KOZY HEAT
FIREPLACES
HUSSONG MANUFACTURING CO., INC.

Installation and Operation Manual

CHASKA-25

Model #CSK-25
Direct Vent Gas Fireplace Insert

⚠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.**

Tested & Listed By O-T-L Portland Oregon USA C US
OMNI-Test Laboratories, Inc.

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.

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.

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.

English and French installation manuals are available through your local dealer. Visit our website *www.kozyheat.com* or scan the QR code for our mobile app.

Les manuels d'installation en français et en anglais sont disponibles chez votre détaillant local. Visitez *www.kozyheat.com* ou scannez ce code QR pour notre application mobile.

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

Report No.: 0216GN038S • Rev. 07, October 2016

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

CONGRATULATIONS!

We welcome you as a new owner of a Kozy Heat gas fireplace. Kozy Heat products are designed with superior components and materials; assembled by trained craftsmen who take pride in their work. The burner and valve assembly are 100% test-fired, and the complete fireplace is thoroughly inspected before packaging to ensure you receive a quality product. Our commitment to quality and customer satisfaction has remained the same for over 30 years. We offer a complete line of gas and wood fireplaces, unique cabinets and stylish accessories to complement any décor. Adding a fireplace is one of the best ways to increase the value of your home, and we are proud to offer a network of dealers throughout the country to help make your experience everything you imagine. We pride ourselves in being dedicated not only to functionality and reliability, but also customer safety. We offer our continual support and guidance to help you achieve the maximum benefit and enjoyment from your Kozy Heat gas fireplace.

Jim Hussong
President



Dudley Hussong
Board Chairman



Homeowner Reference Information

We recommend you record the following information:

Model Name: _____ Date purchased/installed: _____

Serial Number: _____ Location of fireplace: _____

Dealership purchased from: _____ Dealer Phone: _____

Notes: _____

_____

_____

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1.0 INTRODUCTION

1.1 Appliance Certification

This appliance has been tested by OMNI-Test Laboratories located in Portland, Oregon and complies with:

ANSI Z21.88-2014/CSA 2.33-2014, "Vented Gas Fireplace Heaters"
CGA 2.17-M91 (R2014), "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.*
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.*

1.2 Safety Information

- **Installation and repair should be done only by a qualified service person. The appliance should be inspected by a qualified service person before use. Annual inspection by a qualified service person is required to maintain warranty. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is imperative that control compartments, burners, and circulation air passageways of the appliance be kept clean.**
- **This fireplace insert is to be installed into a solid fuel masonry or factory built non-combustible fireplace that been installed in accordance with the national, provincial, state, and local codes.**
- **Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.**
- **Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children, and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children, and other at-risk individuals out of the room and away from hot surfaces.**
- **Clothing or other flammable material should not be placed on or near the appliance.**
- **Adequate accessibility clearances for servicing and proper operation must be maintained.**
- **This appliance must not share, or be connected, to a chimney flue serving any other appliance.**
- **Keep area around the appliance clear of combustible materials, gasoline, and other flammable vapor and liquids.**
- **The flow of combustion and ventilation air must not be obstructed.**
- **Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**
- **The glass front, or any part removed for servicing the appliance, must be replaced prior to operating the appliance. Work should be done by a qualified service technician.**
- **Clean glass only when cool and only with non-abrasive cleansers.**
- **WARNING: DO NOT OPERATE APPLIANCE WITH THE GLASS/FRAME ASSEMBLY REMOVED, CRACKED, OR BROKEN. REPLACEMENT OF THE GLASS SHOULD ONLY BE PERFORMED BY A LICENSED OR QUALIFIED SERVICE PERSON.**
- **The glass assembly, Part #CXS-057T, shall only be replaced as a complete unit, as supplied by Hussong Mfg. Co., Inc. DO NOT SUBSTITUTE MATERIALS.**
- **Do not strike or slam glass assembly.**
- **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.**
- **Any safety screen, guard, or barrier removed for servicing the appliance must be replaced prior to operating the appliance.**
- **If the safety barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance.**
- **For use only with the following safety barriers: #CK25-PFS, #CK25A-PSF, #CK25A-FPDSF, #CK25A-MSF, #CK25-RSF, #CK25A-SF, #CK25-CXF, and #CK25-BSF.**
- **Under no circumstances should any solid fuel (wood, coal, paper, cardboard, etc.) be used in this appliance.**
- **Keep burner and control compartment clean.**
- **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.**

1.3 Commonwealth of Massachusetts Requirements

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

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

1.3.1 Installation of Carbon Monoxide Detectors

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

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

1.3.2 Approved Carbon Monoxide Detectors

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

1.3.3 Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print no less the one-half inch (1/2) in size, **"GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".**

1.3.4 Inspection

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

1.3.5 Exemptions

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

1.3.6 Manufacturer Requirements

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.

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 Components

PART NUMBER	DESCRIPTION
CXS-150	Control Board Assembly
700-203	Manual Gas Shut-off Valve
CXS-135	Burner Assembly
CXS-I900	Firebrick Refractory Set
CXS-500	Log Package
CXS-057T	Glass Frame Assembly
CXS-028-IPI	Fan Kit (1)-75 CFM
500-CXS	Grill Assembly
700-408	Remote Control Transmitter

2.1.2 Additional Components Required

Approved Vent Systems
Kozy Heat Co-Linear Vent System, part number #816-CL. • **For use with minimum 6" x 8" I.D. masonry or 7" I.D. Class A metal chimneys.** • **Includes 12 ft. (3.66 m) compressed, expandable co-linear 3" x 3" flexible chimney, and termination cap.**
OTHER APPROVED VENTING SYSTEMS: ICC, Selkirk, Olympia Venting Supply, Inc. American Metals (AmeriVent), Simpson Dura-Vent

Shrouds	
Standard Shrouds (3 piece and 4 piece)	Standard shrouds are available for this insert and will fit most applications. Custom shrouds may be ordered on a non-returnable basis. When ordering a custom shroud, please specify the existing fireplace front opening height and width. An upper hood and lower grill are included with fireplace.
Full Door Shrouds	Full door decorative shrouds are available for this insert and are used in place of a standard or blank shroud. An upper hood and lower grill are included with fireplace.

2.2 Heating Specifications

CSK-25					
Fuel	**Minimum Input BTU/hr. (kW)**	**Maximum Input BTU/hr. (kW)**	**Manifold Pressure (High)**	**Manifold Pressure (Low)**	**Orifice Size**
Natural Gas	13,500 BTU/hr (3.96 kW)	26,000 BTU/hr (7.62 kW)	3.8" WC (.95 kPa)	1.1" WC (.27 kPa)	#44
LP Gas	13,000 BTU/hr (3.81kW)	25,500 BTU/hr (7.47 kW)	11" WC (2.74 kPa)	2.9" WC (.72 kPa)	#54

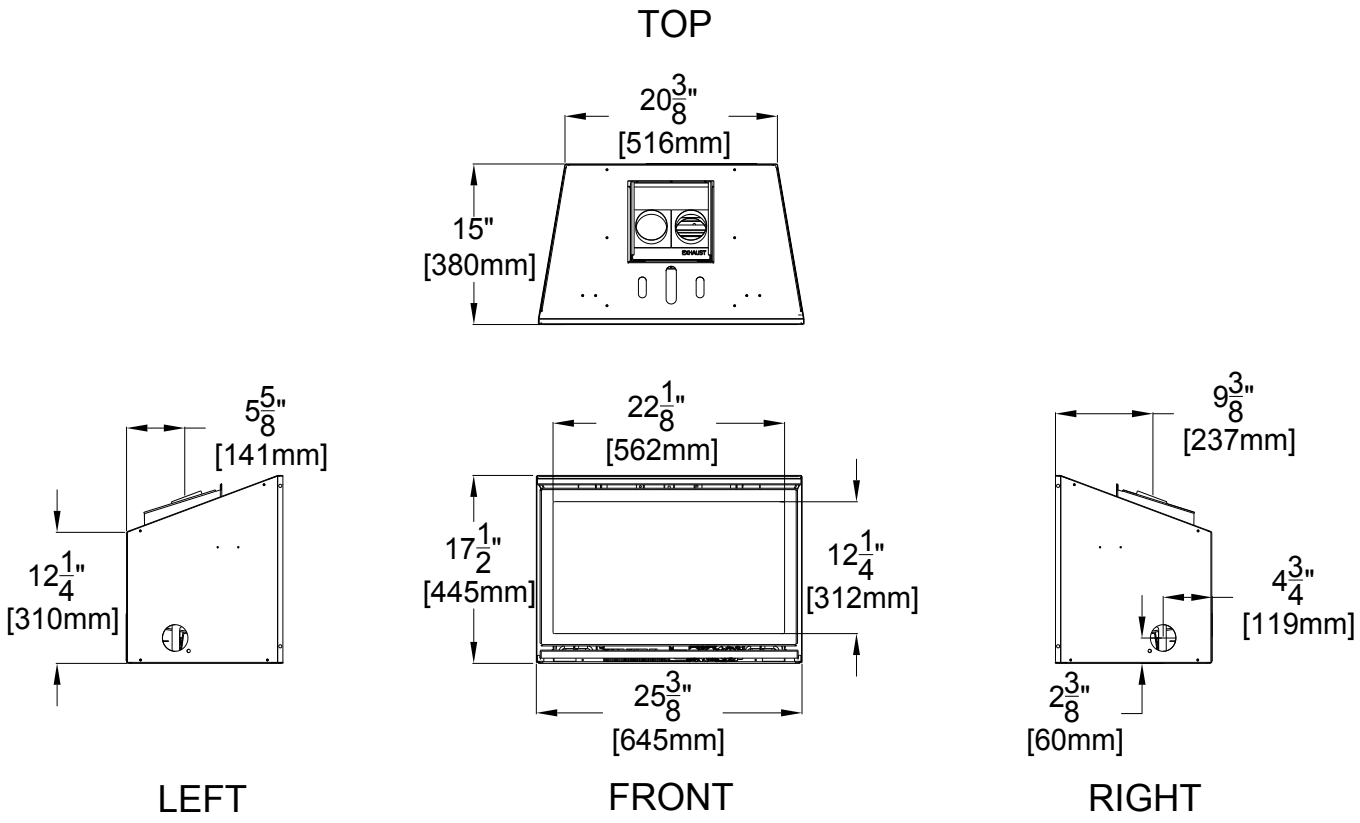
2.3 High Altitude Installations

ATTENTION
USA: The appliance may be installed at higher altitudes. Please refer to your American Gas Association guidelines which state the sea level rated input of Gas Designed Appliances installed at elevations above 2,000 ft. (610 m) is to be reduced 4% for each 1,000 ft. (305 m) above sea level. Refer also to National Fuel Gas Code, ANSI Z223.1 / NFPA 54, local authorities, or codes which have jurisdiction in your area regarding the de-rate guidelines. **Canada:** 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). Refer also to CSA-B149.1 Natural Gas and Propane Installation Code, local authorities, or codes which have jurisdiction in your area regarding the de-rate guidelines.

2.4 Appliance Dimensions

Table 2.1, Physical Dimensions								
Description	**Front Height**	**Front Width**	**Back Width**	**Depth**	**Back Height**	**Back to Gas Line Access**	**Front to Vent Center**	**Back to Vent Center**
Inches	17-1/2	25-3/8	20-3/8	15	12-1/4	4-3/4	9-3/8	5-5/8
Millimeters	445	645	516	380	310	119	237	141

Figure 2.1, CSK-25 Dimensions

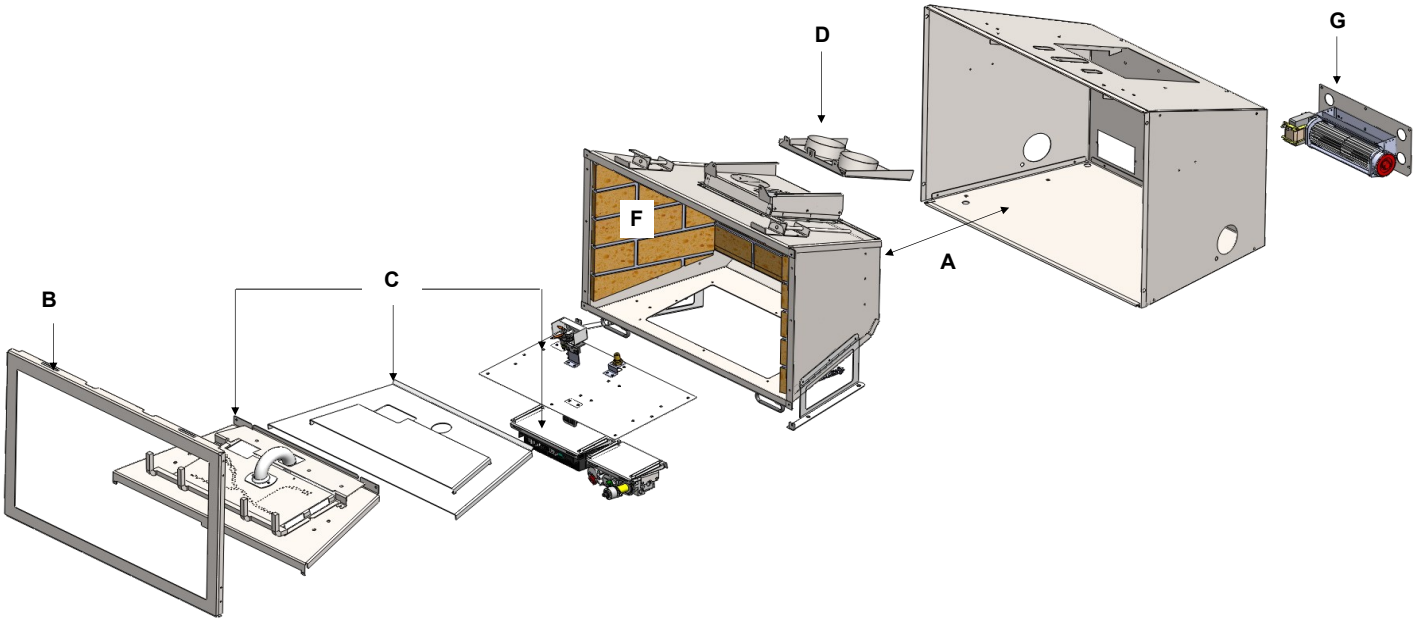


2.5 Assembly Overview

Table 2.2, CSK-25 Part Assembly Overview			
A	Fireplace insert	**E**	Log set (Refer to 8.5, #CXS-500 Log Set Installation, page 19)
B	Spring-loaded latch glass assembly	**F**	Refractory panels
C	Control board with burner cover	**G**	Fan kit
D	Co-linear air duct		

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

Figure 2.2, CSK-25 Exploded View



3.0 CLEARANCES

3.1 Placement Clearance Requirements

- This fireplace insert must be installed on a level surface capable of supporting fireplace and venting.
- 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.
- Due to high surface temperatures, the fireplace insert should be located out of traffic and away from furniture and draperies.
- 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 Appliance Clearances

WARNING
Figure 3.2, Mantel and Hearth Projections, provides the minimum clearances from the top surface of combustible flooring (carpeting, tile, etc.). These clearances must be maintained.

Figure 3.1, Appliance Clearance to Sidewall

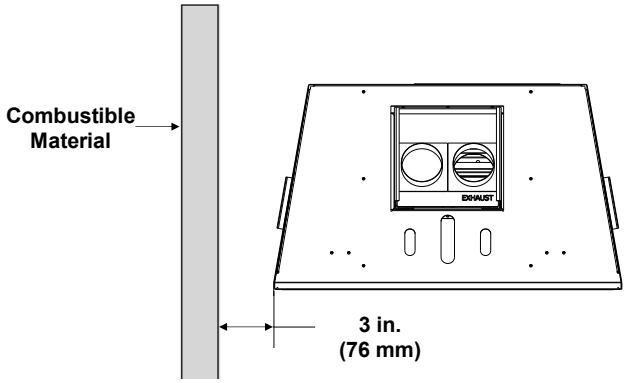
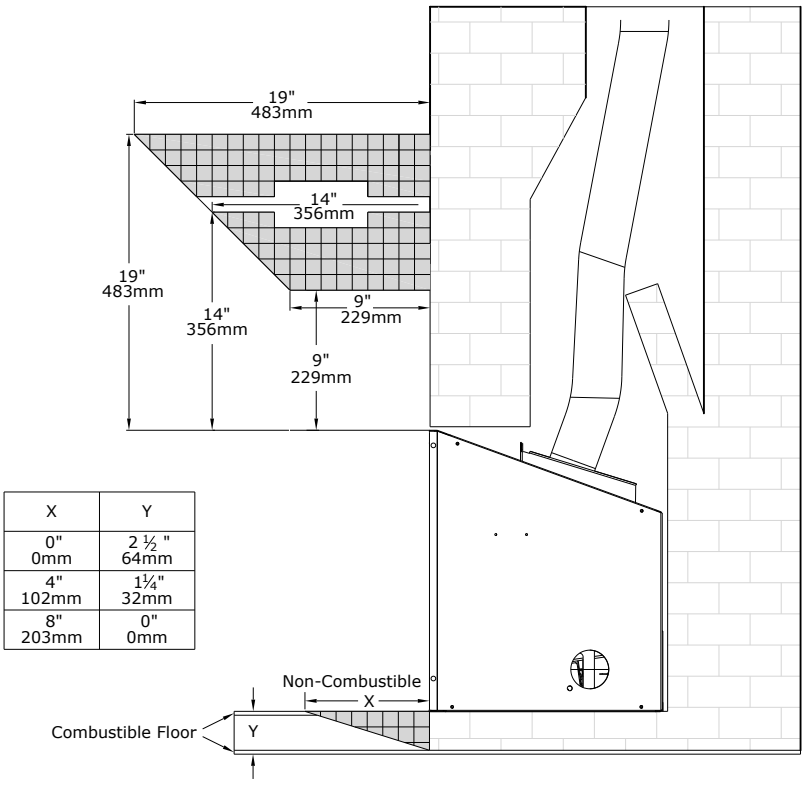


Figure 3.2, Mantel and Hearth Projections



X	Y
0" 0mm	2 ½ " 64mm
4" 102mm	1¼" 32mm
8" 203mm	0" 0mm

4.0 EXISTING FIREPLACE REQUIREMENTS

NOTE

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

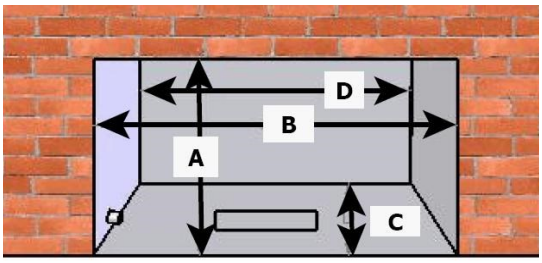
- The existing fireplace and chimney must be clean, in good working order, and be constructed of non-combustible materials.
- A gas line must be able to be installed to the insert. Refer to 6.0, Gas Line Connection, on page 14.
- If the factory-built fireplace has no gas access hole(s) provided, an access hole of 1-1/2 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.
- Provisions must be made to provide electrical power for appliance operation.
- Any chimney clean-outs must fit properly.

4.1 Existing Fireplace and Chimney Specifications

4.1.1 Existing Fireplace Opening Dimensions

Table 4.1, Minimum Opening Requirements			
A	Height	17-5/8 in.	454 mm
B	Front Width	25-7/8 in.	657 mm
C	Depth	15-1/4 in.	387 mm
D	Back Width	20-5/8 in.	530 mm

Figure 4.1, Existing Opening Guide



4.1.2 Existing Chimney Specifications

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

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

Existing chimney height:

- Minimum: 10 ft. (3.05 m)
- Maximum: 35 ft. (10.67 m)

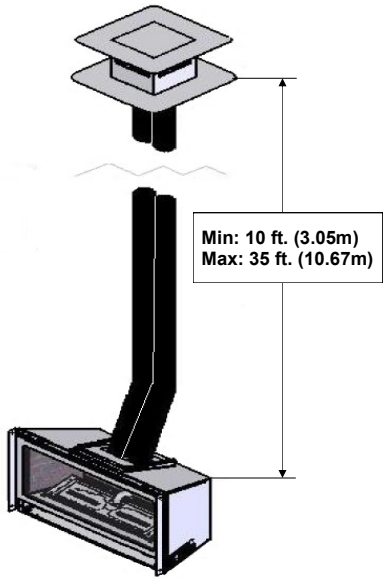
Refer to 4.1.3, Determine Length of Existing Chimney.

4.1.3 Determine Length of Existing Chimney

1. Remove and discard existing chimney cap.

   NOTE: It is helpful to have two people complete the next step to determine the chimney height.
2. Position one person at the fireplace insert and another person at the top of the chimney.
3. Measure from the fireplace insert base to the top of the chimney.
4. Subtract 18-15/16 in. (478 mm), the average height of the insert, from previous measurement. This is the total length of the co-linear flexible aluminum required for your installation.

Figure 4.2 Min/Max Existing Chimney Length



MEASUREMENT FROM FIREPLACE BASE TO TOP OF CHIMNEY _____

LESS 18-15/16" (478 MM) (AVERAGE HEIGHT OF INSERT) **-18-15/16" (478mm)**

TOTAL CHIMNEY LENGTH REQUIRED _____

5.0 INSTALLATION

5.1 Prepare Existing Fireplace

ATTENTION
Any removed parts must be capable of reinstallation if this insert is ever removed. Removal of rivets or screws is acceptable.

CAUTION
Trim panels or surrounds must not seal ventilation openings in existing fireplace that this appliance is installed in.

- The refractory, glass doors, screen rails, screen mesh, and log grates may be removed from existing fireplace before installing this gas fireplace insert.
- 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.
- The fireplace flue damper can be fully blocked, open, or removed for installation of this gas fireplace insert.
- Clean the chimney and inside of the fireplace to prevent a creosote smell from entering the home.
- Cutting of any sheet metal parts of the existing fireplace is prohibited, except the metal floor.

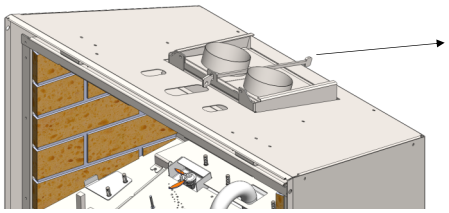
  If the metal floor is removed, the insert must be placed directly on metal base of metal fireplace. Mechanically attach 'THIS UNIT HAS BEEN MODIFIED' label at bottom of existing firebox so it will be visible if this gas fireplace insert is removed.
- Run any necessary electrical wiring to insert. Refer to 7.0, Wiring Schematics, on page 15.

5.2 Fireplace Air Duct Removal

ATTENTION
All steps as outlined in 5.1, Prepare Existing Fireplace, must be completed before continuing with this installation.

1. Remove air duct at top of insert, sliding backwards out of channel.
- Refer to 5.6, Vent System Connection, for re-attachment of the air duct.

Figure 5.1, Air Duct Removal



5.3 Kozy Heat #816-CL Co-Linear Vent System

IMPORTANT

Proper operation of this insert requires exhaust and combustion air pipes be connected to the correct collars on both the termination kit and the fireplace insert air duct.

NOTE

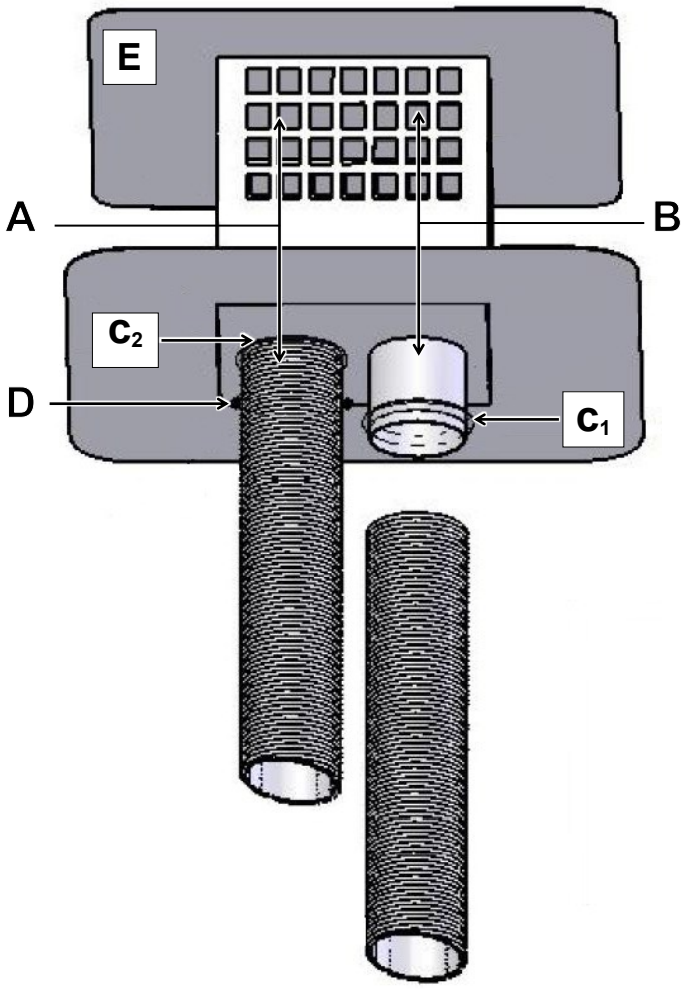
Maximum horizontal vent runs of 24 in (609mm) require a 1 in (25mm) rise per 12 in (305mm) run.

1. Carefully extend the exhaust and combustion air intake pipes to the total chimney length required. Refer to 4.1.3, Determine Existing Chimney Length, on page 9.
2. Slide the combustion air intake pipe (the end without a collar) over the intake termination cap collar (A).
3. Secure the combustion air intake pipe to the termination cap (E) with the provided (3) self-tapping screws (D).
4. Place a bead of sealant around the inner edge at the end of the exhaust pipe (without collar / red marking).
5. Slide the exhaust pipe onto corresponding labeled collar (B) on the termination cap (E).
6. Secure the exhaust pipe to the termination cap (E) with the provided (3) self-tapping screws. Apply additional sealant around joint to ensure a proper seal (C_1).
7. Run vent system. Refer to 5.5.2, Run Vent - Full Connection Venting, on page 12.

IMPORTANT

The exhaust collar on the fireplace insert air duct is on the on the right side. Install the #816-CL termination cap (E) with exhaust collar on the right side.

Figure 5.2, #816-CLTermination Cap (your component may look different than one shown)



LEGEND	
EXHAUST PIPE IDENTIFICATION: RED MARKING	
A	Intake Collar - extends through bottom plate
B	Exhaust Collar - extends through middle divider plate
C_1 . C_2	Sealant
D	Self-Tapping Screws - (3) total (2 shown)
E	Termination Cap

5.4 Run Vent System Through Existing Chimney

NOTE
If offsets are present in existing chimney, place a weighted rope around the pipe ends to guide them through 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.

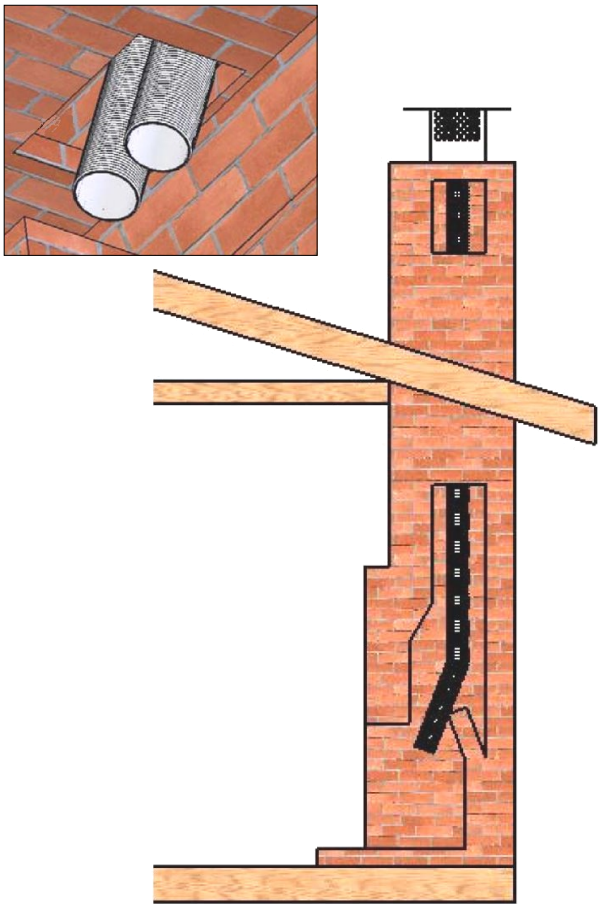
1. OPTIONAL: Before installing vent system down through the chimney, placed unfaced insulation around 3ft (914mm) of vent system below termination cap. Secure with wire.
2. Guide ropes (if used) and the flexible pipes down the existing chimney. See Figure 5.3, Chimney Vent Run.
3. Secure the chimney termination cap to the existing chimney.

   Approved Vent Systems: Apply a liberal bead of sealant (provided) around top of existing chimney. Set termination cap into position as instructed in installation manual included with chosen vent system.

   Kozy Heat #816-CL: Secure termination cap to existing chimney with 2 in. (50 mm) self tapping screws and anchor straps (provided) through the pilot holes, located on the sides of the termination cap.

3. From inside the existing fireplace, carefully pull ropes (if used) or the flexible pipes down until both the exhaust pipe and the combustion air intake are into the existing fireplace firebox.
4. OPTIONAL: To prevent heat loss up chimney, place unfaced insulation products between the 3” x 3” flexible vent pipes and chimney.

Figure 5.3, Chimney Vent Run



5.5 Vent System Connection

5.5.1 Secure Vent System to Air Duct

1. Place previously removed air duct (5.2, Air Duct Removal, page 10) into existing fireplace opening. See Figure 5.5a, Air Duct in Existing Fireplace.
2. Apply a bead of sealant (provided) around exhaust pipe collar (red marking), then slide the exhaust pipe onto collar marked 'Exhaust' on air duct.
3. Secure the exhaust pipe to the collar on the air duct with (3) 1/2 in. (13 mm) self-tapping screws, provided. Apply additional sealant around joint to ensure an air tight seal. See Figure 5.5b, Flexible Pipes Attached to Air Duct.
4. Apply a liberal bead of sealant (provided) around the collar on the air duct. Slide combustion intake pipe over collar.
5. Secure the combustion intake pipe to the collar on the air duct with (3) 1/2 in. (13 mm) self-tapping screws, provided. Apply additional sealant around joint to ensure an air tight seal.
6. Slide the insert into fireplace opening far enough to align the air duct with the channels at top of insert. See Figure 5.5c, Aligned Fireplace Insert.

Figure 5.5a,
Air Duct in Existing Fireplace

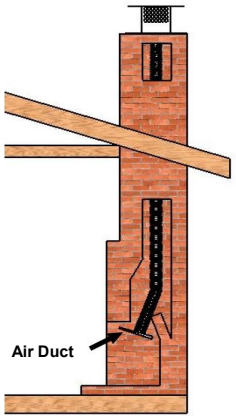


Figure 5.5b,
Flexible Pipes Attached to Air Duct

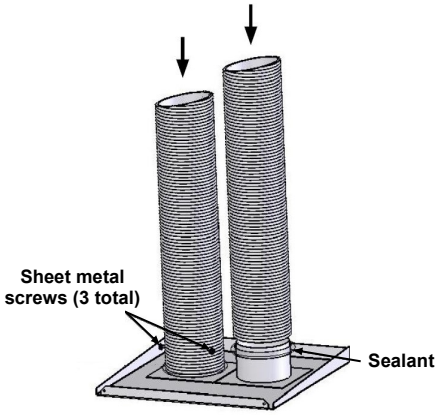
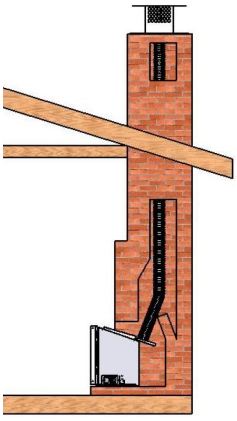


Figure 5.5c,
Aligned Fireplace Insert



5.5.2 Secure Air Duct to Fireplace Insert

1. Insert air duct pull handle through the access slot the at top of insert, placing hook through hole in pull rod. See Figure 5.6a, Pull Rod Handle and Access Slot.
2. Simultaneously pull the air duct forward and push the insert backward into the fireplace opening until the air duct is seated and the insert is properly positioned.
3. Use the slots at top of fireplace to secure the air duct to the fireplace insert with (2) 1/2 in. (13 mm) sheet metal screws (included in components packet). See Figure 5.6b, Seated Air Duct.
4. Use the pull rod handle to slide pull rod back to its starting position. Remove pull rod handle. See Figure 5.6b.

- If necessary, level the insert by threading leveling bolts (included in components packet) into nuts at the bottom of the insert - 2 each side.

Figure 5.6a, Pull Rod Handle and Access Slot
(shown without venting attached for clarity purposes only)

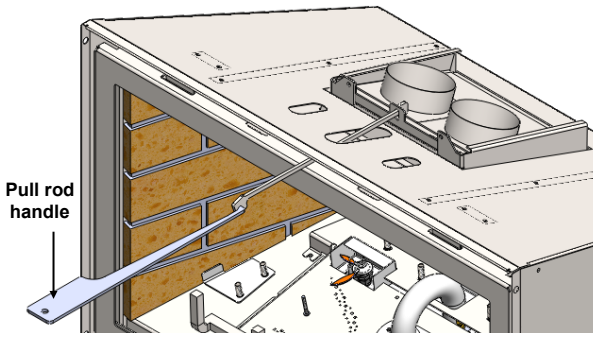
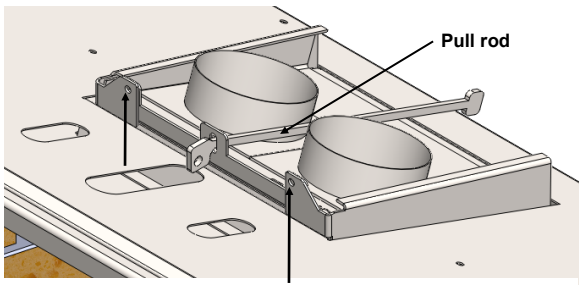


Figure 5.6b, Seated Air Duct
(shown without venting attached for clarity purposes only)



6.0 GAS LINE CONNECTION

6.1 Gas Conversion (sold separately)

- This fireplace is manufactured for use with Natural Gas. Follow the instructions included with the conversion kit if converting to LP gas.

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.

6.2 Gas Line Installation

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

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

- A listed (and Commonwealth of Massachusetts approved) 1/2 in. (13 mm) tee handle manual shut-off valve and flexible gas connector are to be connected to the 1/2 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. Refer to 4.1.1, Existing Fireplace Opening Specifications, on page 9.
- 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 left or right gas line holes 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 6.1, Inlet Gas Pressures

Fuel	Minimum Inlet Gas Pressure	Maximum Inlet Gas Pressure
Natural Gas	5” WC (1.25 kPa) (7” WC [1.74 kPa] recommended)	10.5” WC (2.62 kPa)
LP Gas	12” WC (2.99 kPa) (recommended)	13” WC (3.24 kPa)

7.0 WIRING SCHEMATICS

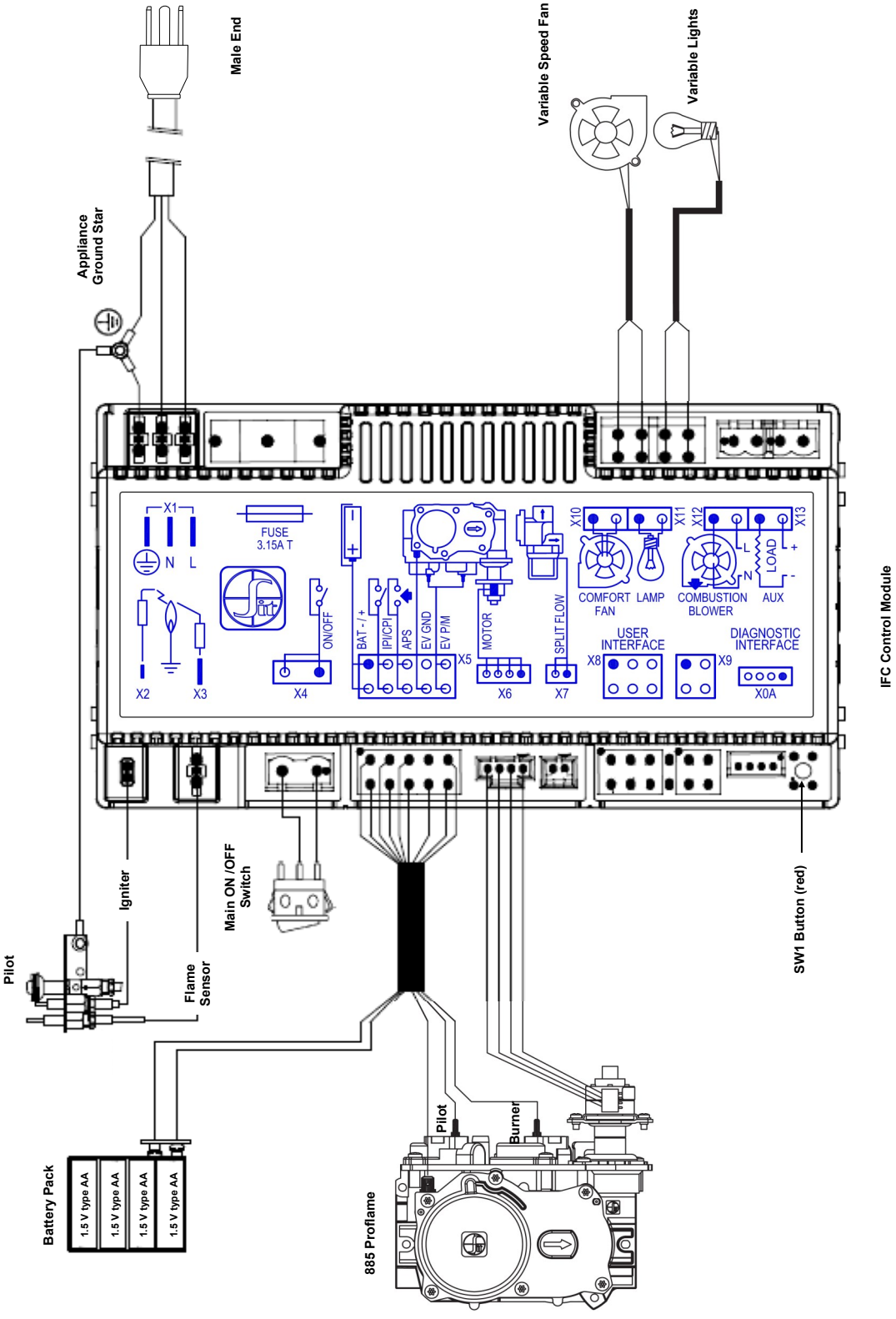
ATTENTION

Electrical wiring must be installed by a licensed electrician.

IMPORTANT

This system requires 120V of electricity / batteries to operate.

Figure 7.1, IFC Control Module Wiring



8.0 FIREPLACE INSERT SETUP

8.1 Glass Frame Assembly

WARNING
Do not operate this fireplace with the glass removed, cracked, or broken. Replacement of the glass frame assembly, #CXS-057T, should be done by a licensed or qualified service person.
Do not remove the glass frame assembly when hot.

8.1.1 Remove Glass Frame Assembly

1. Locate (2) spring-loaded latches securing the glass frame assembly at the bottom of the firebox. Refer to Figure 8.1, Glass Frame Assembly Removal.
2. Pull the spring-loaded latches out and down to release the bottom of the glass frame assembly.
3. Lift glass frame assembly up and off of the (2) tabs located at the top of the firebox.

8.1.2 Install Glass Frame Assembly

1. Align the slots on top of the glass frame assembly over the tabs at the top of the firebox while lowering the bottom of the glass frame assembly into position. Refer to Figure 8.2, Glass Frame Assembly Installation.
2. Pull the spring-loaded latches out and up to secure the bottom of glass frame to the bottom of the fireplace.

Figure 8.1, Glass Frame Assembly Removal

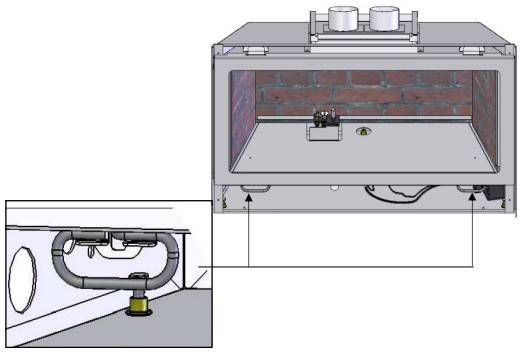
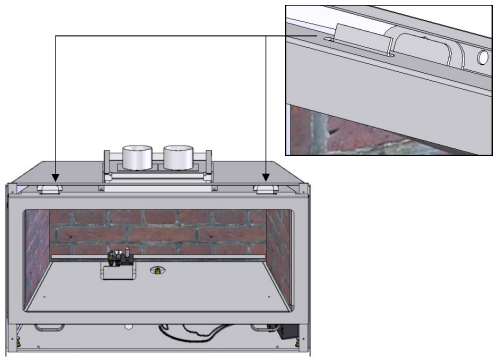


Figure 8.2, Glass Frame Assembly Installation



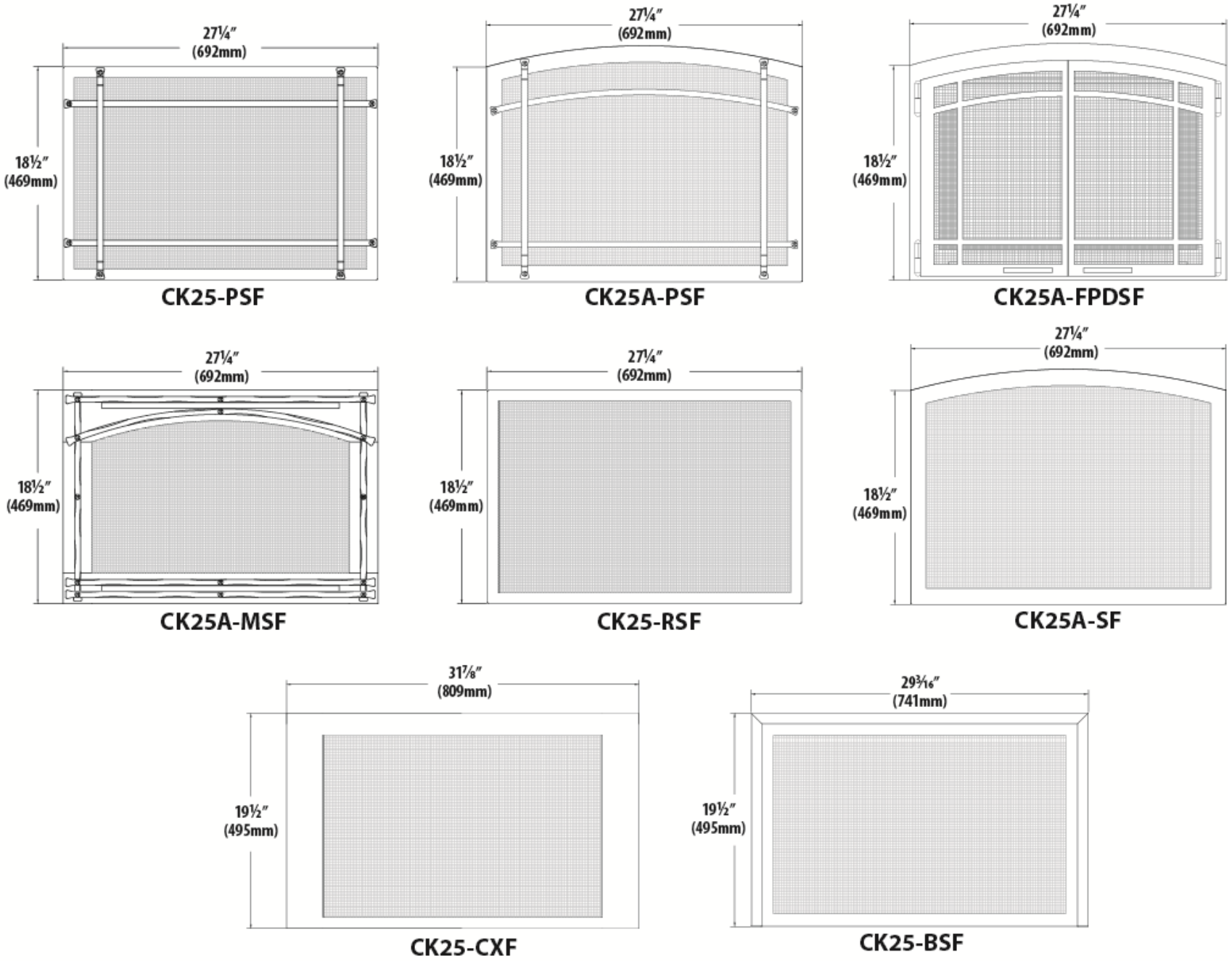
8.2 Safety Barriers

NOTE
Safety barriers #CK25-PFS, #CK25A-PSF, #CK25A-FPDSF, #CK25A-MSF, #CK25-RSF, #CK25A-SF, #CK25-CXF, and #CK25-BSF mount on the three shrouds offered by Kozy Heat Fireplaces.

1. Locate the four (4) openings located on the left and right sides of the shroud (2 each side).
2. Align the screen front's mounting brackets (located on the back) with the openings on the shroud.
3. Lower the screen front into the shroud openings, securing the screen front into place.
4. To remove safety screen: lift the screen up and out of the shroud openings.

Refer to Figure 8.3, Safety Barrier Dimensions, on page 17.

Figure 8.3, Safety Barrier Dimensions



8.3 ZC Shroud Assembly and Installation

NOTE
If installing a Full Door Shroud, follow instructions included with the component.

8.3.1 Shroud Assembly Components

(3) ZC Shroud - top, left, & right leg	(2) shroud extensions	(8) sheet metal screws	(4) truss head screws

You will also need the upper hood and lower louver (included with the fireplace).

8.3.2 Assembly and Installation Instructions

1. Remove the safety barrier and glass assembly from fireplace.
2. Lay shroud sections face down on a protective surface to assemble.
3. Attach leg sections to top section by aligning holes (2 ea. side) in top section with holes in leg sections.
4. Secure with sheet metal screws (2 ea. side).

   OPTIONAL: Attach shroud extensions by aligning slots in shroud with the desired whole in shroud extensions. Secure with sheet metal screws.
5. Align mounting holes in leg sections to corresponding mounting nuts on the sides of the insert opening.
6. Secure with (4) truss head screws.
7. Reinstall glass frame assembly.
8. Install upper hood and lower louver.
9. Reinstall safety barrier.

8.4 Upper Hood and Lower Louver

8.4.1 Upper Hood Installation

1. Align the slots in the upper hood with the corresponding slots in the mounting flange located at the top of the insert.
2. Push back the upper hood into position. Refer to Figure 8.4, Upper Hood Installation

8.4.2 Lower Louver Installation

1. Align the slots in the lower louver to the corresponding slots in the mounting brackets located at the bottom of the insert.
2. Set the lower louver down into position. Refer to Figure 8.5, Lower Louver Installation.

Figure 8.4, Upper Hood Installation

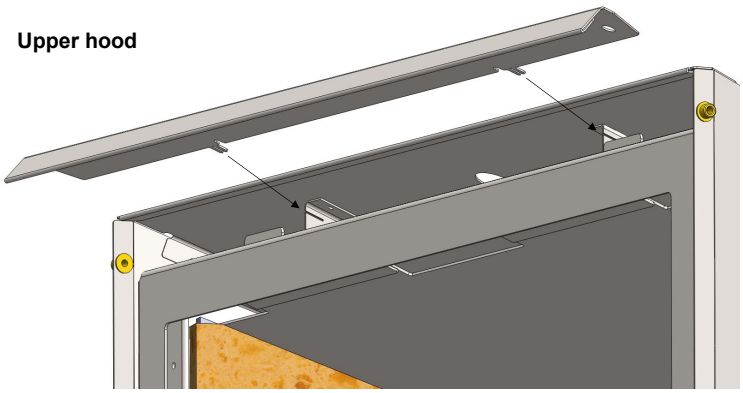
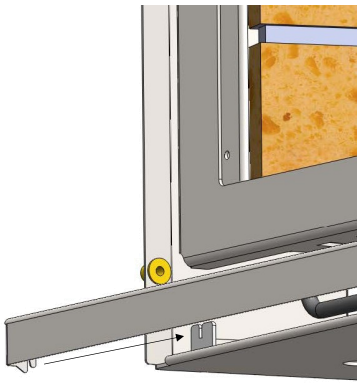


Figure 8.5, Lower Louver Installation



8.5 #CXS-500 Log Set Installation

ATTENTION
If converting to LP (propane) gas, do so now before installing any media kit. Follow instructions included with the conversion kit (sold separately).

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

NOTE
Log numbers are located on the bottom of each log. Refer to the Figures 8.6a and 8.6b for proper installation.

1. Position CS1 log over pilot shield as shown in Figure 8.6a.
2. Align the holes in bottom of base logs CS2, CS3, and CS4 to mounting pins on the burner. Push logs down onto pins to seat.
3. Align CS5, CS6, CS7 and CS8 logs with the notches in the base logs (CS2-CS4) as shown in Figure 8.6b.
4. Randomly place “Klinkers” in the area as shown in Figure 8.6b. Do not place directly on burner ports. Use a steel or stiff bristle nylon brush to distribute Rock Wool Embers onto logs and burner.

Figure 8.6a, Log Set Installation

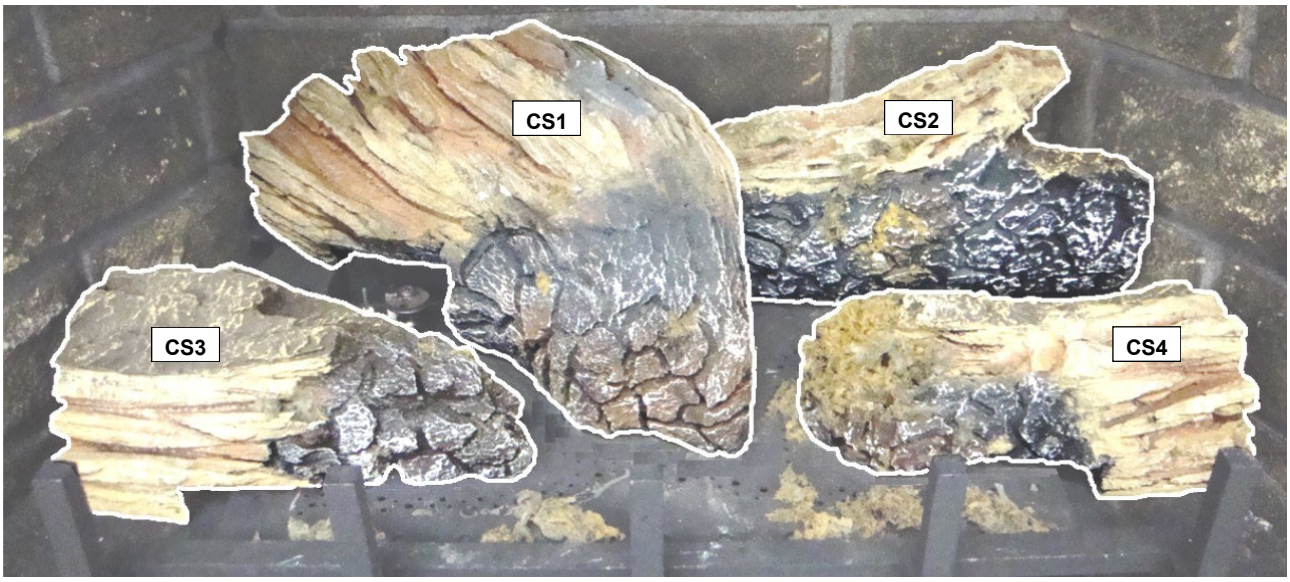
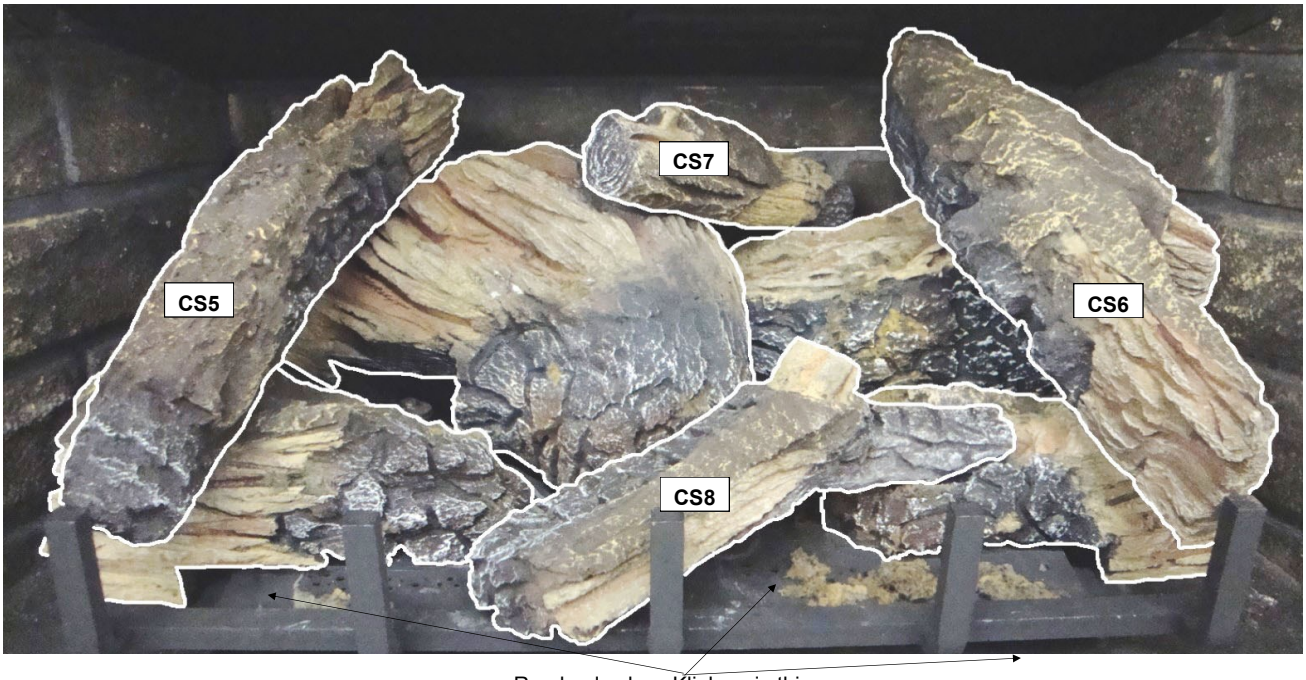


Figure 8.6b, Log Set and Klinker / Rock Wool Ember Installation



8.6 Control Board Removal and Installation

CAUTION
If burner and/or pilot have been burning, use appropriate protection to avoid burns or damage to personal property before removing any components.
Check all connections for leaks with soapy water, whether field or factory made.

NOTE
Your components may look slightly different than ones shown.

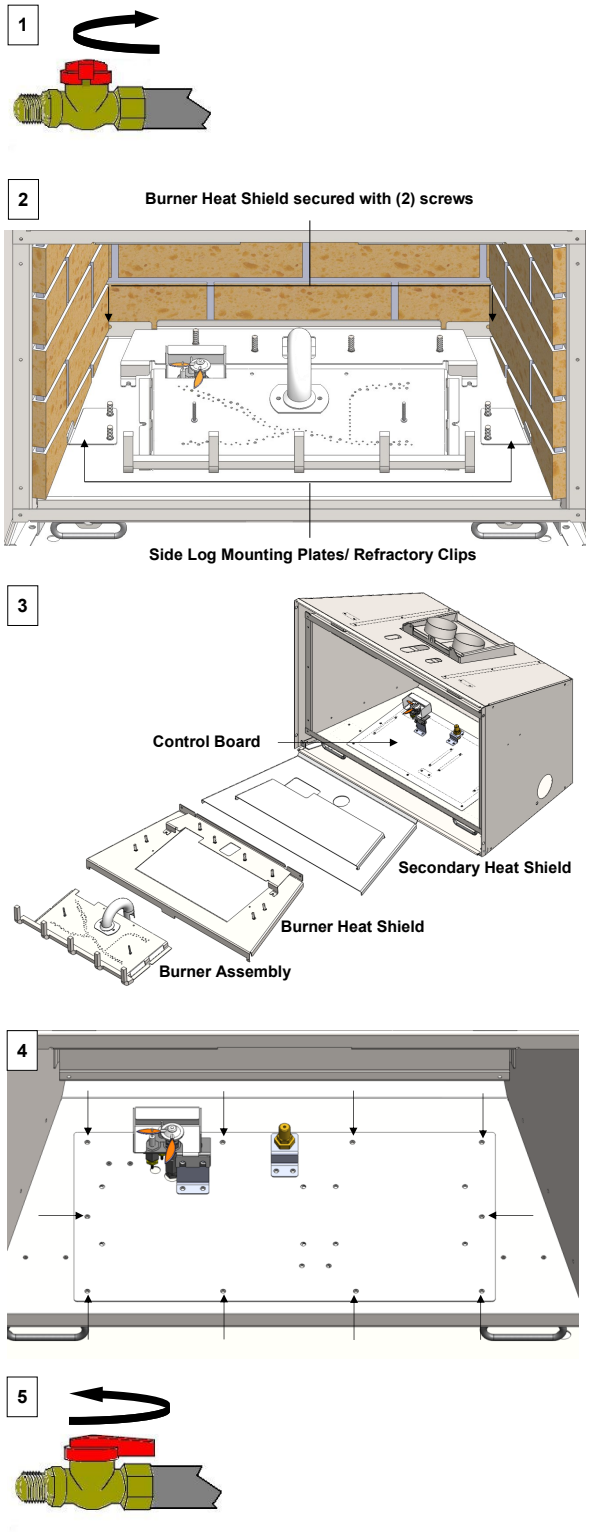
8.6.1 Control Board Removal

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 safety barrier, glass assembly, and logs.
5. Remove the burner assembly. (Secured with [2] screws).
6. Remove side log mounting stands/refractory clips and refractory panels. See Illustration 2.
7. Remove burner heat shield (secured at back corners - 2 screws). See Illustration 3.
8. Remove secondary burner heat shield resting on control board.
9. Remove (10) screws securing control board. Remove the control board.

8.6.2 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-install secondary burner heat shield by placing it on top of the control board.
4. Re-install burner heat shield. Position the cut-outs over pilot assembly and burner orifice, centering from side-to-side and as far back as possible.
5. Secure the burner heat shield using the screws previously removed.
6. Re-install refractory panels, then re-install the side log mounting plates/refractory clips.
7. Re-install burner assembly. Verify the burner tube is positioned over burner orifice. Secure with screws previously removed.
8. Re-install log set.
9. Turn the manual valve counterclockwise to the ON position.
10. Reconnect electrical power.
11. Reinstall glass assembly and safety barrier.
12. Verify proper log placement, operation of fireplace, and any electrical components.

Figure 8.7, Control Board Removal and Installation



9.0 CONTROL SYSTEM

9.1 Control System Components

Figure 9.1,Gas Valve

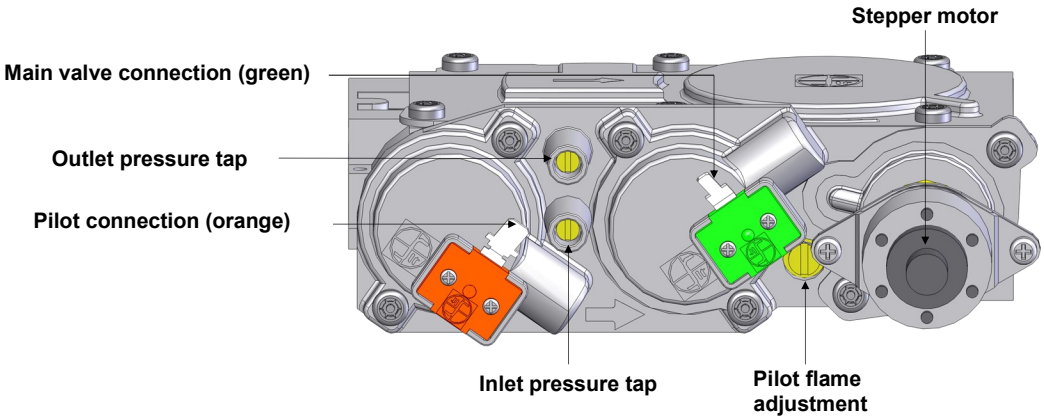


Figure 9.2, Pilot Assembly Components

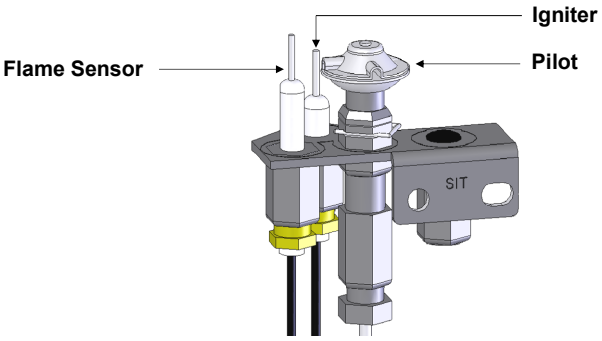
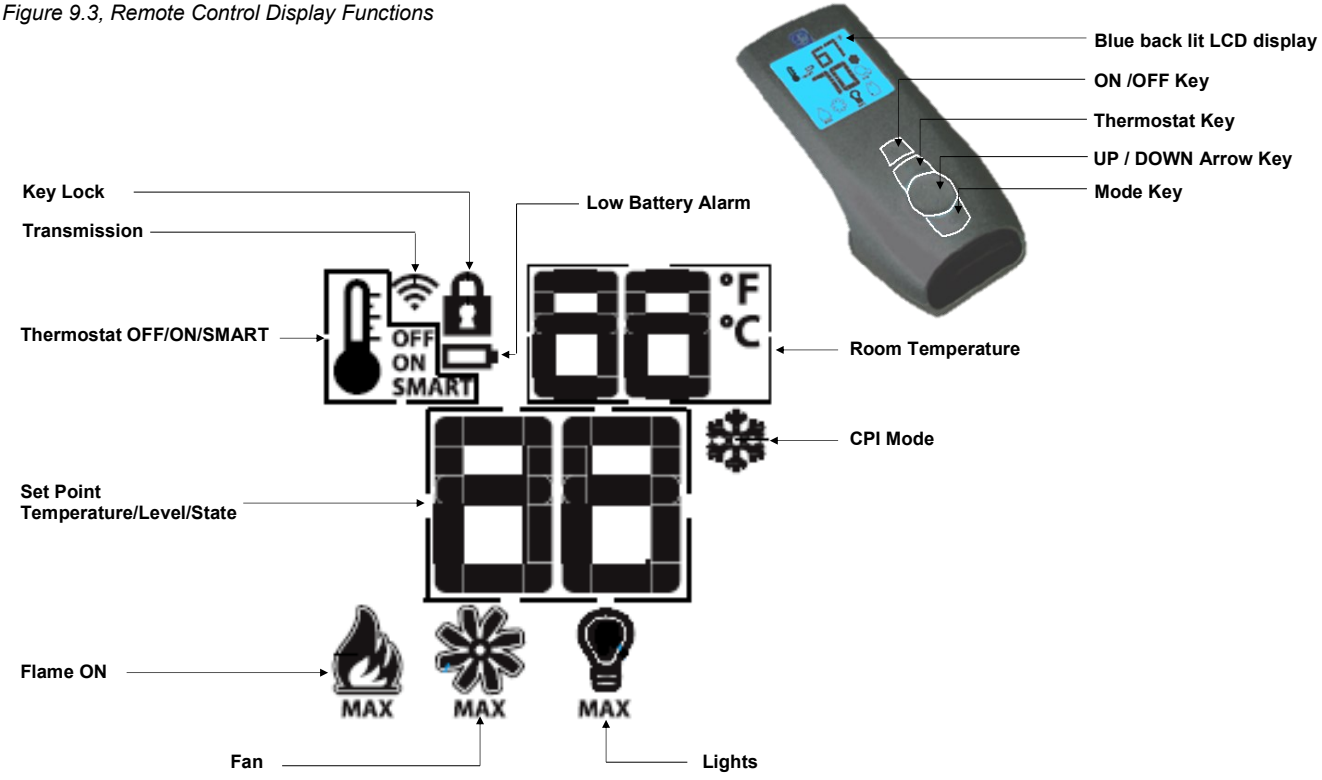


Figure 9.3, Remote Control Display Functions



9.2 Control System Operation

9.2.1 Prepare Components

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

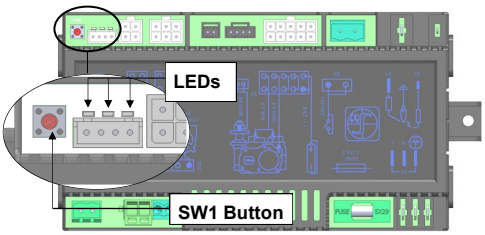
Remove all packaging / combustible material from fireplace insert before initializing the control system.

9.2.2 Initialize the Control System for the First Time

NOTE: Performing the next step 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. Press the red SW1 button on IFC control module until the module beeps three (3) times, and/or an amber LED is illuminated, indicating the IFC control module is ready to synchronize with the remote control. See Figure 9.4.
2. Within five (5) seconds, push the remote control **ON/OFF** button. The IFC control module will beep four (4) times to indicate the remote control's command is accepted, and is set to the particular code of that remote control.
3. Press the remote control **ON/OFF** button again. The pilot will shut down indicating the remote has taken over. The system is now initialized.
4. Set the ON/OFF rocker switch to ON position to operate fireplace with the remote control.

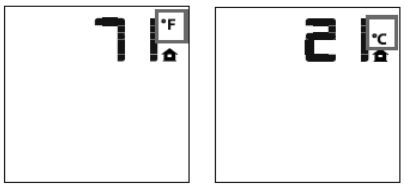
Figure 9.4, IFC Control Module



9.2.3 Adjust Temperature Display

1. With the system in **OFF** position, press **thermostat key** and **mode key** at the same time to change from degrees °F to degrees °C.
2. Look at the remote control LCD screen to verify that °C or °F is visible on right side of Room Temperature display.

Figure 9.5, Temperature Locations



9.2.4 Turn ON the Appliance

1. Starting from OFF, press the remote control **ON/OFF** key to turn ON the appliance.
2. The remote control will show all active icons on the LCD screen display, and the IFC control module will be commanded to start the ignition sequence. Refer to 9.2.15, Control Module Ignition Sequence, on page 25.

A single 'beep' from the IFC control module will confirm reception of the command.

9.2.5 Turn OFF the Appliance

1. With the system ON, press the remote control **ON/OFF** key to turn OFF the appliance.
2. The remote control will only show room temperature and its icon on the LCD screen display, and the IFC control module will be commanded to turn off the burner.

A single 'beep' from the IFC control module will confirm reception of the command.

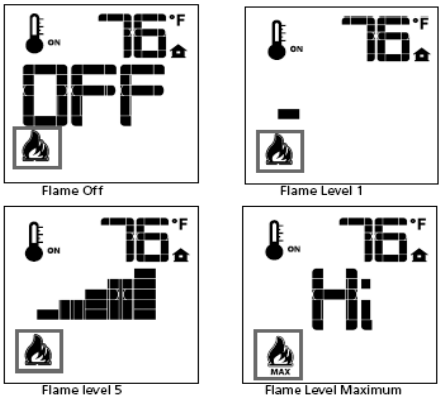
9.2.6 Control Flame Manually with Remote Control

The remote control has six (6) flame levels, displayed by steps as shown in Figure 9.6. Each press of the UP / DOWN Arrow Key will increase or decrease the flame level by one step. A single 'beep' will confirm reception of the command.

1. With system **ON** and the flame level at maximum, press the **down arrow key** once to reduce flame height by one step until flame is turned off.
2. Press the **up arrow key** once to increase flame height by one step. If the up arrow key is pressed while the control system is on but the flame is off, the flame will come on in 'HI' position.

When SMART Thermostat is activated, manual flame height adjustment is disabled.

Figure 9.6, Flame Levels



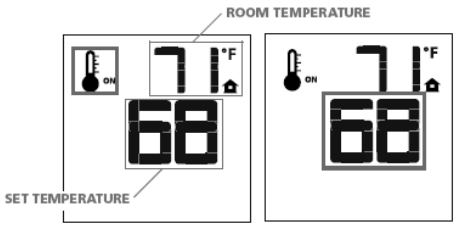
9.2.7 Remote Control Thermostat Operation

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 display will change to show the room thermostat is **ON**, and will display the set temperature.
2. To adjust the set temperature, press the **up** or **down arrow keys** until the desired set temperature is displayed on the LCD screen.

Figure 9.7a Room Thermostat Operation

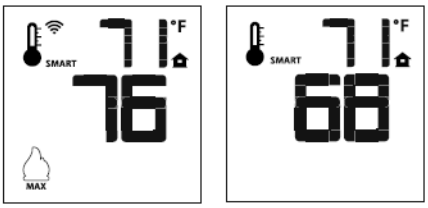


Smart Thermostat

The SMART Thermostat function adjusts the flame height based on the set temperature and the actual room temperature. As the room temperature gets closer to the set point, the smart function will automatically adjust the flame down. To activate this function,

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

Figure 9.7b, Smart Thermostat Operation



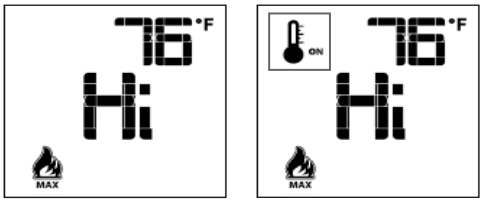
Deactivate Thermostat Operation

The remote control thermostat options (room and smart functions) can be disabled by deactivating thermostat operation. When the thermostat operation is deactivated, the remote control will still be able to operate the burner ON/OFF, and be able to function flame, fan, and light modulation. To deactivate this function,

1. Verify all (3) AAA type batteries are installed in the remote control.
2. Remove one AAA battery.
3. While re-inserting the AAA battery, push and hold down the **thermostat key**. The temperature bulb graphic will not appear on the LCD screen.

To re-activate thermostat operation, follow the same button sequence procedure described above. The temperature bulb graphic will reappear on the remote control LCD screen.

Figure 9.7c, Deactivated / Activated Thermostat



9.2.8 Fan Speed Control

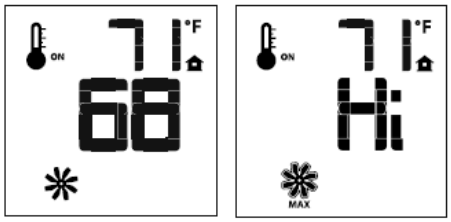
Fan speed can be adjusted through six (6) speeds. A single 'beep' will confirm reception of the command. To activate this function,

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 five (5) minute delay time when fireplace is lit, allowing time for heat to build in fireplace before operating. The fan will continue to operate for approximately twelve (12) minutes after fireplace has been turned off.

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

Figure 9.8, Fan Remote Operation

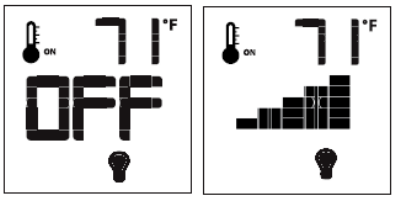


9.2.9 Accent Light Kit

The light intensity can be adjusted through six (6) levels. A single beep will confirm reception of the command.

1. Press the **mode key** to index to **light** icon.
2. Press the **up** or **down arrow keys** to adjust the intensity level.

Figure 9.9, Accent Light Remote Operation



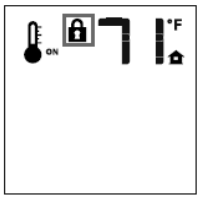
9.2.10 Key Lock

This function locks the keys to avoid unsupervised operation. A lock icon will appear on the LCD display screen once activated.

To Activate: Press the **mode key** and **up key** at same time.

To De-activate: Press the **mode key** and **up key** at same time.

Figure 9.10, Key Lock Indicator



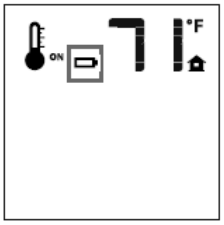
9.2.11 Low Battery Detection

Remote Control

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

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

Figure 9.11, Low Battery Indicator



Backup Battery Pack

The backup battery pack is used when the electrical power to the appliance is interrupted. The lifespan of backup batteries depends on various factors including battery quality, number of ignitions, changes to room thermostat set point, etc.

- When backup batteries are low, a double-beep will be emitted from the IFC control module when it receives an ON/OFF command from the remote control. This is an alert for a low battery condition of the backup batteries and after this double-beep warning, no commands will be accepted until batteries are replaced.
- When batteries are replaced, a beep will be emitted from IFC control module as soon as powered.

9.2.12 Continuous Pilot / Intermittent Pilot (CPI / IPI)

This system has the option of a continuous (standing) pilot feature. This allows you to change from a spark-to-pilot system to a standing pilot system during cold weather conditions. By having the pilot on continuously, the firebox will remain warm and a draft is established in the vent, allowing the main burner to turn on with less air-flow disruption.

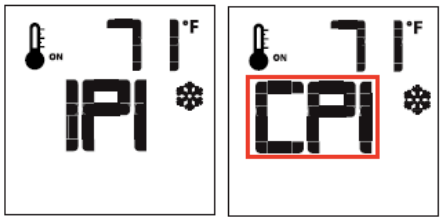
To activate Continuous Pilot Ignition mode,

1. With system in **OFF** position, press the **mode key** to index to 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 the reception of the command.

A snowflake icon will be visible during setup of either IPI or CPI modes.

- In IPI mode, the snowflake is not visible on LCD screen.
- In CPI mode, the snowflake is visible on LCD screen.

Figure 9.12, Pilot Mode Indicator

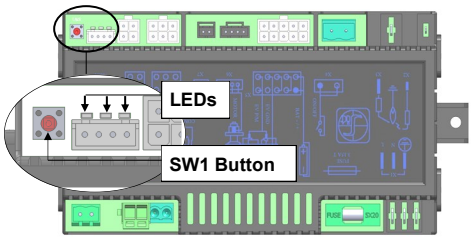


9.2.13 Reset the System for Manual Operation

Manual operation of the control system will only operate the burner on 'HI.'

1. Put the **ON/OFF switch** in OFF position.
2. Press the **red SW1 button** on IFC control module until the module emits three (3) beeps and an amber LED is illuminated. This indicates the IFC control module is ready to synchronize with the remote control.
3. Within five (5) seconds, press the **red SW1 button** on IFC control module again. The pilot will automatically light.
4. Turn main burner on by pressing **ON/OFF switch** to ON position, turn off by pressing ON/OFF switch to OFF position. Pilot will remain lit even if burner is turned off.

Figure 9.13, IFC Control Module



9.2.14 Automatic Safety Restart

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

9.2.15 Control Module Ignition Sequence Information

IFC Control Module Ignition Sequence

First Attempt

- Starting from OFF, press remote control **ON button**.
- Approximately (4) seconds after ON/OFF button is pushed, the IFC control module will start the spark.
- First ignition try will last approximately (60) seconds.

Second Attempt

- If there is no flame ignition (rectification) during the first try for ignition, the IFC control module will stop sparking for approximately (35) seconds.
- After this wait time, the IFC control module will start the second try for ignition by sparking for approximately (60) seconds.
- If ignition is successful on third ignition attempt, there will be a (60) second delay before the main burner lights.

Third Attempt

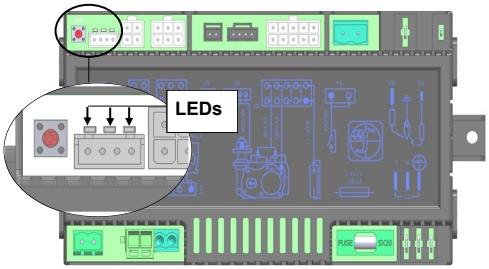
- If after this third attempt there is still no positive ignition, the IFC control module will go into **LOCK OUT** and the red LED will blink (3) times in intervals until the system is reset.

IFC Control Module Lock Out

After the IFC control module attempts positive ignition for the third time, the control system will go into **LOCK OUT.** The red LED will blink (3) times until the system is reset.

The location of the LED indicator on the IFC control module is determined by fireplace model and design. The red LED indicator also may be located in the component housing behind the lower grill, or behind the access panel on the left side.

Figure 9.14, IFC Control Module LED Lights Location



In Summary:

1. **The IFC control module will try (2) times for ignition.**
2. **Each try for ignition will last approximately (60) seconds.**
3. **The wait time between the two tries is approximately (35) seconds.**

Reset IFC Control Module—Lock Out

Reset Using ON/OFF Switch on Control Module:

- Set ON/OFF switch to OFF position.
- Wait approximately (2) seconds and move switch to the ON position. The ignition sequence will start again.

Reset Using Remote Control ON/OFF Button:

- Turn the system off by pressing the remote control ON/OFF button.
- After approximately (2) seconds press the remote control ON/OFF button again. The IFC control module will reset and the ignition sequence will start again.

Reset By Cycling Flame:

- In the Manual Flame Control Mode, use the Down Arrow Button to reduce flame to off (indicated by OFF displayed on Remote Control Display Screen).
- Wait approximately (2) seconds and press the Up Arrow Button. The ignition sequence will start.

Figure 9.15, Remote Control Functions for System Lockout



9.2.16 Additional Diagnostic Indications 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 **9.2.15, Reset IFC Control Module—Lock Out** instructions.

10.0 LIGHTING AND SHUTDOWN

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.

This appliance is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.

BEFORE OPERATING, smell all 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 electrical 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.

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 / any gas control which has been under water.

WARNING

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION. YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

CLOTHING OR OTHER FLAMMABLE MATERIAL MUST NOT BE PLACED ON OR NEAR THE APPLIANCE.

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

NOTE

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.

DUE TO HIGH SURFACE TEMPERATURES, KEEP CHILDREN, CLOTHING, AND FURNITURE AWAY.

This appliance needs fresh air for safe operation, and must be installed so there are provisions for adequate combustion and ventilation air.

STOP!

Read safety information on previous page and front cover of this manual before continuing.

10.1 Operating Instructions

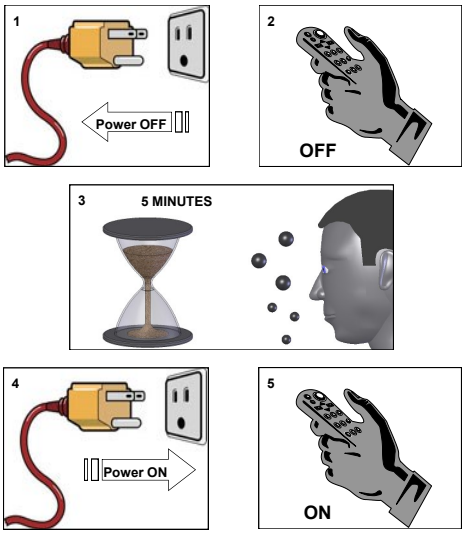
ATTENTION

This appliance is equipped with an ignition device which automatically lights the pilot. DO NOT try to light the pilot by hand.

1. Turn off all electric power to the appliance.
2. Press hand held remote **OFF** button.
3. Wait five (5) minutes to clear out any gas. After 5 minutes, smell for gas, including near the floor.

   If you smell gas, **STOP!** Follow 'WHAT TO DO IF YOU SMELL GAS' on the previous page. If you do not smell gas, proceed to next step.
4. Turn ON all electric power to the appliance.
5. Press hand held remote **ON** button.

Figure 10.1, Steps for Operating Appliance



CAUTION

If the fireplace will not operate, follow instructions 10.2, To Turn Gas Off to Appliance, and call your service technician or the gas supplier.

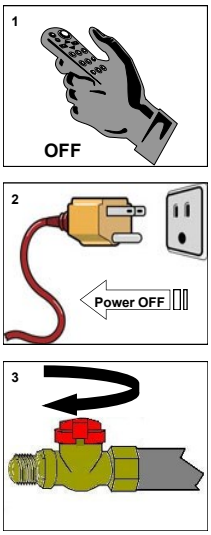
NOTE

When the fireplace is initially lit, condensation will appear on the glass. This is normal in all gas fireplaces and will disappear after several minutes.

10.2 To Turn Gas Off to Appliance

1. Press the hand held remote **OFF** button.
2. Turn OFF all electric power to appliance if service is to be performed.
3. Turn manual shut-off valve to **OFF**. The manual shut-off valve is located underneath the lower louver, on the left side of the gas valve.

Figure 10.2, Steps for Manual Gas Valve Shut-Off



11.0 FINALIZING THE INSTALLATION

11.1 Pressure Testing

NOTE

The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 1/2 psi (3.5 kPa). The appliance must be isolated from the gas supply piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa).

IMPORTANT

Pressure check taps for manifold (outgoing) and inlet (incoming) pressure have been incorporated into the valve. The pressure tap marked OUT measures outgoing pressure and the pressure tap marked IN measures incoming pressure. Follow instructions 11.1.1 and 11.1.2 for proper testing procedures. For manifold pressures, refer to Table 11.1, Gas Pressure Information.

11.1.1 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 proper pressure reading.

1. Loosen inlet (IN) pressure tap screw (counter-clockwise).
2. Attach manometer using a 1/4 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 inlet (IN) pressure tap screw (clockwise). Screw should be snug. Do not over tighten.
6. Relight pilot and burner. Then reattach manometer to the inlet pressure tap to verify the tap is completely sealed. Manometer should read no pressure.

NOTE

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.

CAUTION

A LOW PRESSURE READING CAN CAUSE DELAYED IGNITION.

11.1.2 Manifold Pressure Test

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

Figure 11.1, Pressure Test Locations

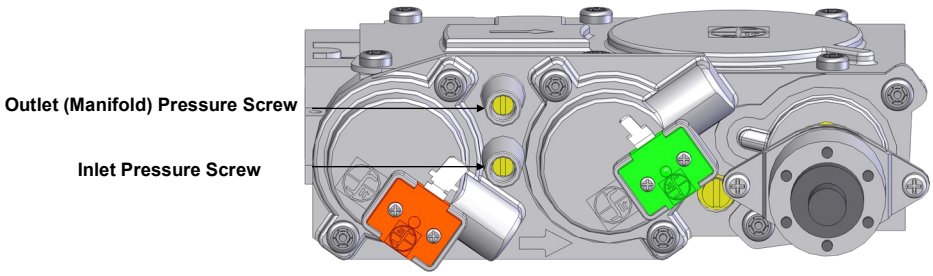


Table 11.1, Gas Pressure Information

Fuel	Minimum Inlet Gas Pressure	Maximum Inlet Gas Pressure	Manifold Pressure (High)	Manifold Pressure (Low)
Natural Gas	5" WC (1.25 kPa) (7" WC [1.74 kPa] recommended)	10.5" WC (2.62 kPa)	3.8" WC (.95 kPa)	1.1" WC (.27 kPa)
LP Gas	12" WC (2.99 kPa) (recommended)	13" WC (3.24 kPa)	11" WC (2.74 kPa)	2.9" WC (.72 kPa)

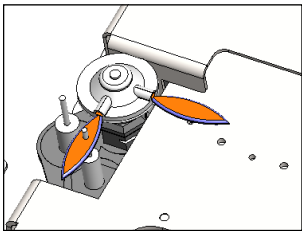
11.2 Burner Tube Venturi Adjustment

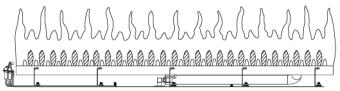
11.2.1 Flame Appearance

Flame appearance is affected by several factors; including altitude, venting configuration, and fuel quality. Although the venturi setting has been factory set, adjustments may be necessary for optimal performance and visual aesthetics.

When the fireplace is first lit, the flames will be blue. Flames will gradually turn yellowish-orange during the first 15 minutes of operation. If flames remain blue, or become dark orange with evidence of sooting (black tips), the burner tube venturi may need adjustment.

Figure 11.2, Correct Pilot Flame and Flame Appearance





Ideal

IMPORTANT
If soot is present, check log positioning before adjusting burner venturi. Logs must not block burner ports. Refer to 8.5, #CXS-500 Log Set Installation, on page 19.

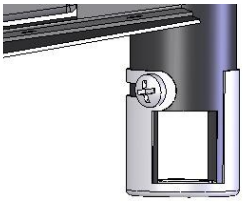
IMPORTANT
Slight adjustments to venturi opening will create dramatic results. Adjust at slight increments until desired look is achieved. Always burn the fireplace for at least 15 minutes, and allow the appliance time to cool before making any further adjustments.

11.2.2 Venturi Adjustment

WARNING
Burner tube adjustable venturi positioning should only be performed by a qualified personal service technician.
To avoid property damage or personal injury, allow the fireplace ample to cool before making any adjustments.

Table 11.2, Factory Set Burner Tube Venturi Settings (adjust as necessary for your installation)	
Type of Fuel	**Measurement of Venturi Opening**
Natural Gas	1/16 in. (2 mm)
LP (Propane) Gas	5/8 in. (16 mm)

Figure 11.3, Burner Venturi



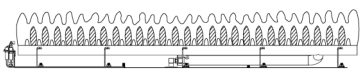
TO ADJUST:

1. Remove the safety barrier and glass frame assembly.
2. Remove log set.
3. Remover burner assembly.
4. Loosen burner venturi screw and make the adjustment, then retighten screw.
5. Re-install burner, making sure venturi is positioned over burner orifice. Re-install burner venturi housing.
6. Reinstall all components previously removed.
7. Light fireplace. Wait at least 15 minutes before determining if any further adjustments are necessary.

Table 11.3, Burner Tube Venturi Adjustment and Flame Appearance		
Venturi Position	**Flame Color**	**Venturi Adjustment**
Closed too far	**Dark orange flame with black tips**	**Open venturi setting slightly**
Open too far	**Blue flames**	**Close venturi setting slightly**

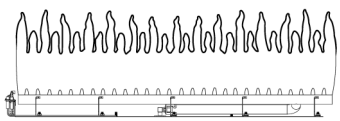
Figure 11.4, Adjustment and Flame Appearance

Short blue flames



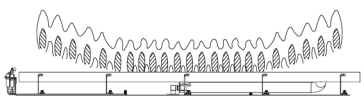
Venturi open too far

Dark orange flames / black tips



Venturi closed too far
Excessive burner media

Lifting (ghosting) flames



Improper Venting / Gas pressure too high

12.0 TROUBLESHOOTING

ATTENTION

TROUBLESHOOTING MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.

- Before proceeding with the steps in the following troubleshooting guide, verify the power supply is present, and the battery pack and remote control batteries are fresh and installed with correct polarity.
- Make sure all connections between the wire harnesses and the system components are proper and positive.
- Make sure the communication link between the remote control and the IFC control module is established.
- Verify inlet pressure meets the recommended inlet pressure. If necessary, adjust line pressure regulator.

12.1 Pilot Will Not Light / Stay Lit

- Electrical power interrupted or disconnected. Restore electrical power to fireplace or use battery back-up. Ensure batteries are fully charged if using battery back-up as power source.
- Verify gas supply is turned on. Check the remote shut-off valves from fireplace. Usually there is a valve near the main gas line. There may be more than (1) valve between the fireplace and the main gas line.
- Low gas pressure. Low gas pressure can be caused by several situations such as a bent line, a too narrow diameter pipe, or a low line pressure. Consult a plumber or a gas supplier.
- No LP in tank. Check LP (propane) tank. Refill if necessary.
- Wiring disconnection. Use wiring schematic in this manual to determine that all wiring connections are secure and correct.
- Pilot flame not making contact with the flame rectification sensor on the pilot assembly. This valve is equipped with a pilot flame adjustment screw. Adjust as necessary.
- Pilot adjustment screw not sealed. Seal pilot adjustment screw. Do not over tighten.

12.2 Pilot Flame Always On / Will Not Extinguish

- System set to CPI mode. Set system to IPI mode.

12.3 Main Flame Will Not Light

- ON/OFF rocker switch in OFF position. Switch to ON position.
- Remote not working properly. Replace batteries.
- Remote set to thermostat mode and there is no call for heat. Adjust heat setting.
- Thermostat disconnected or set too low. Set thermostat to higher temperature setting.
- Ensure pilot flame will ignite. If not, see pilot flame troubleshooting above.
- Ensure pilot flame is properly located to ignite main flame.
- Plugged main burner orifice.
- Wiring disconnection / improper wiring. Check for faulty or incorrect wiring.
- Verify gas supply is turned on.
- Low gas pressure. Low gas pressure can be caused by several situations such as a bent line, too narrow diameter pipe, or low line pressure. Consult with plumber or gas supplier.

12.4 Pilot and Burner Extinguish While in Operation

- No LP in tank. Check and refill if necessary.
- Glass frame assembly not installed correctly. Refer to 8.1.2, Glass Frame Assembly Installation, on page 16.
- Improper vent cap installation. Adjust if necessary.
- Vent cap blockage. Remove debris if necessary.
- Excessive draft.

12.5 Glass Sooting

- Improper log placement. Refer to 8.5, #CXS-500 Log Set Installation, on page 19.
- Improper venturi setting. Venturi may need to be opened slightly to allow more air into the gas mix. Refer to 11.2.2, Venturi Adjustment, on page 30.

12.6 Flame Burns Blue and Lifts Off Burner

- Improper venturi setting. Venturi may need to be closed slightly. Refer to 11.2.2, Venturi Adjustment, on page 30.
- Improper vent cap installation. Check for proper vent cap installation.
- Blockage or leakage of the vent system.

12.7 No Reaction to Command

- Backup battery pack batteries or remote control batteries low. Replace batteries.
- No communication between remote control and IFC control module. Reprogram remote control to IFC control module. Refer to 9.2, Control System Operation, on page 22.
- A maximum number of failed ignitions or flame restorations has been reached. Reset IFC control module.

12.7.1 Reset IFC Control Module—Lock Out

Reset Using ON/OFF Switch:

- Set ON/OFF switch to OFF position.
- Wait approximately (2) seconds and move switch to the ON position. The ignition sequence will start again.

Reset Using Remote Control ON/OFF Button:

- Turn the system off by pressing the remote control ON/OFF button.
- After approximately (2) seconds press the remote control ON/OFF button again. The IFC control module will reset and the ignition sequence will start again.

Reset By Cycling Flame:

- In the Manual Flame Control Mode, use the Down Arrow Button to reduce flame to off (indicated by OFF displayed on Remote Control Display Screen).
- Wait approximately (2) seconds and press the Up Arrow Button, the ignition sequence will start.

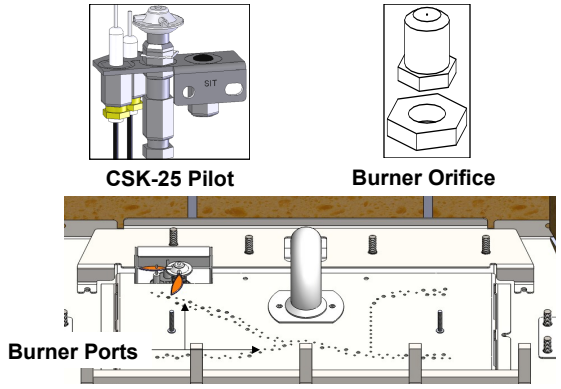
13.0 MAINTENANCE

NOTE
Installation and repair shall only be done by a qualified service person. The appliance should be inspected before use by a qualified service person. This appliance is required to be inspected at least once a year by a professional service person.
The compartment below the firebox must be cleaned at least once a year. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc., than outlined in this manual. It is imperative that the control compartments, burners, and circulation air passageways of the appliance be kept clean. Use a vacuum to clean all components.

13.1 Burner and Pilot System

- **Annual cleaning of the burner system is required. Vacuum all components thoroughly.**
- **Visually check for blocked port holes, especially near the pilot. Blocked port holes may cause delayed ignition.**
- **Visually check pilot light and burner when in operation. The flames should be steady—not lifting or floating.**

Figure 13.1, Control System Components



13.2 Fan

CAUTION
LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.

- **The fan shall be disconnected from electrical current and cleaned (vacuumed) every six months.**
- **The bearings are sealed and require no oiling.**

13.3 Vent System

- **Annual examination of venting system by a qualified agency is required.**
- **The flow of combustion and ventilation air must not be obstructed.**
- **IF VENT-AIR INTAKE SYSTEM IS DISASSEMBLED FOR ANY REASON, RE-INSTALL PER INSTRUCTIONS PROVIDED WITH INITIAL INSTALLATION.**

13.4 Glass Frame Assembly

WARNING
DO NOT OPERATE APPLIANCE WITH THE GLASS FRAME ASSEMBLY REMOVED, CRACKED, OR BROKEN. REPLACEMENT OF THE GLASS SHOULD ONLY BE PERFORMED BY A LICENSED OR QUALIFIED SERVICE PERSON.

IMPORTANT
ANY SAFETY SCREEN OR GUARD REMOVED FOR SERVICING MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE.

- **Clean glass only when cool and only with non-abrasive cleansers.**
- **Use protective gloves to handle any broken or damaged glass assembly components.**
- **The glass assembly, part #CXS-057T, shall only be replaced as a complete unit, as supplied by Hussong Mfg. Co., Inc.**
- **Replacement of the glass and frame assembly, part #CXS-057T, must only be performed by a licensed or qualified service person. DO NOT SUBSTITUTE MATERIALS.**
- **Do not strike or slam glass frame assembly.**

14.0 REPLACEMENT PARTS LIST

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

CONTROL BOARD AND PARTS			
CXS-150	Control Board - Natural Gas	700-168	LP Gas Pilot Orifice
CXS-151	Control Board - LP Gas	700-504	Valve Step Motor - Natural Gas
700-567	SIT IPI Valve - Natural	700-504-1	Valve Step Motor - LP Gas
700-567-1	SIT IPI Valve - LP	700-213B	18” Flexible Gas Line-Black
700-652	Proflame 2 IFC Board	700-226	Flexible Gas Line-Valve to Burner Connection
700-653	IFC Wire Harness Assembly	700-244	Natural Gas Burner Orifice #44
700-551	Pilot Assembly - Natural Gas	700-254	LP Gas Burner Orifice #54
700-551-1	Pilot Assembly - LP Gas	NCK-CXS-S	Natural Gas Conversion Kit
700-408	Remote Control (Transmitter)	LCK-CXS-S	LP Gas Conversion Kit
700-165	Natural Gas Pilot Orifice	CXS-135	Burner Assembly

GRILL REPLACEMENT	
CXS-200	Upper Hood (For 3 & 4 pc. Shrouds)
CXS-201	Lower Grill

FAN ASSEMBLY	
CXS-028-IPI	Fan Assembly

REFRACTORY PANELS	
CXS-I900	(3 pc.) Refractory Panel Set
CXS-I900B	Back Refractory Panel
CXS-I900L	Left Side Refractory
CXS-I900R	Right Side Refractory

SAFETY BARRIERS	
CK25-PSF	Prairie Screen Front
CK25A-PSF	Arched Prairie Screen Front
CK25A-MSF	Arched Mission Screen Front
CK25-RSF	Rectangular Screen Front
CK25-FPDSF	Arched Full Prairie Door Screen Front
CK25A-SF	Arched Screen Front
CK25-CXF	Convex Screen Front
CK25-BSF	Beveled Screen Front

GLASS & GLASS GASKET	
CXS-005	Replacement Valance
900-006	1-1/8” Glass Gasket w/ Adhesive
CXS-057T	Valance with 24” x 14-1/4” glass

LOG SET	
CXS-500	8 pc. Log Set
CXS-1	#CS1 Log
CXS-2	#CS2 Log
CXS-3	#CS3 Log
CXS-4	#CS4 Log
CXS-5	#CS5 Log
CXS-6	#CS6 Log
CXS-7	#CS7 Log
CXS-8	#CS8 Log
900-KLK	Klinkers
900-REMB	Rock Wool Embers

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

CSK-25

LIMITED WARRANTY

Kozy Heat Limited 10 Year Warranty

This limited 10 Year Warranty will not become effective until the Warranty Registration Form has been completed and mailed to Hussong Manufacturing Co., Inc., P.O. Box 577, Lakefield, MN 56150. This registration form must be received within 30 days of installation. Failure to do so may result in delayed warranty coverage and submission of proof of purchase will be required.

Hussong Manufacturing Co., Inc. warranties to the original purchaser of this Kozy Heat Fireplace, that it is free of defects in materials and workmanship at the time of manufacture.

Subject to the following conditions & requirements, Hussong Manufacturing Co., Inc. extends the following limited warranty under normal use and service, with respect to the Kozy Heat line of gas burning fireplaces.

Year 1

Subject to the conditions & requirements listed below, within the first year from date of purchase, Hussong Manufacturing Co., Inc. shall, at its discretion, replace or repair any such defect in material or workmanship, at Hussong Manufacturing Co., Inc.'s expense, including reasonable labor costs to repair or replace the defective component, if a factory pre-authorization is given for the repair.

Years 2 through 10

Subject to the conditions & requirements listed below, beginning with the first day of the second year and continuing through the tenth year, Hussong Manufacturing Co., Inc., will at its discretion, provide repair or replacement parts at current list prices for any defect in material or workmanship of components, including optional components and accessories (if available). Hussong Manufacturing Co., Inc. shall not be responsible for any installation, labor, transportation of other indirect costs.

Limitation of Liability

To make a claim under this warranty, the purchaser must first contact the dealer/installer from whom the fireplace was purchased.

This limited warranty will be void if the fireplace is not installed by a qualified installer and according to the installation instructions. Use of unauthorized components will make this warranty null and void.

This limited warranty also is void if the fireplace is not operated, at all times, according to the operating instructions furnished.

This warranty is limited to defects in material and workmanship. It does not apply to any product that has been subject to negligence, misapplication, improper installation.

No person is authorized to extend the time of this warranty or to accept on Hussong Manufacturing Co., Inc.'s behalf any additional obligation of liability connected with the unit.

It is expressly agreed and understood that this warranty is Hussong Manufacturing Co., Inc.'s sole obligation and purchaser's exclusive remedy for defective fireplace equipment. Hussong Manufacturing Co., Inc. shall not be liable for any consequential, incidental or contingent damages whatsoever. The foregoing warranty is exclusive and in lieu of all other expressed warranties. Hussong Manufacturing Co., Inc. shall not be held to implied warranties or merchantability and fitness for a particular purpose. This warranty replaces all previous warranty policies.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Hussong Manufacturing Co., Inc. reserves the right to make changes at any time, without notice, in design, material, specifications and prices. Hussong Manufacturing Co., Inc. reserves the right to discontinue models and products.

Warranty Conditions and Requirements

1. You are the original purchaser. This warranty is not transferable.
2. Installation of the fireplace is performed by a qualified installer.
3. Installation and operation must comply with installation and operation instructions.
4. Paint and glass gaskets are covered for 30 days from date of purchase.
5. Remote controls and all optional accessories are covered for 1 year from date of purchase.
6. This warranty does not offer coverage for Light Bulbs, Batteries, or Fuses (whether factory, dealer or installer supplied). This includes any damage stemming from either component's nonuse.
7. Components broken, (including glass panels), during shipping, careless handling of components, or defects resulting from improper installation, misuse of the fireplace and components are not covered under this warranty.
8. This warranty does not cover any part of the fireplace or any components which have been exposed to or submerged underwater.
9. Hussong Manufacturing Co., Inc. must be notified by the dealer the fireplace was purchased from or a qualified installer/service technician of the defect.
10. Annual service of the fireplace as required in the installation manual, is performed by a qualified installer/service technician. (Copies of such service records may be required to claim a warranty).
11. All previous warranty/service has been performed by a qualified installer or service technician. (Copies of such service records may be required to claim a warranty).

LIFETIME WARRANTY

THIS LIFETIME WARRANTY COVERAGE WILL BE EXTENDED AS DESCRIBED BELOW PROVIDED ALL WARRANTY CONDITIONS AND REQUIREMENTS ARE MET AS OUTLINED IN THE 10 YEAR LIMITED WARRANTY POLICY.

Lifetime Warranty Coverage

LIFETIME WARRANTY IS EXTENDED AS FOLLOWS: Hussong Manufacturing Co., Inc. warranties to the original purchaser that the firebox, heat exchanger, fiber logs, burner tube and glass panel of this Kozy Heat Fireplace will not be defective in material or workmanship under normal use and service for as long as you own this product. If any of these components fail due to defects in material and workmanship under normal use and service, Hussong Manufacturing, Co., Inc. will, at its sole discretion, repair or replace the defective component. This LIFETIME WARRANTY does not cover any installation, labor, transportation or other indirect cost arising from defective components.

Limitation of Liability

This Lifetime Warranty will be void if the fireplace is not installed by a qualified installer and according to the installation instructions. Use of unauthorized components will make this warranty null and void. This Lifetime Warranty also is void if the fireplace is not operated, at all times, according to the operating instructions furnished. This warranty is limited to defects in material and workmanship of components specified. It does not apply to any product that has been subject to negligence, misapplication, improper installation.

No person is authorized to extend the time of this Lifetime Warranty or to accept on Hussong Manufacturing Co., Inc.'s behalf any additional obligation of liability connected with the unit.

Hussong Manufacturing Co., Inc. may fully discharge all obligations with respect to this Lifetime Warranty by refunding the wholesale price of the defective component(s).

It is expressly agreed and understood that this Lifetime Warranty is Hussong Manufacturing Co., Inc.'s sole obligation and original purchaser's exclusive remedy for defective fireplace equipment. Hussong Manufacturing Co., Inc. shall not be liable for any consequential, incidental or contingent damages whatsoever other than those incurred by Hussong Manufacturing Co., Inc. to repair or replace the defective component. The foregoing warranty is exclusive and in lieu of all other expressed warranties. Hussong Manufacturing Co., Inc. shall not be held to implied warranties, including but not limited to the implied warranties or merchantability and fitness for a particular purpose. This lifetime warranty replace all previous lifetime warranty policies.

Hussong Manufacturing Co., Inc. reserves the right to make changes at any time, without notice, in design, material, specifications and prices. Hussong Manufacturing Co., Inc. reserves the right to discontinue models and products.

To activate this Lifetime Warranty coverage, this registration card must be completed and mailed with your completed 10 Year Limited Warranty form within 30 days of installation to the following address:

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

September 2011

CUT ALONG DOTTED LINE

PURCHASER NAME: _____ **INSTALLATION DATE:** _____

ADDRESS: _____ **MODEL #:** _____

_____ **SERIAL #:** _____

TELEPHONE: _____

INSTALLER NAME: _____

ADDRESS: _____

_____

TELEPHONE: _____

KOZY HEAT FIREPLACES