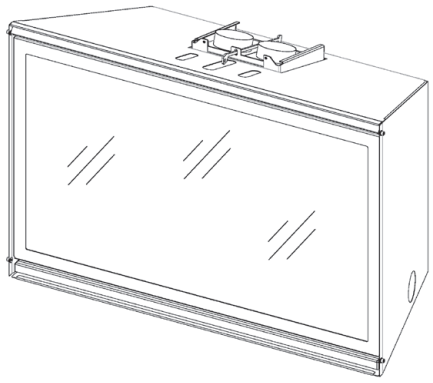
KOZY HEAT
FIREPLACES
HUSSONG MANUFACTURING CO., INC.

INSTALLATION AND OPERATION MANUAL

CHASKA 34 GLASS

Model #CSK-34-G
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*.

PFS C US

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

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

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

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

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

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

⚠ DANGER

HOT GLASS WILL CAUSE BURNS

DO NOT TOUCH GLASS UNTIL COOLED

NEVER ALLOW CHILDREN TO TOUCH GLASS

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

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

Report No: 18-454 • Rev. 7, December 2018

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: _____

_____

_____

_____

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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 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	34,000 Btu/h 9.96 kW	34,000 Btu/h 9.96 kW
Minimum Input Rating	18,500 Btu/h 5.42 kW	18,500 Btu/h 5.42 kW
Manifold Pressure (High)	3.8" WC (0.95 kPa)	11" WC (2.74 kPa)
Manifold Pressure (Low)	1.1" WC (0.27 kPa)	2.9" WC (0.72 kPa)
Orifice Size (DMS)	#38	#52

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 ft (610 m), input ratings are to be reduced by 4% for each 1,000 ft (305 m) above sea level.

2.1.1.2 Canadian Installations

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

2.2 Appliance Dimensions

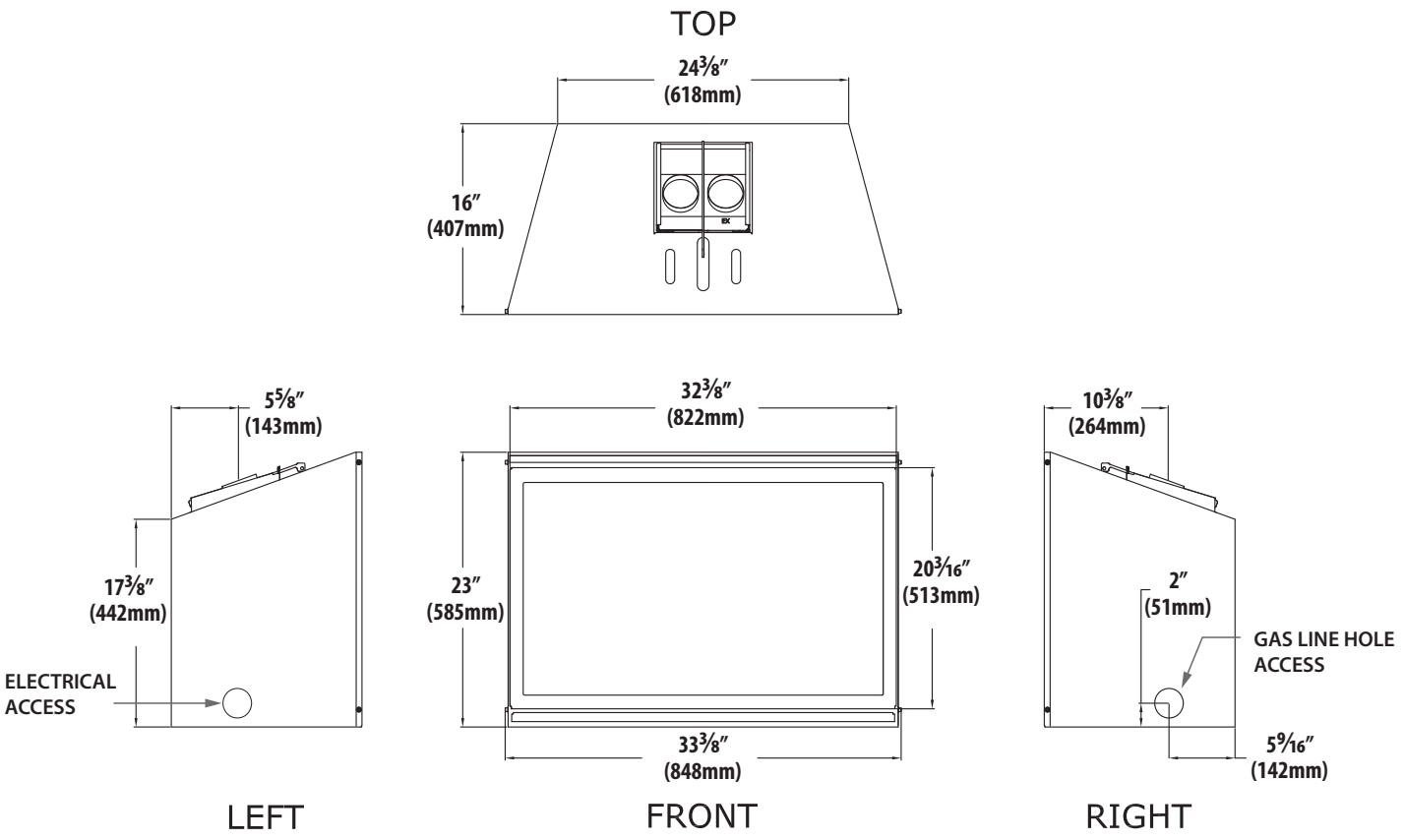


Figure 2.1, Appliance Dimensions

2.3 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.

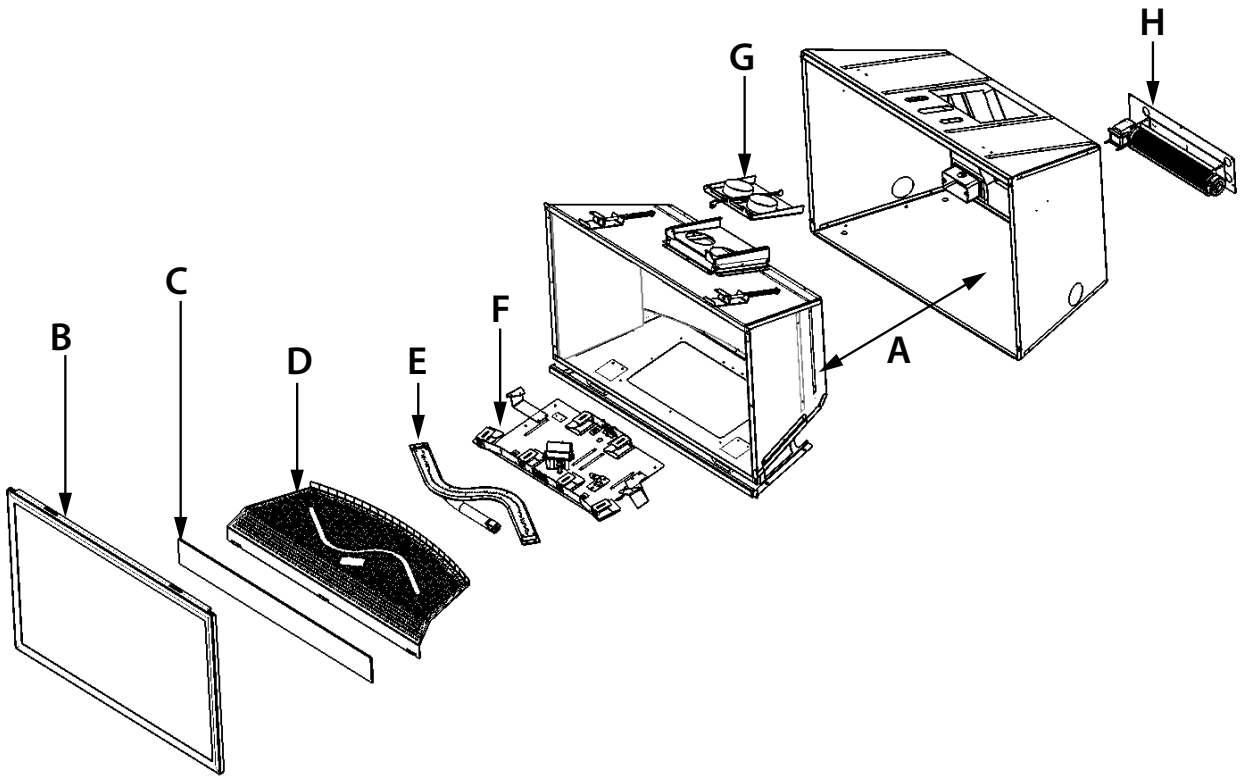


Figure 2.2, Proper Positioning of Appliance

Table 2.1, Field-Assembled Parts			
A	Fireplace insert	**E**	Burner tube
B	Glass frame assembly	**F**	Control board and light kit
C	Media dam	**G**	Co-linear vent adapter
D	Media tray	**H**	Fan kit

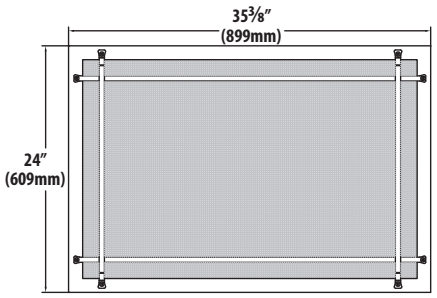
2.4 Safety Barrier Dimensions

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. Only doors certified with the appliance shall be used.

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 23 for installation and removal of safety barriers.



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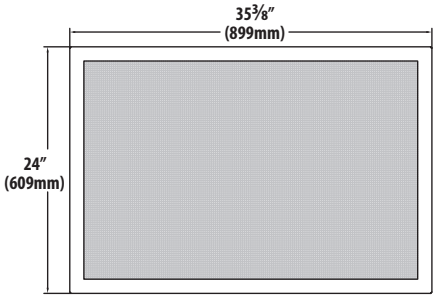

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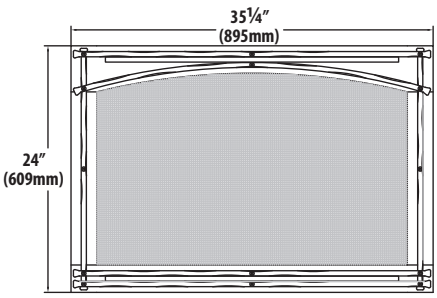

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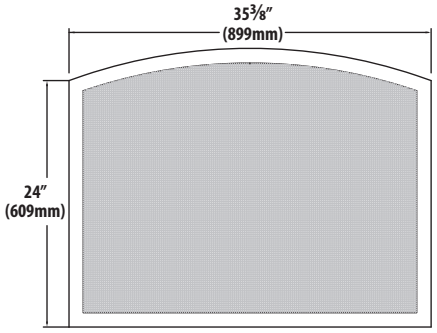

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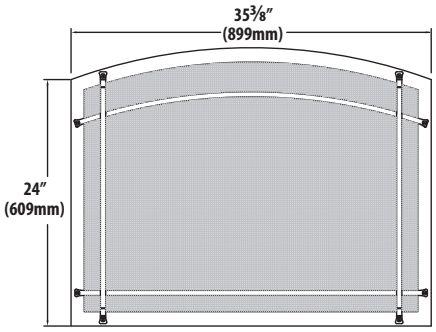

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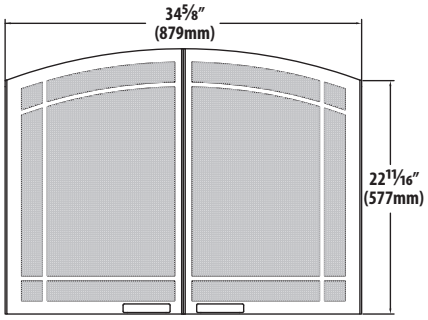


CK34A-FPDSF2

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.

3.2.1 Existing Fireplace Opening Minimum Requirements

(A) Height ..... 23-1/2 in (597 mm)
(B) Front Width ..... 33-1/2 in (851 mm)
(C) Depth ..... 16-3/8 in (419 mm)
(D) Back Width ..... 24-1/2 in (622 mm)

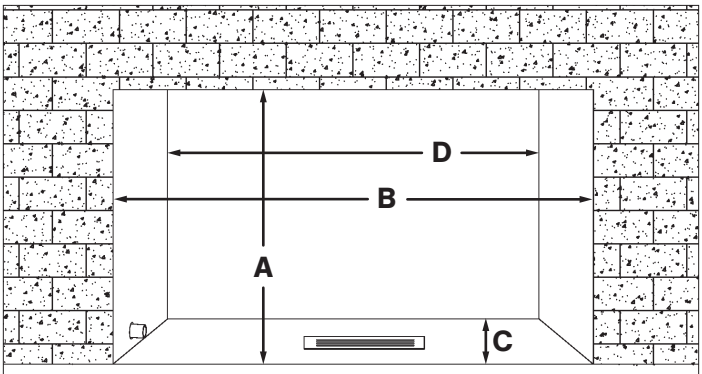


Figure 3.1, Existing Opening Guide

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 in (178mm) minimum inside diameter
- Masonry chimney: 6 in x 8 in (152mm x 203mm) minimum inside diameter

Existing chimney height:

- Minimum: 10 ft (3 m) Maximum: 50 ft (15.24 m)

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.

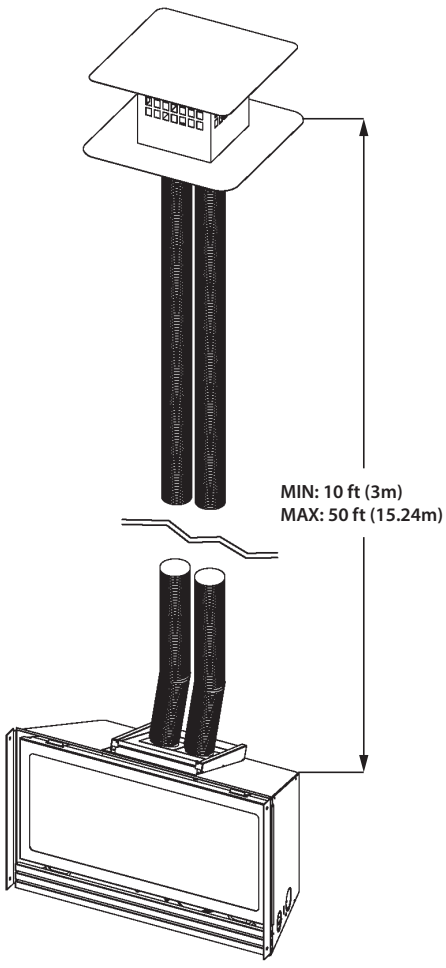


Figure 3.2, Min/Max Chimney Length

4.0 TERMINATION LOCATION

4.1 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 in (305mm) clearance to intersecting walls, overhangs or eaves as verified by test.

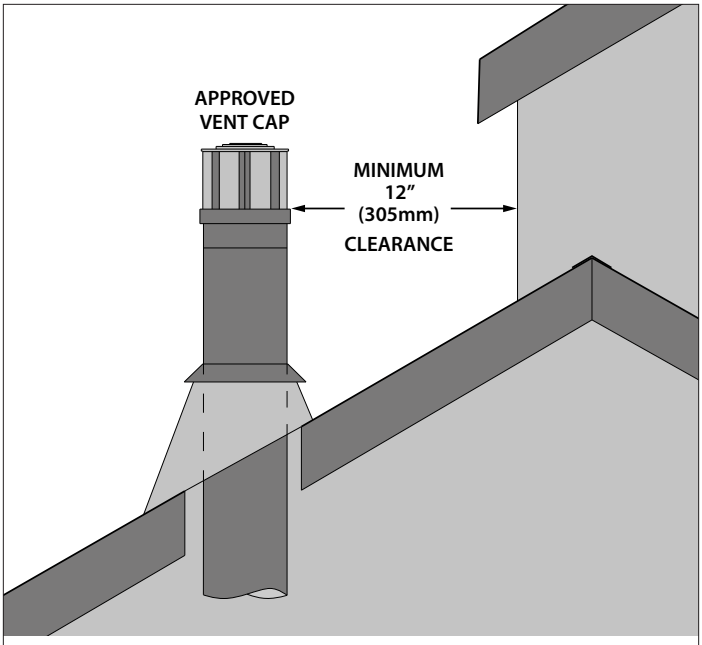


Figure 4.1, Vent Cap Clearance

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 20.
- 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, Selkirk, Simpson Dura-Vent, and ICC.

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.

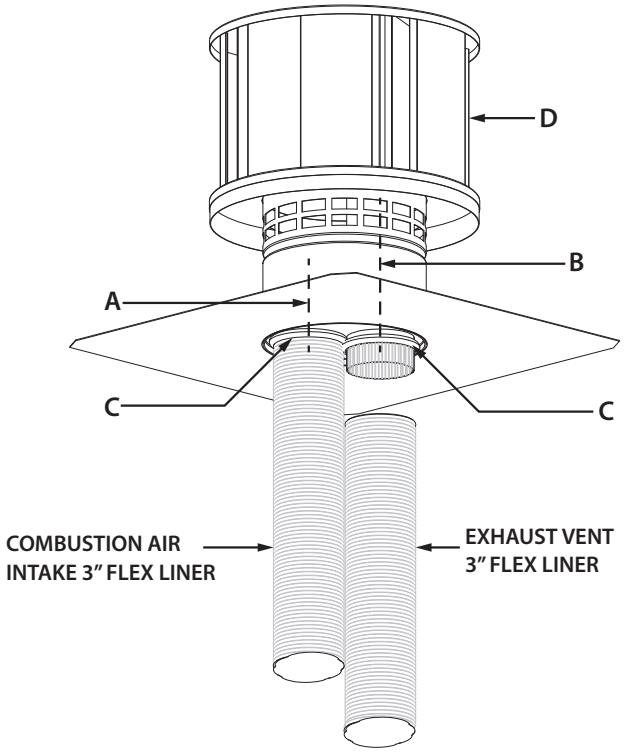
#816 and #816-CAP

(A) Intake Collar (extends through bottom plate)

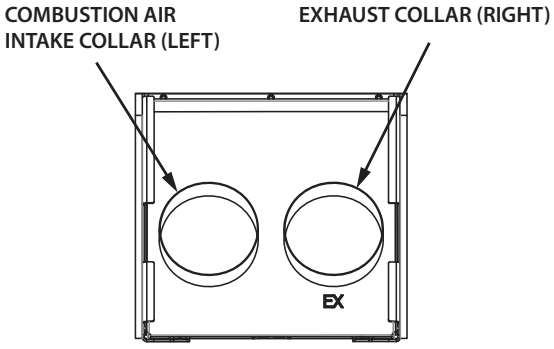
(B) Exhaust Collar (extends through middle divider plate)

(C) Sealant (not provided)

(D) #816-CAP Termination Cap



USES #816 36 ft (10.97m) EXPANDABLE 3" FLEXIBLE PIPE



VENT ADAPTER (TOP VIEW)

Figure 6.1, #816-CAP

6.3 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.

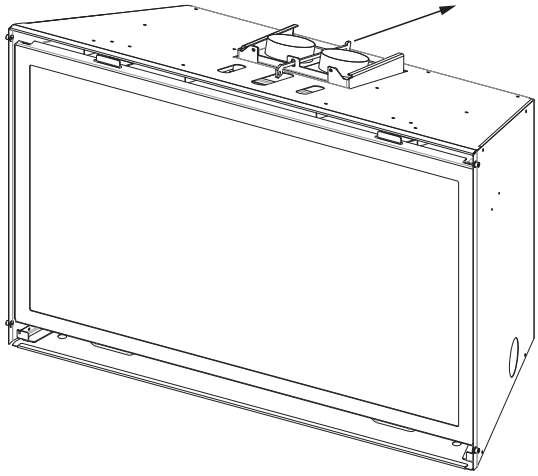


Figure 6.2, Vent Adapter Removal

6.4 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.

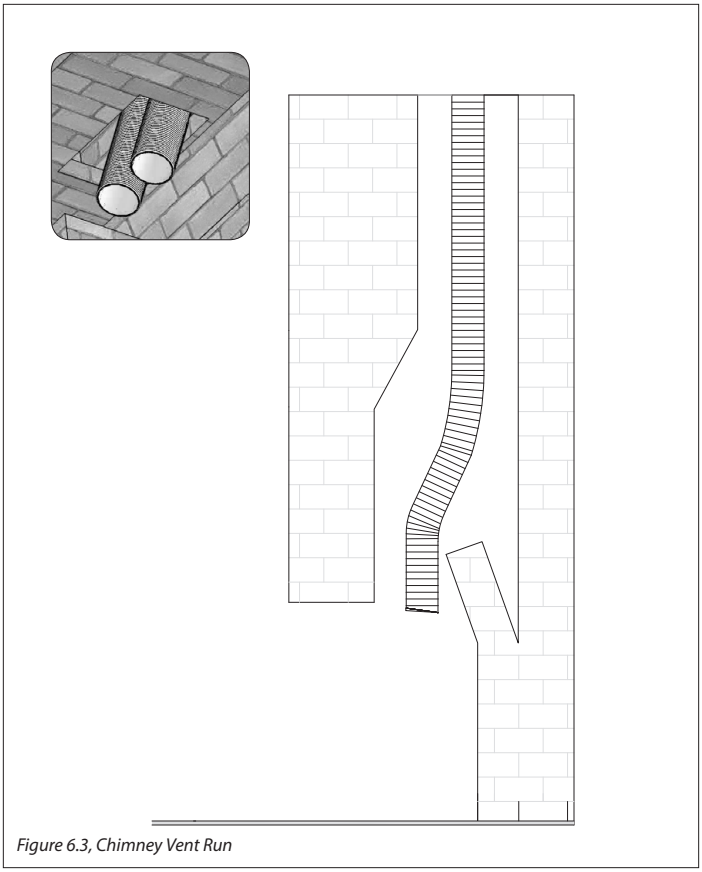


Figure 6.3, Chimney Vent Run

6.5 Connect Vent Pipe to Vent Adapter

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 join 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.

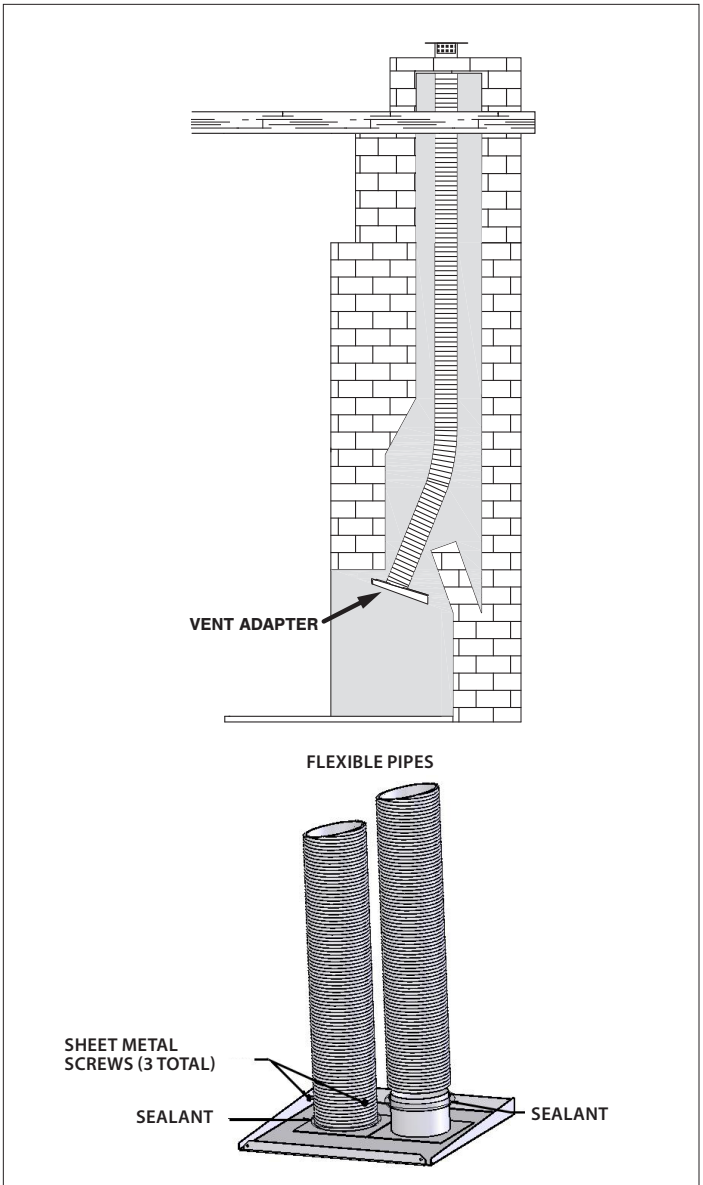


Figure 6.4, Vent Pipe Connection to Vent Adapter

6.6 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.

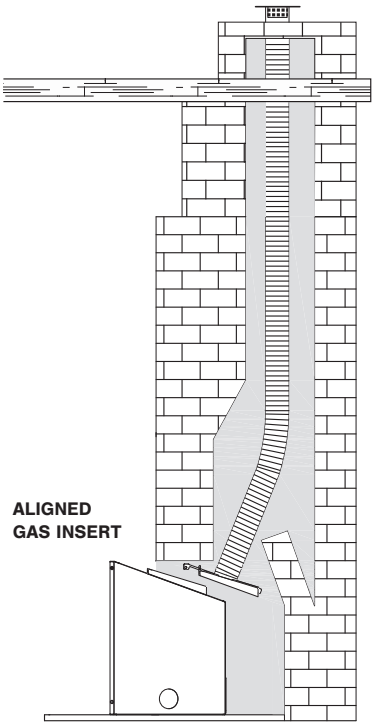


Figure 6.5, Aligned Insert

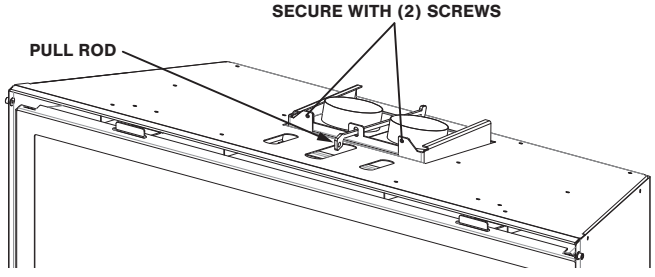


Figure 6.6, Seated Vent Adapter

6.7 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.

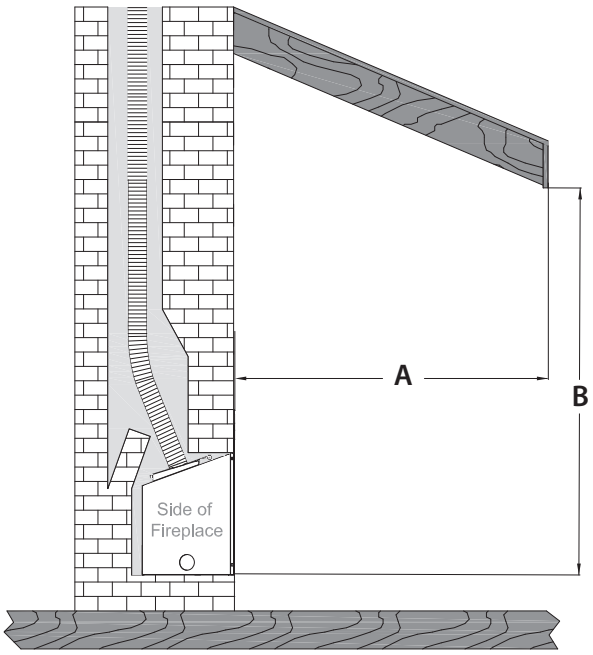
Follow the instructions and illustration below for installation procedures. Drawings are for reference only and your fireplace may look different than shown.

6.7.1 Safety Screen Barriers

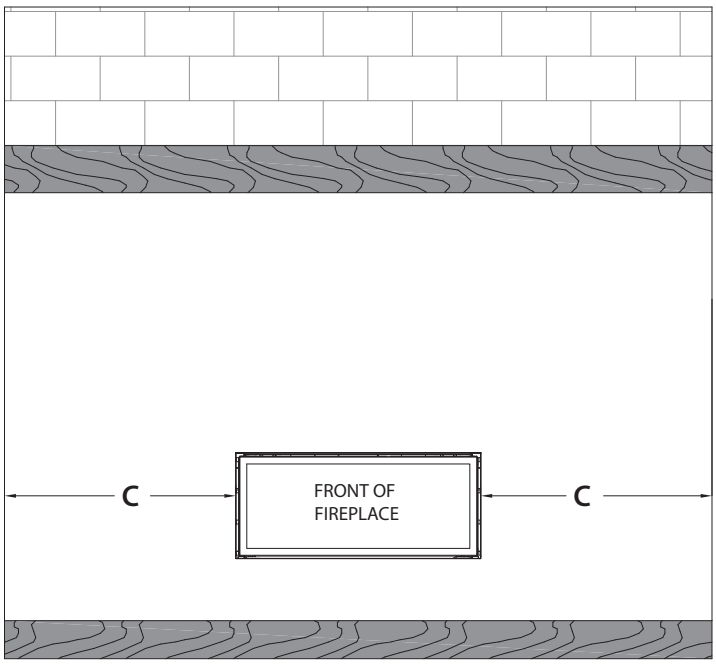
Hussong Mfg. highly recommends to use black painted safety barriers in outdoor installations. Other screen barriers that incorporate a plated or patina finish are highly susceptible to oxidation and discoloration.

6.7.2 Requirements

- Fireplace operation is approved from 40°F to 110°F.
- All wiring connections shall be in accordance with outdoor requirements of NECA NFPA 70.
- All clearances and requirements in your appliance manual must be adhered to.



The overhang (A) must be a minimum of 1/2 or greater of the roofline elevation (B) above the base of the fireplace.



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

EXAMPLE: If roofline (B) is 10 ft above the base of fireplace, the overhang (A) must be 5 ft or greater. The width of the overhang to EACH side of the fireplace (C) must be 5 ft or greater.

Figure 6.7, Outdoor Covered Fireplace Installation

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 12.
- 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.

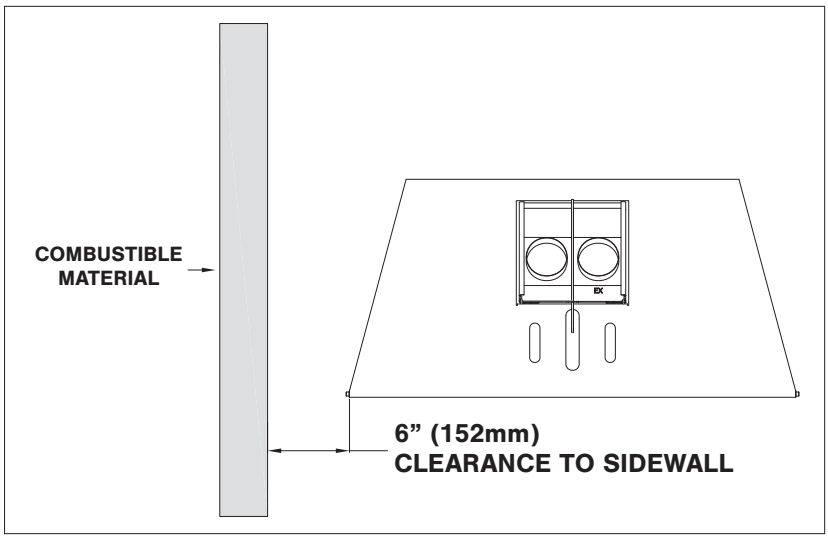
Table 7.1, Inlet Gas Supply Pressures

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)

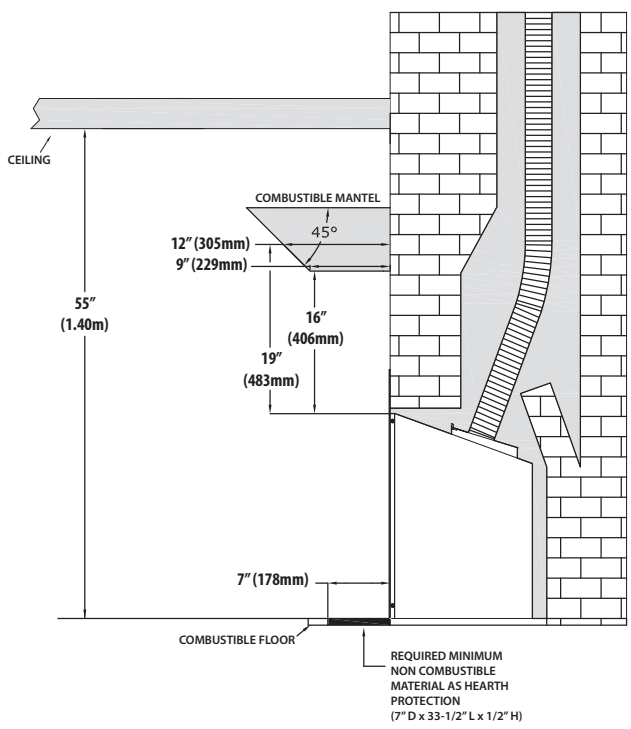
8.0 FACING AND FINISHING

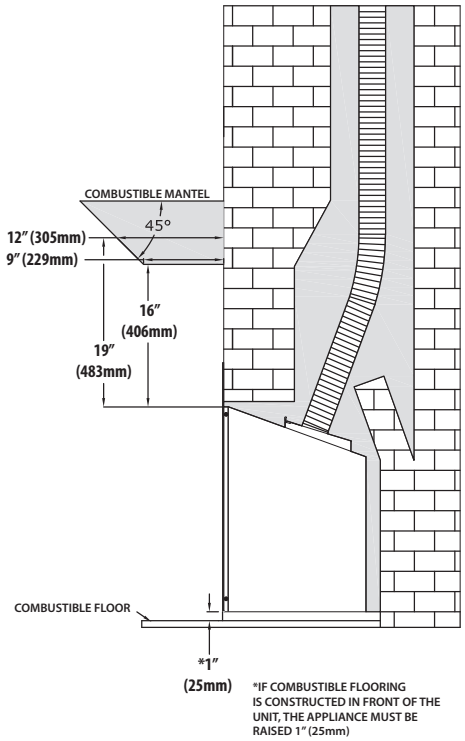
8.1 Clearances to Combustibles

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



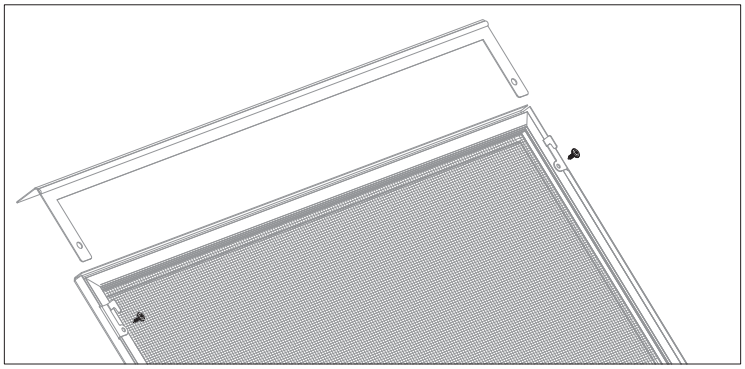
IF COMBUSTIBLE MATERIAL IS BEING USED AS HEARTH IN FRONT OF THE UNIT, ONE OF THESE TWO INSTALLATIONS MUST BE FOLLOWED



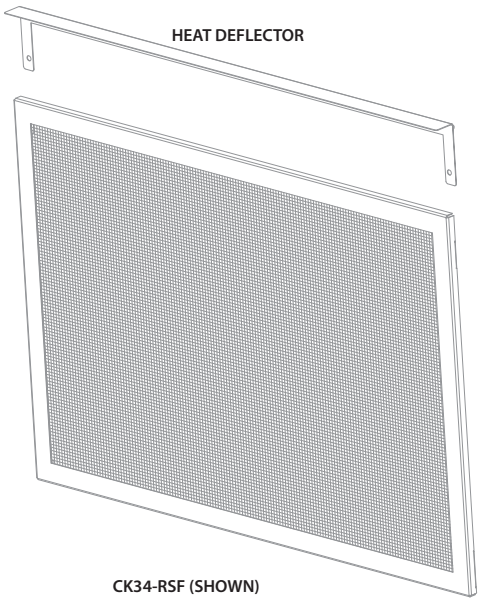


8.2 CK34 Low Mantel Kit

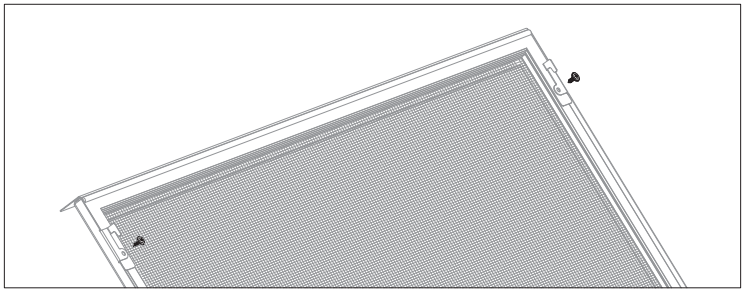
This low clearance kit is for use with safety barriers CK34-PSF or CK34-RSF ONLY.



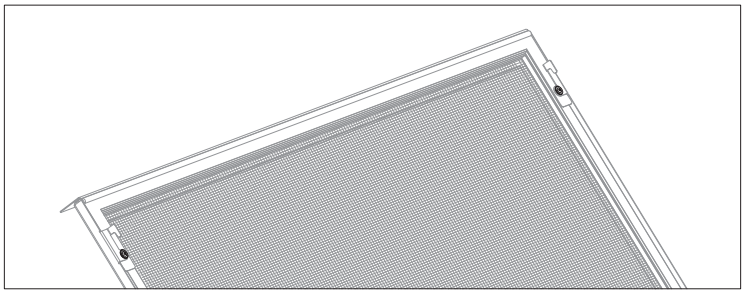
REMOVE (2) SCREWS AS SHOWN LOCATED AT THE BACK OF THE SCREEN FRONT AND ALIGN THE HEAT DEFLECTOR



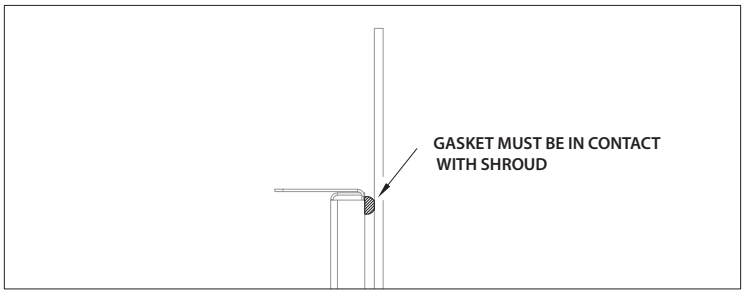
CK34-RSF (SHOWN)



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

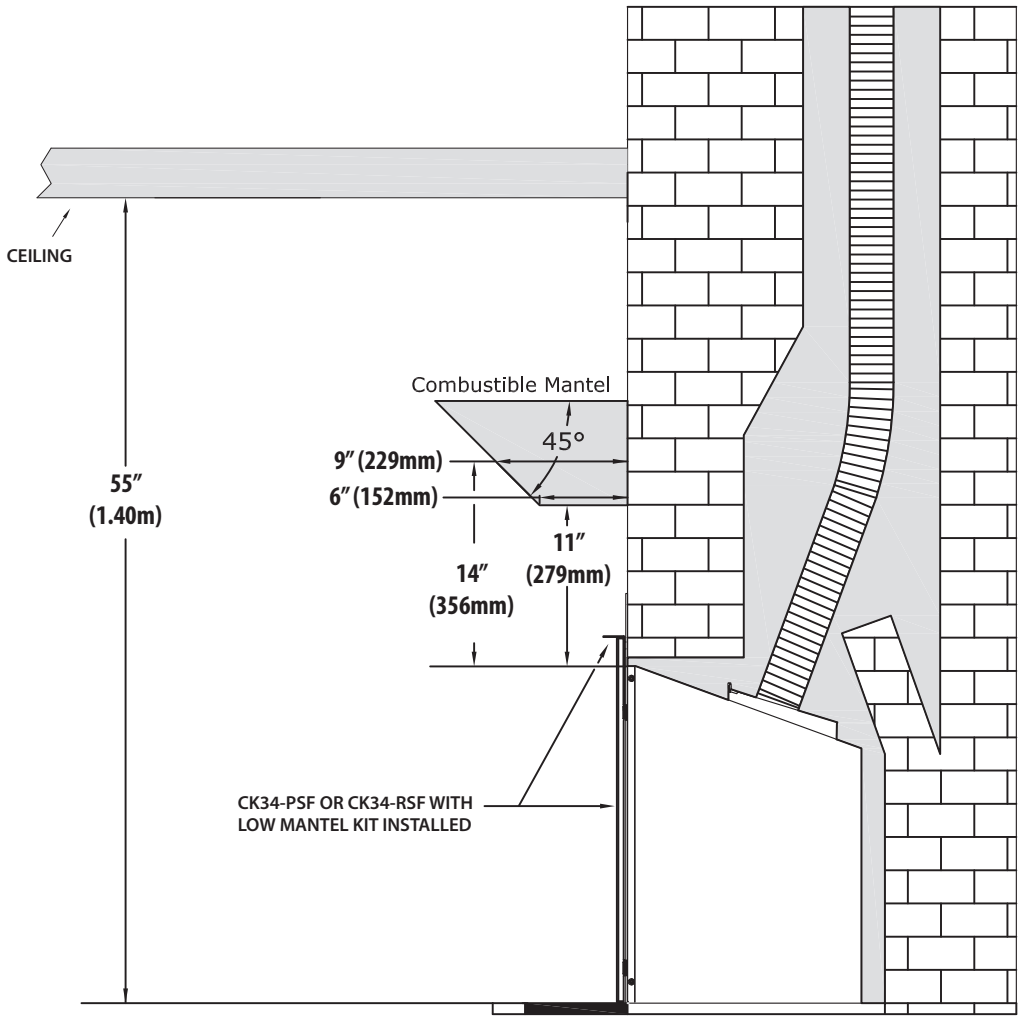


REPLACE (2) SCREWS THROUGH THE HOLES IN THE MOUNTING TAB AND HEAT DEFLECTOR



8.2.1 Low Mantel Kit Clearances

IF USING CK34-PSF OR CK34-RSF SAFETY BARRIER WITH LOW MANTEL KIT INSTALLED, THESE LOWER MANTEL CLEARANCES ARE ALLOWED



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 slots.
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.

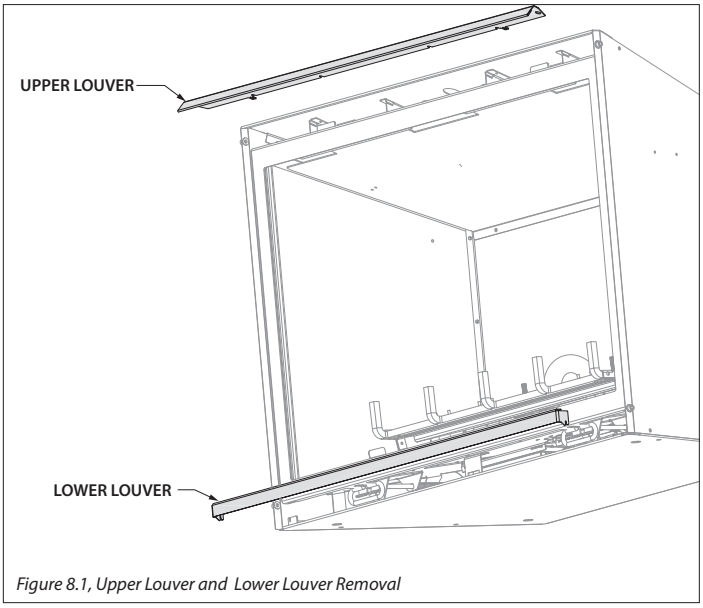


Figure 8.1, Upper Louver and Lower Louver Removal

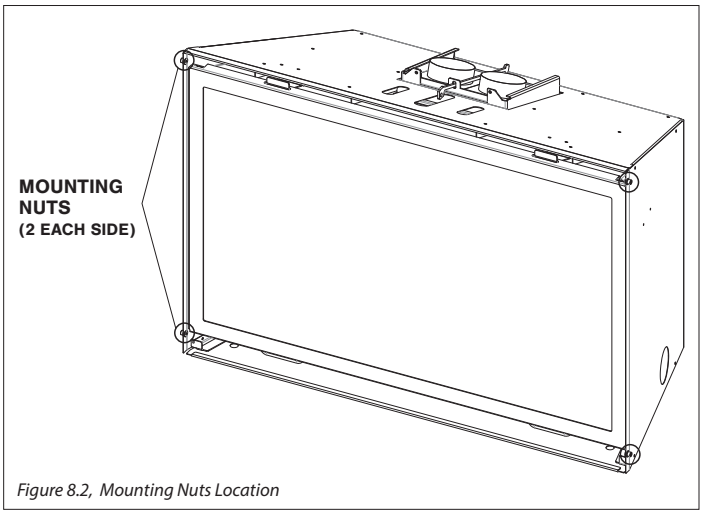


Figure 8.2, Mounting Nuts Location

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.

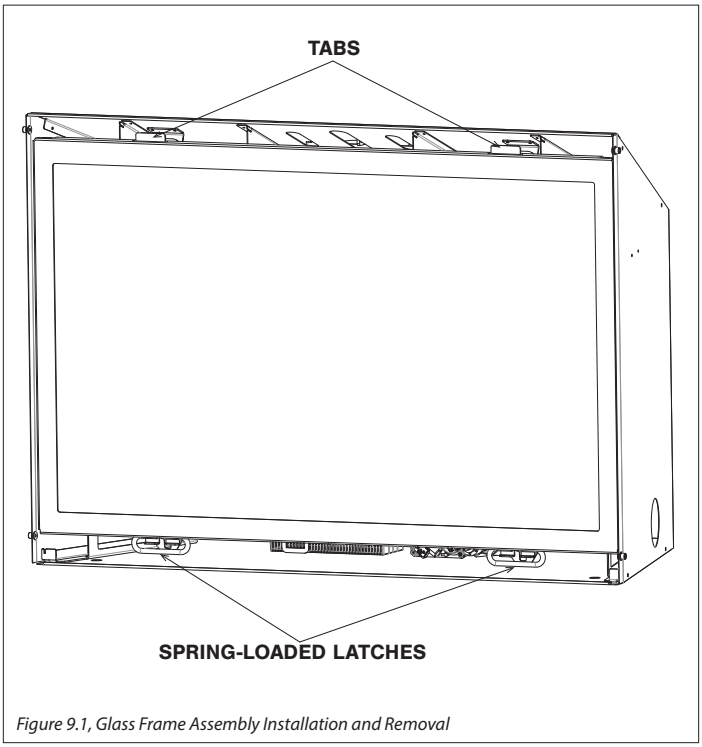


Figure 9.1, Glass Frame Assembly Installation and Removal

9.2 Light Kit

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

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

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

9.2.1 Install Light Kit

1. Remove (8) screws securing burner cover, then lift the cover out of firebox.
2. Loosen, but do not remove (4) screws securing light bars to firebox floor. Slide light bars out away from screws, tipping upwards to expose lamp bases.
3. Install (6) halogen bulbs (included in components packet) into lamp bases.
4. Reattach light bars, securing with screws previously loosened.
5. Reinstall burner cover, securing with screws previously removed.

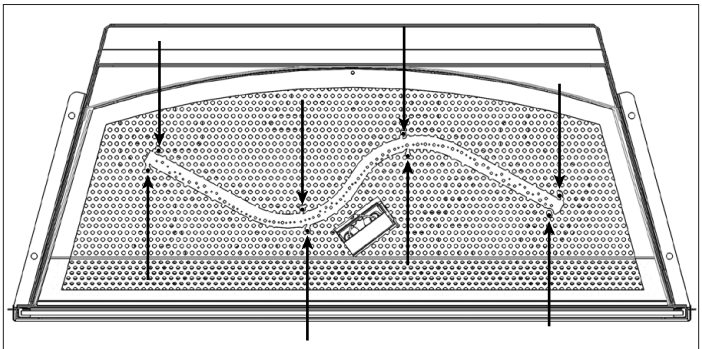


Figure 9.2, Burner Cover Screws

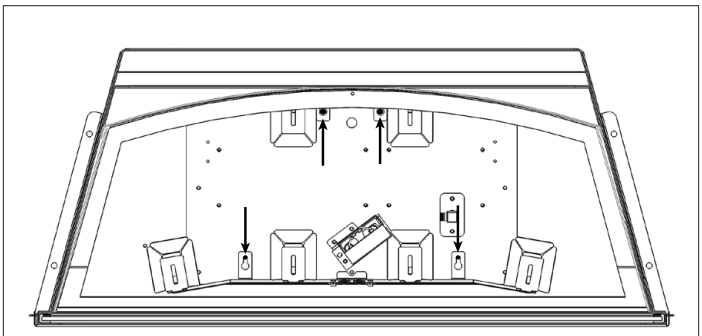


Figure 9.3, Light Bar Screws (burner removed for clarity purposes only)

9.3 Glass Media

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

NOTE: Follow instructions below for proper media installation of your specific glass media. Do not substitute materials.

9.3.1 #212 Series Glass Media

1. Remove glass media from its packaging. The glass media may be cleaned prior to installation. See 9.3.3.
2. Install 12 lbs. (5.4 kg) of crushed glass media onto burner assembly and pilot shield. **PROPANE INSTALLATIONS:** Remove 50% or more of glass media covering burner ports for proper flame appearance.
3. Verify the glass media is one layer deep across the firebox and does not cover any part of the burner. Do not block the pilot assembly.
4. Save any unused media for later use.

9.3.2 #312 Series Glass Media

1. Remove glass media from its packaging. The glass media may be cleaned prior to installation. See 9.3.3.
2. Install 12 lbs. (5.4 kg) of reflective glass media onto burner assembly and pilot shield.
3. Verify the glass media is one layer deep across the firebox and does not cover any part of the burner. Do not block the pilot assembly.
4. Save any unused media for later use.

9.3.3 Cleaning Glass Media

As a natural reaction from direct contact to heat and exposure to flame, glass media may discolor or produce a fine oil residue. Follow instructions below to clean glass media. Contact your local authorized dealer for replacement glass media.

- Remove glass media from firebox using protective gloves.
- Clean glass media with mild dish soap and water.
- Drain and rinse the glass media thoroughly. Verify the glass media is completely dry before placing on media tray.
- Follow instructions above for your specific glass media reinstallation. Do not block the pilot assembly with glass media.

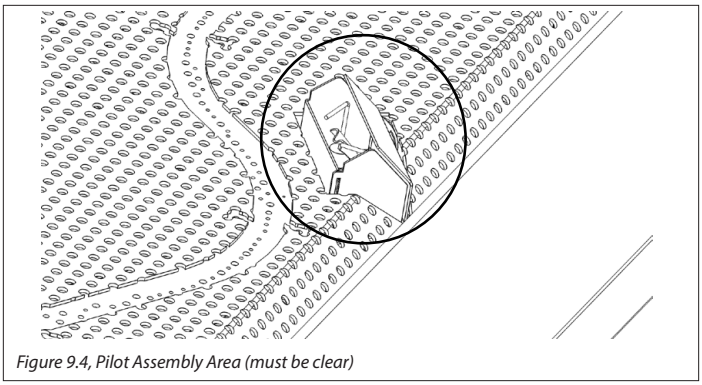


Figure 9.4, Pilot Assembly Area (must be clear)

9.4 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.

9.4.1 Control Board Removal

1. Disconnect electrical power.
2. Locate the manual valve installed by your qualified service technician.
3. Turn the manual valve clockwise to the OFF position.
4. Remove the safety barrier and glass assembly.
5. Remove glass media.
6. Remove burner cover from firebox (8) screws.
7. Remove burner tube from firebox floor (4) screws.
8. Remove halogen bulbs. Loosen (4) screws that secure light brackets to control board.
9. Pull bracket assemblies away from control board, allowing access to screws securing control board to firebox bottom.
10. Remove (8) screws securing control board. Remove the control board.

9.4.2 Control Board Installation

1. Place the control board in firebox, aligning the holes in board with mounting studs at the bottom of the firebox.
   VERIFY SEALING GASKET IS IN PLACE ON THE BOTTOM OF THE FIREBOX.
2. Secure the control board with screws previously removed.
3. Re-attach light brackets, tighten screws. Reinstall halogen bulbs.
4. Reinstall burner tube, positioning burner venturi over burner orifice, aligning mounting holes with corresponding holes in control board assembly. Secure with (4) screws previously removed.
5. Reinstall burner cover, aligning holes in cover to corresponding holes on burner. Secure with (8) screws previously removed.
6. Reinstall glass media, being careful not to block pilot.
7. Turn the manual valve counterclockwise to the ON position.
8. Reconnect electrical power.
9. Reinstall the glass assembly and safety barrier.
10. Verify proper log placement, operation of fireplace, and any electrical components.

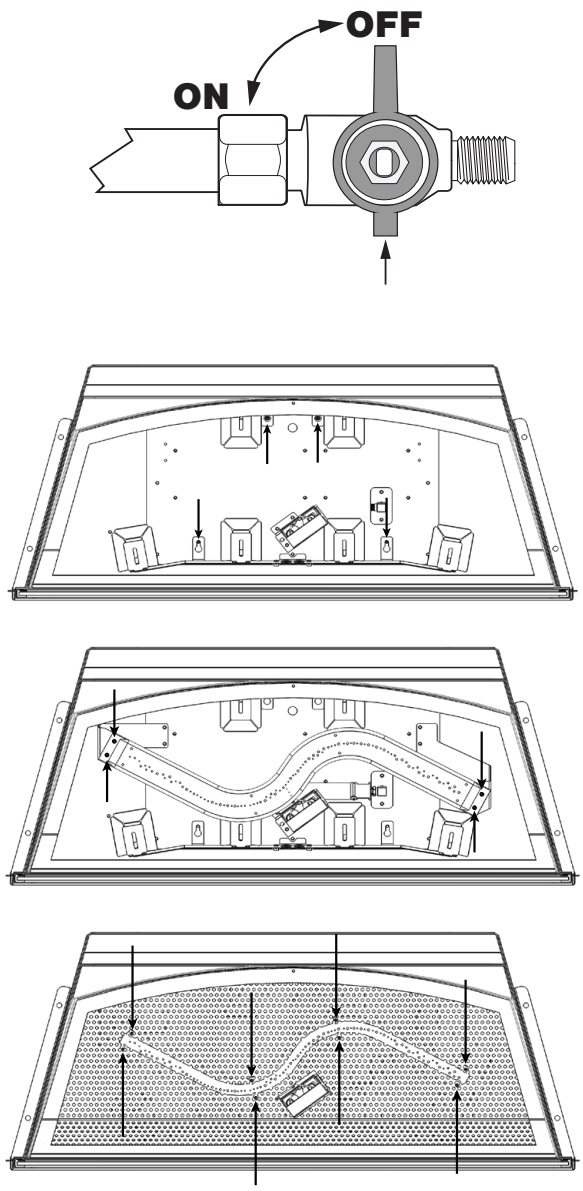


Figure 9.5, Control Board Removal and Installation

10.0 ELECTRICAL INFORMATION

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

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

10.1 Electrical Specifications

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

10.2 Wiring Requirements

- The IFC System Module requires 120V of electricity and/or batteries to operate.
- Using the battery back-up will operate the burner only.
- Fan and light components will not function on battery back up power.

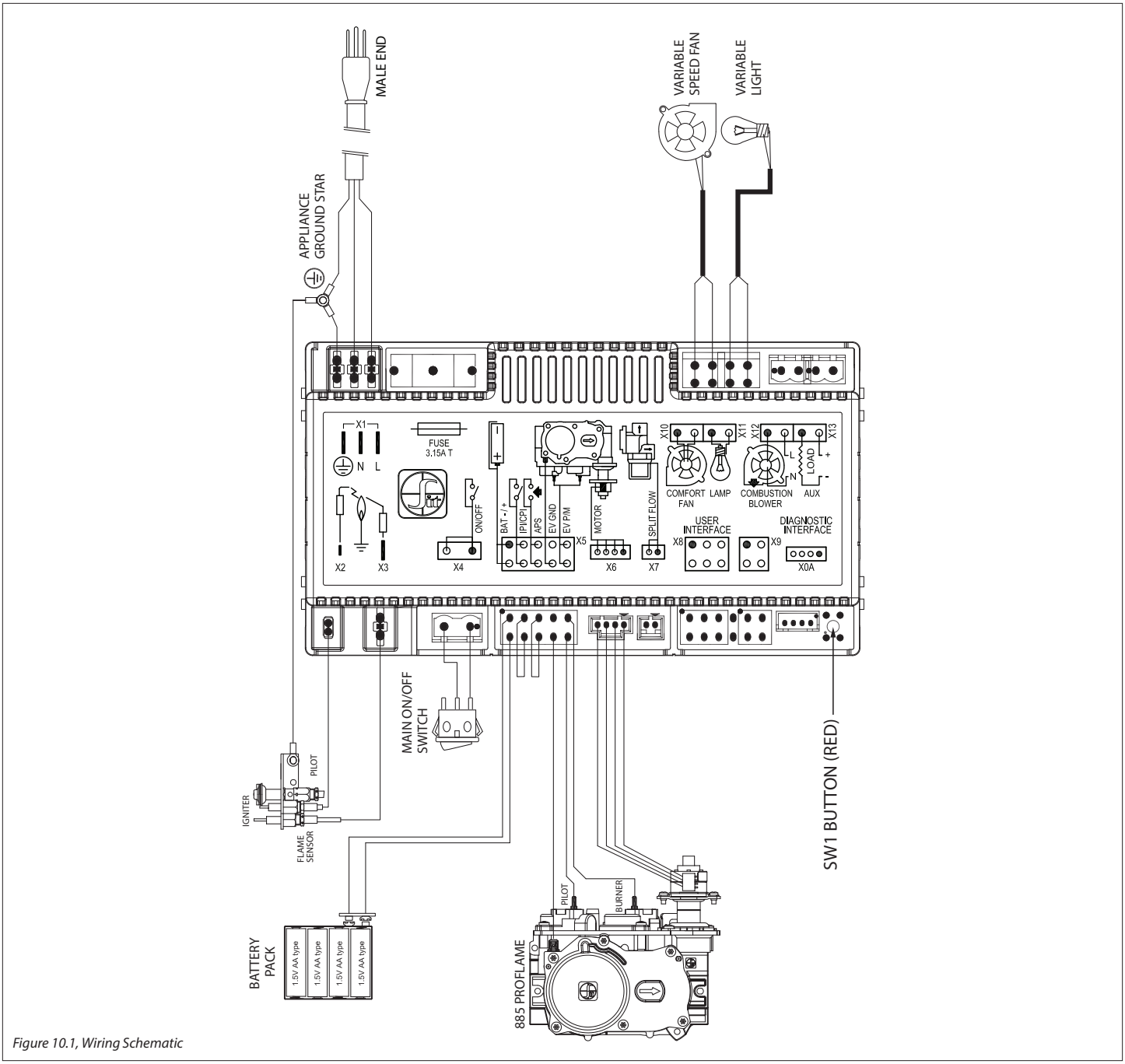


Figure 10.1, Wiring Schematic

11.0 OPERATING INSTRUCTIONS

FOR YOUR SAFETY READ BEFORE OPERATING

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

A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.

B. **BEFORE OPERATING** smell around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to turn the gas control manual valve. Never use tools. If the valve will not turn by hand, do not try to repair it; call a qualified service technician. Force or attempted repair may result in a fire or explosion.

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

WARNING

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

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

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

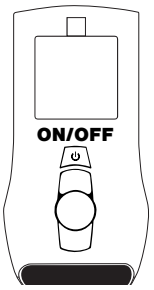
CAUTION

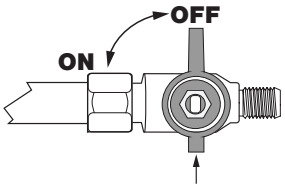
Clothing or other flammable material should not be placed on or near the appliance.

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

OPERATING INSTRUCTIONS

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





TO TURN OFF GAS TO APPLIANCE

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

NOTE

When this fireplace is initially lit, condensation will appear on the glass. This is normal in all gas fireplaces and will disappear after several minutes. A paint smell will occur during the first few hours of burning. It is recommended to leave the fan off during this period to help speed the paint curing process. This fireplace may produce noises of varying degree as it heats and cools due to metal expansion and contraction. This is normal, and does not affect the performance or longevity of the fireplace.

11.1 Setup Proflame 2 IFC Module

1. Set the main ON/OFF rocker switch in the OFF position.
2. Install (4) AA batteries (included in the components packet) into backup battery holder on the control module.
3. Install (3) AAA batteries (included in the components packet) in the remote control battery bay, located at the base of the remote.
4. Connect the IFC Module to an AC power supply.

11.2 Initialize the Control System

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

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

1. Locate the red SW1 button the IFC module.
2. Press the SW1 button. The IFC module will BEEP (3) times and illuminate an amber LED. This indicates the receiver is ready to synchronize with the transmitter.
3. Within (5) seconds, push the ON/OFF button on the remote control. The receiver will BEEP (4) times to indicate the transmitter's command is accepted, and is set to the transmitter's particular code. The pilot will automatically ignite.
4. Press the remote control ON/OFF button again. The pilot will extinguish, confirming the remote control command. The control system is now initialized.
5. Set the main ON/OFF rocker switch to ON position for remote control operation of the main burner and fireplace features.

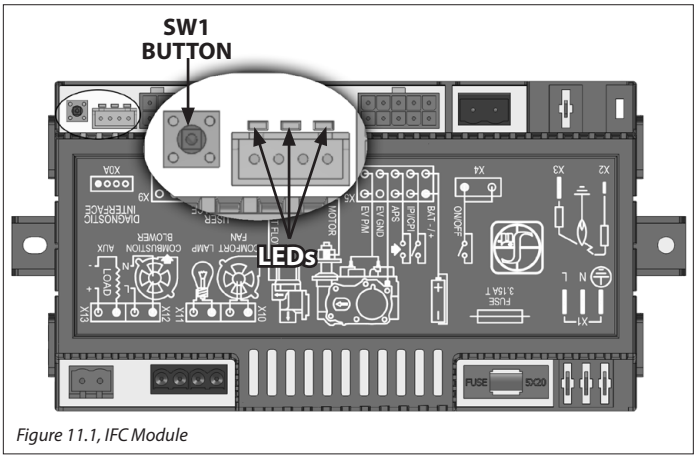


Figure 11.1, IFC Module

11.3 Reset the System for Manual Operation

1. Set the ON/OFF rocker switch to OFF position.
2. Press the red SWI button on the IFC module until it emits (3) beeps and an amber LED is illuminated.
3. Within (5) seconds, press the red SWI button again. This will close synchronization with the remote control. The pilot will automatically light.

- Turn the main burner ON by setting the ON/OFF switch in ON position. The main burner will only operate on HI.
- Turn the main burner OFF by setting the ON/OFF switch in the OFF position. The pilot will remain lit even if burner is turned off, provided CPI mode is turned on.

11.4 Automatic Safety Restart

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

11.5 Backup Battery Operation

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

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

11.6 IFC Module Ignition Sequence

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

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

11.6.1 Reset IFC Module after Lockout

11.6.1.1 ON/OFF Rocker Switch

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

11.6.1.2 Remote Control ON/OFF Key

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

11.6.1.3 Cycling Flame

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

11.7 Additional Diagnostic Information

Low Battery Condition (<4V) Remote Control:

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

Low Battery Condition (<4V) Battery Backup:

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

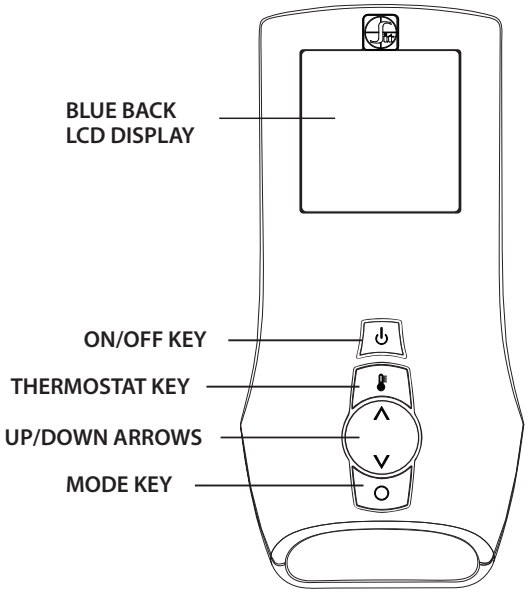
Pilot Flame Error Condition:

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

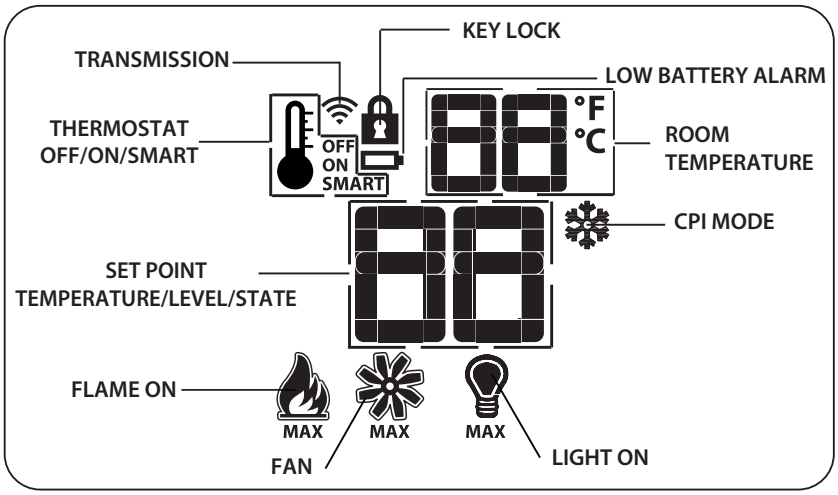
System Lock Out Condition:

- Red LED Indicator will blink (3) times in intervals.
- Verify gas is turned on.
- Verify sensor is not shorted.
- Follow Section 11.2 Initialize the Control System.

PROFLAME 2 TRANSMITTER



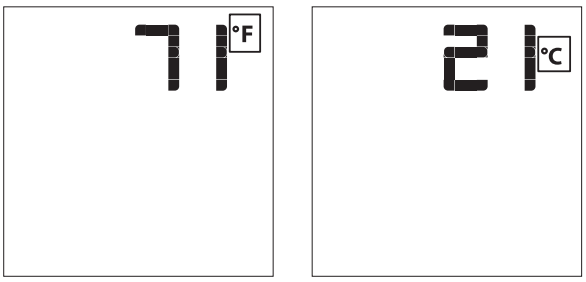
LCD DISPLAY



11.8 Remote Control Operation

11.8.1 Temperature Display

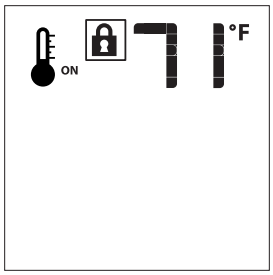
1. With the system in the OFF position, simultaneously press the thermostat key and the mode key to change degrees from °F to °C.
2. Visually check the LCD screen to verify either °F or °C is displayed on the right side of the room temperature display.



11.8.2 Key Lock

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

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



11.8.3 Pilot Ignition Selection (IPI/CPI)

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

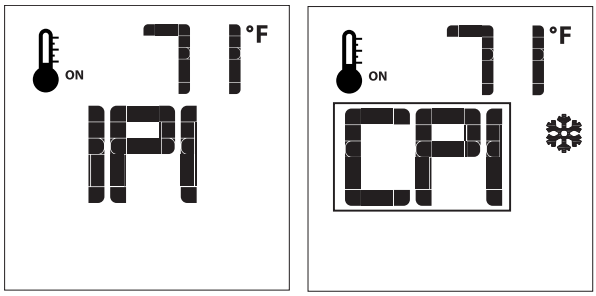
When the system is OFF, the LCD screen will display the snowflake icon during the setup of either IPI or CPI mode. To select the preferred pilot ignition feature,

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

When the system is ON,

IPI mode: LCD screen will not display the snowflake icon

CPI mode: LCD screen will display the snowflake icon



11.8.4 Turn ON the Appliance

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

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

11.8.5 Turn OFF the appliance

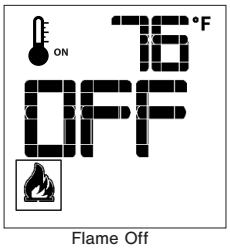
1. With the system in the OFF position, press the remote control ON/OFF key to turn ON the appliance.
   A single 'beep' will emit from the IFC module to confirm reception of the command.

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

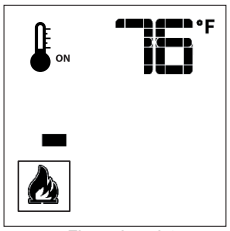
11.8.6 Remote Control Flame Adjustment

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

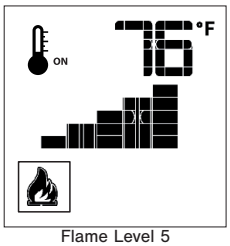
1. Verify the system is in the ON position and the flame level is set at maximum.
2. Press the down arrow key once to reduce flame height by one level until the flame is turned off.
3. Press the up arrow key once to increase flame height by one step. If the up arrow key is pressed while the system is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



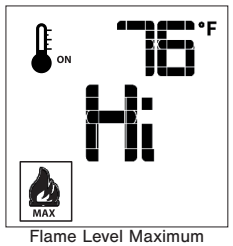
Flame Off



Flame Level 1



Flame Level 5



Flame Level Maximum

11.8.6.1 Deactivate Flame Modulation

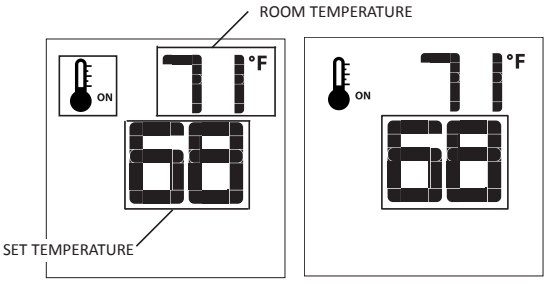
1. Verify all (3) AAA batteries are installed in the remote control battery bay.
2. Remove (1) AAA battery.
3. Press and hold the on/off key and the mode key at the same time.
4. Reinsert (1) AAA battery.
5. While still holding the on/off key, let go of **ONLY** the mode key.
6. Index over to the flame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

11.8.7 Remote Control Thermostat Operation

11.8.7.1 Room Thermostat

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

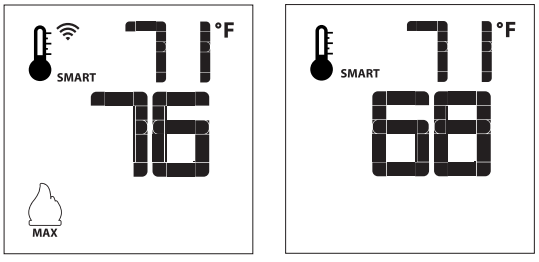
1. Press the thermostat key. The LCD screen will display a temperature bulb graphic, the room temperature and set temperature.
2. To adjust the set temperature, press the up or down arrow keys until the desired temperature is displayed on the LCD screen.



11.8.7.2 Smart Thermostat

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

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

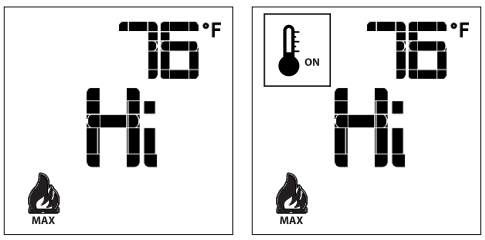


11.8.7.3 Deactivate Remote Control Thermostat Operation

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

1. Verify all (3) AAA batteries are installed in the remote control.
2. Remove (1) AAA battery.

3. While reinserting the battery, push and hold the thermostat key. The temperature bulb graphic will not be displayed on the LCD screen.
4. To reactivate remote thermostat operation, follow the same key sequence procedure above. The temperature bulb graphic will reappear on the LCD screen.



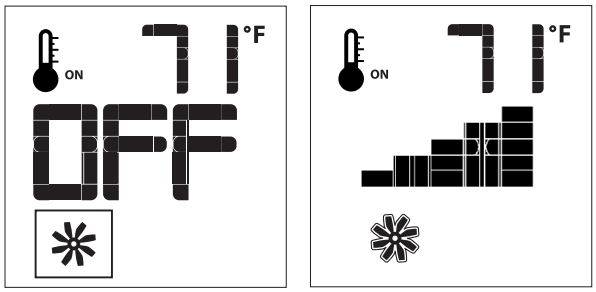
11.8.8 Fan Speed Control (optional)

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

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

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

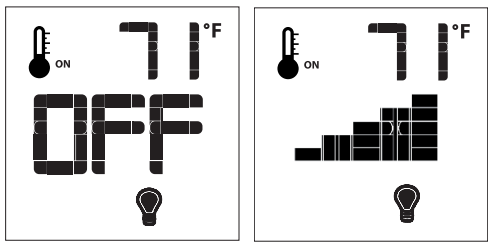
Manual mode: Fan(s) will operate at previous setting. There is no delay in start up or stop time.



11.8.9 Accent Light Kit (if applicable)

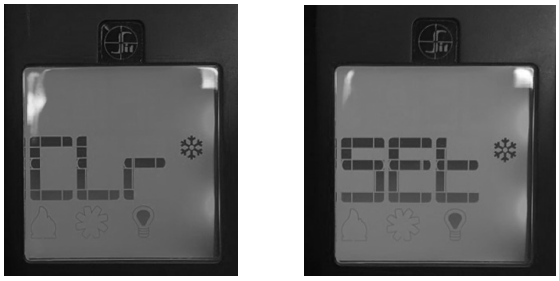
The light intensity can be adjusted through (6) levels.

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



11.8.9.1 Deactivate Light Kit Modulation

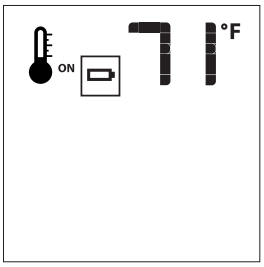
1. Verify all (3) AAA batteries are installed in the remote control battery bay.
2. Remove (1) AAA battery.
3. Press and hold the on/off key and the mode key at the same time.
4. Reinsert (1) AAA battery.
5. While still holding the on/off key, let go of **ONLY** the mode key.
6. Index over to the bulb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



11.8.10 Remote Control Low Battery Detection

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

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



12.0 ADJUSTMENT

12.1 Pressure Testing

NOTE: The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 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 incoming pressure test with all other gas appliances on, or at full capacity in the house for proper pressure reading.

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

1. Loosen the inlet (IN) pressure tap by turning screw counter-clockwise. See (A) in Figure 12.1.
2. Attach manometer using a ¼ in (6 mm) I.D. hose.
3. Light pilot and burner. Check pressure to ensure it is between the minimum and maximum recommended pressure settings.
4. Turn off burner and pilot.
5. Disconnect hose and tighten the inlet (IN) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
6. Relight pilot and burner. Then reattach manometer to the inlet pressure tap (A) to verify the tap is completely sealed. Manometer should read no pressure.

12.1.2 Manifold Pressure Test

1. Light pilot.
2. Loosen manifold (OUT) pressure tap by turning screw counter-clockwise. See (B) in Figure 12.1.
3. Attach manometer to pressure tap using a ¼ in (6 mm) I.D. hose.
4. Light burner. Check manometer reading.
5. Turn burner and pilot off.
6. Disconnect manometer hose and tighten the manifold (OUT) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
7. Attach the manometer to the manifold pressure tap (B) to verify it is completely sealed. The manometer should read no pressure when pilot and burner are on.

Table 12.1, Inlet Pressures

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

Table 12.2, Manifold Pressure

Fuel	Natural Gas	Propane
Gas Supply	Low - High	Low - High
Manifold Pressure Tap (B)	1.1″ - 3.8″WC (.27 - .95 kPa)	2.9″ - 11″WC (.72 - 2.74 kPa)

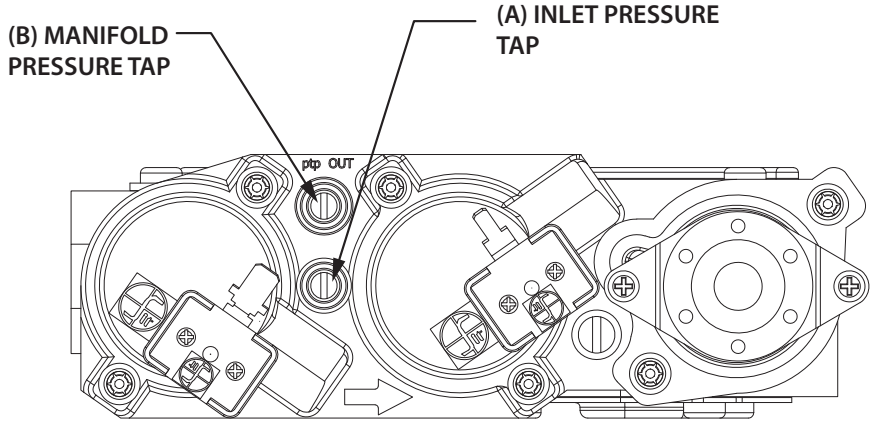


Figure 12.1, Pressure Check Taps

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 Table 12.3.

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

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

Table 12.3, Factory Set Venturi Openings

Fuel	
Natural Gas	1/8" (3 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 glass media, media dam, media tray, and burner from firebox.
3. Loosen screws on venturi and adjust as necessary. Re-tighten screw.
4. Reinstall all components previously removed.

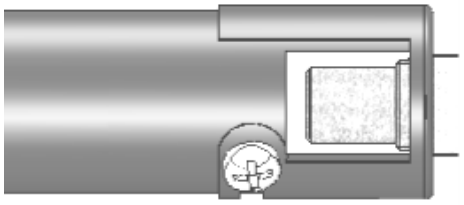


Figure 12.2, Burner Venturi

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.

Table 12.4, Venturi Adjustment Guidelines

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

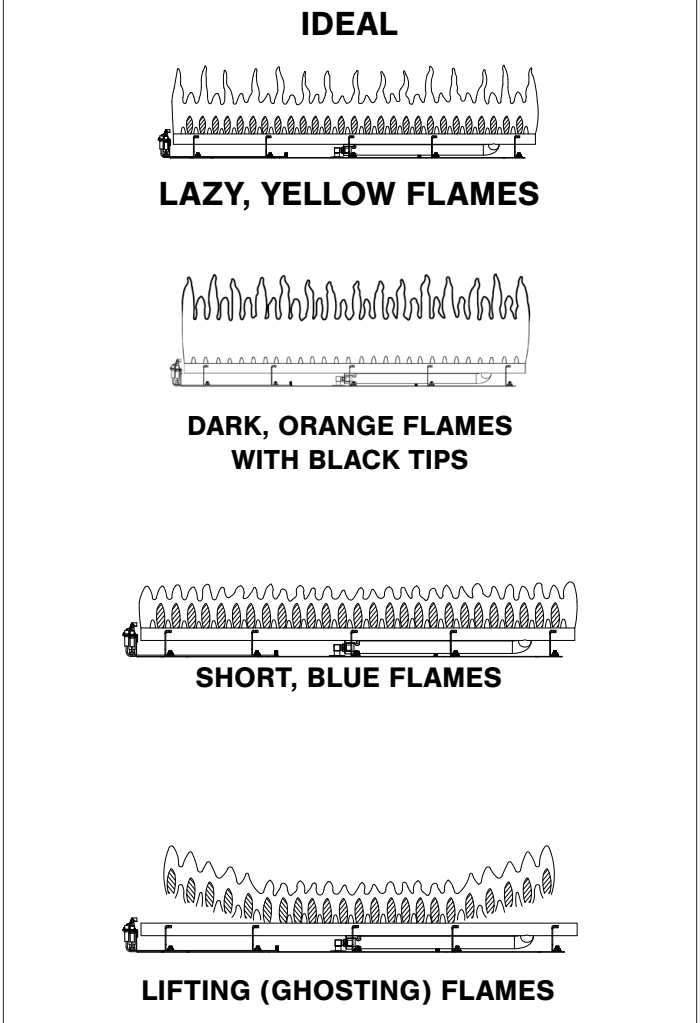


Figure 12.3, Proper Flame Appearance

13.0 TROUBLESHOOTING

ATTENTION: Troubleshooting must be performed by a qualified technician.

Before proceeding with the steps in the following troubleshooting guide,

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

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

Issue	Cause	Solution
Pilot and burner extinguish while in operation	No propane in tank	Check propane tank. Refill if necessary.
	Incorrect glass assembly installation	Refer to section 9.1 Glass Assembly on page 24.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.
	Exhaust vent pipe leaking exhaust gases back into firebox	Check for leaks and repair if necessary.
Soot appears on glass	Improper media placement	Refer to section 9.3 Glass Media on page 25.
	Improper venturi setting	Venturi air shutter may need to be opened slightly to allow more air into the gas mix. Refer to section 12.2.1 Burner Venturi on page 35.
	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 air shutter may need to be opened slightly to allow more air into the gas mix. Refer to section 12.2.1 Burner Venturi on page 35.
	Incorrect vent cap installation	Adjust if necessary.
	Blockage or leakage of the vent system	Check the vent pipes for leaks, and the vent cap for debris. Repair the vent pipes or remove debris from vent cap, if necessary.
No reaction to command	Battery back batteries or remote control batteries low	Replace batteries.
	No communication between remote control and IFC module	Reprogram remote control to IFC module.
	A maximum number of failed ignitions or flame restorations has been reached	Reset IFC module.

14.0 MAINTENANCE

ATTENTION: Installation and repair should only 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 #701-001T 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 9.4 Control Board Removal and Installation on page 26.

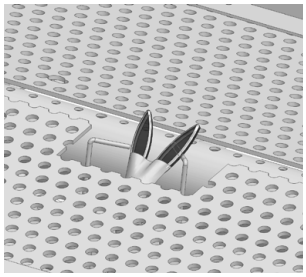
Verify gas supply is turned on and filled. Consult with plumber or gas supplier as necessary.

Performed by: Qualified Service Person

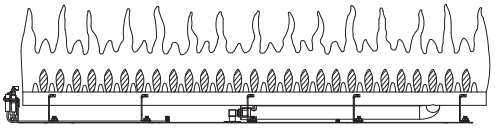
Frequency: Annually

Action:

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

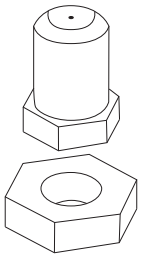


IDEAL

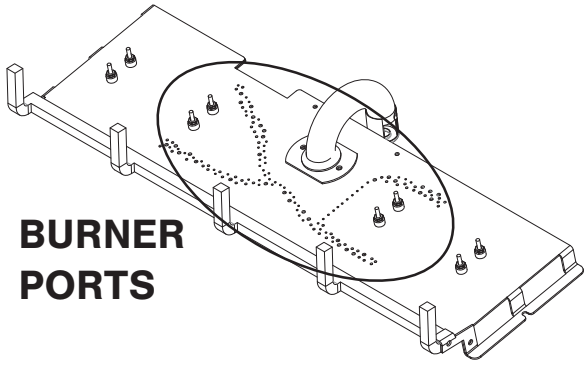


LAZY, YELLOW FLAMES

Figure 14.2, Pilot and Burner Correct Flame Appearance



BURNER ORIFICE



BURNER PORTS

Figure 14.1, Burner System

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 - Natural Gas	CK34G-150	.014LP Pilot Orifice - Propane	700-114
Control Board - Propane	CK34-G151	Valve Step Motor - Natural Gas	700-504
S.I.T. IPI Gas Valve - Natural Gas	700-567	Valve Step Motor - Propane	700-504-1
S.I.T. IPI Gas Valve - Propane	700-567-1	18 in. Flexible Gas Line - Black	700-213B
Proflame 2 IFC Board	700-652	Flexible Gas Line - Valve to Burner Connection	700-226F
IFC Wire Harness Assembly	700-653	Natural Gas Burner Orifice #38	700-238
Proflame 2 IFC External Antenna	700-ANT	Propane Burner Orifice #52	700-252
Pilot Assembly - Natural Gas	700-596A	Conversion Kit - Natural Gas	NCK-CK34G-SPB
Pilot Assembly - Propane	700-596A-1	Conversion Kit - Propane	LCK-CK34G-SPB
Program Button Extension	700-422	Burner Tube	CK34-035
Transmitter (Remote Control)	700-408	Media Tray	CK34-350
.023N Pilot Orifice - Natural Gas	700-123		

GLASS AND GLASS PARTS

31-1/2" x 19-5/8" Glass with tadpole gasket	701-001T
Tadpole Glass Gasket	900-006
Media Dam	701-002

SAFETY BARRIERS

Prairie Screen Front	CK34-PSF
Rectangular Screen Front	CK34-RSF
Arched Mission Screen Front	CK34A-MSF
Arched Prairie Screen Front	CK34A-PSF
Arched Screen Front	CK34A-SF
Arched Full Prairie Door Screen Front	CK34-AFPDSF2

LIGHT KIT

Light Kit	CK34-BLK
20W 120V Halogen Bulb	600-676

FAN KIT

Fan Kit	CK34-075

ADDITIONAL COMPONENTS

Manual Gas Shut-off Valve	700-203
Upper Louver	CK34-202
Lower Louver	CK34-201

SHROUDS

Blank Shroud (4 pc.)	CK34-004
4 sided blank shroud (4 pack)	CK34-008
27" x 40" shroud (1 piece)	CK34-2740
30" x 44" shroud (1 piece)	CK34-3044
33" x 46" shroud (1 piece)	CK34-3346
34" x 44" arched shroud (1 piece)	CK34-A3444
Custom shroud	CK34-CUS
Custom arched shroud	CK34-ACUS

#CSK-34-G
Hussong Manufacturing Co., Inc.
P.O. Box 577
204 Industrial Park Drive
Lakefield, MN 56150-0577
USA

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.

July 2018