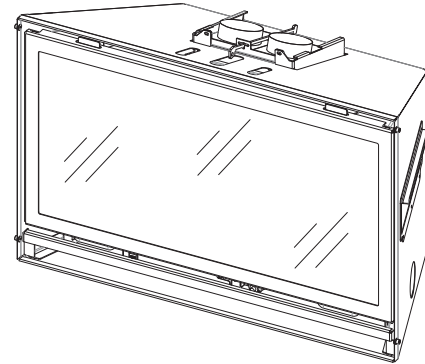


CHASKA 29 MV

Model #CSK-29-MV
Direct Vent Gas Fireplace Insert



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.

CONGRATULATIONS!

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

Jim Hussong
President



Dudley Hussong
Board Chairman



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

Homeowner Reference Information

We recommend you record the following information:

Model Name: _____

Date purchased/installed: _____

Serial Number: _____

Location of fireplace: _____

Dealership Purchased from: _____

Dealer phone: _____

Notes: _____

1.0 TABLE OF CONTENTS

TABLE OF CONTENTS	5	6.8 Outdoor Covered Fireplace Installation.....	19
1.0 INTRODUCTION	7	7.0 GAS LINE CONNECTION	21
1.1 Appliance Certification	7	7.1 Gas Conversion (sold separately).....	21
1.2 California Proposition 65 Warning.....	7	7.2 Gas Line Installation.....	21
1.3 Requirements for the Commonwealth of Massachusetts.....	7	8.0 FACING AND FINISHING	22
2.0 SPECIFICATIONS	8	8.1 Facing and Finishing Requirements.....	22
2.1 Heating Specifications	8	8.2 #CK29-LMK Low Mantel Kit	24
2.2 Appliance Dimensions	9	8.3 Shroud Installation	26
2.3 Part Assembly Overview	10	8.4 Safety Barrier Installation	26
2.4 Safety Barrier Dimensions.....	11	9.0 GAS FIREPLACE INSERT SETUP	27
3.0 EXISTING FIREPLACE REQUIREMENTS	12	9.1 Glass Assembly	27
3.1 Appliance Placement Considerations	12	9.2 #CK29-500 Log Set Installation.....	28
3.2 Existing Fireplace Specifications	12	9.3 Control Board Removal and Installation.....	29
4.0 TERMINATION LOCATION	13	10.0 ELECTRICAL INFORMATION	30
4.1 Chimney Vent Termination Clearances	13	10.1 Electrical Specifications.....	30
4.2 Co-linear to Co-axial Vent Terminations	13	10.2 Wiring Requirements	30
5.0 INSTALLATION PREPARATION	14	11.0 OPERATING INSTRUCTIONS	32
5.1 Inspect and Clean Existing Chimney	14	12.0 ADJUSTMENT	33
5.2 Flue Damper	14	12.1 Gas Pressure Testing.....	33
5.3 Gas Line	14	12.2 Burner Flame Adjustments	34
5.4 Electrical Wiring.....	14	13.0 TROUBLESHOOTING	35
5.5 Fireplace Conversion	14	14.0 MAINTENANCE	37
6.0 INSTALLATION	15	14.1 Firebox.....	37
6.1 Approved Vent Systems.....	15	14.2 Fan	37
6.2 Kozy Heat #816 and #816-CAP.....	15	14.3 Vent System	37
6.3 Co-linear to Co-axial Combined Venting.....	16	14.4 Glass Assembly.....	37
6.4 Remove Vent Adapter	17	14.5 Burner and Pilot System	38
6.5 Run Vent System.....	17	15.0 REPLACEMENT PARTS LIST	39
6.6 Connect Vent Pipe to Vent Adapter.....	17	LIMITED LIFETIME WARRANTY	40
6.7 Place and Secure Appliance.....	18		

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 cancer, 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 8.35 kW	29,000 Btu/h 8.5 kW
Minimum Input Rating	18,500 Btu/h 5.42 kW	22,000 Btu/h 6.45 kW
Manifold Pressure (High)	3.5" WC (0.87 kPa)	10" WC (2.49 kPa)
Manifold Pressure (Low)	1.6" WC (0.40 kPa)	6.4" WC (1.59 kPa)
Orifice Size (DMS)	#42	#53

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 you area regarding derate guidelines.

2.1.1.1 US Installations

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

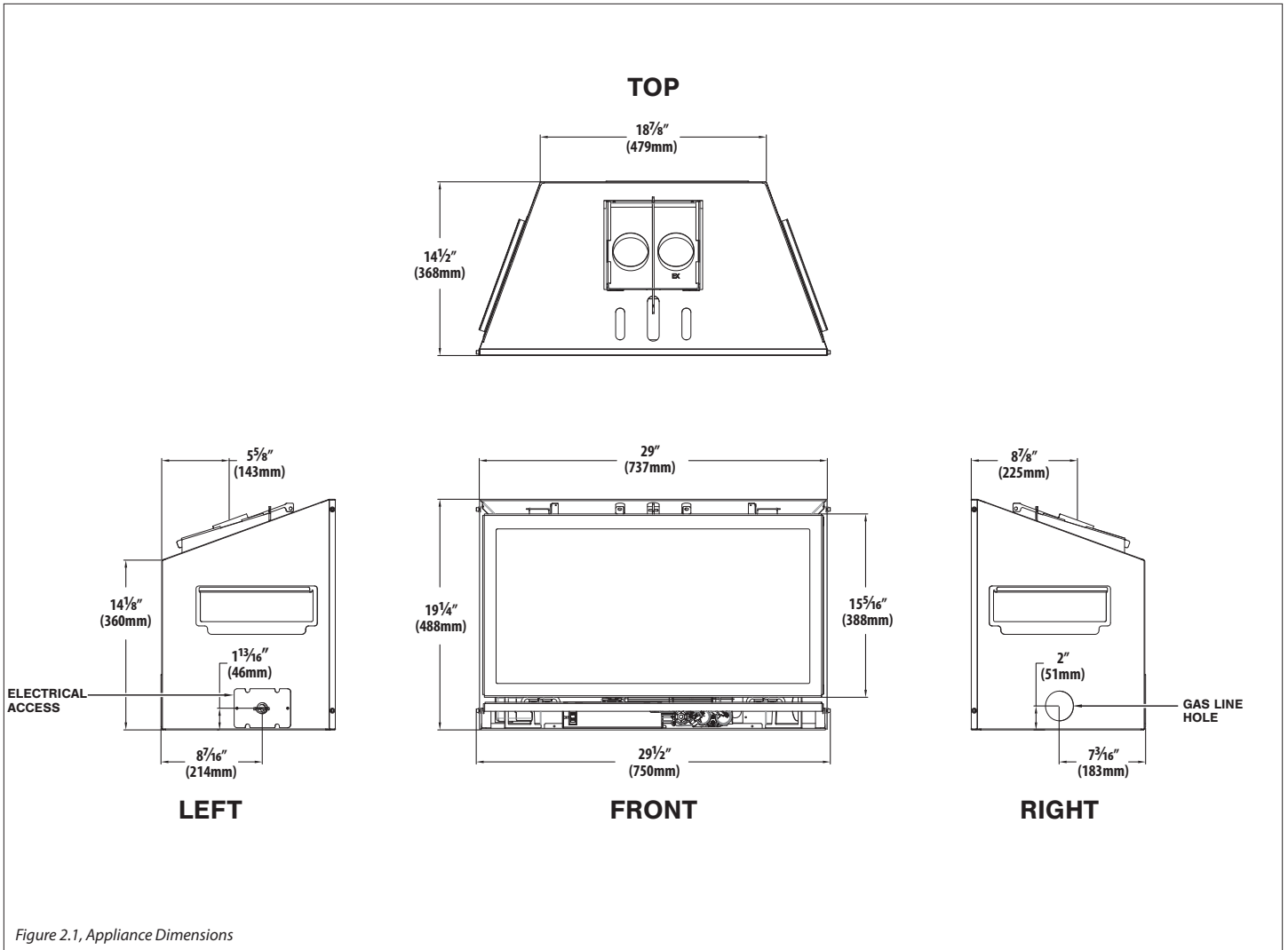
2.1.1.2 Canadian Installations

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

2.2 Electrical Specifications

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

2.3 Appliance Dimensions



2.4 Part Assembly Overview

WARNING: Failure to position these parts in accordance with these diagrams, or failure to use only specified approved parts with this appliance, may result in property damage or personal injury.

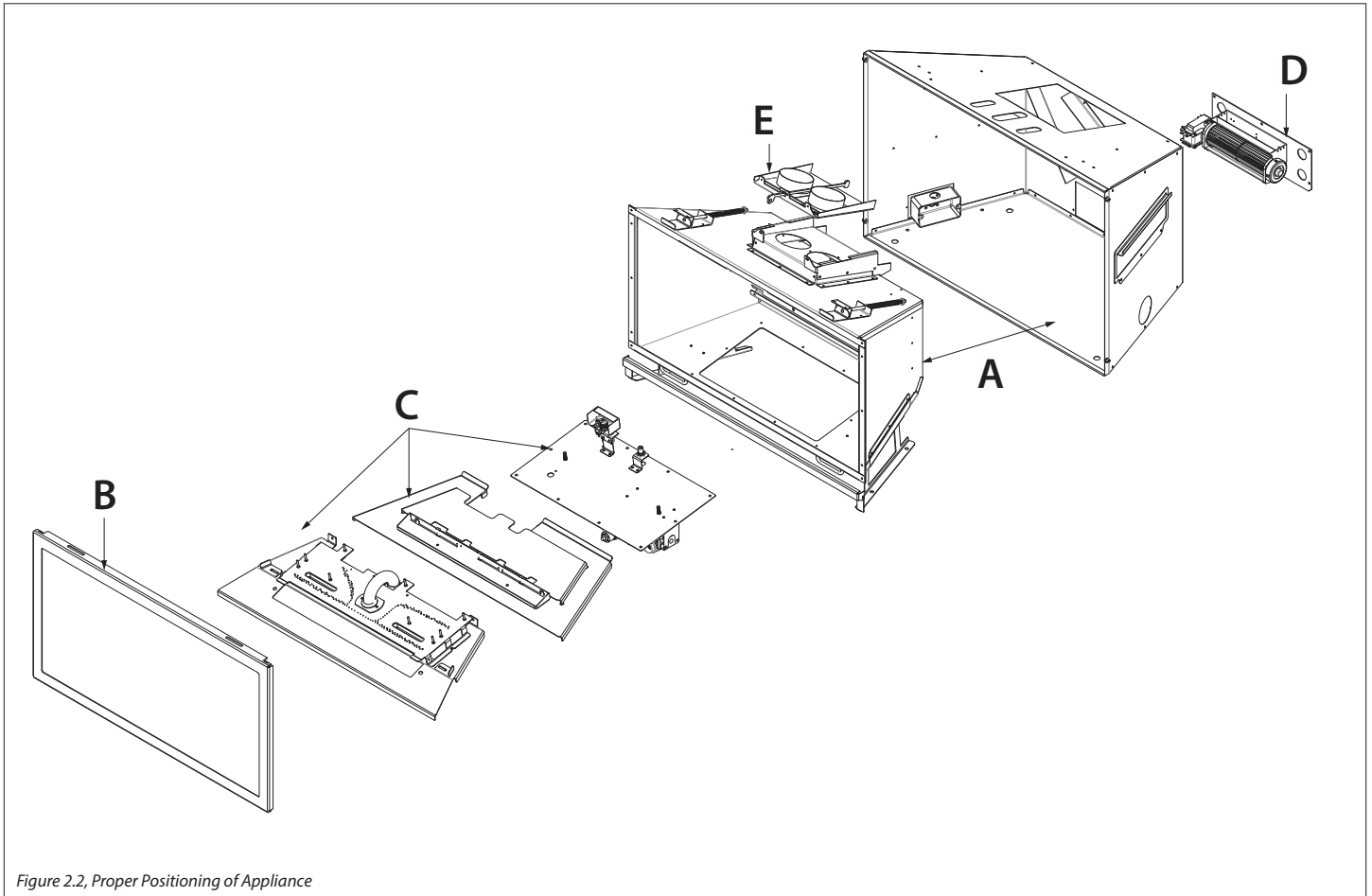


Figure 2.2, Proper Positioning of Appliance

Table 2.1, Field-Assembled Parts

A	Fireplace insert	D	Fan Kit
B	Glass frame assembly	E	Co-linear vent adapter
C	Control board with burner assembly		

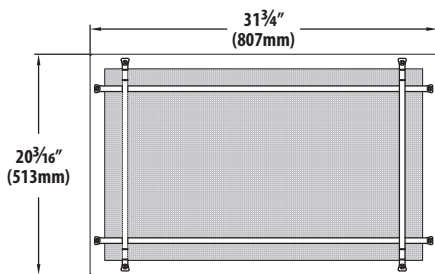
2.5 Safety Barrier Dimensions

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.

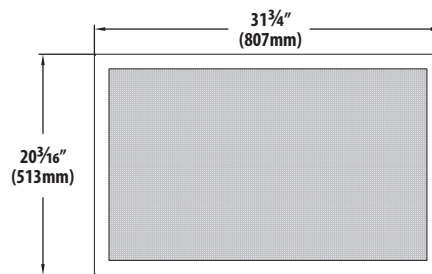
If the barrier becomes damaged, the barrier shall be replaced with Hussong Mfg.'s barriers for this appliance.

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.

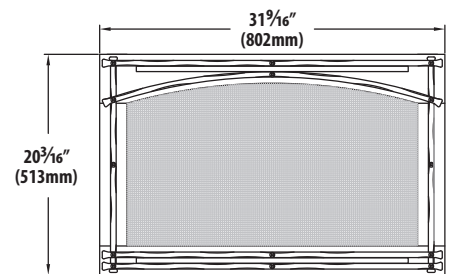
See section 8.4 Safety Barrier Installation on page 26 for installation and removal of safety barriers.



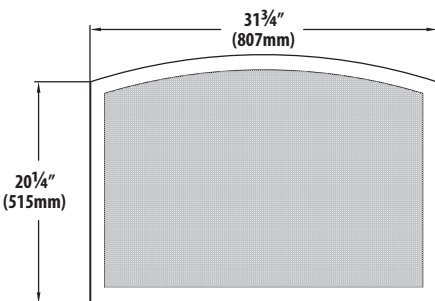
CK29-PSF



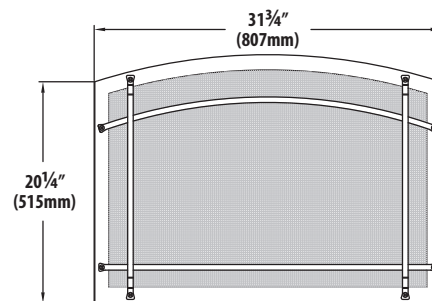
CK29-RSF



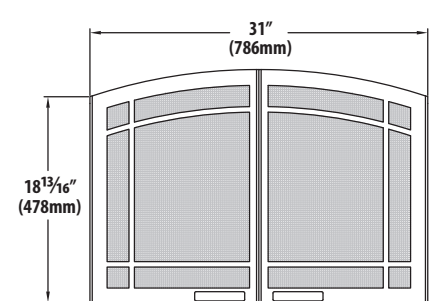
CK29A-MSF



CK29A-SF



CK29A-PSF



CK29A-FPDSF2

3.0 EXISTING FIREPLACE REQUIREMENTS

3.1 Appliance Placement Considerations

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

- This fireplace must be installed on a level surface capable of supporting the fireplace insert and venting.
- This fireplace insert may be installed in a bedroom.
- Please be aware of the large amount of heat this fireplace insert will produce when determining a location.

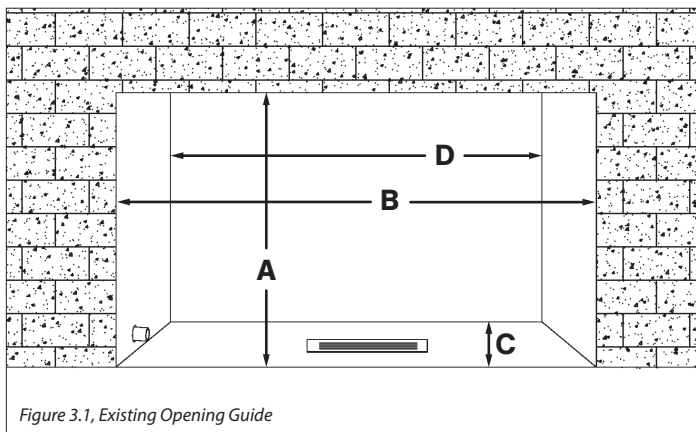
3.2 Existing Fireplace Specifications

IMPORTANT: Adequate accessibility clearances for servicing and proper operation must be maintained.

- Any smoke shelves, shields, and baffles may be removed if attached by mechanical fasteners. If necessary, remove firebrick to obtain at least the minimum opening requirements.
- Cutting of any sheet metal parts of the existing fireplace is prohibited.
- A gas line must be able to be installed to the fireplace insert. Please refer to Figure 2.1, Appliance Dimensions on page 9. The gas line access hole is located on the right side of the insert.
- If the metal floor is removed, the insert must be placed directly on metal base of metal fireplace. Mechanically attach 'THIS UNIT HAS BEEN MODIFIED' label at bottom of existing firebox so it will be visible if this gas fireplace insert is removed.
- Mechanically attach 'THIS UNIT HAS BEEN MODIFIED' label at bottom of existing firebox so it will be visible if this gas fireplace insert is removed.

3.2.1 Existing Fireplace Opening Minimum Requirements

- (A) Height 19-1/4" (489mm)
- (B) Front Width 29-1/2" (749mm)
- (C) Depth 15" (381mm)
- (D) Back Width 18-7/8" (479mm)



3.2.2 Chimney Specifications

WARNING: Any chimney clean-outs must fit properly.

This fireplace insert is to be installed into a solid fuel masonry or factory built non-combustible fireplace that has been installed in accordance with the national, provincial, state, and local building codes.

The existing chimney must be comprised of one of the following:

- Factory-built solid fuel chimney: 7" (178mm) minimum inside diameter
- Masonry chimney: 6" x 8" (152mm x 203mm) minimum inside diameter

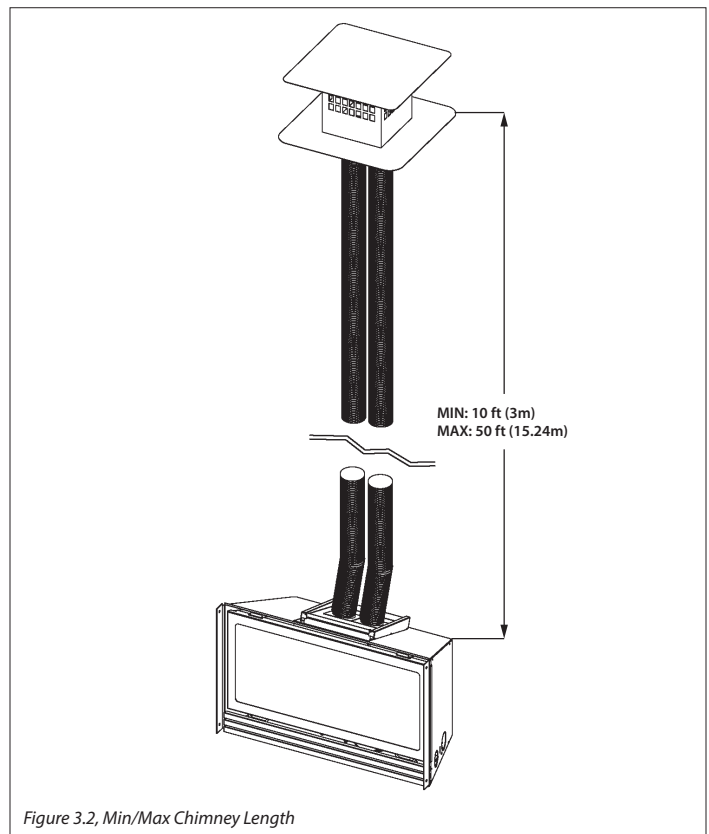
Existing chimney height:

- Minimum: 10' (3.05m) Maximum: 50' (15.24m)

In certain circumstances where a chimney no longer terminates through the roof line, a co-linear to co-axial adapter may be installed where the existing chimney ends. After the adapter, the co-axial pipe must maintain 1" (25mm) clearance to combustibles on all sides of the vent pipe. Refer to Sections 4.2 (pg. 13) and 6.3 (pg. 16) for other co-linear to co-axial conversion considerations and requirements.

3.2.2.1 Determine Length of Existing Chimney

1. Remove and discard existing chimney cap.
2. NOTE: It is helpful to have two people complete this step. Position one person at the fireplace opening and another person at the top of the chimney.
3. Measure from the fireplace base to the top of the chimney.
4. Subtract the height of the insert from the previous measurement.
5. This is the total length of the co-linear flexible aluminum pipe required for your installation. If using Kozy Heat #816, cut to length.



4.0 TERMINATION LOCATION

4.1 Chimney Vent Termination Clearances

WARNING: This appliance must not share or be connected to a chimney flue serving any other appliance.

- Approved vent caps require 12" (305mm) clearance to intersecting walls, overhangs or eaves as verified by test.

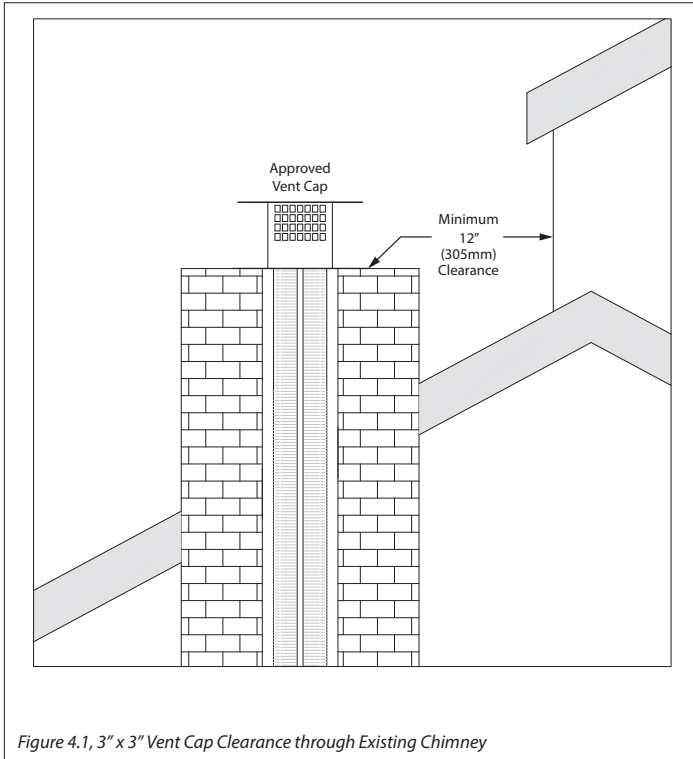


Figure 4.1, 3" x 3" Vent Cap Clearance through Existing Chimney

4.2 Co-linear to Co-axial Vent Terminations

WARNING: This appliance must not share or be connected to a chimney flue serving any other appliance.

When combining co-linear and co-axial venting in a single venting system using an approved 4" x 6-5/8" adapter, use Figure 4.2, Figure 4.3, and Table 4.1 for proper termination clearances.

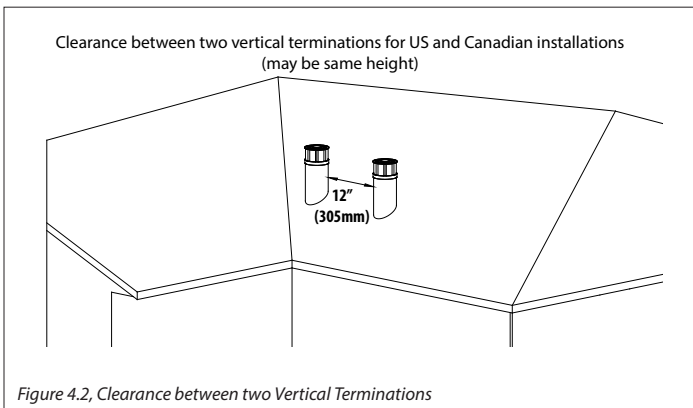


Figure 4.2, Clearance between two Vertical Terminations

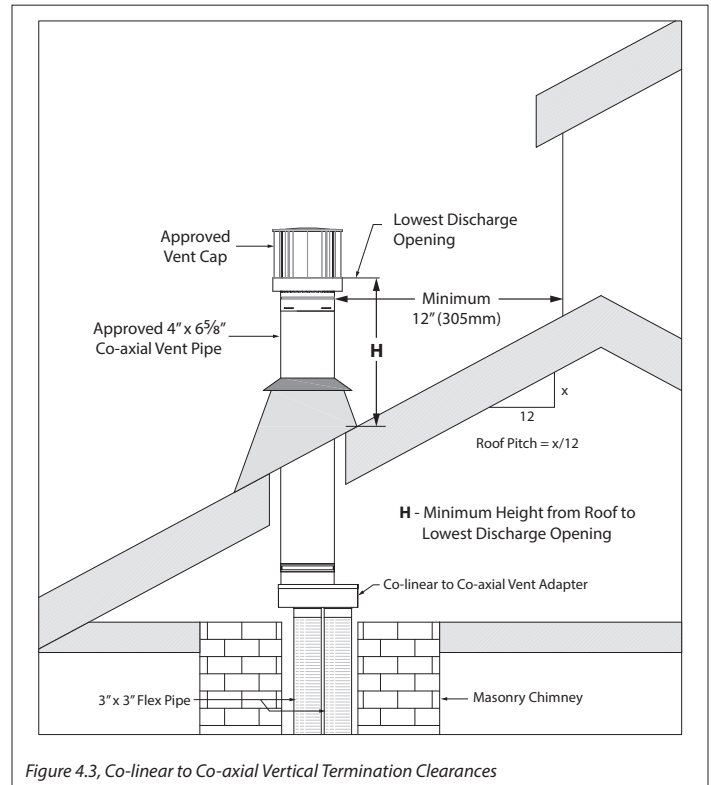


Figure 4.3, Co-linear to Co-axial Vertical Termination Clearances

Table 4.1, Minimum Vertical Termination Height (use with Figure 4.3)

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

5.0 INSTALLATION PREPARATION

NOTE: This gas fireplace insert is approved for installation in masonry and factory-built solid fuel burning fireplaces.

ATTENTION: Any removed parts must be capable of re-installation if this insert is ever removed. Removal of rivets or screws is acceptable.

5.1 Inspect and Clean Existing Chimney

- Verify existing chimney is constructed of non-combustible material.
- Verify existing chimney is clean and in good working order. Clean existing chimney and fireplace to prevent a creosote odor from entering the home.
- Verify combustible mantel and sidewall clearances comply with Section 8.0 on page 22.
- The refractory, glass doors, screen rails, screen mesh, and log grates may be removed from existing fireplace before installing this gas fireplace insert.

5.2 Flue Damper

- The fireplace flue damper can be fully blocked open, or removed for installation of this gas fireplace insert. Remove existing chimney cap.

5.3 Gas Line

- A gas line must be able to be installed to the insert.
- If the factory-built fireplace has no gas access hole(s) provided, an access hole of 1½ in. (37.5 mm) or less may be drilled through the lower sides or bottom of the firebox in a proper workmanship like manner. The access hole must be plugged with non-combustible insulation after the gas supply line has been installed.
- Run gas line to the gas fireplace insert through the gas line hole provided. The gas access hole is located on the right side of the unit. Do not run gas line in a manner that would obstruct fan operation.
- If the gas fireplace insert is to be installed into minimum opening dimensions, the gas line may need to be run after appliance placement due to space limitations.

5.4 Electrical Wiring

- Provisions must be made to provide electrical power for appliance operation.
- See Figure 2.1 on page 9 for electrical outlet box location to run any necessary electrical wiring to the gas fireplace insert.

5.5 Fireplace Conversion

- Mechanically attach the label with the following warning to at the bottom existing firebox so it will be visible if this gas fireplace insert is removed.

WARNING: This fireplace has been converted for use with a gas fireplace insert only and cannot be used for burning wood or solid fuels unless all original parts have been replaced, and the fireplace re-approved by the Authority Having Jurisdiction.

6.0 INSTALLATION

6.1 Approved Vent Systems

Kozy Heat #816 and #816-CAP

For use with minimum 6" x 8" I.D. masonry or 7" I.D. Class A metal chimneys; includes one roll of 36' (10.97 m) of expandable 3" flexible pipe and round termination cap.

Other approved vent manufacturers

BDM, American Metals (Amerivent), Metal Fab, Olympia Venting Supply, Selkirk, Simpson Dura-Vent, and ICC.

This appliance is approved to combine co-linear and co-axial venting in a single venting system using an approved 4" x 6-5/8" adapter. Chimney specifications (Section 3.2.2 on page 12) must be adhered to when converting to co-linear to co-axial vent system. See section 6.3 Co-linear to Co-axial Combined Venting on page 16

6.2 Kozy Heat #816 and #816-CAP

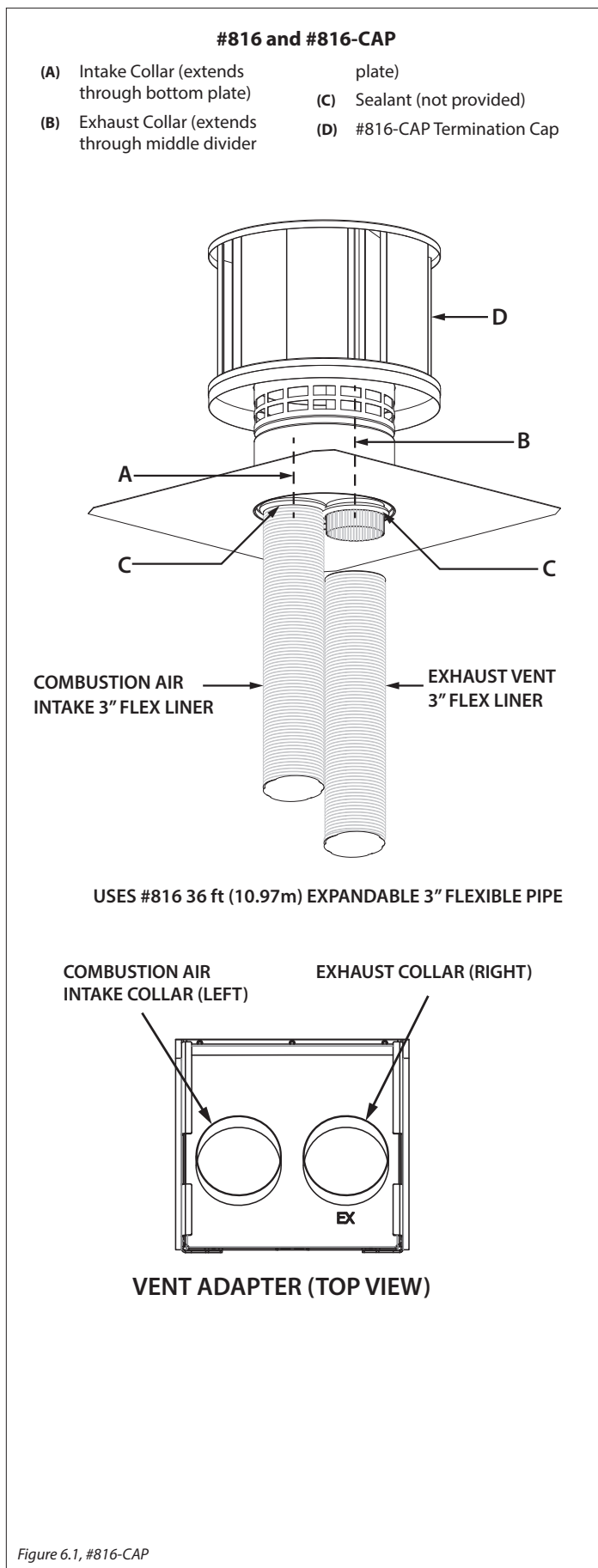
IMPORTANT: Proper operation of this insert requires the exhaust pipe and combustion air pipe to be connected to their correct flue collar, on both the termination kit and the gas fireplace insert vent adapter.

The fireplace insert exhaust flue collar is located on the right side. Install termination cap with the exhaust flue collar on the right side.

NOTE: The exhaust pipe will have a red marking.

IMPORTANT: Maximum horizontal vent runs of 24 in (609 mm) require a 1 in (25mm) rise per 12 in (305 mm) run. Care should be taken when installing the flexible vent pipes to avoid a tight bend that may cause abrasion or damage to the flexible pipes.

1. Measure the total chimney length required and cut #816 (36' [10.97m] of 3" flexible pipe) to the measured length.
2. Carefully extend the exhaust and combustion air intake pipes to total chimney length required.
3. Slide the combustion air intake pipe (the end without a collar) over termination cap collar (A). Secure to #816-CAP termination cap (E) with (3) self-tapping screws (not provided).
4. Place a bead of sealant around the inner edge at the end of the exhaust pipe (without collar / red marking) and slide onto the corresponding labeled collar (B) on termination cap (E).
5. Secure the exhaust pipe to termination cap (E) with (3) self-tapping screws (not provided). Apply additional sealant around joint to ensure a proper seal.
6. Complete vent system installation by following the instructions outlined in Sections 6.3 through 6.6.

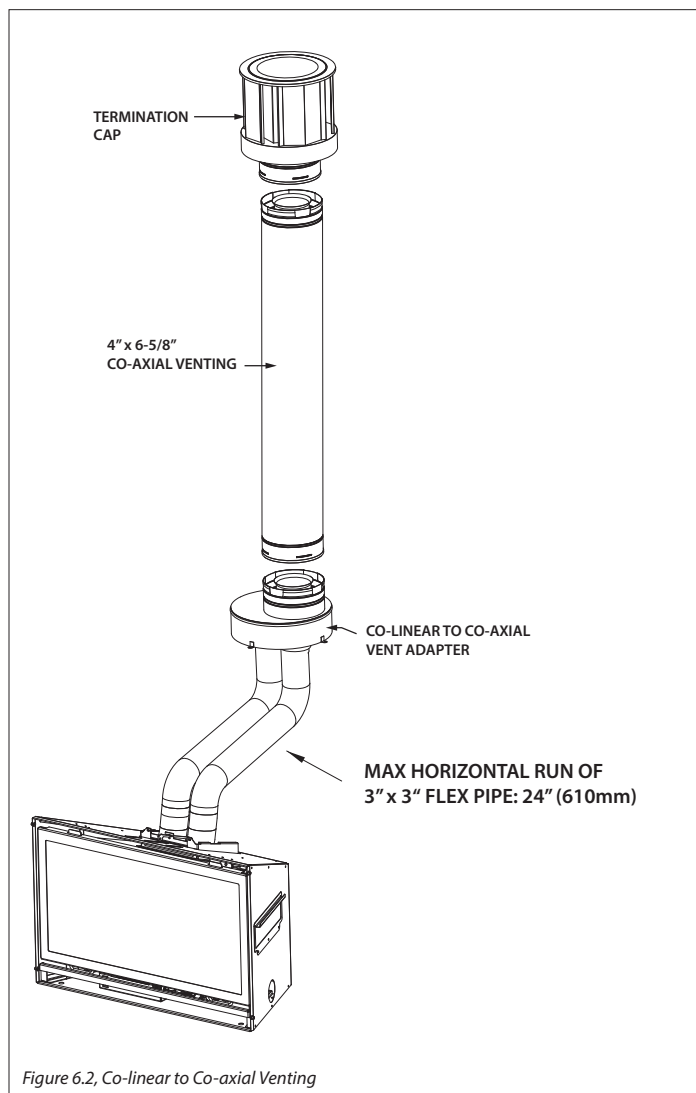


6.3 Co-linear to Co-axial Combined Venting

IMPORTANT: Maximum horizontal vent runs of 24" (609 mm) require a 1" (25mm) rise per 12" (305 mm) run. Care should be taken when installing the flexible vent pipes to avoid a tight bend that may cause abrasion or damage to the flexible pipes.

After the co-linear to co-axial vent adapter, the co-axial pipe requires a minimum of 1" (25mm) clearance to combustibles on all sides of the rigid pipe.

- Maximum horizontal run of 3" x 3" flexible pipe length: 24" (610mm)
- Minimum total combination of co-linear and co-axial vent pipe: 10' (3.05m)
- Maximum total combination of co-linear and co-axial vent pipe: 50' (15.24m)



6.4 Remove Vent Adapter

ATTENTION: All information outlined in Section 5.0 on page 14 must be completed before continuing with this installation.

1. Remove the vent adapter at the top of appliance by sliding the vent adapter back out of channels. Refer to the following instructions for vent system attachment to the vent adapter.

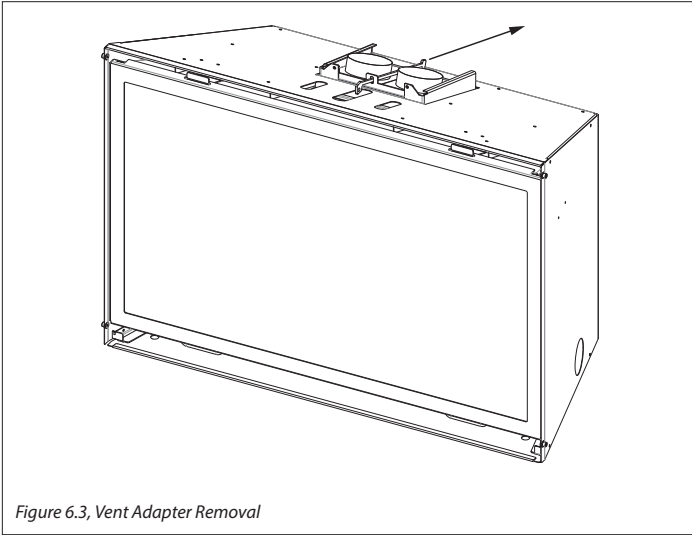


Figure 6.3, Vent Adapter Removal

6.5 Run Vent System

NOTE: If offsets are present in existing chimney, place a weighted rope around the pipe ends to guide them through the chimney. **DO NOT ATTEMPT TO TIE ONE ROPE AROUND BOTH PIPES.**

- To prevent cold air drafts, Hussong Manufacturing recommends to insulate the 3" x 3" flexible vent pipes and chimney using unfaced insulation products listed as noncombustible per ASTM E 136.
1. **OPTIONAL:** Before installing vent system down through the chimney, place unfaced insulation around the first 3 ft (914 mm) of vent system below termination cap. Secure with wire.
 2. Install the 3" x 3" flexible pipes down through existing chimney. Guide ropes (if used) to aid installation.
 3. To secure chimney termination cap to chimney, apply a liberal bead of sealant (provided) around the top of the chimney. Set termination cap into position as instructed by vent system manufacturer's installation manual.
OPTIONAL Kozy Heat #816-CAP: Secure termination cap to existing chimney with 2 in (50 mm) self-tapping screws and anchor straps (not provided) through the pilot holes, located on the sides of the termination cap.
 4. From inside the existing fireplace, carefully pull ropes (if used) or the flexible pipes down until both exhaust pipe and combustion air intake are into the existing fireplace firebox.
 5. **OPTIONAL:** To prevent heat loss up chimney, place unfaced insulation products listed as non-combustible per ASTM E 136 between the 3" x 3" flexible vent pipes and chimney.

6.6 Connect Vent Pipe to Vent Adapter

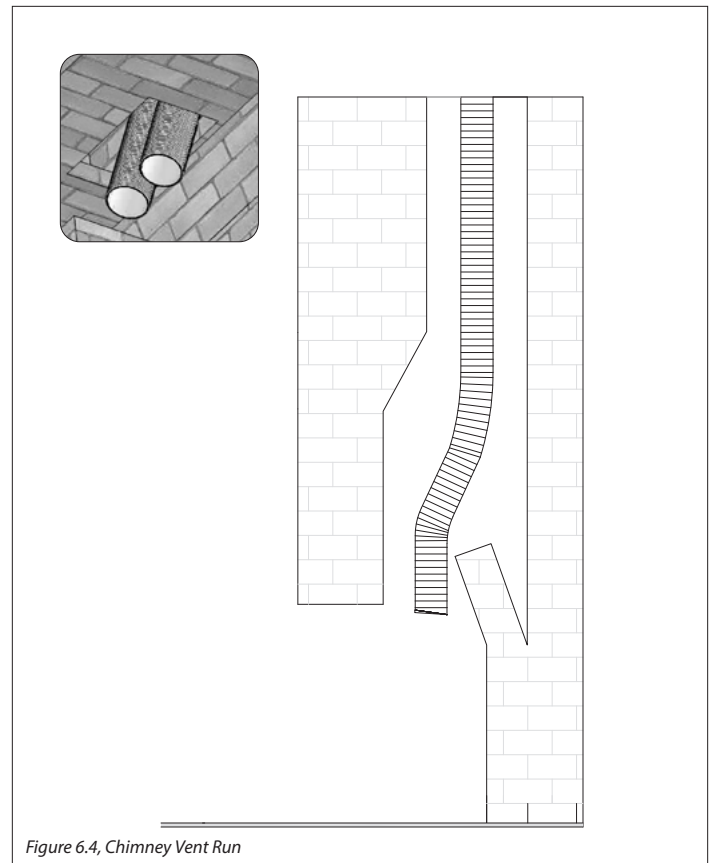


Figure 6.4, Chimney Vent Run

IMPORTANT: Proper operation of this insert requires the exhaust pipe and combustion air pipe to be connected to their correct flue collar, on both the termination kit and the gas fireplace insert vent adapter.

1. Place previously removed vent adapter into existing fireplace opening.
2. Connect exhaust vent pipe (red marking) to exhaust collar on vent adapter. Apply a bead of sealant (provided) around exhaust pipe and slide inside collar marked 'Exhaust.' Secure with provided (3) ½ in (13 mm) self-tapping screws. Apply additional sealant around joint to ensure an air tight seal.
3. Connect air intake vent pipe to intake collar on vent adapter. Apply a liberal bead of sealant around intake collar on vent adapter. Slide combustion intake pipe over the collar and secure with provided (3) ½ in (13 mm) self-tapping screws. Apply additional sealant around joint to ensure an air tight seal.
4. Visually check vent pipe connection to vent adapter.

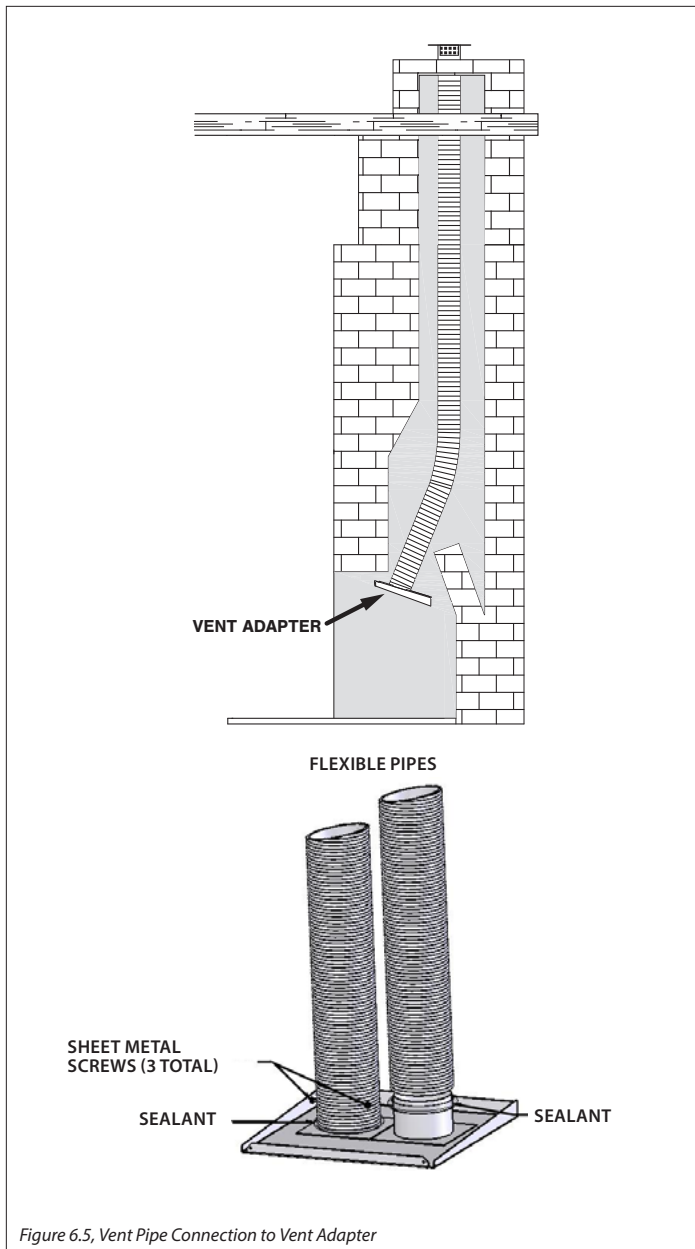


Figure 6.5, Vent Pipe Connection to Vent Adapter

6.7 Place and Secure Appliance

1. Slide the gas fireplace insert into existing fireplace opening until the channels on top of the appliance are aligned with the vent adapter.
2. Insert the vent adapter pull rod handle through access slot at the top of appliance and place pull handle hook through the hole in pull rod. Simultaneously push the gas insert into existing fireplace and pull the vent adapter forward until seated.
3. Secure vent adapter to appliance by using slots at the top of the appliance to secure with (2) ½ in (13 mm) sheet metal screws (included in components packet).
4. Use the pull rod handle to pull the vent adapter back to starting position. Remove pull handle. Verify vent system connection.
5. If necessary, level the gas insert by threading leveling bolts (included in components packet) into nuts at the bottom of the insert (2 each side). Verify appliance is properly positioned.

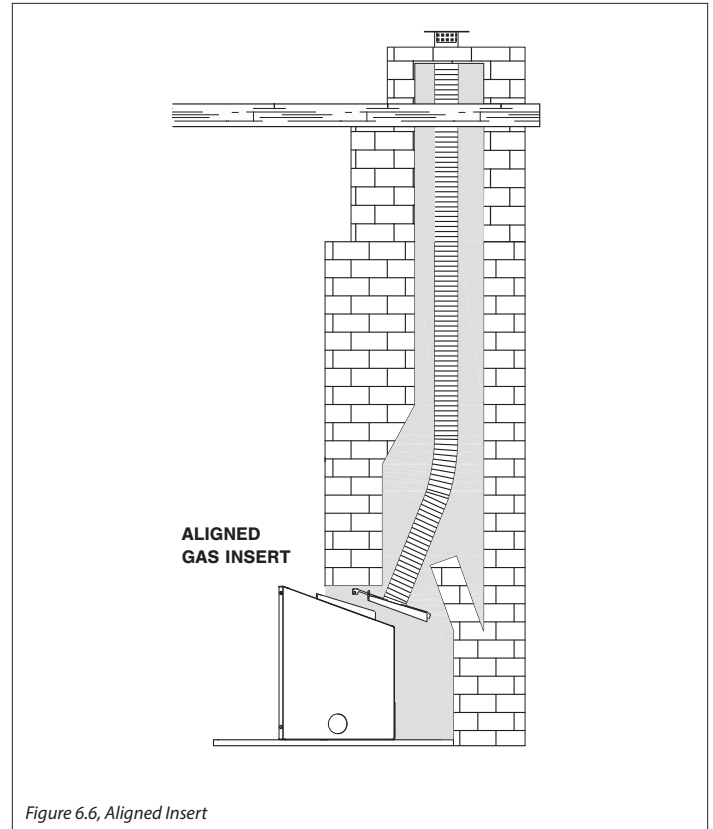


Figure 6.6, Aligned Insert

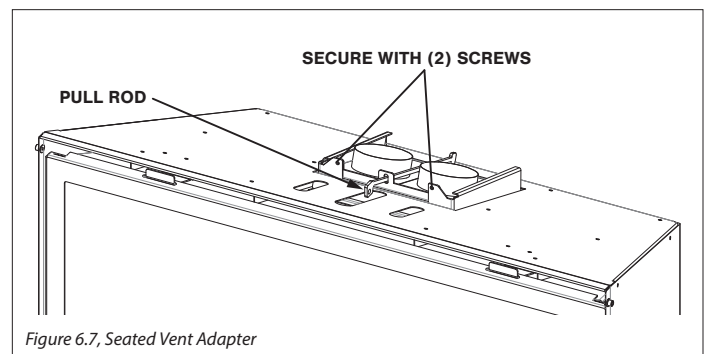


Figure 6.7, Seated Vent Adapter

6.8 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.

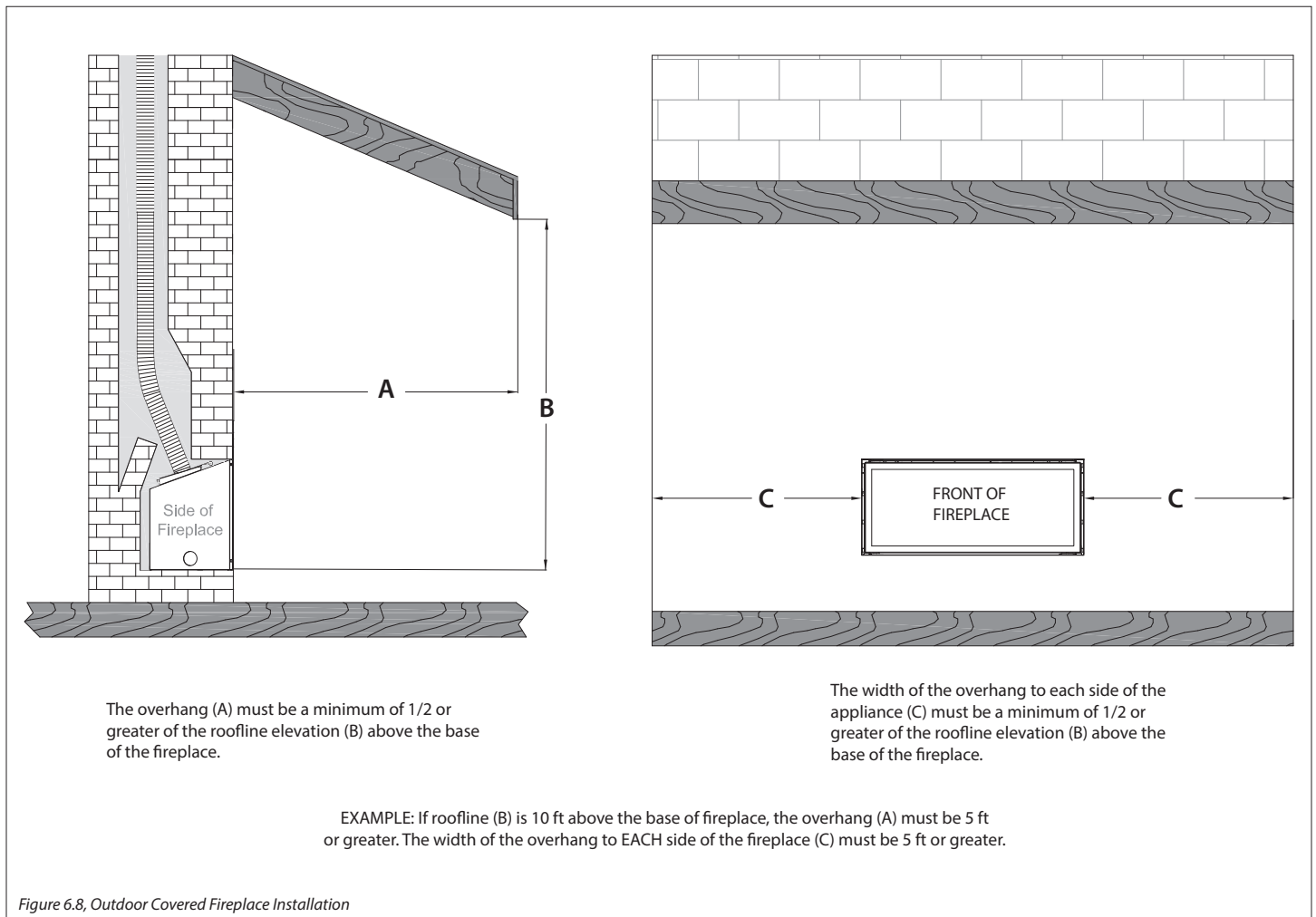
Follow the instructions and illustrations for installation procedures. Drawings are for reference only and your fireplace may look different than shown.

6.8.1 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.

6.8.2 Requirements

- The continuous insulated building envelope and weatherproof membrane is not to be interrupted by fireplace installation. See Figure 6.9 on the following page.
- Fireplace operation is approved from 40°F to 110°F.
- All wiring connections shall be in accordance with outdoor requirements of NECA NFPA 70.
- All clearances and requirements in this manual must be adhered to.



6.8.3 Outdoor Covered Fireplace Installation (continued)

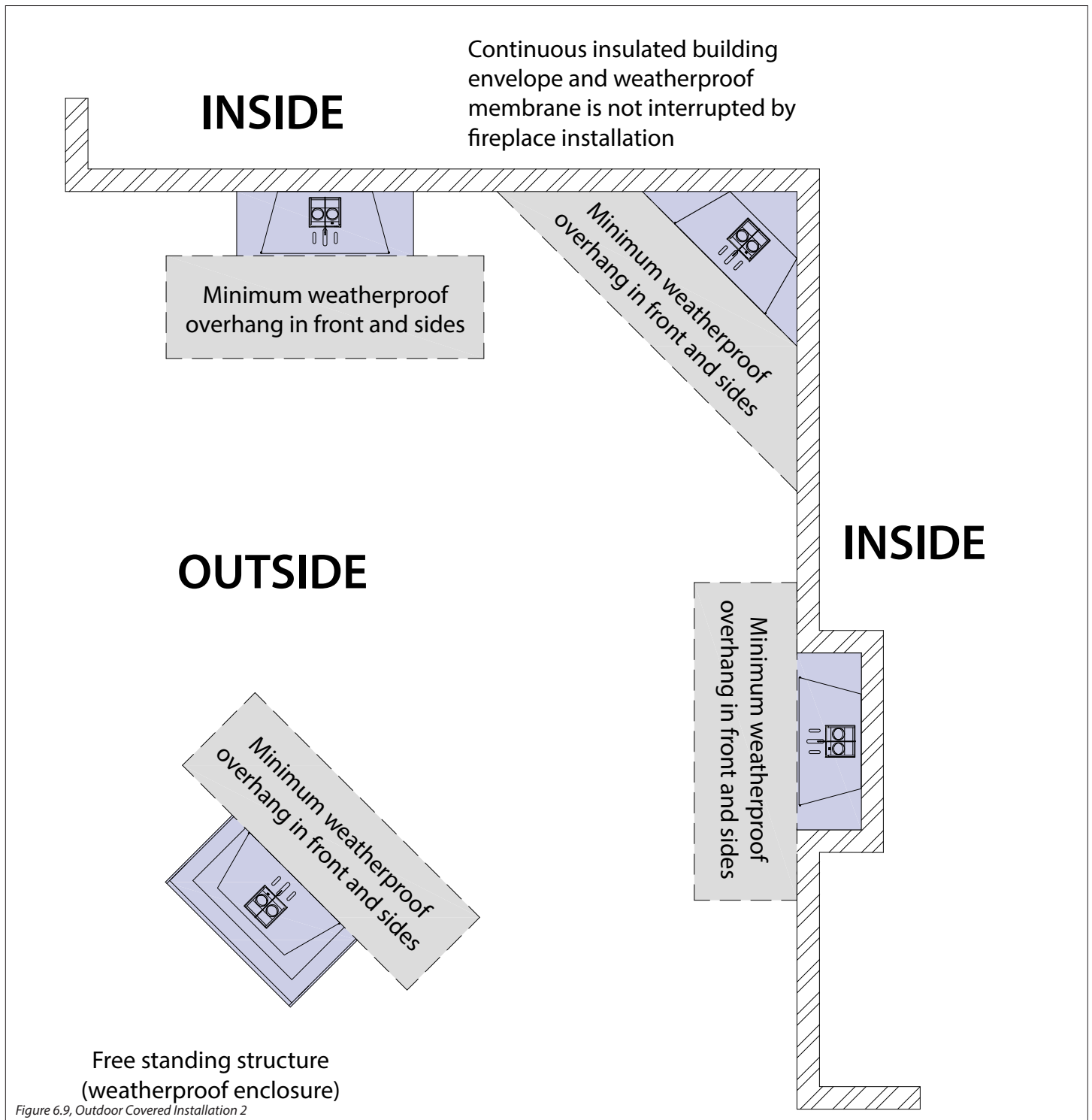


Figure 6.9, Outdoor Covered Installation 2

7.0 GAS LINE CONNECTION

7.1 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.

7.2 Gas Line Installation

CAUTION: Installation of the gas line must only be done by a qualified person in accordance with local building codes, if any. If not, follow ANSI 223.1. Commonwealth of Massachusetts installations must be done by a licensed plumber or gas fitter.

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

- A listed (and Commonwealth of Massachusetts approved) ½ in. (13 mm) tee handle manual shut-off valve and flexible gas connector are to be connected to the ½ in. (13 mm) control valve inlet. If substituting for these components, please consult local codes for compliance.
- If installing this insert into minimum opening dimensions, the gas line may need to be run after placement due to space limitations. See Section 3.2 Existing Fireplace Specifications on page 19.
- This fireplace is equipped with a 3/8" (10 mm) x 18" (457 mm) long flexible gas connector and manual shut-off valve.
- Run gas line into fireplace, preferably through right gas line hole provided. The gas line should be run to the point of connection where the shut-off valve and flexible gas line will connect.
- Do not run gas line in a manner that would obstruct fan operation.
- For high altitude installations, consult the local gas distributor or the authority having jurisdiction for proper rating methods.

Table 7.1, Inlet Gas Supply Pressures

Fuel	Minimum Pressure	Maximum Pressure
Natural Gas	5"WC (1.25 kPa)	10.5"WC (2.62 kPa)
Propane	11"WC (2.74 kPa)	13"WC (3.24 kPa)

8.0 FACING AND FINISHING

8.1 Facing and Finishing Requirements

IMPORTANT: Adequate accessibility clearances for servicing and proper operation must be maintained.

8.1.1 Adjacent Sidewall Requirements

- The adjacent sidewall minimum clearance is 6" (152mm) from the appliance sides (Fig 8.1).

8.1.2 Clearance to Ceiling

- As shown in Figures 8.1 and 8.4, the minimum clearance from the fireplace enclosure floor to the ceiling is 55" (1.04m).

8.1.3 Mantel Requirements

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

- Combustible Mantel Projections - As referenced in Figure 8.2, the 9" (229mm) mantel can start at 16" (254mm) above the top of the appliance. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 9" (229mm) mantel.
- CK29-LMK Mantel Projections (**FOR USE ONLY with safety barriers #CK29-RSF & #CK29-PSF**) - As referenced in Figure 8.4, the 6" (152mm) mantel can start at 11" (279mm) above the top of the appliance only when the low mantel kit is installed. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 6" (152mm) mantel

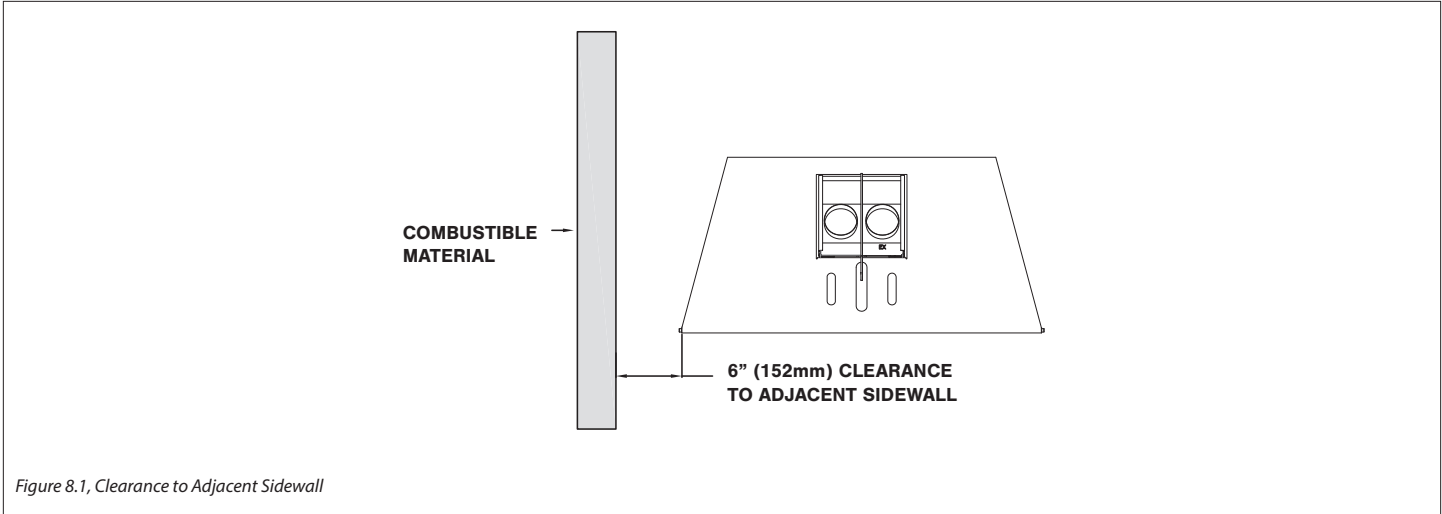


Figure 8.1, Clearance to Adjacent Sidewall

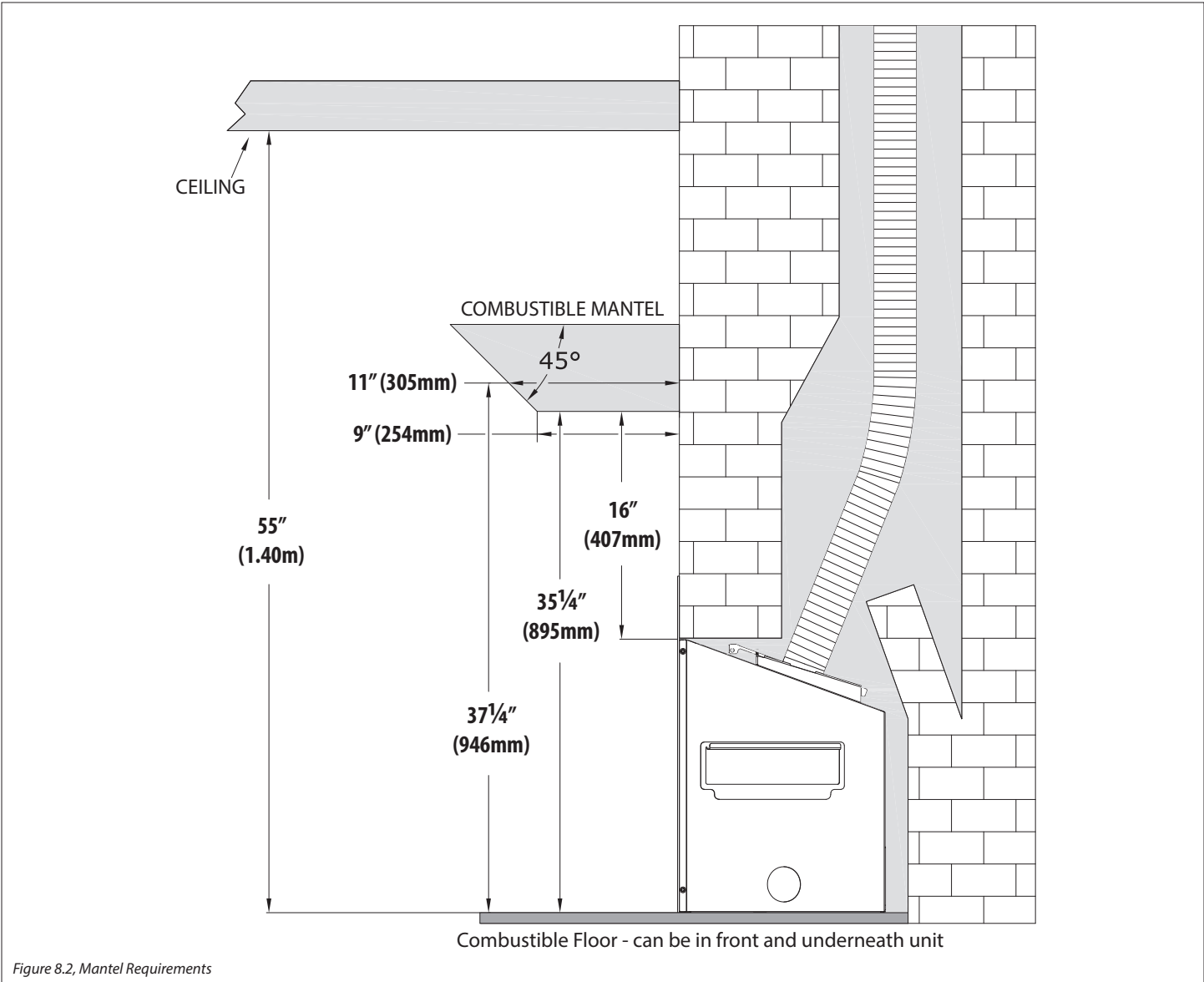
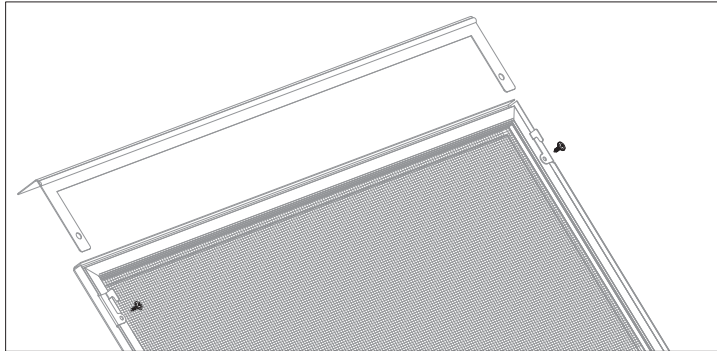


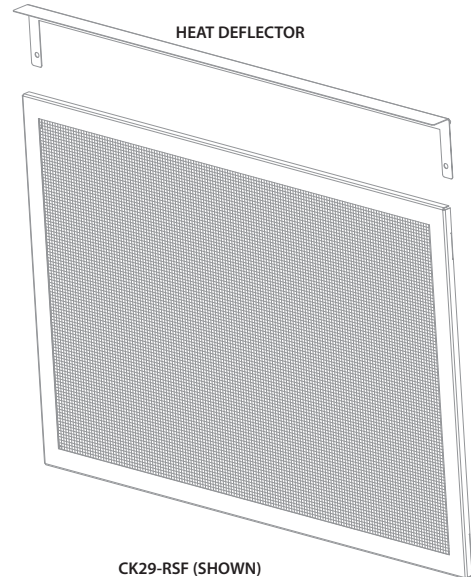
Figure 8.2, Mantel Requirements

8.2 #CK29-LMK Low Mantel Kit

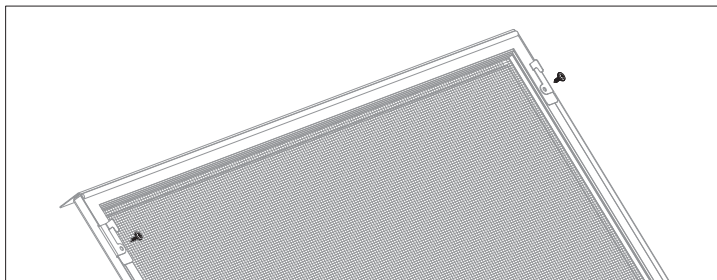
This low mantel kit is for use only with safety barriers CK29-PSF and CK29-RSF. Follow the drawing below for assembly and installation.



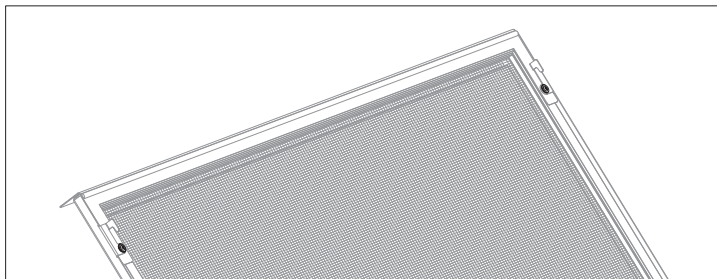
REMOVE (2) SCREWS AS SHOWN LOCATED AT THE BACK OF THE SCREEN FRONT AND ALIGN THE HEAT DEFLECTOR



CK29-RSF (SHOWN)



POSITION THE HEAT DEFLECTOR BY SLIDING IT UNDER THE MOUNTING TABS AS SHOWN



REPLACE (2) SCREWS THROUGH THE HOLES IN THE MOUNTING TAB AND HEAT DEFLECTOR

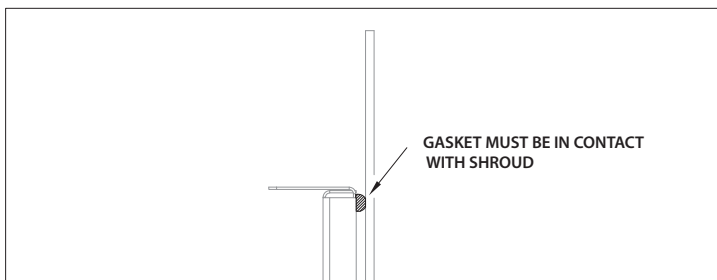


Figure 8.3, #CK29-LMK Assembly and Installation

8.2.1 Low Mantel Kit Clearances

**IF USING CK29-PSF, CK29-RSF SAFETY BARRIER WITH
LOW MANTEL KIT INSTALLED,
THESE LOWER MANTEL CLEARANCES ARE ALLOWED**

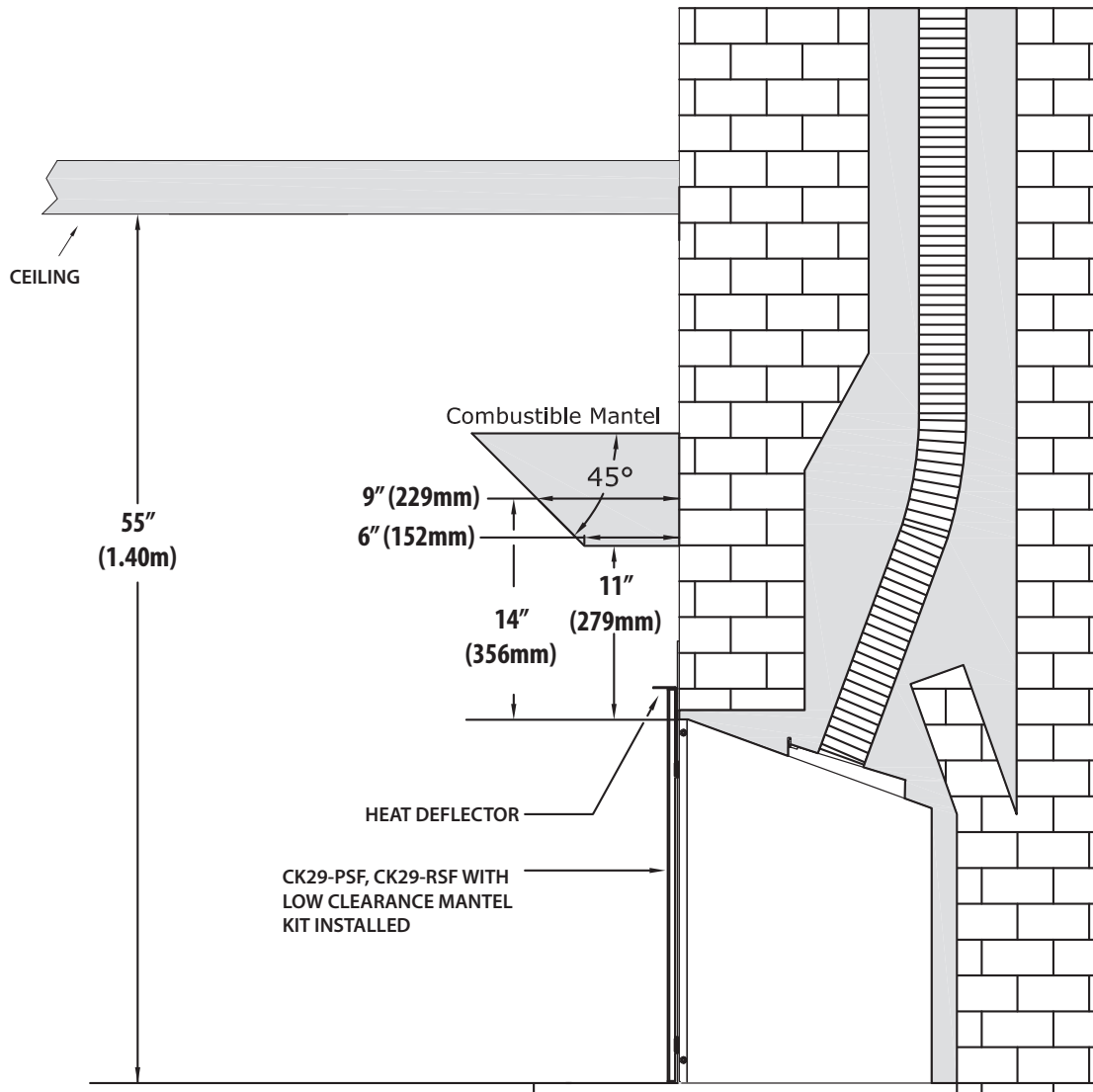


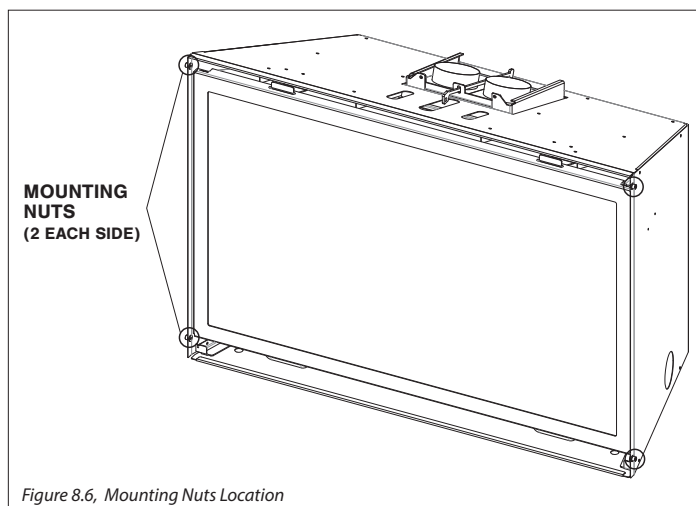
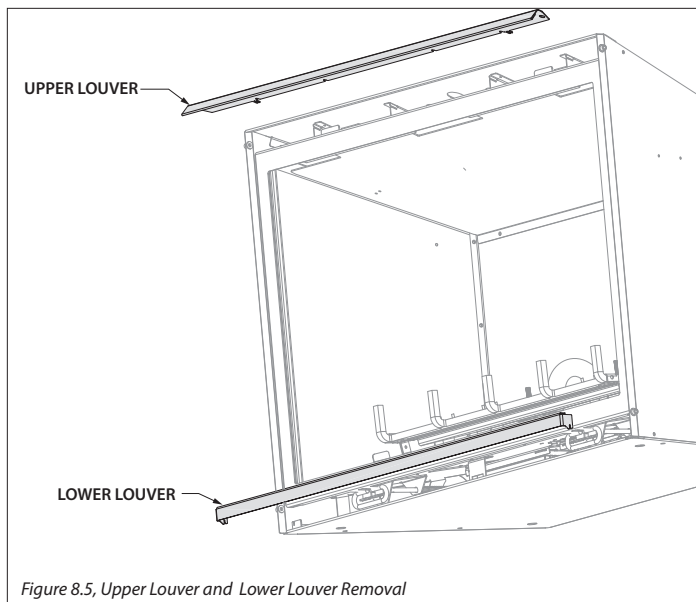
Figure 8.4, #CK29-LMK Mantel Clearances with #CK29-PSF or #CK29-RSF installed

8.3 Shroud Installation

CAUTION: Trim panels or surrounds must not seal ventilation openings in existing fireplace that this appliance is installed in. Draft relief openings must not be covered or blocked.

WARNING: The flow of combustion and ventilation air must not be obstructed.

1. Remove the upper louver by lifting up and out of the mounting flanges.
2. Remove lower louver by lifting the louver out of the slots on the mounting bracket.
3. Remove the glass assembly.
4. Align the mounting holes on the shroud to the corresponding mounting nuts on the sides of the insert metal cabinet.
5. Secure with (4) truss head screws (provided).
6. Reinstall all components previously removed.



8.4 Safety Barrier Installation

1. Locate the (4) slots on the shroud (2 each side).
 2. Align the tabs located on the back of the safety barrier with the slots on the shroud.
 3. Raise the safety barrier slightly into the slots and allow the tabs to lower into position.
- To remove safety screen: lift the screen up and out of slots.

9.0 GAS FIREPLACE INSERT SETUP

9.1 Glass Assembly

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

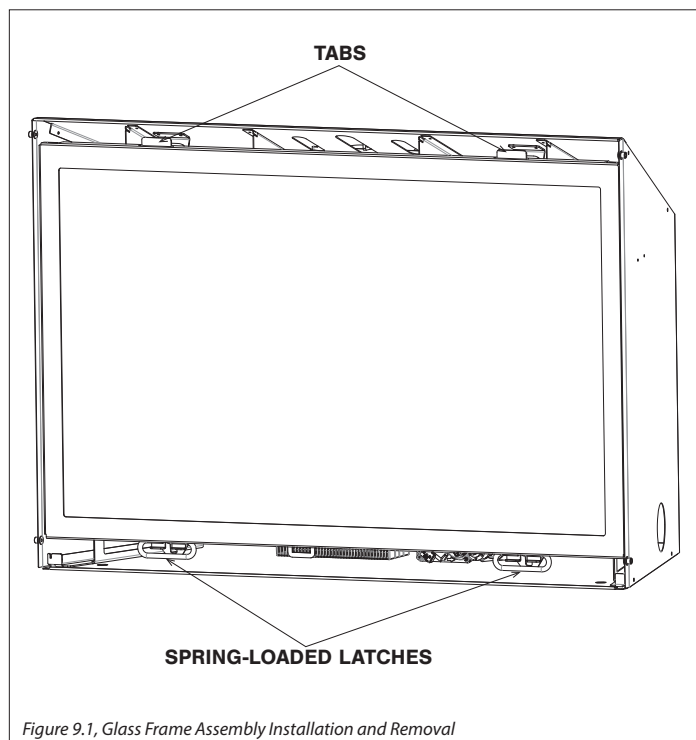
9.1.1 Remove Glass Assembly

WARNING: Do not remove the glass assembly when hot.

1. Remove safety barrier.
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.

9.1.2 Install Glass 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 safety barrier.



9.2 #CK29-500 Log Set Installation

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

- If converting to propane, complete the conversion before installing the log set. Follow the conversion instructions included with the kit.
 - Log numbers located on the bottom of each log. Refer to following instructions and illustrations for proper placement.
1. Position the ember panel in front of the burner as shown.
 2. Align the holes in base logs CK29-1, CK29-2, CK29-3, and CK29-4 with the corresponding mounting pins on the burner. Push the

logs down onto pins to seat.

3. Align logs CK29-5 and CK29-8 with corresponding notches on the base logs and the ember panel.
4. Align the notches in logs CK29-6 and CK29-7 with the log grates on the burner.
5. Distribute rockwool embers onto logs and burner.

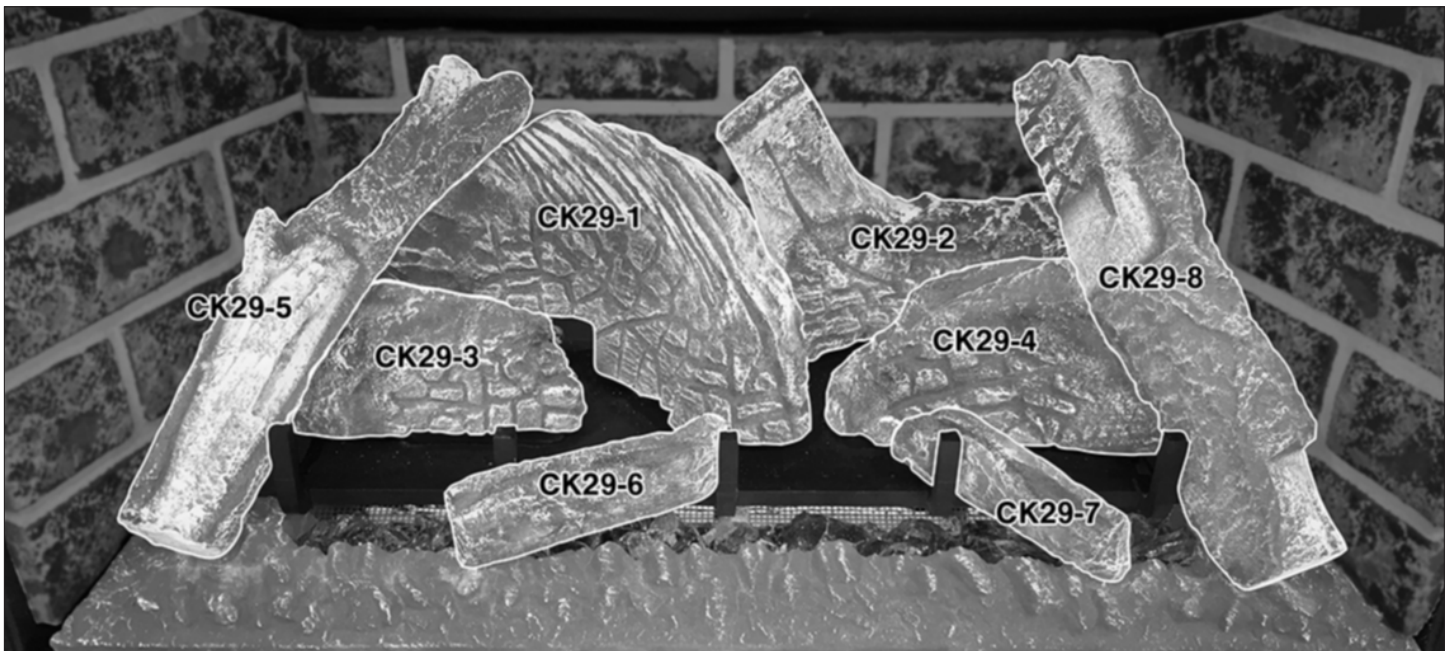


Figure 9.2, Installation of CK29-500

9.3 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.

9.3.1 Control Board Removal

1. Remove the safety barrier.
2. Turn the fireplace off.
3. Locate the manual valve installed by your qualified service technician. Turn the manual valve clockwise to the OFF position.
4. Disconnect any wall switch, remote control, or thermostat 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.
5. Remove the glass frame assembly and log set.
6. Remove the burner assembly, secured with (2) screws.
7. Remove refractory panels (if installed).
8. Remove burner, secured with (2) screws at the back of the firebox.
9. Remove the primary and secondary burner heat shields.
10. Remove (10) screws securing control board. Remove the control board.

9.3.2 Control Board Installation

1. with mounting studs at the bottom of the firebox. **VERIFY SEALING GASKET IS IN PLACE ON THE BOTTOM OF THE FIREBOX.** Secure with screws previously removed.
2. Secure the control board with screws previously removed.
3. Reinstall the burner heat shields by placing the primary burner heat shield on top of the control board. Position the cut-outs over pilot assembly and burner orifice, centering from side-to-side and as far back as possible.
4. Reinstall burner (2) screws.
5. Reinstall refractory panels (if used).
6. Reinstall burner assembly. Verify the burner tube is positioned over burner orifice. Secure with (2) screws previously removed.
7. Reinstall log set.
8. Reconnect any wall switch, remote control, or thermostat wires to the top and bottom terminals on the gas valve, OR reconnect all wiring harnesses to the gas valve. Plug all components into an electrical outlet.
9. Reinstall the glass frame assembly and safety barrier.
10. Turn the manual valve counter clockwise to the ON position.
11. Verify proper log placement, operation of fireplace, and any electrical components.

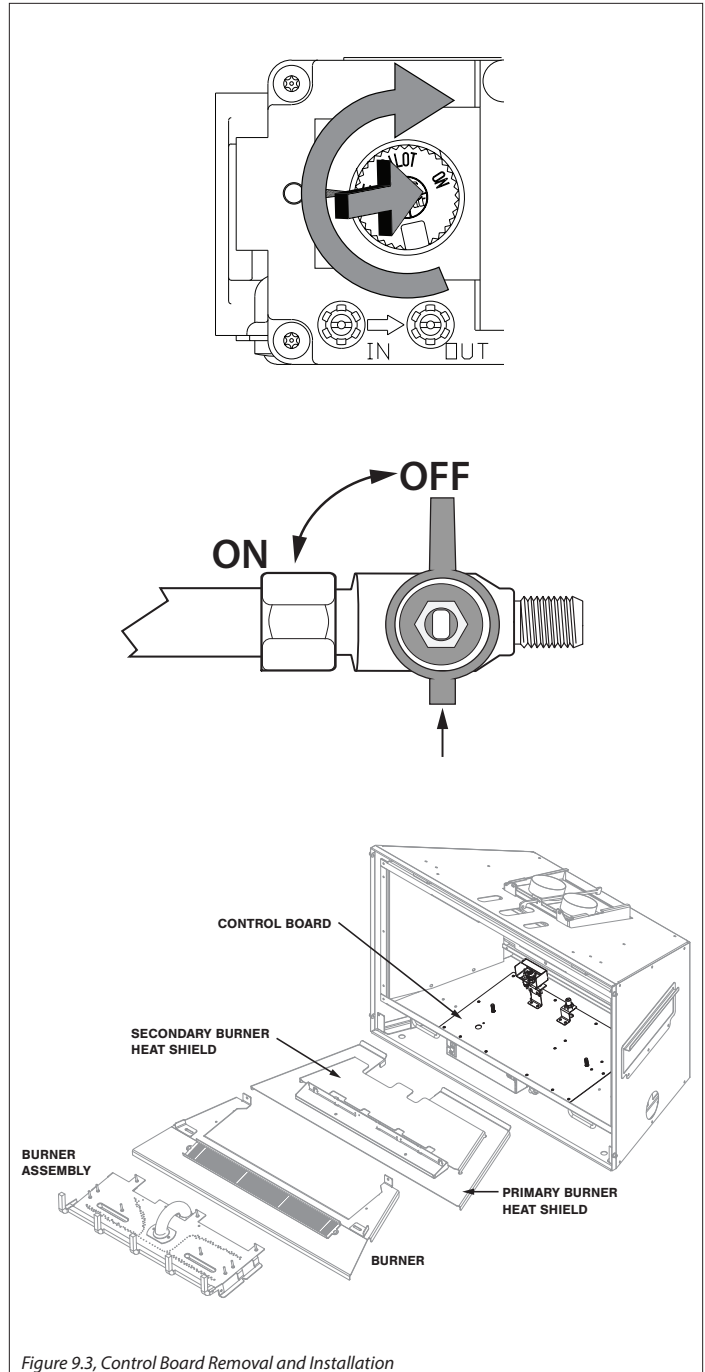


Figure 9.3, Control Board Removal and Installation

10.0 ELECTRICAL INFORMATION

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

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

10.1 Electrical Specifications

WARNING: AN OPTIONAL COMPONENT CONNECTION IS FOR LOW VOLTAGE BATTERY OR DIRECT CURRENT ONLY. DO NOT CONNECT TO 120 OR 240 VOLTS AC.

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

10.2 Wiring Requirements

CAUTION: Do connect high voltage (115V) wire to the gas valve.

- The millivolt gas valve system does not require 110-120 VAC supply to operate.
- If desired, a thermostat or a wall switch may be installed for main burner operational control using low-voltage wires. A thermostat wire assembly is not included with this appliance.
- It is optional to disable rocker switch operating the main burner by disconnecting the wires from the back of the gas valve (Figure 10.1).
- If the rocker switch wires are not disconnected, the ON/OFF rocker switch must be in the OFF position for proper operation of optional controls. If the ON/OFF rocker switch is ON, the main burner will operate until it is turned OFF by the rocker switch. The thermostat/wall switch components will not turn the main burner off if the main burner has been turned on by the rocker switch.
- If a the wall-mounted ON/OFF control or thermostat is to be used, mount it in a convenient location on a wall near the fireplace. Follow instructions included with assembly.
- If an optional component is to be used, run low-voltage wires from gas valve to the location of component.

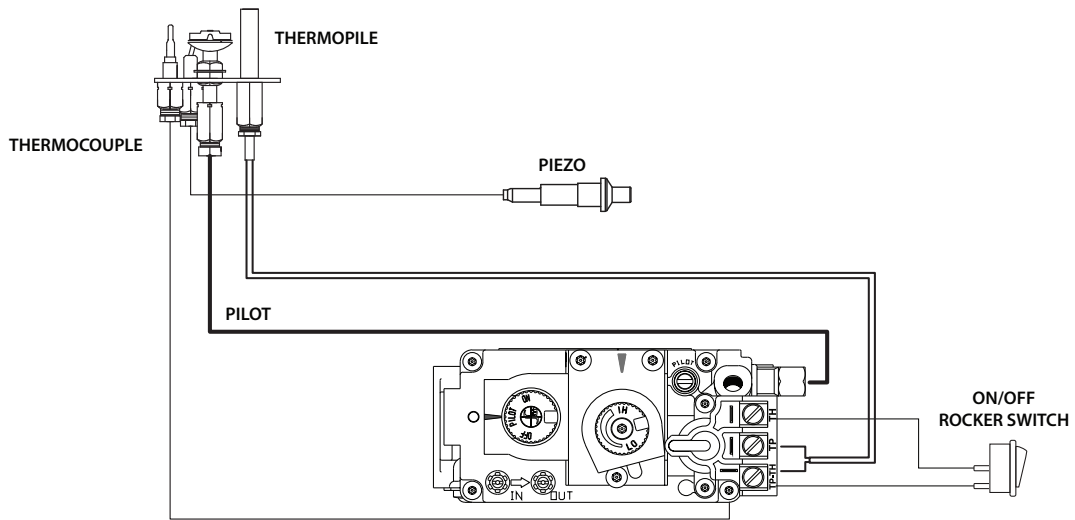


Figure 10.1, Millivolt Gas Valve Wiring Schematic with ON/OFF Rocker Switch

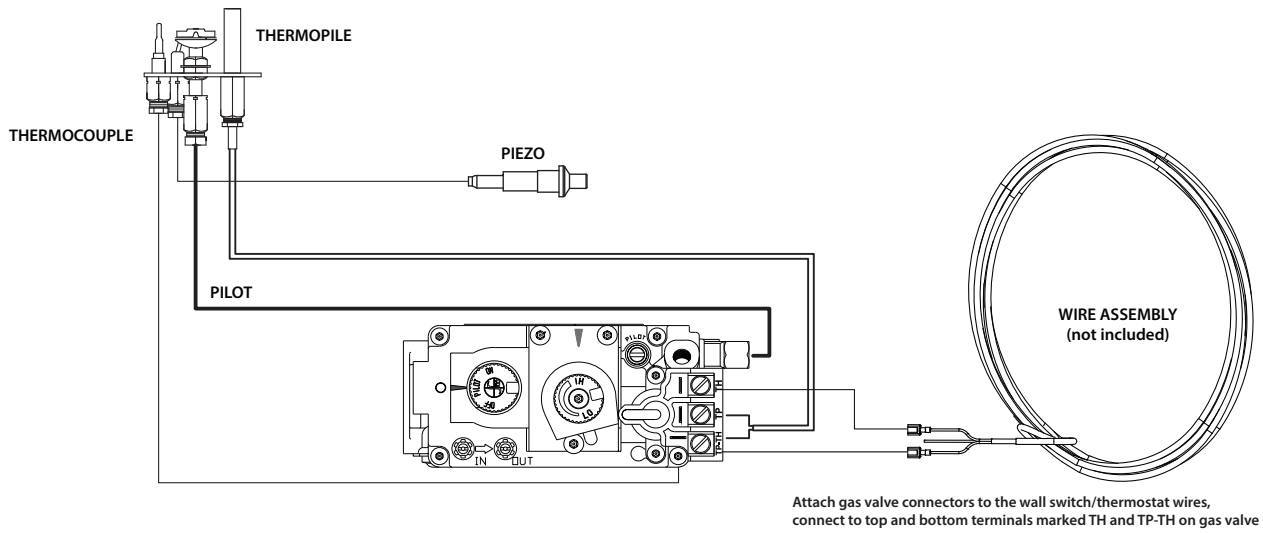


Figure 10.2, Millivolt Gas Valve Wiring Schematic with Thermostat or Wall Switch Wiring

11.0 OPERATING 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. 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.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

WARNING

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

Under no circumstances should any solid fuel (wood, coal, paper, cardboard, etcetera) 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

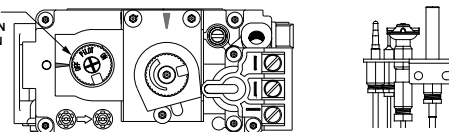
Clothing or other flammable material should not be placed on or near the appliance.

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 toddler, 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. Open the control compartment access panel to access gas controls.
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. Set the control compartment access panel back into position.
13. Turn on all electric power to the appliance.
14. Set thermostat to desired setting (if applicable).

GAS CONTROL KNOB SHOWN IN "OFF" POSITION



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. Open the control compartment access panel to access gas controls.
4. Push in gas control knob slightly and turn clockwise  to "OFF".
5. Set the control compartment access panel back into position.

12.0 ADJUSTMENT

12.1 Gas 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.

12.1.1 Inlet Pressure Test

NOTE: Make sure to apply the incoming pressure test with all other gas appliances on, or at full capacity in the house for a proper pressure reading. If the inlet pressure reading is too high or too low, contact the gas company. Only a qualified gas service technician should adjust incoming gas pressure. A low pressure can cause a delayed ignition.

1. Loosen the inlet (IN) pressure tap by turning screw counterclockwise. See (A) in Figure 12.1.
2. Attach manometer using a ¼ in (6 mm) 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

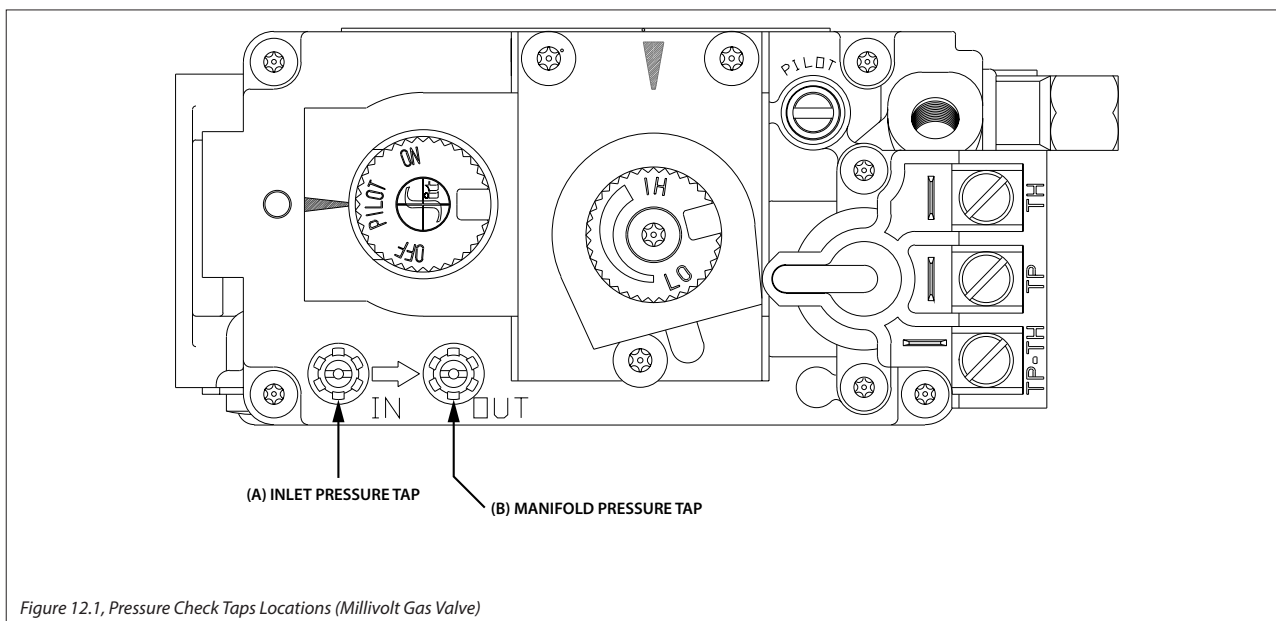
tighten.

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.

12.1.2 Manifold Pressure Test

1. Light pilot.
2. Loosen manifold (OUT) pressure tap by turning screw counterclockwise. See (B) in Figure 12.1.
3. Attach manometer to pressure tap using a ¼ in (6 mm) 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.

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)



12.2 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.

12.2.1 Burner Venturi

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

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

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

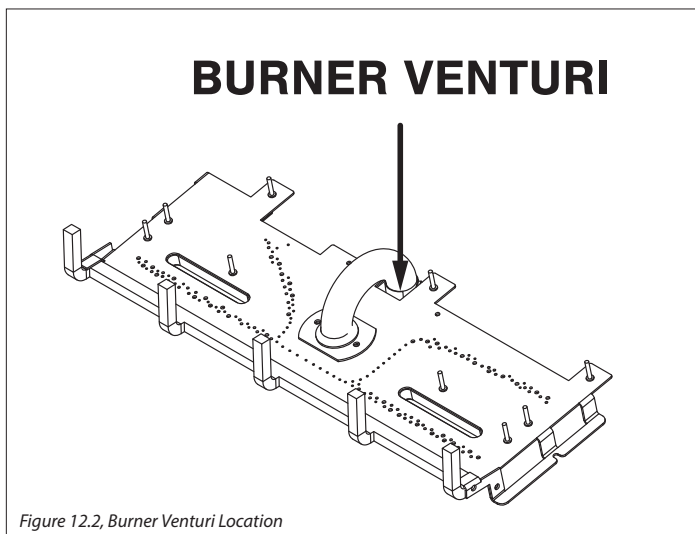
Regardless of venturi orientation, closing the air shutter will achieve a desired yellow flame, but may produce soot on the glass. Opening the air shutter will cause a short, blue flame that may lift off the burner.

Fuel	
Natural Gas	3/16" (4.8 mm) OPEN
Propane	5/8" (16 mm) OPEN

12.2.1.1 Venturi Adjustment

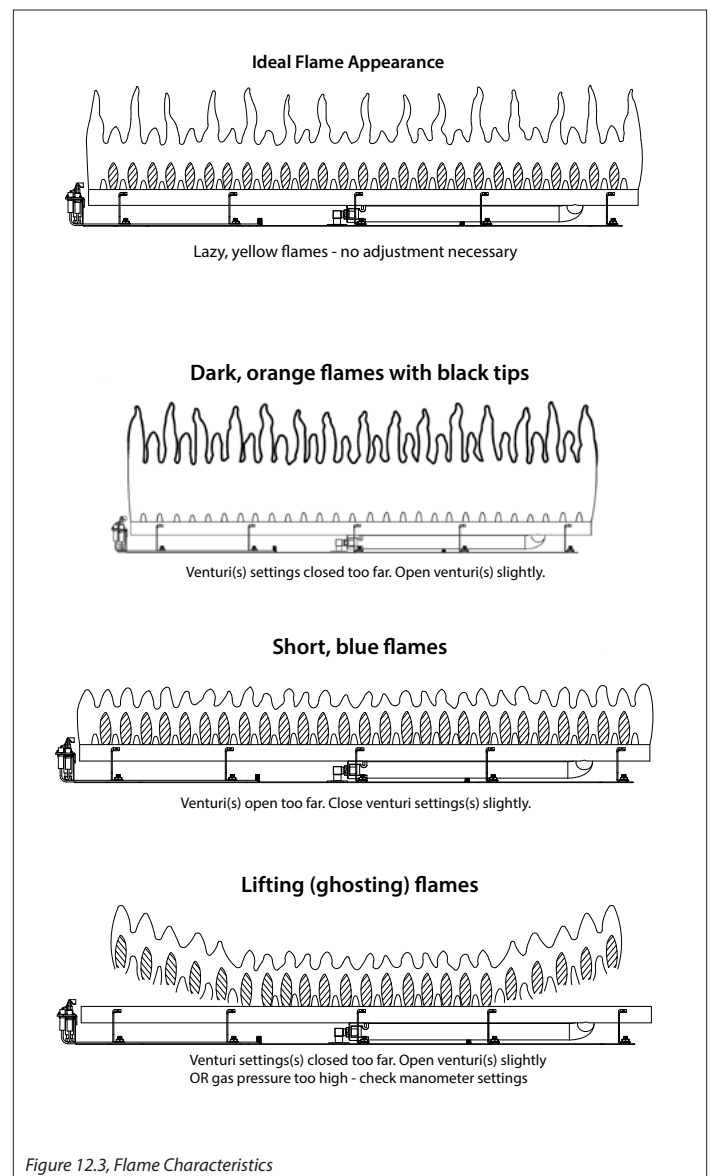
NOTE: If soot is present on the glass, check log positioning before adjusting the venturi. Logs must not block burner ports.

1. Remove the safety barrier and glass frame assembly.
2. Remove the log set and burner assembly from firebox.
3. Loosen screw on 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



13.0 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 in (3 mm) 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 envelope 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 9.1 Glass Assembly on page 27
	Improper pitch on horizontal venting	¼ in (6 mm) per 12 in (30 cm) 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.
Glass sooting	Improper log placement	Refer to section 9.2 #CK29-500 Log Set Installation on page 28.
	Improper venturi setting	Venturi may need to be opened slightly to allow more air into the gas mix. Refer to Section 12.2.1 Burner Venturi on page 34.
	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 12.2.1 Burner Venturi on page 34.
	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.

14.0 MAINTENANCE

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

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

14.1 Firebox

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

14.2 Fan

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

Performed by: Qualified Service Person

Frequency: Every 6 months

Action:

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

14.3 Vent System

NOTE: If the vent-air intake system is disassembled for any reason, reinstall per instructions provided with installation. Refer to Section 6.0 on page 15.

Performed by: Qualified Service Person

Frequency: Annually

Action:

- Examination of the vent system is required.
- The flow of combustion and ventilation air must not be obstructed.

14.4 Glass Assembly

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

WARNING: Do not use substitute materials.

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

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

Performed by: Homeowner

Frequency: Annually

Action:

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

Performed by: Qualified Service Person

Frequency: Annually

Action:

- Clean glass window with a suitable fireplace glass cleaner using a soft cloth. Abrasive cleaners must not be used. Be careful not to scratch the glass when cleaning.
- Inspect the glass for cracks, scratches, and nicks.
- Verify the glass assembly is properly intact and not damaged.
- Replace the glass and the assembly #701-009T as necessary.
- Only Hussong Mfg. Co., Inc. will supply the replacement of glass assembly as a complete unit.

14.5 Burner and Pilot System

The burner assembly may be removed for easier access to the control compartment. See Section 9.3 Control Board Removal and Installation on page 29 for instructions.

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 hold 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.

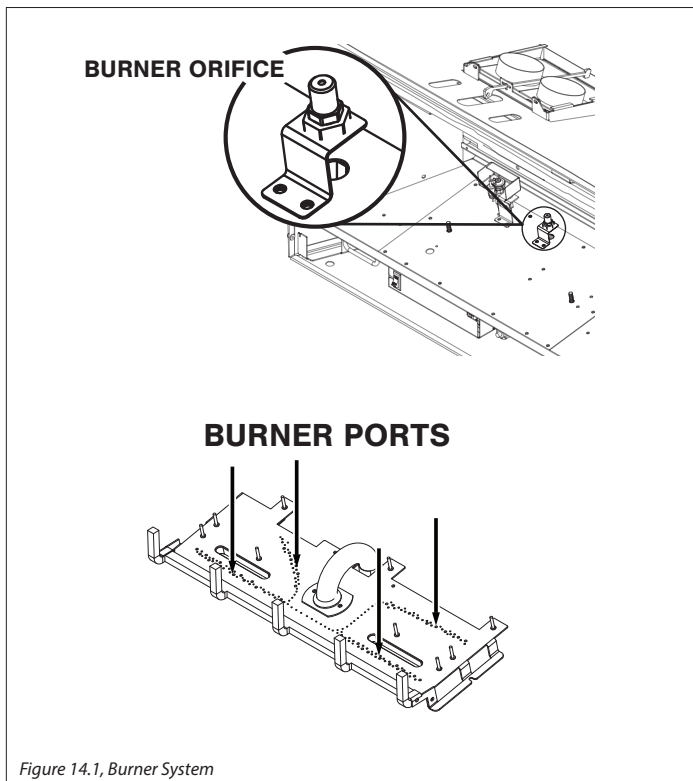


Figure 14.1, Burner System

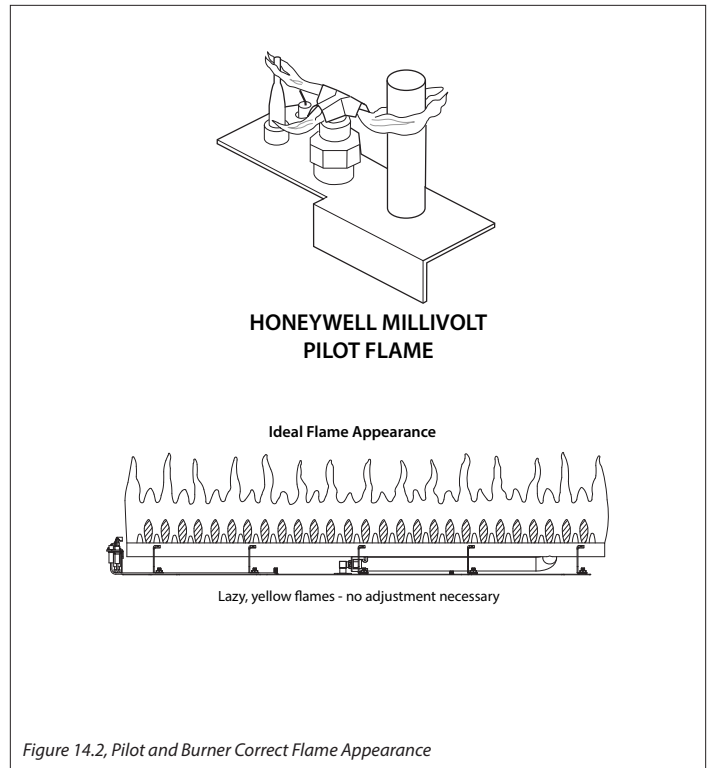


Figure 14.2, Pilot and Burner Correct Flame Appearance

15.0 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.

CONTROL BOARD AND PARTS			
Control Board - NG	CK29MV-770	Pilot Orifice - NG	700-294
Control Board - Propane	CK29MV-771	Pilot Orifice - Propane	700-295
S.I.T. Gas Valve - NG	700-086N	Pilot Hood	700-098
S.I.T. Gas Valve - Propane	700-087A	18 in. Flexible Gas Line - Black	700-213B
On/Off Rocker Switch	700-023	Flexible Gas Line - Valve to Burner Connection	700-226F
Pilot/Generator/Thermocouple - NG	700-063	NG Burner Orifice #42	700-242
Pilot/Generator/Thermocouple - Propane	700-063-1	Propane Burner Orifice #53	700-253
Piezo Igniter with nut (no wire)	700-090	Conversion Kit - NG	OCK-S42A
Flexible Pilot Tubing (valve to pilot)	700-091	Conversion Kit - Propane	OCK-S53A
Millivolt Generator	700-092	Burner Assembly	CK29L-135
Thermocouple	700-058		

GLASS AND GLASS PARTS	
Glass with Gasket 14-5/8" x 27-3/4"	701-009T
Glass Gasket	900-006

SAFETY BARRIERS	
Prairie Screen Front	CK29-PSF
Rectangular Screen Front	CK29-RSF
Arched Mission Screen Front	CK29A-MSF
Arched Prairie Screen Front	CK29A-PSF
Arched Screen Front	CK29A-SF
Arched Full Prairie Door Screen Front	CK29A-FPDSF2

SHROUDS	
Blank Shroud (4 pc.)	CK29-004
4 sided blank shroud (4 pack)	CK29-008
25" x 38" shroud (1 piece)	CK29-2538
27-1/2" x 42" shroud (1 piece)	CK29-27542
30" x 44" shroud (1 piece)	CK29-3044
28" x 38" arched shroud (1 piece)	CK29A-2838
Custom shroud	CK29-CUS
Custom arched shroud	CK29-ACUS

FAN KIT	
Fan Kit	CK29-028-MV

ADDITIONAL COMPONENTS	
Manual Gas Shut-off Valve	700-203
Upper Louver	CK29-202
Lower Louver	CK29-201

LOG SET	
8 Piece Log Set	CK29-500
Ember Panel	CK29-900E
#CK29-1 Log	CK29 1
#CK29-2 Log	CK29 2
#CK29-3 Log	CK29 3
#CK29-4 Log	CK29 4
#CK29-5 Log	CK29 5
#CK29-6 Log	CK29 6
#CK29-7 Log	CK29 7
#CK29-8 Log	CK29 8
Rock Wool Embers	900-REMB

#CSK-29-MV
 Hussong Manufacturing Co., Inc.
 P.O. Box 577
 204 Industrial Park Drive
 Lakefield, MN 56150-0577
 USA

16.0 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.

