

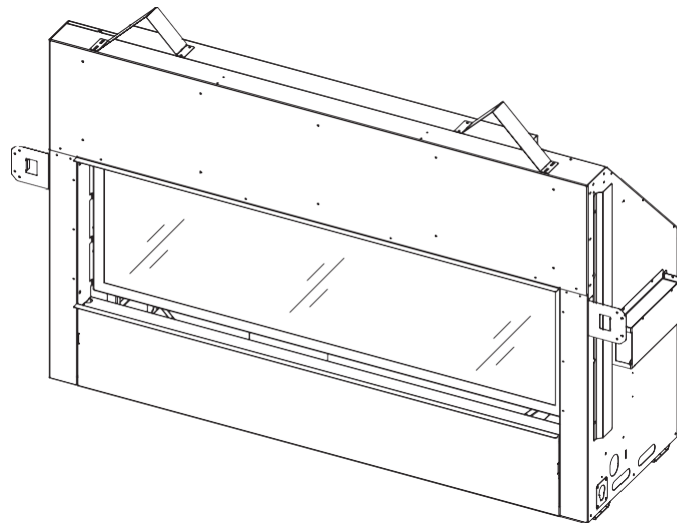
CALLAWAY 50 MV

INSTALLATION AND OPERATION MANUAL

Model #CLW-50-MV

Direct Vent Gas Fireplace

KOZY HEAT
FIREPLACES



English and French installation manuals are available through your local dealer. 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.



We suggest that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

⚠ WARNING:

FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Leave the building immediately.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

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

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

⚠ DANGER



**HOT GLASS WILL
CAUSE BURNS**

**DO NOT TOUCH GLASS
UNTIL COOLED**

**NEVER ALLOW CHILDREN
TO TOUCH GLASS**

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

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

CONGRATULATIONS!

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

Jim Hussong
President



Dudley Hussong
Board Chairman



Homeowner Reference Information

We recommend you record the following information:

Model Name: _____

Date purchased/installed: _____

Serial Number: _____

Location of fireplace: _____

Dealership Purchased from: _____

Dealer phone: _____

Notes: _____

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1.1 Appliance Certification

Laboratory: PFS in Cottage Grove, Wisconsin


Standards:

ANSI Z21.88-2019/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 (1/2) in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".

1.3.4 Inspection

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

1.3.5 Exemptions

The following equipment is exempt from 248 CMR 5.08 (2) (a) 1 through 4: The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

1.3.6 Manufacturer Requirements

1.3.6.1 Gas Equipment Venting System Provided

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

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

1.3.7 Gas Equipment Venting System NOT Provided

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

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

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

2.0 SPECIFICATIONS

2.1 Heating Specifications

	Natural Gas	Propane
Maximum Input Rating	35,500 Btu/h 10.4 kW	35,000 Btu/h 10.26 kW
Minimum Input Rating	24,000 Btu/h 7.03 kW	27,500 Btu/h 8.05 kW
Manifold Pressure (High)	3.5" WC (0.87 kPa)	10" WC (2.48 kPa)
Manifold Pressure (Low)	1.6" WC (0.40 kPa)	6.4" WC (1.59 kPa)
Orifice Size (DMS)	#34	#51

2.1.1 Altitude Adjustment

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

2.1.1.1 US Installations

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

2.1.1.2 Canadian Installations

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

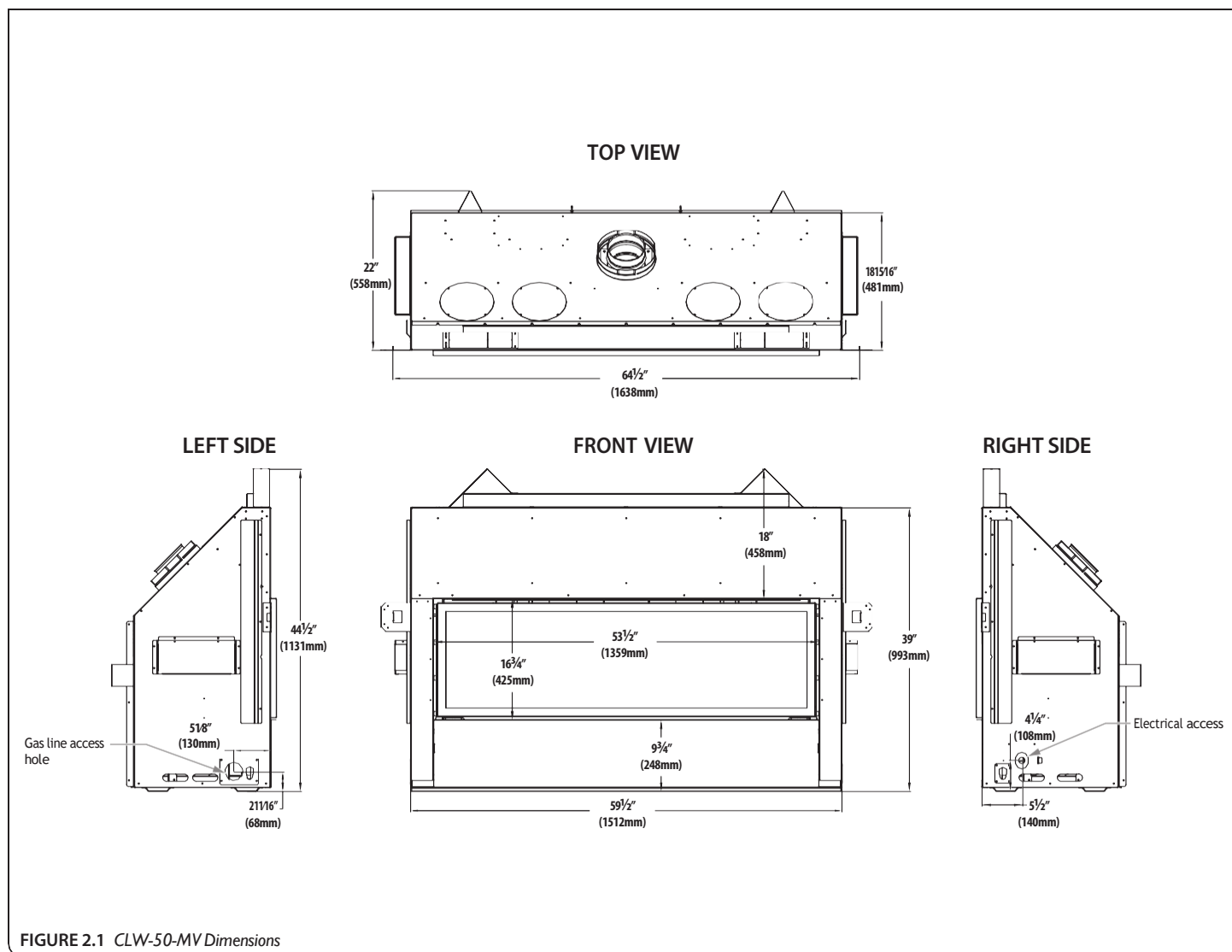
2.2 Electrical Specifications

Electrical specifications ONLY apply to light kit #600-TLKMV and/or optional fan #SL42-028MV. Refer to sections 9.2 (page 56) and 9.3 (page 57) for more information.

IMPORTANT: Installation of an external on/off switch or dimmer switch is required for operational control of the electrical power supply to the #600-TLKMV light kit. Consult your qualified electrician for the best method to accomplish this, especially if installing in combination with the optional fan kit #SL42-028MV.

- 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.

2.3 Appliance Dimensions



2.4 Safety Barrier Screen and Surrounds

2.4.1 Safety Barriers

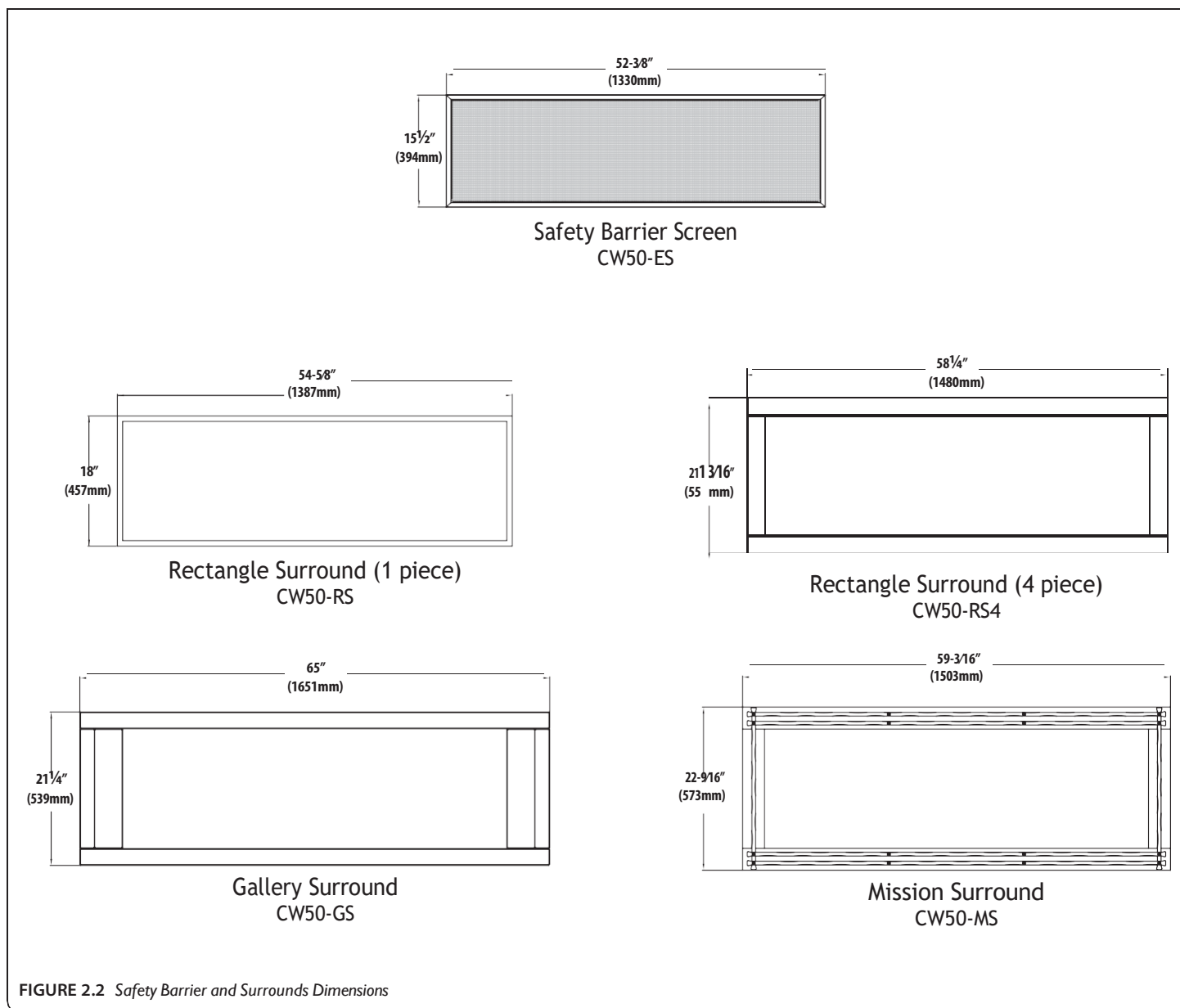
WARNING: A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed for the protection of children and other at-risk individuals.

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

2.4.2 Surrounds (optional)

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 with finished hearth extension for proper fit of the optional surround. Refer to section 4.3, FINISHING GUIDELINES FOR OPTIONAL SURROUNDS on page 36 for proper fitting.

For installation instructions, see section 4.4, BARRIER AND OPTIONAL SURROUND INSTALLATION on page 37.



3.0 FRAMING

3.1 Installation Planning

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

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

It is required to install a wall switch, remote, or thermostat in a convenient location for ease of operation.

- Installation of an external on/off switch or dimmer switch is required for operational control of the electrical power supply to the #600-TLKMV light kit. Consult your qualified electrician for the best method to accomplish this, especially if installing in combination with the optional fan kit #SL42-028MV. Refer to section 9.2, #600-TLKMV LIGHT KIT (PAGE 56) and section 9.3, #SL42-028MV OPTIONAL FAN KIT (page 57).
- **Standard Installation** will be outlined in this manual in sections marked 'standard installation' and must be followed if no design options (vented cavity, Heat Transfer Kits, and Komfort Zone Kit) are to be used.
- **Heat Transfer Kit(s)** allows you to transfer heat to a specific area inside your home (interior) or directly outside (exterior). This appliance can have (2) heat transfer kits installed at the same time. It can be up to two of the same heat transfer kits, or a combination of interior and exterior kits. See the HTK-EXT and/ or HTK-INT manuals for further information.
If you are planning an installation with the use of an exterior and/or interior kit without the use of the vented cavity option or Komfort Zone Kit, the minimum dimensions listed in section 3.5, ROUGH FRAMING on page 15 will apply for your framing installation. Since a vented cavity option or Komfort Zone Kit is not applied, the facing and finishing requirements in section 4.1 (page 31) must be followed. You will still need to remove the cover plates as instructed in section 3.7.1 on page 20.
- **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 3.7.2 (page 21) and section 4.5 on page 38.
- **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. See section 3.7.2, VENTED CAVITY AND KOMFORT ZONE KITS on page 21 and section 4.5, VENTED CAVITY AND KZK FACING AND FINISHING REQUIREMENTS on page 38.
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.

- If planning to convert to propane, it is easier to complete the gas conversion before framing in the fireplace. See the #OCK-S51A conversion kit manual for complete conversion instructions. Refer to section 8.3, CONTROL BOARD REMOVAL AND INSTALLATION on page 54 for access to the burner and pilot system before and after installation.

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

3.1.1 Appliance Placement Considerations

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

- This appliance must be installed on a level surface capable of supporting the fireplace and venting. Determine your vent requirements before framing your appliance
- This fireplace may be installed in a bedroom.
- Please be aware of the large amount of heat this fireplace will produce when determining a location.

3.1.2 Moving the Appliance

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

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

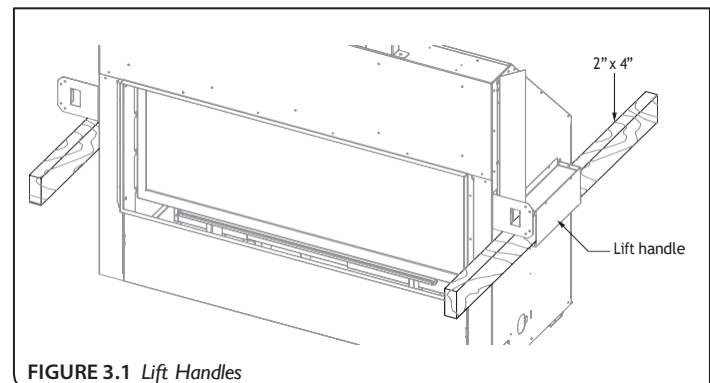


FIGURE 3.1 Lift Handles

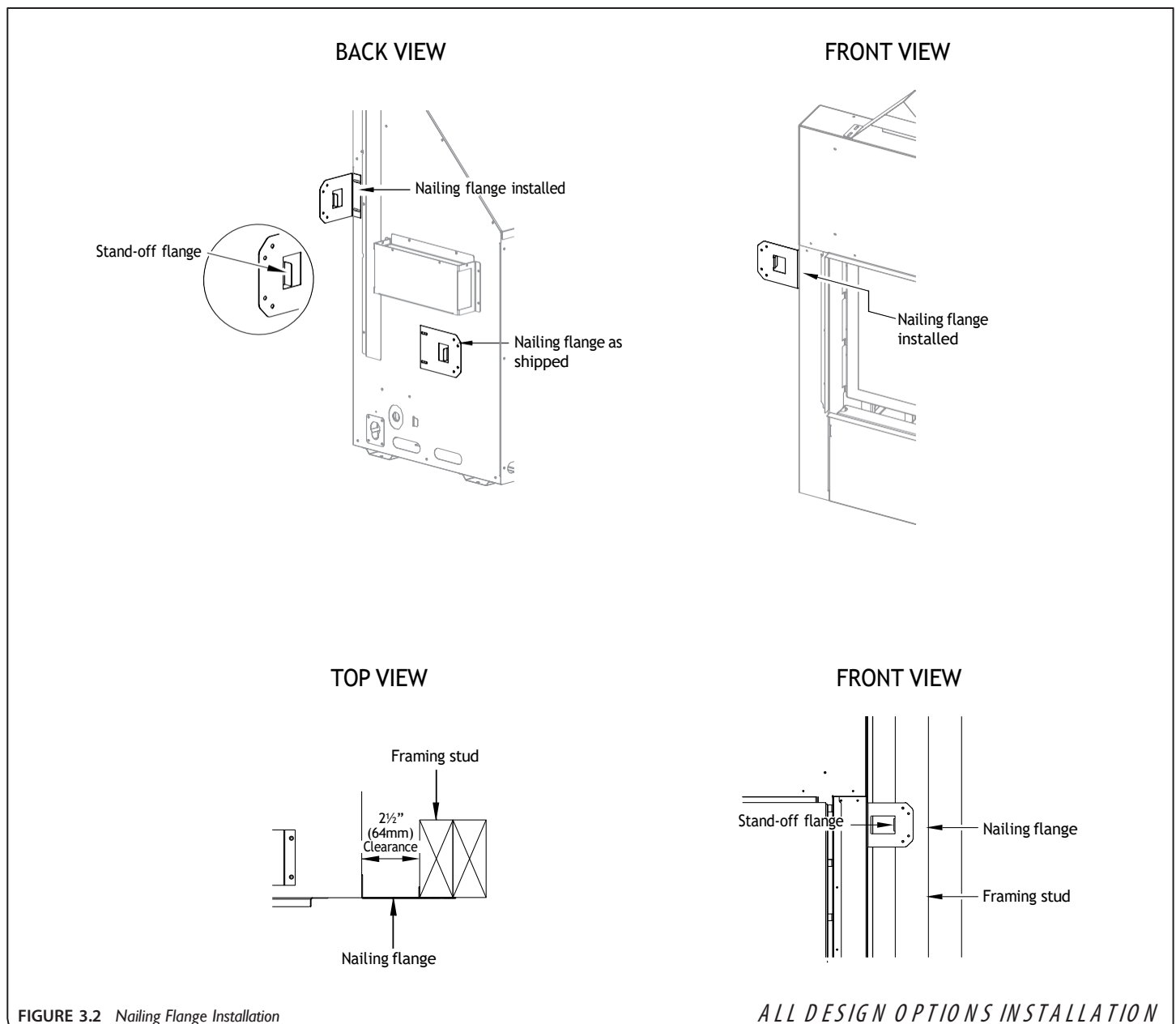
3.2 Nailing Flange

Assembly and Installation

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

Refer to FIGURE 3.2 below for nailing flange installation.

1. Remove (2) nailing flanges from the right and left side of the fireplace.
2. Align nailing 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. **UNTIL ALL FRAMING REQUIREMENTS ARE COMPLETED:** Position framing stud against the small stand-off (located on backside of nailing flange). Secure with nails or screws.
 - **When installed, the nailing flanges provide the minimum 2½" (64mm) clearance from the sides of the fireplace to framing.**



ALL DESIGN OPTIONS INSTALLATION

3.3 Stand-off

Assembly and Installation

NOTE: If installing a heat transfer kit(s), please reference the manual included with the kit.

WARNING: The top stand-off brackets provide the required minimum clearance to the header. The clearance to header must be maintained. See FIGURE 3.3 below for installation

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

1. Remove and save (4) screws securing the stand-off brackets on top 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 heat shields as shown. Secure using provided screws.

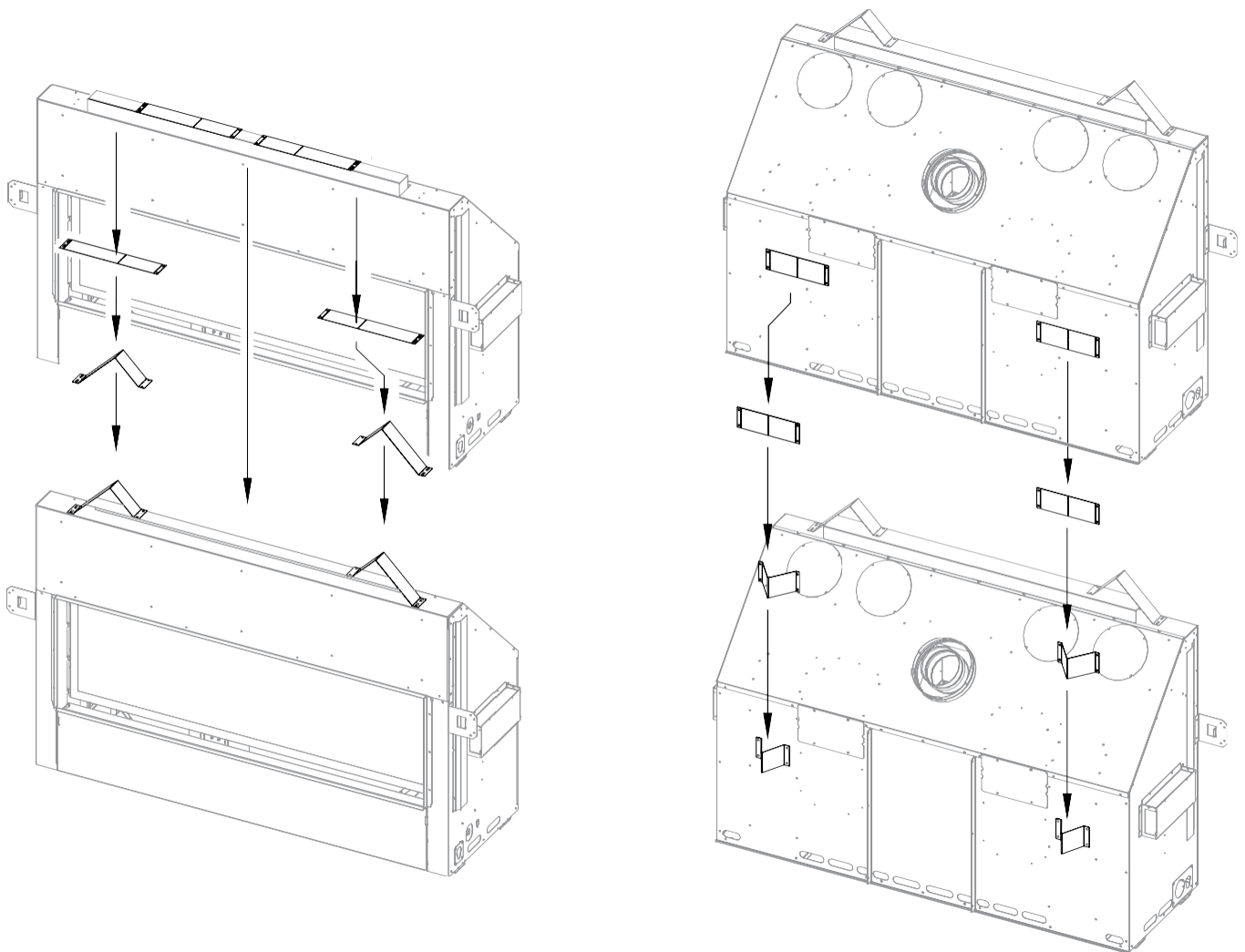


FIGURE 3.3 Stand-off Assembly and Installation

ALL DESIGN OPTIONS INSTALLATION

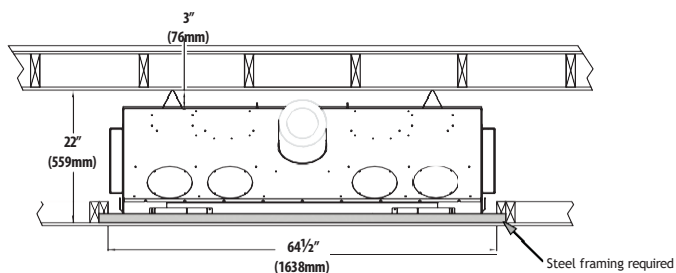
3.4 Clearances to Combustibles

Table 3.1, Minimum Appliance Clearances to Combustible Material

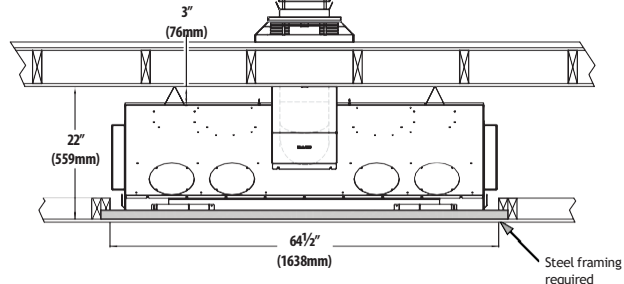
From appliance top stand-off brackets	0"	0mm
From appliance left and right stand-off brackets	0"	0mm
From appliance back stand-off brackets	0"	0mm
From appliance corners	3"	76mm
From appliance front	36"	914mm
Side of fireplace finishing edge to an adjacent sidewall	3"	76mm
Fireplace top finishing edge to 3/4" (19mm) mantel trim	18"	457mm
Mantel 6" (152mm) deep from fireplace top finishing edge	21-1/2"	545mm
Mantel 6" (152mm) deep from fireplace enclosure floor	48"	1219mm
Base of the fireplace to ceiling	72"	1829mm

Nominal 2" x 4" framing used in enclosure framing

Typical Vertical Installation



Typical Horizontal Installation



Typical Corner Installation

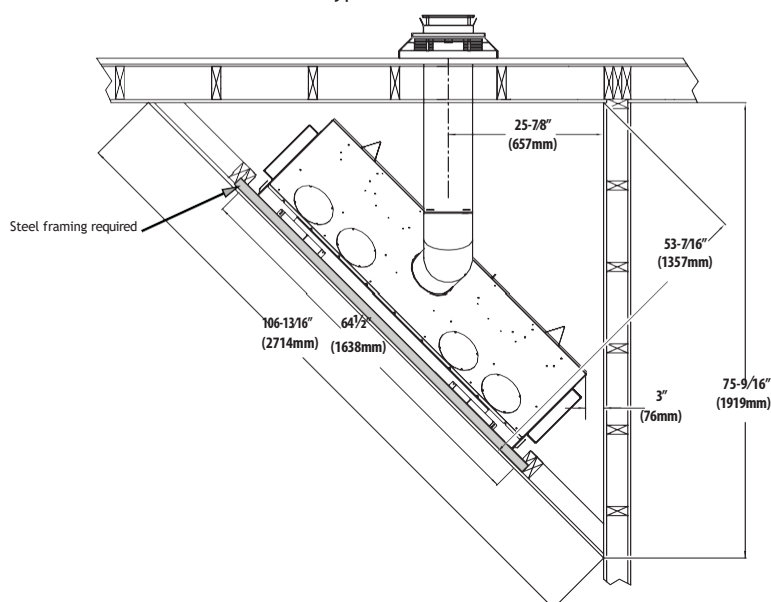


FIGURE 3.4 Clearance to Combustibles

ALL DESIGN OPTIONS INSTALLATION

3.5 Rough Framing

3.5.1 Rough-in Wall Enclosure

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

CAUTION: Cold air transfer area. The 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.

- **METAL-FAB VENT SYSTEM:** If installing Metal-Fab vent pipe, an adapter must be used. This will change the minimum depth for the wall enclosure rough opening from 22" (558mm) to 26" (660mm) in order to maintain the required vent pipe clearances
- 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 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 with finished hearth extension for proper fit of the optional surround (see section 4.3 on page 36). Refer to **FIGURE 4.1, COMBUSTIBLE MANTEL AND HEARTH REQUIREMENTS** on page 32.
- The bottom of the fireplace must be placed directly on a wood or non-combustible surface (not linoleum or carpet). If this appliance is to be installed directly on carpeting, tile, or other

combustible material other than wood flooring, this appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

- This fireplace may be elevated off the floor, provided it is properly supported by framing materials and maintains ceiling clearances. If installed above floor level, a solid, continuous platform must be constructed below the fireplace.
- If masonry (optional) is to be used, prepare the foundation necessary for the full masonry load.
- Installation of CW50-SHD steel framing is required (included with the unit).

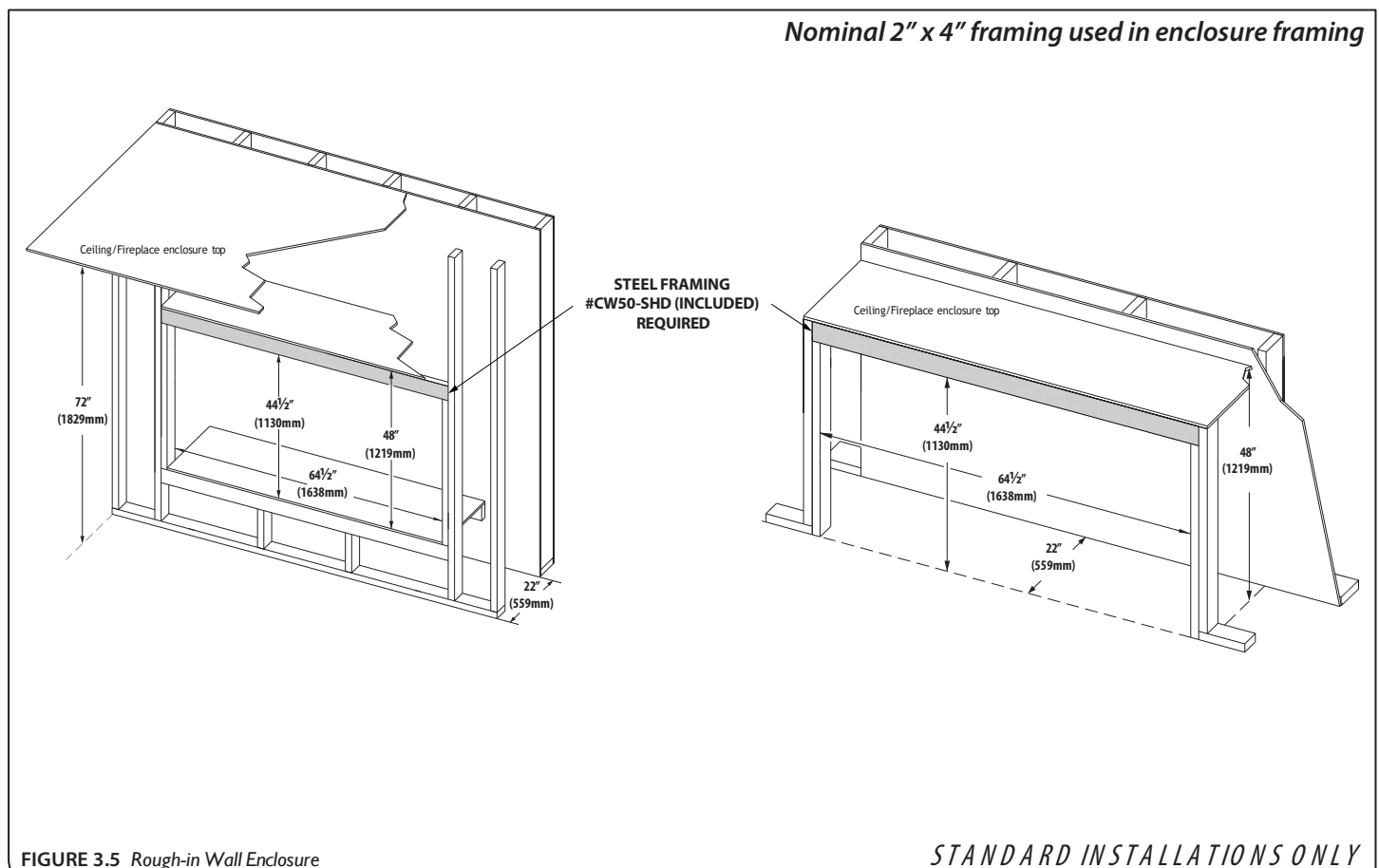
3.5.1.1 TV Recess Construction

WARNING: All clearances to venting must be maintained.

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

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

The drawing below shows the minimum dimensions for standard installation of the fireplace. Anything above the minimum enclosure height of 48" (1219mm) can be capped off or recessed for standard installation.



3.5.2 Rough-in Vent Termination

The following information applies to all standard, KZK, and vented cavity installation options.

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

Exterior vent termination location must be in compliance with section 6.2, **MINIMUM TERMINATION CLEARANCES** on page 43. **DO NOT RECESS THE VENT CAP INTO WALL OR SIDING.**

IMPORTANT - METAL FAB VENT SYSTEM: When installing Metal Fab vent pipe, an adapter must be used. This will increase the minimum height for the center of the vent pipe by 3-1/4" (83mm) when framing the wall pass through. The minimum enclosure depth will be increased by 4" (101mm).

3.5.2.1 Clearances

- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained.
- A minimum of 3" (76mm) on the top of the horizontal pipe, and 1" (25mm) on the sides and bottom of the horizontal pipe at the wall pass through must be maintained.

3.5.2.2 Vertical Terminations

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

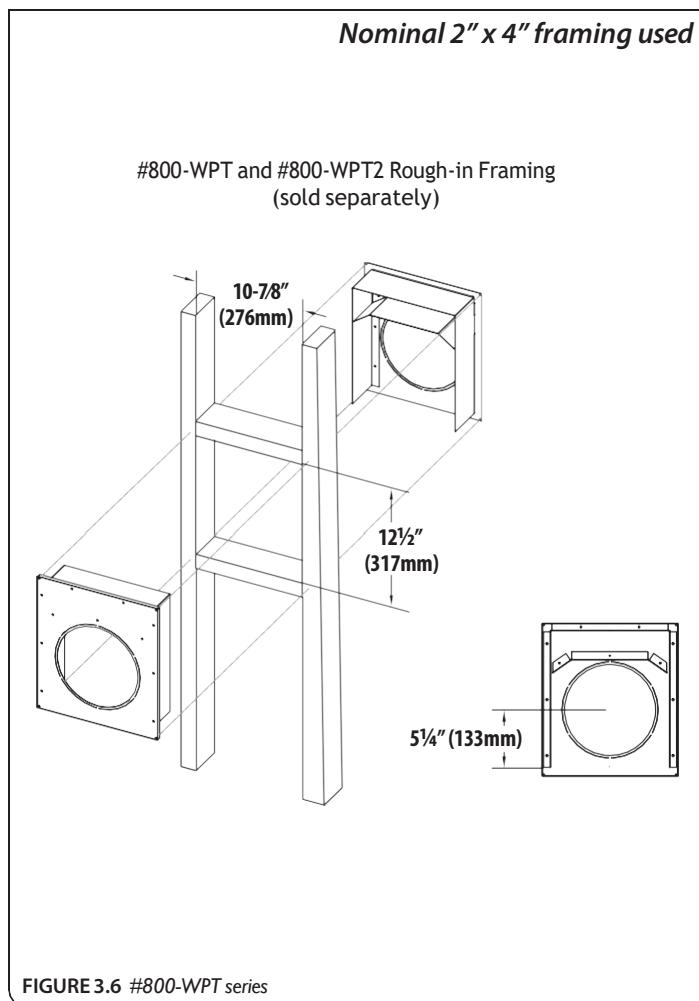
- Attic insulation shields may be insulated using unfaced insulation products listed as non-combustible per ASTM E 136.

3.5.2.3 Horizontal Terminations

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

- 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. Refer to **FIGURE 3.6** for framing dimensions.
#800-WPT wall thickness covers 4 1/2" (114mm) to 6 1/2" (165mm).
#800-WPT2 wall thickness covers 6 1/2" (165mm) to 12 1/2" (318mm).
- 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 continue on the next page.

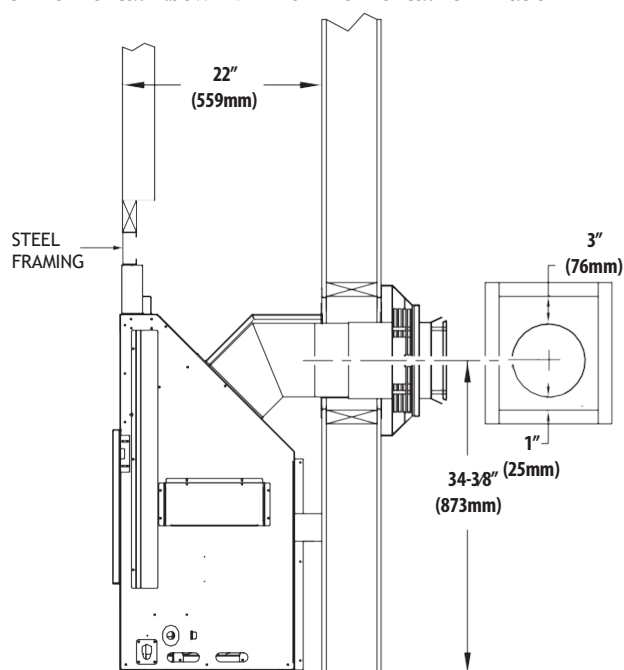


3.5.2.4 Wall Pass Through Information and Framing

1. Measure from floor level of the fireplace to the center of where the vent pipe will penetrate the wall. The dimensions in **FIGURE 3.7** is used with a Simpson DuraVent elbow.
 2. Cut and frame an opening in the wall to allow the vent system to run level through the wall pass-through.
 3. Follow the vent pipe manufacturer's installation instructions for vent installation.
- Rigid pipe dimensions in **FIGURE 3.7** reflect Simpson DuraVent 5" x 8" coaxial pipe. Other manufacturers product dimensions may vary.

Nominal 2" x 4" framing used in enclosure framing

Natural Gas and Propane
 45° Horizontal Elbow - Minimum Horizontal Termination



Natural Gas and Propane
 Combination Venting - Minimum Horizontal Termination

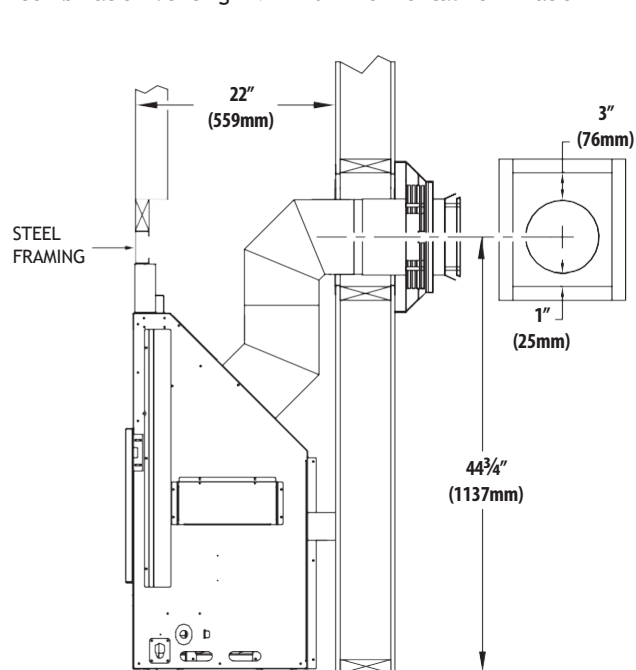


FIGURE 3.7 Horizontal Vent Termination Rough Framing

ALL DESIGN OPTIONS INSTALLATION

3.6 Outdoor Covered Fireplace Installation

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

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

3.6.1 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.

3.6.2 Requirements

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

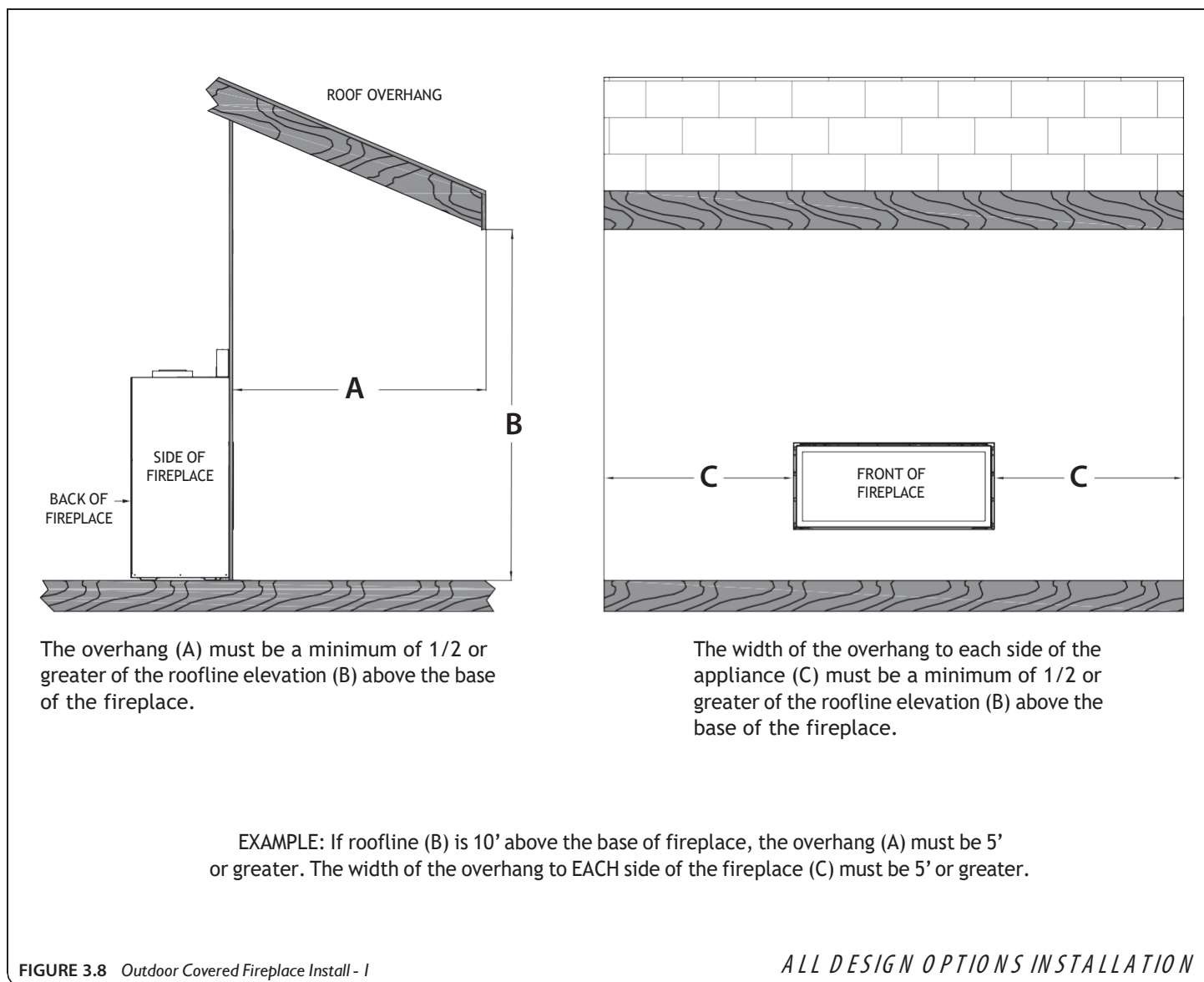


FIGURE 3.8 Outdoor Covered Fireplace Install - I

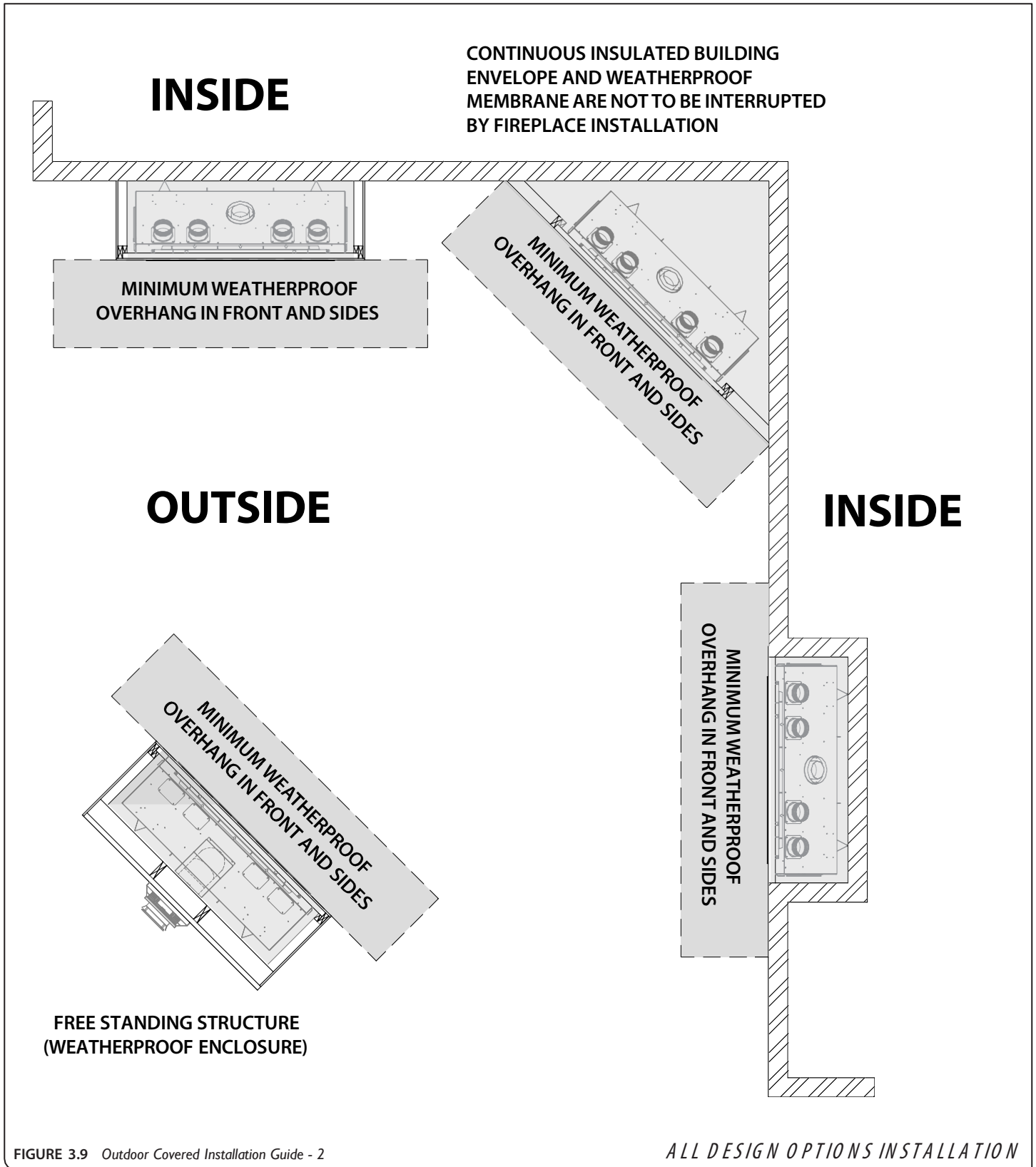


FIGURE 3.9 Outdoor Covered Installation Guide - 2

3.7 Heat Management

Preparation Overview

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

For vented cavity installation instructions, refer to section 3.8, **VENTED CAVITY** on page 24.

3.7.1 Exterior and Interior Heat Transfer Kit Cover Plates

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

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

Remove (1) square cover plate per kit, up to (2) kits may be used
See heat transfer kit manuals for more information

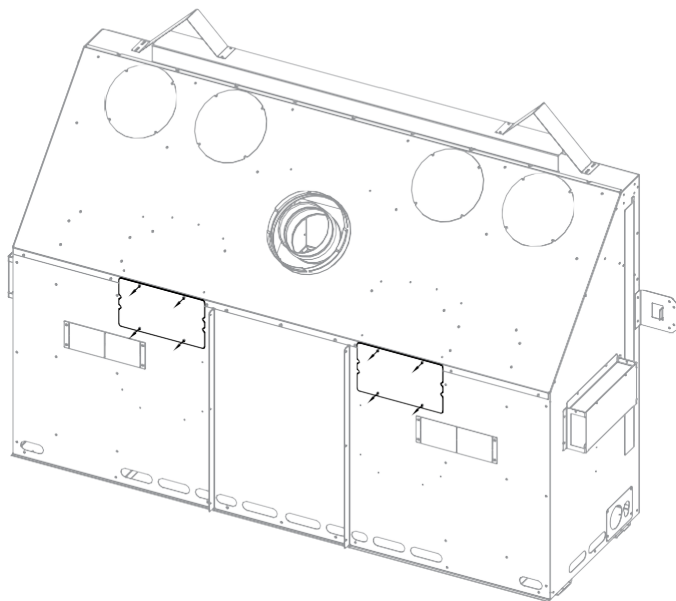
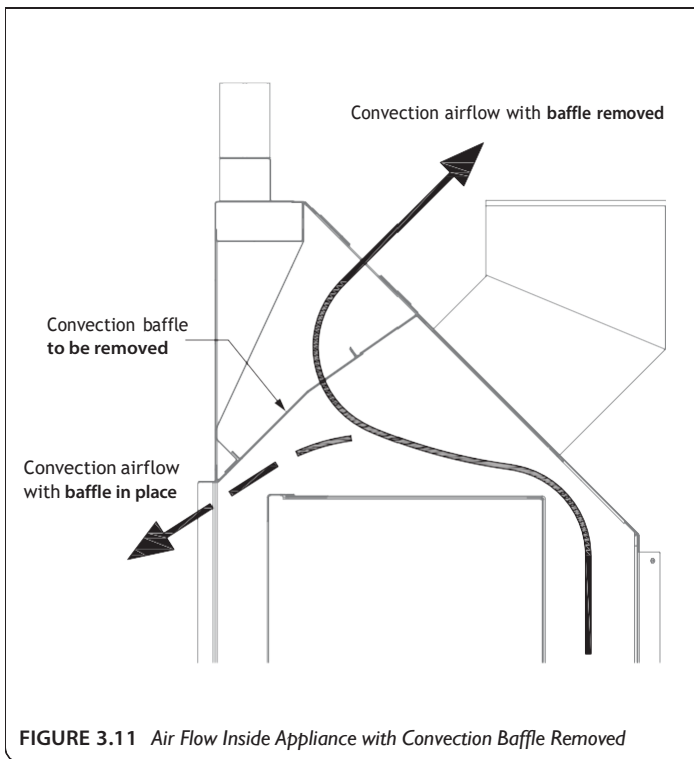


FIGURE 3.10 Heat Transfer Kit Cover Plate Removal

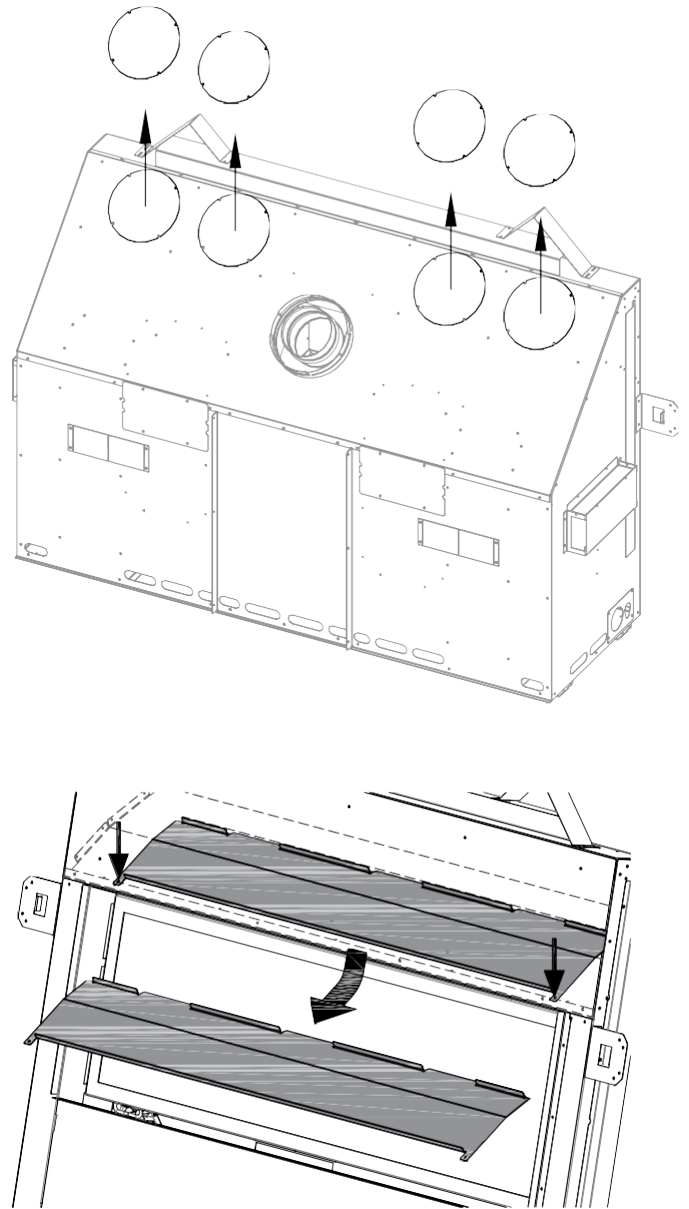
3.7.2 Vented Cavity and Komfort Zone Kits

Vented cavity design options and Komfort Zone Kits have specific framing requirements, mantel requirements, and exterior trim dimensions. The appliance convection baffle and outer shell plates must be removed for heat distribution required by cavity framing designs.

- All minimum required dimensions must be maintained after all finishing materials are installed.
 - The appliance convection baffle and outer shell plates must be removed for heat distribution required vented cavity framing designs and Komfort Zone Kit installations, as shown in FIGURE 3.11.
1. Remove the (4) circle cover plates, (4) screws each. See FIGURE 3.12.
 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 3.12. Recycle this panel as it is no longer needed.



Vented cavity options and Komfort Zone kits must remove (4) circle cover plates and convection baffle

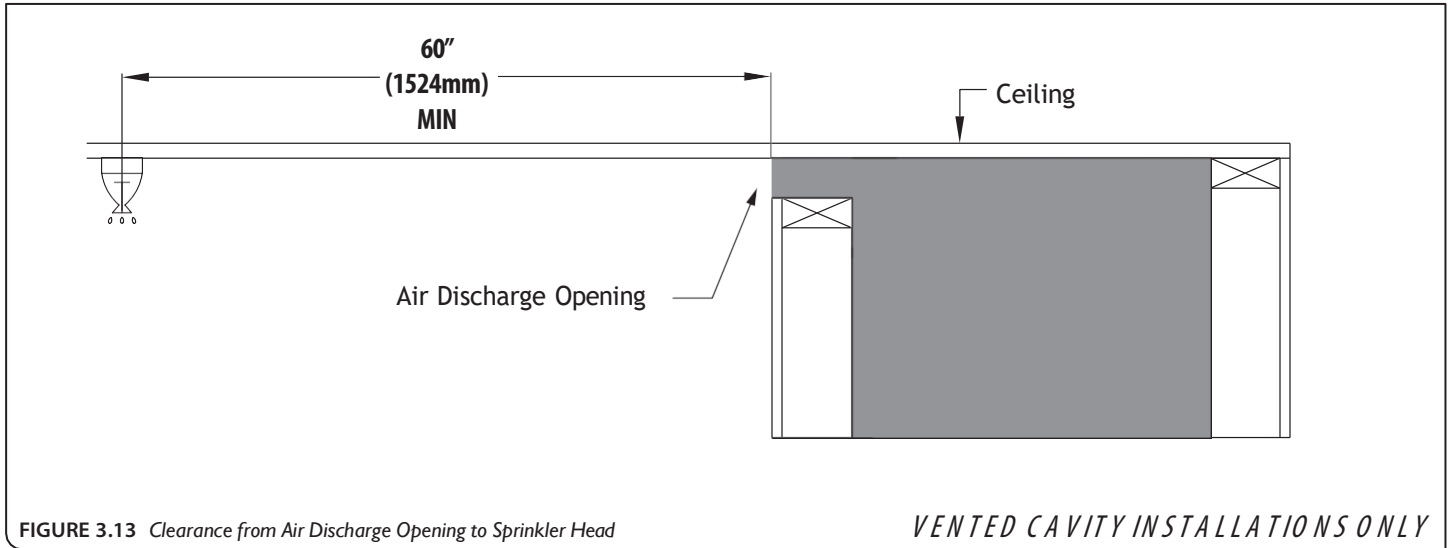


3.7.2.1 Clearance to Sprinkler

- In a situation where a sprinkler head is installed within the proximity to a vented cavity air discharge opening, **FIGURE 3.13** MUST be followed.
- The distance between a sprinkler head and discharge opening cannot be less than 60" (1524mm) in length at every point from

the origin of the discharge opening. You must also verify the sprinkler head sensor is set to the proper heat setting so it does not activate when the room heats up from the fireplace being operated normally.

- Please follow local building codes to determine what temperature setting is relevant for your installation.



3.7.2.2 Clearances to Combustibles

<i>Table 3.2, Minimum Appliance Clearances to Combustible Material for Vented Cavity and Komfort Zone Kit Installations</i>		
From appliance top stand-off brackets	0"	0mm
From appliance left and right stand-off brackets	0"	0mm
From appliance back stand-off brackets	0"	0mm
From appliance corners	3"	76mm
From appliance front	36"	914mm
Appliance sides to an adjacent sidewall	0"	0mm
Mantel 6" (152mm) deep from fireplace top finishing edge	0"	0mm
Mantel 6" (152mm) deep from fireplace enclosure floor	26-1/2"	673mm
Minimum height of fireplace enclosure	76"	1930mm

3.7.2.3 Rough-in Wall Enclosure

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

CAUTION: Cold air transfer area. The 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.

- **METAL-FAB VENT SYSTEM:** If installing Metal-Fab vent pipe, an adapter must be used. This will change the minimum depth for the wall enclosure rough opening from 22" (558mm) to 26" (660mm) in order to maintain the required vent pipe clearances
- Minimum rough framing dimensions for #KZK-054, #KZK-1510A, and vented cavity installation are shown below.
- 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 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 with finished hearth extension for proper fit of the optional surround (see section 4.3 on page 36). Refer to **FIGURE 4.12, HEARTH AND MANTEL CLEARANCES** on page 39.
- The bottom of the fireplace must be placed directly on a wood or non-combustible surface (not linoleum or carpet). If this appliance is to be installed directly on carpeting, tile, or other combustible material other than wood flooring, this appliance

shall be installed on a metal or wood panel extending the full width and depth of the appliance.

- This fireplace may be elevated off the floor, provided it is properly supported by framing materials and maintains ceiling clearances. If installed above floor level, a solid, continuous platform must be constructed below the fireplace.
- If masonry (optional) is to be used, prepare the foundation necessary for the full masonry load.
- Installation of CW50-SHD steel framing is required (included with the unit).

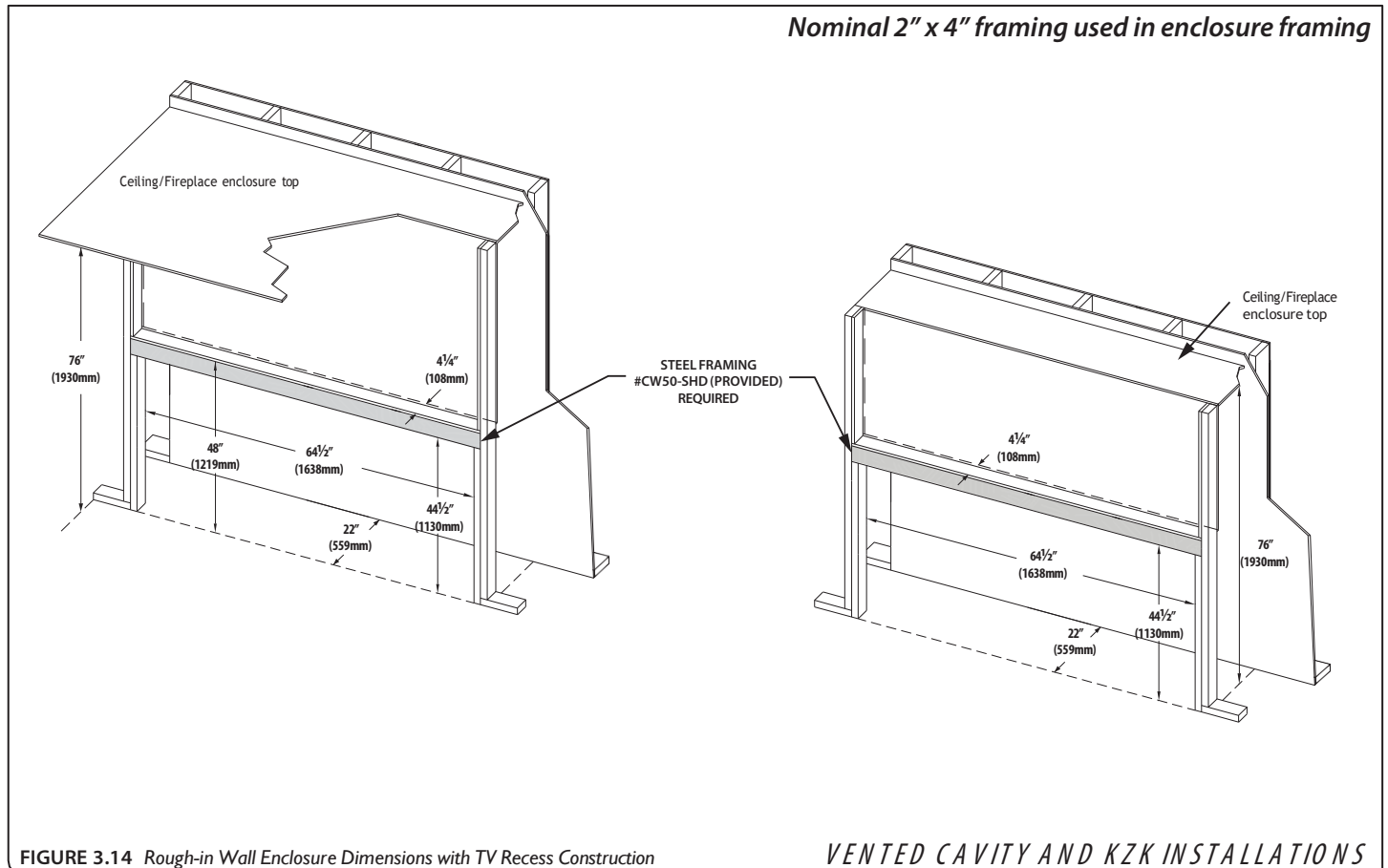
3.7.2.4 TV Recess Construction

WARNING: All clearances to venting must be maintained.

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

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

Tests performed determined that 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 or Komfort Zone Kit(s).



3.8 Vented Cavity

3.8.1 Single Opening Vented Cavity Option

WARNING: Enclosure measurements must maintain minimum framing specs as outlined in section 3.7.2.3, ROUGH-IN WALL ENCLOSURE on page 23. Minimum dimensions for the air discharge **MUST BE** maintained after all finishing materials are installed.

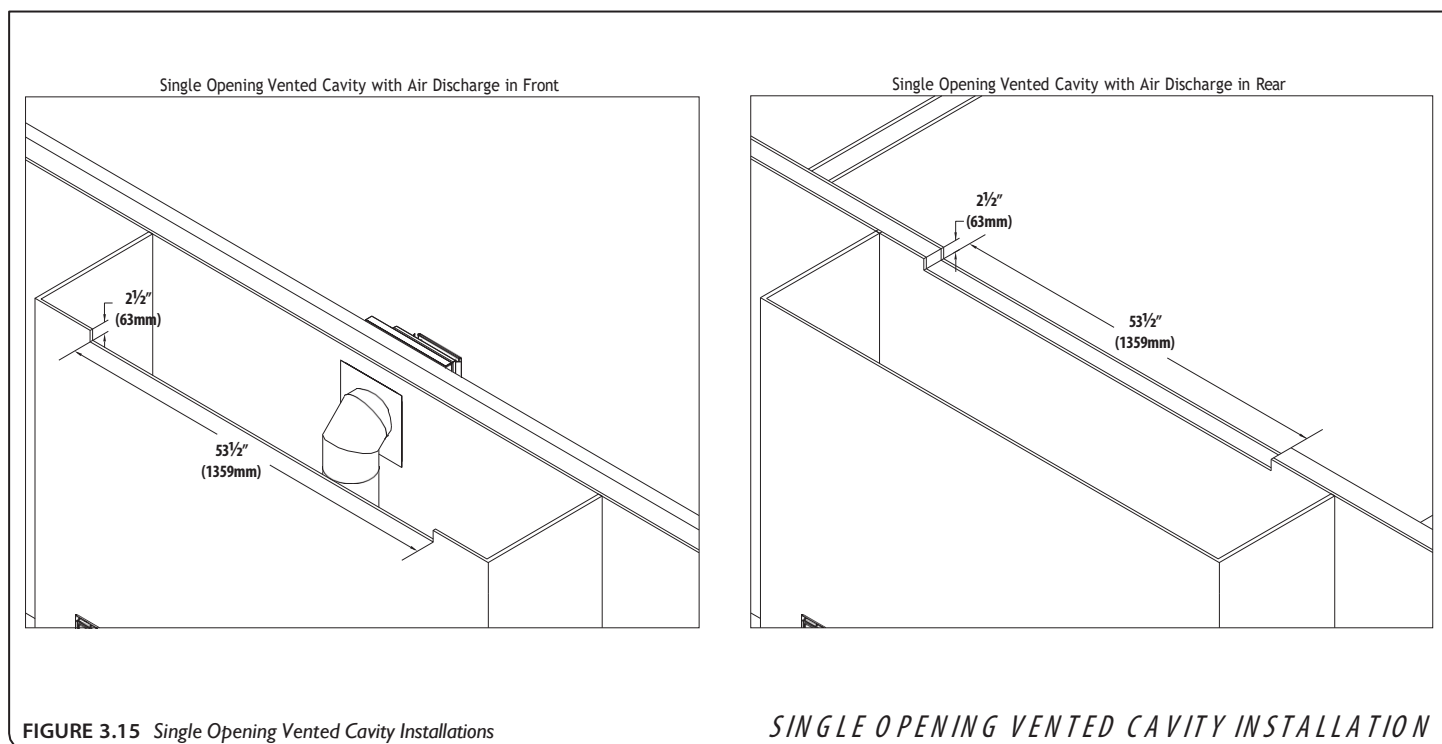
NOTE: The single opening vented cavity option allows the use of 19 gauge (or less) 1/2" x 1/2" hardware mesh to prevent any items from entering the vented cavity. This hardware mesh is optional and the **ONLY** approved item for use within the air discharge opening.

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

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

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

- FIGURE 3.15 shows the minimum required dimensions for the 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.



3.8.1.1 Single Opening Vented Cavity

Alternative Installations

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

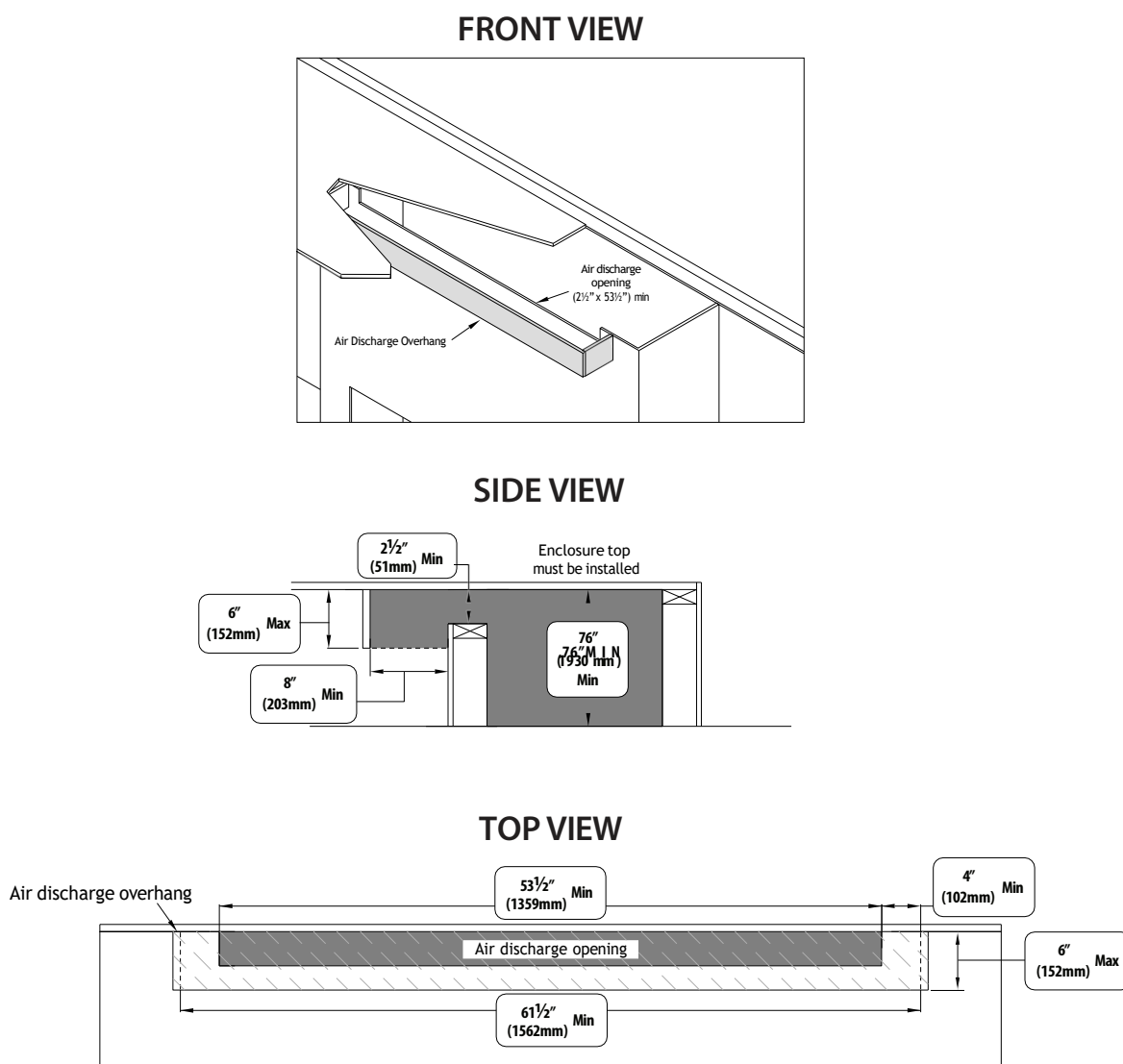


FIGURE 3.16 *Single Opening with Overhang*

SINGLE OPENING VENTED CAVITY INSTALLATIONS

3.8.1.1 Single Opening Vented Cavity

Alternative Installations (cont.)

- FIGURE 3.17 shows the installation of crown molding or similar trim work that goes up to the edge of the air discharge opening. 12" (305mm) is the maximum length of the molding or trim projection and you must maintain 2-1/2" (51mm) clearance for the full length of crown molding/trim projection. This molding or trim cannot decrease the minimum opening requirement.

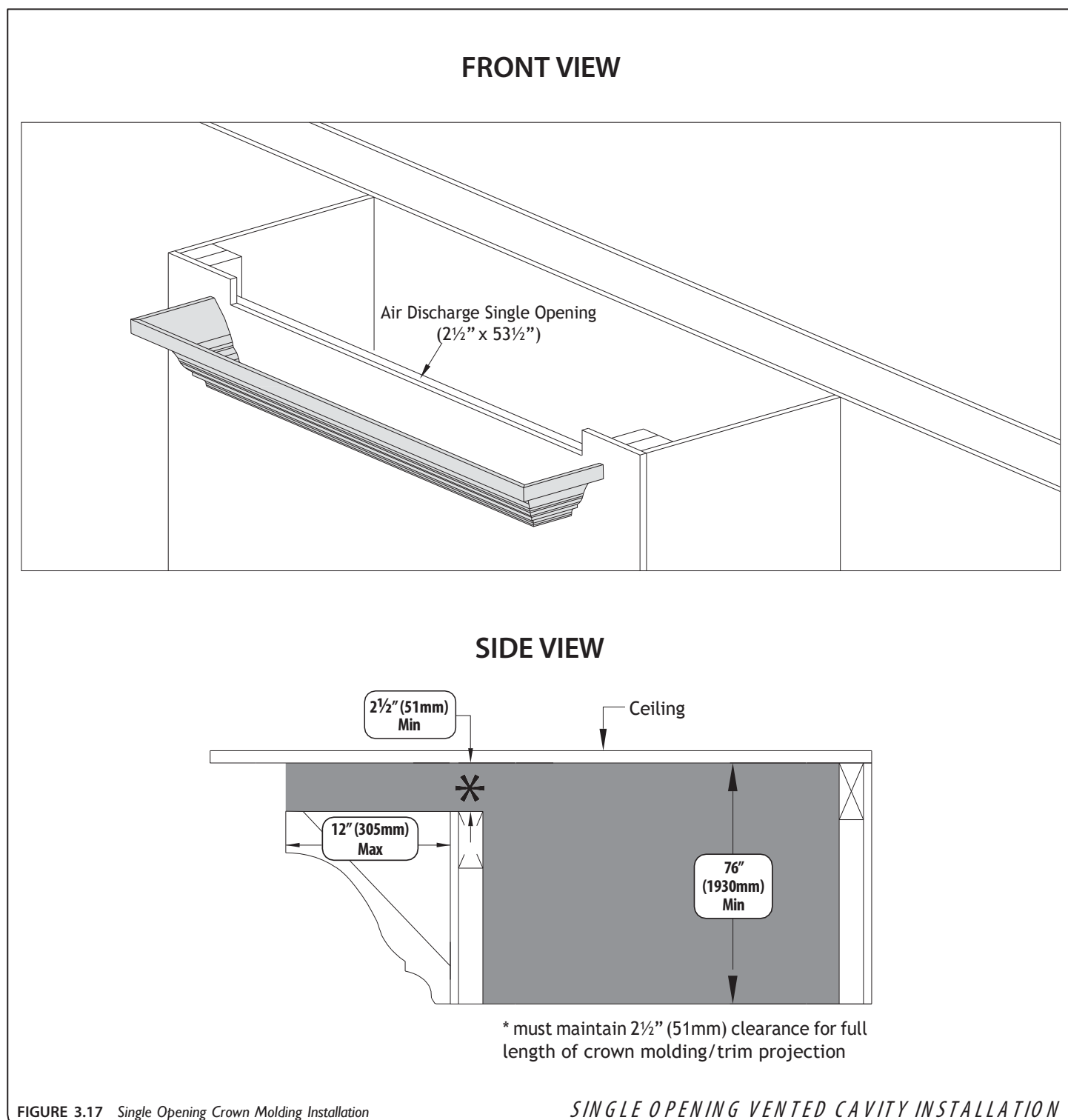


FIGURE 3.17 *Single Opening Crown Molding Installation*

3.8.1.1 Single Opening Vented Cavity

Alternative Installations (cont.)

- FIGURE 3.18 shows an alternative installation method where you cap off the fireplace cavity so the air discharge opening can be located 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 3.18 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.

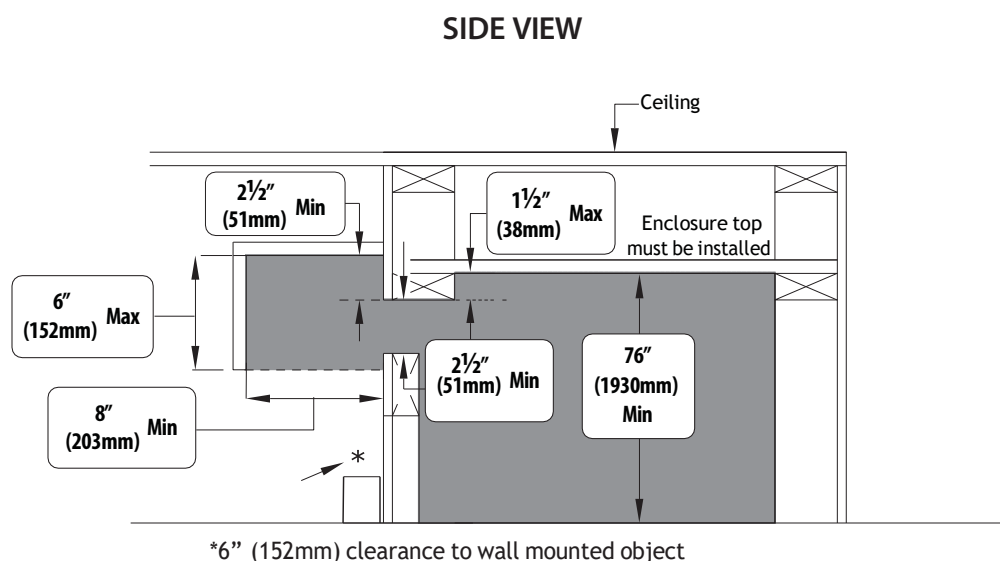
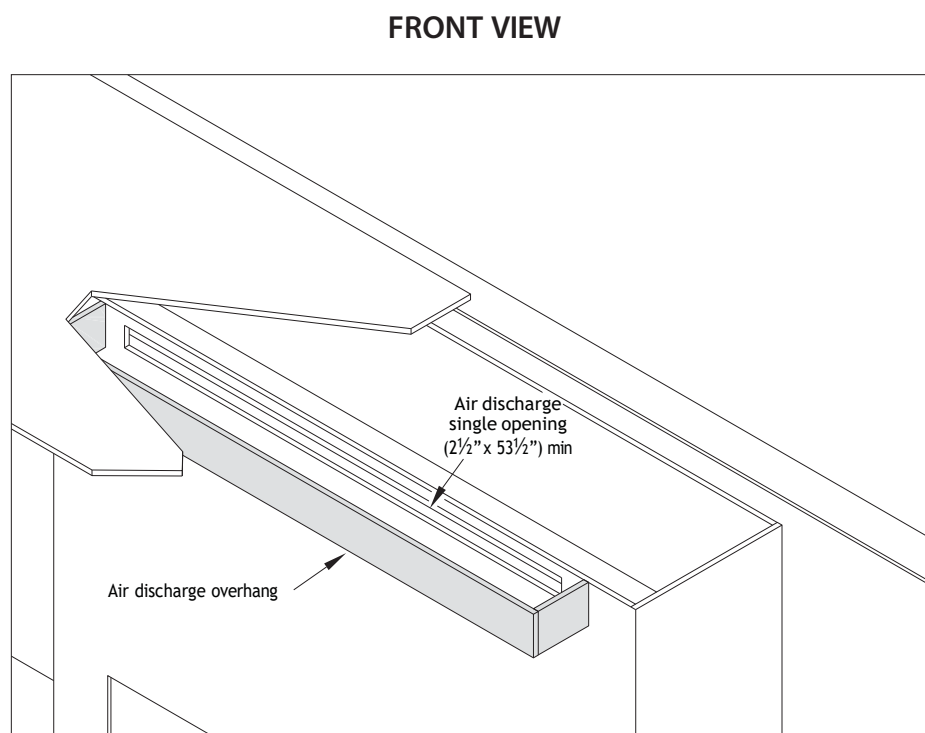


FIGURE 3.18 Lowered Air Discharge Opening with Overhang

SINGLE OPENING VENTED CAVITY INSTALLATIONS

3.8.2 Top Vented Cavity Option

WARNING: Enclosure measurements must maintain minimum framing specs as outlined in section 3.7.2.3, ROUGH-IN WALL ENCLOSURE on page 23. 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 3.19** shows the minimum 1-1/2" (38mm) clearance from the fireplace enclosure top to the ceiling, on all three sides of the enclosure.

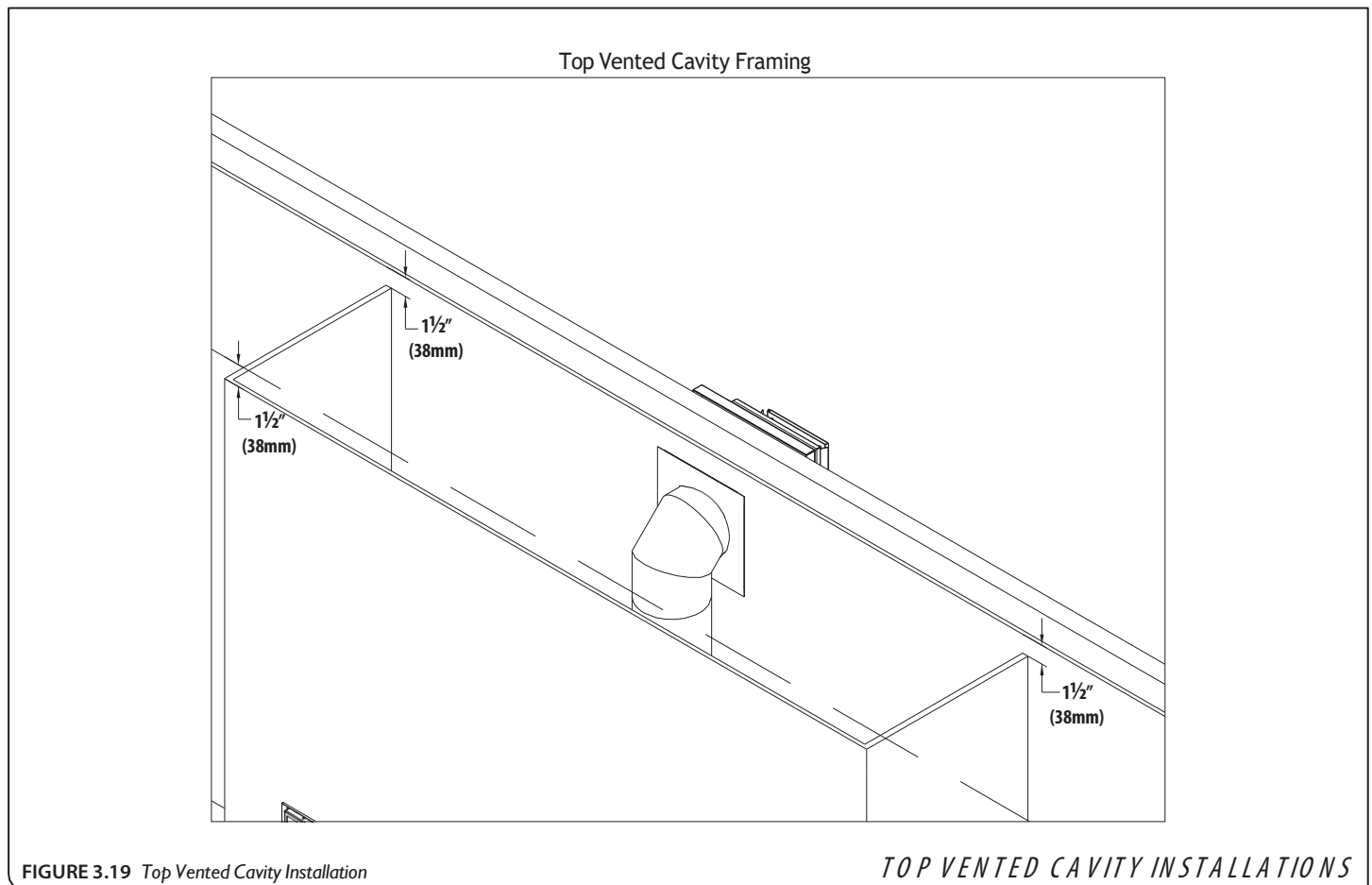


FIGURE 3.19 Top Vented Cavity Installation

3.8.2.1 Top Vented Cavity

Alternative Installations

- FIGURE 3.20 shows the installation of crown molding or similar trim work that goes up to the edge of the air discharge opening. 12" (305mm) is the maximum length of the molding or trim projection and you must maintain 1-1/2" (38mm) clearance for the full length of crown molding/trim projection. This molding or trim cannot decrease the minimum opening requirement.

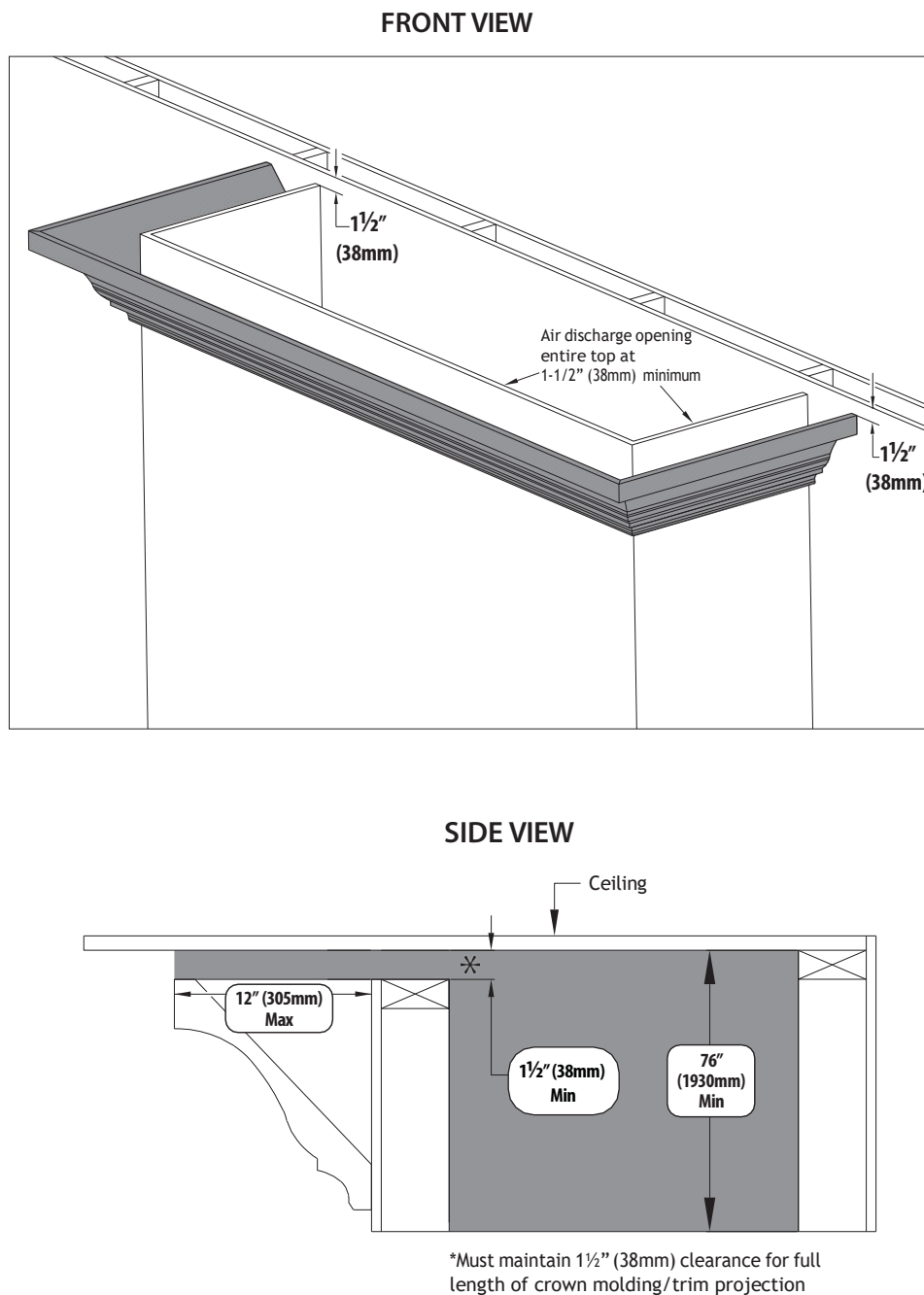


FIGURE 3.20 Top Vented Cavity Crown Molding Installation

TOP VENTED CAVITY INSTALLATIONS

3.8.2.1 Top Vented Cavity

Alternative Installations

- FIGURE 3.21 shows an alternative installation for the top vented cavity option with an air discharge overhang in front of the air discharge opening. This installation method can provide a means to visually hide the air discharge opening.

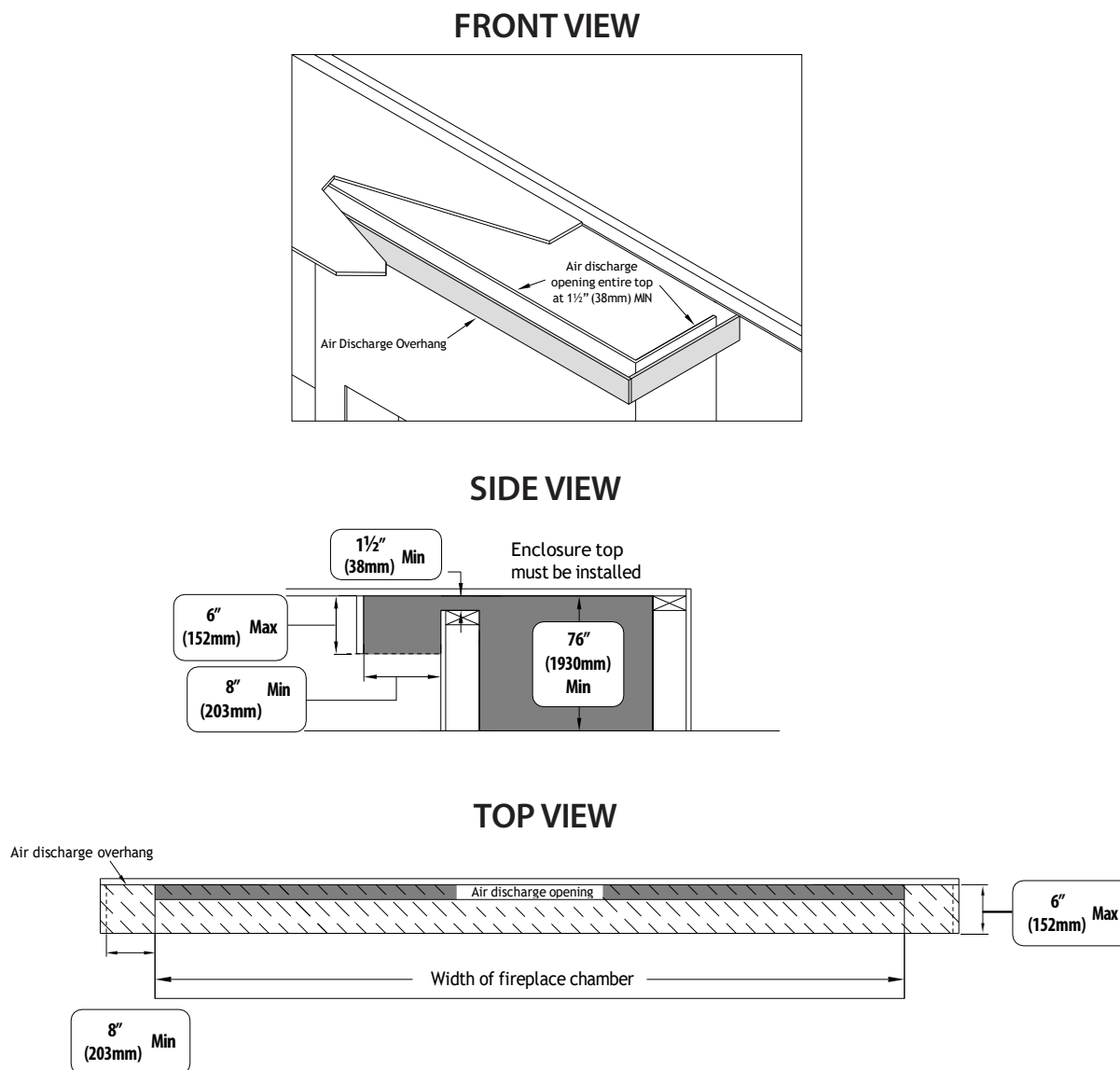


FIGURE 3.21 Top Vented Cavity Alternative Installation with Overhang

TOP VENTED CAVITY INSTALLATIONS

4.0 FACING AND FINISHING

4.1 Standard Installation

Facing and Finishing Requirements

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

NOTE: See section 4.5, VENTED CAVITY AND KZK FACING AND FINISHING REQUIREMENTS on page 38 for additional mantel, hearth, and sidewall clearances for those installations.

4.1.1 Mantel and Hearth Requirements

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

IMPORTANT: If you plan to install a hearth and an optional surround, reference section 4.3, FINISHING GUIDELINES FOR OPTIONAL SURROUNDS on page 36 for allowable space for finishing materials to ensure a proper fitting of the surround. Use measurement in 'B' FIGURE 4.9 on page 36 for the required space necessary from the bottom of the fireplace finishing edge to the hearth.

- **Combustible Mantel Projections (no surround):** As referenced in FIGURE 4.1, the 3/4" mantel trim can start at 18" (457mm) above the top finishing edge with a 6" (152mm) mantel starting at 21-1/2" (545mm) above the finishing edge. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel.
- **Combustible Hearth:** As referenced in FIGURE 4.1, the bottom of the finishing edge can be flush with the top of the hearth if you are not using any optional surrounds. Refer to section 4.3 on page 36 if installing with optional surround.
- **Non-combustible Mantel Projections:** A minimum vertical clearance of 6" (152mm) above the finishing edge to a maximum 6" (152mm) depth of a non-combustible mantel. Follow projection 1" (25mm) up for every 1" (25mm) deeper.

4.1.2 Adjacent Sidewall Requirements

- The adjacent combustible sidewall must be 3" (76mm) from the side finishing edges of the fireplace.
- **If installing an optional surround,** refer to Measurement 'A' in FIGURE 4.9 on page 36 for the space required from the optional surround sides to non-combustible finishing material.

4.1.3 Facing Requirements

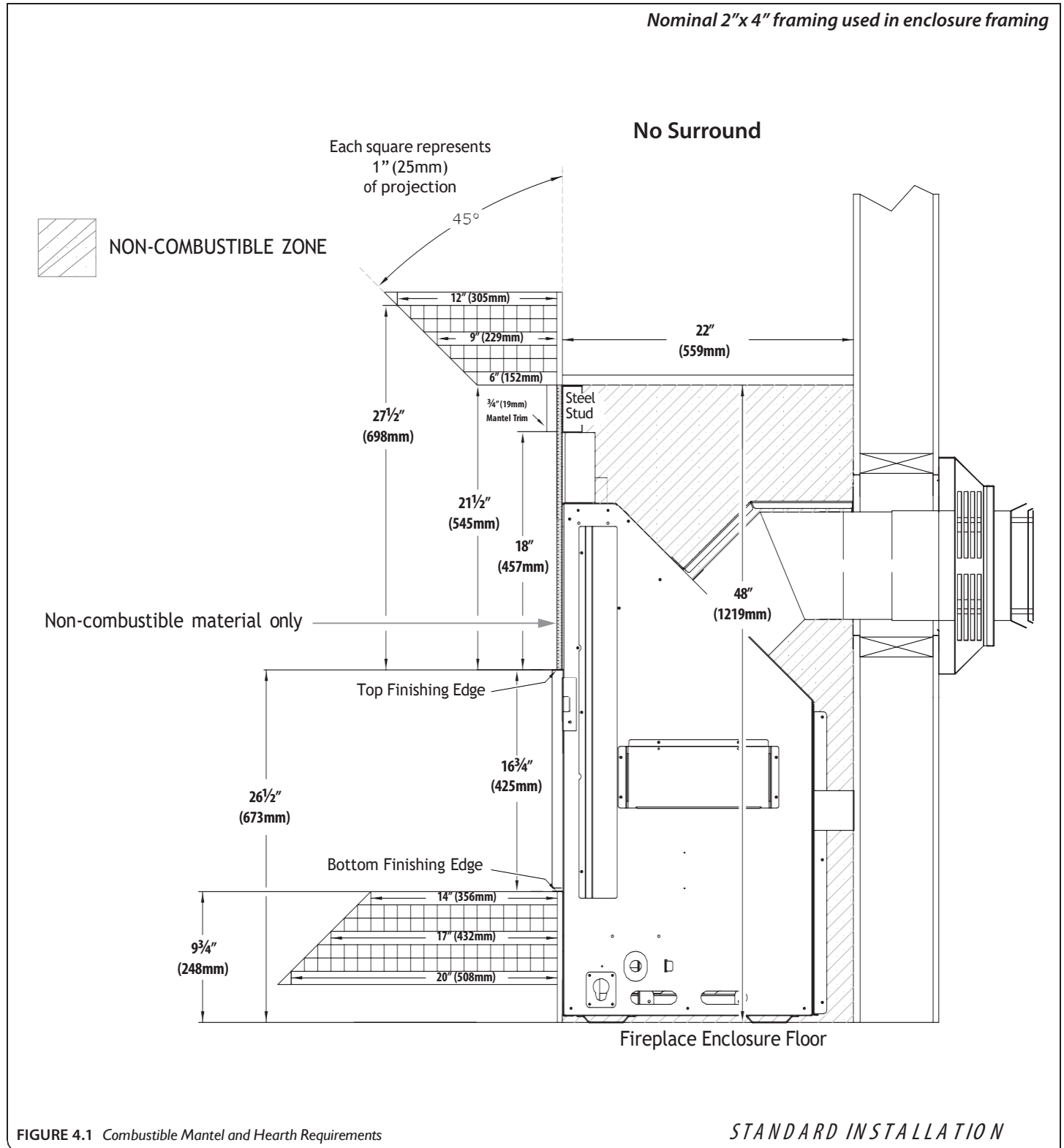
- Non-combustible material is required at the top and sides of the fireplace. This fireplace is designed to accommodate non-combustible facing material up to 3/4" (19mm) thick. See FIGURE 4.3 and FIGURE 4.4 on page 34 for facing and finishing material dimensions.
- Install facing material up to the finishing edge that surrounds the glass frame assembly. Do not apply any material beyond this point. The glass frame assembly must be removable.
- It is acceptable to pre-drill holes and to use self-tapping screws prior to attach the non-combustible material to the top and sides of the fireplace face. Do not use excessively long screws. Screws can only penetrate the fireplace outer shell up to 1/2" (13mm) in the allowed areas. See FIGURE 4.3 and FIGURE 4.4 on page 34.

4.1.4 Finishing Recommendations

NOTE: The surface area above the appliance may be affected by high temperatures emitted from this appliance. To help avoid or reduce the possibility of the sheetrock to crack, Hussong Mfg. 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. Joint compound must be cured as per manufacturer's recommendations.
- For a painted surface, use a high quality acrylic latex primer and finish coat. Avoid flat or light-colored paints to prevent discoloring.

4.1.1 (cont.) Combustible Mantel Projections and Combustible Hearth



4.1.3 (cont.) Facing Requirements

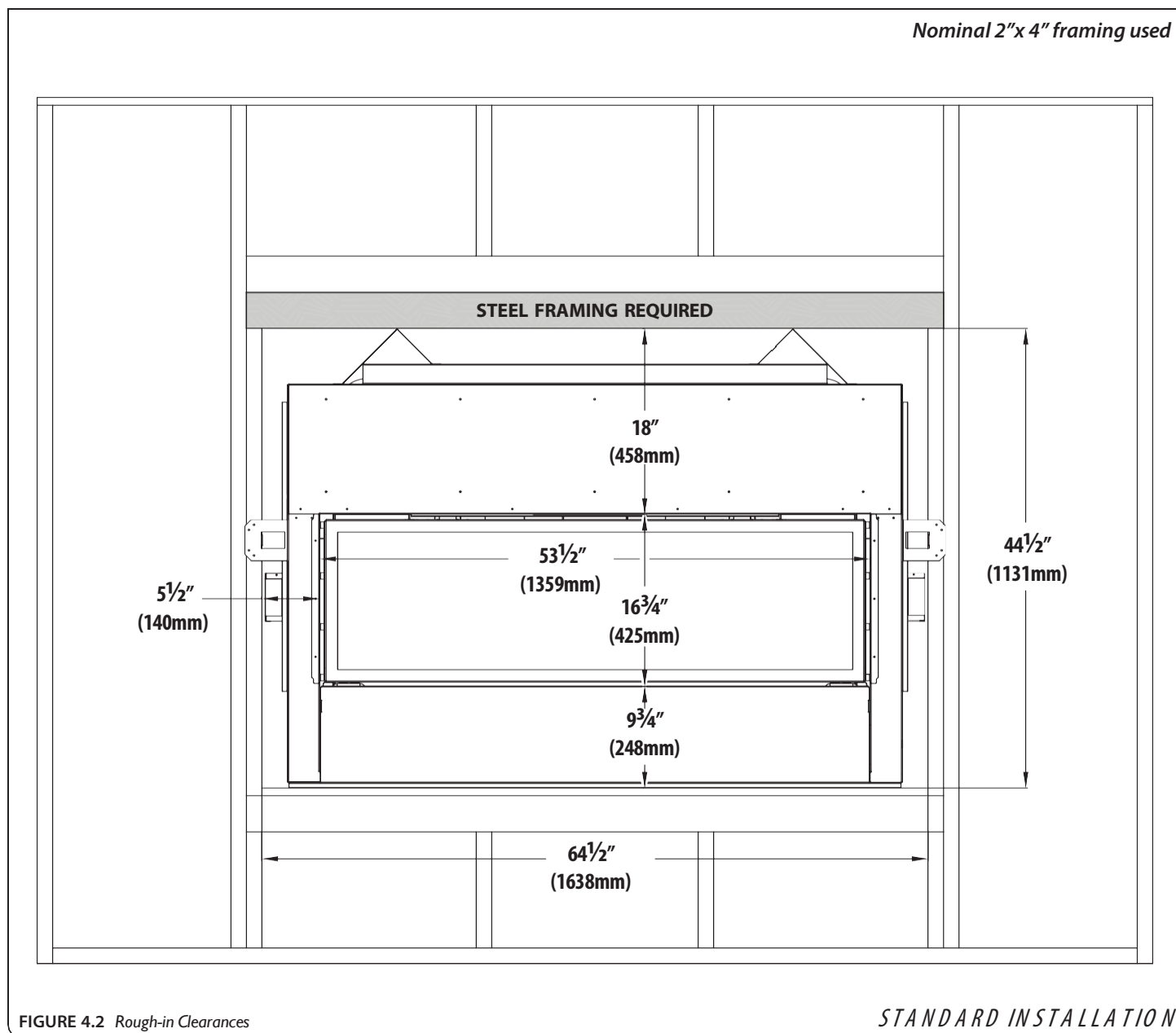


FIGURE 4.2 *Rough-in Clearances*

4.1.3 (cont.) Facing Requirements

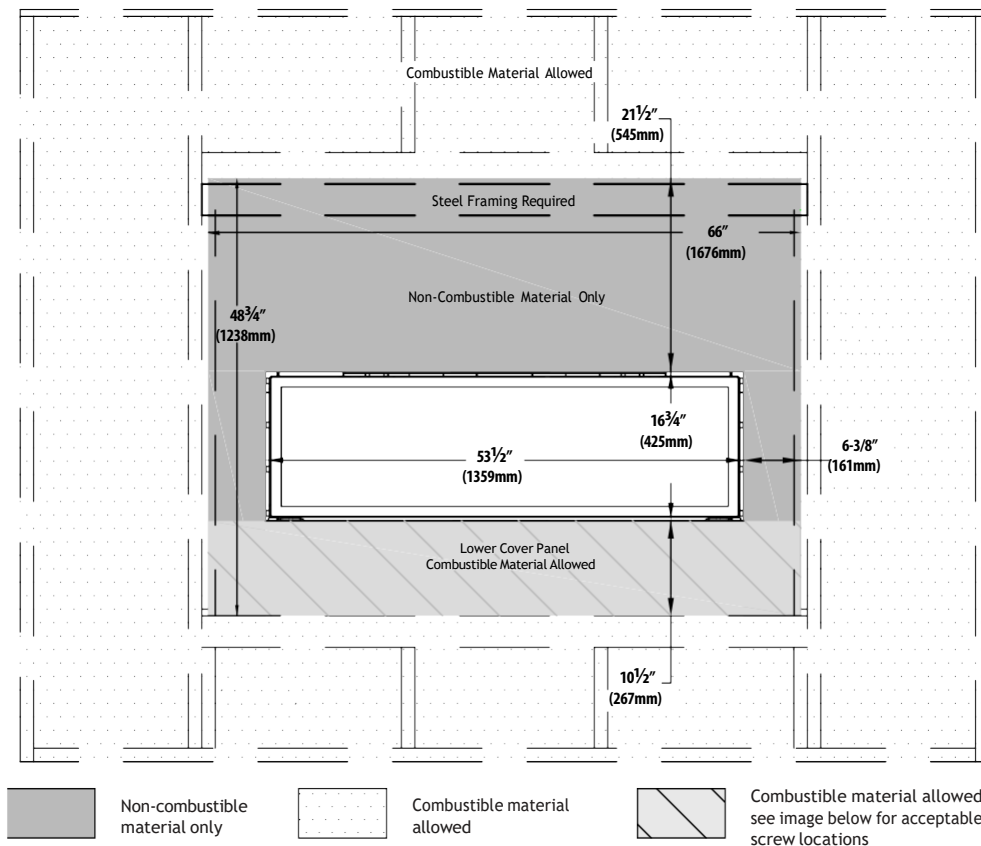


FIGURE 4.3 Minimum Non-Combustible Finishing Dimensions for all installations

ALL DESIGN OPTIONS INSTALLATION

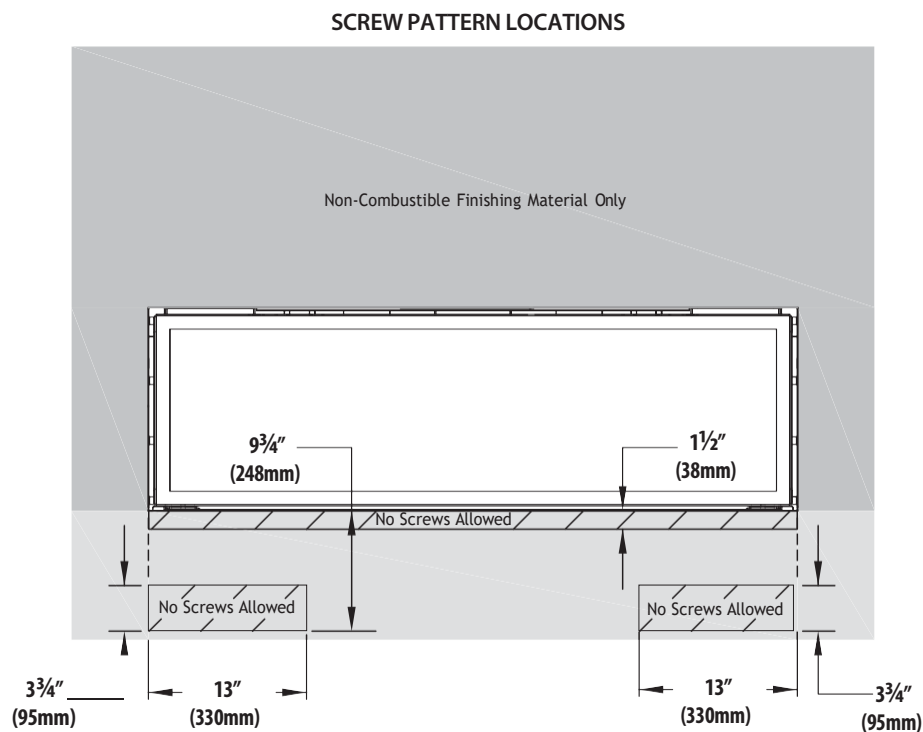


FIGURE 4.4 Minimum Non-Combustible Finishing Dimensions Screw Locations for all installations

ALL DESIGN OPTIONS INSTALLATION

4.2 #CW50-SCK Optional Skim Coat Kit

If you plan to apply a skim coat finish across combustible and non-combustible materials, using 1/2" thick material, you will need to use the #CW50-SCK Optional Skim Coat Kit so that the non-combustible material is flush with the finishing flange (edge) of the fireplace.

This kit includes:

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

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 4.4 on page 34 for maintaining the required areas.

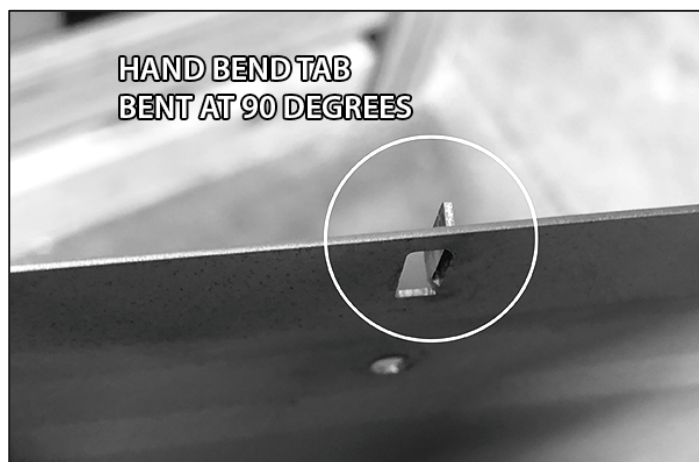


FIGURE 4.5 Hand Bend Tab



FIGURE 4.6 Aligned Corners

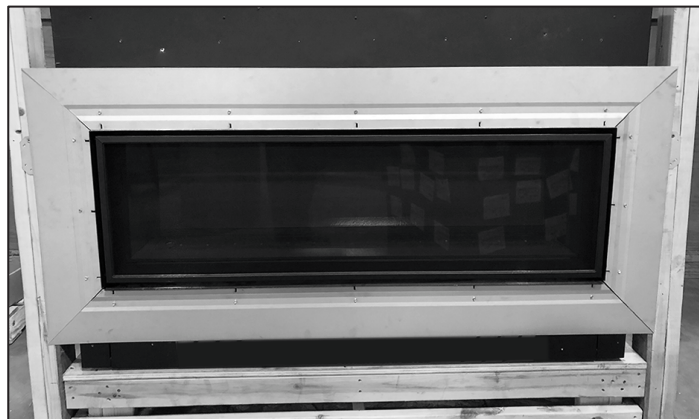


FIGURE 4.7 Panels Installed

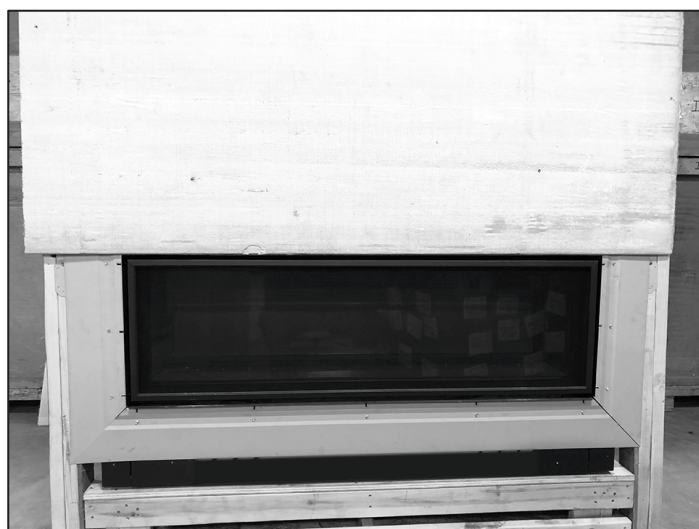
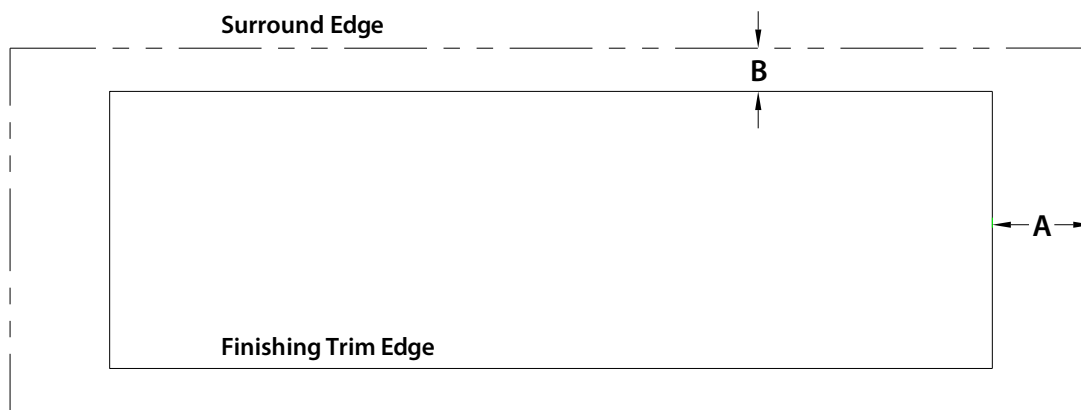


FIGURE 4.8 Installed Panels and Non-Combustible Material

4.3 Finishing Guidelines for Optional Surrounds

- FIGURE 4.9 shows where to end finishing materials, measured from the finishing edge, to allow installation of any optional surround. Some thicker finishing materials may not fit behind the optional surround(s) when installed.
- Measurement 'A' shows the space to leave on each side.
- Measurement 'B' shows the space to leave on the top and the bottom.



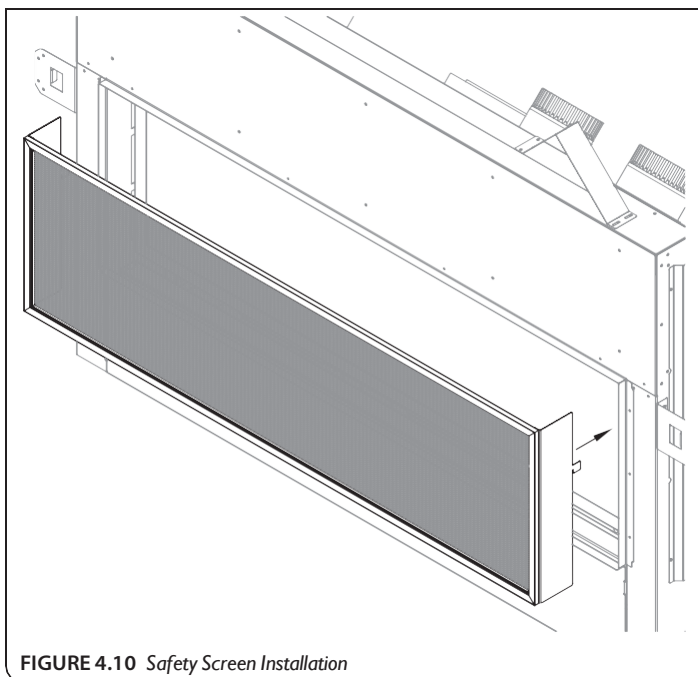
Surround	A	B
CW50-RS	3/4" (19mm)	3/4" (19mm)
CW50-RS4	2-5/8" (66mm)	2-5/8" (66mm)
CW50-GS	6" (152mm)	2-1/2" (64mm)
CW50-MS	3-1/8" (79mm)	3-1/8" (79mm)

FIGURE 4.9 *Finishing Material Guidelines for Optional Surrounds*

4.4 Barrier and Optional Surround Installation

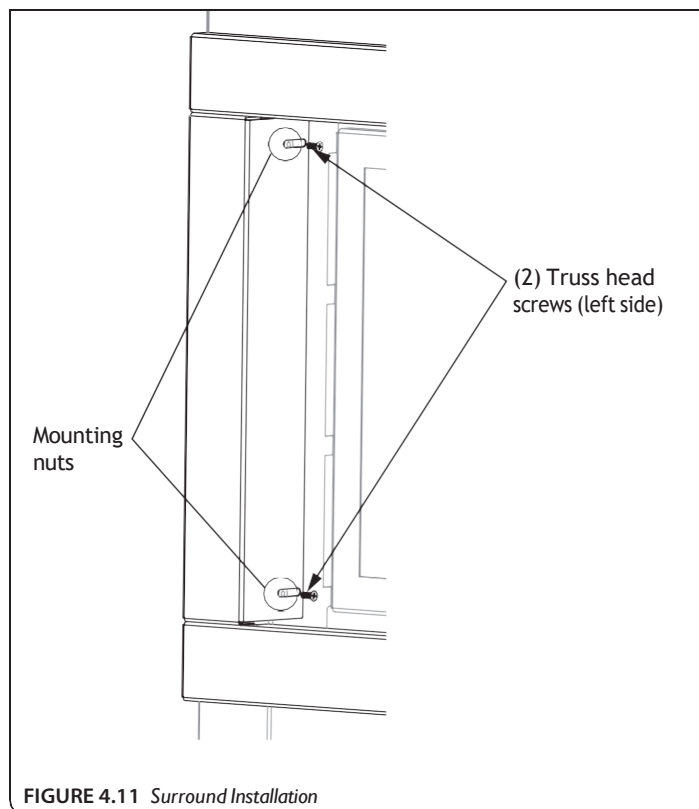
4.4.1 Safety Barrier Screen (#CW50-ES)

1. Locate the (2) slots located on each side of the fireplace metal cabinet.
 2. Align the notched tabs located on the back of the safety screen with the slots on the fireplace frame.
 3. Raise the safety screen front slightly into slots and allow the tabs to lower into position.
- To remove safety screen: lift the screen up and out of slots.



4.4.2 Optional Surrounds

1. Remove the safety barrier.
2. Locate the (2) mounting nuts on each side of the fireplace metal cabinet.
3. Align the mounting holes on the shroud to the corresponding mounting nuts.
4. Secure with (4) truss head screws (provided).
5. Reinstall safety barrier.



4.5 Vented Cavity and KZK

Facing and Finishing Requirements

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

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

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

4.5.1 Mantel and Hearth Requirements

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

IMPORTANT: If you plan to install a hearth and an optional surround, reference section 4.3, **FINISHING GUIDELINES FOR OPTIONAL SURROUNDS** on page 36 for allowable space for finishing materials to ensure a proper fitting of the surround. Use measurement in 'B' **FIGURE 4.9** on page 36 for the required space necessary from the bottom of the fireplace finishing edge to the hearth.

- **Combustible Hearth and Mantel Projections:** See **FIGURE 4.12** on page 39 for clearances. **If installing an optional surround,** refer to section 4.3 (page 36) if installing an optional surround.

4.5.2 Adjacent Sidewall Requirements

- The adjacent sidewall minimum clearance is 0" (0mm) from the finishing edge of the fireplace if installing without a surround. **If installing an optional surround,** refer to Measurement 'A', in section 4.3 on page 36, for the space required from the optional surround sides to finishing material.

4.5.3 Facing Requirements

- Non-combustible material is required at the top and sides of this fireplace. This fireplace is designed to accommodate non-combustible facing material up to 3/4" (19mm) thick. See **FIGURE 4.3** and **FIGURE 4.4** on page 34.
- Install facing material up to the finishing edge that surrounds the glass frame assembly. Do not apply any material beyond this point. The glass frame assembly must be removable.
- It is acceptable to pre-drill holes and to use self-tapping screws prior to attaching the non-combustible material to the top and sides of the fireplace face, screws can only penetrate the fireplace outer shell up to 1/2" (13mm) in the allowed areas. See **FIGURE 4.4** on page 34.

4.5.4 Finishing Recommendations

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

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

4.5.4.1 Combustible Wall Finish

- **FIGURE 4.13** on page 40 shows installation of combustible wall finish up to 1" (25mm) thick for Komfort Zone Kit(s) and Vented Cavity installations. For KZK-1510A and KZK-054 installations, reference the manuals included with the kit.
- Finishing materials cannot block the required vented cavity discharge opening requirements.
- This combustible material goes on any required non-combustible materials as shown in **FIGURE 4.3** and **FIGURE 4.4** on page 34.
- This 1" (25mm) combustible material is able to go down to the fireplace finishing edge and up to the air discharge opening.

4.5.1 (cont.) Combustible Mantel Projection and Combustible Hearth

Nominal 2"x 4" framing used in enclosure framing

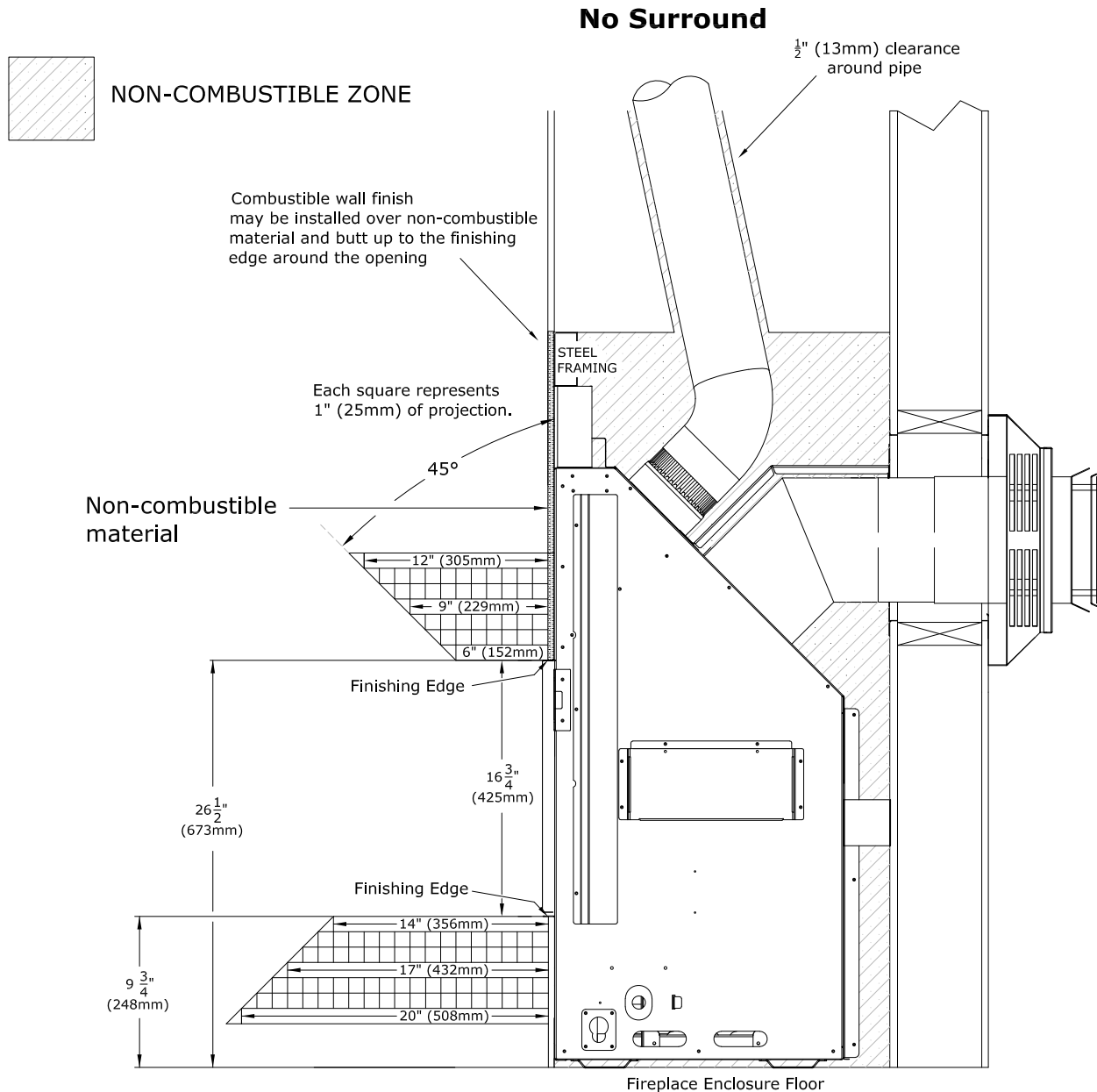
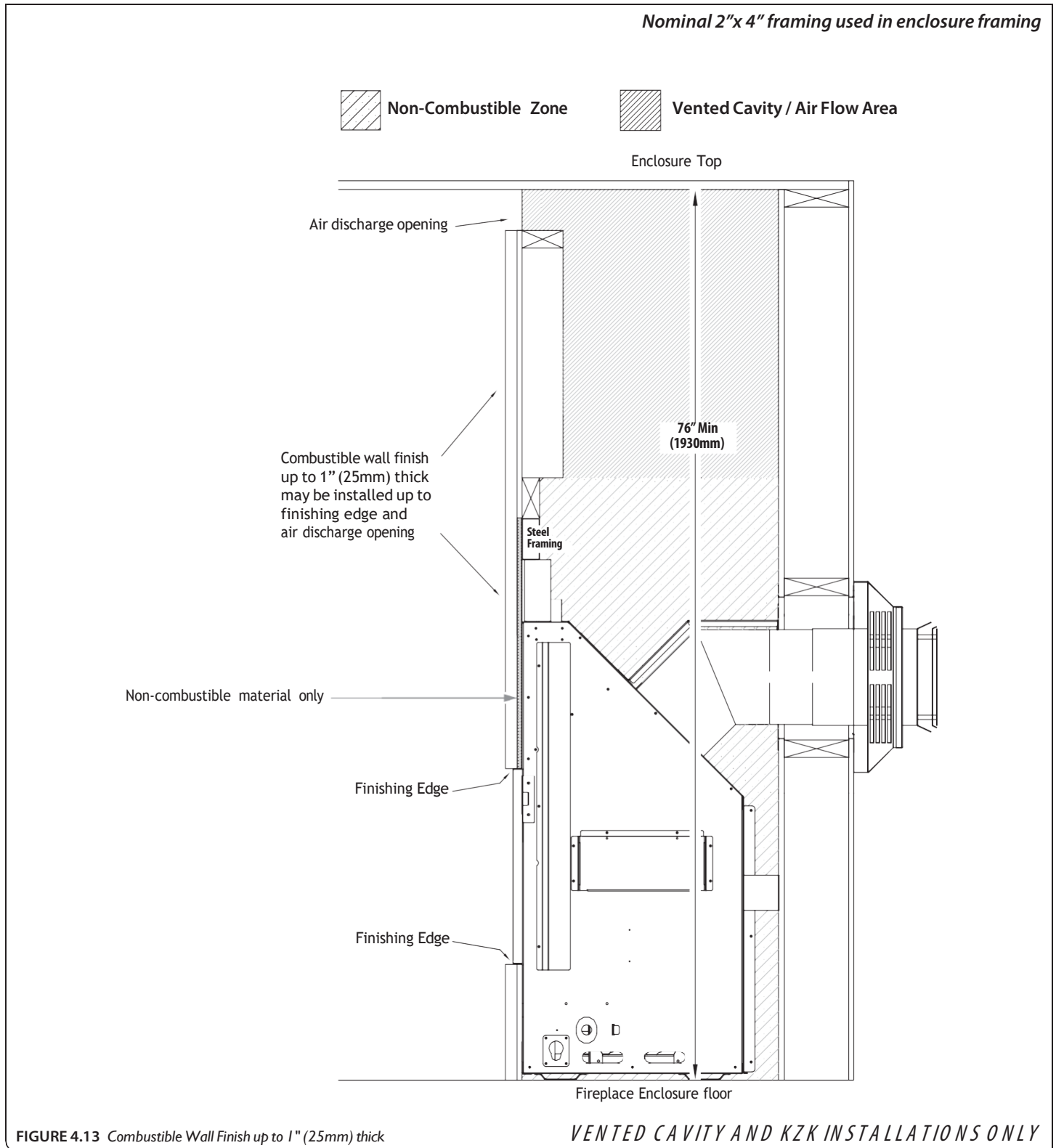


FIGURE 4.12 Hearth and Mantel Clearances (shown with a KZK installed)

VENTED CAVITY AND KZK INSTALLATIONS ONLY

4.5.4.1 (cont.) Combustible Wall Finish



5.0 GAS LINE CONNECTION

5.1 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.

5.2 Gas Line Installation

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

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

- A listed (and Commonwealth of Massachusetts approved) 1/2" (13mm) tee handle manual shut-off valve and flexible gas connector are to be connected to the 1/2" (13 mm) 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. 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, CLW-50-MV DIMENSIONS** on page 9 for gas line access hole location.
- It is easier to install the optional fan kit before connecting the gas line to the control board. Refer to section 9.3, **#SL42-028MV OPTIONAL FAN KIT** on page 57.
- Do not run gas line in a manner that would obstruct the optional fan operation.
- For high altitude installations, consult the local gas distributor or the authority having jurisdiction for proper rating methods.

Table 5.1, Inlet Pressure Requirements

Gas Pressure	Natural Gas	Propane
Minimum Inlet Pressure	5"WC (1.25 kPa) 7"WC (1.74 kPa) recommended	11"WC (2.74 kPa) recommended
Maximum Inlet Pressure	10.5"WC (2.62 kPa)	13"WC (3.24 kPa)

6.0 TERMINATION LOCATIONS

6.1 Vertical Vent Termination

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

Refer to **FIGURE 6.1** below for vertical vent termination clearances.

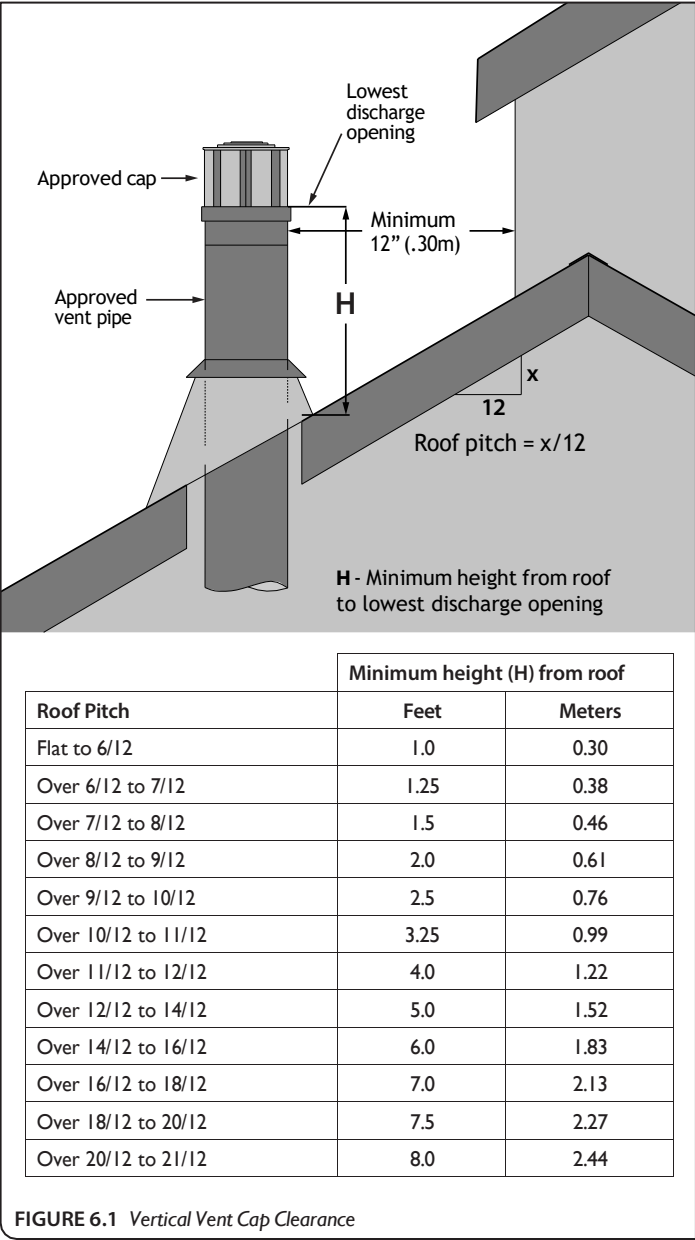


FIGURE 6.1 Vertical Vent Cap Clearance

6.2 Minimum Termination Clearances

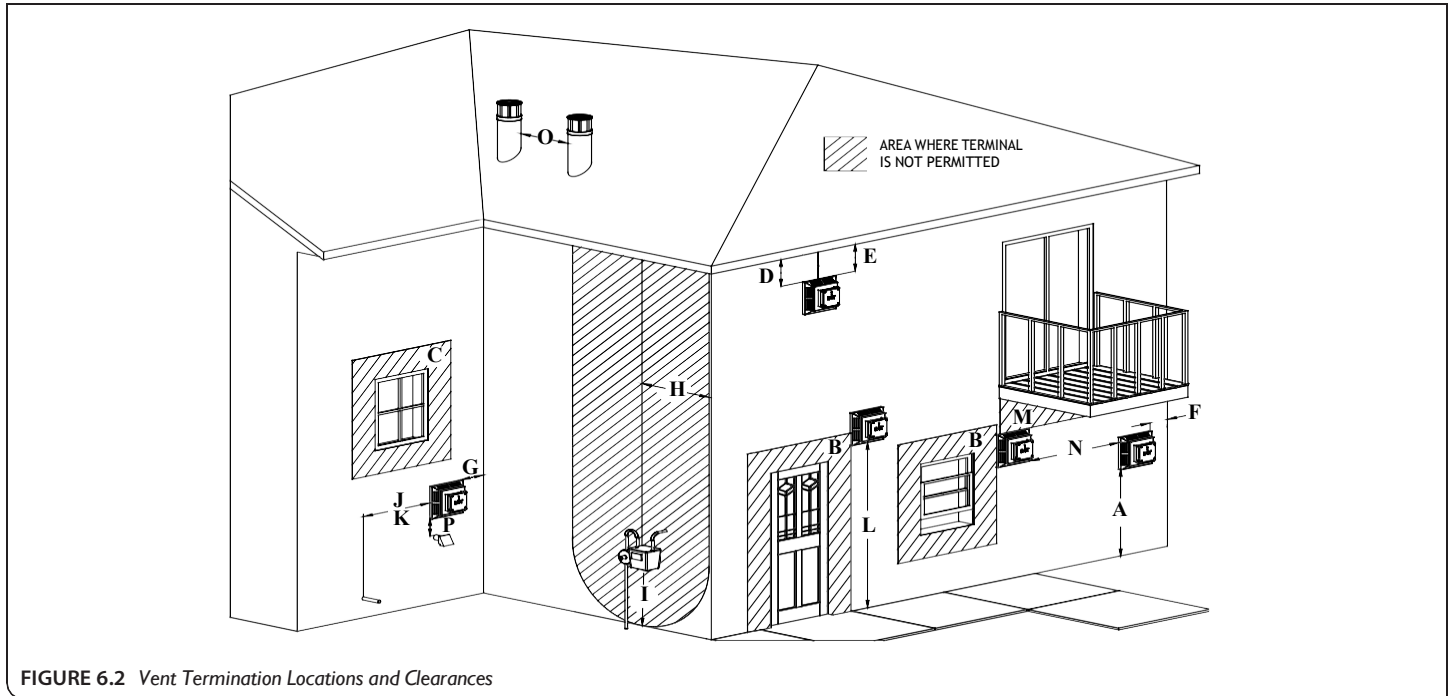


FIGURE 6.2 Vent Termination Locations and Clearances

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

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

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

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

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

7.0 VENTING

7.1 Approved Vent Systems

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

Vertical co-axial vent pipe is not approved for use with this fireplace.

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

***WHEN INSTALLING METAL FAB VENT SYSTEM** with this appliance adapter part number 5DDA must be used. See section 3.5 (page 15) or section 3.7.2.3 (page 23) for more information.

This appliance can be adapted to use 4" diameter aluminum flexible pipe by any listed vent manufacturer when used in combination with an existing minimum 7" ID Class A metal/masonry chimney. Refer to section 7.5 on page 44 for more information.

This appliance can be adapted to use 3" x 3" flexible co-linear vent pipes with a 4" x 6-5/8" reducer when used in combination with an existing minimum 6" x 8" ID masonry or 7" ID Class A metal chimney. Refer to section 7.6 on page 44 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.

7.1.1 Approved 5" x 8" Vent Systems

Table 7.1, Approved 5" x 8" Vent Systems

Vent Manufacturer	Vent Cap Part Number
American Metal Products (Ameri-Vent)	5DHCS 5DHC 5DVC 5DI4S 5D36S
BDM	DVR8-HCP DVR8-HC DVR8-VCLP DVR8-VCH
Simpson DuraVent	58DVA-HC 58DVA-VCH 58DVA-VC 58DVA-VCE
ICC	TM-5HT TM-5RHT TM-5SVT - <i>wind/rain shield 4SVTS must be used</i>
Metal Fab (Adapter 5DDA must be used)	5DHT 5DVT
Olympia Chimney Supply, Inc.	VDV-VC05
Selkirk	5DT-HC 5DT-HCR 5DT-VT 5DT-VC 5DT-ST14 5DT-ST36

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

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

Table 7.2, Approved 4" x 6-5/8" Vent Systems

Vent Manufacturer	Vent Cap Part Number
American Metal Products (Ameri-Vent)	4DHCS 4DHC 4DVC 4DI4S 4D36S
BDM	DVR6-HCP DVR6-HC DVR6-VCLP DVR6-VCH
Simpson DuraVent	46DVA-HC 46DVA-VCH 46DVA-VC 46DVA-VCE
ICC	TM-4HT TM-4RHT TM-4SVT - <i>wind/rain shield 4SVTS must be used</i>
Metal Fab	4DHT 4DVT
Olympia Chimney Supply, Inc.	VDV-VC04
Selkirk	4DT-HC 4DT-HCR 4DT-VT 4DT-VC 4DT-ST14 4DT-ST36

7.2 Venting Requirements

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

- Flame height and appearance will vary depending upon venting configuration and the type of fuel used.
- Provide a means for 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.

7.3 Natural Draft Vent Restriction

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

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

Follow **FIGURE 7.1** for restrictor plate installation before attaching venting, or through the baffle if venting is already attached. For vent restriction plate recommendations and adjustments, see section 11.2.2, VENT RESTRICTION (AFTER INSTALLATION) on page 62.

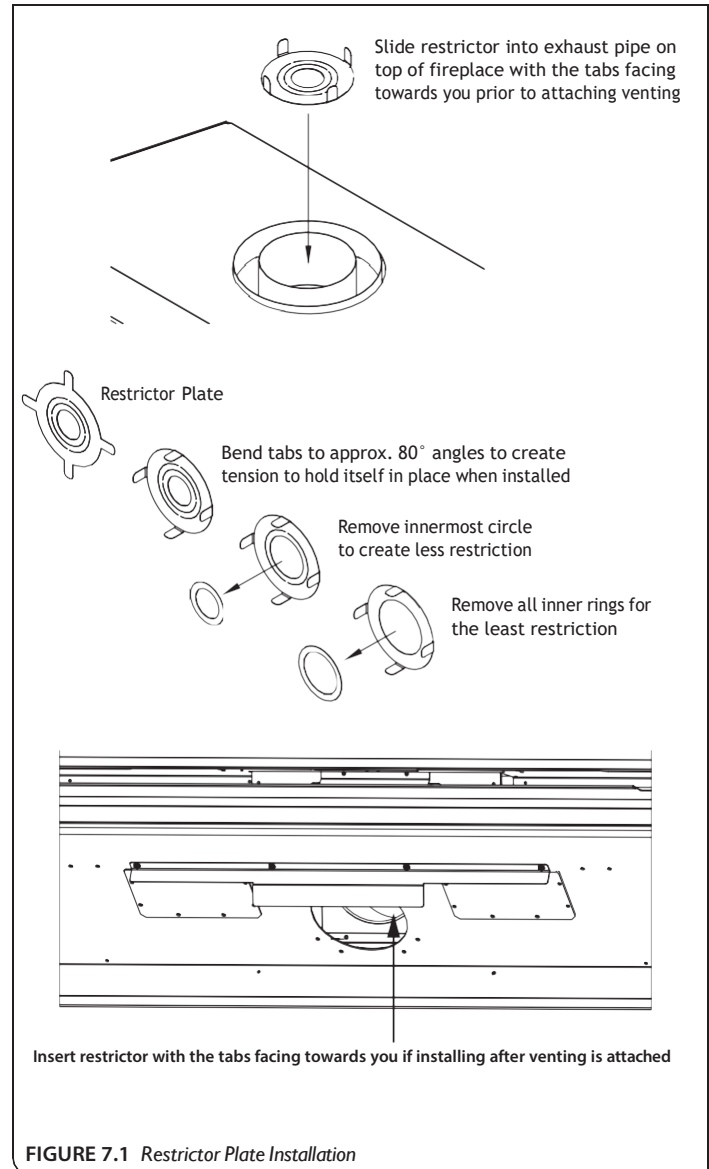


FIGURE 7.1 Restrictor Plate Installation

7.4 Horizontal 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 perforation on the (1) 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 top of the vent pipe.

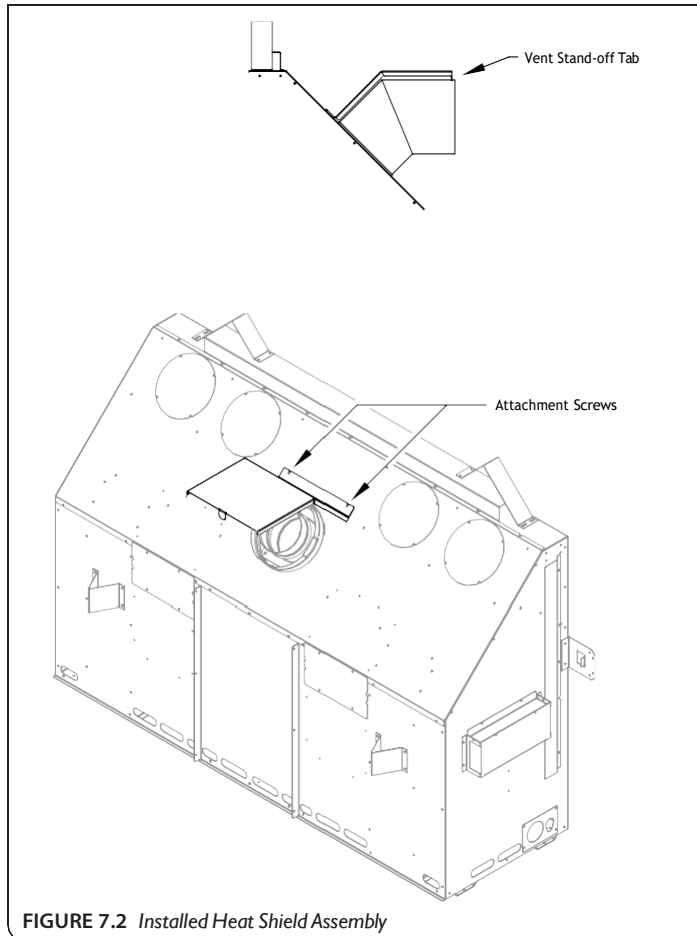


FIGURE 7.2 Installed Heat Shield Assembly

7.5 #800-WPT & #800-WPT2

Installation Instructions

Refer to section 3.5.2.3 and FIGURE 3.6 on page 16 for #800-WPT & #800-WPT2 rough-in framing dimensions.

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 7.3.
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.

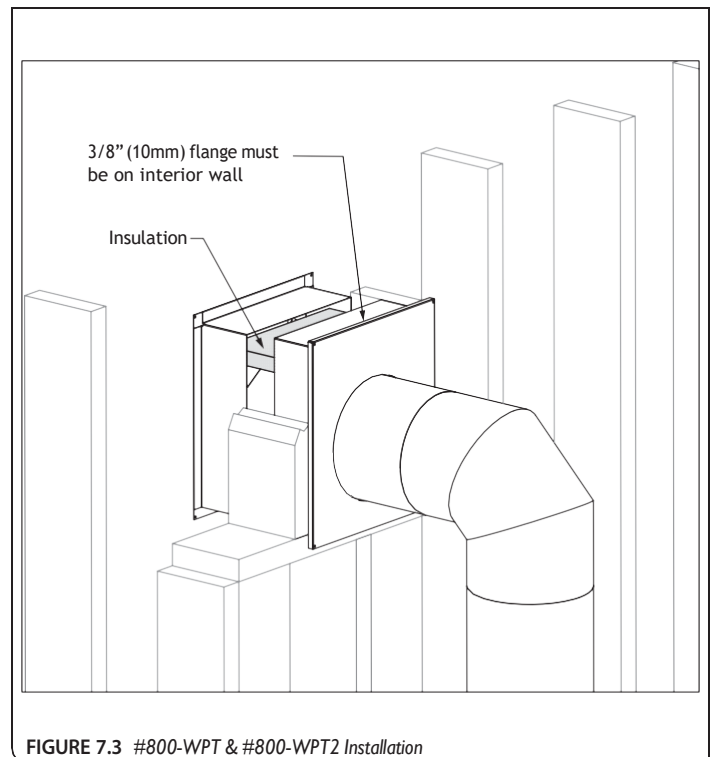


FIGURE 7.3 #800-WPT & #800-WPT2 Installation

7.6 Vent Installation

7.6.1 Vertical Terminations

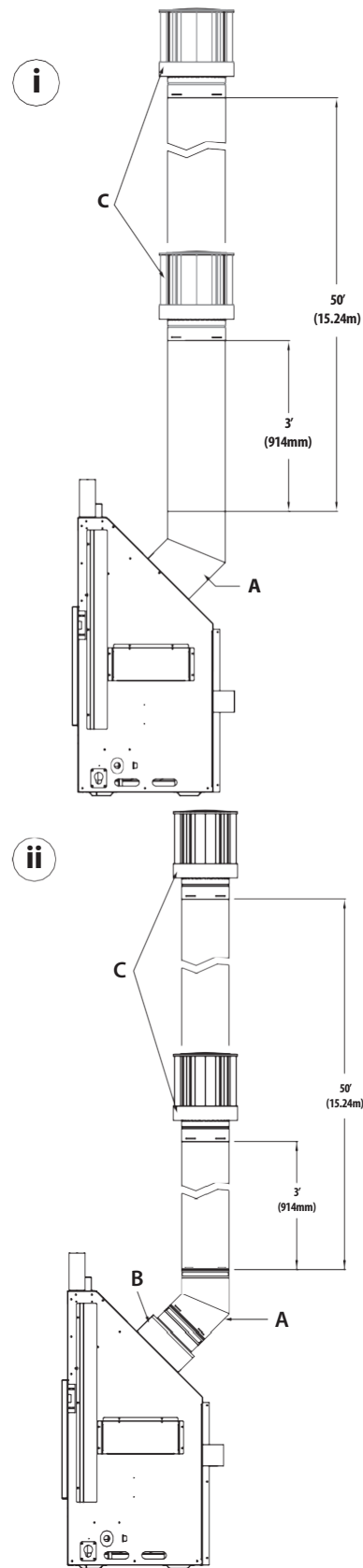
Natural Gas and Propane Installations

- (i) **Minimum / Maximum Vertical Terminations:**
45° vertical elbow + 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 + 45° vertical elbow + 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 (5) 45° elbows may be used. No 90° elbows are allowed. For every 45° elbow used, 18" (457mm) must be subtracted from maximum venting allowed.

DIAG. 1 NATURAL GAS & PROPANE VERTICAL TERMINATIONS

(A) 45° Elbow (C) Termination Cap
(B) Reducer



7.6.2 Horizontal Terminations

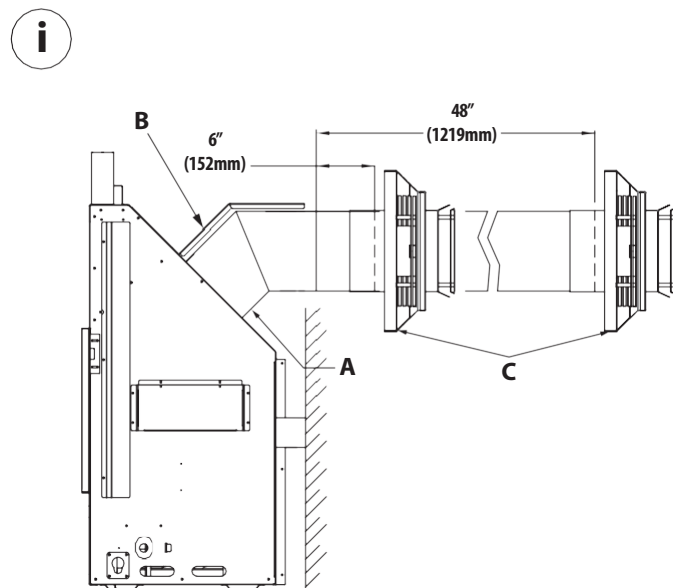
Natural Gas and Propane Installations

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
- (i) **45° Elbow / Maximum Horizontal**
45° horizontal elbow + 48" (1219mm) maximum horizontal run + termination cap

DIAG. 2 NATURAL GAS & PROPANE HORIZONTAL TERMINATIONS

- (A) 45° Elbow
- (B) Horizontal Heat Shield
- (C) Termination Cap



7.6.2 Horizontal Terminations (cont.)

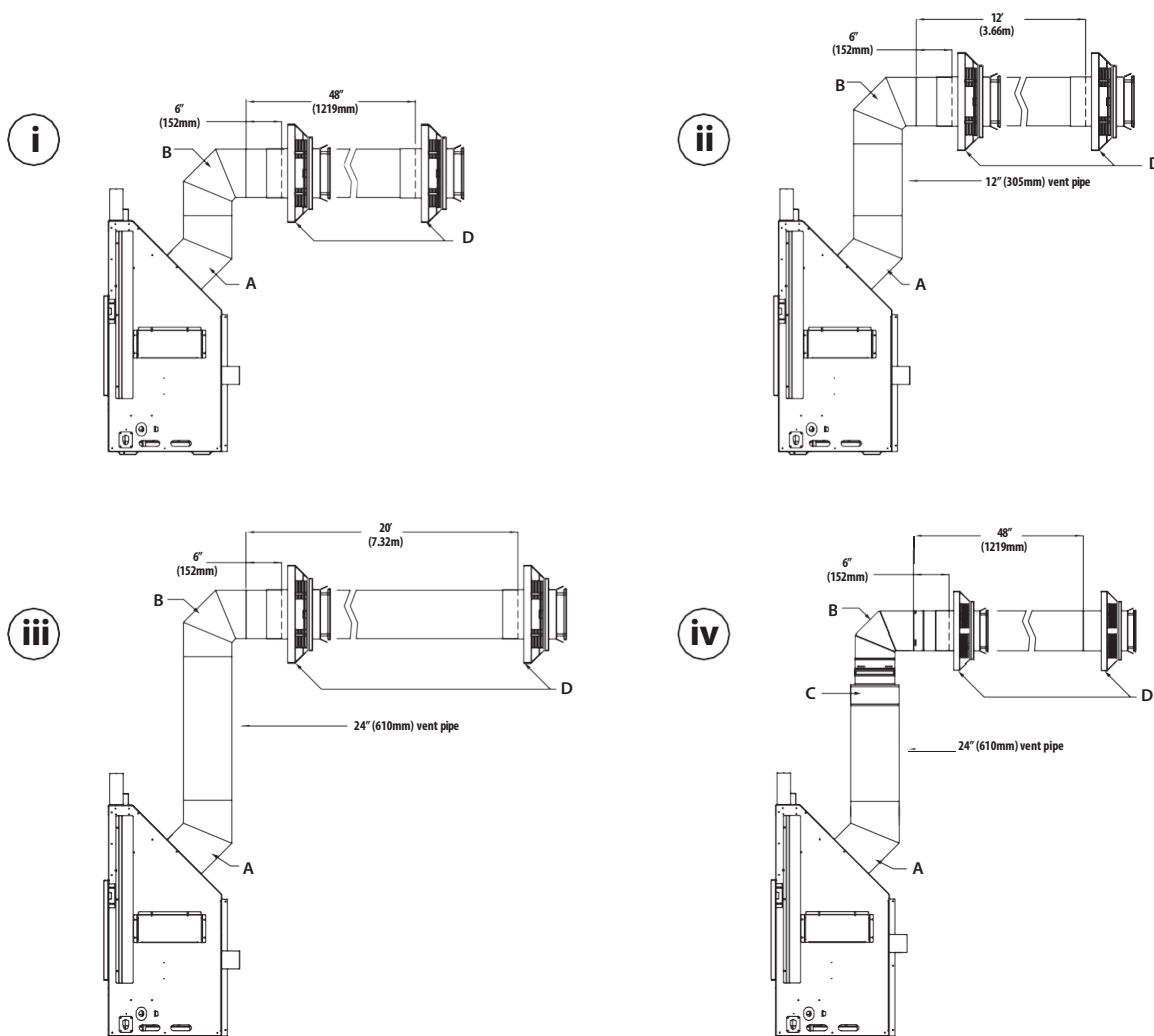
Natural Gas and Propane Installations

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

- (i) **Minimum Vertical / Minimum Horizontal**
45° vertical elbow + 90° horizontal elbow + 6" (152mm) minimum horizontal run + termination cap
- (ii) **Minimum Vertical / Maximum Horizontal**
45° vertical elbow + 90° horizontal elbow + 48" (1219mm) maximum horizontal run + termination cap
- (iii) **Minimum 12" Vertical Vent Pipe / Minimum Horizontal**
45° vertical elbow + 12" (305mm) vertical vent pipe + 90° horizontal elbow + 6" (152mm) minimum horizontal run + termination cap
- (iv) **Minimum 12" Vertical Vent Pipe / Maximum Horizontal**
45° vertical elbow + 12" (305mm) vertical vent pipe + 90° horizontal elbow + 12' (3.6m) maximum horizontal run + termination cap
- (iii) **Minimum 24" Vertical Vent Pipe / Minimum Horizontal**
45° vertical elbow + 24" (610mm) vertical vent pipe + 90° horizontal elbow + 6" (152mm) minimum horizontal run + termination cap
- (iii) **Minimum 24" Vertical Vent / Maximum Horizontal**
45° vertical elbow + 24" (610mm) vertical vent pipe + 90° horizontal elbow + 20' (7.32m) maximum horizontal run + termination cap
- (iv) **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
- (iv) **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 + termination cap

DIAG. 3 NATURAL GAS & PROPANE HORIZONTAL TERMINATIONS

(A) 45° Elbow (C) Reducer
(B) 90° Elbow (D) Termination Cap



7.6.3 Combination Venting

Natural Gas and Propane Installations

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

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

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

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

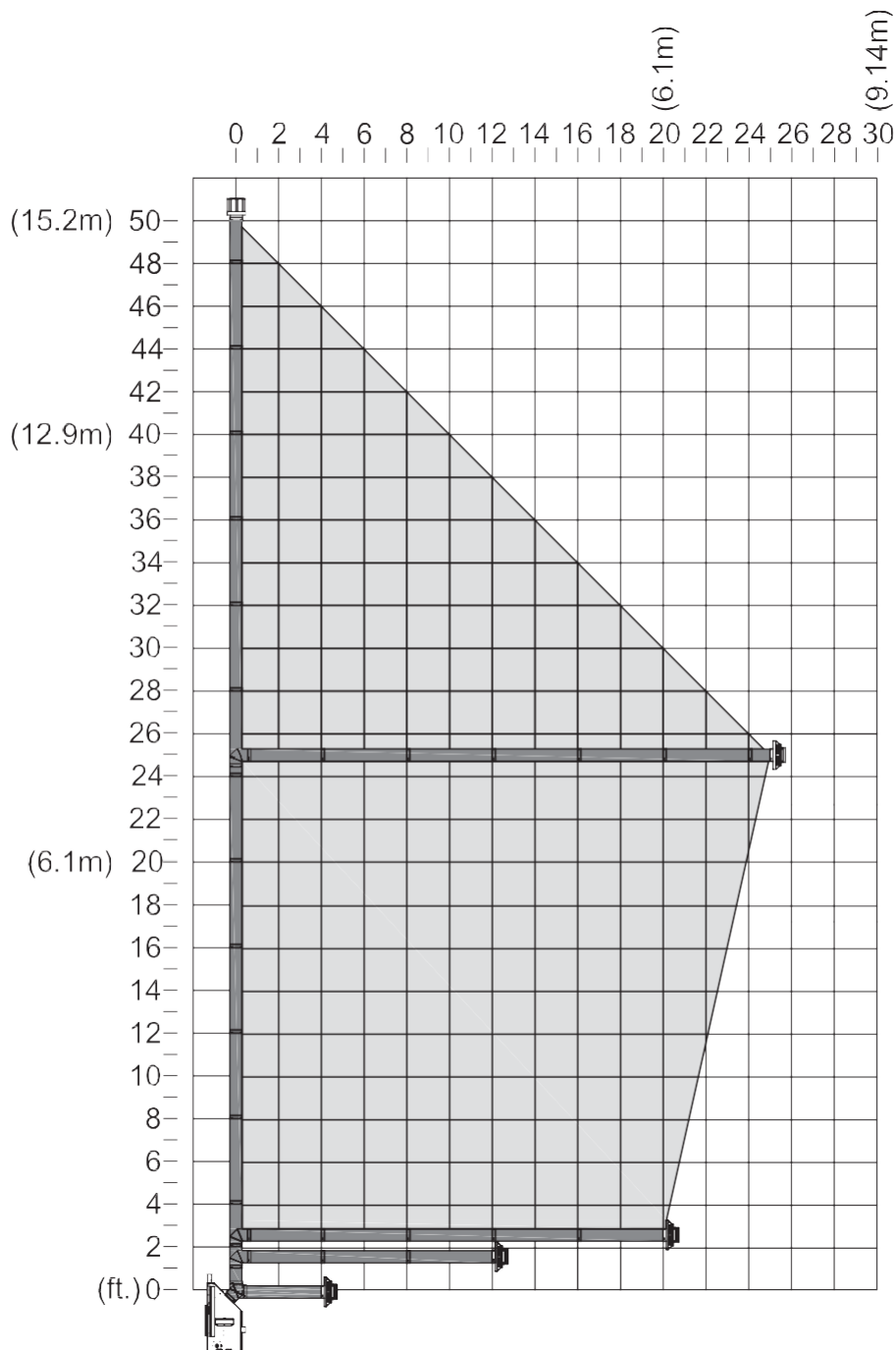


FIGURE 7.4 Combination Venting

7.7 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 7.1, **APPROVED VENT SYSTEMS** on page 44.

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

Follow **DIAG. 4** for allowable venting configurations for installation in existing through-the-ceiling, Class A/Masonry chimney. Route the exhaust gases and intake air through the existing Class A/Masonry chimney.

7.7.1 4" Flex Pipe Venting Configurations

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

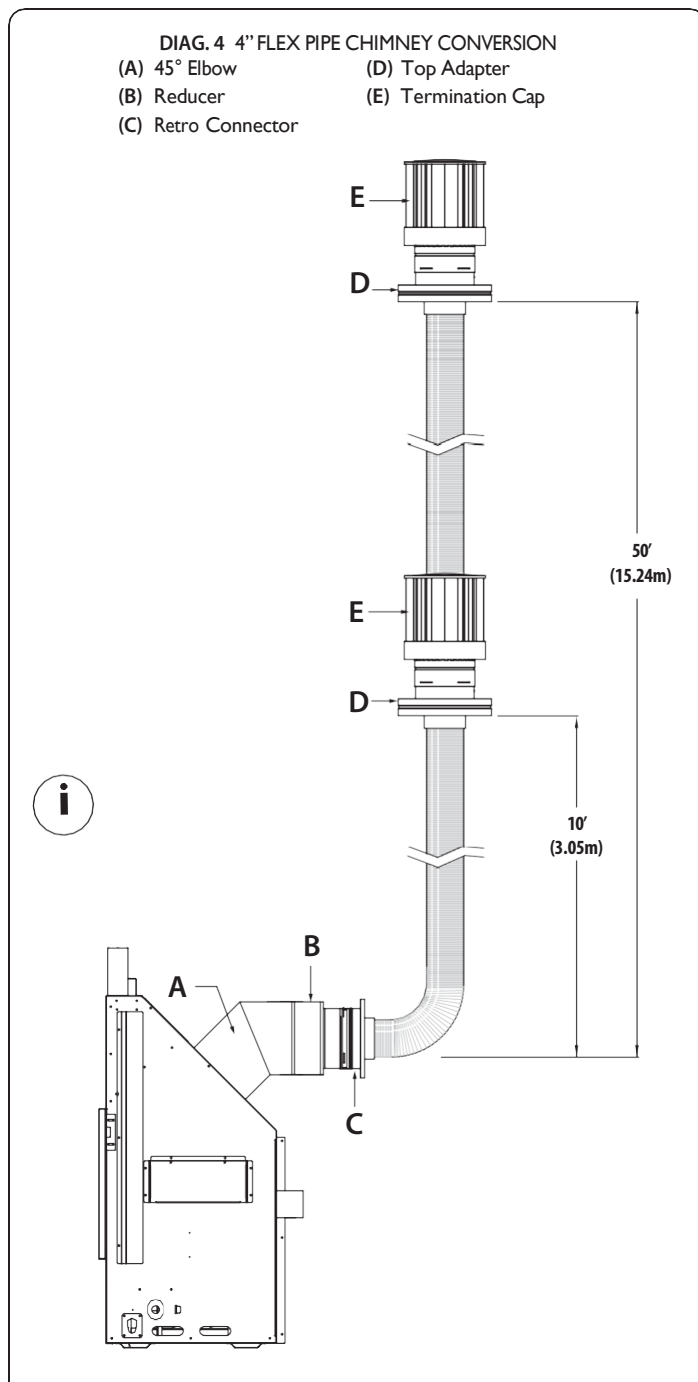
IMPORTANT: The vent heat shield assembly must be installed when incorporating minimum horizontal venting off the top of the appliance.

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.

(i) **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



7.8 Coaxial to Co-Linear Chimney Conversion

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

Follow **DIAG. 5** for allowable venting configurations for installation in existing masonry chimney. Route the exhaust gases and intake air through the existing masonry chimney.

7.8.1 Coaxial to Co-Linear Venting Configurations

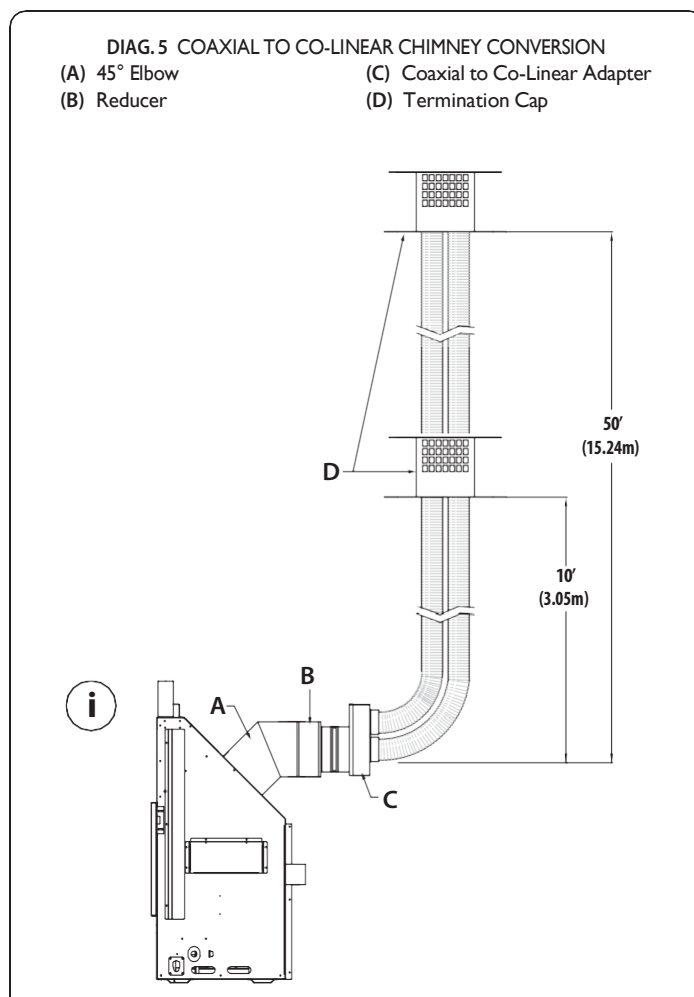
IMPORTANT: Horizontal vent sections require at least 1/4" (6mm) rise for every 12" (305mm) of travel.

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

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

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

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



8.0 FIREPLACE SETUP

8.1 Glass Frame Assembly

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

8.1.1 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.

8.1.2 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 the glass frame assembly to the bottom of the fireplace.
3. Reinstall valve access cover by setting down into slots.
4. Reinstall safety barrier.

8.2 Media Installation

Burner and Perimeter

WARNING: DO NOT BLOCK PILOT WITH MEDIA. A BLOCKED PILOT MAY CAUSE DELAYED IGNITION.

8.2.1 Burner Media Kits

(#903-LAV, #304-COP, #304-BLK)

1. Install an even layer of your chosen media across the whole burner. See **FIGURE 8.1** below.
2. Save any unused media for later use.

8.2.2 Perimeter Media Kits (optional)

(#904-LAV, #307-COP, #307-BLK, #105-VERM, #104-SAND-B)

1. Install an even layer of media across the front and rear perimeter. See **FIGURE 8.1** below.
2. Save any unused media for later use.

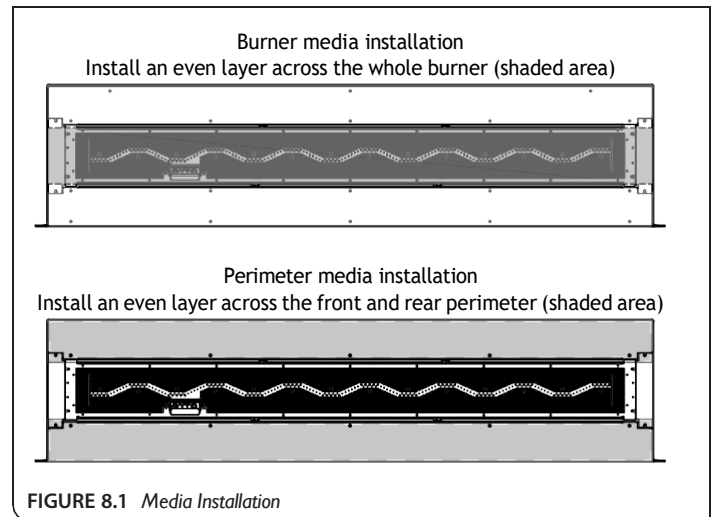


FIGURE 8.1 Media Installation

8.3 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.

Refer to FIGURE 8.2 CONTROL BOARD REMOVAL AND INSTALLATION for the following instructions.

8.3.1 Control Board Removal

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

8.3.2 Control Board Installation

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

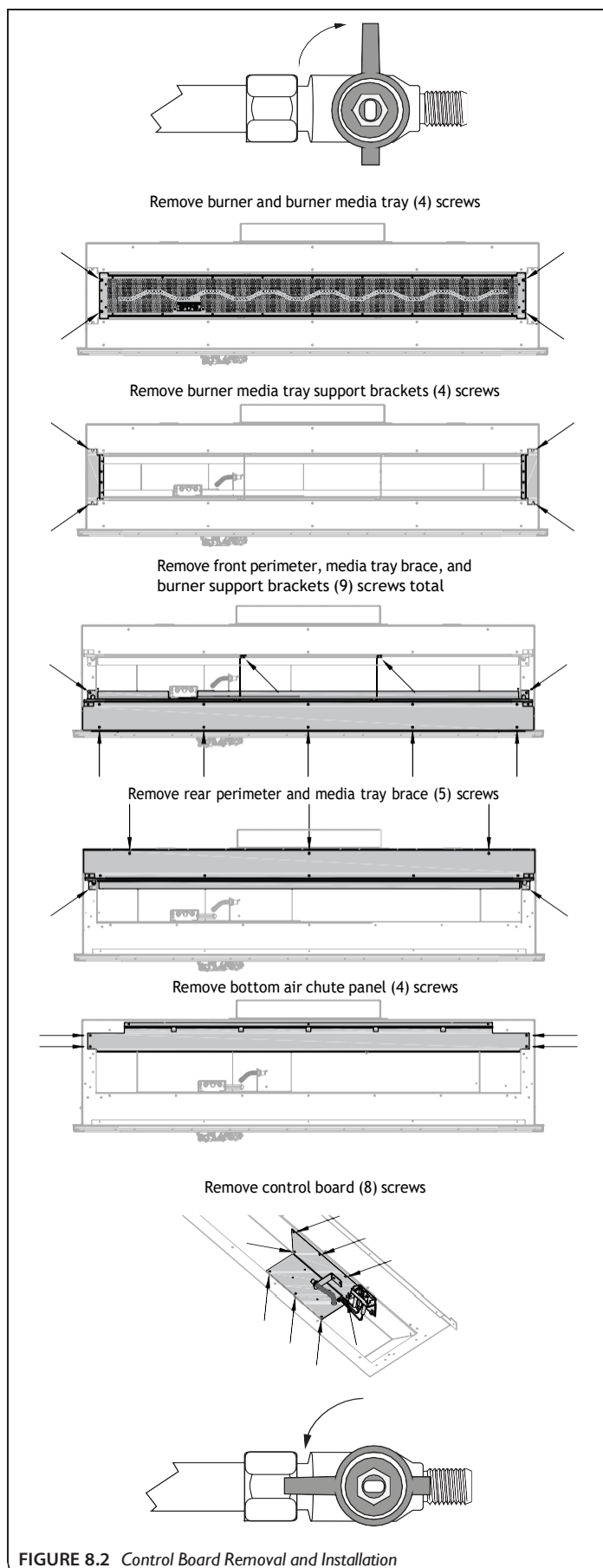


FIGURE 8.2 Control Board Removal and Installation

SECTION 9 ELECTRICAL INFORMATION

Wiring Requirements

by disconnecting the wires from the back of the gas valve (FIGURE 9.1).

- If the rocker switch wires are not disconnected, the ON/OFF rocker switch must be in the OFF position for proper operation of optional controls. If the ON/OFF rocker switch is ON, the main burner will operate until it is turned OFF by the rocker switch. The wall switch, remote or thermostat components will not turn the main burner off if the main burner has been turned on by the rocker switch.
- If a wall-mounted ON/OFF control or a thermostat is to be used, mount it in a convenient location on a wall near the fireplace. Follow instructions included with assembly.
- Run the low-voltage wires for the wall switch, remote, or thermostat from the gas valve to the location of component.

- The millivolt gas valve system does not require 110-120 VAC supply to operate.
- **A wall switch, remote, or thermostat switch must be installed for main burner operational control using low-voltage wires (not included).**
- It is optional to disable rocker switch operating the main burner



9.2 #600-TLKMV Light Kit

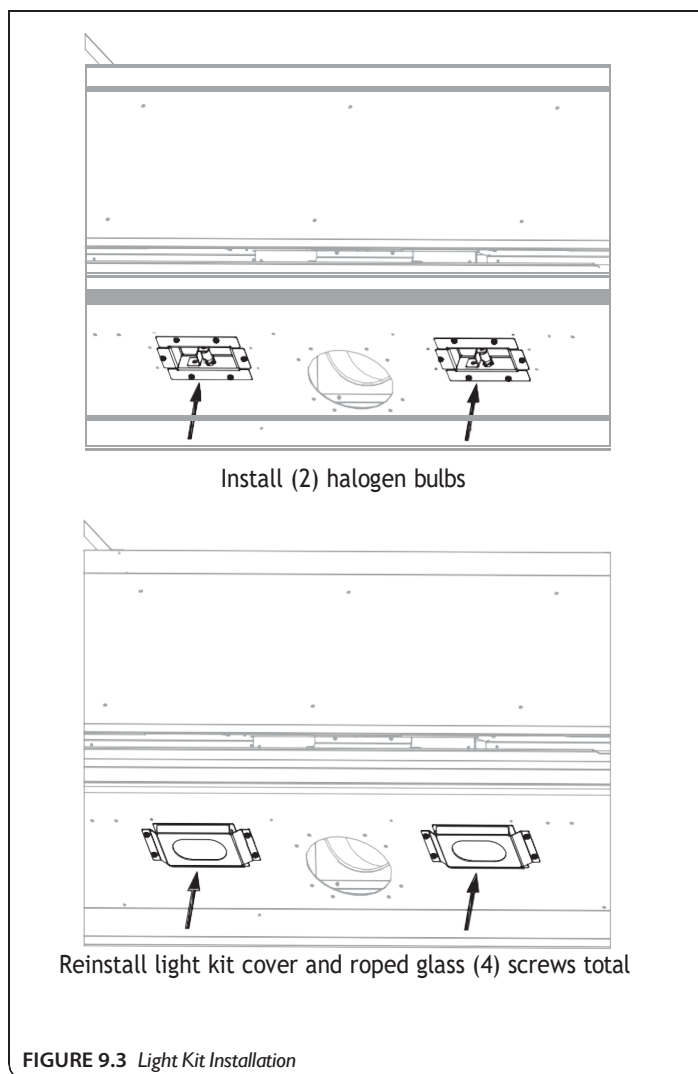
CAUTION: Disconnect all electrical power from the fireplace before performing this task.

IMPORTANT: Installation of an external on/off switch or dimmer switch is required for operational control of the electrical power supply to the light kit. Consult your qualified electrician for the best method to accomplish this, especially if installing in combination with the optional fan #SL42-028MV.

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

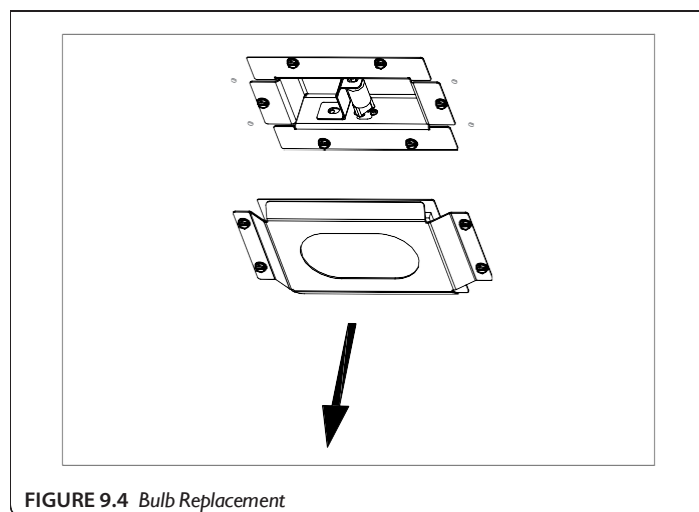
Refer to FIGURE 9.3 for the installation steps outlined below.

1. Remove the safety screen, gas valve access cover, and glass frame assembly.
2. Remove the light kit covers and roped glass, (4) screws total. Save screws.
3. Install (2) halogen bulbs (included with this kit) into lamp bases.
4. Locate the wiring in the control compartment. Complete wiring.
5. Reinstall light kit cover and roped glass with (4) screws previously removed.
6. Reinstall glass frame assembly, gas valve access cover, and safety screen.



9.2.1 Replacing Bulbs

1. Remove the safety screen, gas valve access cover, and glass frame assembly.
2. Remove the light kit cover and roped glass, (4) screws. See FIGURE 9.4. Save screws.
3. Remove (2) halogen bulbs.
4. Using a soft cloth or gloves, install (2) halogen bulbs into lamp bases.
5. Reinstall light kit cover and roped glass with (4) screws previously removed.
6. Reinstall glass frame assembly, gas valve access cover, and safety screen.



9.3 #SL42-028MV Optional Fan Kit

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.

WARNING: Installation of this fan kit should be done by a qualified installer. Verify household breaker is shut off prior to working on any electrical lines.

IMPORTANT: Installation of an external on/off switch or dimmer switch is required for operational control of the electrical power supply to the #600-TLKMV light kit. Consult your qualified electrician for the best method to accomplish this, especially if installing in combination with this optional fan kit.

- 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.
- A pre-installed electrical box is included with the appliance, along with a speed control assembly in the fireplace components packet.
- It easier to install the fan kit before connecting the gas line to the control board.

This kit includes:

- (2) fan assemblies; (1) speed control assembly with cord;
- (1) temperature control switch with magnet attached;
- (2) philips head screws (black)

1. Remove the safety barrier and access cover.
2. 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. When the motor end clears the fireplace face, turn the fan to the left. Rotate the top end down and to the right, lowering the fan into control compartment.
3. Position fan as shown in FIGURE 9.5. 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.

4. Repeat for the left fan, noting the fan rotation in steps above will be opposite of the right fan.
5. Mount the speed control assembly onto the bracket on the gas valve. Align the slots in the speed control assembly with the holes in the bracket. See FIGURE 9.5 below. Secure with (2) black philips head screws (included).
6. Plug fan cord into the speed control assembly.
7. Plug the speed control assembly cord into the electrical box receptacle.
8. Attach the temperature control switch (magnet attached) to the firebox floor, centered between the right side of the gas valve and the right side of the appliance, as shown in FIGURE 9.5.

To adjust the temperature control switch position:

- Before adjusting temperature control switch, unplug 3-prong plug on fan cord from receptacle.
 - Adjust position of temperature control switch to a warmer location under firebox to turn fan ON sooner or move it to a cooler location under firebox to turn fan ON later. The fan will turn on when sensor in temperature control switch reaches 110° F and will turn OFF when sensor reaches 90° F.
 - After adjustment, plug 3-prong plug on fan cord into receptacle.
9. Turn speed control counter-clockwise until it 'clicks'. This is the OFF position. Turn speed control ON by turning knob clockwise past the 'click' - this is the highest setting.
 10. Reinstall all components previously removed.

IMPORTANT: This fan will not operate unless speed control has been turned ON and sufficient heat has been applied to temperature control switch. The fan will turn ON and OFF automatically as fireplace heats and cools. Adjust fan to desired speed while it is running.

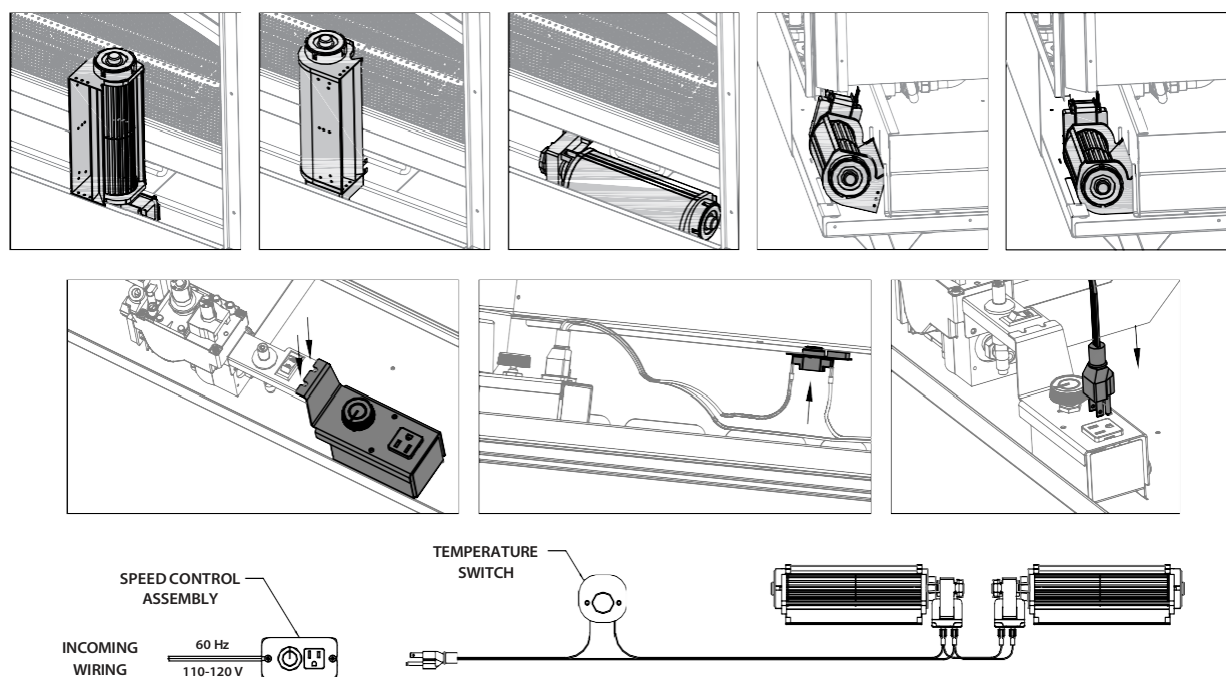


FIGURE 9.5 Optional Fan Installation and Wiring

10.0 LIGHTING INSTRUCTIONS

- 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.

FOR YOUR SAFETY READ BEFORE LIGHTING

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

- This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- BEFORE LIGHTING** 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.
- Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- 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

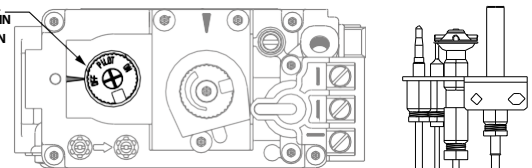
Clothing or other flammable material should not be placed on or near the appliance.

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.


LIGHTING INSTRUCTIONS

- STOP!** Read all the safety information above on this page.
- Set thermostat to lowest setting (if applicable).
- Turn off all electric power to the appliance.
- Remove safety barrier and open the control compartment access panel.
- Open the glass frame assembly.
- Push in gas control knob slightly and turn clockwise  to "OFF".
NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
- 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, close and secure glass frame assembly, and go to the next step.
- Locate pilot - follow metal tube from gas control. The pilot is located inside the combustion chamber.
- Push in gas control knob slightly and turn counterclockwise  to "PILOT".
- Push in control knob all the way and hold. Press the piezo igniter button repeatedly until the pilot is lit and continue to hold in the gas control knob.
- Hold the gas control knob in for one (1) minute after pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 10.
 - If the knob does not pop out when released, stop and immediately call your service technician or gas supplier.
 - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
- Turn the gas control knob counterclockwise  to "ON".
- Reinstall control compartment access panel and safety barrier.
- Turn on all electric power to the appliance.
- Set thermostat to desired setting (if applicable).

GAS CONTROL KNOB SHOWN IN "OFF" POSITION



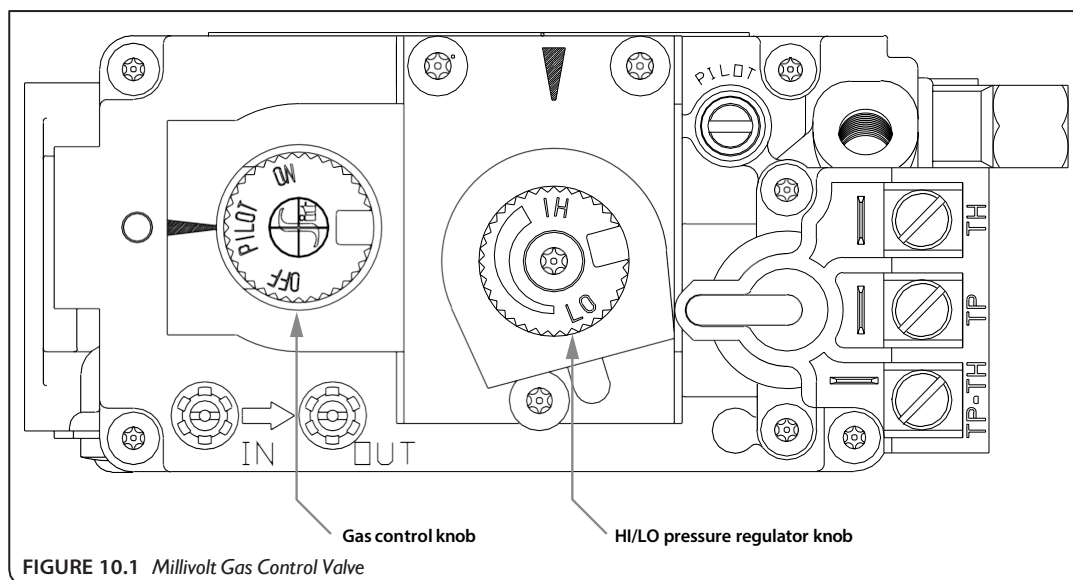
TO TURN GAS OFF TO APPLIANCE

- Set thermostat to lowest setting (if applicable).
- Turn off all electric power to the appliance if service is to be performed.
- Open the control compartment access panel.
- Push in gas control knob slightly and turn clockwise  to "OFF".
- Reinstall control compartment access panel.

10.1 Flame Height and Heat Output Adjustment

This fireplace is equipped with a manual HI/LO pressure modulator knob, located on the gas valve, for adjusting main burner flame height and the heat output of the fireplace. See **FIGURE 10.1**.

- Open the control compartment access panel to access the gas valve and the HI/LO pressure regulator knob.
- To adjust, turn the HI/LO knob counterclockwise to LO position or clockwise to HI position, until desired flame appearance and heat output is achieved. Reinstall the control compartment when finished.



11.0 ADJUSTMENT

11.1 Pressure Testing

NOTE: The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of ½ psi (3.5 kPa).

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

11.1.1.1 Inlet Pressure Test

NOTE: Make sure to apply the incoming pressure test with all other gas appliances on, or at full capacity in the house for a proper pressure reading. 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. A low pressure can cause a delayed ignition.

1. Loosen the inlet (IN) pressure tap by turning screw counterclockwise. See (A) in FIGURE 11.1.
2. Attach manometer using a ¼" (6mm) I.D. hose.
3. Light pilot.
4. Turn the gas control knob to ON. Burner should not light. Note manometer reading.
5. Press the ON/OFF rocker switch to ON. Check pressure to ensure it is near maximum inlet pressure.
6. Press the ON/OFF rocker switch to OFF.
7. Turn the gas control knob to OFF.
8. Disconnect hose and tighten the inlet (IN) pressure tap by

turning screw clockwise. Screw should be snug. Do not over tighten.

9. Relight pilot and turn the gas control knob to ON. Reattach manometer to the inlet pressure tap (A) to verify the tap is completely sealed. Manometer should read no pressure.

11.1.1.2 Manifold Pressure Test

1. Light pilot.
2. Loosen manifold (OUT) pressure tap by turning screw counterclockwise. See (B) in FIGURE 11.1.
3. Attach manometer to pressure tap using a ¼" (6mm) I.D. hose.
4. Turn gas control knob to ON.
5. Press the rocker switch to ON and note manometer reading.
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 the ON/OFF rocker switch is pressed to ON.

Table 11.1, Pressure Requirements

Gas Pressure	Natural Gas	Propane
Inlet Pressure Tap (A)	5" - 10.5" WC (1.25 - 2.62 kPa)	11" - 13" WC (2.74 - 3.24 kPa)
Manifold Pressure Tap (B)	1.6" - 3.5" WC (0.41 - 0.87 kPa)	6.4" - 10" WC (1.59 - 2.48 kPa)

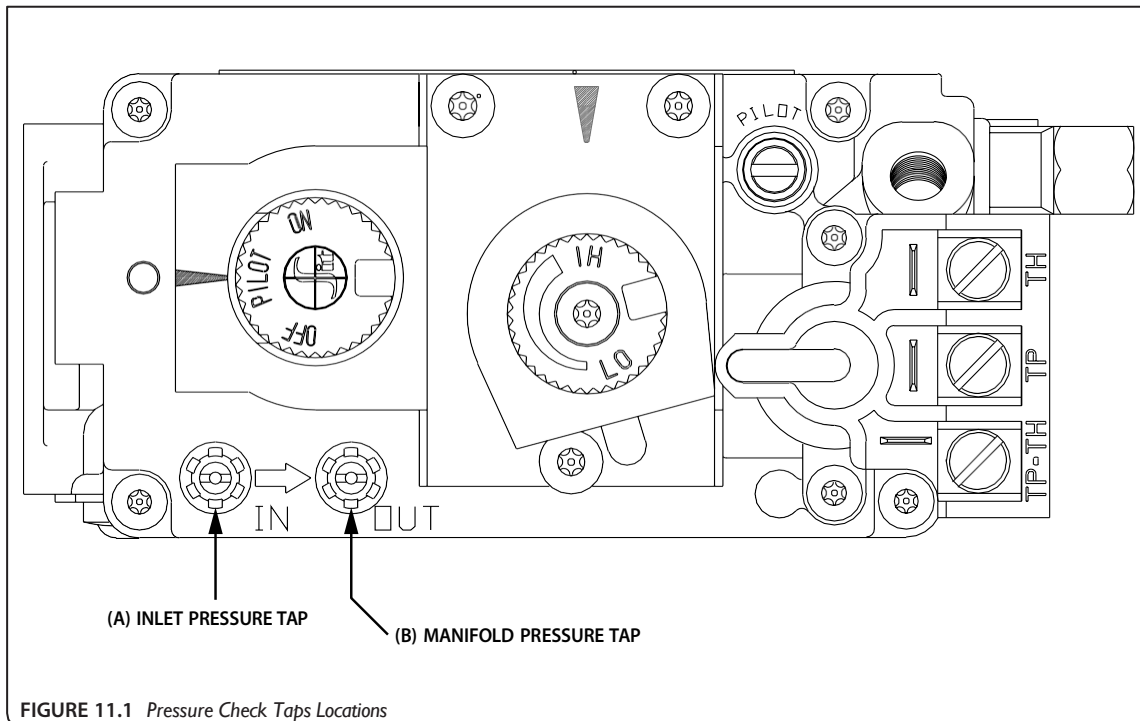


FIGURE 11.1 Pressure Check Taps Locations

11.2 Burner Flame Adjustments

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

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

11.2.1 Burner Venturi

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

NOTE: Burner venturi air shutter settings have been factory set. Refer to TABLE 11.2.

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

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

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

NOTE: If soot is present on the glass, check burner media placement before adjusting the venturi. Refer to section 8.2 on page 53.

Table 11.2, Factory Set Venturi Openings

Fuel	Air Shutter Opening
Natural Gas	1/8" (3.2mm) OPEN
Propane	1/2" (12mm) OPEN

11.2.1.1 Venturi Adjustment

Refer to FIGURE 11.3 for adjusting to proper flame appearance.

1. Remove the safety barrier, access cover, and glass frame assembly.
2. Remove burner media, perimeter media (if installed) and pilot shield.
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.

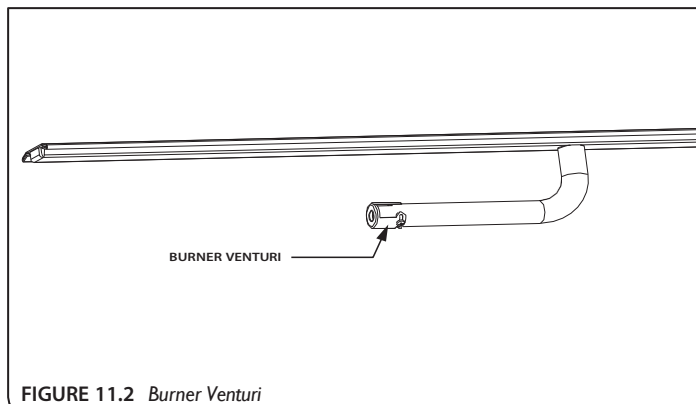


FIGURE 11.2 Burner Venturi

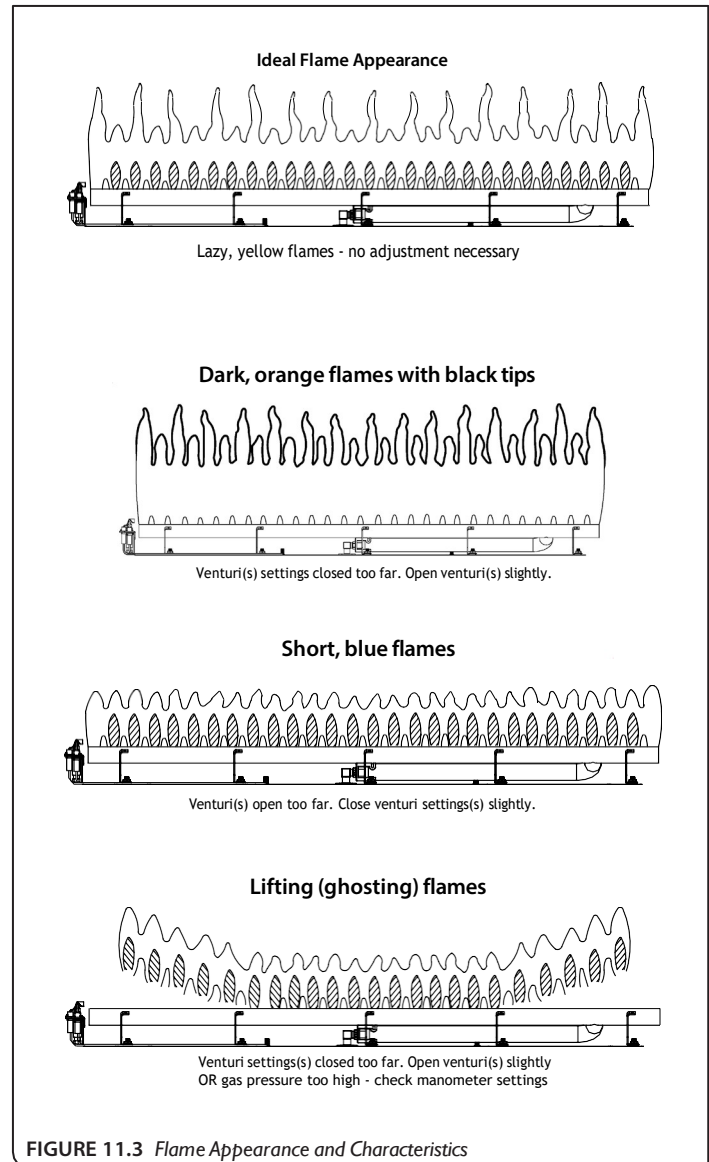


FIGURE 11.3 Flame Appearance and Characteristics

11.2.2 Vent Restriction (after installation)

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

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

Vertical terminations may display an active, compact flame. If this appearance is not desirable, a restrictor plate may need to be installed or modified after vent termination installation. Access to the vent exit for restriction can be reached through the fireplace baffle. Allow the fireplace to burn for 15 minutes before making any adjustments.

Table 11.3, Restrictor Plate Adjustment Guidelines

Flame Appearance	Draft Problem	Solution
Short, flickering	Excessive draft Not enough restriction	Add restrictor plate
Lifting or ghosting*	Insufficient draft	Remove inner ring(s) on restrictor plate, or Remove restrictor plate

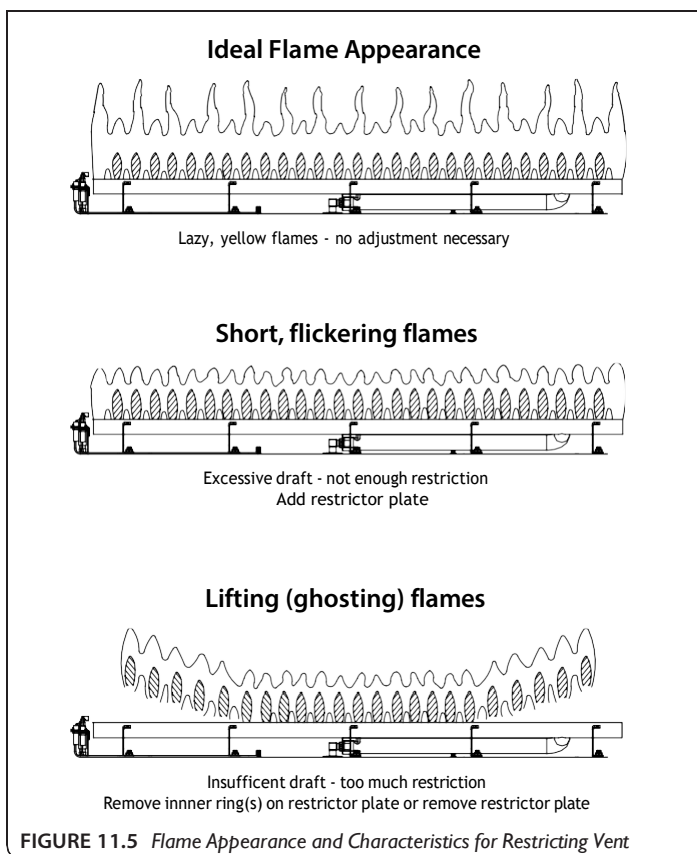
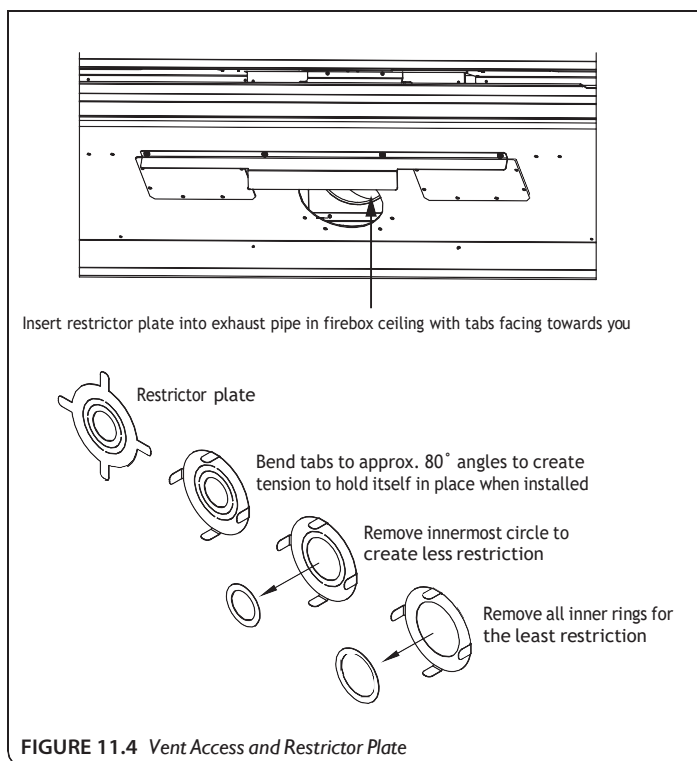
*If flames continue to lift or ghost after opening the restrictor plate and verifying correct vent installation, shut off the gas supply and call a qualified service technician.

11.2.2.1 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.

11.2.2.2 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 achieve desired flame appearance.
3. Insert restrictor plate into the 5" (127mm) exhaust pipe with the tabs pointing towards the ceiling.
4. Reinstall all components previously removed.



12.0 TROUBLESHOOTING

ATTENTION: Troubleshooting must be performed by a qualified technician.

Issue	Cause	Solution
No spark from electrode to pilot when piezo button is triggered	Piezo igniter wiring disconnection	Verify piezo igniter is properly grounded. Tighten mounting fastener, if required. Check and repair, if necessary, the wire connections between the piezo igniter and igniter electrode.
	Check wiring disconnection	Check wiring at back of electrode igniter for proper connection.
	Incorrect electrode position	Verify there is a 1/8"(3mm) gap between the electrode and pilot. Readjust if necessary. Direct metal contact may cause an arc below the electrode and along the electrode wire.
Spark igniter will not light after repeated triggering of piezo button	No gas	Check for multiple shut-off valves in the supply line.
		Check propane tank for gas supply. Refill if necessary.
Pilot will not stay lit after carefully following lighting instructions	Pilot flame does not impinge on thermocouple	Clean pilot hood
		Adjust pilot flame at gas valve for proper flame impingement.
	Loose thermocouple connection	Ensure thermocouple connection at gas valve is full inserted and tight - hand tight plus 1/4 turn.
	Thermocouple reading below 15 millivolts	Disconnect the thermocouple from valve. Place one millivolt meter lead wire on the end of the thermocouple, and the other millivolt meter lead wire on the thermocouple's copper wire. Start the pilot while holding the gas valve control knob in. If the millivolt reading is less than 15 millivolts, replace thermocouple.
	Thermopile not generating sufficient millivolts	Adjust, if necessary, the pilot flame to envelop thermopile.
		Check thermopile connections are properly wired to the gas control valve. Tighten if necessary. Measure millivolt production with a millivolt meter. Turn remote/ thermostat/wall switch, or ON/OFF rocker switch to OFF. Turn the gas valve control to the PILOT position (pilot should remain lit). Take millivolt reading at TH-TP and TP terminals on gas valve. Reading should be 350 millivolts, minimum. If reading is less than 350 millivolts, replace thermopile.
Frequent pilot outages	Pilot shield not installed	Install pilot shield.
	Pilot safety dropout	Pilot flame is too high or too low. Clean pilot hood and adjust pilot flame for maximum flame impingement on thermopile.

Issue	Cause	Solution
Burner will not light	Lighting instructions not followed	Turn gas control knob to ON position. Turn the ON/OFF rocker switch to ON position. Put wall switch, remote control, or thermostat in heat demand position.
	Plugged main burner orifice	Remove blockage as necessary.
	Switching device is defective	Check remote, thermostat, or wall switch wires for proper connection. Place jumper wires across terminals at switch. If the burner lights, replace the defective switch, thermostat, or batteries in remote control as necessary. If switching device checks out as described above, place jumper wires across switches on the gas valve. If the burner lights, the switching wires are faulty or connections are bad. Replace as necessary.
Burner will not stay lit	Thermopile wires loose at valve terminals	Tighten if necessary.
	Thermopile wires ground out due to pinched wires	Free pinched wires if necessary.
	Improper refractory panel placement (if installed)	Refractory panels must be tight against firebox walls. It may be necessary to secure panels with high-temperature sealant, especially around the intake duct.
Pilot and burner extinguish while in operation	No propane in tank	Check propane tank. Refill if necessary.
	Incorrect glass frame assembly installation	Refer to section 8.1, GLASS FRAME ASSEMBLY on page 53.
	Improper pitch on horizontal venting	1/4" (6mm) per 12" (30cm) is required on horizontal venting
	Defective thermopile or thermocouple	Check thermopile and thermocouple for proper millivolts
	Inner vent pipe leaking exhaust gases back into firebox	Check for leaks and repair if necessary.
	Vent cap blockage	Remove debris if necessary.
	Excessive draft	A restrictor plate may need to be installed or modified. Refer to section 11.2.2, VENT RESTRICTION (AFTER INSTALLATION) on page 62.
Glass sooting	Improper media placement	Refer to section 8.2, MEDIA INSTALLATION BURNER AND PERIMETER on page 53 or your optional media kit instructions.
	Improper venturi setting	Venturi may need to be opened slightly to allow more air into the gas mix. Refer to section 11.2.1, BURNER VENTURI on page 61.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.
Flame burns blue and lifts off burner	Improper venturi setting	Venturi may need to be closed slightly to allow less air into the gas mix. Refer to section 11.2.1, BURNER VENTURI on page 61.
	Incorrect vent cap installation	Adjust if necessary.
	Blockage or leakage of the vent system	Check the vent pipe for leaks, and the vent cap for debris. Repair vent pipe or remove debris from vent cap if necessary.

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.

13.1 Firebox

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

13.2 Fan (optional)

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

Performed by: Qualified Service Person

Frequency: Every 6 months

Action:

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

13.3 Vent System

NOTE: If the vent-air intake system is disassembled for any reason, reinstall per instructions provided with installation. Refer to section 7.0, VENTING on page 44.

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

13.4 Glass Assembly

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

WARNING: Do not use substitute materials.

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

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

Performed by: Homeowner

Frequency: Annually

Action:

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

Performed by: Qualified Service Person

Frequency: Annually

Action:

- Clean glass window with a suitable fireplace glass cleaner using a soft cloth. Abrasive cleaners must not be used. Be careful not to scratch the glass when cleaning.
- Inspect the glass for cracks, scratches, and nicks.
- Verify the glass assembly is properly intact and not damaged.
- Replace the glass and the assembly #701-019T as necessary.
- Only Hussong Mfg. Co., Inc. will supply the replacement of glass assembly as a complete unit.

13.5 Burner and Pilot System

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

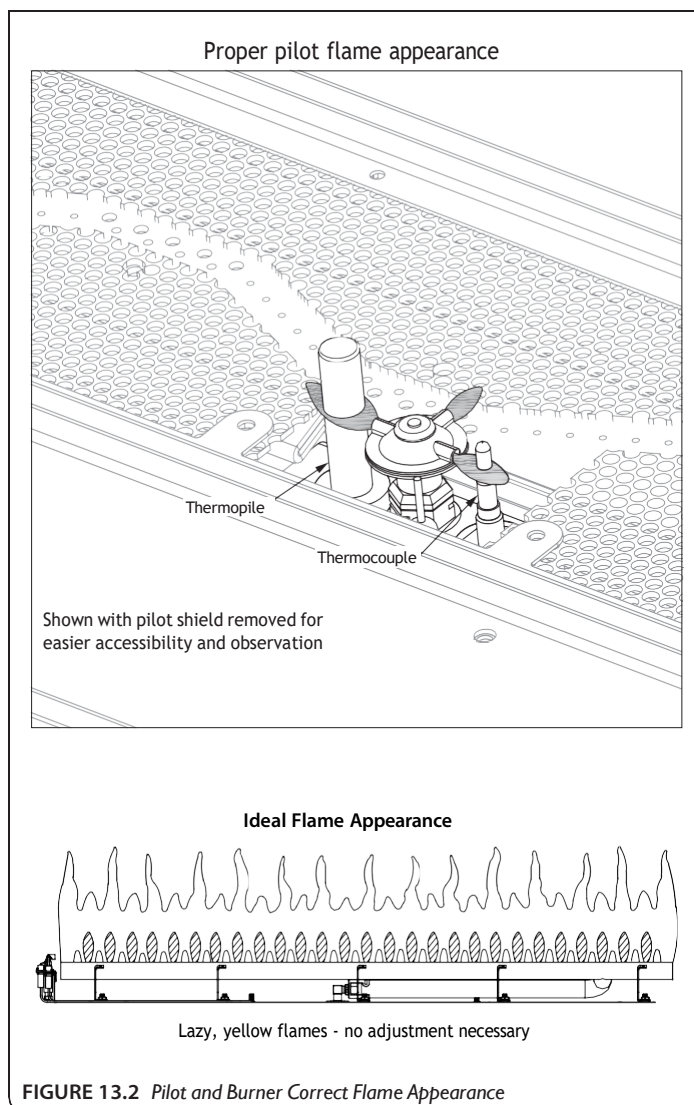
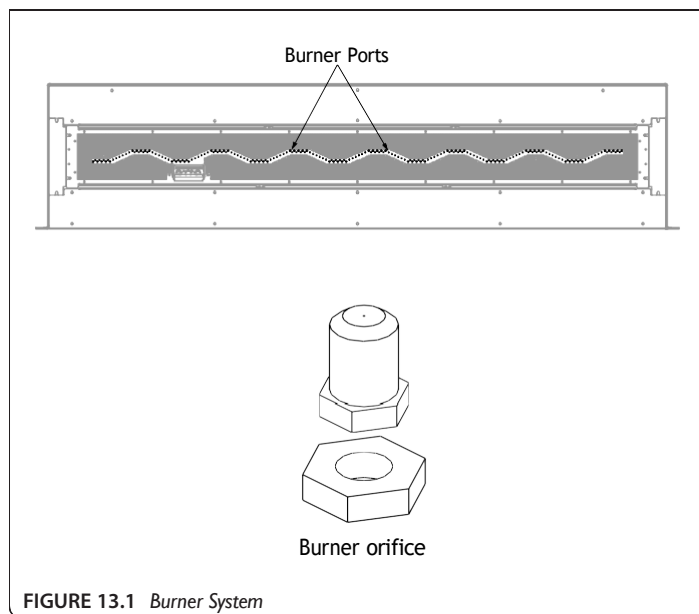
The pilot shield may need to be removed during inspection and troubleshooting for easier accessibility and observation as shown in FIGURE 13.2. Reinstall when finished.

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.
- Ensure pilot flame impinges on thermocouple. Flame should envelop upper 3/8" (10mm) to 1/2" (13mm) of thermocouple and thermopile. Clean pilot hood and adjust pilot flame at gas valve for proper flame impingement. Verify thermocouple connections and millivolt production.
- 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.



14.0 REPLACEMENT PARTS LIST

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

The following warning is for replacement parts for this appliance.

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

CLW-50-MV CONTROL BOARD AND PARTS

CW50MV-770	Control Board - Natural Gas	700-095	Pilot Orifice - Propane
CW50MV-771	Control Board - Propane	700-098	SIT Millivolt Pilot Hood
700-086N	SIT Gas Valve - Natural Gas	700-213B	18" Flexible Gas Line - Black
700-087A	SIT Gas Valve - Propane	700-226F	Flexible Gas Line - Valve to Burner Connection
700-023	On/Off Rocker Switch	700-234	Natural Gas Burner Orifice #34
700-088	Pilot/Generator/Thermocouple - Natural Gas	700-251	Propane Burner Orifice #51
700-089	Pilot/Generator/Thermocouple - Propane	OCK-S34A	Conversion Kit - Natural Gas
700-090	Piezo Igniter with nut (no wire)	OCK-S51A	Conversion Kit - Propane
700-091	Flexible Pilot Tubing (valve to pilot)	CW50-350A	Burner Media Tray
700-092	Millivolt Generator	CW50-351	Burner
700-093	Thermocouple	CW50-043MV	Pilot Shield
700-165	Pilot Orifice - Natural Gas		

GLASS AND GLASS GASKET

701-019T	51-3/4" x 15-3/20"- Glass with Gasket
900-006	1-1/8" Glass Gasket with Adhesive
CW50-005	Replacement Valance

SAFETY BARRIERS

CW50-ES	Safety Barrier Screen (only)
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FAN KIT

SL42-028MV	Fan Kit (optional)
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LIGHT KIT

600-TLKMV	Light Kit
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ADDITIONAL COMPONENTS

900-086	5" Restrictor Plate
700-203	Manual Gas Shut-off Valve
CW50-HHSS	Vent Heat Shield Assembly
CW50-SHD	Steel Framing

Hussong Manufacturing Co., Inc.
204 Industrial Park Drive PO Box 577
Lakefield, MN 56150-0577, USA
CLW-50-MV

Warranty Coverage

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

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

30 Days: Parts & Labor*

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

Year 1: Parts & Labor*

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

Years 2 through Lifetime: Parts Only

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

EXCLUSIONS AND LIMITATIONS

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

