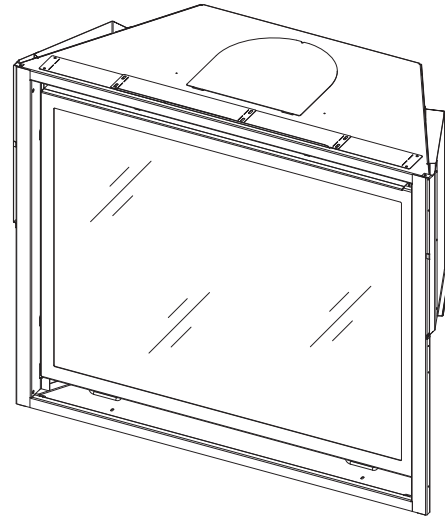


BAYPORT-41-MV

**Model #BAY-41-MV
Direct Vent Gas Fireplace**

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.



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

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

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

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

! DANGER



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

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

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

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

CONGRATULATIONS!

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

Jim Hussong
President



Dudley Hussong
Board Chairman



Homeowner Reference Information

We recommend you record the following information:

Model Name: _____

Date purchased/installed: _____

Serial Number: _____

Location of fireplace: _____

Dealership Purchased from: _____

Dealer phone: _____

Notes: _____

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1.0 INTRODUCTION

1.1 Appliance Certification

Laboratory: PFS in Cottage Grove, Wisconsin

Standards:

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

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

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

1.2 California Proposition 65 Warning

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

1.3 Requirements for the Commonwealth of Massachusetts

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

For all sidewall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

1.3.1 Installation of Carbon Monoxide Detectors

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

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

1.3.2 Approved Carbon Monoxide Detectors

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

1.3.3 Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print no less the one-half inch (½") in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".

1.3.4 Inspection

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

1.3.5 Exemptions

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

1.3.6 Manufacturer Requirements

1.3.6.1 Gas Equipment Venting System Provided

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

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

1.3.7 Gas Equipment Venting System NOT Provided

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

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

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

2.0 SPECIFICATIONS

2.1 Heating Specifications

	Natural Gas	Propane
Maximum Input Rating	28,500 Btu/h (8.3 KW)	28,500 Btu/h (8.3 KW)
Minimum Input Rating	21,500 Btu/h (6.3 kW)	21,500 Btu/h (6.3 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)	#41	#.0625

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

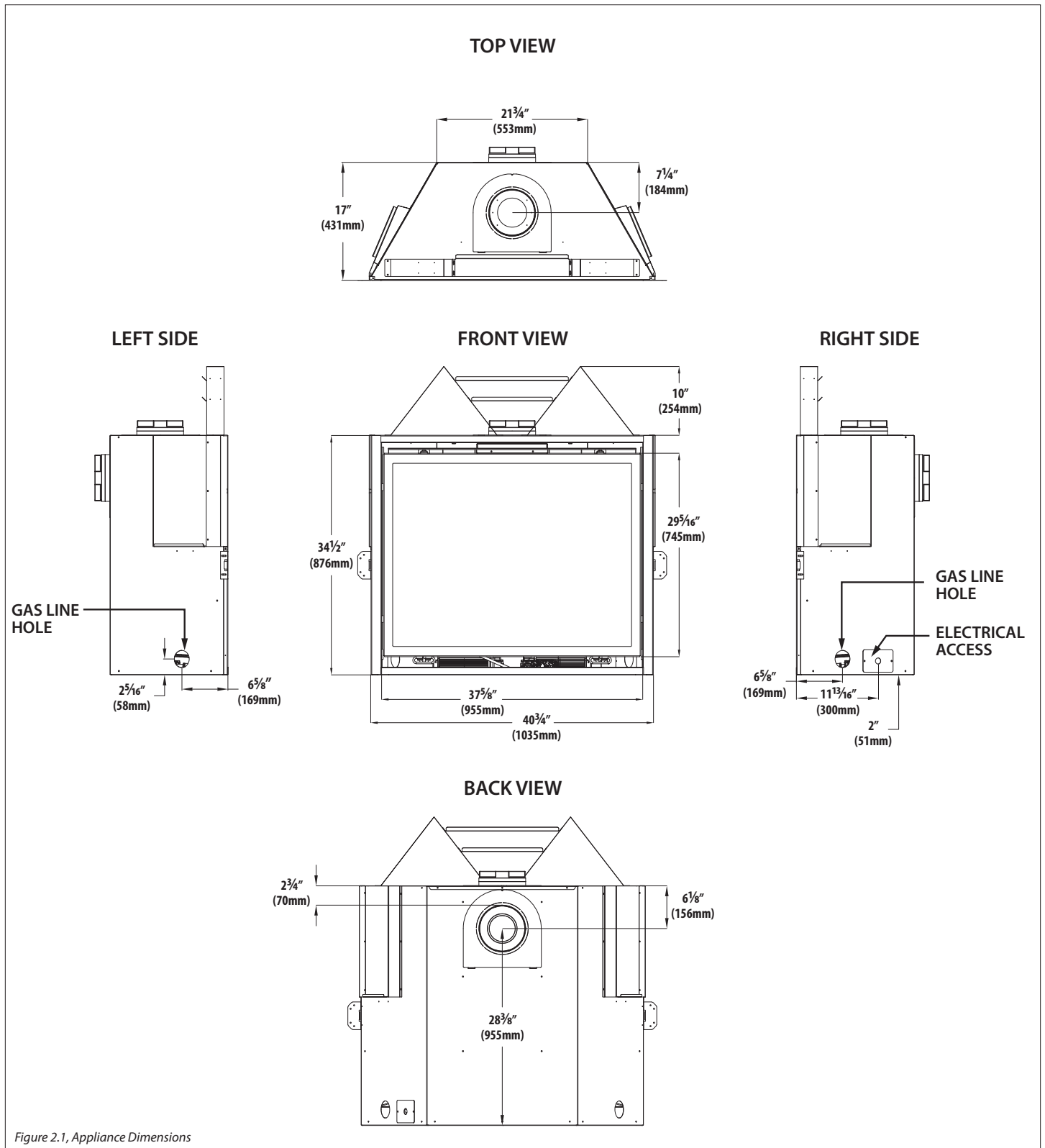
When the appliance is installed at elevations above 4,500' (1,372m), the certified high altitude rating shall be reduced at the rate of 4% for each additional 1,000' (305m).

2.2 Electrical Specifications

Electrical specifications ONLY apply if installing optional fan. Refer to Section 9.2 #B41-028 Optional Fan Kit on page 49 for more information.

- The junction box in this appliance requires 120VAC, 60Hz, and 6 Amps.
- Verify the household breaker is shut off prior to working on any electrical lines.
- The AC power supply to this appliance must be hot at all times.

2.3 Appliance Dimensions



2.4 Safety Barrier Dimensions

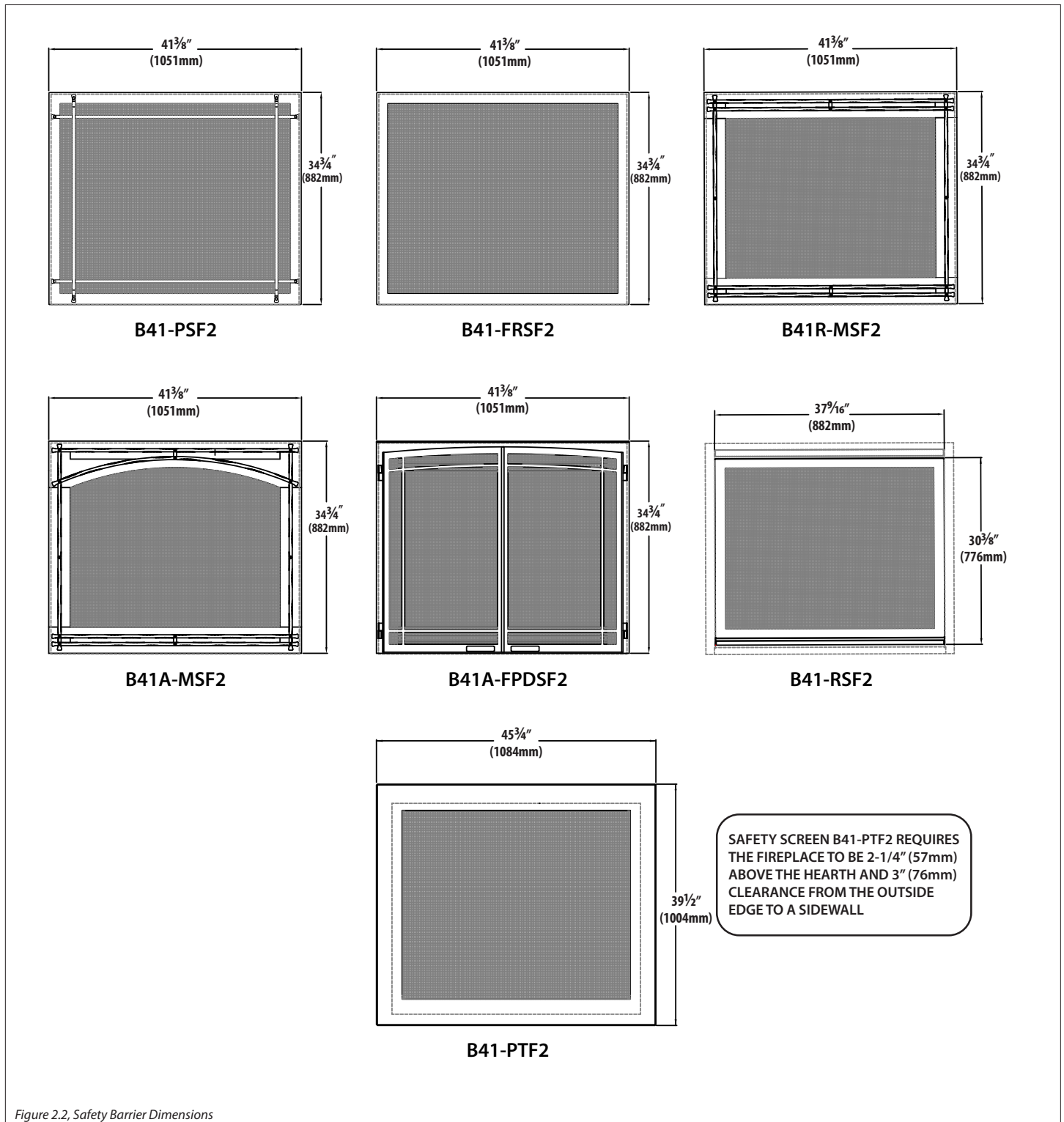
WARNING: A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed for the protection of children and other at-risk individuals.

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

IMPORTANT: Consider the height of hearth finish material when building a fireplace platform. Proper installation of safety barriers require the bottom of the fireplace to be level with finished hearth.

NOTE: Safety screen B41-PTF2 requires the fireplace to be 2-1/4" (57mm) above the hearth and 3" (76mm) clearance from the outside edge to a sidewall.

Please refer to Section 4.4 Safety Barrier Installations on page 26 for mounting and installation options.



3.0 FRAMING

3.1 Installation Planning

- **This appliance requires** the installation of a wall switch, remote, or thermostat in a convenient location for ease of operation.
- This appliance has outlets for both top and rear venting. It is shipped as top vent exit. For rear vent conversion, refer to Section 7.1 Rear Vent Conversion Instructions on page 31.
- Determine your vent requirements before framing your appliance. Refer to Section 7.0 Venting on page 31.
- If planning to convert to propane, it is easier to complete the gas conversion before framing in the fireplace. See the #OCK-S625A manual for complete conversion instructions. If you convert the fireplace to propane after fireplace installation, you will have to remove several components in order to access the burner and pilot system. See Section 8.4 Control Board Removal and Installation on page 47 for access to the burner and pilot system before and after installation.

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

3.2 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.
- 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.

3.3 Stand-off Assembly and Installation

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

NOTE: If installing a trim kit assembly, #B41-FTK, please refer Section 4.2 Finishing Trim Kit Assembly #B41-FTK on page 24 before installing stand-offs.

NOTE: If installing exterior trim kit assembly supplied with and for use only with safety barrier #B41-RSF2, refer to Section 4.3 Exterior Trim Kit Assembly on page 25 before installing stand-offs.

1. Remove and save (4) screws securing stand-off heat shields and stand-off brackets on top of the fireplace.

2. Form each top stand-off bracket by bending at perforations, as shown.
3. Align the holes in the formed top stand-offs with the holes in the fireplace top. Secure with the (4) screws previously removed along with (4) screws located on top of the fireplace.
4. Form stand-off heat shields as shown. The flange will face up and to the back of the fireplace.
5. Align the holes in the stand-off heat shields with the holes in the top stand-off brackets. Secure with (8) screws provided in the fireplace components packet.

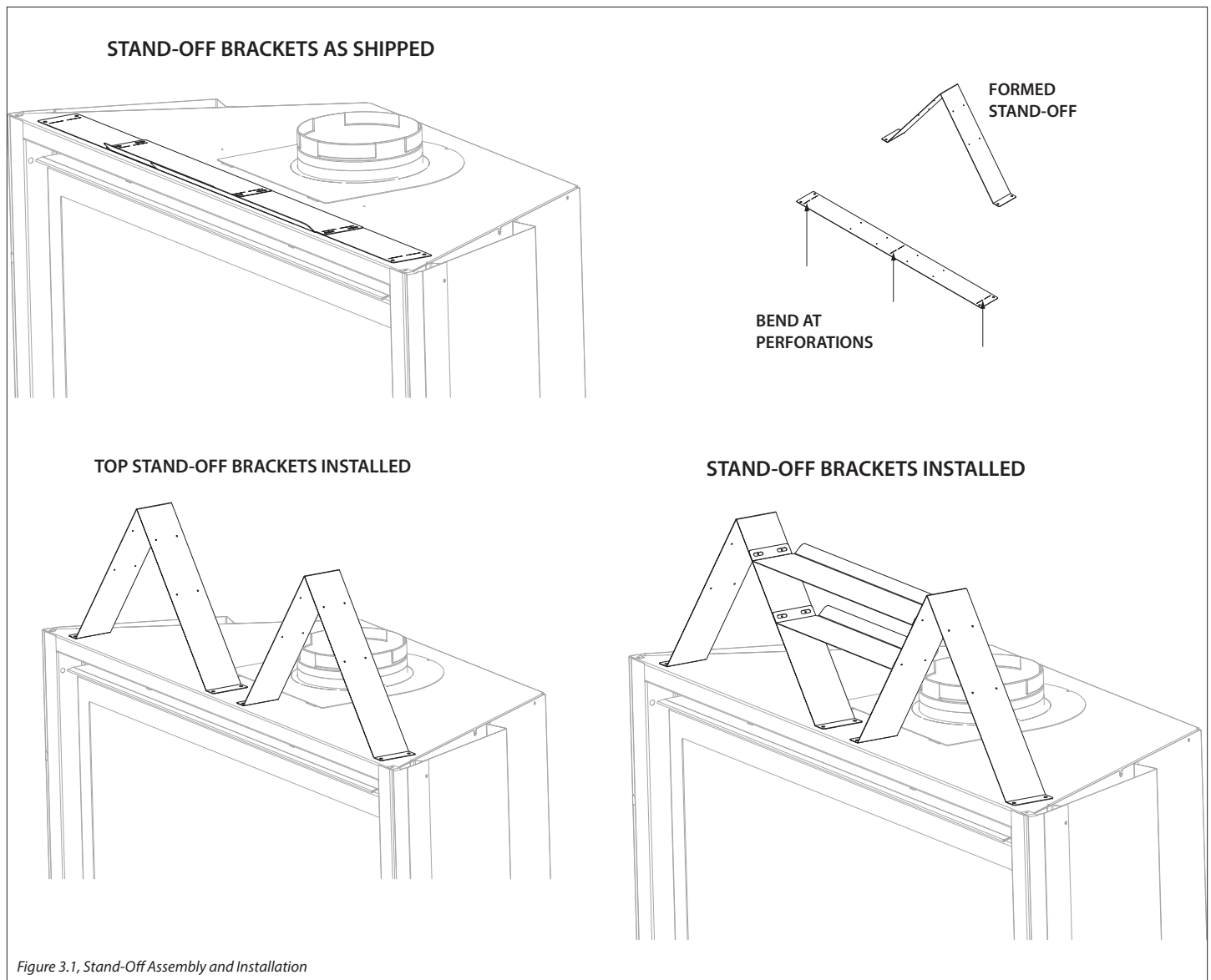


Figure 3.1, Stand-Off Assembly and Installation

3.4 Nailing Flange Assembly and Installation

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

1. Remove (2) nailing flanges from the right and left side of the fireplace.
2. Align nailing flange with holes on outside corners of fireplace, with the stand-off flanges on the nailing flanges facing away from the fireplace
3. Secure the nailing flanges to the fireplace with screws (provided) through the slots in nailing flanges.
4. Bend perforation on nailing flange until parallel with fireplace face. Do not bend toward fireplace face.
5. Position framing stud against the small stand-off (located on backside of nailing flange). Secure with nails or screws.
 - **When installed, the nailing flanges provide the minimum 1/4" (6mm) clearance from the sides of the fireplace to framing.**

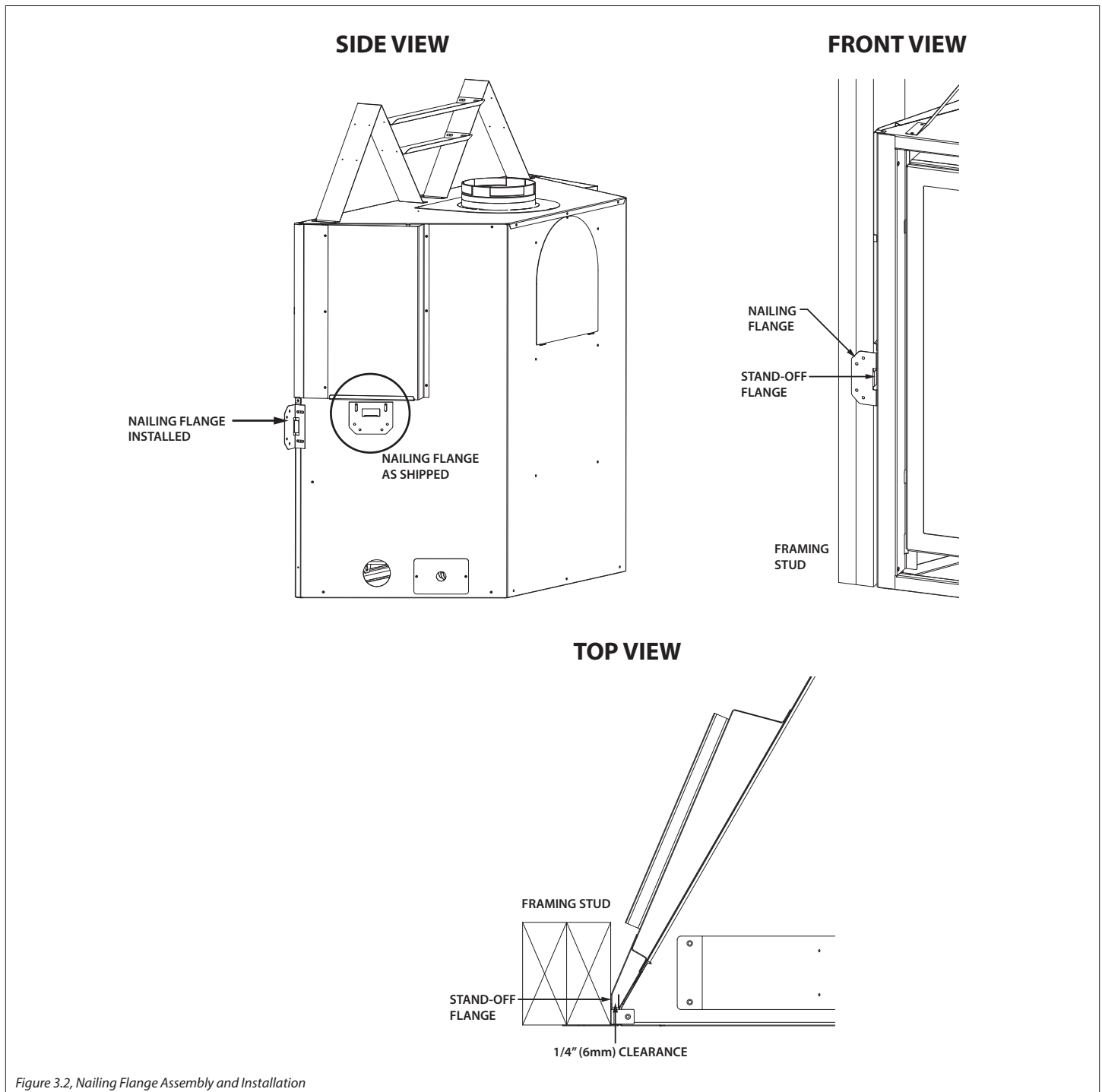
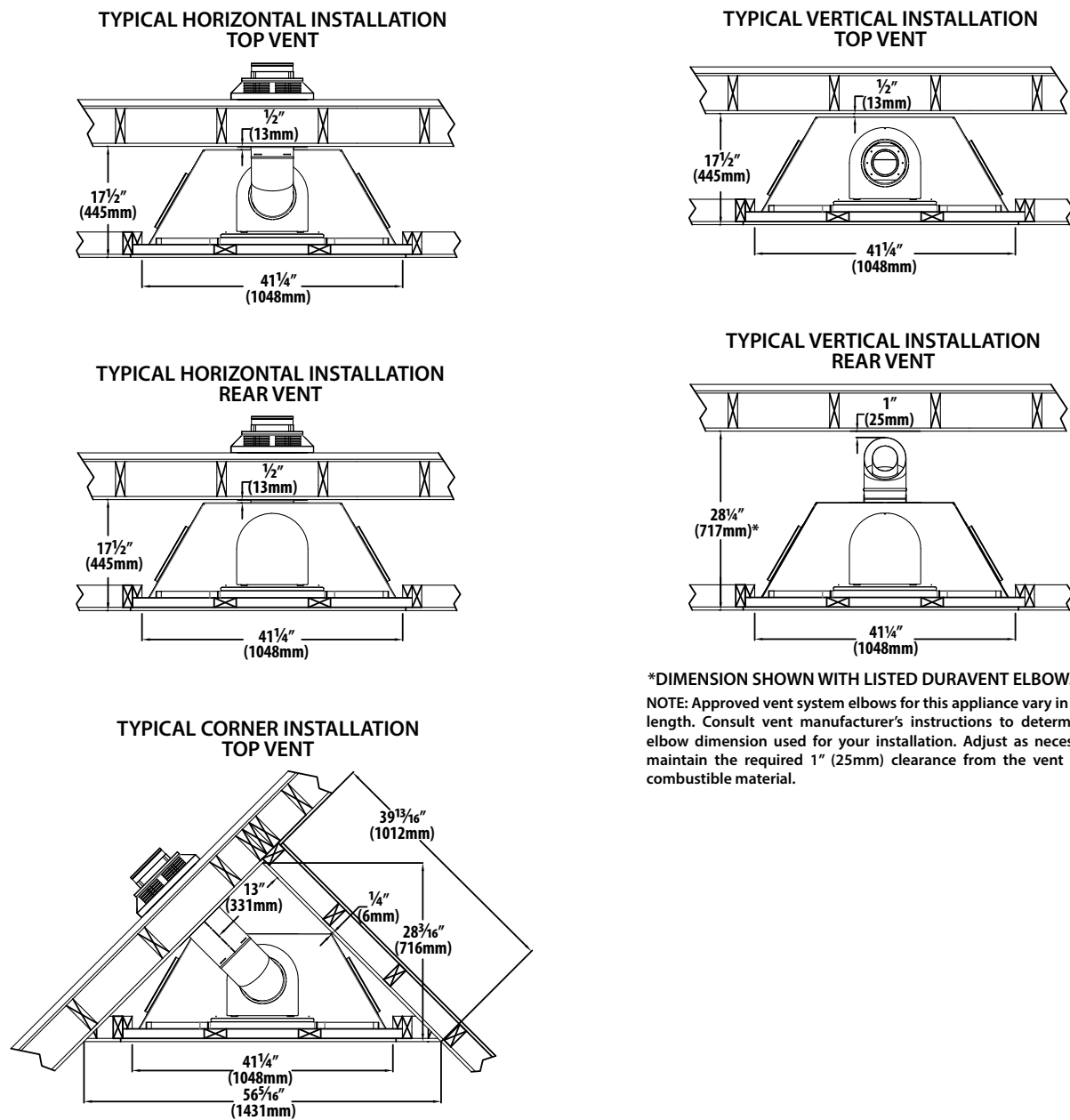


Figure 3.2, Nailing Flange Assembly and Installation

3.5 Clearances to Combustibles

Table 3.1, Minimum Appliance Clearances to Combustible Material		
From appliance top stand-offs	0"	0mm
From appliance left and right side stand-offs	0"	0mm
From appliance back stand-offs	0"	0mm
From appliance corners	1/4"	6mm
From appliance front	36"	914mm
From appliance top to ceiling	31"	787mm
Appliance sides to adjacent sidewall	1"	25mm
Top of appliance to 3/4" (19mm) trim	5-1/2"	139mm
Mantel 6" (152mm) deep from appliance top	9"	356mm

Nominal 2" x 4" framing used in enclosure framing



*DIMENSION SHOWN WITH LISTED DURAVENT ELBOW.
 NOTE: Approved vent system elbows for this appliance vary in vertical length. Consult vent manufacturer's instructions to determine the elbow dimension used for your installation. Adjust as necessary to maintain the required 1" (25mm) clearance from the vent pipe to combustible material.

Figure 3.3, Typical Installation Options

3.6 Wall Enclosure Rough Opening

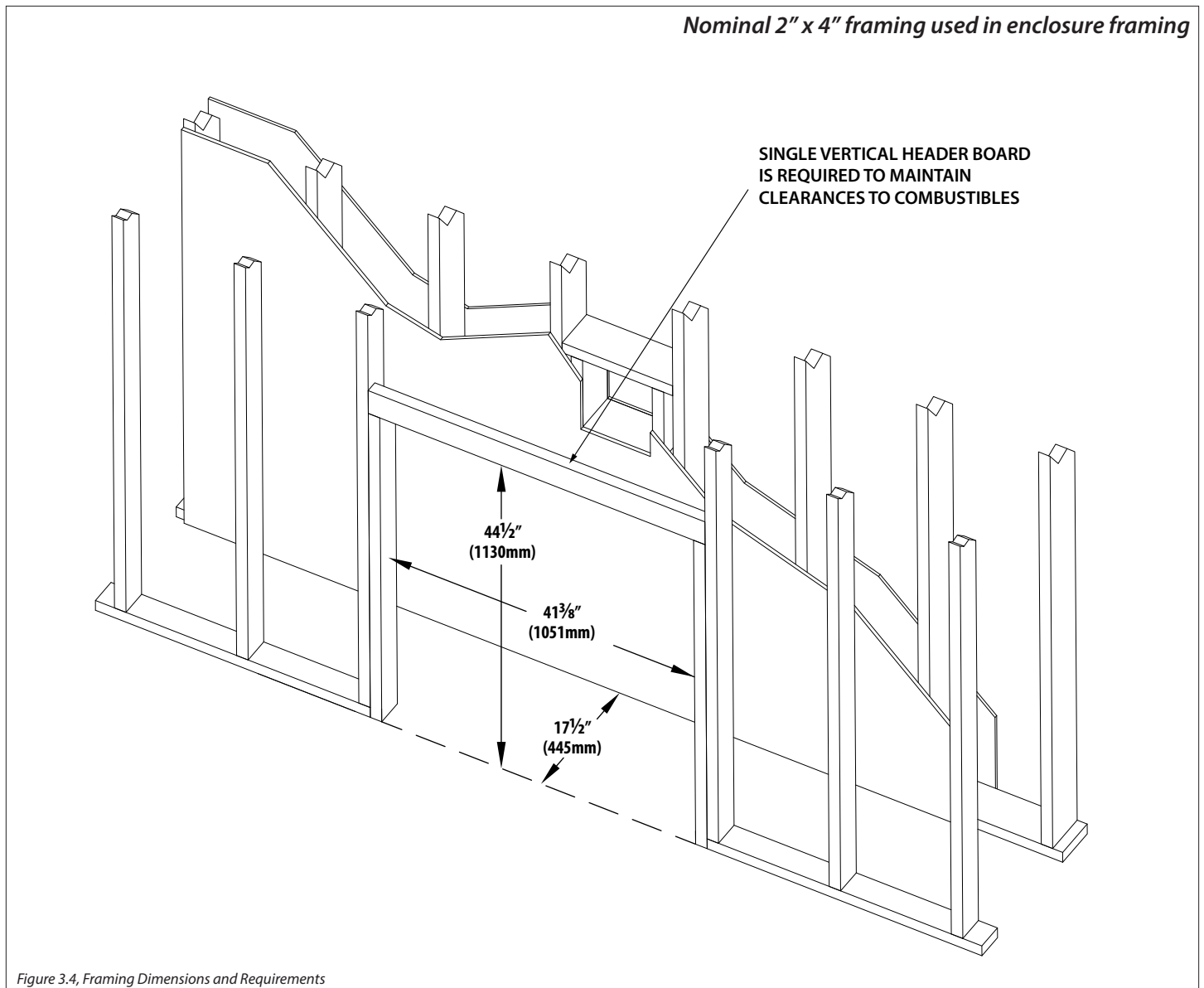
WARNING: Provide adequate clearance in front of the fireplace for barrier removal, component access, gas line installation, service access, etc.

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. If rear venting, the minimum depth for the wall enclosure rough opening by 3-3/4" (95mm) 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. The bottom of the fireplace must be level with finished hearth extension for proper fit of a safety barrier.

- If installing safety barrier #B41-PFT2, the fireplace must be 2-1/4" (57mm) above the finished hearth for proper fitting.
- 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 clearances. If installed above floor level, a solid, continuous platform must be constructed below the fireplace.
- If masonry (optional) is to be used, prepare the foundation necessary for the full masonry load.



3.7 Vent Termination Framing

3.7.1 Vent Termination Framing Requirements

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

Exterior vent termination location must be in compliance with Section 6.2 Minimum Termination Clearances on page 30.

IMPORTANT - METAL FAB VENT SYSTEM: When installing Metal Fab vent pipe, adapter #4DDA must be used off the top or rear of the appliance. This will increase the minimum height for the center of the vent pipe by 3-3/4" (95mm) when framing the wall pass through. For rear venting, the minimum depth enclosure must be increased by 3-3/4" (95mm) to keep with minimum clearance requirements.

3.7.1.1 Clearances

- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained.
- A minimum of 1" (25mm) clearance to combustibles is required on the top, bottom, and sides of the horizontal #700-2 flexible vent system.
- A minimum of 1-1/2" (38mm) top clearance and a minimum of 1" (25mm) bottom and side clearances to combustibles is required for horizontal rigid pipe.

3.7.2 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.

3.7.3 Horizontal Terminations

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

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

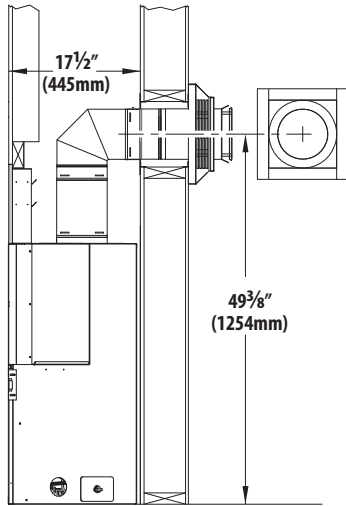
Kozy Heat's #700-WPT, or wall thimble products that comply with the required 1" (25mm) top clearance to combustibles, must be installed for all horizontal vent runs that pass through interior or exterior walls. These wall thimble products may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136. #700-WPT wall thickness covers 4" (101mm) to 6½" (165mm).

3.7.3.1 Wall Pass Through Information and Framing

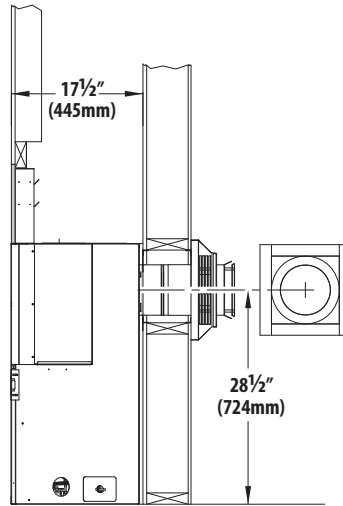
1. Measure from floor level of the fireplace to the center of where the vent pipe will penetrate the wall.
Cut and frame an opening in the wall to allow the vent system to run level through the wall pass-through.
2. Follow the vent pipe manufacturer's installation instructions for vent installation.
 - Rigid pipe dimensions in Figure 3.5 reflect Simpson Duravent 4" x 6-5/8" coaxial pipe. Other manufacturers product dimensions may vary
 - Flexible pipe framing dimensions in Figure 3.5 reflect Kozy Heat #700-2 Series Flexible Vent System.

Nominal 2" x 4" framing used in enclosure framing

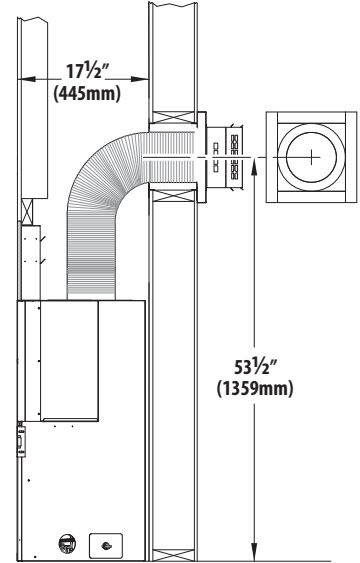
Top vent minimum horizontal termination
Natural Gas and Propane



Rear vent minimum horizontal termination
Natural Gas and Propane



Minimum horizontal #700-2 venting
Natural gas and Propane



700-WPT Framing Dimensions
Ships with #700-2

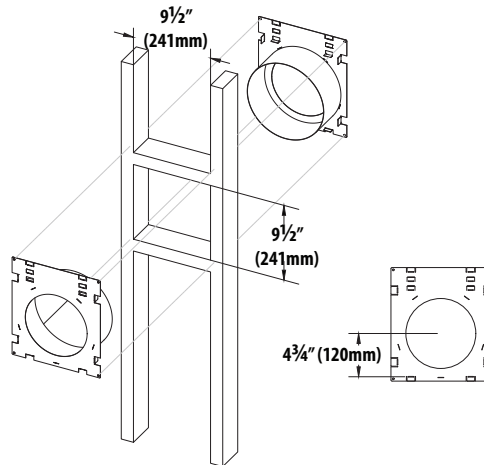


Figure 3.5, Horizontal Vent Terminations

3.8 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.

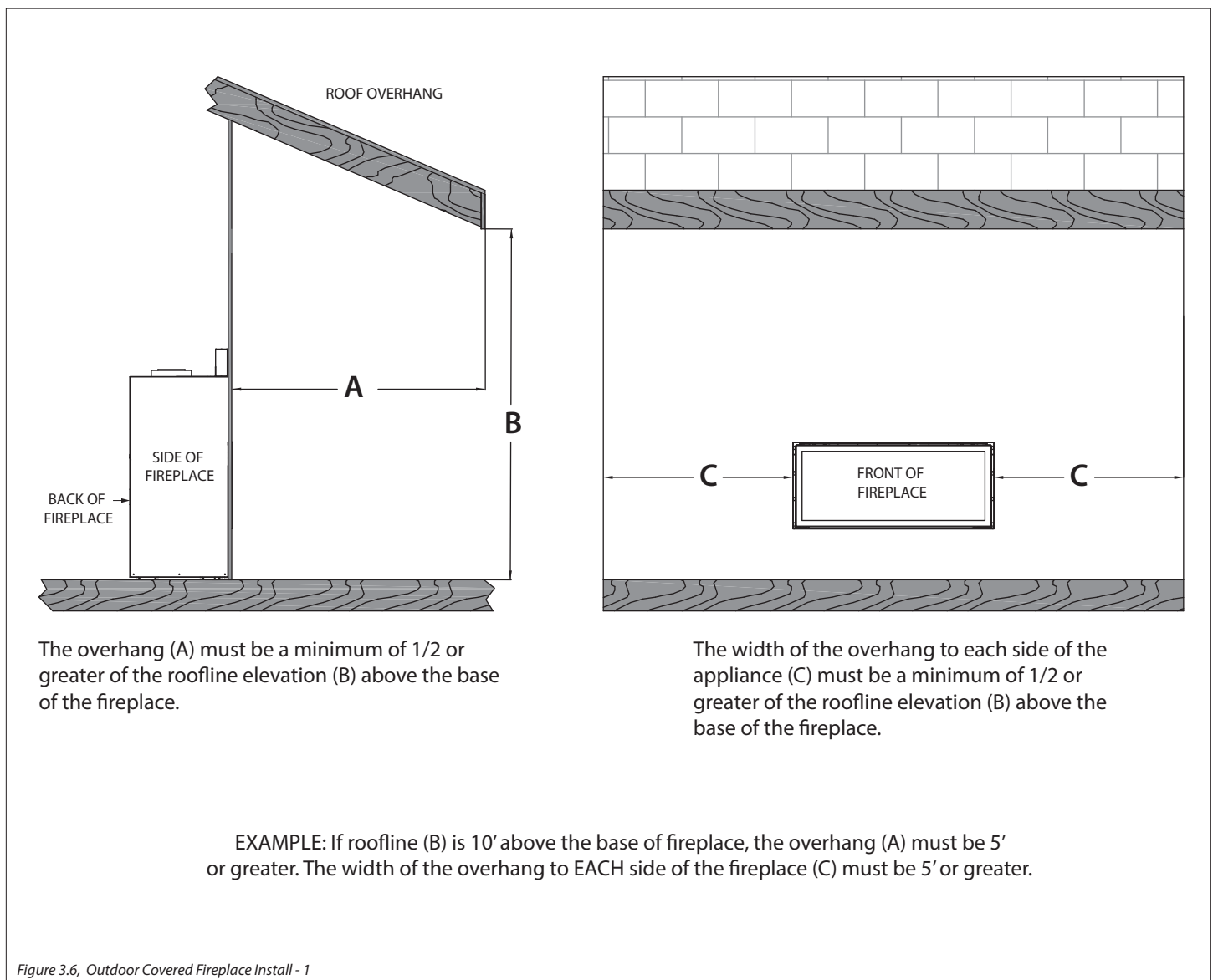
Follow the instructions and illustrations in this section for installation procedures.

3.8.1 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.

3.8.2 Requirements

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



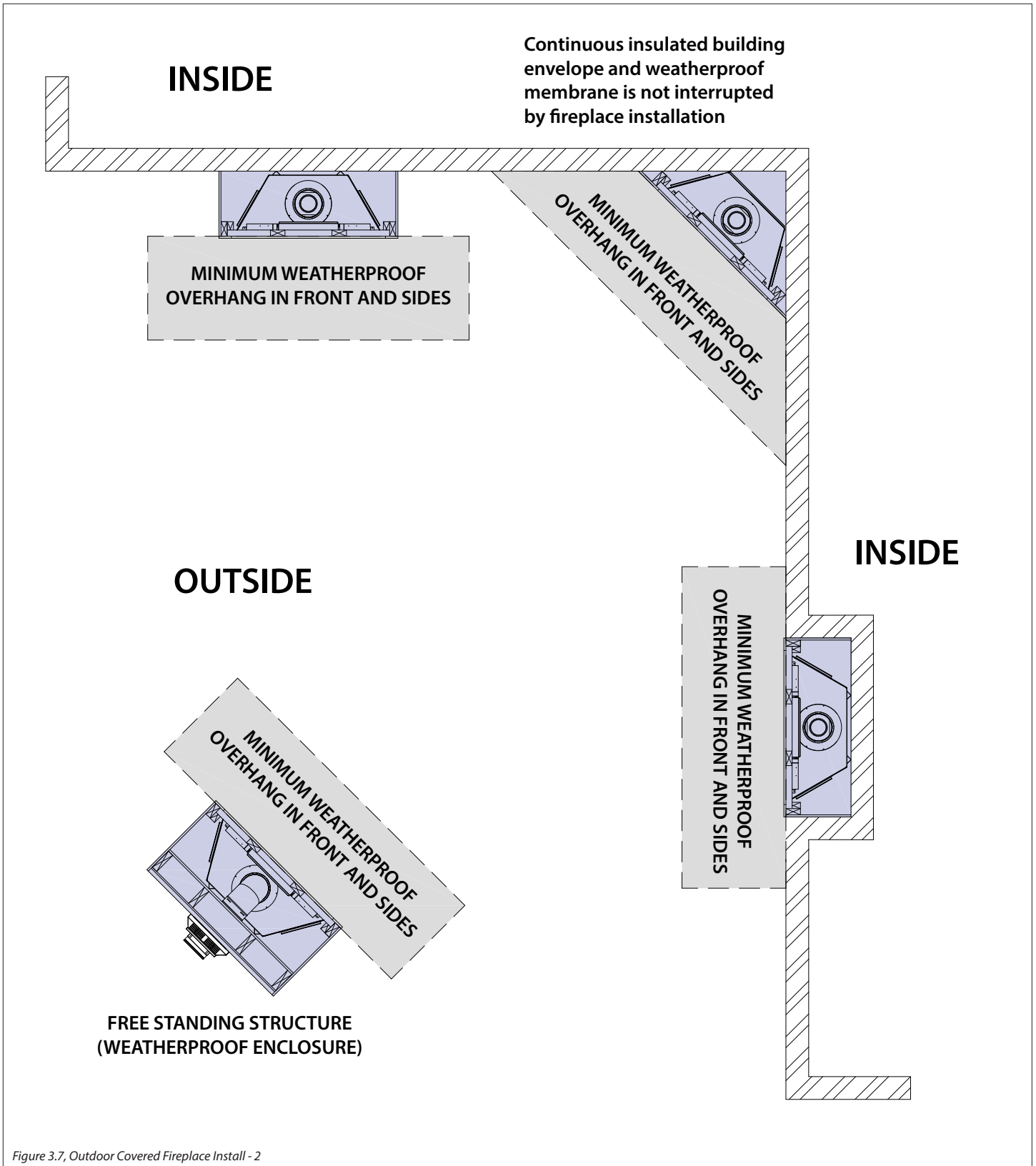


Figure 3.7, Outdoor Covered Fireplace Install - 2

4.0 FACING AND FINISHING

4.1 Facing and Finishing Requirements

4.1.1 Mantel Requirements

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

Combustible Mantel Projections: As referenced in Figure 4.1 (page 21) the 3/4" (19mm) trim can start at 5-1/2" (139mm) above the top of the appliance with a 6" (152mm) mantel starting at 9" (229mm) above the top of the appliance. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel.

Combustible Mantel Projections FOR B41-RSF2 ONLY: As referenced in Figure 4.2 (page 22), the 3/4" (19mm) trim can start at 1-1/2" (38mm) above the top of the appliance with a 6" (152mm) mantel starting at 5" (127mm) above the top of the appliance. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel.

Non-combustible Mantel Projections: A minimum vertical clearance of 6" (152mm) above the appliance 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 sidewall must be 1" (25mm) from the sides of the fireplace. See Figure 4.3 (page 23).
- If you are installing safety barrier B41-PTF2, you will need a 3" (76mm) clearance from the outside edge to the adjacent sidewall for proper fitting of the safety barrier.

4.1.3 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:

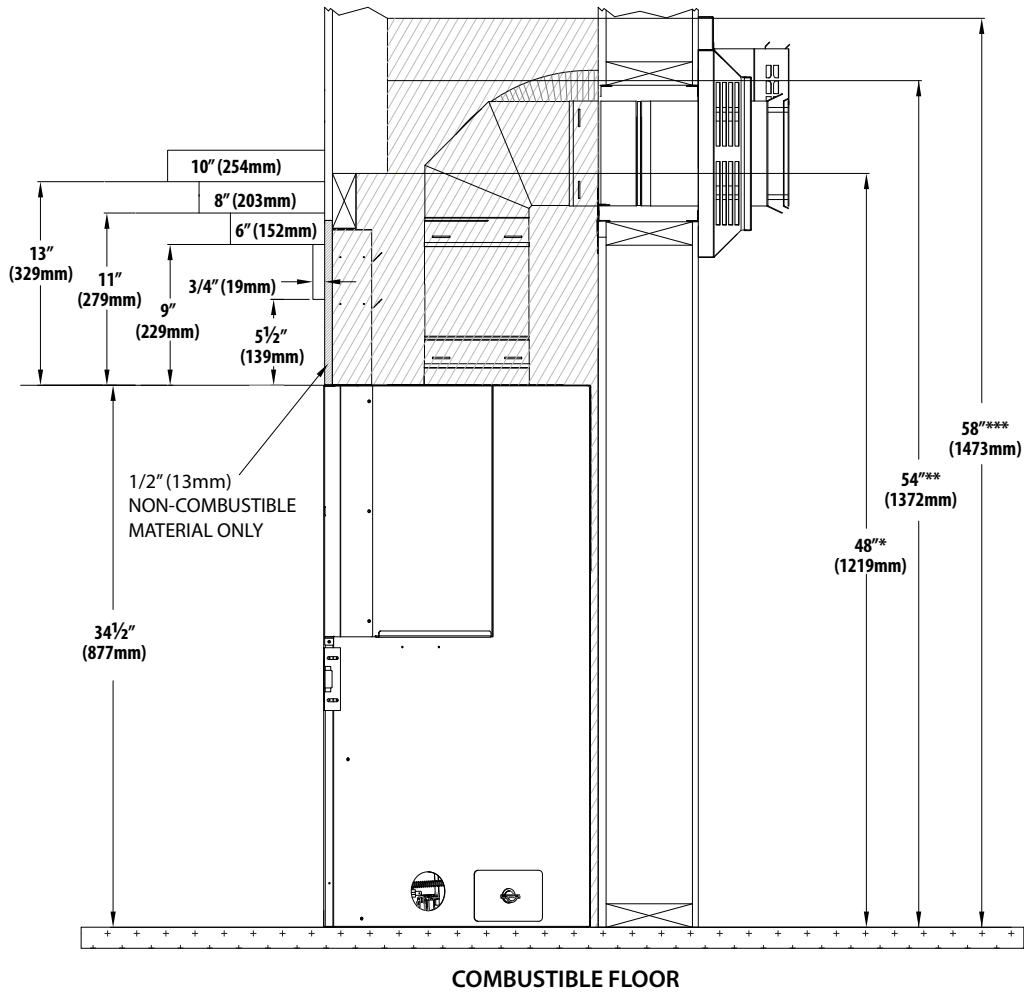
- Ensure the non-combustible material and sheetrock is dry and dust free.
- For taping and mudding seams, we recommend heat resilient tape, mesh and joint compounds, such as Durabond. Joint compounds must be cured as per manufacturer's recommendations.
- For a painted surface, use a high quality acrylic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

4.1.4 Non-Combustible Zone

- A 42-7/8" x 10-1/2" non-combustible material (board) is supplied with this fireplace. The non-combustible material (board) allows 3/4" overlap onto framing side and 1/2" overlap onto header. See Figure 4.4 (page 23) .
- Rear vent minimum chamber height: 48" (1219mm)
- Natural gas and propane top vent minimum horizontal vent terminations using rigid pipe minimum chamber height: 54" (1372mm)
- Top vent minimum horizontal vent terminations using flex pipe minimum chamber height: 58" (1473mm)

Nominal 2" x 4" framing used in enclosure framing

 NON-COMBUSTIBLE ZONE

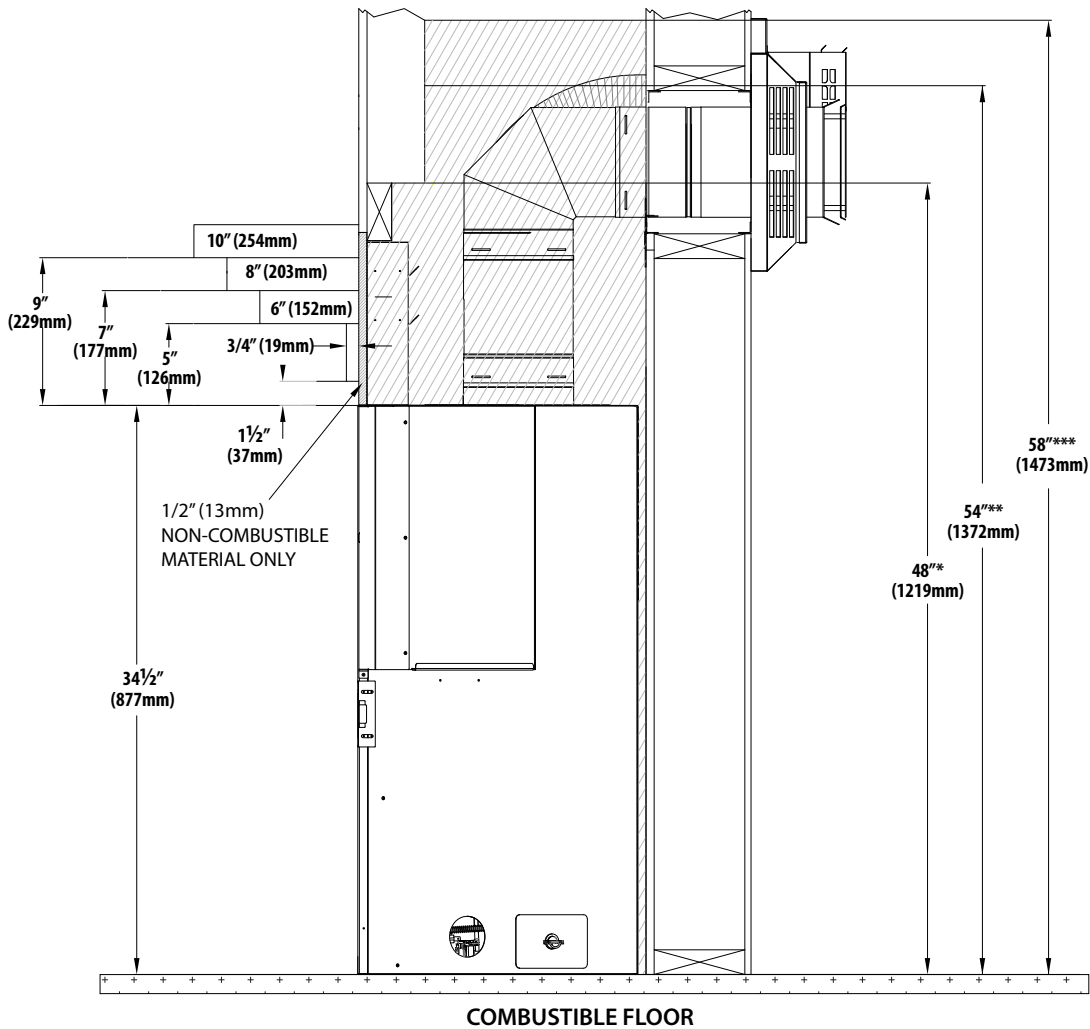


- *NON-COMBUSTIBLE ZONE: 48" (1219mm) minimum chamber height when venting from rear vent exits
- **NON-COMBUSTIBLE ZONE: 54" (1372mm) minimum chamber height for Natural Gas & Propane top vent minimum horizontal vent terminations using rigid pipe
- ***NON-COMBUSTIBLE ZONE: 58" (1473mm) minimum chamber height for top vent minimum horizontal vent terminations using flex pipe

Figure 4.1, Mantel and Trim Requirements

WARNING! THESE MANTEL CLEARANCES ARE FOR US WITH SAFETY BARRIER B41-RSF2 ONLY

 **NON-COMBUSTIBLE ZONE**



- *NON-COMBUSTIBLE ZONE: 48" (1219mm) minimum chamber height when venting from rear vent exits
- **NON-COMBUSTIBLE ZONE: 54" (1372mm) minimum chamber height for Natural Gas & Propane top vent minimum horizontal vent terminations using rigid pipe
- ***NON-COMBUSTIBLE ZONE: 58" (1473mm) minimum chamber height for top vent minimum horizontal vent terminations using flex pipe

Figure 4.2, B41-RSF2 Mantel Requirements

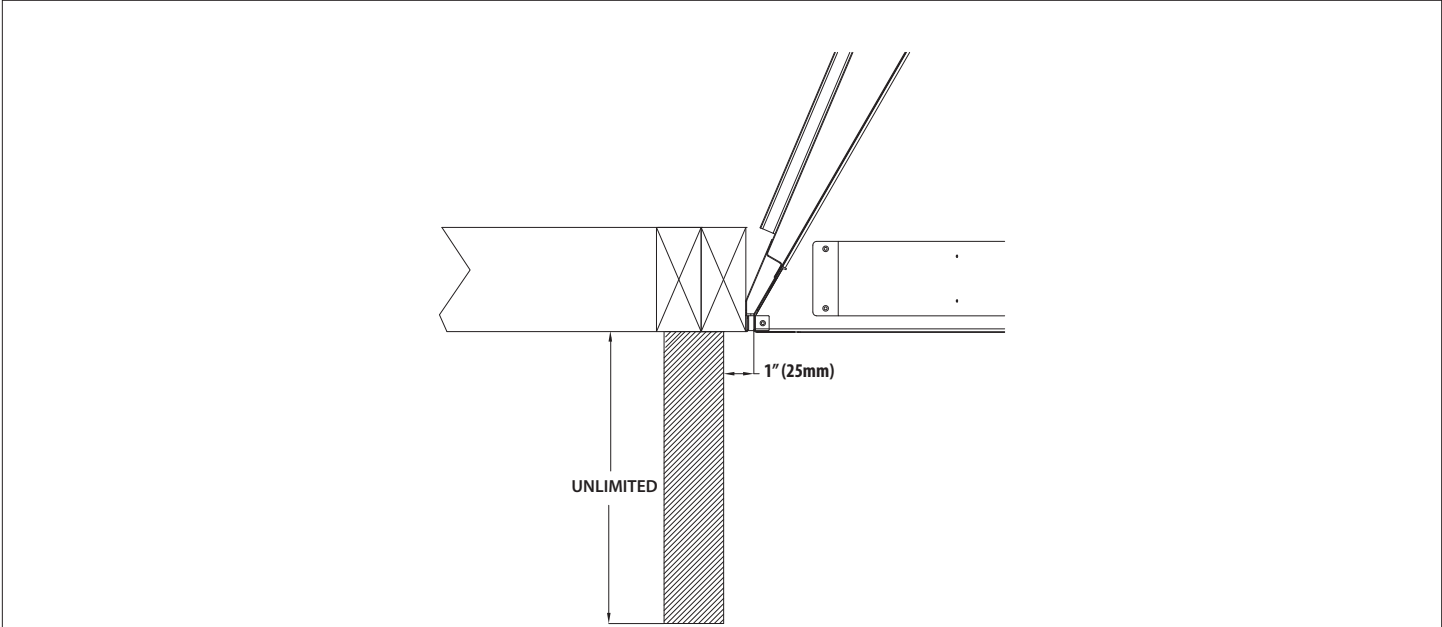


Figure 4.3, Sidewall Clearances

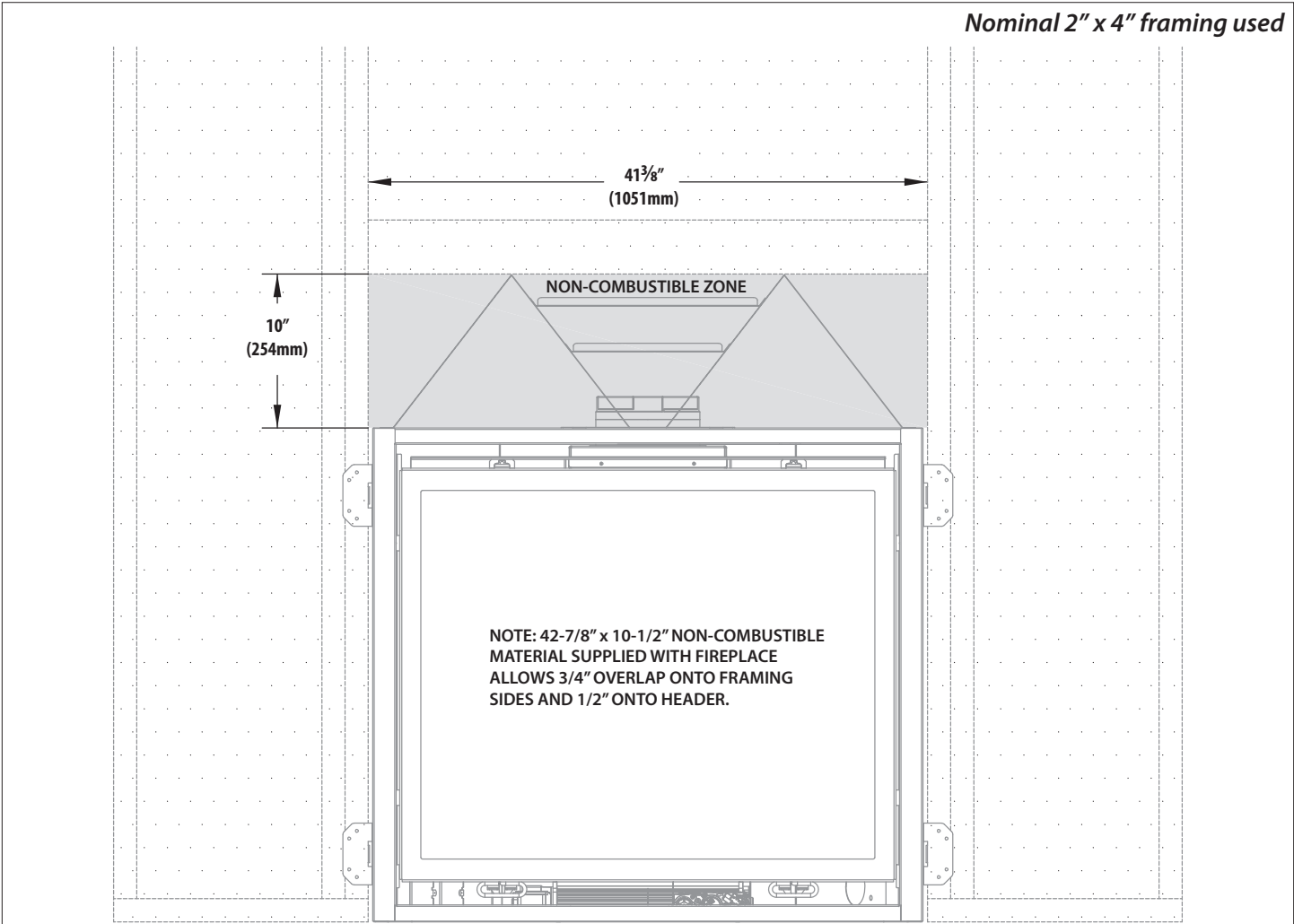


Figure 4.4, BAY-41 Non-Combustible Zone

4.2 Finishing Trim Kit Assembly #B41-FTK

IMPORTANT: This trim kit assembly must be attached before fireplace installation.

NOTE: The top trim panel must be installed with the top stand off brackets.

1. Remove and save (5) screws securing the front sections of the side heat shields on each side.
2. Remove nailing flanges from the sides of the unit.
3. Remove and save the top and bottom screw on each side of the outer shell of the unit.
4. Install the side trim panels. Align the holes in the side panels with the holes in the side of the unit as shown below. Secure with screws previously removed from the heat shields and nailing flanges.
5. If installed, remove the top stand-offs.
6. Install the top trim panel. Align the holes in the top trim panel with the front holes in the stand-offs and attach to fireplace top. Secure with previously removed screws .
7. If installed, remove and discard the existing bottom front frame portion.
8. Install the bottom trim panel into the slots in the bottom corners of the unit, as shown below.

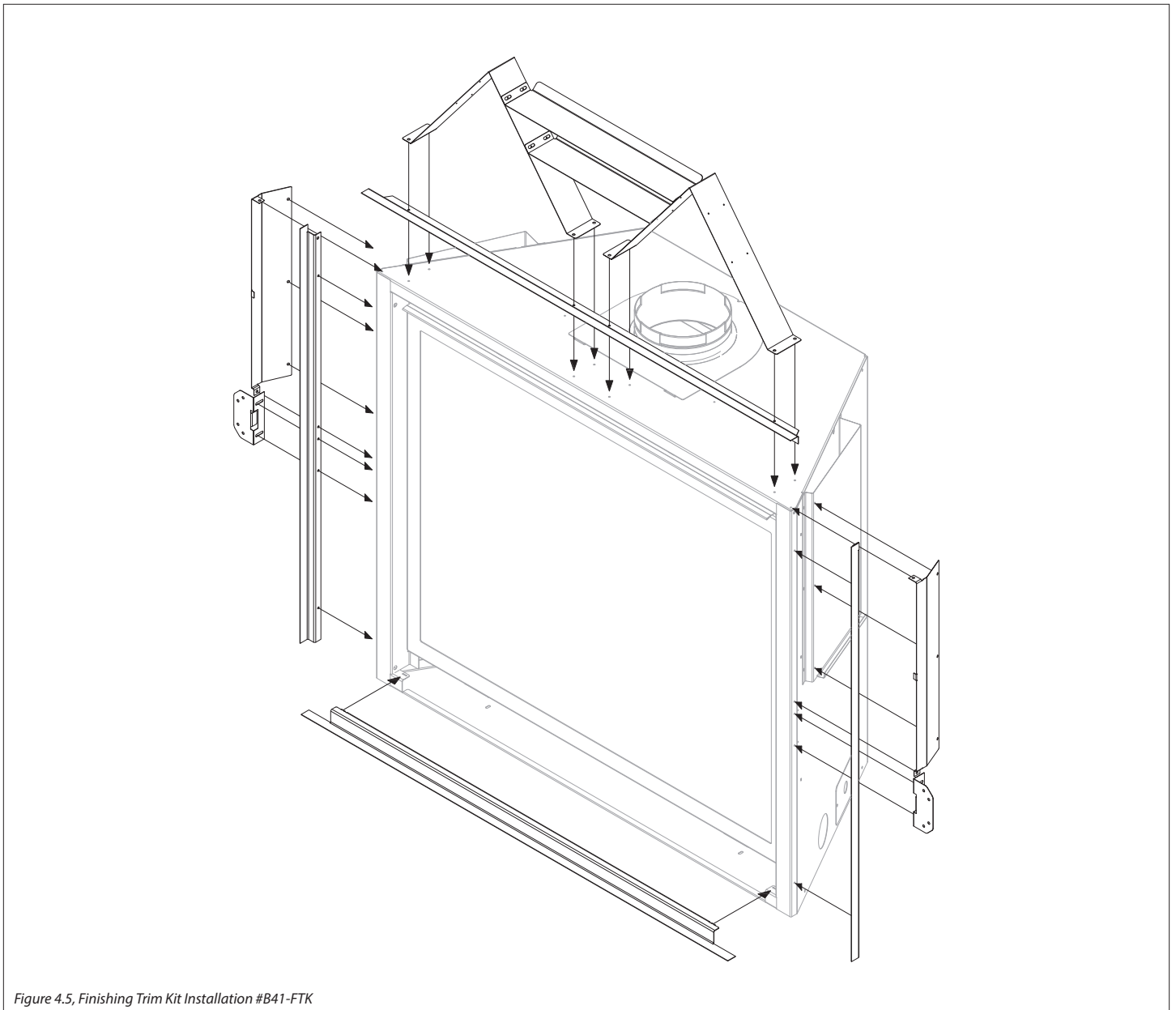


Figure 4.5, Finishing Trim Kit Installation #B41-FTK

4.3 Exterior Trim Kit Assembly

IMPORTANT: This exterior trim kit is supplied with and for use only with safety barrier #B41-RSF2.

IMPORTANT: Exterior trim kit assembly must be attached before fireplace installation.

NOTE: The top trim panel must be installed with the top stand off brackets.

1. Remove and save (5) screws securing the front sections of the side heat shields on each side.
2. Remove nailing flanges from the sides of the unit.
3. Remove and save the top and bottom screw on each side of the outer shell of the unit.
4. Install the exterior trim side panels. Align the holes in the side

panels with the holes in the side of the unit as shown below. Secure with screws previously removed from the heat shields and nailing flanges.

5. If installed, remove the top stand-offs.
6. Install the exterior trim top panel. Align the holes in the top trim panel with the front holes in the stand-offs and attach to fireplace top. Secure with previously removed screws .
7. If installed, remove and discard the existing bottom front frame portion.
8. Install the exterior trim bottom panel into the slots in the bottom corners of the unit.

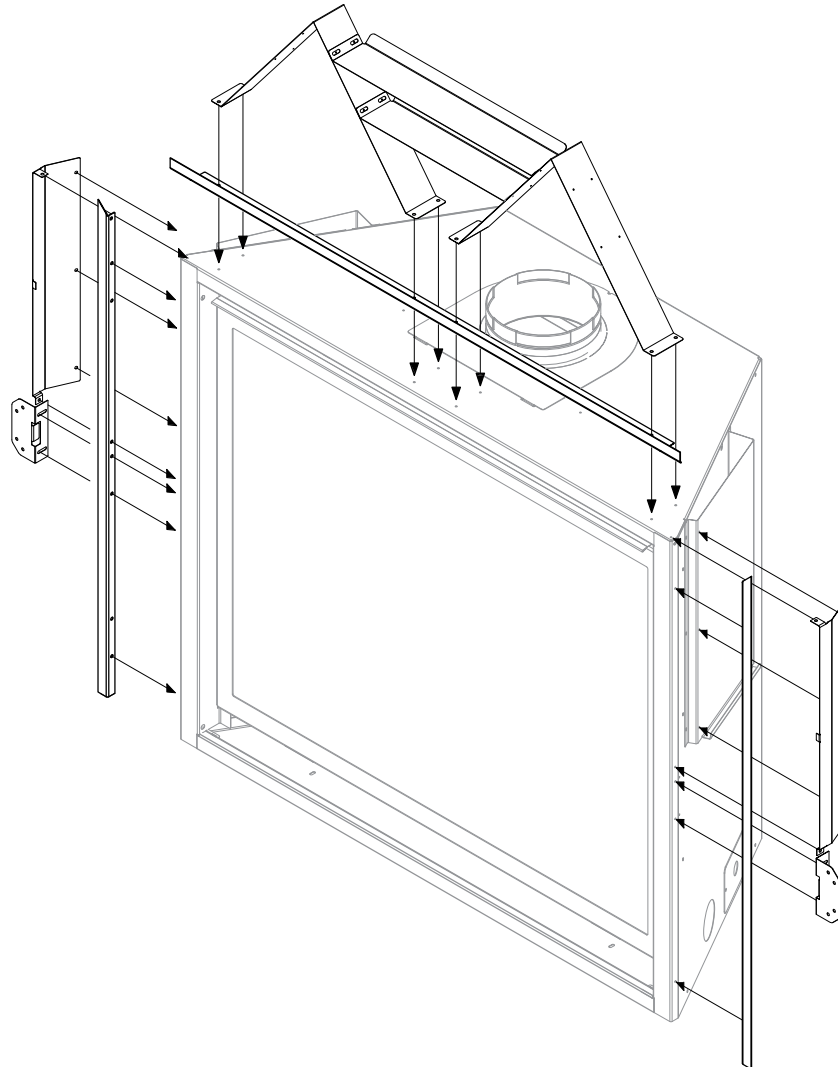


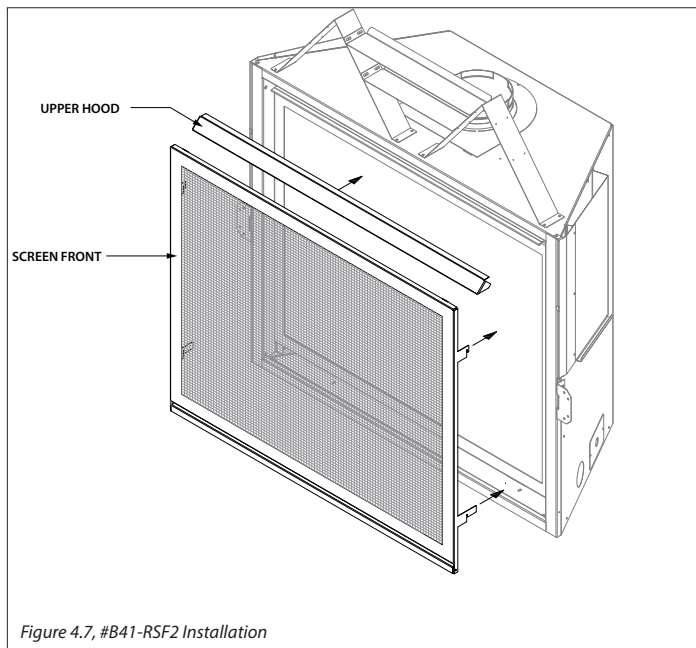
Figure 4.6, Exterior Trim Kit Installation #B41-081

4.4 Safety Barrier Installations

4.4.1 Inside Fit - Recessed Installation

Model #B41-RSF2

1. Center the screen front over the glass frame assembly, allowing the screen front's notched tabs to fit inside the air openings.
 2. Align the notched tabs (located on the back) with the slots in the air openings. Raise the screen front slightly and push back into position.
 3. Lower the screen front until the notched tabs are firmly in position.
 4. Insert the upper hood into the clips located at the top of the upper air passage. Note: this will be a fairly tight fit.
- To remove safety screen: lift the screen up and out of slots.



4.4.2 Overlap Fit - Hanging Installation

IMPORTANT: If there is gasket rope present on the back of the safety screen, ensure the gasket makes contact with the appliance or finishing material. The gasket **MUST** maintain contact to achieve the mantel clearances listed in this manual.

1. Center the screen front over the glass frame assembly, allowing the screen front's mounting brackets to fit inside the air openings.
 2. Align the notched tabs (located on the back) with the slots in the fireplace. Raise slightly and push back to desired position.
 3. Lower the screen front until the notched tabs are firmly in position, verifying the depth accommodates finish material.
- To remove safety screen: lift the screen up and out of slots.

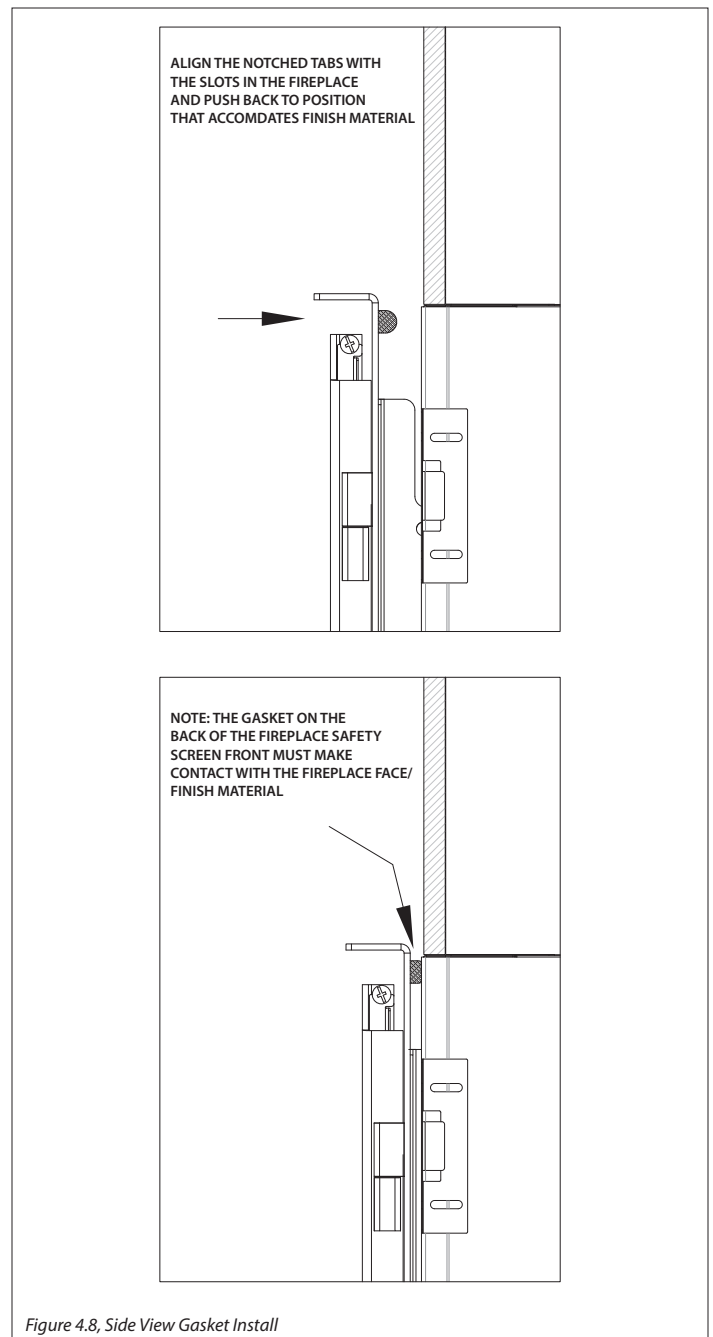


Figure 4.8, Side View Gasket Install

4.4.3 Overlap Fit - Hanging Installation with Adjustable Louvers (Closed Brackets)

Models #B41-PSF2 and #B41-FRSF2

The listed safety barriers are equipped with the louver built into the safety screen face. The hanging brackets located on the back of screen front are equipped with notches to allow the louver to be adjusted to accommodate facing material thickness. The safety barrier is shipped with the louver in the first notch position.

To adjust louver position:

1. Locate the (3) screws on each hanging bracket at the back of the screen front.
2. Loosen (6) screws on both hanging brackets. This will allow you to bend the bracket outward to adjust the louver to the desired position.
NOTE: The position of the louver should match with the desired position of the notched tabs needed for your installation. The louver in the first notch position will match with the first notch position in the notched tabs, the louver in the second notch position will match the second notch in the notched tabs, etc.
3. Adjust the louver to the desired notch in order to accommodate facing material and to cover the control compartment as you see fit. Re-tighten screws on hanging brackets.
4. Install safety barrier. Center the screen front over the glass frame assembly, allowing the hanging brackets to fit inside the air openings.
5. Align the notched tabs with the slots in the fireplace. Raise slightly and push back to desired position.
6. Lower the screen front until the notched tabs are firmly in position. Verify the depth accommodates finish material, and the notched tabs position matches the louver notch position.
7. To remove safety screen: lift the screen up and out of slots.

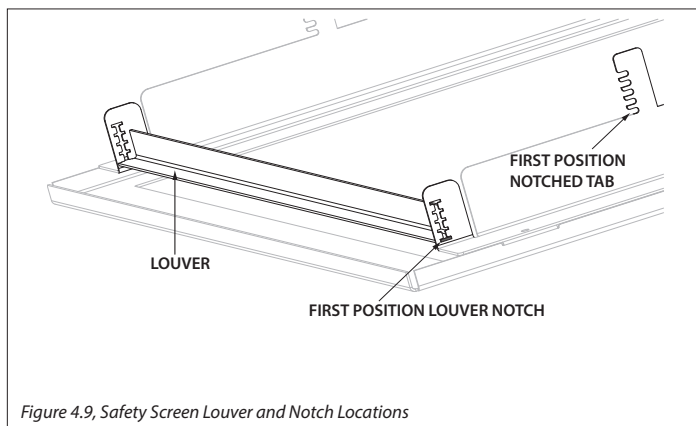


Figure 4.9, Safety Screen Louver and Notch Locations

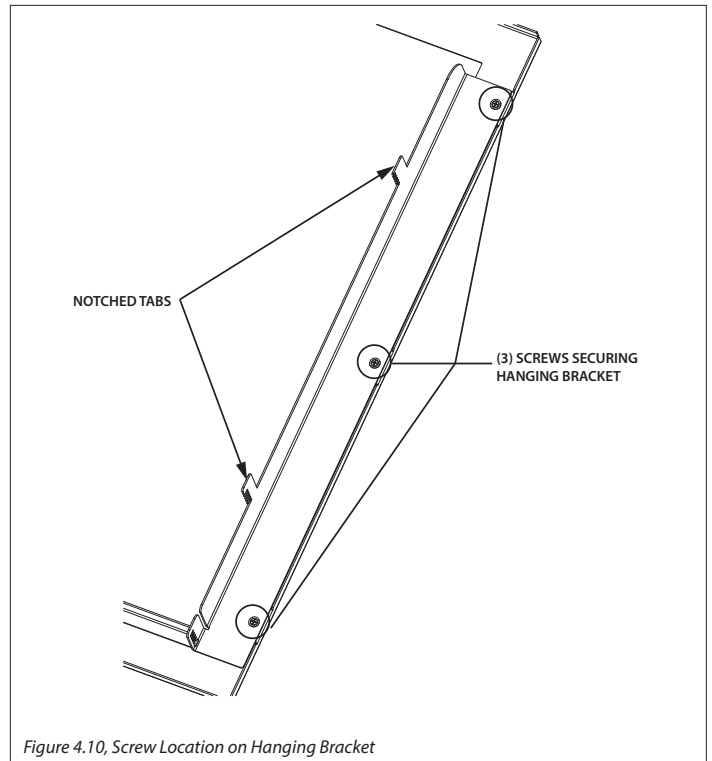


Figure 4.10, Screw Location on Hanging Bracket



Figure 4.11, Adjust Louver

5.0 GAS LINE CONNECTION

5.1 Gas Conversion (sold separately)

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

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

5.2 Gas Line Installation

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

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

- A listed (and Commonwealth of Massachusetts approved) ½" (13mm) tee handle manual shut-off valve and flexible gas connector are to be connected to the ½" (13 mm) control valve inlet. If substituting for these components, please consult local codes for compliance.
- This fireplace is equipped with a ¾" (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. Refer to Figure 2.1, Appliance Dimensions on page 9 for gas line hole locations.
- It is easier to install the optional fan kit before connecting the gas line to the control board. Refer to 9.2 #B41-028 Optional Fan Kit on page 49.
- 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.

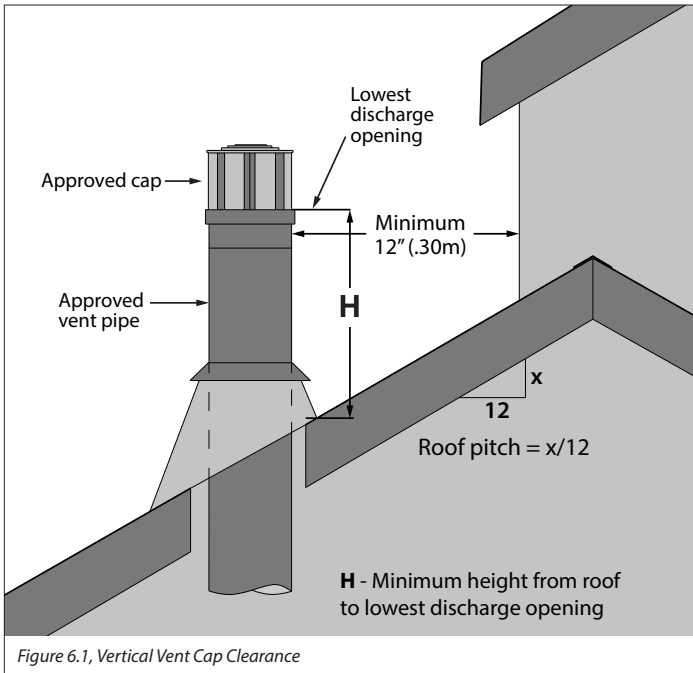
Table 5.1, Inlet Pressure Requirements

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

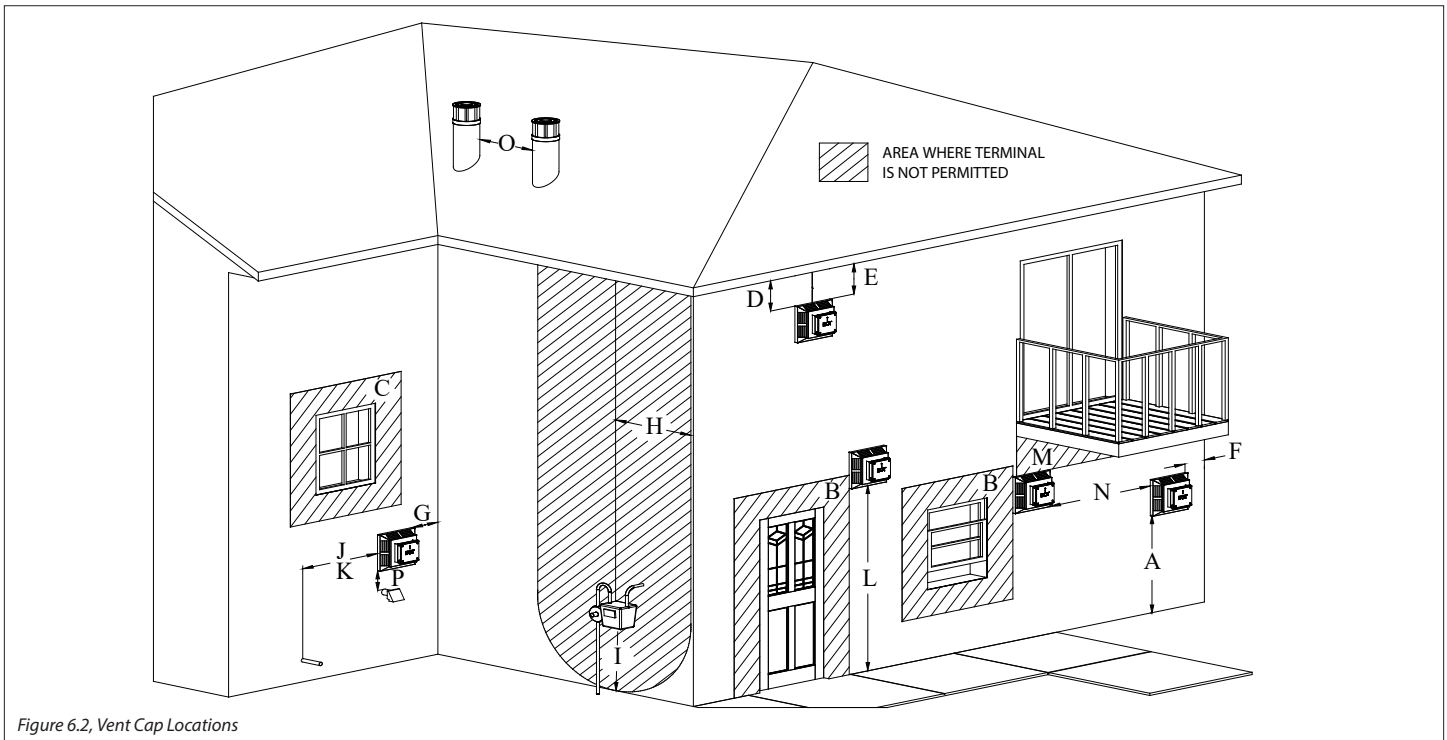
6.1 Vertical Vent Cap Termination

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



Roof Pitch	Minimum height (H) from roof	
	Feet	Meters
Flat to 6/12	1.0	0.30
Over 6/12 to 7/12	1.25	0.38
Over 7/12 to 8/12	1.5	0.46
Over 8/12 to 9/12	2.0	0.61
Over 9/12 to 10/12	2.5	0.76
Over 10/12 to 11/12	3.25	0.99
Over 11/12 to 12/12	4.0	1.22
Over 12/12 to 14/12	5.0	1.52
Over 14/12 to 16/12	6.0	1.83
Over 16/12 to 18/12	7.0	2.13
Over 18/12 to 20/12	7.5	2.27
Over 20/12 to 21/12	8.0	2.44

6.2 Minimum Termination 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' (61cm) from the cent line of the terminal	24" (61cm)*	24" (61cm)*
E	Clearance to unventilated soffit	12" (30cm)*	12" (30cm)*
F	Clearance to outside corner	0" (0cm)*	0" (0cm)*
G	Clearance to inside corner	12" (30cm)*	12" (30cm)
H	Clearance to each side of center line extended above meter/regulator assembly	3' (91cm) within a height 15' (4.5m) above the meter/regulator assembly	*
I	Clearance to service regulator vent outlet	3' (91cm)	*
J	Clearance to non mechanical air supply inlet to building or the combustion air inlet to any other appliance	12" (30cm)	9" (23cm)
K	Clearance to mechanical air supply inlet	6' (1.83m)	3' (91cm) above 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

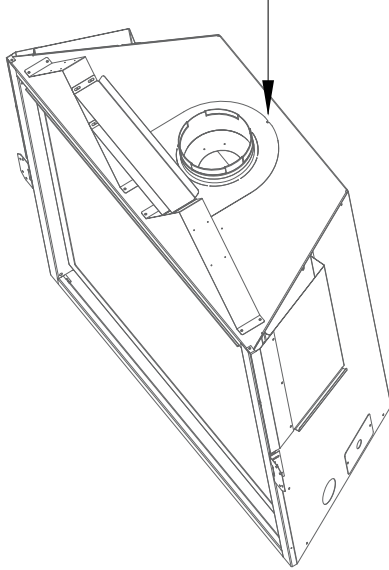
7.1 Rear Vent Conversion Instructions

IMPORTANT: This appliance has outlets for both top and rear venting. The unused vent exit must have the cover plates in place, and the cover plates must be removed from the exit according to the instructions below to be used.

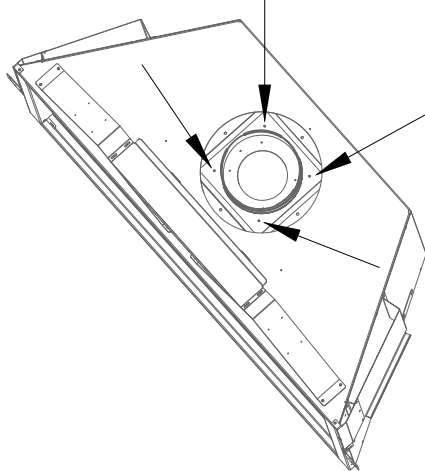
NOTE: All components removed from the top vent exit will be reinstalled for the rear vent.

7.1.1 Remove Top Vent Collars

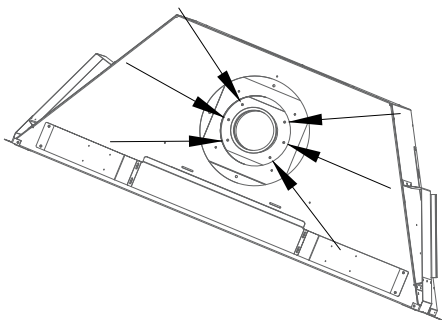
1) REMOVE THE ATTACHMENT SCREW SECURING COVER



2) REMOVE (4) SCREWS SECURING 6⁵/₈" (168mm) COMBUSTION AIR INTAKE COLLAR

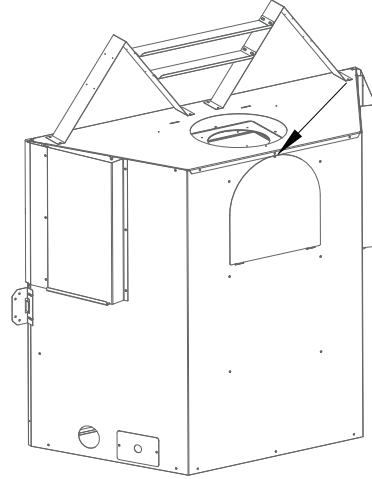


3) REMOVE (6) SCREWS SECURING 4" (101mm) EXHAUST COLLAR

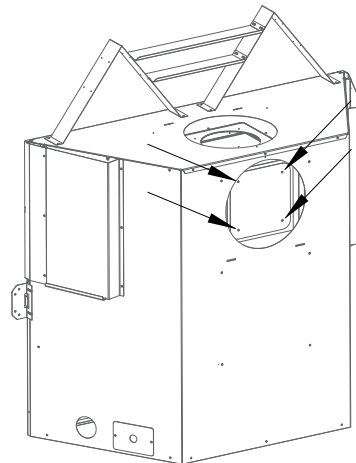


7.1.2 Remove Back Vent Combustion Air Intake and Exhaust Collars

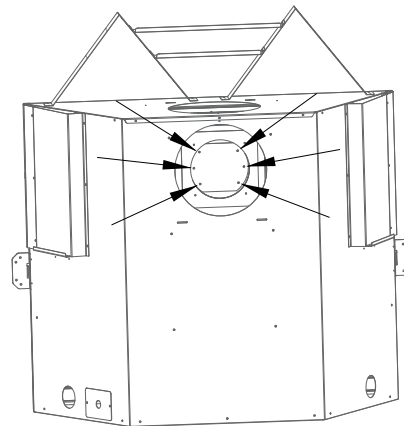
1) REMOVE THE ATTACHMENT SCREW SECURING BACK COVER PLATE



2) REMOVE (4) SCREWS SECURING COMBUSTION AIR INTAKE REAR COVER PLATE

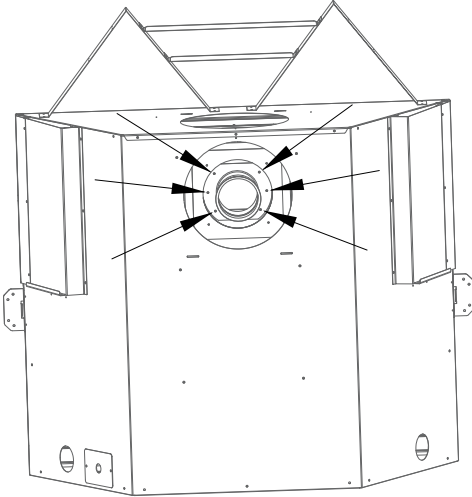


3) REMOVE (6) SCREWS SECURING EXHAUST COVER REAR PLATE

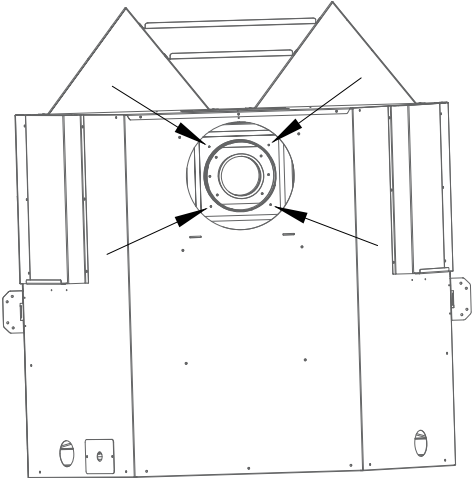


7.1.3 Install Exhaust and Combustion Air Intake Collars to Fireplace Rear

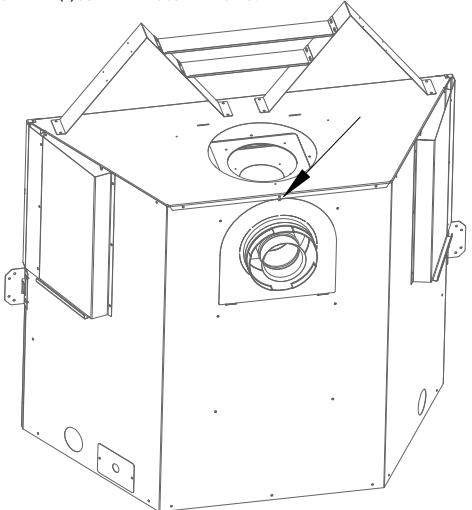
1) INSTALL 4" (101mm) EXHAUST COLLAR TO APPLIANCE REAR. VERIFY GASKET IS IN PLACE. SECURE WITH (6) SCREWS PREVIOUSLY REMOVED.



2) INSTALL 6-5/8" (168mm) COMBUSTION AIR INTAKE COLLAR TO APPLIANCE REAR. VERIFY GASKET IS IN PLACE. SECURE WITH (4) SCREWS PREVIOUSLY REMOVED.



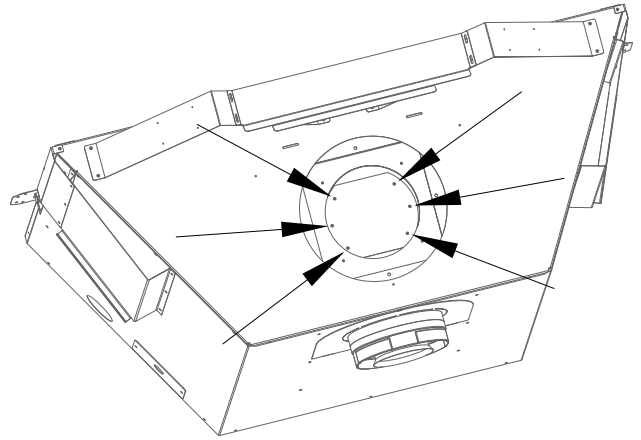
3) INSERT TABS ON REAR COVER PLATE INTO SLOTS. SECURE WITH (1) SCREW PREVIOUSLY REMOVED.



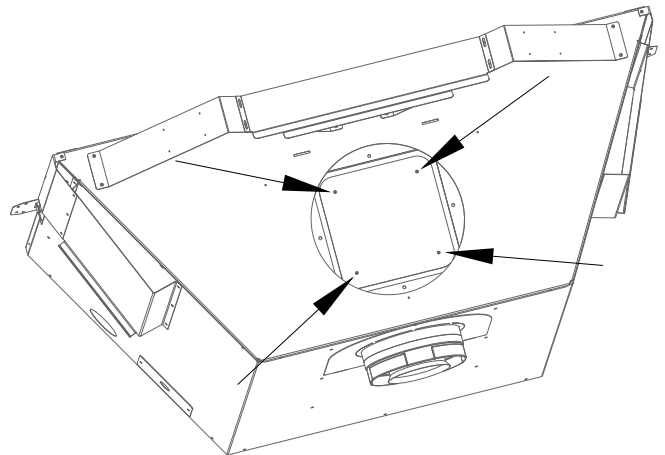
7.1.4 Install Cover Plates to Fireplace Top

WARNING: The cover plates must be installed on the top of the fireplace. DO NOT proceed with the fireplace installation until the vent conversion is completed.

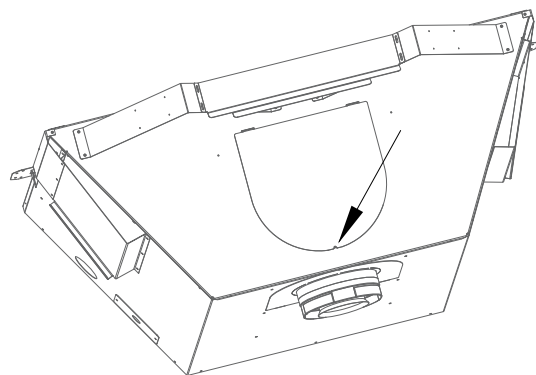
1) INSTALL EXHAUST COVER PLATE TO APPLIANCE TOP. VERIFY GASKET IS IN PLACE. SECURE WITH (6) SCREWS PREVIOUSLY REMOVED.



2) INSTALL COMBUSTION AIR INTAKE COVER PLATE TO APPLIANCE TOP. VERIFY GASKET IS IN PLACE. SECURE WITH (4) SCREWS PREVIOUSLY REMOVED.



3) INSERT TABS ON OUTER COVER PLATE INTO SLOTS ON APPLIANCE TOP. SECURE WITH (1) SCREW PREVIOUSLY REMOVED.



7.2 Approved Vent Systems

This appliance is equipped for use with a 4" exhaust by 6-5/8" air intake co-axial vent pipe system.

This appliance is approved for use with Kozy Heat 4" x 7" #700 Series Flexible Direct Vent system (horizontal terminations only). Refer to Section 7.8 #700-2 Series Direct Vent Termination Kit(s) on page 29 for venting components and installation instructions.

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.

***WHEN INSTALLING METAL FAB VENT SYSTEM** with this appliance an adapter must be used. Use adapter part number 4DDA.

The following termination caps are not allowed: Metal-Fab 4DH7, and Simpson Duravent Snorkel 46DVASNK14.

This appliance can be adapted to use 4" diameter aluminum flexible pipe when used in combination with an existing minimum 6" x 8" ID masonry or an existing minimum 7" ID Class A metal chimney. See Section 7.6 Class A Chimney/Masonry Chimney Conversion Kit on page 42.

This appliance can be adapted to use 3" x 3" flexible co-linear vent pipes when used in combination with an existing minimum 6" x 8" ID masonry or 7" ID Class A metal chimney. See Section 7.7 Coaxial to Co-Linear Chimney Conversion on page 43.

The vent configurations listed in this manual are shown with rigid pipe. Flexible pipe may be used for approved venting configurations by approved vent manufacturers. Refer to the vent manufacturer's installation instructions.

Refer to the vent manufacturer's installation manual for complete installation instructions. Vent installation must conform with venting requirements and restrictions as outlined in this manual.

7.3 Venting Requirements

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.

NOTE: *Wall thimble products that comply with the required 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.*

NOTE: *Attic insulation shields may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.*

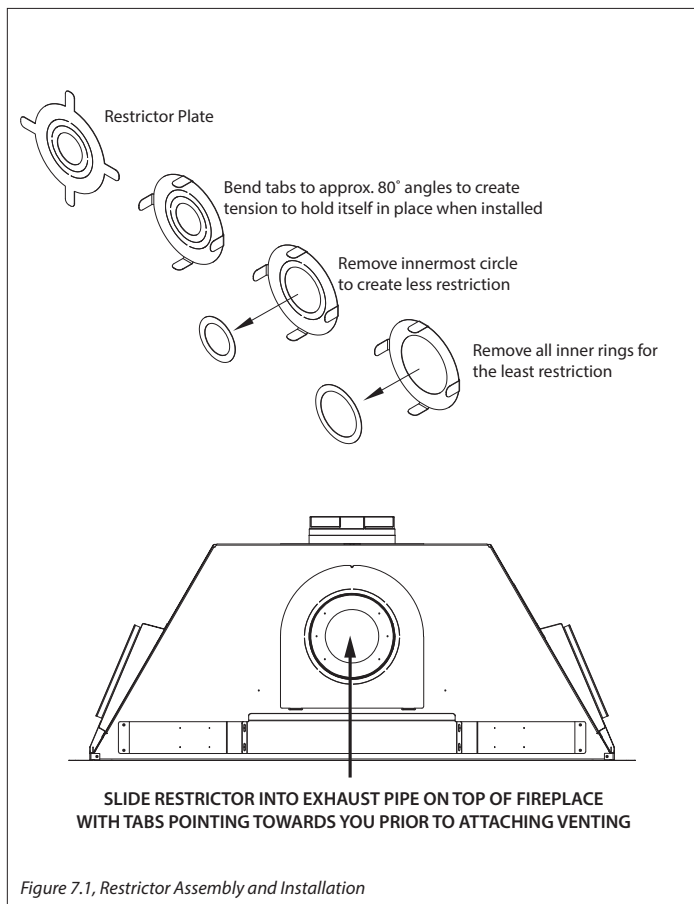
- Flame height and appearance will vary depending upon venting configuration and the type of fuel used.
- Refer to the vent manufacturer's installation manual for complete installation instructions. Vent installation must conform with venting requirements and restrictions as outlined in this manual.
- 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 side of the vertical pipe must be maintained.
- A minimum of 1" (25mm) clearance on all sides of the horizontal vent flex pipe must be maintained.
- A minimum of 1-1/2" (38mm) top clearance and a minimum of 1" (25mm) bottom and side clearances for the horizontal rigid pipe must be maintained.

7.4 Restrictor Plate Assembly and Installation

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.

Section 11.2.2 Vent restriction (after installation) on page 54 outlines restrictor recommendations depending on burner flame appearance, and instructions on installation after venting is completed.



7.5 Venting Installation

7.5.1 Top Venting

7.5.1.1 Vertical Terminations

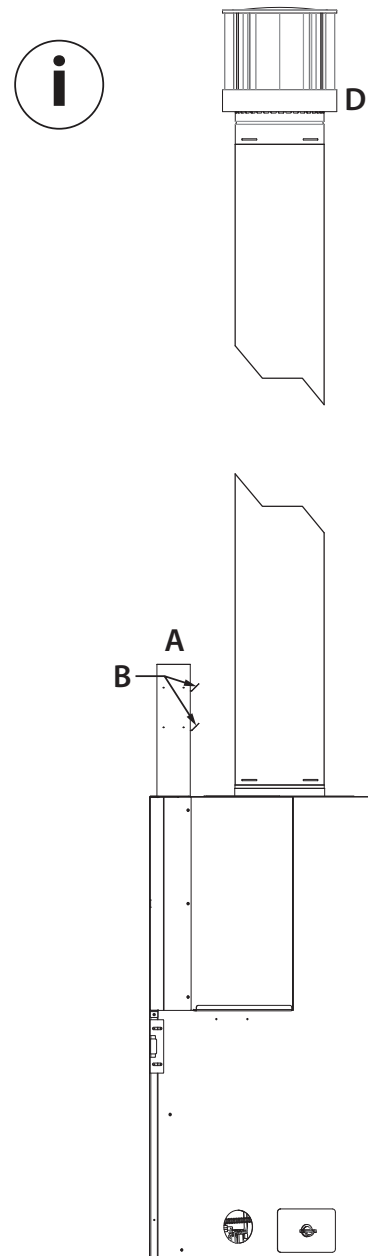
Flexible pipe may be used for approved venting configurations by vent manufacturers listed in Section 7.2 Approved Vent Systems on page 33.

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

3' (914mm) minimum vertical length / 50' (15.24m) maximum vertical length + termination cap

DIAG. 1 TOP VENTING (VERTICAL TERMINATIONS)

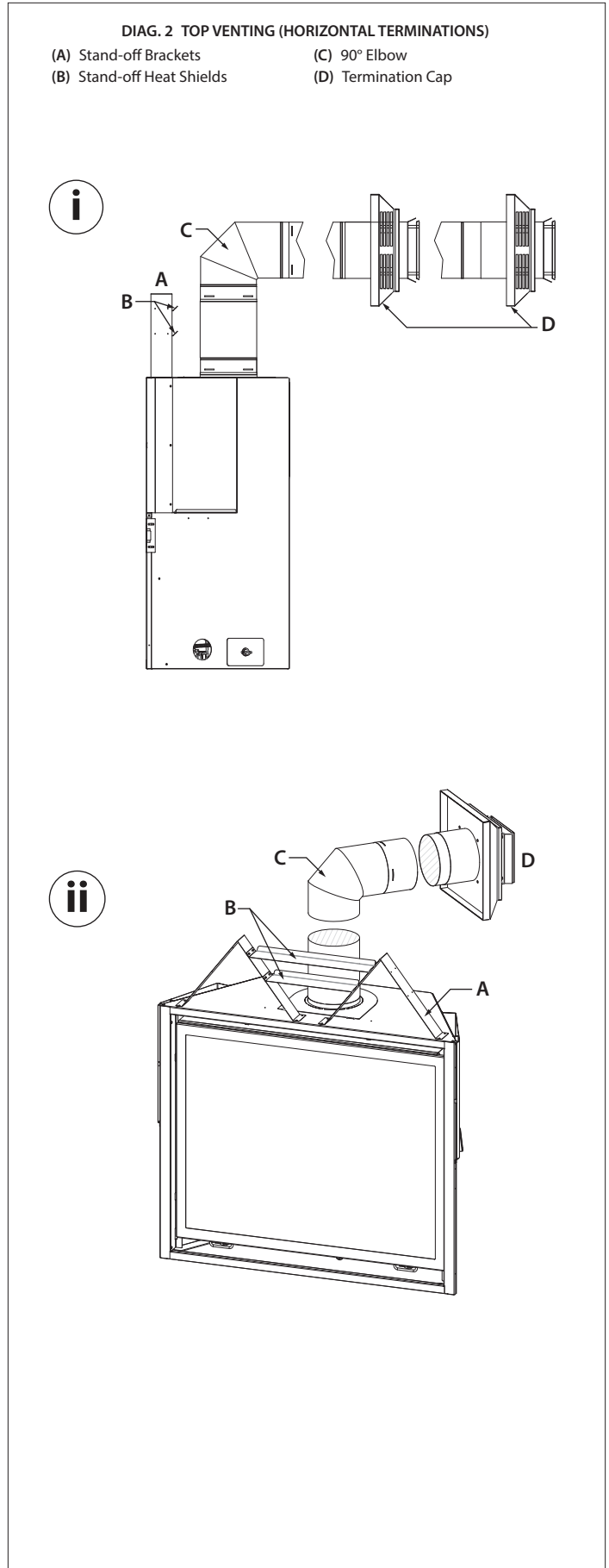
- (A) Stand-off Brackets
- (B) Stand-off Heat Shields
- (C) 90° Elbow (not applicable)
- (D) Termination Cap



7.5.1.2 Minimum Horizontal Vent Terminations

Flexible pipe may be used for approved venting configurations by vent manufacturers listed in Section 7.2 Approved Vent Systems on page 33.

- (i) **Minimum Vertical Rise, Minimum/ Maximum Horizontal Termination:**
9" (229mm) vertical rise + 90° horizontal elbow + 6" (152mm) minimum horizontal run / 18" (457mm) maximum horizontal run + termination cap
- (ii) **Typical Corner Installation 9" vertical rise:**
9" (229mm) vertical rise +90° horizontal elbow + 18" (457mm) maximum horizontal run + termination cap
- (ii) **Typical Corner Installation 15" vertical rise:**
15" (381mm) vertical rise +90° horizontal elbow + 48" (1219mm) maximum horizontal run + termination cap

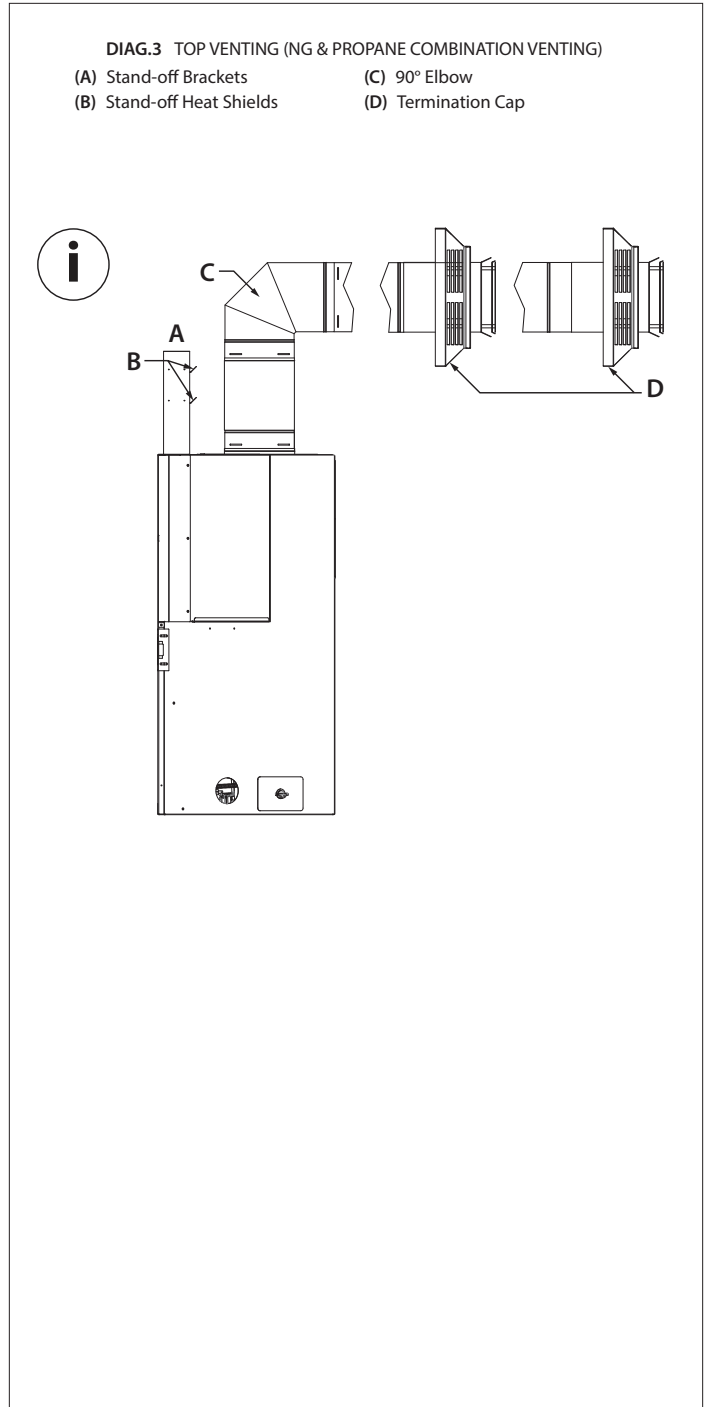


7.5.1.3 Combination Venting

IMPORTANT: Horizontal vent sections require at least ¼" (6mm) rise for every 12" (305mm) of travel.

Flexible pipe may be used for approved venting configurations by vent manufacturers listed in Section 7.2 Approved Vent Systems on page 33.

- (i) **Minimum 15" Vertical Rise, Maximum Horizontal Run:**
15" (381mm) minimum vertical rise + 90° horizontal elbow +
48" (1219mm) maximum horizontal run + termination cap
- (i) **Minimum 24" Vertical Rise, Maximum Horizontal Run:**
24" (609mm) minimum vertical rise + 90° horizontal elbow +
8' (2.4m) maximum horizontal run + termination cap
- (i) **Minimum 36" Vertical Rise, Maximum Horizontal Run:**
36" (914mm) minimum vertical rise + 90° horizontal elbow +
12' (2.4m) maximum horizontal run + termination cap
- (i) **Minimum 48" Vertical Rise, Maximum Horizontal Run:**
48" (1219mm) minimum vertical rise + 90° horizontal elbow +
20' (6.1m) maximum horizontal run + termination cap



**7.5.1.4 Top Vent Natural Gas and Propane
Maximum Combination Venting**

For maximum vertical and maximum horizontal combination venting, the vent terminations must be within the shaded area in Figure 7.2.

Flexible pipe may be used for approved venting configurations by vent manufacturers listed in Section 7.2 Approved Vent Systems on page 33.

- 25' (7.6m) maximum vertical rise + 25' (7.6m) maximum

horizontal run = 50' (15.2m) of total length

- Maximum of (4) 90° elbows.
- For each additional 90° elbow used after the first elbow, 3' (914mm) must be subtracted from maximum venting allowed.
- For each 45° elbow used, 18" (457mm) must be subtracted from maximum venting allowed.
- (2) 45° degree elbows may be used in place of (1) 90° elbow.

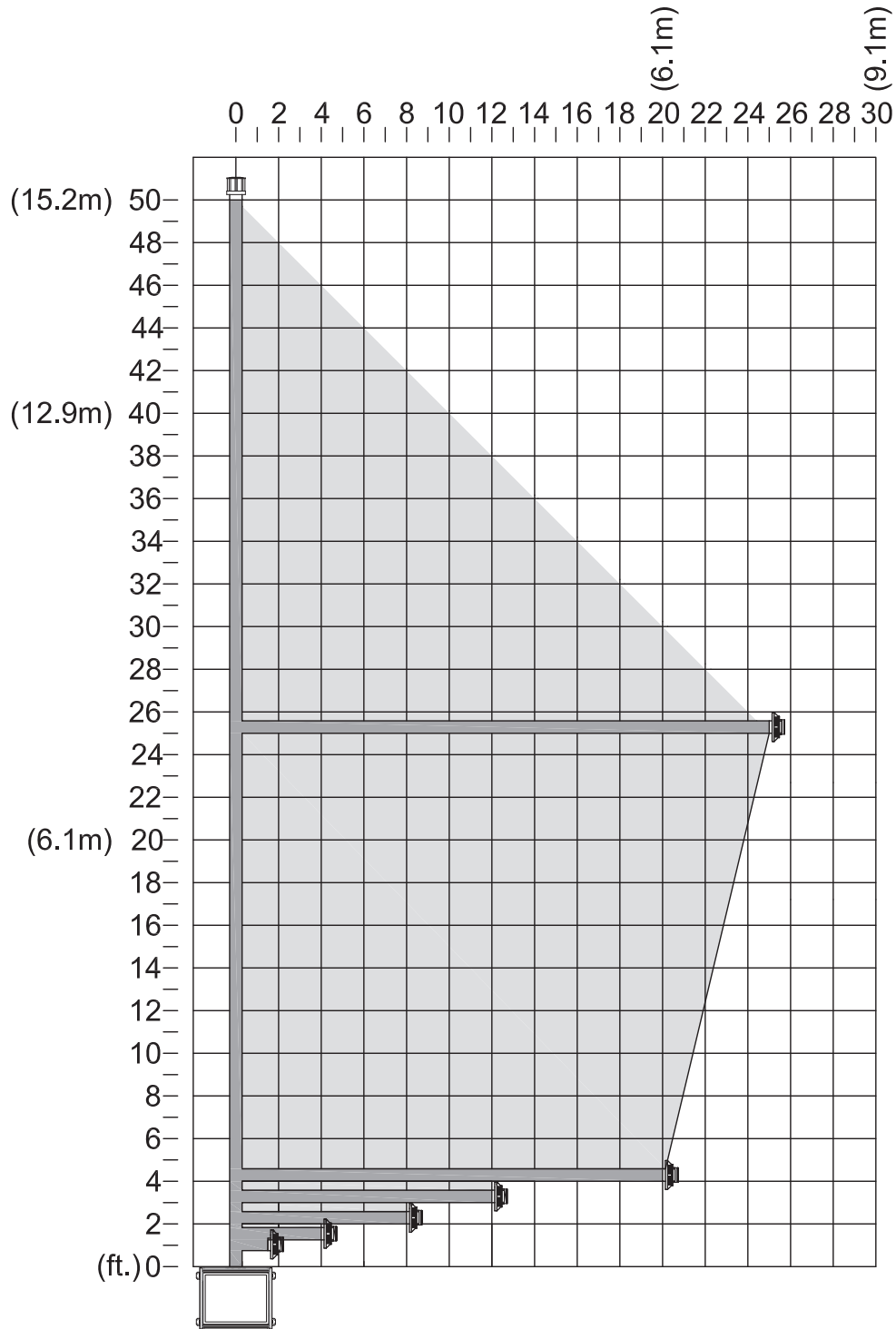


Figure 7.2, NG/Propane - Top Vent Combination Venting (V/H)

7.5.2 Rear Venting

IMPORTANT: Horizontal vent sections require at least ¼" (6mm) rise for every 12" (305mm) of travel.

Flexible pipe may be used for approved venting configurations by vent manufacturers listed in Section 7.2 Approved Vent Systems on page 33.

7.5.2.1 Horizontal Terminations

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

6" (152mm) minimum horizontal run / 24" (610mm) maximum horizontal run + termination cap

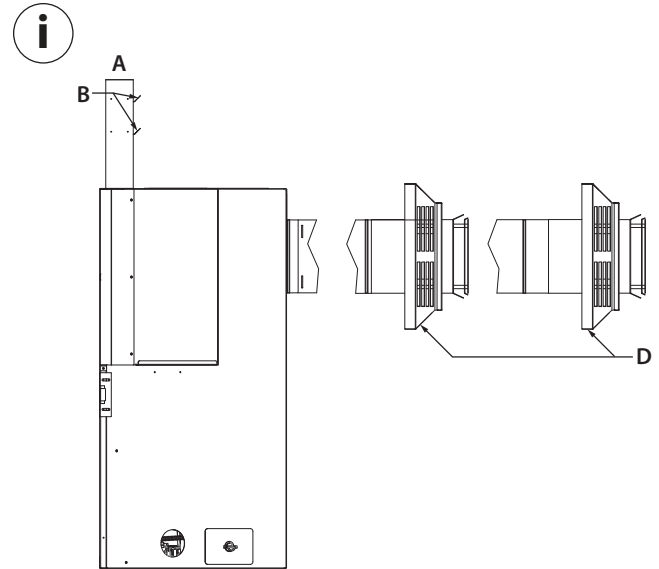
(ii) **Natural Gas ONLY Rear Vent Option:**

45° elbow (for a corner installation)* off the rear of the appliance + 18" (457mm) maximum horizontal run + termination cap

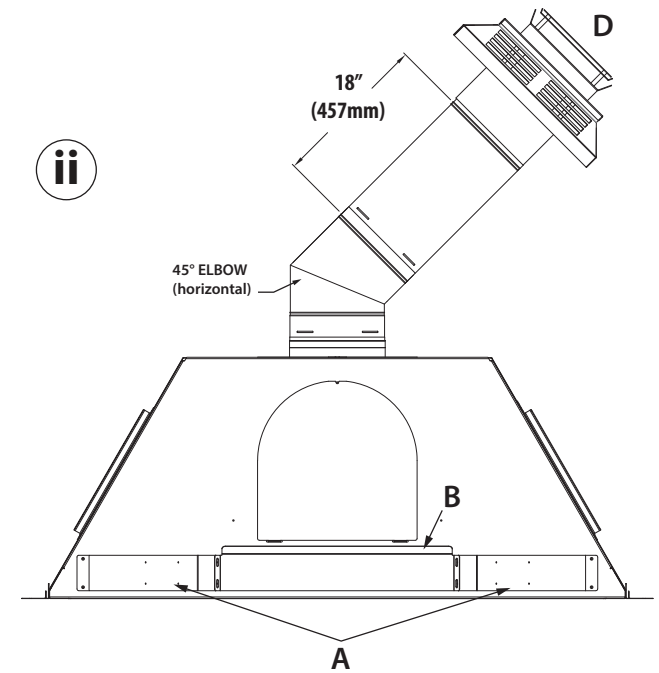
*It does not matter whether it turns right or left

DIAG.4 REAR VENTING (HORIZONTAL TERMINATIONS)

- (A) Stand-off Brackets (B) Stand-off Heat Shields (C) 90° Elbow (not applicable) (D) Termination Cap



NATURAL GAS ONLY



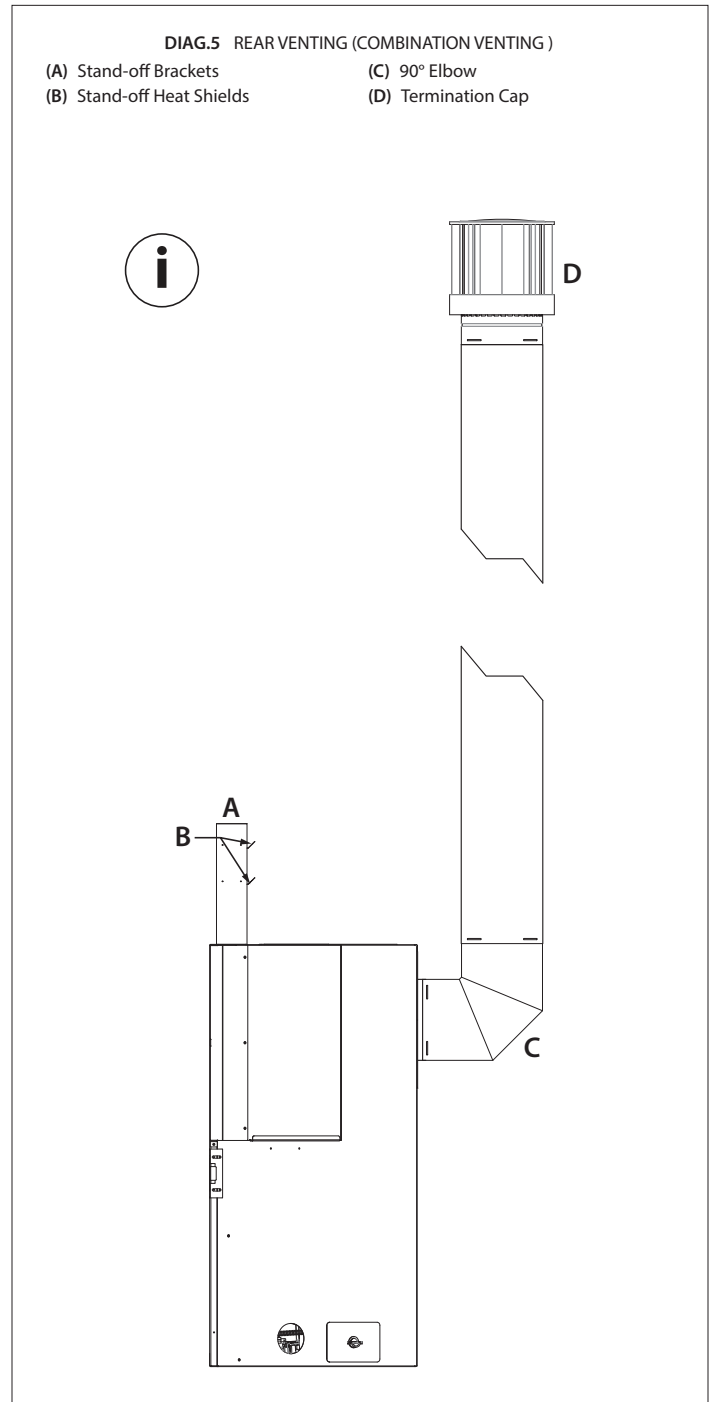
7.5.2.2 Combination Venting

IMPORTANT: Horizontal vent sections require at least ¼" (6mm) rise for every 12" (305mm) of travel.

Flexible pipe may be used for approved venting configurations by vent manufacturers listed in Section 7.2 Approved Vent Systems on page 33.

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

90° vertical elbow + 3' (914mm) minimum vertical length / 50' (15.2m) maximum vertical length + termination cap



7.5.2.3 Rear Vent Natural Gas and Propane Maximum Combination Venting

For maximum vertical and maximum horizontal combination venting, the vent terminations must be within the shaded area in Figure 7.3.

Flexible pipe may be used for approved venting configurations by vent manufacturers listed in Section 7.2 Approved Vent Systems on page 33.

- 25' (7.6m) maximum vertical rise + 25' (7.6m) maximum

horizontal run = 50' (15.2m) of total length

- Maximum of (4) 90° elbows.
- For each additional 90° elbow used after the first elbow, 3' (914mm) must be subtracted from maximum venting allowed.
- For each 45° elbow used, 18" (457mm) must be subtracted from maximum venting allowed.
- (2) 45° degree elbows may be used in place of (1) 90° elbow.

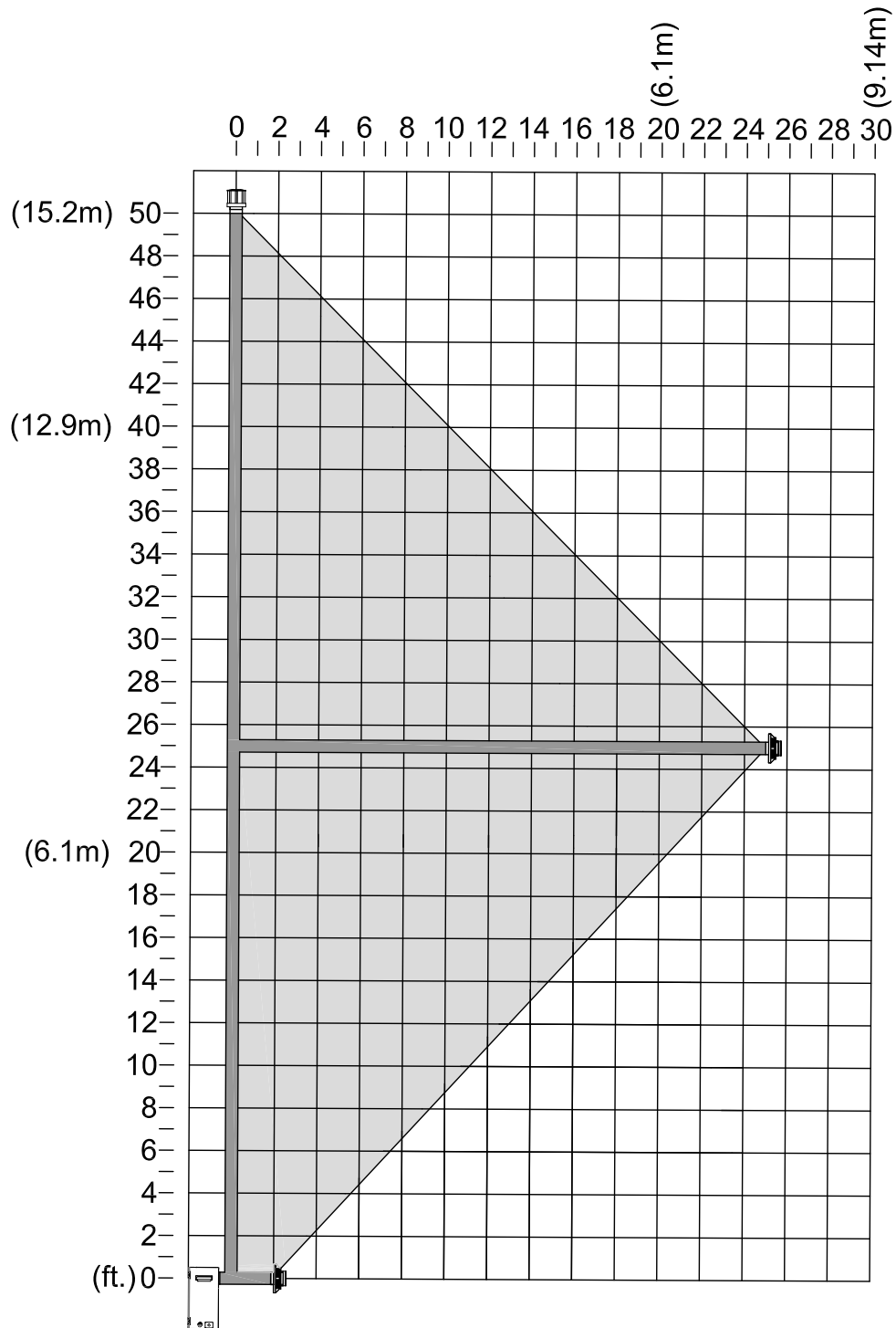


Figure 7.3, NG/Propane - Rear Vent Combination Venting (H/V)

7.6 Class A Chimney/Masonry Chimney Conversion Kit

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 7.2 Approved Vent Systems on page 33.

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. 6 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.

7.6.1 4" Flex Pipe Venting Configurations

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

IMPORTANT: The horizontal heat shield included with this fireplace must be installed when using a 90° elbow 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.

Vent options listed below (i, ii, iii) allow for a minimum of 0" (0mm) to a maximum of 24" (610mm) horizontal run using rigid or flexible pipe.

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

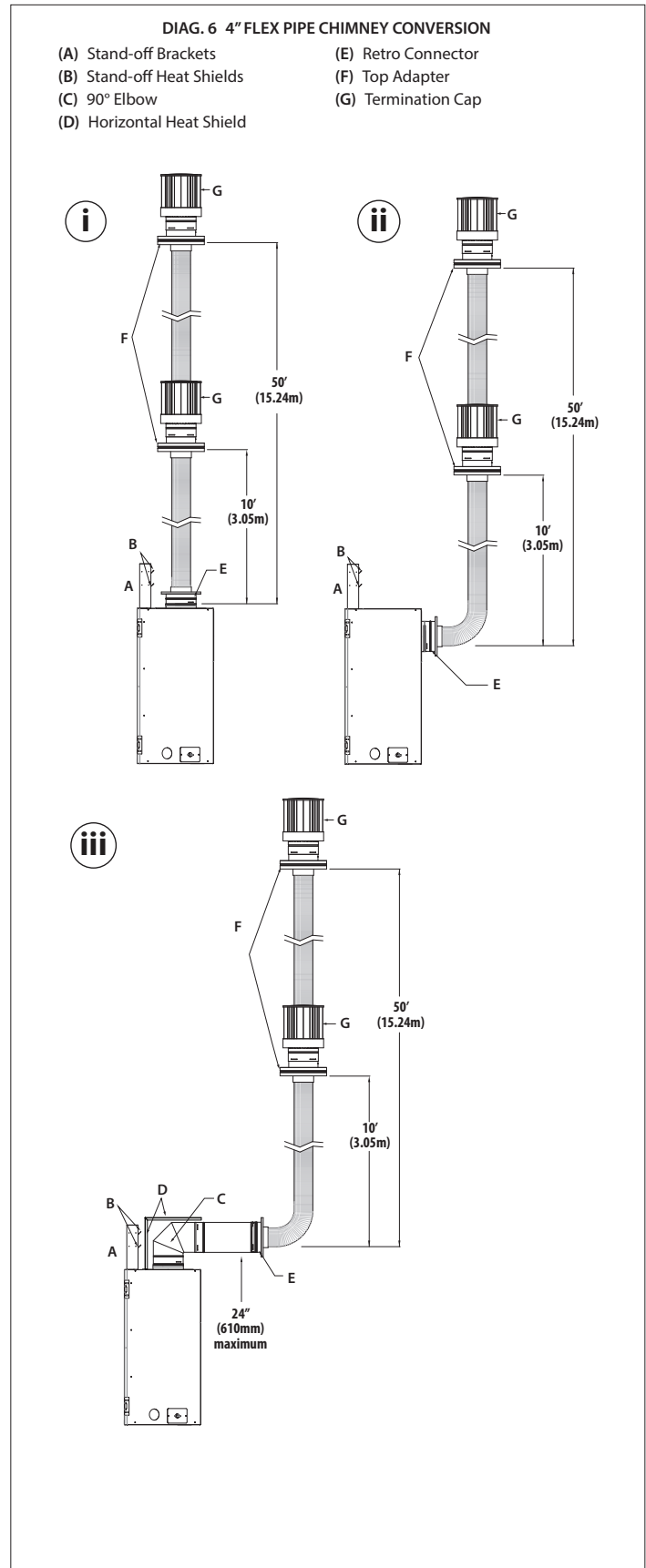
Retro Connector + 10' (3.05m) minimum length of 4" aluminum flexible pipe / 50' (15.24m) maximum length of 4" aluminum flexible pipe + top adapter + termination cap

(ii) **Minimum / Maximum Rear Vent Vertical Terminations:**

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

(iii) **Minimum / Maximum Top Vent with Rigid Pipe Vertical Terminations:**

90° horizontal 4" x 6-5/8" elbow + maximum of 24" (610mm) of coaxial 4" x 6-5/8" rigid pipe + 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



7.7 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.7 for allowable venting configurations for installation in existing through masonry chimney. Route the exhaust gases and intake air through the existing masonry chimney.

7.7.1 Coaxial to Co-Linear Venting Configurations

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

IMPORTANT: The horizontal heat shield included with this fireplace must be installed when using a 90° elbow 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.

Vent options listed below (i, ii, iii) allow for a minimum of 0" (0mm) to a maximum of 24" (610mm) horizontal run using rigid or flexible pipe.

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

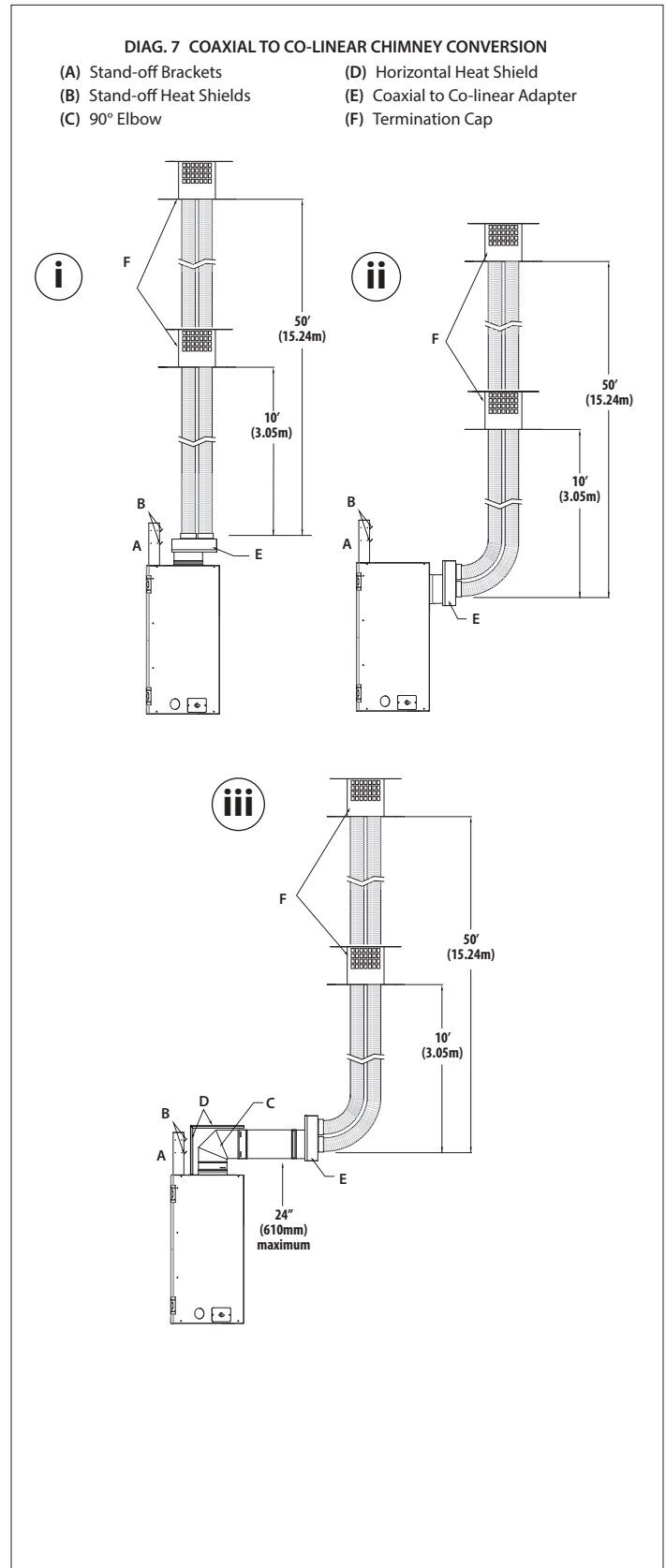
Coaxial to Co-linear Adapter + 10' (3.05m) minimum length of 3" x 3" aluminum flexible pipe / 50' (15.24m) maximum length of 3" x 3" aluminum flexible pipe + termination cap

(ii) **Minimum / Maximum Rear Vent Vertical Terminations:**

Coaxial to Co-linear Adapter + 10' (3.05m) minimum length of 3" x 3" aluminum flexible pipe / 50' (15.24m) maximum length of 3" x 3" aluminum flexible pipe + termination cap

(iii) **Minimum / Maximum Top Vent with Rigid Pipe Vertical Terminations:**

90° horizontal 4" x 6-5/8" elbow + maximum of 24" (610mm) of coaxial 4" x 6-5/8" rigid pipe + coaxial to co-linear adapter + 10' (3.05m) minimum length of 3" x 3" aluminum flexible pipe / 50' (15.24m) maximum length of 3" x 3" aluminum flexible pipe + termination cap



7.8 #700-2 Series Direct Vent Termination Kit(s)

WARNING: #700-2 Series is for top vent applications ONLY. Do not install off the rear of the appliance.

IMPORTANT: The flex pipe is permanently attached to the exterior plate. DO NOT ATTACH either #745-2 or #718-2 termination kit to fireplace (or extension kit) until it has passed through the wall. Install termination plates to the outside wall exterior.

IMPORTANT: The minimum bend radius to center is 6" (152mm) required for installation of the flexible vent pipe. Care should be taken when installing to avoid a tight bend that may cause abrasion or damage to the flexible pipe.

- If terminating against vinyl siding, a vinyl siding protector must be used (included with the #745-2 and #718-2 direct vent kits). Follow instructions included.
- Each #746-2 extension kit contains enough 4" & 7" flexible aluminum pipe to extend chimney an additional 6' (1.83m).

7.8.1 #700-WPT Installation Instructions

IMPORTANT: The heat shield within the wall thimble must overlap a minimum of 1-1/2" (38mm). An extension will be needed if going through a thicker wall than 6-1/2" (165mm). Refer to BDM vent manufacturer if wall extension is necessary.

1. Hand bend the (2) tabs on the top of the wall pass through at the 1" (25mm) top required clearance. Hand bend the (6) tabs on the sides and bottom of the wall pass through. Repeat for the other section.
2. From the interior, install one section of the wall pass through. Secure with (4) screws (not provided).
3. From the exterior, install the other section of the wall pass through, overlapping the heat shields as necessary to accommodate wall thickness. The sections must overlap a minimum of 1-1/2" (38mm). Secure to exterior wall with (4) screws (not provided).
4. Follow vent manufacturer installation instructions for vent installation.

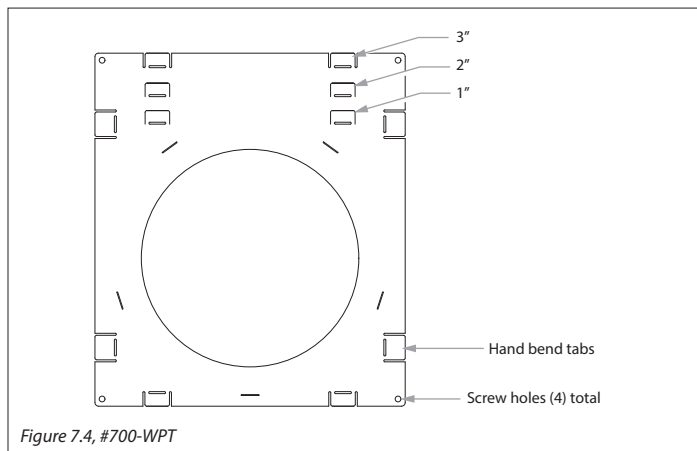


Figure 7.4, #700-WPT

7.8.2 Assembly and Installation

5. Attach vinyl siding protector (G) (not shown).
6. Mount the required wall thimble (H) with 1" (25mm) top clearance and 1" (25mm) side clearance to the exterior wall, and seal. (OPTIONAL) insulate the wall thimble with any unfaced

insulation products listed as non-combustible per ASTM E 136.

7. Apply a liberal bead of exterior sealant around outer edge of termination box (A). Place assembly through the wall-pass through in exterior wall, and secure with (4) screws through the four holes (B).
8. Form the 4" & 7" flexible aluminum pipes on termination kit (#745-2 or #718-2), and if applicable, on each extension kit.
9. Gently pull 4" & 7" pipes down to the top of the fireplace, or if applicable, the extension kit. **IMPORTANT: DO NOT stretch extension kit beyond 6' (1.83m); DO NOT stretch beyond what is required. It is very difficult to decompress flex pipes once stretched.**
10. Place a bead of sealant outside 4" flex pipe collar (C) (end with EXTERNAL LIP) and sliding the collar into 4" pipe on extension kit or top of fireplace (D). Secure with 3 evenly spaced screws.
11. Place a bead of sealant inside 7" flex pipe collar (E) (end with the INTERNAL lip), sliding the collar over 7" pipe on top of fireplace (F). Secure with 3 evenly spaced screws.
12. If additional extension kits are required, repeat Steps 4 and 5, placing 4" & 7" pipes onto previous extension kit.

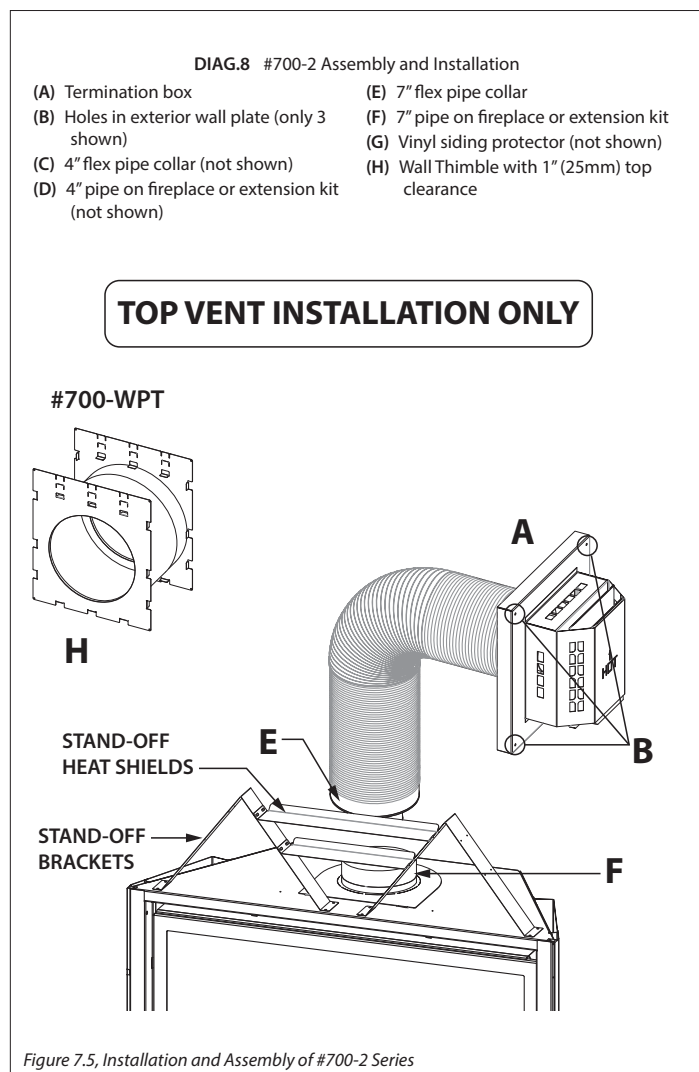


Figure 7.5, Installation and Assembly of #700-2 Series

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 safety barrier.
2. Remove the bottom frame up and out of slots on firebox floor.
1. Locate (2) spring-loaded latches securing the glass assembly at the bottom of the firebox.
2. Pull the spring-loaded latches out and down to release the bottom of the glass assembly.
3. Lift glass assembly up and off of the (2) tabs located at the top of the firebox.

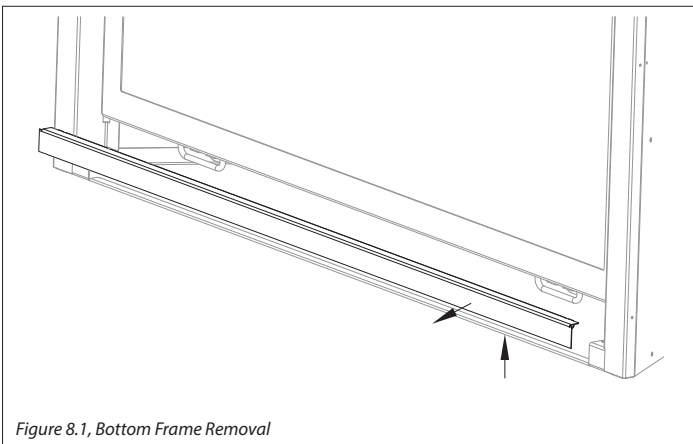
8.1.2 Install Glass Frame Assembly

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 glass to the bottom of the fireplace.
3. Reinstall bottom frame by aligning the tabs on the bottom frame and lower into position.
4. Reinstall safety barrier.

8.2 Bottom Frame Removal and Installation

To access the gas valve, the bottom frame will need to be removed. It must be reinstalled after servicing to maintain clearances.

1. Remove the safety barrier.
2. Locate the bottom frame.
3. Lift the bottom frame up and out of slots on firebox floor.
4. To reinstall, align the tabs on the bottom frame and lower into position.
5. Reinstall safety barrier.



8.3 #B41-500 Log Set Installation

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

- If converting to propane, complete the conversion before installing the log set. Follow the conversion instructions included with the kit.
- Log numbers are located on the bottom of each log. Refer to the following instructions and illustrations for proper log placement.

1. Position the ember panel in front of the burner.
2. Align the holes in bottom of base logs (BP1 to BP4) with the mounting pins on the burner. Push logs down onto pins to seat.
3. Align logs BP5 and BP6 with the notches on the base logs.
4. Align logs BP7 and BP8 as shown in Figure 8.3.
5. Distribute rockwool embers onto the logs and burner using a stiff bristle brush.

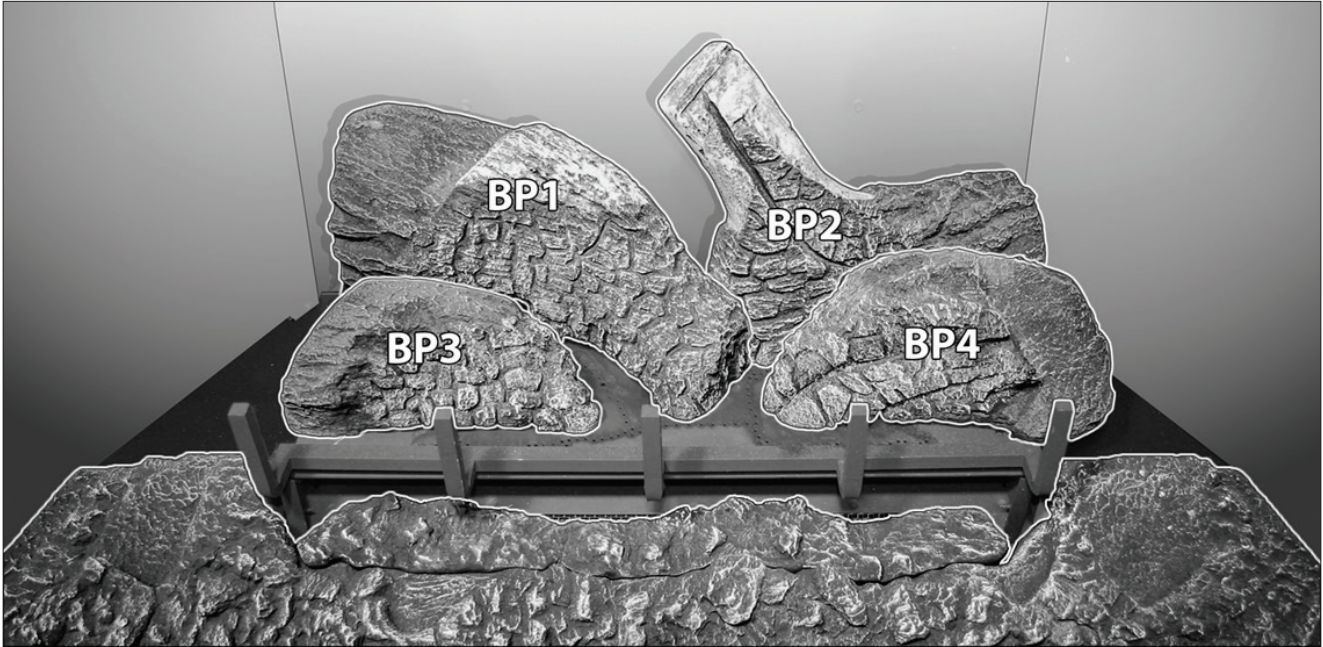


Figure 8.2, Base Logs

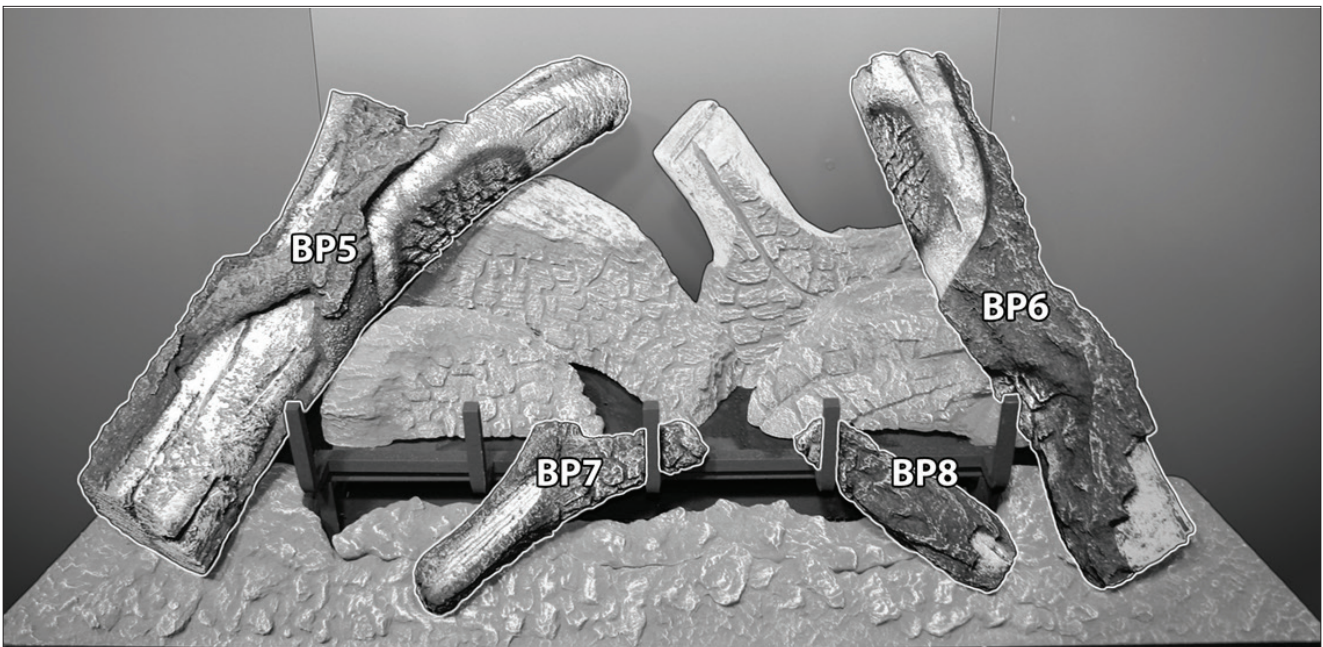


Figure 8.3, Installed Log Set

8.4 Control Board Removal and Installation

WARNING: If burner and/or pilot have been burning, use appropriate protection to avoid burns or damage to personal property before removing any components. DO NOT OPERATE THIS APPLIANCE WITHOUT THE SEALING GASKET (LOCATED UNDER THE CONTROL BOARD) IN PLACE. IF GASKETING IS DAMAGED, IT MUST BE REPLACED.

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

8.4.1 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, bottom frame, and glass frame assembly.
3. Disconnect any optional control 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 log set.
5. Remove the pilot shield.
6. Remove air deflector (2) screws. Lift air deflector up and slide right to release.
7. Remove burner assembly from firebox (2) screws.
8. Remove refractory or black glass panel set (if installed).
9. Remove burner heat shield (2) screws and secondary heat shield.
10. Remove and save (8) screws securing the control board.
11. Lift the control board out of the firebox, being careful not to damage the sealing gasket underneath.

8.4.2 Control Board Installation

1. Place control board in the firebox, aligning the holes in the control board with the holes in the firebox bottom.
VERIFY SEALING GASKET IS IN PLACE.
2. Secure the control board to the firebox using (8) screws previously removed.
3. Reinstall the secondary heat shield and the burner heat shield. Verify entire assembly (the front flange) is inside firebox.
4. Reinstall the air deflector.
5. Reinstall refractory or black glass panel set, if previously removed.
6. Reinstall burner assembly. Position burner venturi over burner orifice and secure the assembly to the heat shield with (2) screws previously removed.
7. Reinstall pilot shield.
8. Reinstall log set.
9. Reconnect any optional 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.
10. Reinstall the glass frame assembly, bottom frame, and safety barrier.
11. Turn the manual valve counterclockwise to the ON position.
12. Verify proper log placement, operation of fireplace, and any electrical components.

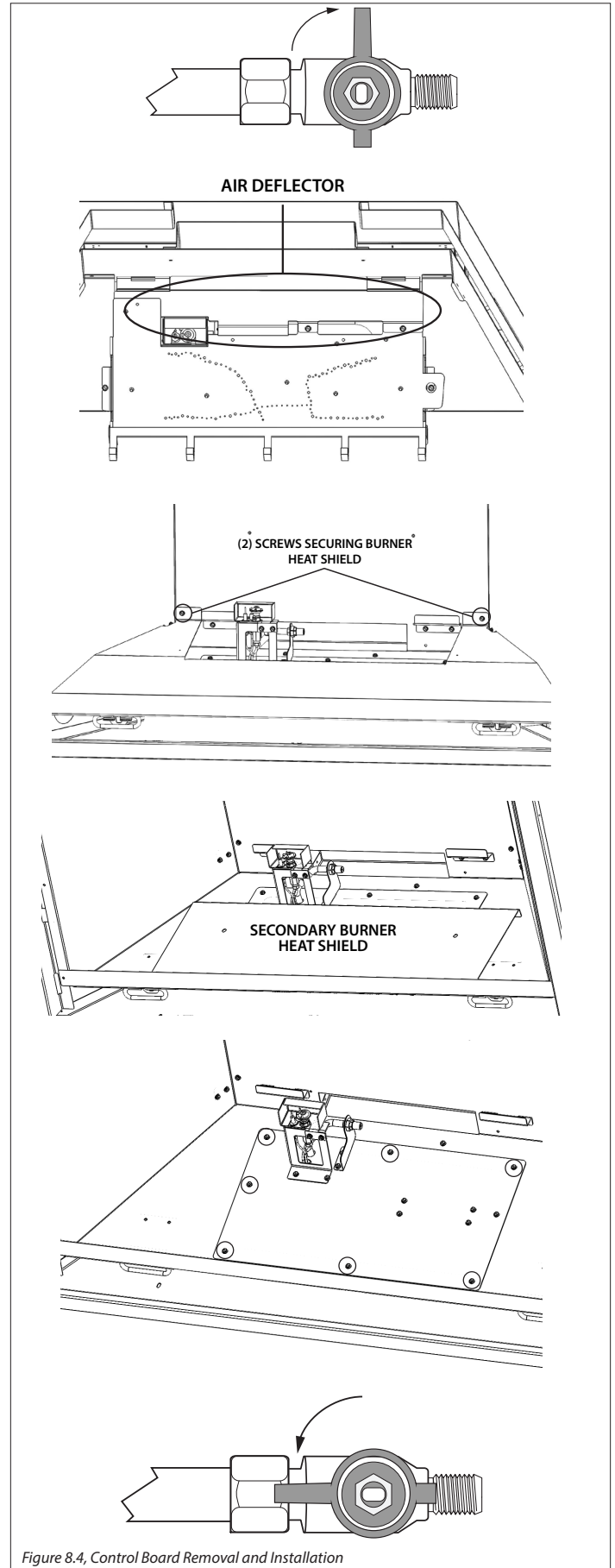


Figure 8.4, Control Board Removal and Installation

9.0 ELECTRICAL INFORMATION

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

9.1 Wiring Requirements

CAUTION: Do not connect high voltage (115V) wire to the gas valve.

- 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
- 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 wall switch, remote or thermostat 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 thermostat is to be used, mount 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.

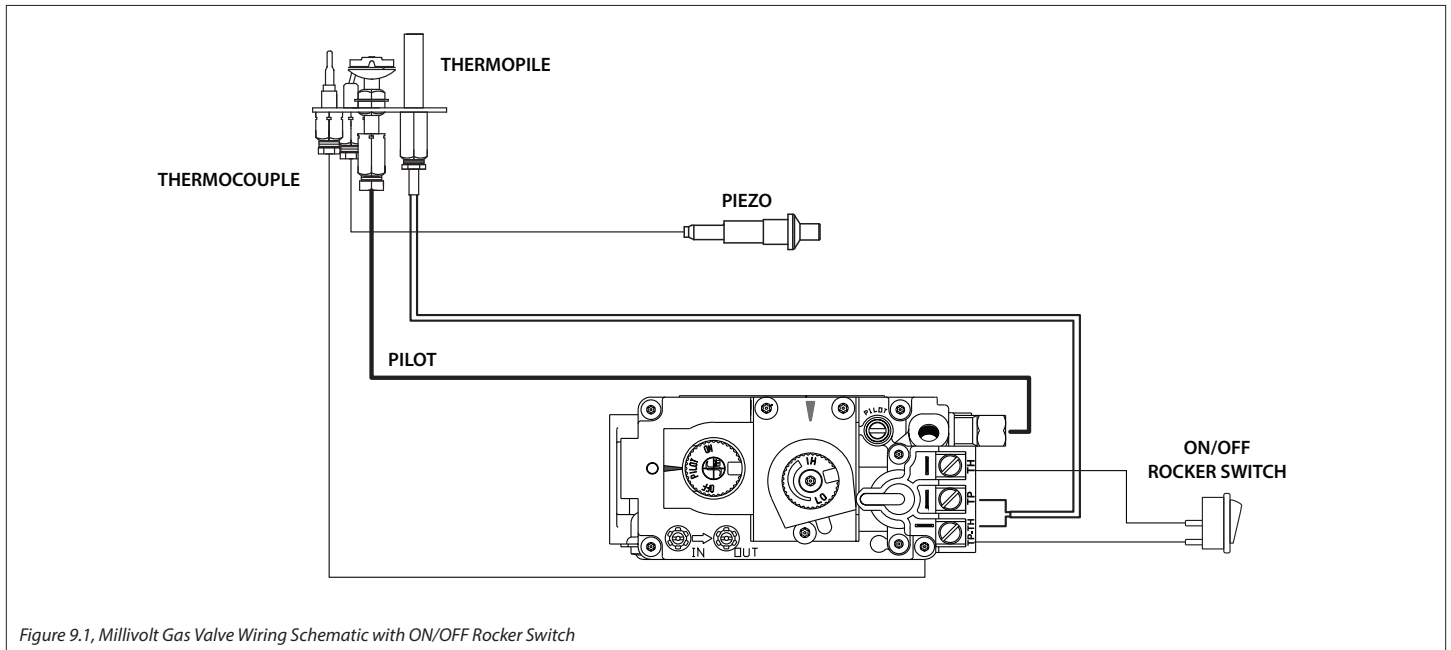


Figure 9.1, Millivolt Gas Valve Wiring Schematic with ON/OFF Rocker Switch

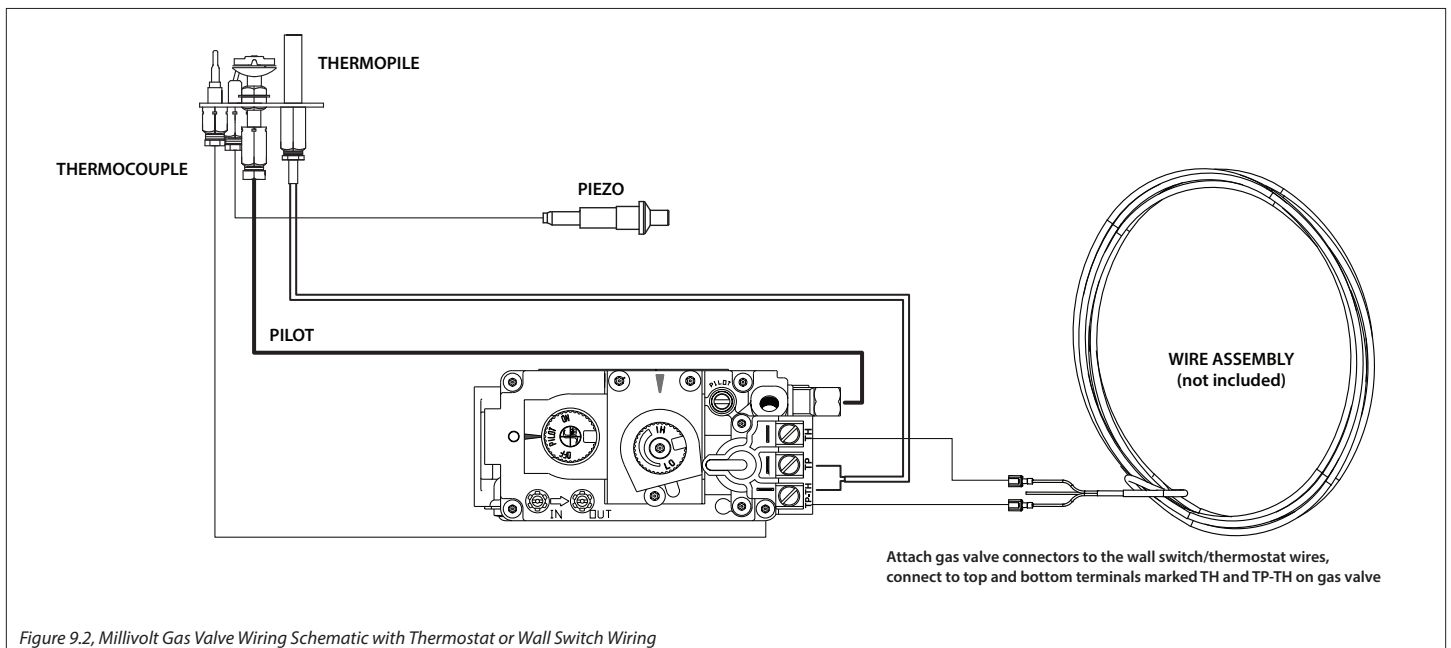


Figure 9.2, Millivolt Gas Valve Wiring Schematic with Thermostat or Wall Switch Wiring

9.2 #B41-028 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.

NOTE: It is easier to install the fan kit before connecting the gas line to the control board.

- 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 receptacle/box cover assembly in the fireplace components packet.

This kit includes:

- (2) fan assemblies; (1) speed control box with cord;
- (1) temperature control switch with magnet attached;
- (2) philips head screws (black); (4) flange nuts

1. Remove the safety barrier, bottom frame, and glass frame assembly.
2. Remove log set, pilot shield, air deflector, and burner assembly.
3. Remove refractory or black glass panel set (if installed).
4. Remove the burner heat shield and secondary heat shield.
5. Remove control board from firebox. See 8.4 Control Board Removal and Installation on page 47 for more information.
6. Insert fans through the opening and position on the studs at the back of the firebox. Secure with (4) flange nuts (included).

7. Mount the speed control box onto the right side frame inside the control compartment. Align the slots in the speed control box to the holes in the bracket. Secure with (2) black philips head screws (included). See Figure 9.3.
8. Plug fan cord into the speed control box. See Figure 9.3.
9. Plug the speed control box cord into the electrical box receptacle.
10. Reinstall the control board. Secure with (8) screws previously removed.
11. Attach the temperature control switch (magnet attached) to the firebox floor anywhere left of the gas valve. See Figure 9.3.

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.
12. 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.
 13. 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.

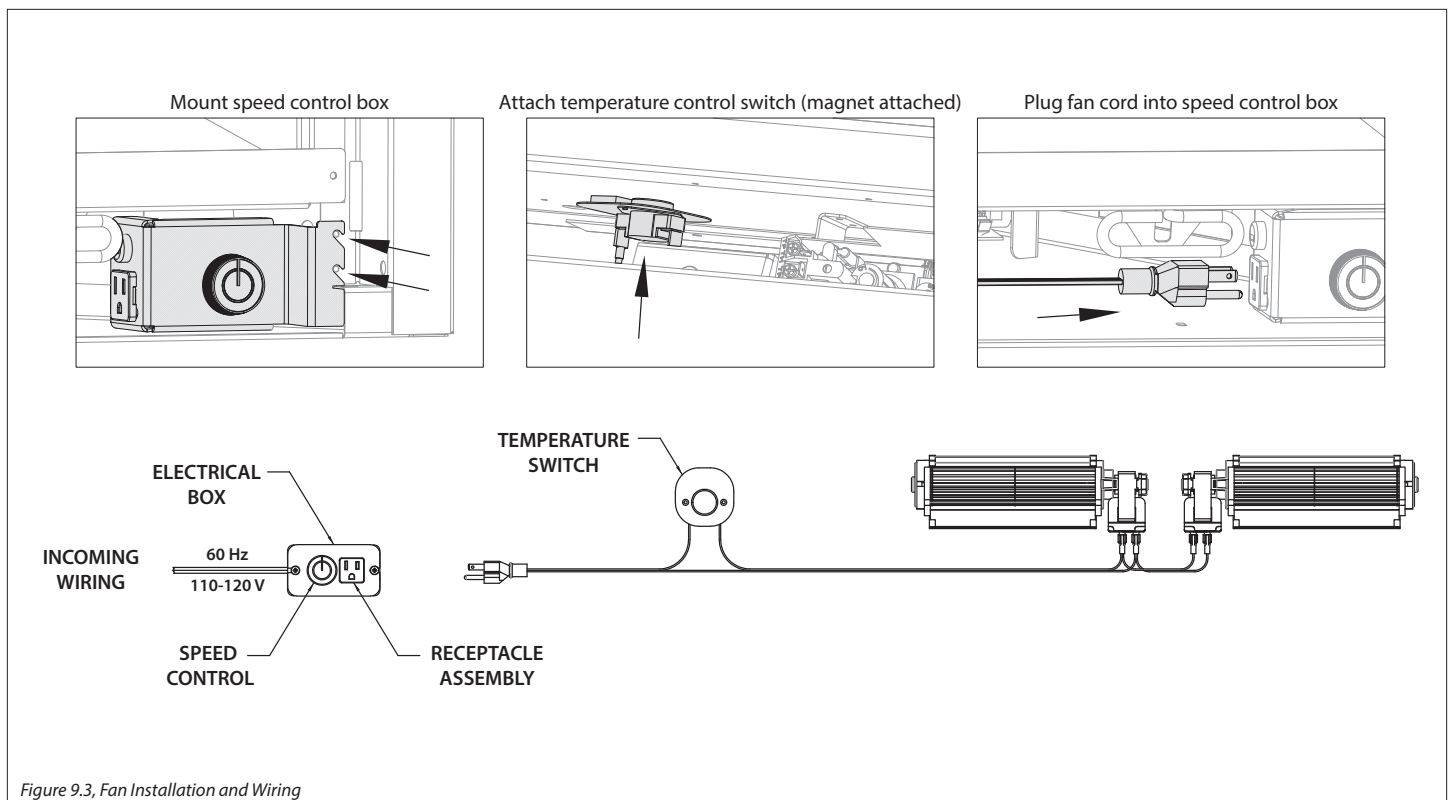


Figure 9.3, Fan Installation and Wiring

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.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **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.
- C. If you cannot reach your gas supplier, call the fire department.
- D. 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.
- E. 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.

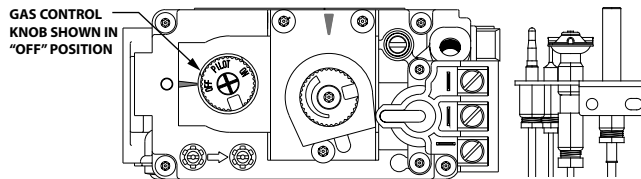
CAUTION

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

1. STOP! Read all the safety information above on this page.
2. Set thermostat to lowest setting (if applicable).
3. Turn off all electric power to the appliance.
4. Remove the bottom frame.
5. 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.
6. Wait five (5) minutes to clear out any gas. Then, smell for gas, including near the floor. If you smell gas, STOP! Follow 'B' in the safety information above. If you do not smell gas, go to the next step.
7. Locate pilot - follow metal tube from gas control. The pilot is located inside the combustion chamber.
8. Push in gas control knob slightly and turn counterclockwise  to "PILOT".
9. 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.
10. 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.
11. Turn the gas control knob counterclockwise  to "ON".
12. Reinstall bottom frame.
13. Turn on all electric power to the appliance.
14. Set thermostat to desired setting (if applicable).



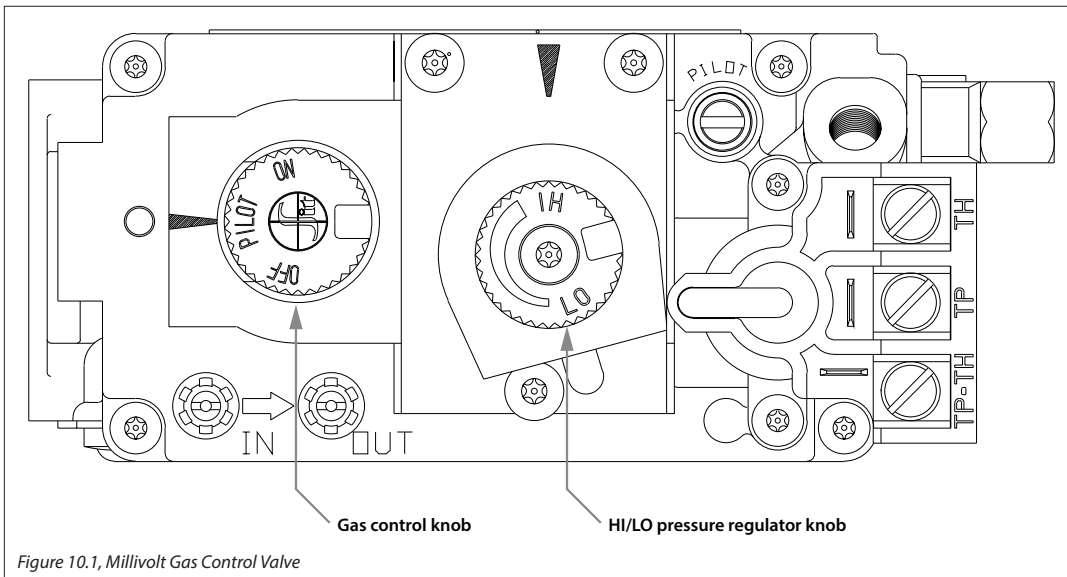
TO TURN GAS OFF TO APPLIANCE

1. Set thermostat to lowest setting (if applicable).
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove bottom frame.
4. Push in gas control knob slightly and turn clockwise  to "OFF".
5. Reinstall bottom frame.

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.

- Remove the bottom frame 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 bottom frame 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.

11.1.2.1 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.

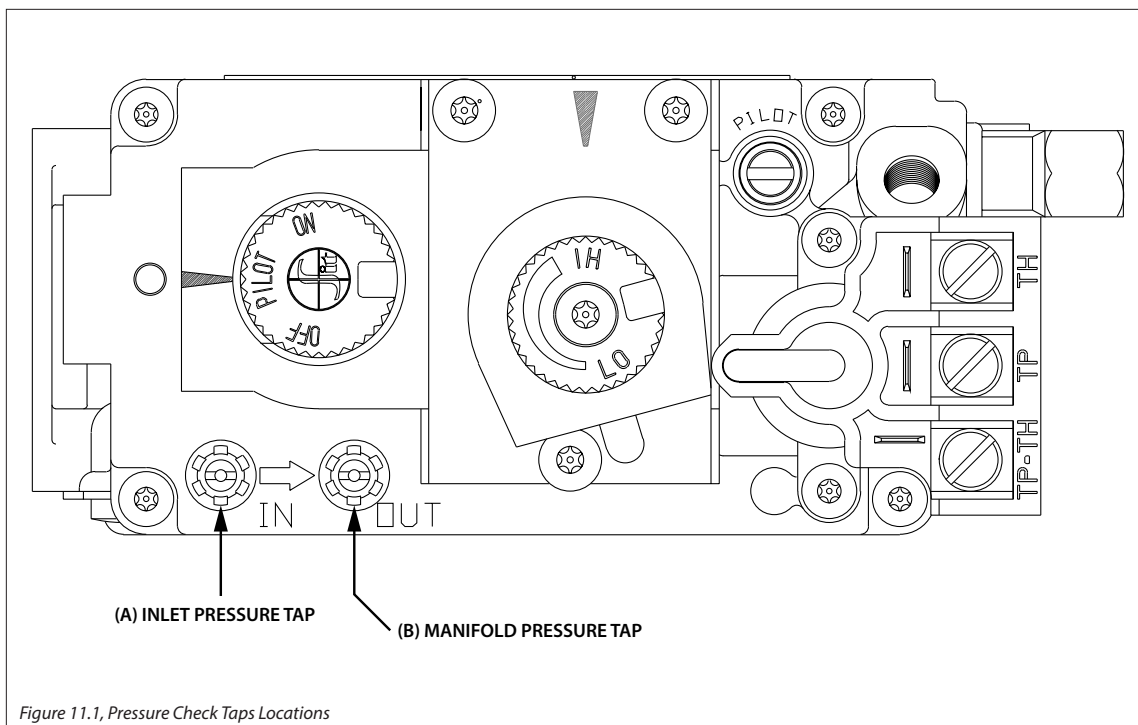
9. Relight pilot and turn the gas control knob to ON. Reattach manometer to the inlet pressure tap (A) to verify the tap is completely sealed. Manometer should read no pressure.

11.1.2.2 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)



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.

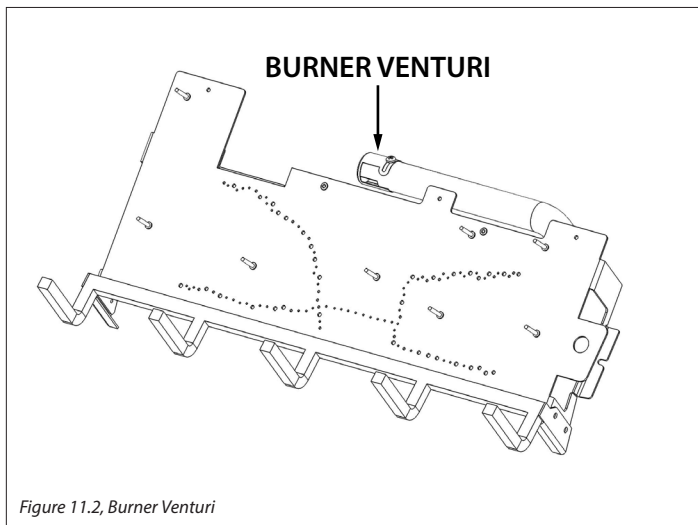
Regardless of venturi orientation, closing the air shutter will achieve a desired yellow flame, but may produce soot on the glass. Opening the air shutter will cause a short, blue flame that may lift off the burner.

Fuel	Air Shutter Opening
Natural Gas	1/8" (3mm) OPEN
Propane	5/8" (16mm) OPEN

11.2.1.1 Venturi Adjustment

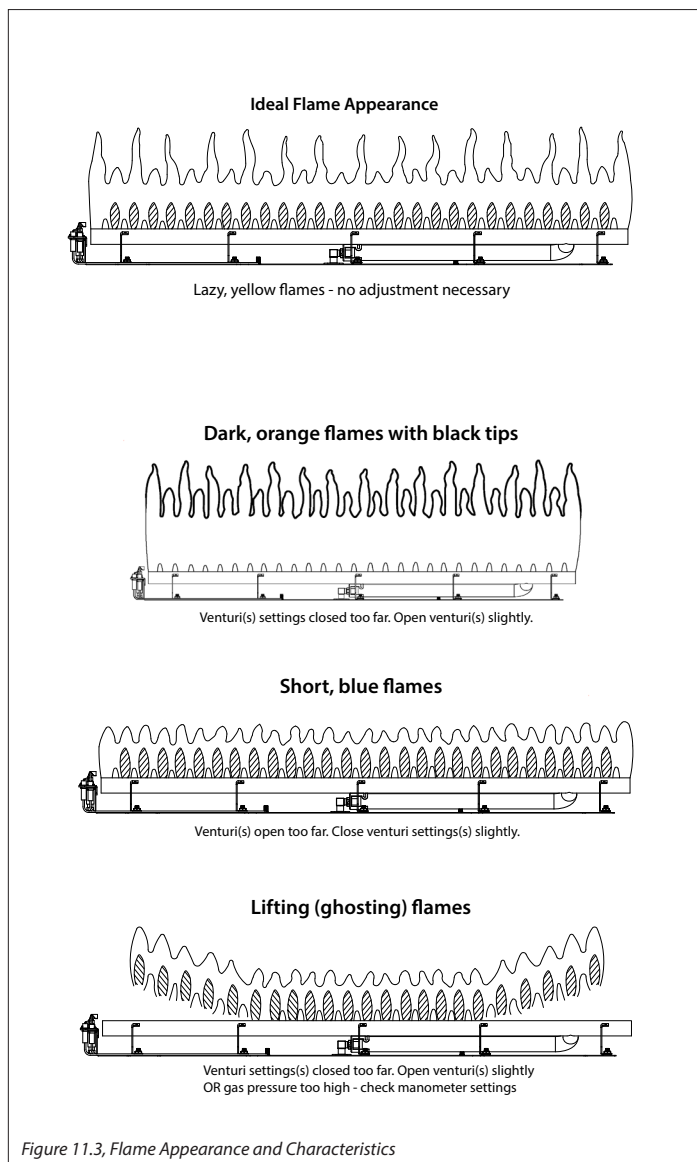
NOTE: If soot is present on the glass, check log positioning before adjusting the venturi. Logs must not block burner ports.

1. Remove the safety barrier, bottom frame, glass frame assembly, and log set.
2. Remove the air deflector and burner assembly.
3. Loosen screw on burner venturi and adjust as necessary. Re-tighten screw.
4. Reinstall all components previously removed.



IMPORTANT: Slight adjustments to the venturi opening will create dramatic results. Adjust at slight increments until desired look is achieved. Always burn the fireplace for at least 15 minutes, and allow the appliance ample time to cool before making any further adjustments.

Flame Characteristic	Cause	Solution
Dark, orange flame with black tips	Venturi closed too far	Open venturi slightly
Short, blue flames	Venturi open too far	Close setting slightly
Lifting (ghosting) flames	Gas pressure too high Venturi closed too far	Check manometer settings Open venturi setting slightly



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 restrictor plate 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 11.4, Restrictor Plate Adjustment Guidelines

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

11.2.2.1 Restrictor Plate Installation

1. Remove the safety barrier, bottom frame, and glass frame assembly.
2. Remove refractory (if installed) and log set.
3. Remove (4) screws securing the fireplace baffle, located on the rear firebox wall.
4. Bend the tabs on the restrictor plate (included in fireplace components packet) to approximately 80° angles. This will create tension when the restrictor plate is inserted into the exhaust pipe.
5. Insert restrictor plate into the 4" (102mm) exhaust pipe with the tabs pointing towards you.
6. Reinstall fireplace baffle. Secure with (4) screws previously removed.
7. Reinstall all other components previously removed.

11.2.2.2 Restrictor Plate Modification

1. Remove the safety barrier, bottom frame, and glass frame assembly.
2. Remove refractory (if installed) and log set.
3. Remove (4) screws securing the fireplace baffle, located on the rear firebox wall.
4. Remove the restrictor plate from the 4" (102mm) exhaust pipe by pulling the restrictor plate down and out.
5. Make necessary modifications to achieve desired flame appearance.
6. Insert restrictor plate into the 4" (102mm) exhaust pipe with the tabs pointing towards you.
7. Reinstall fireplace baffle. Secure with (4) screws previously removed.
8. Reinstall all other components previously removed.

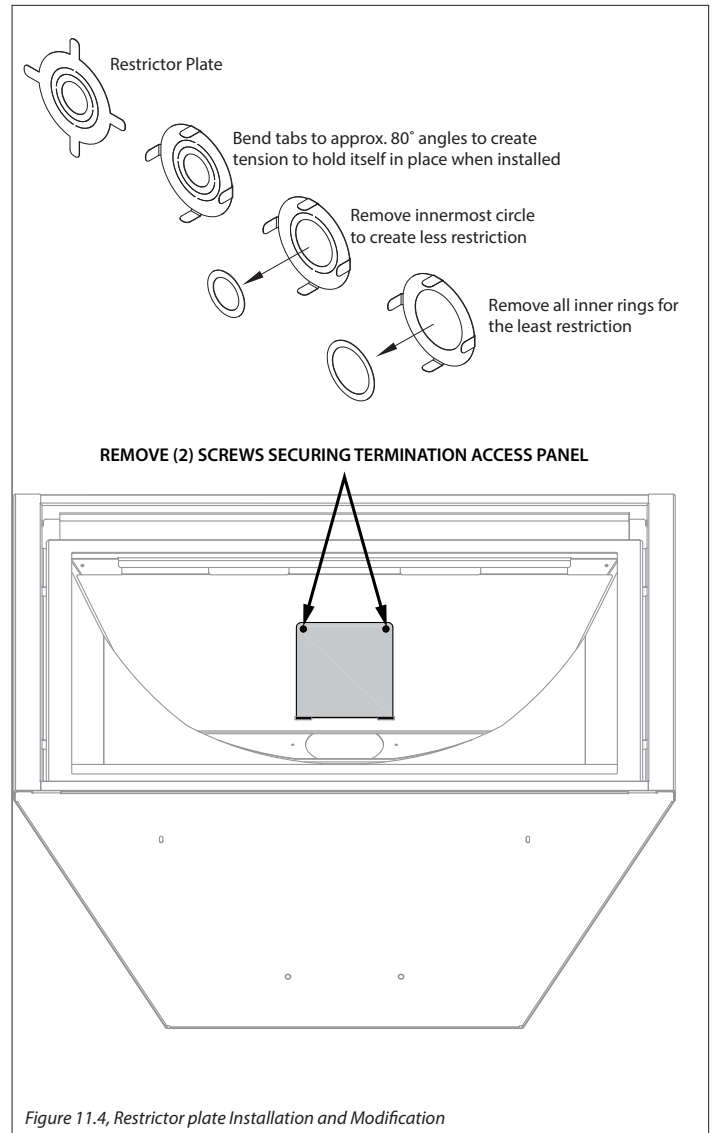


Figure 11.4, Restrictor plate Installation and Modification

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 45.
	Improper pitch on horizontal venting	¼" (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 54.
Glass sooting	Improper log placement	Refer to Section 8.3 #B41-500 Log Set Installation on page 46.
	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 53.
	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 opened slightly to allow more air into the gas mix. Refer to Section 11.2.1 Burner Venturi on page 53.
	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.

13.0 MAINTENANCE

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

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

13.1 Firebox

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

13.2 Fan (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 31.

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

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 #700-179T as necessary.
- Only Hussong Mfg. Co., Inc. will supply the replacement of glass assembly as a complete unit.

13.5 Burner and Pilot System

The burner assembly may be removed for easier access to the control compartment. Refer to Section 8.4 Control Board Removal and Installation on page 47 for removal and installation. Verify gas supply is turned on and filled. Consult with plumber or gas supplier as necessary.

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

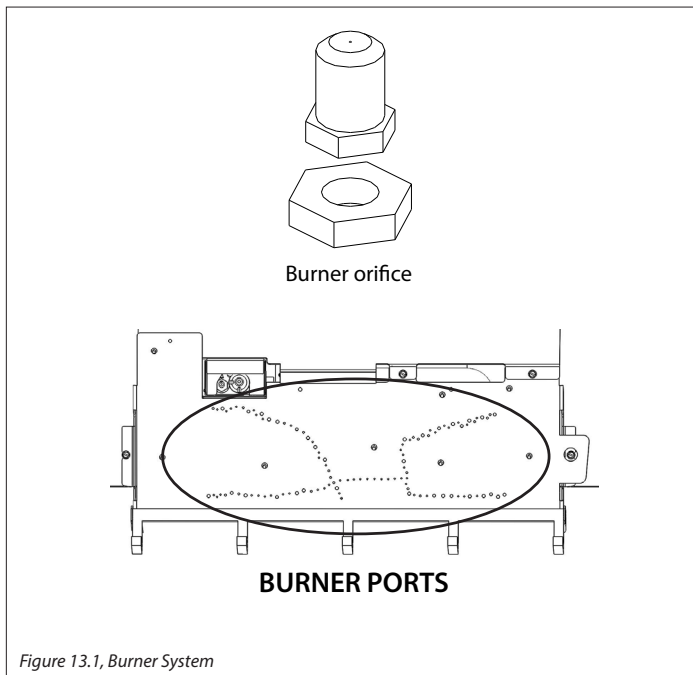


Figure 13.1, Burner System

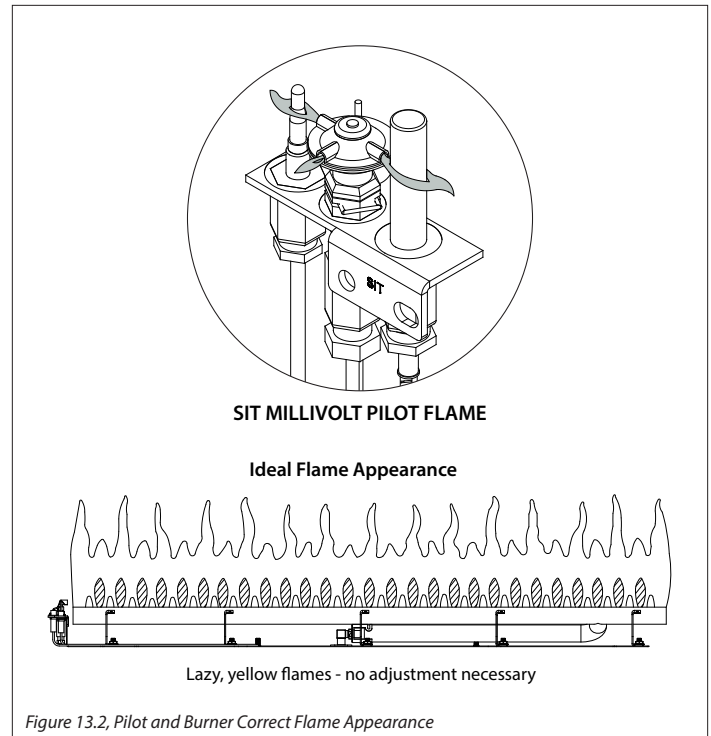


Figure 13.2, Pilot and Burner Correct Flame Appearance

14.0 REPLACEMENT PARTS LIST

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

The following warning is for replacement parts for this appliance.

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

BAY-41-MV CONTROL BOARD AND PARTS			
B41MV-770	Control Board - Natural Gas	700-165	Pilot Orifice - Natural Gas
B41MV-771	Control Board - Propane	700-095	Pilot Orifice - Propane
700-086N	SIT Gas Valve - Natural Gas	700-098	SIT Millivolt Pilot Hood
700-087A	SIT Gas Valve - Propane	700-213B	18" Flexible Gas Line - Black
700-023	On/Off Rocker Switch	700-226F	Flexible Gas Line - Valve to Burner Connection
700-088	Pilot/Generator/Thermocouple - Natural Gas	700-241	Natural Gas Burner Orifice #41
700-089	Pilot/Generator/Thermocouple - Propane	700-625	Propane Burner Orifice #.0625
700-090	Piezo Igniter with nut (no wire)	OCK-S41A	Conversion Kit - Natural Gas
700-091	Flexible Pilot Tubing (valve to pilot)	OCK-S625A	Conversion Kit - Propane
700-092	Millivolt Generator	B41-035	Burner Tube
700-093	Thermocouple	B41-043	Pilot Shield

GLASS AND GLASS GASKET	
700-179T	36-1/2" x 28-7/8" Glass with Gasket
900-006	1-1/8" Glass Gasket with Adhesive
B41-005	Replacement Valance

SAFETY BARRIERS	
B41-FRSF2	Full Rectangular Screen Front
B41-PSF2	Prairie Screen Front
B41-RSF2	Rectangle Screen Front
B41A-MSF2	Arched Mission Screen Front
B41A-FPDSF2	Arched Full Prairie Door Screen Front
B41R-MSF2	Rectangular Mission Screen Front
B41-PTF2	Portrait Screen Front

ADDITIONAL COMPONENTS	
900-085	4" Restrictor Plate
700-203	Manual Gas Shut-off Valve
B41-201B	Bottom Frame

FAN KIT	
B41-028	Fan Kit (optional)

TRADITIONAL LOG SET	
B41-500	8 Piece Log Set
B41-900E	Ember Panel
B41L-1	#BP1 Log
B41L-2	#BP2 Log
B41L-3	#BP3 Log
B41L-4	#BP4 Log
B41L-5	#BP5 Log
B41L-6	#BP6 Log
B41L-7	#BP7 Log
B41L-8	#BP8 Log
Rock Wool Embers	900-REMB

Hussong Manufacturing Co., Inc.
P.O. Box 577
204 Industrial Park Drive
Lakefield, MN 56150-0577
USA
BAY-41-MV

LIMITED LIFETIME WARRANTY

Warranty Coverage

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

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

30 Days: Parts & Labor*

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

Year 1: Parts & Labor*

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

Years 2 through Lifetime: Parts Only

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

EXCLUSIONS AND LIMITATIONS

1. This appliance must be installed by a licensed, authorized service technician or contractor. It must be installed, operated and maintained at all times in accordance with the instructions in the owner's manual or the warranty is void.
2. This warranty is nontransferable and is made to the original purchaser only.
3. This warranty excludes standard wear and tear of the appliance which is considered normal usage over time.
4. Discoloration and some minor expansion, contraction or movement of certain parts, resulting in noise, is normal and not a defect.
5. Warranty is automatically voided if the appliance's serial number and/or testing label is removed or if the appliance is altered or tampered with in any way.
6. Warranty is void if the appliance is subject to submersion in water or prolonged periods of dampness or condensation. Any damage to any part of the appliance due to water or weather damage which is the result of, but not limited to, improper chimney/venting installation will also render this warranty void.
7. This warranty does not cover installation and operational related problems such as environmental conditions, nearby trees, buildings, hilltops, mountains, inadequate venting or ventilation, excessive offsets, negative air pressures caused by any mechanical systems.
8. Chimney components and other Non-Hussong Mfg. accessories used in conjunction with the installation of this appliance are not covered under this warranty.
9. Damage to plated surfaces or accessories, if applicable, caused by scratches, fingerprints, melted items or other external sources left on the surfaces from the use of cleaners is not covered under this warranty.
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.

