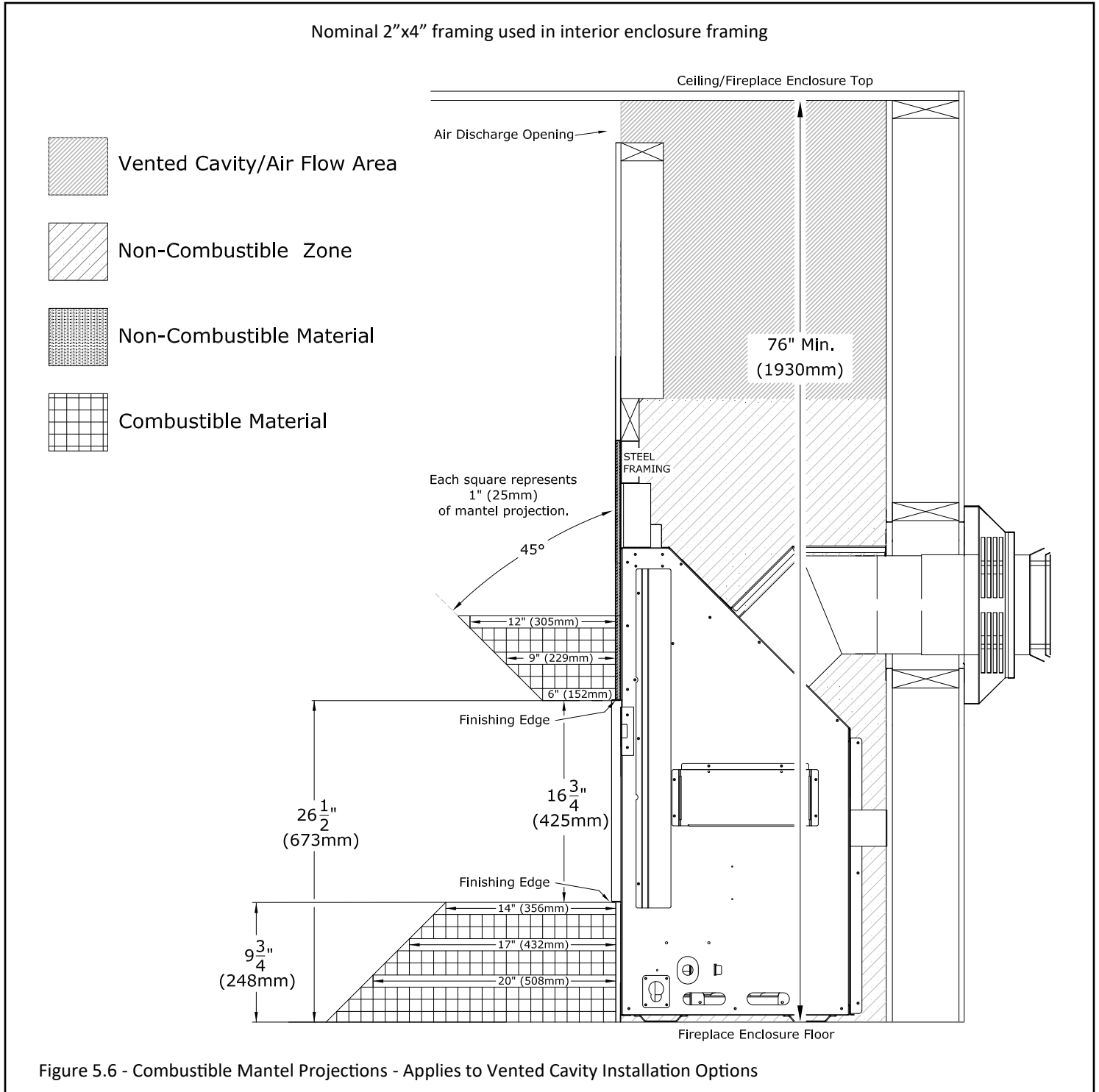


Figure 5.7 shows an unlimited combustable sidewall flush from the side finishing edge of the fireplace.

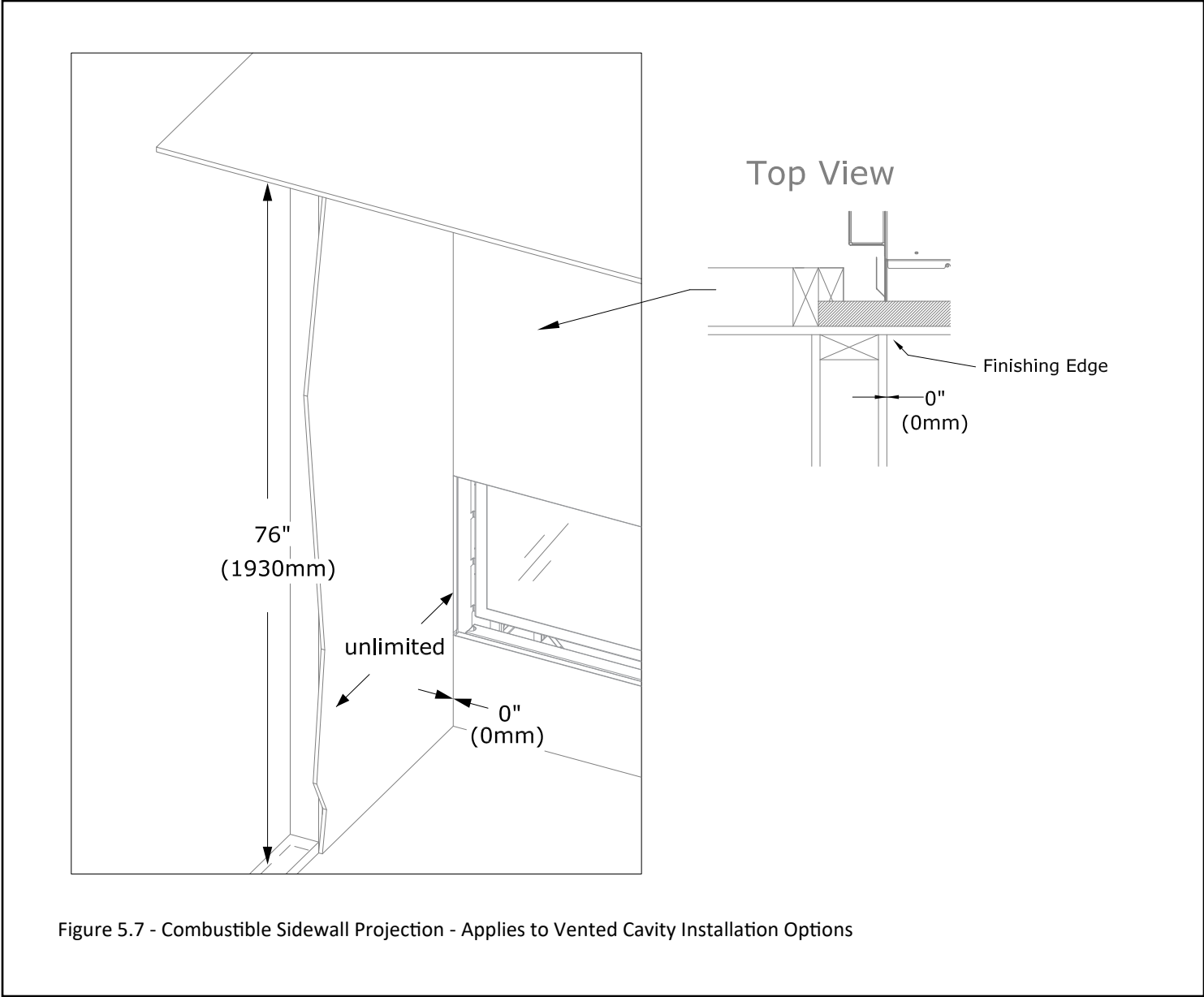


Figure 5.7 - Combustible Sidewall Projection - Applies to Vented Cavity Installation Options

Figure 5.8 shows combustible wall finish installation. You can install up to 1" (25mm) thick combustible material on top of any required noncombustible material. Combustible finishing material can go down to the finishing edge of the fireplace. This is for Vented Cavity Installation Options only.

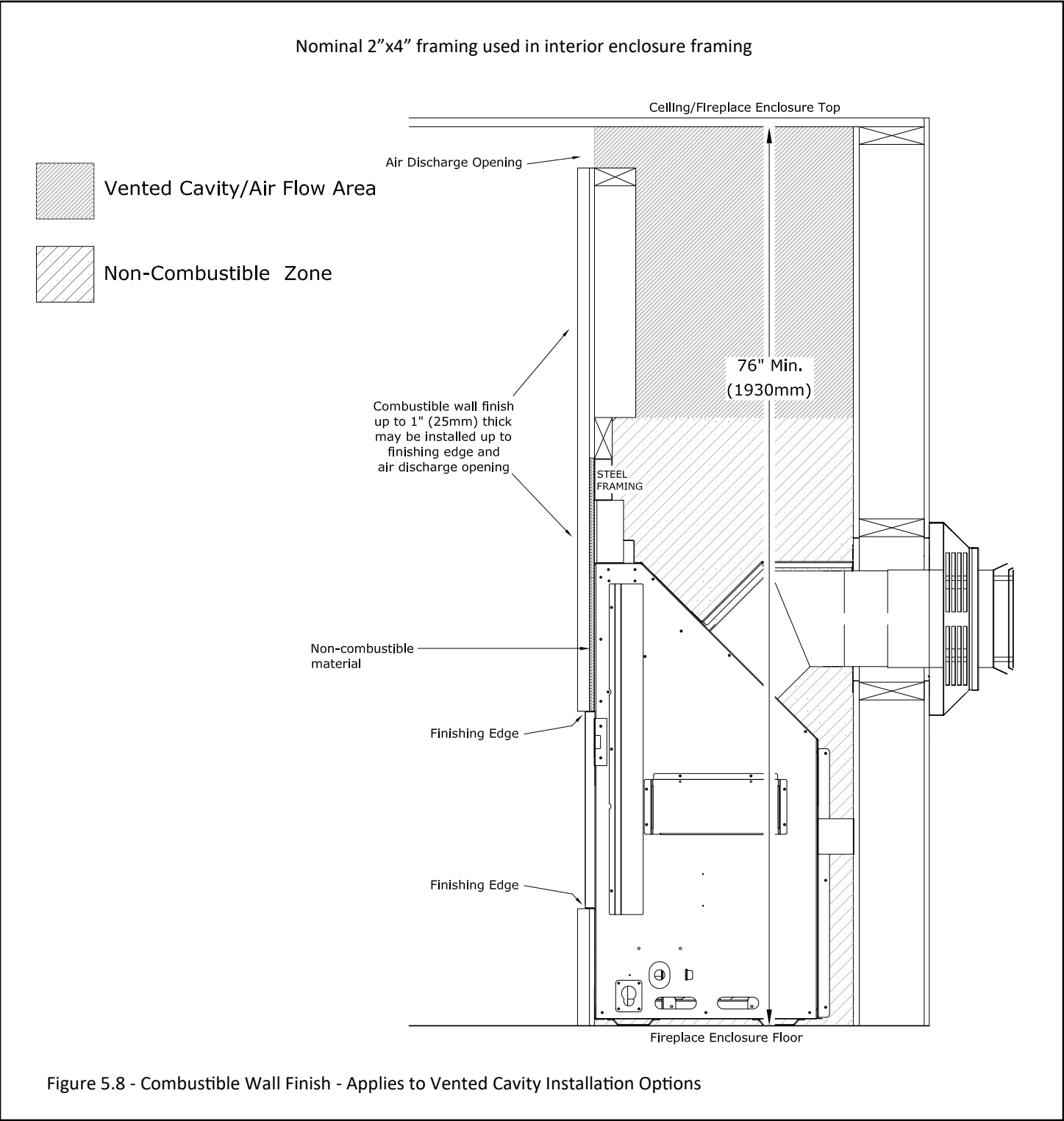


Figure 5.8 - Combustible Wall Finish - Applies to Vented Cavity Installation Options

5.3 #CW50-SCK Skim Coat Kit (Optional)

Role of Skim Coat Kit:

- The fireplace has a 3/4" (19mm) finishing edge. If you want a smooth wall finish using 1/2" (13mm) noncombustible facing material then you need to install the #CW50-SCK Skim Coat Kit. The Skim Coat Kit will space the 1/2" noncombustible facing material off the fireplace so it is flush with the fireplace finishing edge.

This kit includes:

- (16) self-tapping screws; (2) side panels; (2) top & bottom panels

Instructions:

1. Ensure the hand bend tabs are bent at a 90° angle for required clearances. This provides 1/4" of the spacing necessary for a flush mount installation.]
2. Install panels. Align the panels with the corners of the finishing flange.
3. Do not use any screws above the framing when installing the bottom panel to avoid damaging any of the gas and electrical components located behind the panel. Refer to Figure 5.5 for maintaining the required areas.

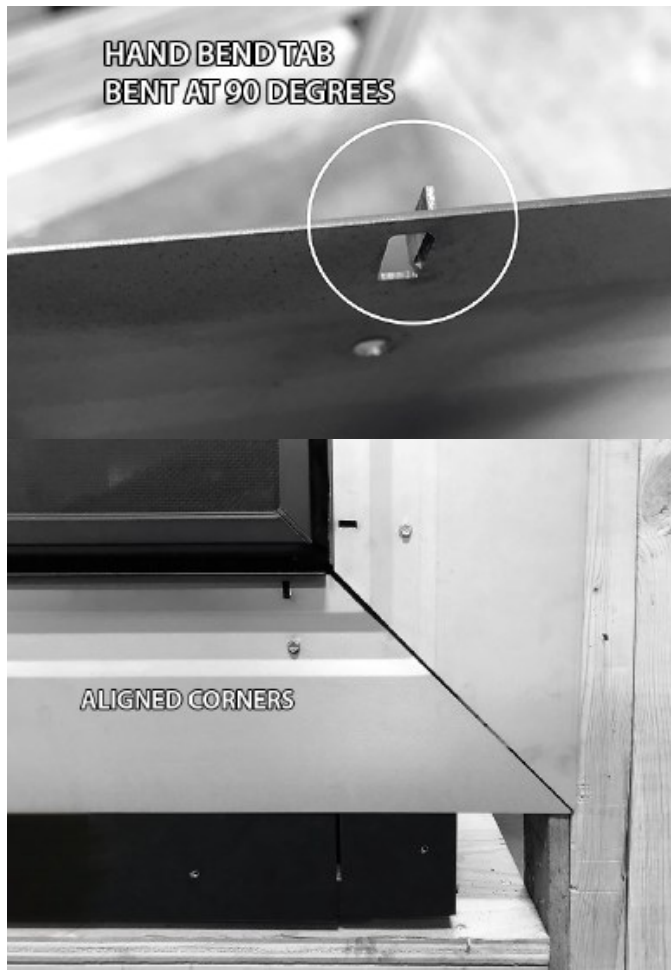


Figure 5.9 - Skim Coat Kit - Applies to All Appliance Installation Options

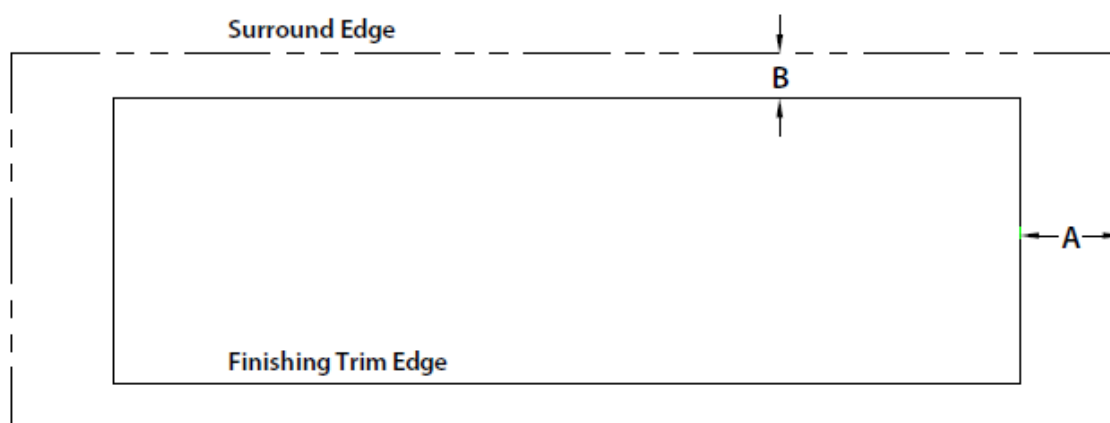
5.4 Finishing Guidelines for Optional Surrounds

The optional surrounds can provide two features. They can cover the edge of finishing material where it meets the finishing edge (opening) of the fireplace and/or they can provide a decorative aspect.

If you want the surround to cover the edge of your finishing material the combined thickness of your finishing material and required noncombustible material can be up to 1-5/8" (41mm) thick. If your combined material thickness is greater than 1-5/8" (41mm) then your finishing material would have to stop at the edge of the surround to allow installation

In scenarios where you combined material thickness is greater than 1-5/8" (41mm) follow Figure 5.10. Figure 5.10 shows where to stop your finishing materials, measured from the finishing edge, to allow installation of a specific surround. Your required noncombustible backer board (traditionally 1/2" or 5/8") can still be installed up against the finishing edge of the fireplace.

- Measurement 'A' shows the space to leave on each side.
- Measurement 'B' shows the space to leave on the top and the bottom.



Surround	A	B
CW50-RS	3/4" (19mm)	3/4" (19mm)
CW50-RS4	2-5/8" (66mm)	2-5/8" (66mm)
CW50-GS	6" (152mm)	2-1/2" (64mm)
CW50-MS	3-1/8" (79mm)	3-1/8" (79mm)

Figure 5.10 - Optional Surround Finishing Guidelines - Applies to All Appliance Installation Options

6.0 Gas Line Connection

6.1 Gas Conversion

Note: Stepper Motor sold separately to complete gas conversion

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.

6.2 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 223.1. 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) ½" (13mm) tee handle manual shut-off valve and flexible gas connector are to be connected to the ½"(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 18" (457mm) long flexible gas connector and manual shut-off valve.
- Run gas line into fireplace through gas line hole provided. The gas line should be run to the point of connection where the shut-off valve and flexible gas line will connect. See Figure 2.1, Appliance Dimensions for gas line access.
- 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.

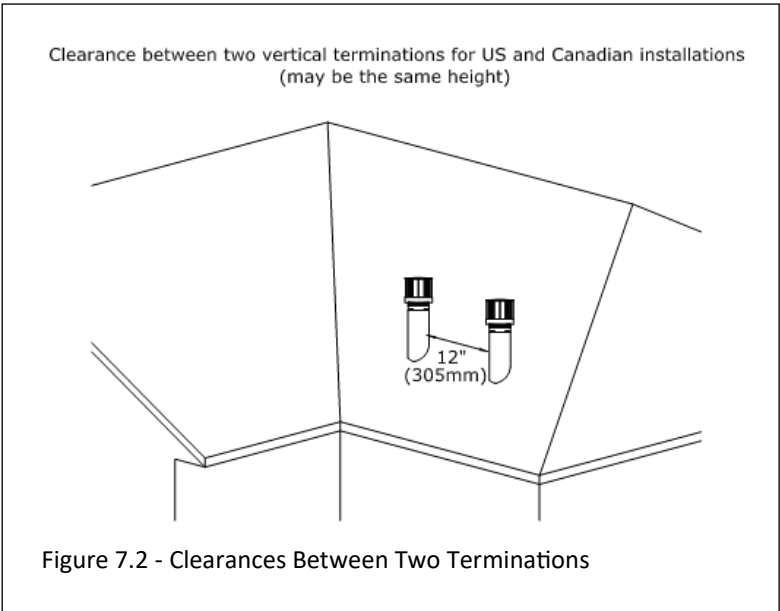
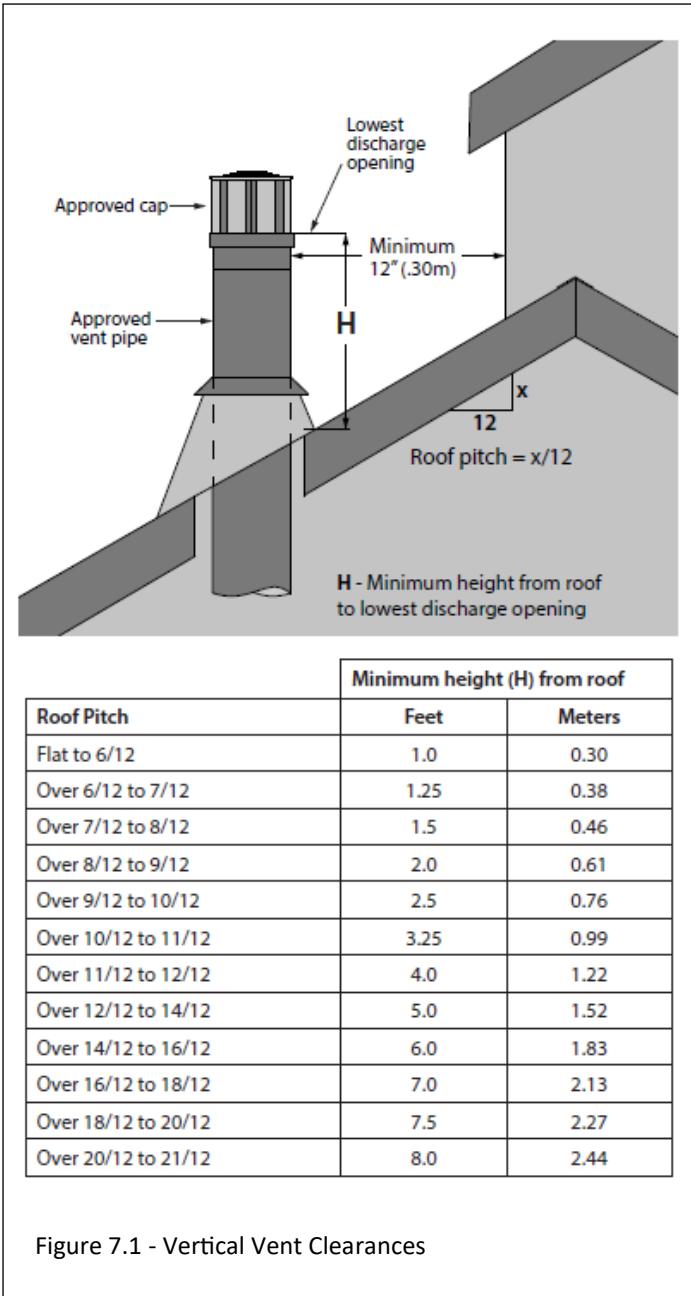
Table 6.1, Inlet Gas Supply Pressures		
	Natural Gas	Propane
Minimum Pressure	5" WC (1.25kPa) 7" WC (1.74 kPa) recommended	11" WC (2.74 kPa)
Maximum Pressure	10" WC (2.49 kPa)	13" WC (3.24 kPa)

7.0 Termination Locations

7.1 Vertical Vent Cap Termination

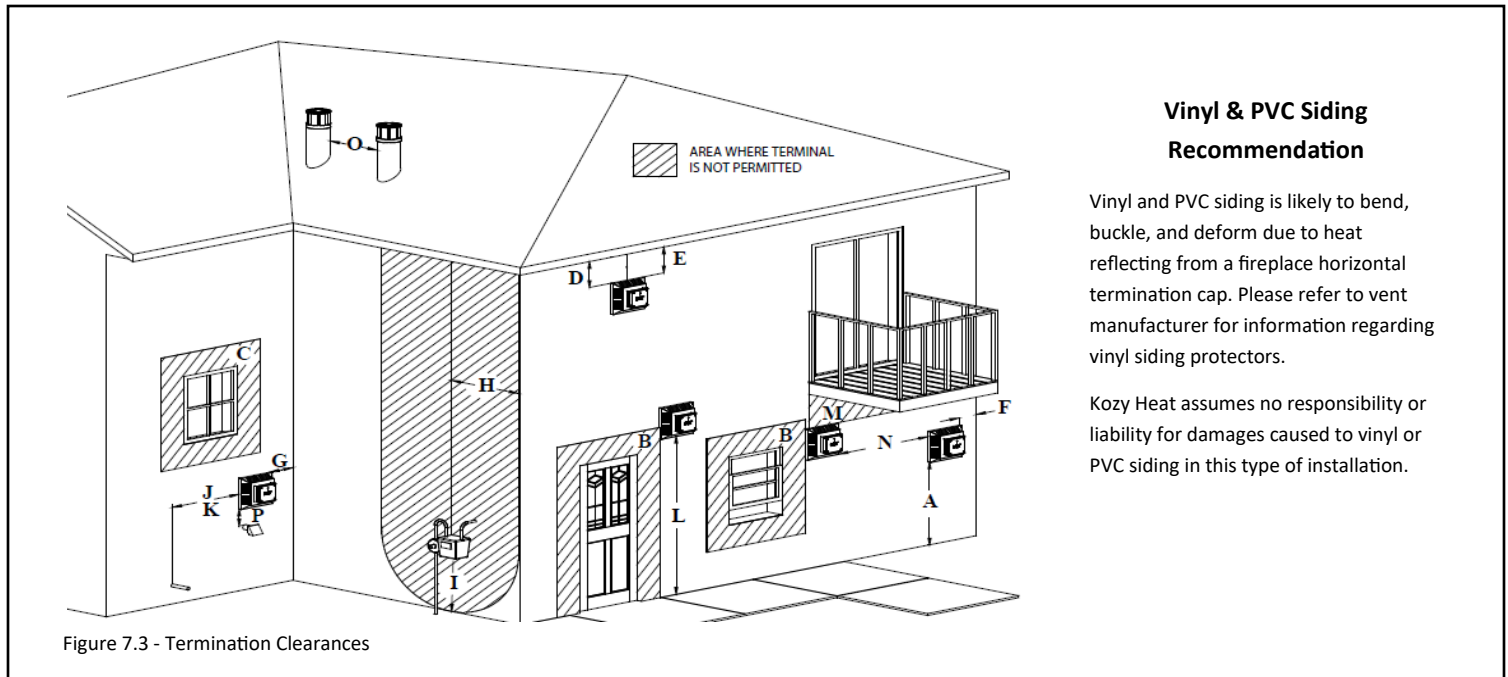
WARNING: This gas appliance must not be connected to a chimney flue serving a separate solid-fuel burning appliance.
Note: Natural Draft Applications only.

- Refer to Figure 7.1 below for vertical vent terminations clearances.
- Refer to Figure 7.2 below for clearance between two vertical terminations.



7.2 Minimum Termination Clearances

Refer to Figure 7.3 and the table below for natural draft vent termination clearance locations.



		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 (61cm) 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	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 **
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			
** Massachusetts: 10' (3m) above if within 10' (3m) horizontally			
† 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.			

8.0 Venting

8.1 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 with Kozy Heat Power Vent System #KPV (sold separately). Power Vent configurations and requirements are located in the #KPV manual.

This appliance is approved for use with manufacturers (horizontal and vertical terminations): American Metal Products (Ameri-Vent), BDM, ICC, Metal Fab., Olympia Supply Inc., Selkirk, and Simpson DuraVent. See sections 8.1.1 and 8.1.2.

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 8.7 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 6" x 8" ID masonry or 7" ID Class A metal chimney. Refer to section 8.8 for more information.

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

8.1.1 Approved 5" x 8" Vent Systems

Table 8.1, 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-VCLP
	58DVA-VCH
ICC	TM-5HT
	TM-5RHT
	TM-5SVT
Metal Fab	5DHT
	5DVT
	5DVTHW
Selkirk	5DT-HC
	5DT-VT
	5DT-VC
Olympia Chimney Supply, Inc.	VDV-HC05
	VDV-VC05
	VDV-VCH05

Table 8.1, Approved 5" x 8" Vent Systems (continued)	
Vent Manufacturer	Vent Cap Part Number
Selkirk	5DT-HC
	5DT-HCR
	5DT-VT
	5DT-VC
	5DT-ST14
	5DT-ST36

8.1.2 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.

Table 8.2, Approved 4" x 6-5/8" Vent Systems	
Vent Manufacturer	Vent Cap Part Number
American Metal Products (Ameri-Vent)	4DHCS
	4DHC
	4DVC
	4D14S
	4D36S
BDM	DVR6-HCP
	DVR6-HC
	DVR6-VCLP
	DVR6-VCH
ICC	TM-4HT
	TM-4RHT
	TM-4SVT
Kozy Heat	KPV
Metal Fab	4DHT
	4DVT
	4DVTHW
Olympia Chimney Supply, Inc.	VDV-HC04
	VDV-VC04
	VDV-VCH04
Simpson DuraVent	46DVA-HC
	46DVA-VCH
	46DVA-VC
	46DVA-VCE
Selkirk	4DT-HC
	4DT-HCR
	4DT-VT
	4DT-VC
	4DT-ST14
	4DT-ST36

8.2 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.

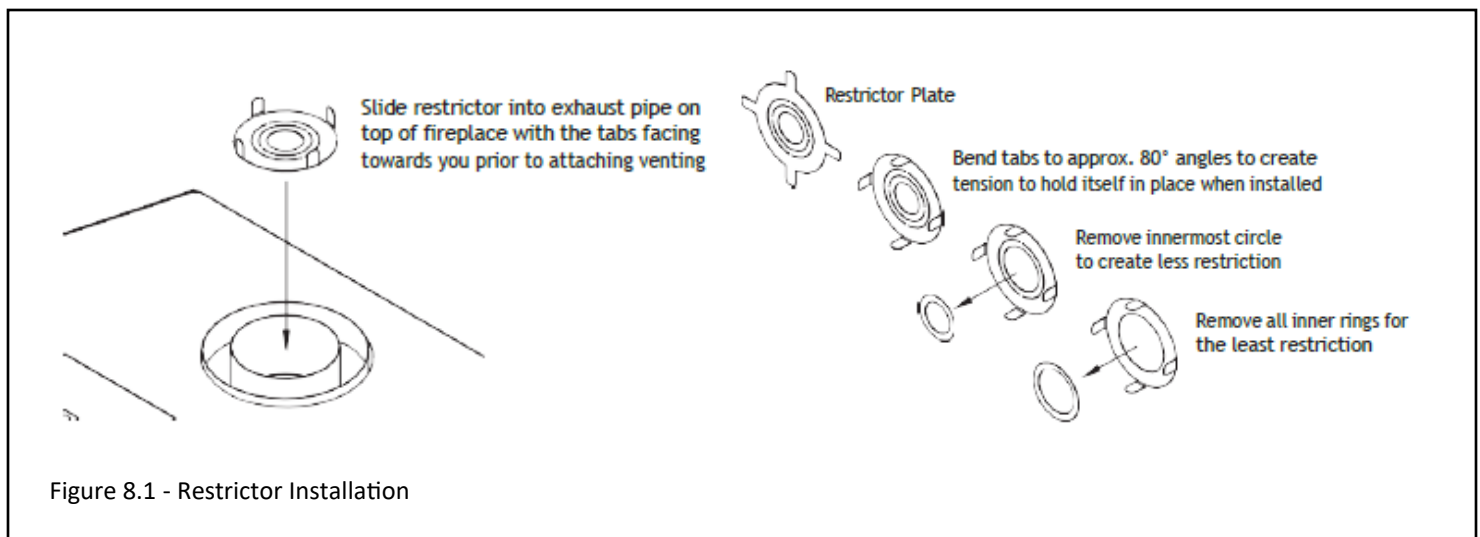
- Flame height and appearance will vary depending upon venting configuration and the type of fuel used.
- Provide a means for visually checking the vent connection to the appliance after the fireplace is installed.
- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained. Attic insulation shields may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.
- Kozy Heat's #800-WPT series, or wall thimble products that comply with a minimum of 3" (76mm) clearance on the top side and a minimum of 1" (25mm) clearance on the bottom, left, and right sides of the horizontal vent pipe at the wall pass-through 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.
- The gas appliance cannot be connected to a chimney flue that is serving a separate solid-fuel burning appliance.
- Horizontal vent sections require at least 1/4" (6mm) rise for every 12" (305mm) of travel.

8.3 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. As you knock out and remove an inner ring you have less vent restriction where removing both inner rings you will have the least amount of vent restriction.
- Follow FIGURE 8.1 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 12.2.3, Vent Restriction (after installation).

8.4 Use of Co-Axial Flexible Venting Outside the Appliance Enclosure

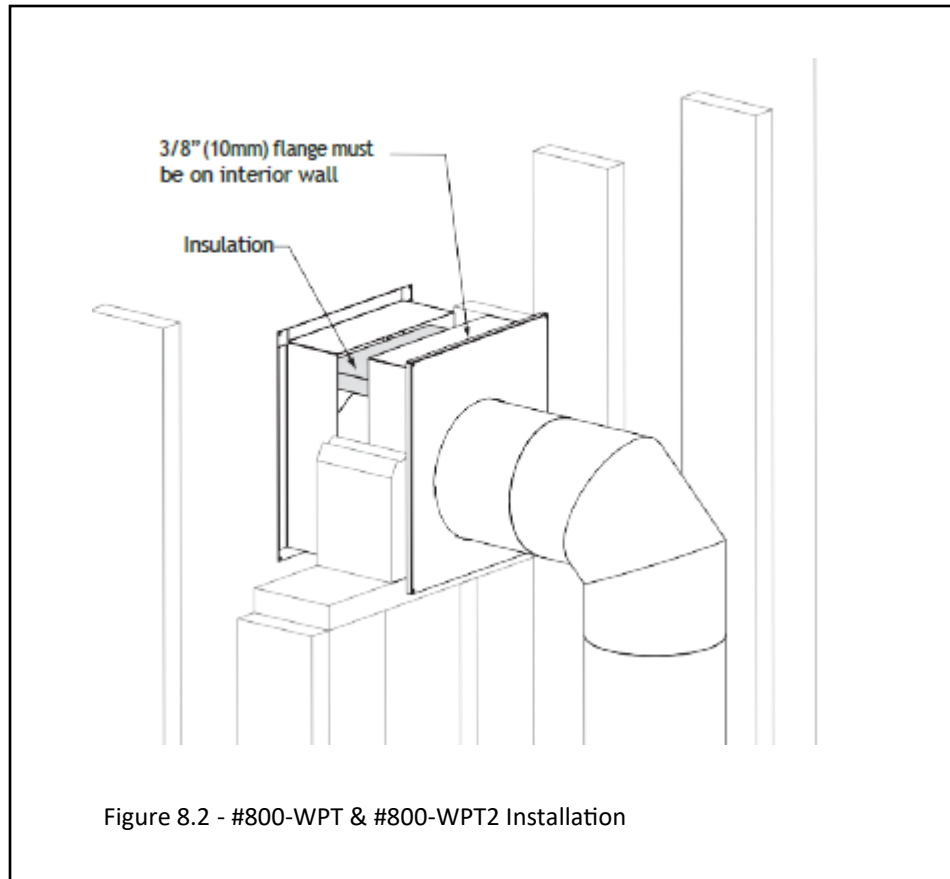
- If an approved venting manufacturer offers flexible venting options that can replace rigid vent pipe follow the vent manufacturer's instructions.
- Co-Axial flexible vent pipe can only be used outside of the appliance enclosure.
- Flexible vent pipe cannot be used to terminate the vent system horizontally or vertically (the only exception is when the appliance is installed with a Class A Chimney Conversion as shown in Section 8.7 or Co-Axial to Co-Linear as shown in Section 8.8).



8.5 #800-WPT & #800-WPT2 Installation Instructions

Refer to section 3.9.4 for #800-WPT & #800-WPT2 rough-in framing dimensions. Kozy Heat wall pass-thru #800-WPT model is for 4-1/2 to 6-1/2 thick walls, whereas Kozy Heat wall pass-thru #800-WPT2 is for 6-1/2 to 12-1/2 thick walls.

1. Measure wall thickness. Cut the included insulation to this length.
2. Install wall pass-through section marked #1 (with 3/8" [10mm] flange) into framed opening. Secure to interior wall with screws (not provided). See FIGURE 8.2.
3. From the exterior, place insulation between flange and the top of the framed opening in the wall pass-through section #1, cutting as needed.
4. Install section marked #2 of wall pass-through into framed opening, overlapping metal sections as necessary to accommodate wall thickness. Secure to exterior wall with screws (not provided).
5. Follow vent manufacturer installation instructions for vent installation.



8.6 Natural Draft Co-Axial Pipe Installations

8.6.1 Vertical Terminations

Note: Natural Gas and Propane Installations

- (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.

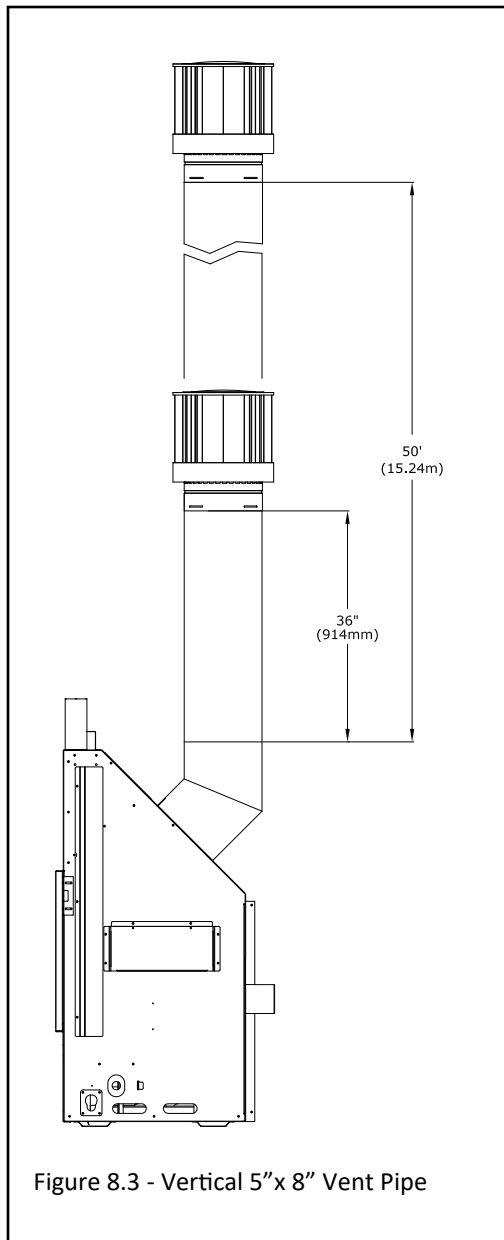


Figure 8.3 - Vertical 5" x 8" Vent Pipe

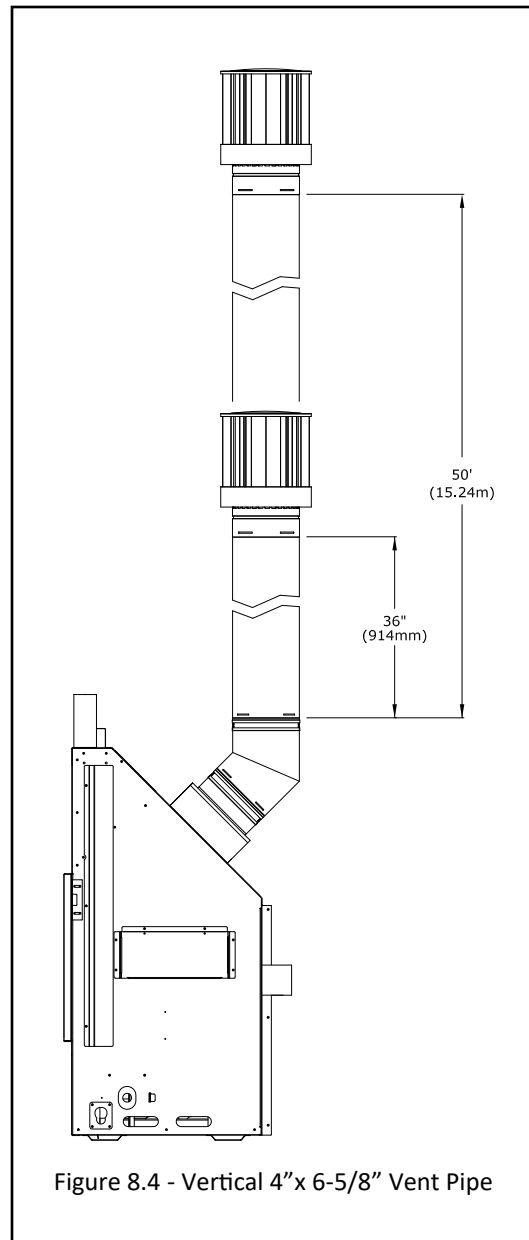


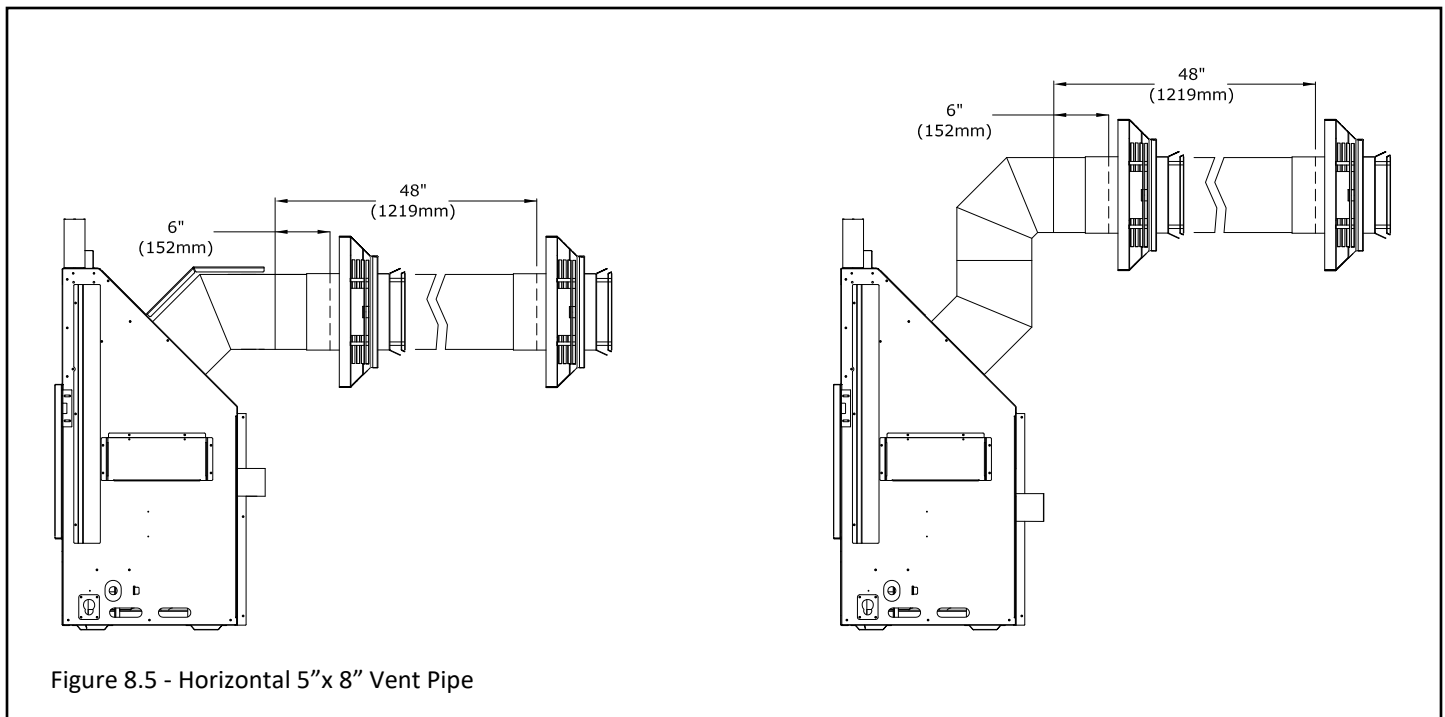
Figure 8.4 - Vertical 4" x 6-5/8" Vent Pipe

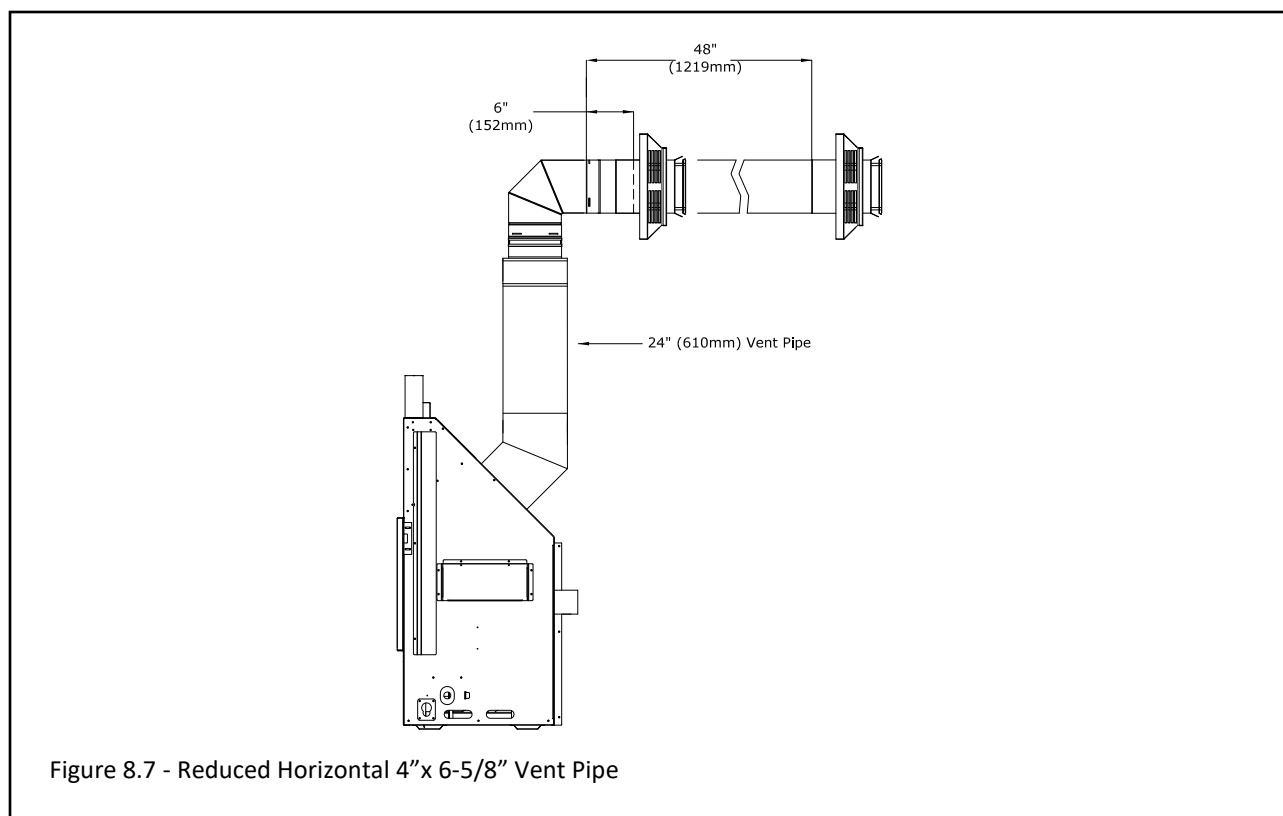
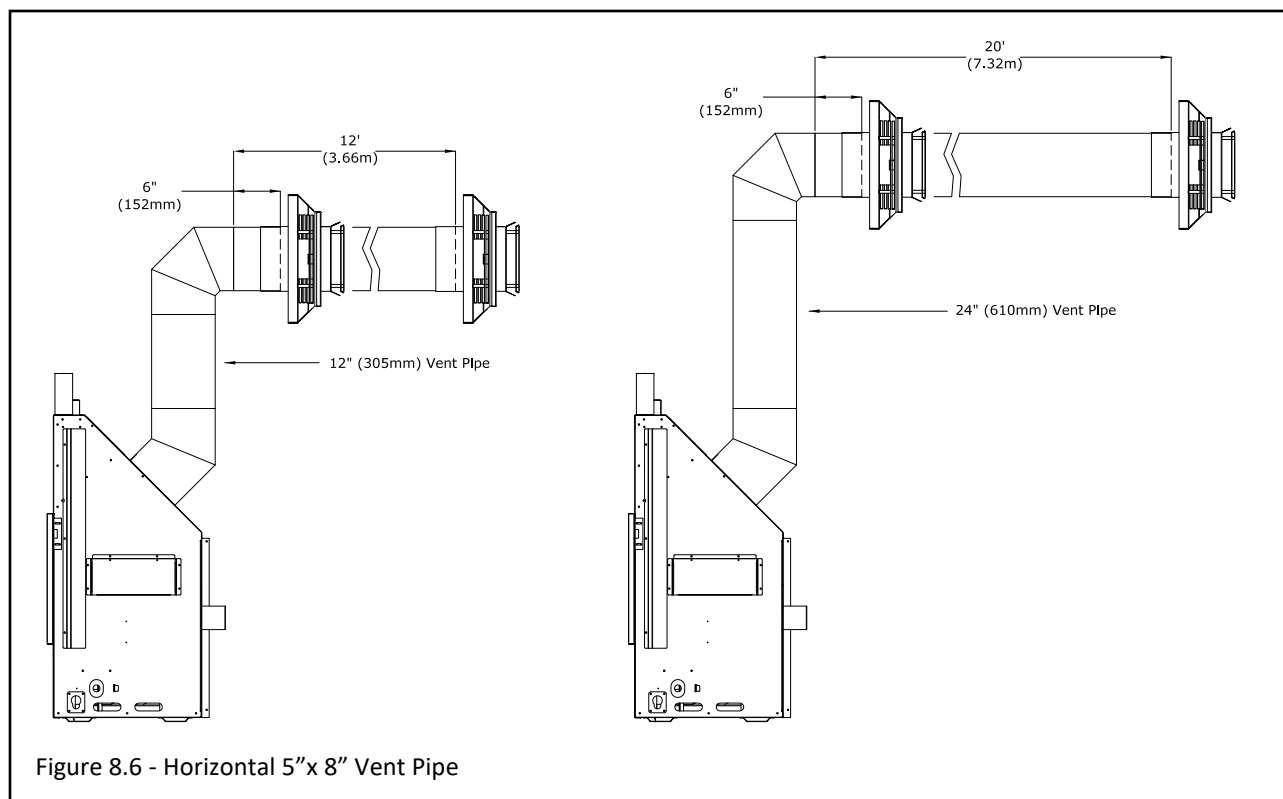
8.6.2 Horizontal Terminations

Note: Natural Gas and Propane Installations

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

- (i) 45° Elbow / Minimum Horizontal:
45° horizontal elbow + 6" (152mm) minimum horizontal run + termination cap
- (ii) 45° Elbow / Maximum Horizontal:
45° horizontal elbow + 48" (1219mm) maximum horizontal run + termination cap
- (iii) Minimum Vertical Vent Pipe / Minimum Horizontal:
45° vertical elbow + 90° horizontal elbow + 6" (152mm) minimum horizontal run + termination cap
- (iv) Minimum Vertical Vent Pipe / Maximum Horizontal:
45° vertical elbow + 90° horizontal elbow + 48" (1219mm) maximum horizontal run + termination cap
- (v) Minimum Vertical Vent Pipe / Minimum Horizontal:
45° vertical elbow + 24" (610mm) vertical vent pipe + 90° horizontal elbow + 6" (152mm) minimum horizontal run + termination cap
- (vi) Minimum Vertical Vent Pipe / Maximum Horizontal:
45° vertical elbow + 24" (610mm) vertical vent pipe + 90° horizontal elbow + 20' (7.32m) maximum horizontal run + termination cap
- (v) Maximum 25' Vertical / Minimum Horizontal:
25' (7.62m) maximum vertical vent length + 90° horizontal elbow + termination cap
- (v) Maximum 25' Vertical / Maximum Horizontal:
25' (7.62m) maximum vertical + 90° horizontal elbow + 25' (7.62m) maximum horizontal + termination cap
- (vi) BASEMENT INSTALL - Minimum Vertical / Minimum Horizontal:
45° vertical elbow + 24" (610mm) minimum 5" x 8" vertical length + 4" x 6-5/8" reducer + 90° horizontal 4" x 6-5/8" elbow + 6" (152mm) minimum horizontal run + termination cap
- (vi) BASEMENT INSTALL - Minimum Vertical / Maximum Horizontal:
45° vertical elbow + 24" (610mm) minimum 5" x 8" vertical length + 4" x 6-5/8" reducer + 90° horizontal 4" x 6-5/8" elbow + 4' (1219mm) maximum horizontal run + termination cap





8.6.3 Combination Venting

Note: Natural Gas and Propane Installations

Vent termination must be within the shaded area in FIGURE 8.8.

- 25' (7.62m) maximum vertical rise + 25' (7.62m) 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.

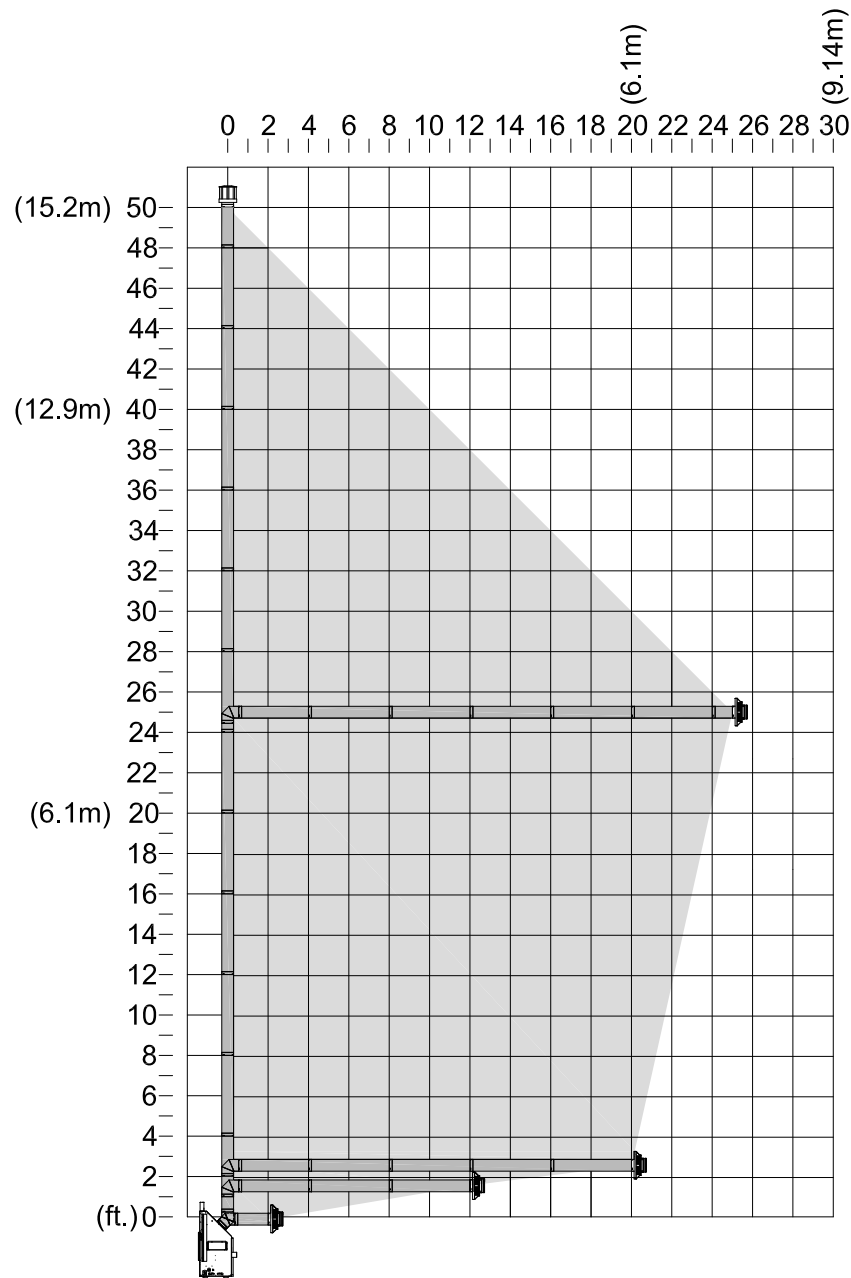


Figure 8.8 - Combination 5"x 8" Vent Pipe Chart

8.7 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 8.1, APPROVED VENT SYSTEMS.

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 Figure 8.9 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.

The gas appliance cannot be connected to a chimney flue that is serving a separate solid-fuel burning appliance.

8.7.1 4" Flex Pipe Venting Configurations

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

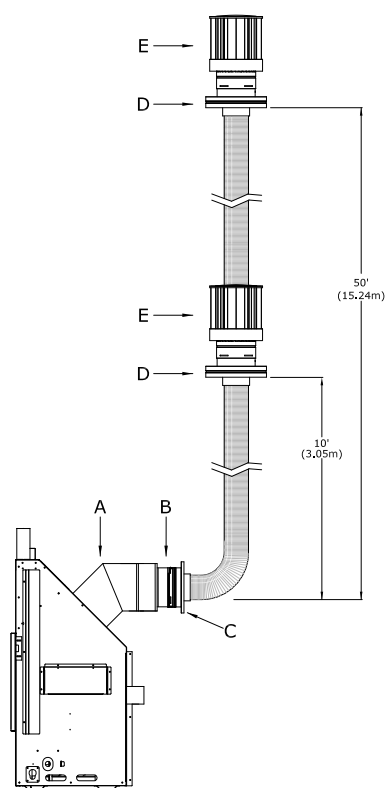
IMPORTANT: The vent heat shield assembly must be installed when incorporating minimum horizontal venting off the top of the appliance.

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.

(1) Minimum / Maximum Vertical Terminations

45° horizontal elbow + 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



4" Flex Pipe Chimney Conversion	
(A) 45° Elbow	(D) Top Adapter
(B) Reducer	(E) Termination Cap
(C) Retro Connector	

Figure 8.9 - Class A Chimney / Masonry Chimney

8.8 Co-Axial 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 Figure 8.10 for allowable venting configurations for installation in existing masonry chimney. Route the exhaust gases and intake air through the existing masonry chimney.

8.8.1 Co-Axial to Co-Linear Flex Pipe Venting Configurations

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

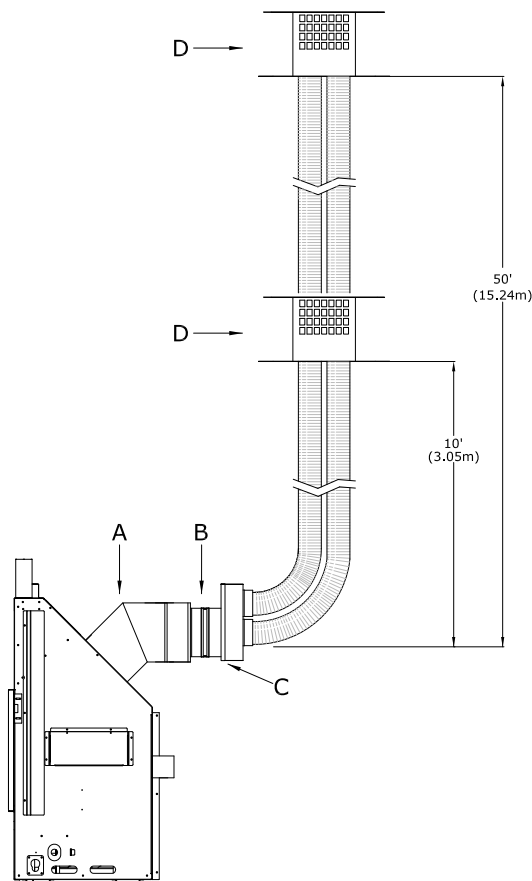
IMPORTANT: The vent heat shield assembly must be installed when incorporating minimum horizontal venting off the top of the appliance.

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.

(1) Minimum / Maximum Vertical Terminations

45° horizontal elbow + 4" x 6-5/8" reducer + co-axial 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



Co-Axial to Co-Linear Chimney Conversion

(A) 45° Elbow

(B) Reducer

(C) Retro Connector

(D) Termination Cap

Figure 8.10 - Co-Axial to Co-Linear Chimney Chimney

9.0 Fireplace Setup

9.1 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.

9.1.1 Remove Glass Frame Assembly

WARNING: Do not remove the glass assembly when hot.

1. Remove the safety barrier.
2. Remove the gas valve access cover by lifting up out of slots.
3. Locate (2) spring-loaded latches securing the glass assembly at the bottom of the firebox.
4. Pull the spring-loaded latches out and down to release the bottom of the glass assembly.
5. Lift glass assembly up and off of the (2) tabs located at the top of the firebox.

9.1.2 Install Glass Frame Assembly

1. Align the slots on top of the glass assembly over the tabs at the top of the firebox while lowering the bottom of the glass assembly into position.
2. Pull the spring-loaded latches out and up to secure the bottom of glass to the bottom of the fireplace.
3. Reinstall valve access cover by setting down into slots.
4. Reinstall safety barrier.

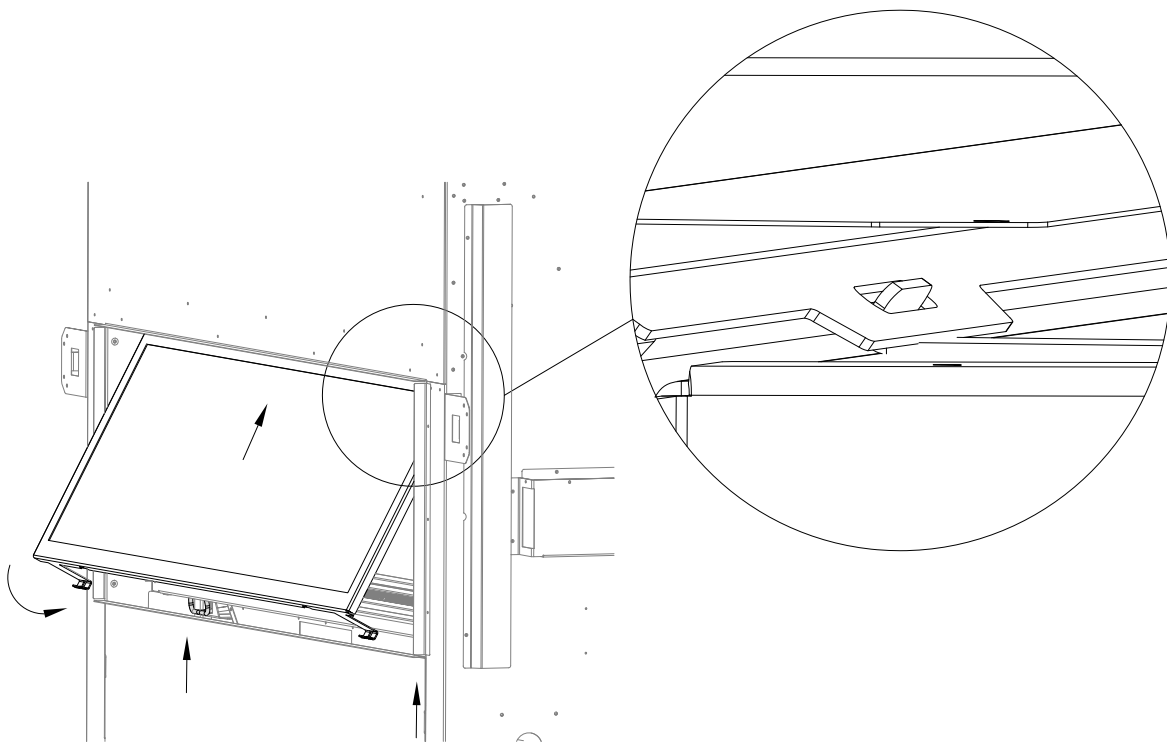


Figure 9.1 - Glass Frame Installation

9.2 Component Access Cover

To access the valve and control module housing, the component access cover will need to be removed. It must be reinstalled after servicing.

1. Remove safety barrier.
2. Lift up and remove the component access cover to gain access below the fireplace. See Figure 9.2.

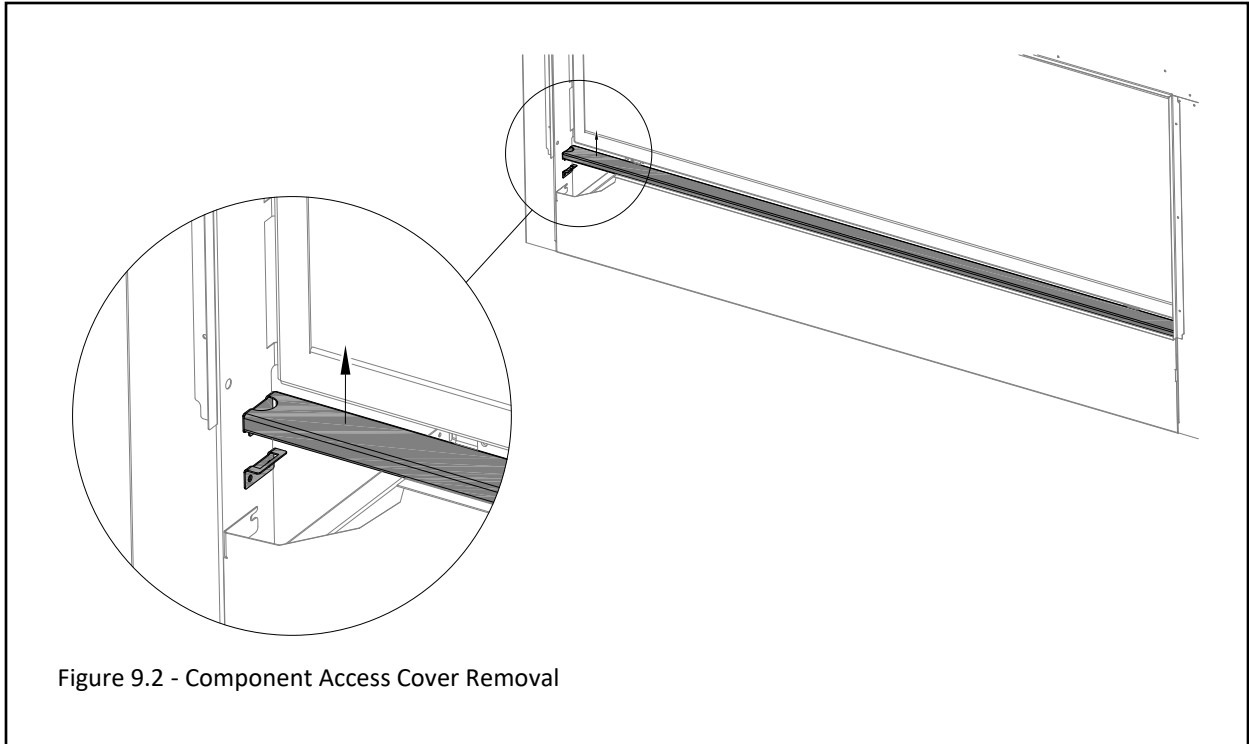


Figure 9.2 - Component Access Cover Removal

9.3 Media Installation

ATTENTION: If converting to propane, do so now before installing any media.

ATTENTION: If you chose an optional firebox panel set, install the panel set before installing any media.

ATTENTION: If you chose an optional log set or media kit, read the instructions of the optional log set or media kit before installing any media to ensure proper order of installation.

All gas fireplaces have a pilot that create the initial flame before turning on gas to the main burner. The pilot flame will ignite the main burner once gas is turned on.

IMPORTANT: It is required that no crushed media or rock wool blocks the pilot flame from igniting the burner. A blocked pilot may cause a delayed ignition.

Figure 9.3 shows an arrow on the left that is pointing the pilot shield around the pilot. Do not place media on top of or inside the media guard to cover or block the pilot. The remaining arrows point to the burner and perimeter locations where media is to be placed. Do not cover the small air gap between the burner and perimeter with media.

9.3.1 Burner Media Kits

Approved burner media kits: #903-LAV, #304-COP, or #304-BLK

1. Install an even layer of your chosen media across the whole burner. See Figure 9.3.
2. Save any unused media for later use.

9.3.2 Perimeter Media Kits

Approved perimeter media kits: #904-LAV, #307-COP, #307-BLK, #105-VERM, or #104-SAND-B

1. Install an even layer of your chosen media across the front and rear perimeter. See Figure 9.3.
2. Save any unused media for later use.

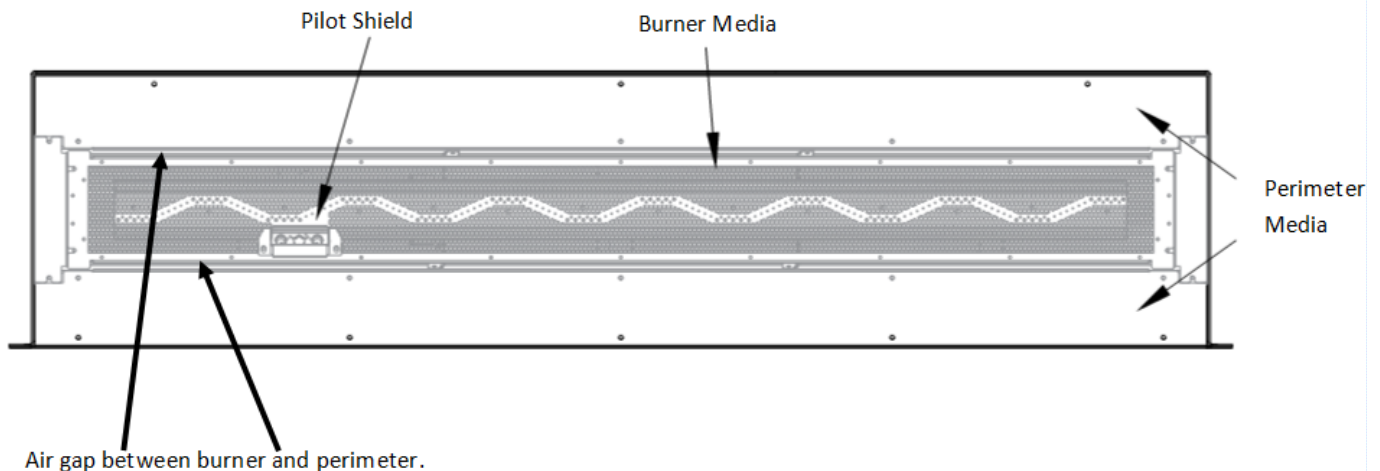


Figure 9.3 - Media Installation

9.4 Optional Surround Installation

The optional surrounds can provide two features. They can cover the edge of finishing material where it meets the finishing edge (opening) of the fireplace and/or they can provide a decorative aspect.

If you want the surround to cover the edge of your finishing material the combined thickness of your finishing material and required noncombustible material can be up to 1-5/8" (41mm) thick. If your combined material thickness is greater than 1-5/8" (41mm) then your finishing material would have to stop at the edge of the surround to allow installation (Refer to Section 5.4 for information).

Installation:

Locate the (4) slots on the surround and install the surround inside the finishing edges of the fireplace. When the slots are aligned with the (4) accompanying holes inside the edge of the fireplace opening secure the surround with the supplied screws.

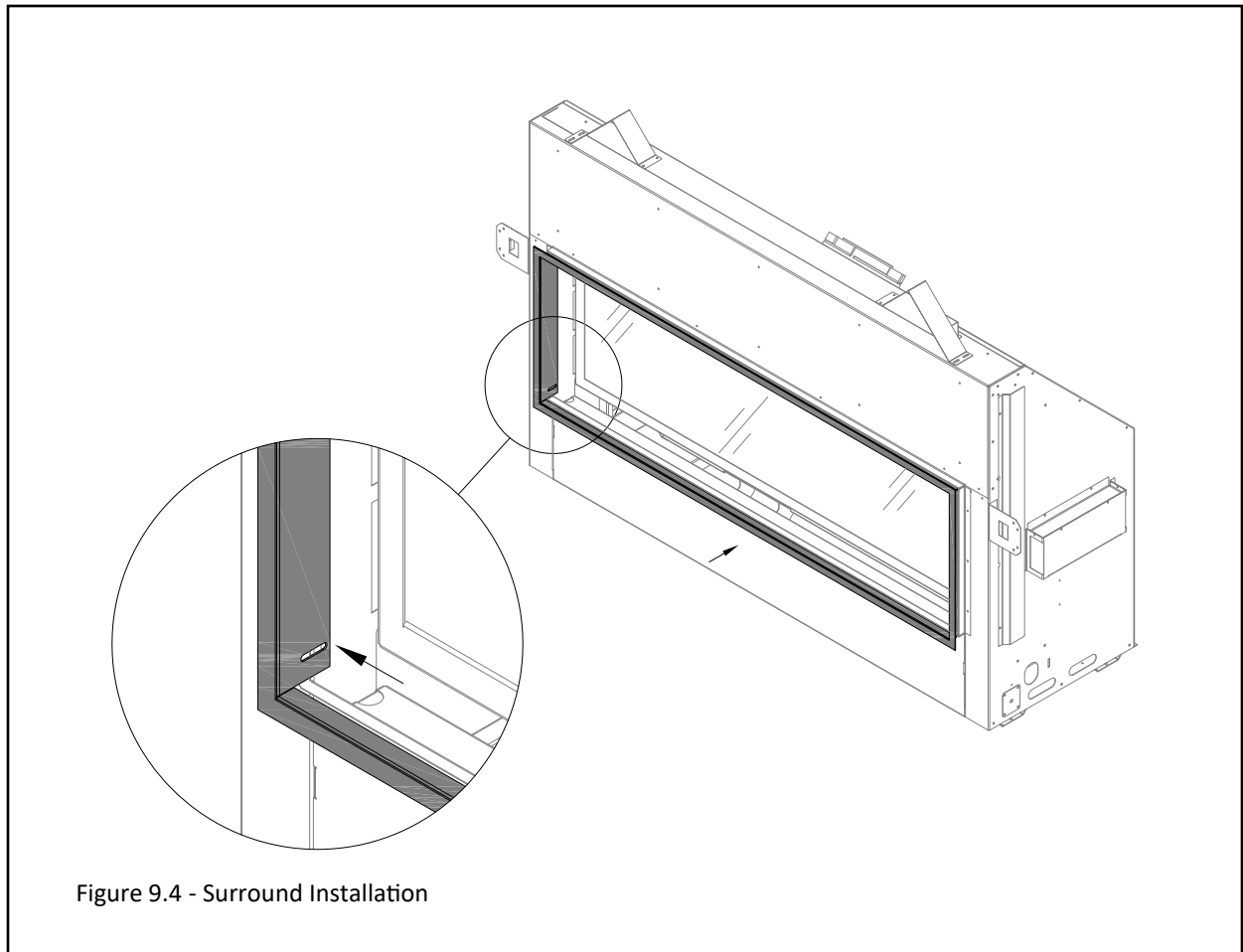


Figure 9.4 - Surround Installation

9.5 Safety Barrier Installations

Note: 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

- If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance
- Clothing or other flammable material should not be placed on or near the appliance
- Any safety screen, guard, or barrier removed for servicing an appliance must be replaced prior to operating the appliance

Installation:

The safety barrier has one mounting hook on each side of the screen barrier. There are slots on each side of the fireplace located between the glass frame and the side finishing edge. Align the mounting hook to the slot on each side of the fireplace and lift up the safety screen barrier and push towards the fireplace so the mounting hooks latch around the glass frame. You can tell that the safety barrier is correctly seated if there is even spacing between the screen barrier and finishing edge on all four sides.

To remove the safety screen: lift the screen up and out of the slots.

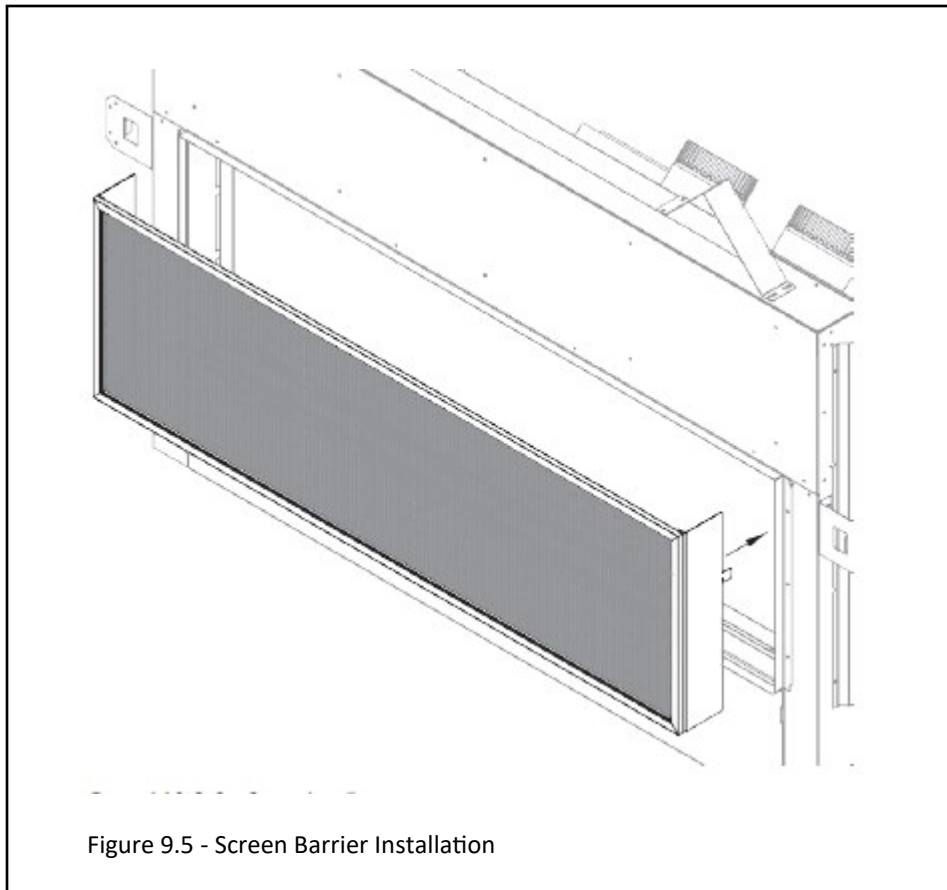


Figure 9.5 - Screen Barrier Installation

9.6 Control Board 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 (located under the control board) in place. If the sealing gasket is damaged, it must be replaced.

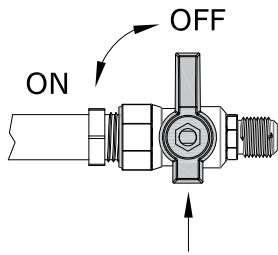
CAUTION: Check all connections for leaks with soapy water, whether field or factory made.

9.6.1 Control Board Removal

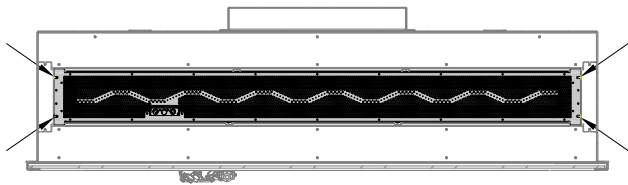
1. Disconnect electrical power.
2. Locate the manual valve installed by your qualified service technician. Turn the manual valve clockwise to the OFF position.
3. Remove the safety barrier, access cover, and glass frame assembly.
4. Remove perimeter media (if installed) and burner media.
5. Remove burner media tray and burner (4) screws. See Figure 9.6. Release the burner tube venturi off of the burner orifice and remove from firebox.
6. Remove burner media tray support brackets (4) screws.
7. Remove the front perimeter and media tray brace, and burner support brackets (9) screws total.
8. Remove rear perimeter and media tray brace (5) screws.
9. Remove bottom air chute panel (4) screws.
10. Remove and save (8) screws securing the control board.
11. Lift the control board out of the firebox, being careful not to damage the sealing gasket underneath.

9.6.2 Control Board Installation

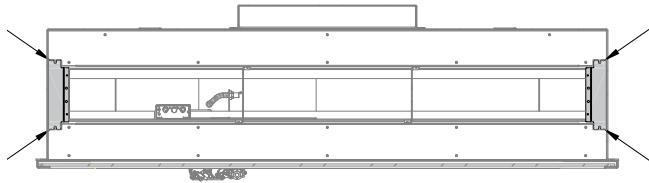
1. Place the control board in the firebox, aligning the holes in the control board with the holes and alignment screws in firebox bottom. **VERIFY SEALING GASKET IS IN PLACE.**
2. Secure the control board with (8) screws previously removed.
3. Align the holes on the air chute panel with the holes in the bottom of the firebox. Secure with (4) screws previously removed.
4. Reinstall rear perimeter and media tray brace (5) screws previously removed.
5. Reinstall burner support brackets, front perimeter, and media tray brace (9) screws previously removed.
6. Reinstall burner media tray support brackets (4) screws.
7. Reinstall the burner and burner media tray. Position the burner venturi over the burner orifice. Secure with (4) screws previously removed.
8. Reinstall burner and perimeter media.
9. Reinstall the glass frame assembly, access cover, and safety barrier.
10. Turn the manual valve counterclockwise to the ON position.
11. Reconnect electrical power.
12. Verify proper media placement, operation of fireplace, and any electrical components.



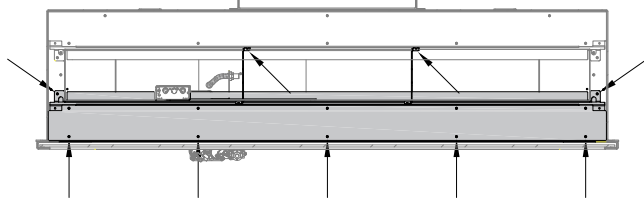
Remove burner and burner media tray (4) screws



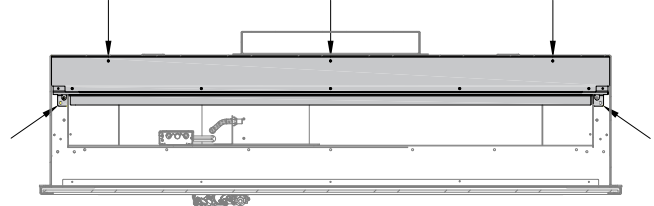
Remove burner media tray support brackets (4) screws



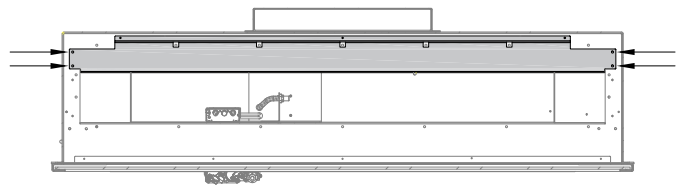
Remove front perimeter, media tray brace, and burner support brackets (9) screws total



Remove rear perimeter and media tray brace (5) screws



Remove bottom air chute panel (4) screws



Remove control board (8) screws

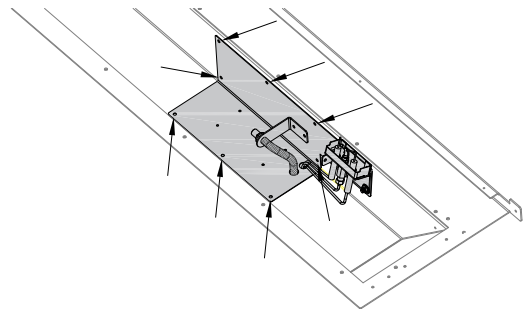


Figure 9.6 - Control Board Removal and Installation

10.0 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 which 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

10.1 Electrical Specifications

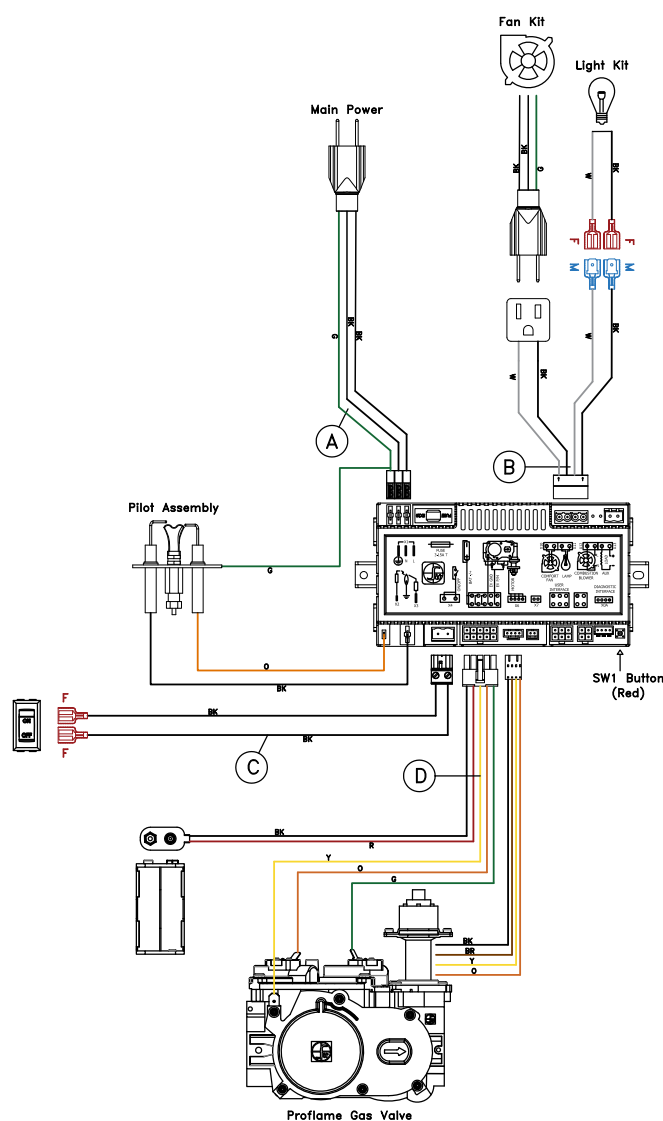
This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1.

10.2 Wiring Requirements

- The system requires 120 VAC of electricity and/or batteries to operate.
- Using the battery backup will operate flame modulation of the burner.
- Fan and light components will not function on battery back up power

Figure 10.1

Note: Spade connectors are labeled “M” for male connectors and “F” for female connectors.



Wire Color	Abbreviation
Blue	BL
Gray	GY
Black	BK
Brown	BR
Yellow	Y
Orange	O
Green	G
Red	R
White	W

(A)	120v Main Power Harness	Part #700-350A
(B)	Fan / Light Kit Harness	Part #700-657
(C)	On / Off Wire Harness	Part #700-656
(D)	IFC Wire Harness	Part #700-653

Figure 10.1 - Electrical Diagram

10.3 Top Light Kit

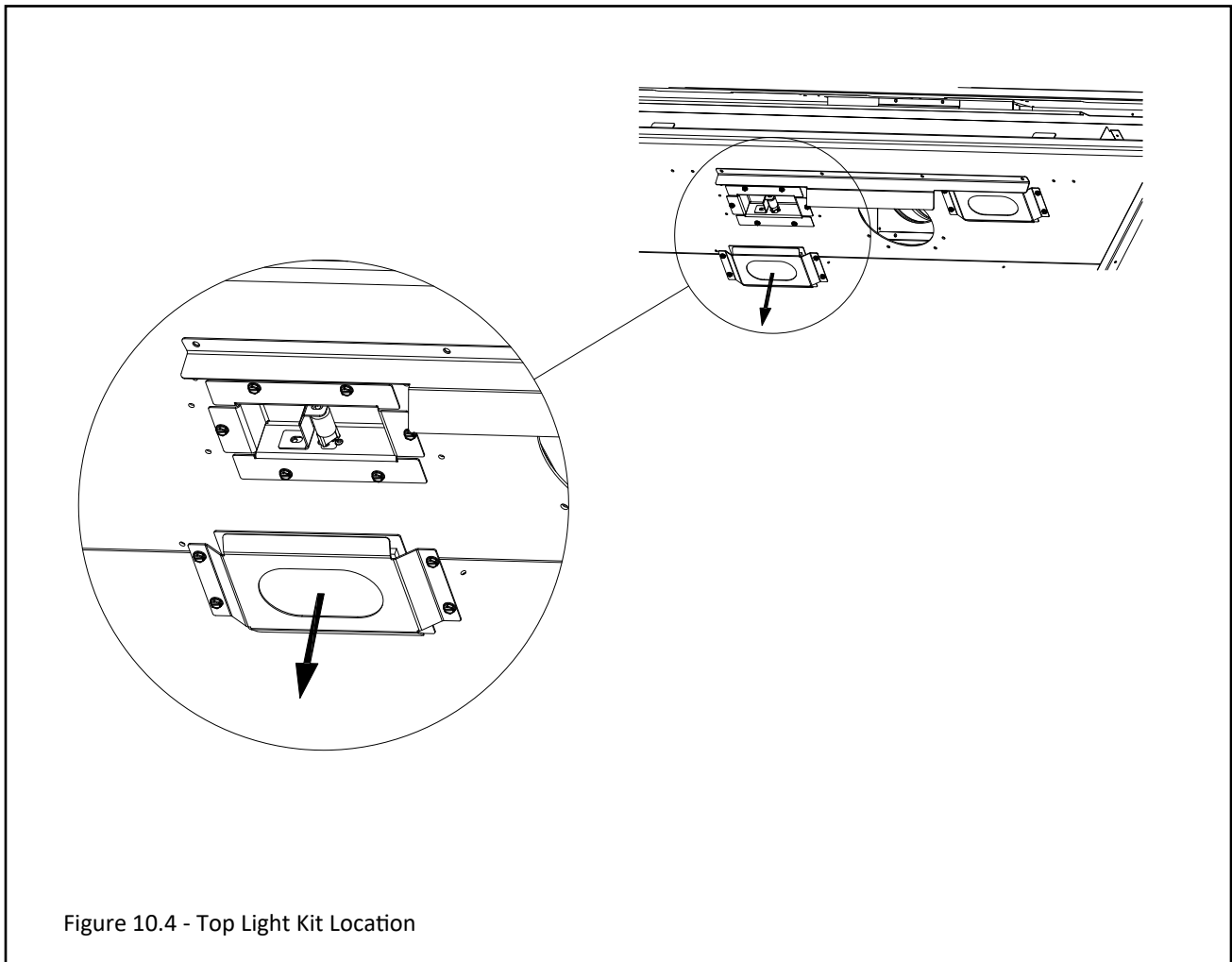
CAUTION: Disconnect all electrical power from the fireplace before performing this task.

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

Note: The top light kit and its halogen bulbs come preinstalled.

10.3.1 Replacing Top Light Kit

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



10.4 #SL42-028 Optional Fan Kit

ATTENTION: Installation of this fan kit should be done only by a qualified installer.

WARNING: Verify household breaker is shut off prior to working on any electrical lines. Disconnect all electric power from fireplace before performing any of these tasks.

Installation

1. Remove safety barrier, access cover, and glass frame assembly.
2. Disconnect wiring terminals from fan motors.
3. With the motor end of the fan's right side facing down and to the right, insert fan into chamber. Insert the fan at the far end of the firebox.
4. When the motor end clears the fireplace face, turn the fan to the left.
5. Rotate the top end down and to the right, lowering the fan into control compartment.
6. Position the fan as shown in Figure 10.5. As you rotate the fan towards you, the upper edge of the fan discharge will lock behind the top edge of fireplace air channel opening, securing fan into place. **DO NOT LET THE FAN REST ON ANY ELECTRICAL CORDS.**
7. Repeat for the left fan, noting the fan rotation in steps above will be opposite of the right fan.
8. Reattach wiring terminals to fan motors.
9. Plug the fan cord into the receptacle on the IFC control module. See Figure 10.1.
10. Reinstall the glass frame assembly, access cover and safety barrier.

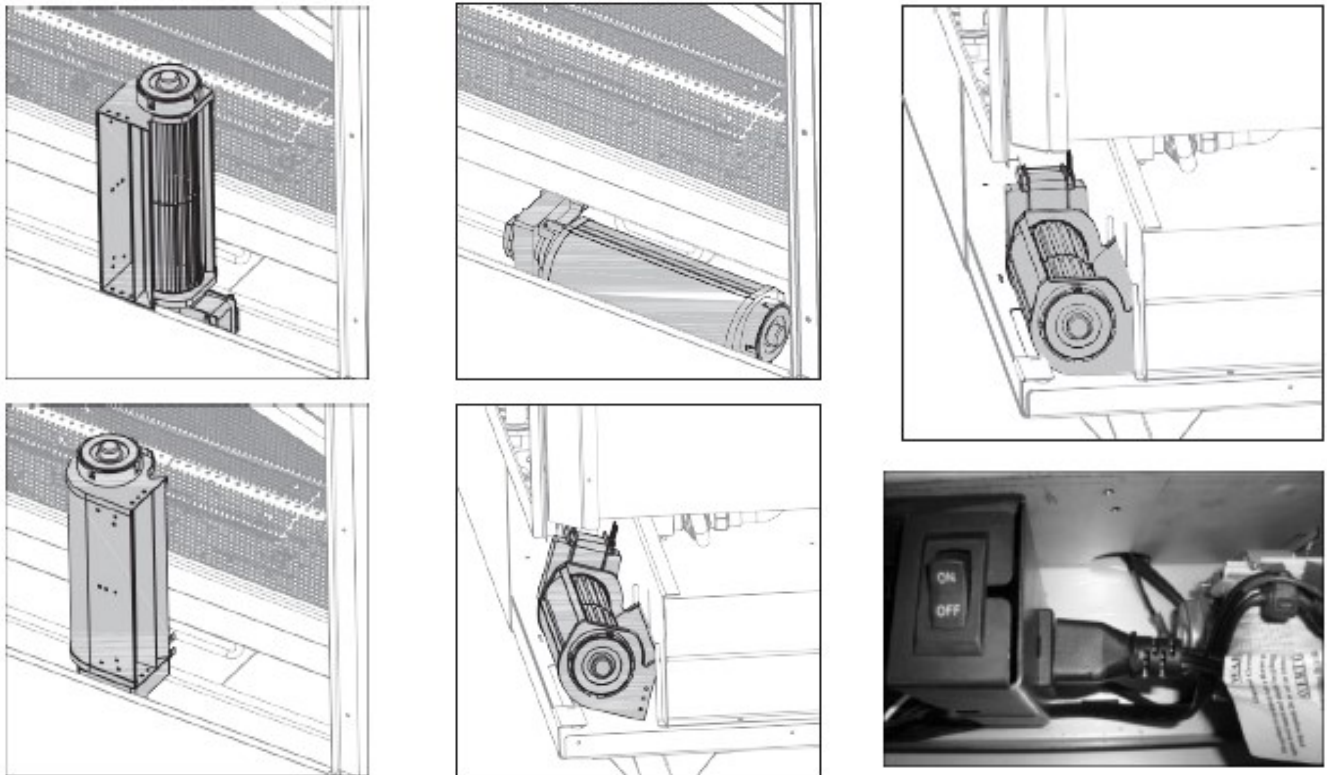


Figure 10.5 - Fan Kit Installation

11.0 Operating Instructions

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.
- 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.

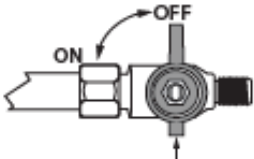
6. Turn the manual valve clockwise  to the OFF position.

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.

11.1 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.

11.2 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, remove the safety barrier screen by lifting up and out of its slots.
2. Remove the component access cover (See Section 9.2). Locate the remote sync button by sliding out the control module.
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 rocker switch to ON position for remote control operation of the main burner and fireplace features. Reinstall component access cover and safety barrier screen.

11.3 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. Remove the component access cover (See Section 9.2). Locate the remote sync button by sliding out the control module.
 3. Set the ON/OFF rocker switch to OFF position.
 4. Press and hold the remote sync button until it emits (3) beeps and an amber LED is illuminated.
 5. 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.

11.4 Automatic Safety Turn-off

- 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.

11.5 Backup Battery Operation

This appliance will operate on the backup battery pack when electric power is interrupted, or in a power outage. During the power outage, the appliance burner and flame height adjustment will function. The fan and accent light kit will not function.

- The lifespan of the backup batteries depend on various factors, such as the quality of the batteries, number of ignitions, etc.
- 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.

11.6 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 11.9.3 PILOT IGNITION SELECTION 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.

11.7 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.

11.7.1 Reset IFC Module after Lockout

11.7.1.1 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.

11.7.1.2 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.

11.7.1.3 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.

11.8 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 11.2, INITIALIZE THE CONTROL SYSTEM .

11.9 Remote Control Operation

PROFLAME 2 TRANSMITTER

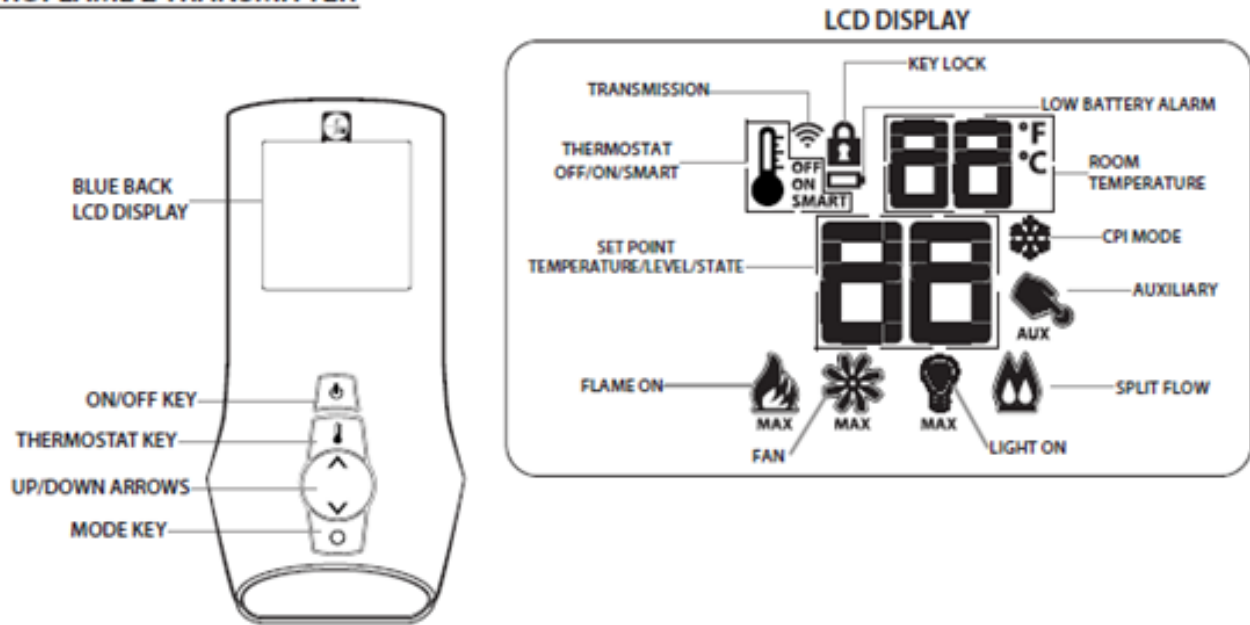


Figure 11.1 - Remote control overview

11.9.1 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.

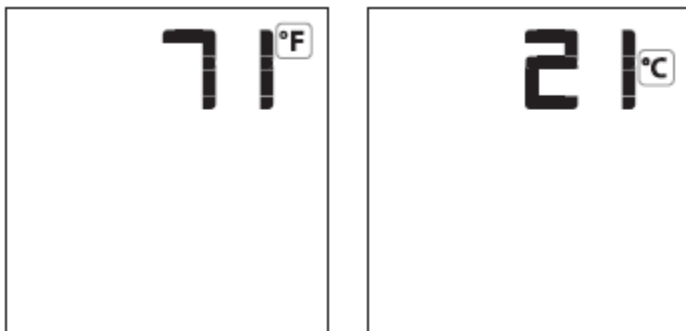


Figure 11.2 - Temperature Display

11.9.2 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.



Figure 11.3 - Key Lock

11.9.3 Pilot Ignition Selection (IPI/CPI)

This system has the option of a continuous (standing) pilot. This features 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

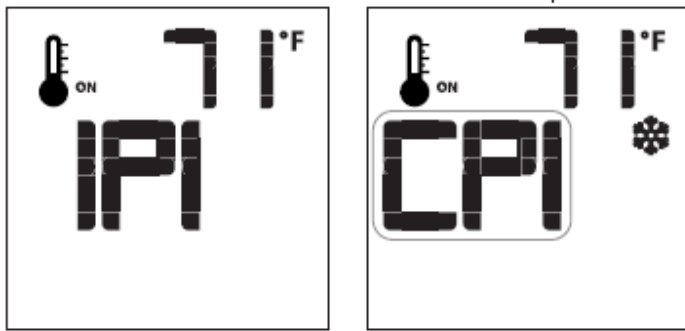


Figure 11.4 - Pilot Selection

11.9.4 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.

11.9.5 Turn OFF the appliance

1. With the system in the ON position, press the remote control ON/OFF key to turn OFF 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.

11.9.6 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.

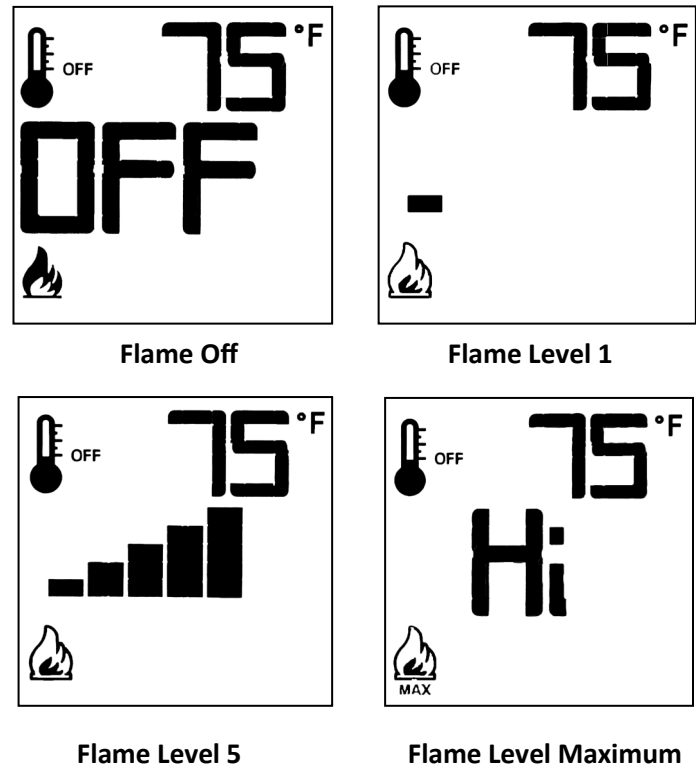


Figure 11.5 - Flame Adjustment

11.9.6.1 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 'SEL' or 'CLR'. "SEL" means flame modulation is turned on and "CLR" means flame modulation is turned off.

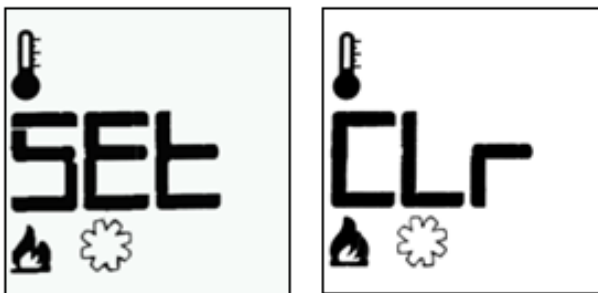


Figure 11.6 - Deactivate Flame Modulation

11.9.7 Remote Control Thermostat Operation

11.9.7.1 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.

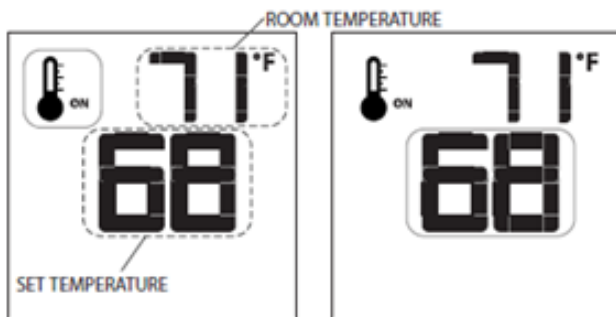


Figure 11.7 - Thermostat Operation

11.9.7.2 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.

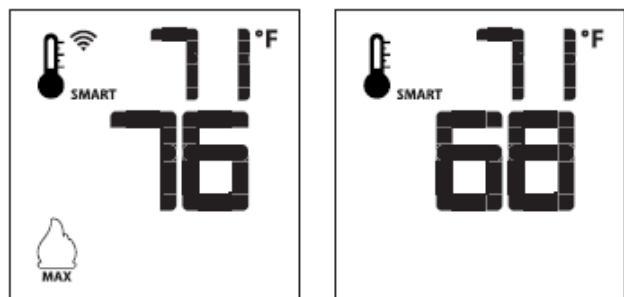


Figure 11.8 - Smart Thermostat Operation

11.9.7.3 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. You will see "CLR" across the screen. This means the thermostat function is turned off. 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 screen will then say "SEL" which means the thermostat function is turned on. The temperature bulb graphic will reappear on the LCD screen.

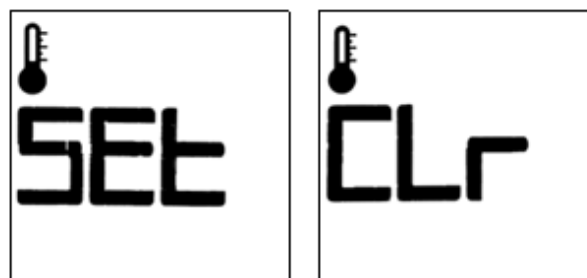


Figure 11.9 - Deactivate Thermostat Operation

11.9.8 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 lit. 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.

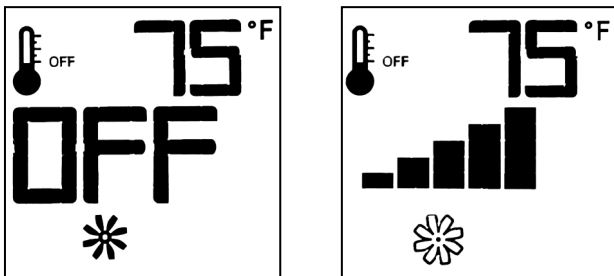


Figure 11.10 - Fan adjustment

11.9.8.1 Deactivation Fan Speed Control

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

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 fan control icon on the LCD screen to edit. Use the up or down arrow key to choose 'SEL' or 'CLR'.

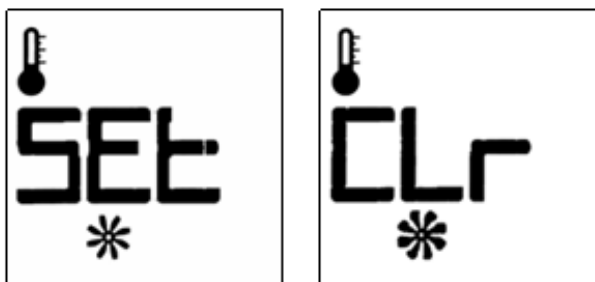


Figure 11.11 - Fan Control Deactivation

11.9.9 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.

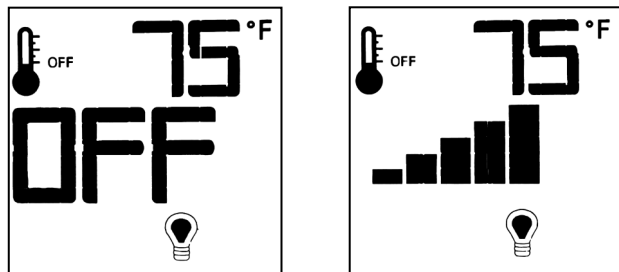


Figure 11.12 - Top Light Kit

11.9.9.1 Deactivation 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 'SEL' or 'CLR'.

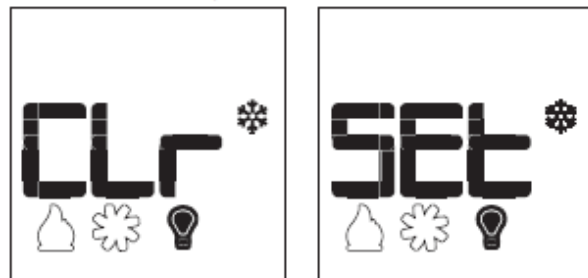


Figure 11.13 - Light Kit Deactivation

11.9.10 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, etc.

- 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.

12.0 Pressure Testing and Burner Adjustments

12.1 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.

12.1.1 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.

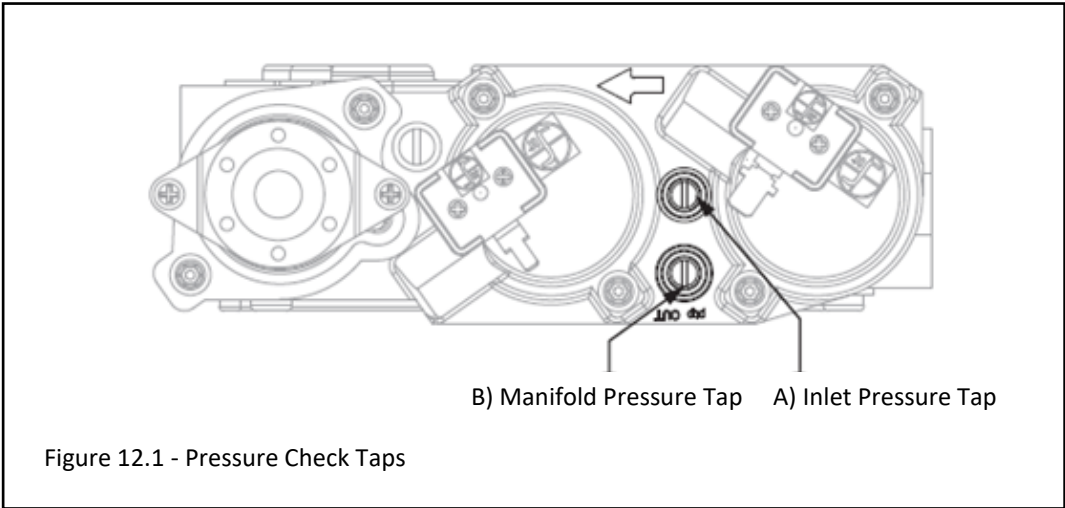
1. Loosen the inlet (IN) pressure tap by turning screw counter-clockwise. See (A) in FIGURE 12.1.
2. Attach manometer using a 1/4" (6mm) I.D. hose.
3. Light pilot and burner. Check pressure to ensure it is between the minimum and maximum recommended pressure settings (TABLE 12.1).
4. Turn off burner 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.

Table 12.1 Inlet Pressures		
Fuel	Natural Gas	Propane
Gas Supply	Min - Max	Min - Max
Inlet Pressure Tap (A)	5" - 10.0" WC (1.25 - 2.49 kPa) 7" WC (1.74 kPa) recommended	11"-13" WC (2.74 - 3.24 kPa)

Table 12.2 Manifold Pressures		
Fuel	Natural Gas	Propane
Gas Supply	Low - High	Low - High
Manifold Pressure Tap	1.6" - 3.5" WC (0.40 - 0.87 kPa)	6.4" - 10" WC (1.59 - 2.49 kPa)

12.1.2 Manifold Pressure Test

1. Light pilot.
2. Loosen manifold (OUT) pressure tap by turning screw counter-clockwise. See (B) in FIGURE 12.1.
3. Attach manometer to pressure tap using a 1/4" (6mm) I.D. hose.
4. Light burner. Check manometer reading. Refer to TABLE 12.2.
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.



12.2 Flame Appearance Adjustment

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.

12.2.1 Burner Venturi

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

NOTE: Burner venturi air shutter settings have been factory set. Refer to TABLE 12.3.

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.

NOTE: If soot is present on the glass, check burner media placement before adjusting the venturi.

12.2.2 Venturi Opening Adjustments

IMPORTANT: Slight adjustments to the venturi opening will create dramatic results. Adjust at slight increments until desired look is achieved. Refer to Table 12.4.

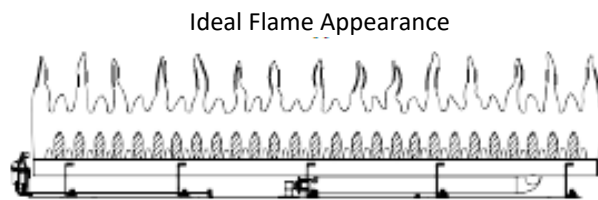
1. Remove the safety barrier, access cover, and glass frame assembly.
2. Remove burner media and perimeter media (if installed).
3. Remove the burner and burner media tray (4) screws. Release the burner tube venturi off the burner orifice.
4. Loosen screw on venturi and adjust as necessary. Re-tighten screw.
5. Reinstall all components previously removed.

Table 12.3 Factory Set Venturi Openings		
Fuel	Natural Gas	Propane
Venturi Opening	1/8" (3mm) OPEN	1/2" (13mm) OPEN

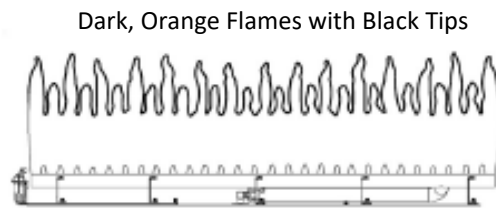
Table 12.4 Flame Appearance Venturi Adjustment		
Flame Characteristics	Cause	Solution
Dark, orange flame with black tips	Venturi closed too far	Open venturi slightly
Short, blue flames	Venturi open too far	Close setting slightly
Lifting (ghosting) flames	Gas pressure too high and/or venturi closed too far	Check manometer settings and/or open venturi setting slightly



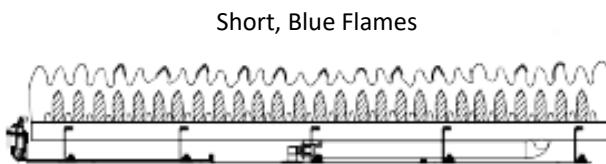
Figure 12.2 - Burner Venturis



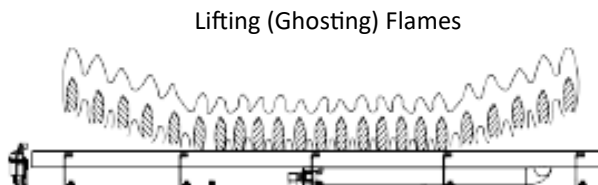
Lazy, Yellow Flames - No Adjustment Necessary



Venturi Setting Closed Too Far - Open Venturi Slightly



Venturi Setting Open Too Far - Close Venturi Slightly



Venturi Settings Closed Too Far - Open Venturi Slightly
OR Gas Pressure Too High - Check Manometer Setting

Figure 12.3 - Flame Appearance and Characteristics

12.2.3 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. See Figure 12.4

Refer to TABLE 12.4 and FIGURE 12.3 for flame appearance adjustments. Allow the fireplace to burn for 15 minutes before making any adjustments.

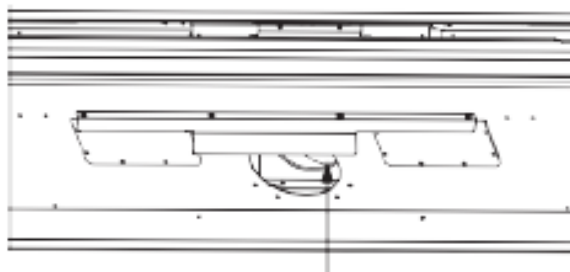
Restrictor Plate Installation

1. Remove the safety barrier, access cover, 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 the ceiling.
5. Reinstall all components previously removed.

Table 12.5 Restrictor Plate Adjustment Guidelines		
Flame Appearance	Draft Problem	Solution
Short, flickering	Excessive draft and/or 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.		

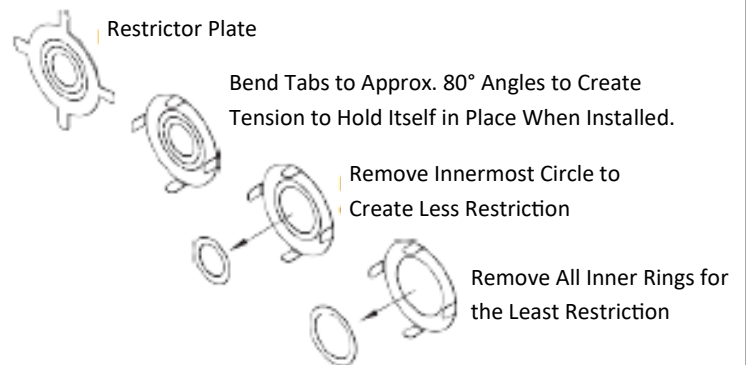
Restrictor Plate Modification

1. Remove the safety barrier, access cover, 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 the restrictor plate to achieve desired flame appearance. See Table 12.5.
3. Insert restrictor plate into the 5” (127mm) exhaust pipe with the tabs pointing towards the ceiling.
4. Reinstall all components previously removed.



Insert Restrictor Plate Into Exhaust Pipe in Firebox Ceiling with Tabs Facing Towards You.

Figure 12.4 - Restrictor Installation



13.0 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 back-up 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 inlet pressure meets the recommended inlet pressure. If necessary, adjust line pressure regulator.
- Verify the communication link is established between the remote control and the IFC module.
- CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.
- Verify proper operation after servicing.

Issue	Cause	Solution
Pilot will not light	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.
Pilot will not stay lit	No propane in tank	Check propane tank. Refill if necessary.
	Low gas pressure	Consult a plumber or gas supplier Can be caused by situation such as a bent line, too narrow diameter or pipe, or a low line pressure
	Pilot adjustment screw not sealed	Seal pilot adjustment screw. Do not over-tighten.
	Pilot flame not making contact with the flame rectification sensor on the pilot assembly	Verify the pilot envelopes the top of the flame sensor and extends far enough onto the burner for ignition
Pilot flame always on, or will not extinguish	Control system set to CPI mode.	Set control system to IPI mode.

Issue	Cause	Solution
Burner flame will not light	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 FIGURE 10.1, Electrical Diagram.
	Plugged burner orifice	Remove blockage.
	Pilot flame	Verify the pilot flame is properly directed to ignite burner. See pilot flame troubleshooting in this section.
	Remote control not working	Replace Batteries.
	No call for heat	Verify remote control is powered ON and thermostat operation is turned OFF.
Pilot and burner extinguish while in operation	No propane in tank	Check propane tank, Refill if necessary.
	Incorrect glass assembly installation	Refer to section 9.1, GLASS ASSEMBLY.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.
	Improper pitch on horizontal venting	1/4" (6mm) rise for ever 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 12.2.3 Vent Restriction.
Soot appears on glass	Improper log placement	Refer to instructions with log set
	Improper venturi settings	Venturi air shutters may need to be opened slightly to allow more air into the gas mix. Refer to section 12.2.1, BURNER VENTURI.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.

Issue	Cause	Solution
Flame burns blue and lifts off burner	Improper venturi setting	The venturi air shutter may need to be closed slightly to allow less air into the gas mix. Refer to section 12.2.1, BURNER VENTURI.
	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.
No reaction to command	Battery backup batteries or remote control batteries low	Replace the batteries.
	No communication between remote control and control module	Reprogram remote control to IFC module
	A maximum number of failed ignitions or flame restorations has been reached.	Reset IFC module

14.0 Maintenance

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, et cetera. 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.

14.1 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 and top latch assembly. Verify the assembly is free from obstruction to operate. The handles must have spring tension but be able to move forward freely

14.2 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: Annually

Action:

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

14.2.1 Fan Kit Removal

1. Disconnect electrical power.
2. Remove the safety barrier screen and component access cover.
3. Disconnect the fan kit wiring from the control module.
4. Rotate and tilt the fan kit up to remove the fan from the air channel.
5. Remove the fan kit and service.
6. Reinstall in reverse order. Reinstall all previously removed components

14.3 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 8.0, VENTING.

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.

14.4 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 #701-019T as necessary.
- Only Hussong Mfg. Co., Inc. will supply the replacement of glass assembly as a complete unit.

The glass assembly and the spring loaded latches act as the pressure relief mechanism.

Performed by: Qualified Service Person

Frequency: Annually

Action:

- Follow the steps above to verify the glass assembly.
- Verify that the spring loaded latches move freely as outlined in 14.1.

14.5 Burner and Pilot System

The burner assembly may be removed for easier access to the control compartment. **See Section 9.6 Control Board Removal and Installation** for instructions. **See Section 12.2 Flame Appearance Adjustment** for information on adjusting burner appearance.

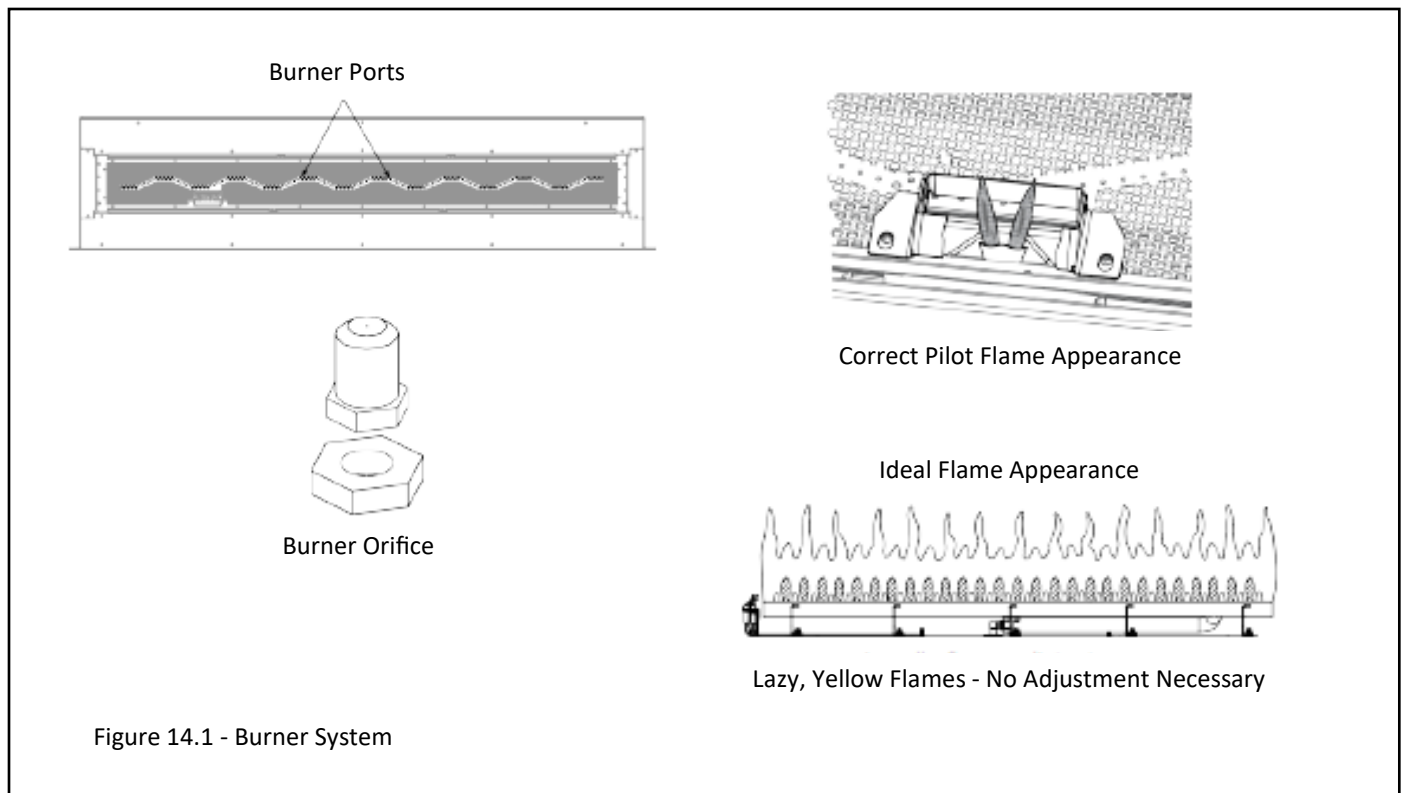
Verify gas supply is turned on and filled. Consult with plumber or gas supplier as necessary.

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.



15.0 Replacement Parts List



HUSSONG MANUFACTURING CO., INC.

P.O. BOX 557 204 INDUSTRIAL PARK DRIVE
LAKEFIELD, MINNESOTA USA 56150-0577

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.

Control Board and Parts

S.I.T. Complete Board Assembly - Natural Gas	CW50-150A		S.I.T. Transmitter (Remote Control)	700-408
S.I.T. Complete Board Assembly - Propane	CW50-151A		Pilot Orifice - Natural Gas - #.023NG	700-123
S.I.T. IPI Gas Valve - Natural Gas	700-567		Pilot Orifice - Propane - #.014LP	700-114
S.I.T. IPI Gas Valve - Propane	700-567-1		Burner Orifice - #34 - Natural Gas	700-234
Main Power Wire Harness	700-350A		Burner Orifice - #51 - Propane	700-251
Proflame 2 IFC Module	700-652		PSE Conversion Kit - Natural Gas	NCK-CW50-SPB
IFC Wire Harness Assembly	700-653		PSE Conversion Kit - Propane	LCK-CW50-SPB
Fan / Light Kit Wire Harness	700-657		Natural Gas - Valve Stepper Motor	700-504
ON/OFF Wire Harness	700-656		Propane - Valve Stepper Motor	700-504-1
IPI Pilot Assembly - Natural Gas	900-064A		24" Black 3/8" Gas Line (into valve)	700-382B
IPI Pilot Assembly - Propane	900-064-1		24-1/2" Flare x Brazed Fitting	700-224F

Glass and Glass Parts	
Glass with Gasket - 51-3/4" x 15-5/32"	701-019T
1 1/8" Glass Gasket with Adhesive	900-006
Replacement Valance	CW50-005

Safety Barrier	
Safety Screen Barrier	CW50-ES

Surrounds	
Rectangle Surround (1 piece)	CW50-RS
Rectangle Surround (4 piece)	CW50-RS4
Gallery Surround	CW50-GS
Mission Surround	CW50-MS

Light Kits	
20W Halogen Bulb	600-676
Light Kit - Top	600-TLK

Additional Components	
5" (127mm) Restrictor Plate	900-086
Manual 3/8" Gas Shut-off Valve	700-380
Vent Heat Shield Assembly	CW50-HHS
Steel Header	CW50-SHD
Component Access Cover	CW50-027AC

Fan Kit	
Fan Kit	SL42-028

Limited Lifetime Warranty

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.

Limited Lifetime Warranty

EXCLUSIONS AND LIMITATIONS (continued)

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.

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