SPRINGFIELD 36

INSTALLATION AND OPERATION MANUAL

Model #SFD-36 Direct Vent Gas Fireplace



English and French installation manuals are available through your local dealer. Visit our website www.kozyheat.com.

Les manuels d'installation en français et en anglais sont disponibles chez votre détaillant local. Visitez www.kozyheat.com.





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.

A 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.

A DANGER



HOT GLASS WILL CAUSE BURNS

DO NOT TOUCH GLASS UNTIL COOLED

NEVER ALLOW CHILDREN TO TOUCH GLASS

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

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

CONGRATULATIONS!

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

Jim Hussong
President

Dudley Hussong Board Chairman

Homeowner Reference Information

We recommend you record the following information:

Model Name:	Date purchased/installed:
Serial Number:	Location of fireplace:
Dealership Purchased from:	Dealer phone:
Notes:	

TABLE OF CONTENTS

НОИ	MEOWNER REFERENCE INFORMATION	3
TAB	LE OF CONTENTS	5
1.0	INTRODUCTION	7
1.1	Appliance Certification	7
1.2	California Proposition 65 Warning	7
1.3	Requirements for the Commonwealth of Massachusetts	7
2.0	SPECIFICATIONS	8
2.1	Heating Specifications	8
2.2	Electrical Specifications	8
	Appliance Dimensions	
2.4	Safety Barrier Dimensions	10
3.0	FRAMING	11
3.1	Installation Planning	11
3.2	Top Stand-off Brackets, Heat Shield, and Insulation	
	Adjustment	
	Nailing Flange Installation	
	Clearances to Combustibles	
	Rough Framing	
	Outdoor Covered Fireplace Installation	
	Heat Transfer Kit(s)	
	FACING AND FINISHING	
	Facing and Finishing Requirements	
	Optional Finishing Trim Kit (FTK): #SF36-FTK	
	Safety Barrier Installation	
	GAS LINE CONNECTION	
	Gas Conversion	
	Gas Line Installation	
6.0	TERMINATION LOCATIONS	28
	Vertical Vent Termination	
6.2	Minimum Vent Termination Clearances	29
	VENTING	
7.1	Approved Vent Systems	30
	Venting Requirements	
	Vent Restriction	
	Vent Heat Shield Assembly Installation	
	Vent Installation	
	Class A Chimney/Masonry Chimney Conversion	
	Coaxial to Co-Linear Chimney Conversion	
7.8	#800-1 Series Direct Vent Termination Kit(s)	41

0.U I	TREPLACE SETUP	42
8.1	Glass Frame Assembly	42
	Light Kit	
8.3	Bottom Frame Removal and Installation	42
	#SF36-500 Log Set Installation	
8.5	Control Board Removal and Installation	44
9.0 E	ELECTRICAL INFORMATION	45
9.1	Electrical Specifications	45
9.2	Wiring Requirements	45
10.0	OPERATING INSTRUCTIONS	46
10.1	Setup Komfort 8K1 Control Module	47
	Initialize the Komfort 8K1 Control System	
10.3	Automatic Safety Turn-off	47
10.4	Backup Battery Operation	47
	Control System 7 Day Time-out	
10.6	Komfort 8K1 Control System Ignition Sequence	47
	Additional Diagnostic Information	
10.8	Remote Control Operation	48
11.0	ADJUSTMENT	52
11.1	Pressure Testing	52
11.2	Burner Flame Adjustments	53
12.0	TROUBLESHOOTING	55
13.0	MAINTENANCE	58
13.1	Firebox	58
13.2	Fan	58
13.3	Vent System	58
13.4	Glass Assembly	58
13.5	Burner and Pilot System	59
14.0	REPLACEMENT PARTS LIST	60
ı ımı.	TED LIEETIME WARRANTY	61

1.1 Appliance Certification

Laboratory: PFS in Cottage Grove, Wisconsin Standards:

ANSI Z21.88-2017/CSA 2.33-2017, Vented Gas Fireplace Heaters CSA 2.17 2017, Gas-Fired Appliances for Use at High Altitudes

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

1.2 California Proposition 65 Warning

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

1.3 Requirements for the Commonwealth of Massachusetts

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

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

1.3.1 Installation of Carbon Monoxide Detectors

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

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

1.3.2 Approved Carbon Monoxide Detectors

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

1.3.3 Signage

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

1.3.4 Inspection

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

1.3.5 Exemptions

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

1.3.6 Manufacturer Requirements

1.3.6.1 Gas Equipment Venting System Provided

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

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

1.3.7 Gas Equipment Venting System NOT Provided

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

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

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

2.1 Heating Specifications

	Natural Gas	Propane
Maximum	35,000 Btu/h	35,000 Btu/h
Input Rating	(10.3 kW)	(10.3 kW)
Minimum	18,000 Btu/h	18,000 Btu/h
Input Rating	(5.3 kW)	(5.3 kW)
Manifold Pressure	3.5″WC	10″WC
(High)	(0.87 kPa)	(2.49 kPa)
Manifold Pressure	1"WC	2.7″WC
(Low)	(0.24 kPa)	(0.67 kPa)
Orifice Size (DMS)	#34	1.75mm

2.1.1 Altitude Adjustment

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

2.1.1.1 US Installations

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

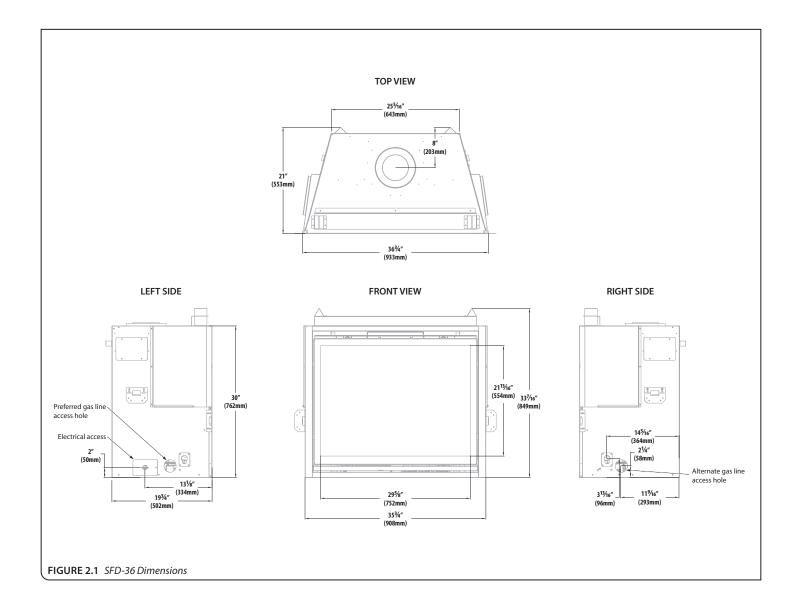
2.1.1.2 Canadian Installations

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

2.2 Electrical Specifications

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

2.3 Appliance Dimensions



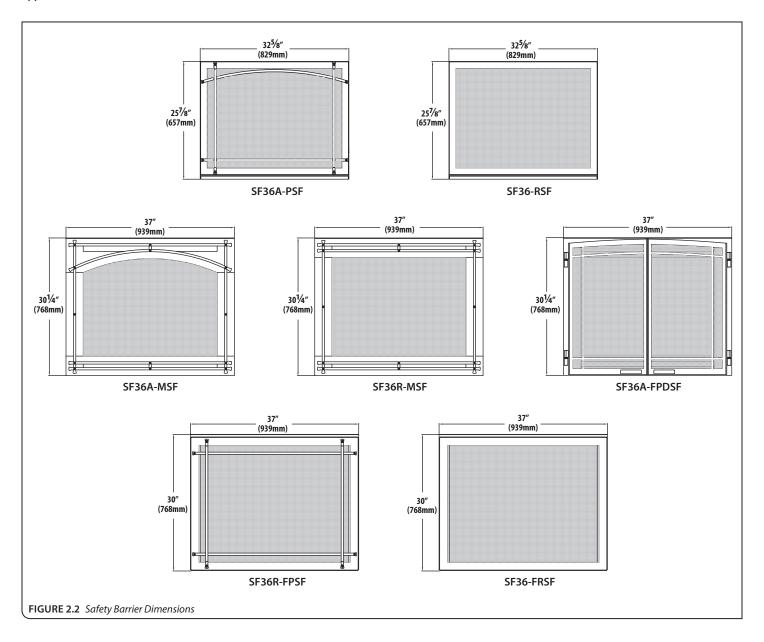
2.4 Safety Barrier Dimensions

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.

Please refer to section **4.3**, **SAFETY BARRIER INSTALLATION** on page 25 for installation and removal instructions.



3.0 FRAMING

SECTION 3 FRAMING
Installation Planning

3.1 Installation Planning

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

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

- Heat Transfer Kit(s) allows you to transfer heat to a specific area inside your home (interior) or directly outside (exterior). This appliance can have (2) heat transfer kits installed at the same time. It can be up to two of the same heat transfer kits, or a combination of interior and exterior kits. See the HTK-EXT and/ or HTK-INT manuals for further information.
 - If you are planning an installation with the use of an exterior and/or interior kit, the minimum dimensions listed in this section will apply for your framing installation.
 - If you are planning a corner installation with use of an exterior and/or interior kit, the requirements in section 3.7.2, HEAT TRANSFER KIT INSTALLATION REQUIREMENTS on page 21 must be followed.
- If planning to convert to propane, it is easier to complete the gas conversion before framing in the fireplace. See the #LCK-SF36-D manual for complete conversion instructions. If you convert the fireplace to propane after fireplace installation, you will have to remove the control board. See section 8.5, CONTROL BOARD REMOVAL AND INSTALLATION on page 44 for access to the control board before and after installation.

3.1.1 Appliance Placement Considerations

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

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

3.2 Top Stand-off Brackets, Heat Shield, and Insulation Adjustment

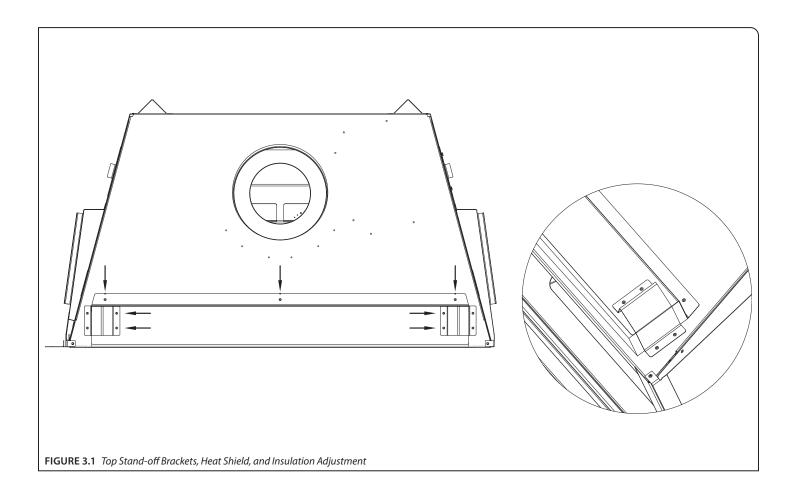
The top stand-off brackets, heat shield, and insulation piece provide the 3-1/2" (89mm) minimum clearance to header and must be installed.

The top stand-off brackets, heat shield, and insulation piece are shipped in the forward position to accommodate non-combustible facing material that would overlap the face of the fireplace.

You may adjust these components back from the fireplace face to allow the fireplace front to be flush with typical 1/2" (12mm) noncombustible facing material. Follow instructions below.

 Locate the (2) screws on each side securing the top standoff brackets to the heat shield, as shown below. Remove and save screws.

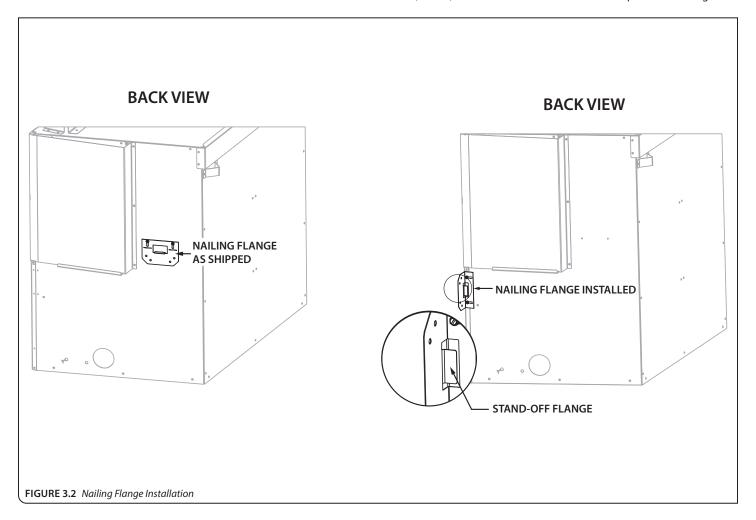
- 2. Locate the (3) screws on the flange of the top heat shield, as shown below. Remove and save screws.
- Align the heat shield with the holes on the top of the fireplace farther back from the front of the fireplace. Secure with screws previously removed.
- Align the holes in the stand-off brackets with the holes farther back on heat shield. Secure with screws previously removed.
- Insulation must be pushed tight against non-combustible facing material.



3.3 Nailing Flange Installation

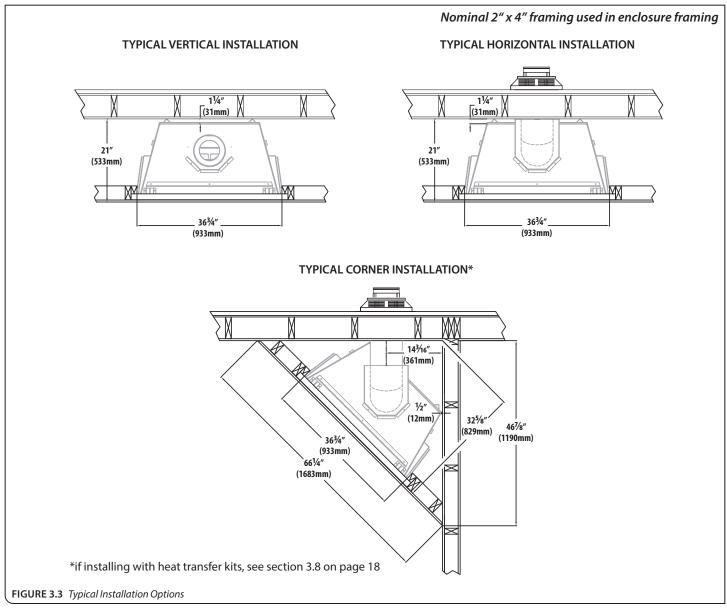
CAUTION: Never permanently remove these assemblies from the fireplace—they must be secured regardless of finish material used.

- Remove (2) nailing flanges from the right and left side of the fireplace.
- Align nailing flange with holes on outside corners of fireplace, with the stand-off flanges on the nailing flanges facing away from the fireplace.
- 3. Secure the nailing flanges to the fireplace with screws (provided) through the slots in nailing flanges.
- 4. Bend perforation on nailing flange until parallel with fireplace face. Do not bend toward fireplace face.
- UNTIL ALL FRAMING REQUIREMENTS ARE COMPLETED:
 Position framing stud against the small stand-off (located on backside of nailing flange). Secure with nails or screws.
- When installed, the nailing flanges provide the minimum 1/2" (13mm) clearance from the sides of the fireplace to framing.



3.4 Clearances to Combustibles

Table 3.1, Minimum Appliance Clearances to Combustible Material				
From appliance top stand-off brackets	0"	0mm		
From appliance left and right stand-off brackets	0"	0mm		
From appliance back stand-off brackets	0"	0mm		
From appliance corners	1/2"	12mm		
From appliance front	36"	914mm		
From appliance top to ceiling	29-1/4"	743mm		
A 45° projection from appliance sides	0"	0mm		
Appliance sides to an adjacent parallel sidewall	6"	152mm		
Fireplace enclosure floor to 3/4" (19mm) trim	35"	889mm		
Fireplace enclosure floor to combustible mantel 4" (102mm) deep	37"	940mm		
Appliance top to fireplace enclosure top	29-1/4"	743mm		



3.5 Rough Framing

3.5.1 Rough-in Wall Enclosure

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

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

- Floor protection in front of the fireplace is not required.
 Combustible material may be used if installing a hearth
 extension. Consider the thickness of the hearth extension
 finishing material if building a fireplace platform. The bottom
 of the fireplace must be level with finished hearth extension for
 proper fit of the safety barriers.
- The bottom of the fireplace must be placed directly on a wood or non-combustible surface (not linoleum or carpet). If this appliance is to be installed directly on carpeting, tile, or other combustible material other than wood flooring, this appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

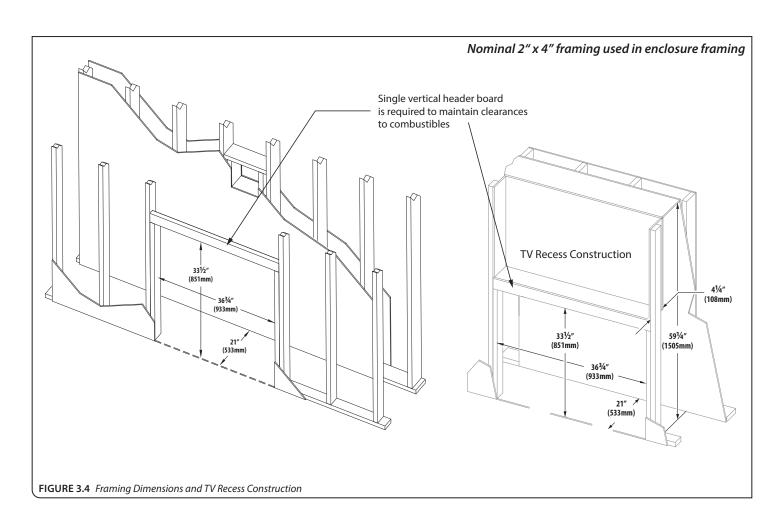
- This fireplace may be elevated off the floor, provided it is properly supported by framing materials and maintains ceiling clearances. If installed above floor level, a solid, continuous platform must be constructed below the fireplace.
- If masonry (optional) is to be used, prepare the foundation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

3.5.1.1 TV Recess Construction

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

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

Tests performed determined that television surface temperatures did not exceed 150° F (66° C) when a $4\frac{1}{4}$ " (108mm) deep recess is constructed above the fireplace.



3.5.2 Rough-in Vent Termination

3.5.3 Vent Termination Framing Requirements

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

Exterior vent termination location must be in compliance with section **6.2, MINIMUM VENT TERMINATION CLEARANCES** on page 29. DO NOT RECESS THE VENT CAP INTO WALL OR SIDING.

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

3.5.3.1 Clearances

- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained.
- A minimum of 1" (25mm) clearance from the top surface on the horizontal pipe must be maintained.
- A minimum of 1" (25mm) clearance on the sides and bottom surfaces on the horizontal pipe must be maintained.

3.5.3.2 Vertical Terminations

- Follow vent pipe manufacturer's installation instructions for vertical terminations.
- Attic insulation shields may be insulated using unfaced insulation products listed as non-combustible per ASTM E 136.

3.5.3.3 Horizontal Terminations

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

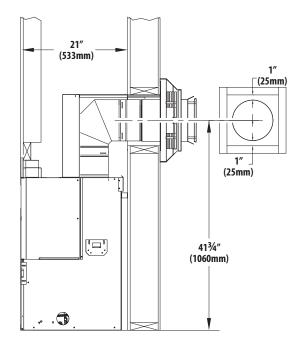
Kozy Heat's #800-WPT3, or wall thimble products that comply with the required 1" (25mm) clearance to combustibles must be installed for all horizontal vent (rigid or flexible) runs that pass through interior or exterior walls. These wall thimble products may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.

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

3.5.3.4 Wall Pass Through Framing

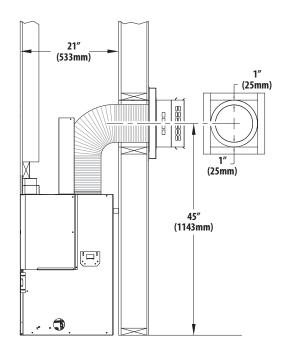
- Measure from floor level of the fireplace to the center of where the vent pipe will penetrate the wall. The dimensions in FIGURE 3.5 are used with a Simpson DuraVent elbow.
- 2. Cut and frame an opening in the wall to allow the vent system to run level through the wall pass-through.
- Follow the vent pipe manufacturer's installation instructions for natural draft vent installation.
- Rigid pipe dimensions in **FIGURE 3.5** reflect Simpson Duravent 5"x 8" coaxial pipe. Other manufacturers product dimensions may vary.
- Flexible pipe framing dimensions in FIGURE 3.5 reflect Kozy Heat #800 Series Flexible Vent System.

NATURAL GAS AND PROPANE MINIMUM HORIZONTAL TERMINATION FRAMING



Nominal 2" x 4" framing used in enclosure framing

NATURAL GAS AND PROPANE #800-1 MINIMUM HORIZONTAL TERMINATION FRAMING



REQUIRED WALL PASS THROUGH FRAMING FOR 1" (25MM) CLEARANCE (SHOWN WITH #800-WPT3)

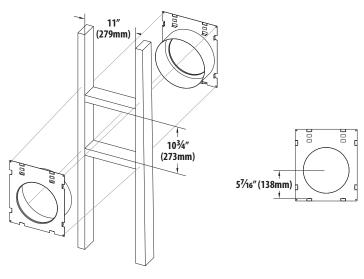


FIGURE 3.5 Vent Termination Framing Dimensions

3.6 Outdoor Covered Fireplace Installation

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

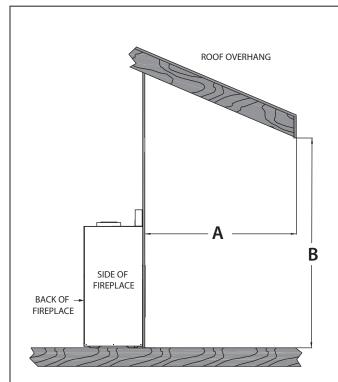
Follow the instructions and illustrations on this page and the following page for installation procedures.

3.6.1 Safety Screen Barriers

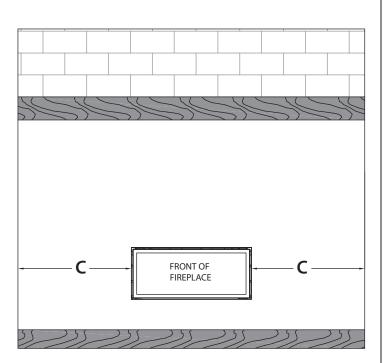
Hussong Mfg. Co., Inc. highly recommends to use black painted safety barriers in outdoor installations. Other screen barriers that incorporate a plated or patina finish are highly susceptible to oxidation and discoloration.

3.6.2 Requirements

- The continuous insulated building envelope and weatherproof membrane are not to be interrupted by fireplace installation. See FIGURE 3.7 on the following page.
- Fireplace operation is approved from 40°F to 110°F.
- All wiring connections shall be in accordance with outdoor requirements of NECA NFPA 70.
- All clearances and requirements in your appliance manual must be adhered to.



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

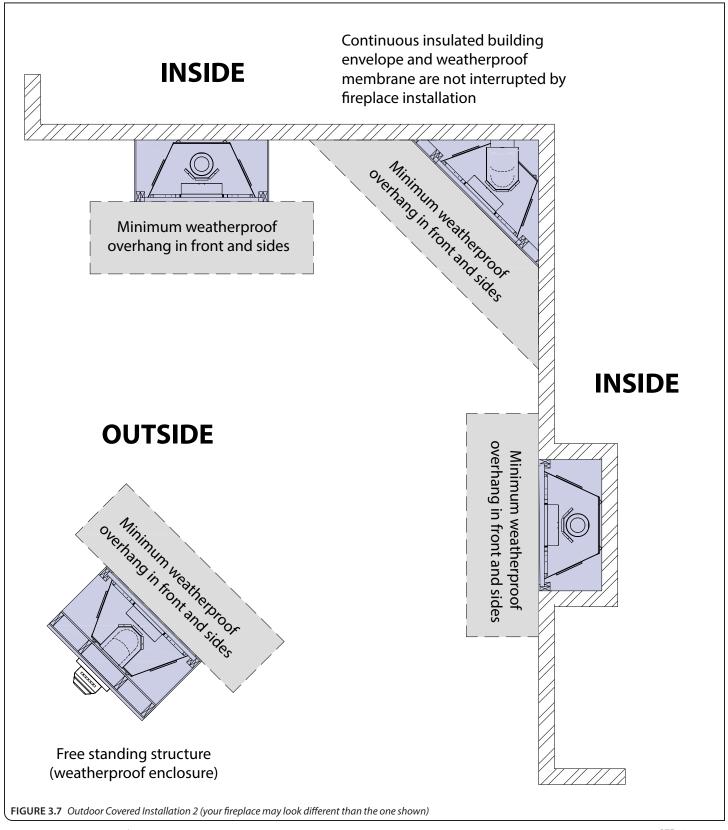


The width of the overhang to each side of the appliance (C) must be a minimum of 1/2 or greater of the roofline elevation (B) above the base of the fireplace.

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

FIGURE 3.6 Outdoor Covered Fireplace Install

3.6.3 Outdoor Covered Fireplace Installation (continued)

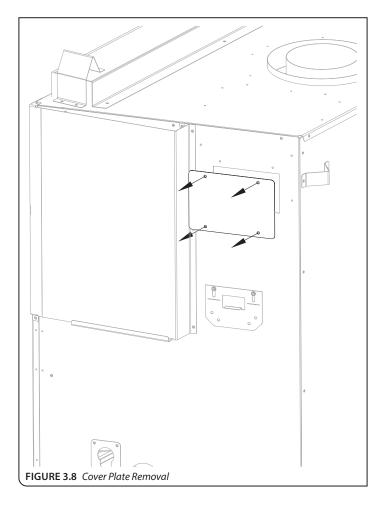


3.7 Heat Transfer Kit(s)

3.7.1 Exterior and Interior Heat Transfer Kit Cover Plate(s)

IMPORTANT: Only remove the cover plates that are required specifically for your application or installation.

FIGURE 3.8 shows removal of the Heat Transfer Kit cover plates. There are (2) square cover plates located on either side of the outer shell of the appliance. This appliance can have (2) Heat Transfer Kits installed at the same time. It can be up to two of the same heat transfer kit or a combination of interior and exterior kits.

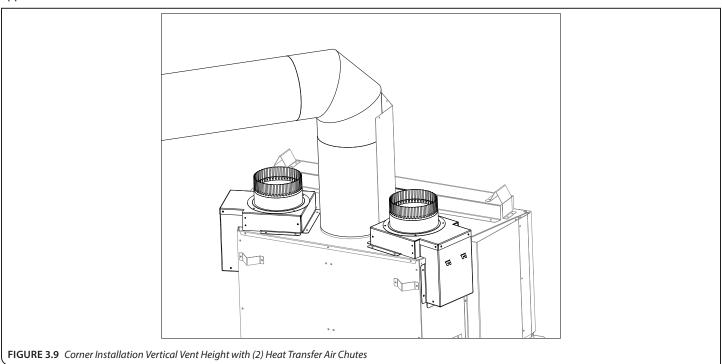


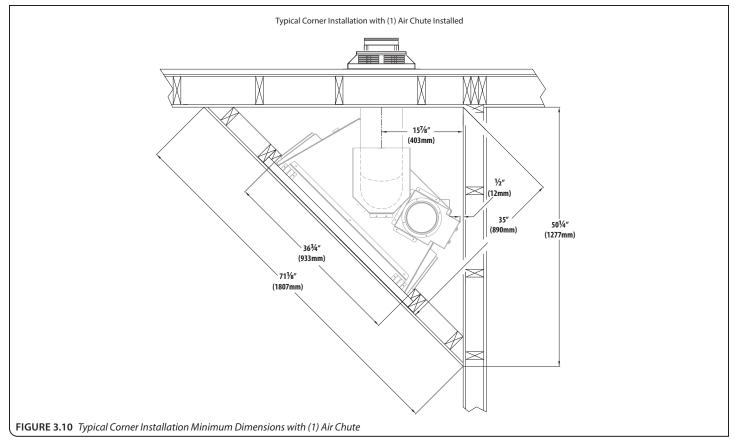
3.7.2 Heat Transfer Kit Installation Requirements

You will not be able to install at minimum horizontal venting if you are planning to install (2) heat transfer kits. The vertical vent height length must be increased. See **FIGURE 3.9**.

If using (1) heat transfer kit, the vent termination must be on the opposite side of the heat transfer kit air chute. See FIGURE 3.10.

Corner installations have different minimum requirements to allow space for the installation of the SFD-HTK air chute. See **FIGURE 3.10**.





4.0 FACING AND FINISHING

4.1 Facing and Finishing Requirements

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

4.1.1 Mantel Requirements

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

- Combustible Mantel Projections As referenced in FIGURE
 4.1, the 3/4" trim can start at 35" (889mm) above the base of the fireplace enclosure with a 4" (102mm) mantel starting at 37" (940mm) above the base of the fireplace enclosure. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at the 4" (102mm) mantel.
- Non-combustible Mantel Projections Minimum Vertical and Maximum Horizontal: A minimum vertical clearance of 6" (152mm) above the finishing edge to a maximum 6" (152mm) depth of a non-combustible mantel. Follow projection 1" (25mm) up for every 1" (25mm) deeper.

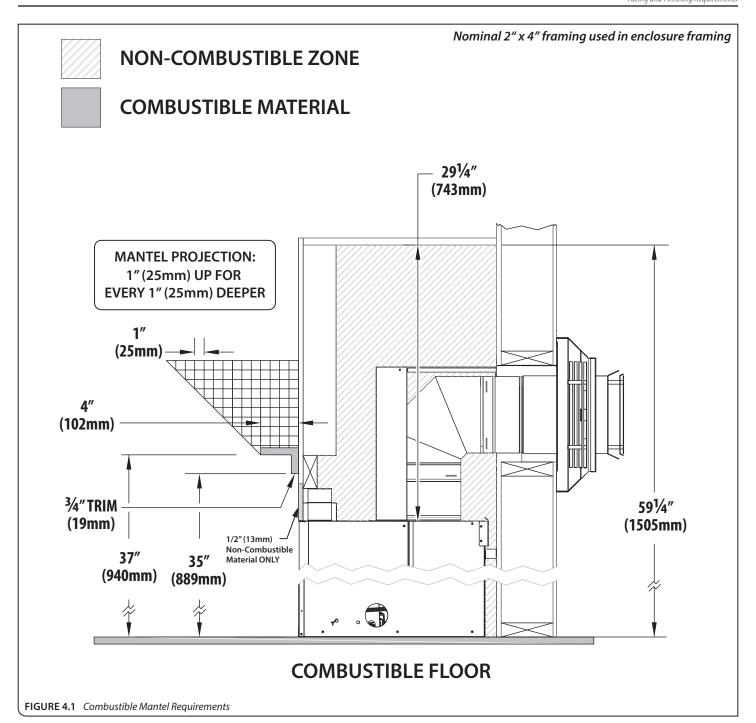
4.1.2 Adjacent Sidewall Requirements

- Minimum clearance from a 45° projection to appliance sides is 0" (0mm).
- Minimum clearance from a parallel adjacent sidewall to appliance sides is 6" (152mm).

4.1.3 Finishing Recommendations

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

- The front face of the unit to the insulation piece and top stand-off brackets will accommodate typical 1/2" (12mm) non-combustible facing material. The facing material will sit on top of the unit and be pushed back tight against the insulation underneath the top stand-off and heat shield, allowing the unit front to be flush with non-combustible facing material.
- For installation of the optional finishing trim kit, please see section 4.2, OPTIONAL FINISHING TRIM KIT (FTK): #SF36-FTK on page 24. The finishing trim kit must be installed before fireplace installation.
- Ensure the non-combustible material and sheetrock is dry and dust free.
- For taping and mudding seams, we recommend heat resilient tape, mesh and joint compounds, such as Durabond. Joint compound must be cured as per manufacturer's recommendations.
- For a painted surface, use a high quality acrylic latex primer and finish coat. Avoid flat or light-colored paints to prevent discoloring.



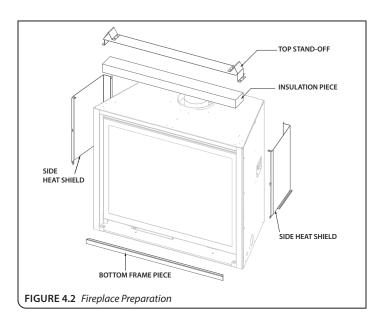
4.2 Optional Finishing Trim Kit (FTK): #SF36-FTK

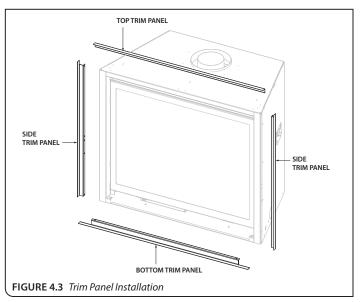
This optional finishing trim kit (included with the fireplace) provides a 3/4" (19mm) finished edge (black metal) to allow a 1/2" finish board and tile or stone to finish up against creating a shadow box for the safety front.

Use this when finishing around the fireplace with tile or stone. Do not use if you are finishing with 1/2" drywall or non-combustible only, as it will leave 1/4" exposed.

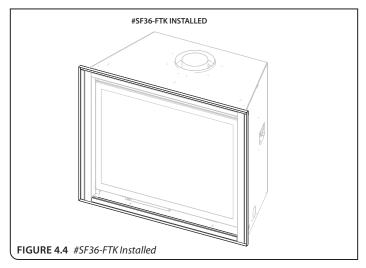
Do not use with safety barriers SF36A-PSF and SF36-RSF, inside mount safety barriers, where this is not necessary.

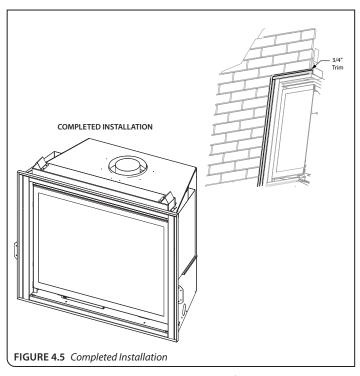
- If installed, remove and discard the existing bottom front frame portion.
- 2. Remove and save (7) screws securing the top stand-off heat shield and the insulation piece underneath it.





- 3. Remove left and right side heat shields (10) screws total.
- 4. If installed, remove the nailing flanges from the sides of the fireplace. Save screws.
- Install the bottom trim panel with the flange positioned as shown in FIGURE 4.3. Secure with (2) screws included in the fireplace components packet.
- 6. Install the top trim panel. Align the holes in the top trim panel with (4) corresponding holes on the fireplace top. Secure with (4) screws included in the fireplace components packet.
- Install side trim panels, utilizing the existing screws from the top and bottom sides of the fireplace. Install nailing flanges after trim panels, using screws previously removed. Use screws included in the components packet to complete side panel installation.
- 8. Reinstall the side heat shields (10) screws previously removed.
- Reinstall the insulation piece and top stand-off heat shield (7) screws previously removed.



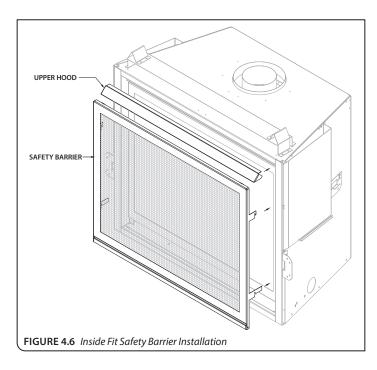


4.3 Safety Barrier Installation

4.3.1 Inside Fit Installation

For use with safety barriers #SF36A-PSF and #SF36-RSF.

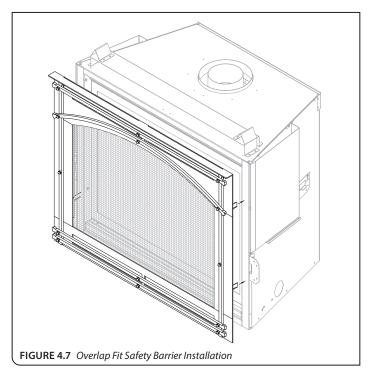
- 1. Insert upper hood flange into clips located at the top of the upper air passage. Note: this will be a fairly tight fit.
- Install the bottom frame piece. Align the hooks on the bottom frame piece to the corresponding holes in the inside flange on each side of the firebox floor. The bottom frame piece is shipped with the unit and must be installed for safety barriers without an adjustable louver.
- Center the screen front over the glass frame assembly, allowing the screen front's mounting brackets to fit inside the air openings.
- 4. Align the notched tabs (located on the back) with the slots in the fireplace. Raise slightly and push back to desired position.
- 5. Lower the screen front until the notched tabs are firmly in position, verifying the depth accommodates finish material.
- To remove safety screen: lift the screen up and out of slots.



4.3.2 Overlap Fit Installation

For use with safety barriers #SF36A-MSF and #SF36R-MSF.

- Center the screen front over the glass frame assembly, allowing the screen front's mounting brackets to fit inside the air openings.
- 2. Install the bottom frame piece. Align the hooks on the bottom frame piece to the corresponding holes in the inside flange on each side of the firebox floor. The bottom frame piece is shipped with the unit and must be installed for safety barriers without an adjustable louver.
- 3. Align the notched tabs (located on the back) with the slots in the fireplace. Raise slightly and push back to desired position.
- Lower the screen front until the notched tabs are firmly in position, verifying the depth accommodates finish material.
- To remove safety screen: lift the screen up and out of slots.



4.3.3 Overlap Fit - Hanging Installation with Adjustable Louvers (Open Bracket)

For use with safety barriers # SF36-FRSF, #SF36R-FPSF and #SF36A-FPDSF.

The listed safety barriers are now equipped with the louver built into the safety screen face. The hanging brackets located on the back of screen front are equipped with (2) notched brackets to allow the louver to be adjusted to accommodate facing material thickness. The safety barrier is shipped with the louver in the first notch position.

To adjust louver position:

- Locate the (2) louver brackets at the bottom of the safety screen.
 One of the louvers bracket end is open at the top to allow removal and adjustment of the louver depending on the safety barrier position for installation and facing material thickness.
- 2. Slide the louver up and out on the open bracket end and pull it out of the closed bracket end.
- Adjust the louver to the desired notch in order to accommodate facing material and to cover the control compartment as you see fit.
 - NOTE: The position of the louver should match with the desired position of the notched tabs needed for your installation. The louver in the first notch position will match with the first notch position in the notched tabs, the louver in the second notch position will match the second notch in the notched tabs, etc.
- Reinstall the louver into the closed bracket first, then slide the other end into the open bracket
- Install safety barrier. Center the screen front over the glass frame assembly, allowing the hanging brackets to fit inside the air openings.
- 6. Align the notched tabs with the slots in the fireplace. Raise slightly and push back to desired position.
- 7. Lower the screen front until the notched tabs are firmly in position. Verify the depth of accommodates finish material, and the notched tabs position matches the louver notch position.
- 8. To remove safety screen: lift the screen up and out of slots.









FIGURE 4.8 Adjustable Louver for SF36-FRSF, R-FPSF, and A-FPDSF.

5.0 GAS LINE CONNECTION

5.1 Gas Conversion

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

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

5.2 Gas Line Installation

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

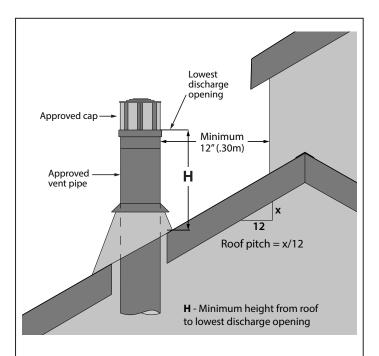
NOTE: The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at pressures in excess of ½ psi (3.5 kPa). For test pressures equal to or less than ½ psi (3.5 kPa), the appliance must be isolated from the gas supply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

- A listed (and Commonwealth of Massachusetts approved)
 ½" (13mm) tee handle manual shut-off valve and flexible gas connector are to be connected to the ½" (13mm) control valve inlet. If substituting for these components, please consult local codes for compliance.
- This fireplace is equipped with a 3/8" (10mm) x 18" (457mm) long flexible gas connector and manual shut-off valve.
- Run gas line into fireplace into the access hole provided. Refer
 to FIGURE 2.1, SFD-36 DIMENSIONS on page 9. 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 5.1, Inlet Gas Supply Pressures				
Fuel Minimum Pressure Maximum Pressure				
Natural Gas	5"WC (1.25 kPa)	10" WC (2.49 kPa)		
Propane 12"WC (2.99 kPa) 13"WC (3.24 kPa)				

6.1 Vertical Vent Termination

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

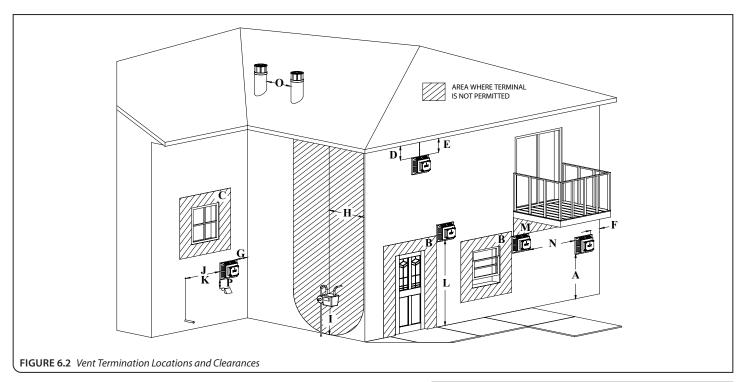


	Minimum height (H) from roof		
Roof Pitch	Feet	Meters	
Flat to 6/12	1.0	0.30	
Over 6/12 to 7/12	1.25	0.38	
Over 7/12 to 8/12	1.5	0.46	
Over 8/12 to 9/12	2.0	0.61	
Over 9/12 to 10/12	2.5	0.76	
Over 10/12 to 11/12	3.25	0.99	
Over 11/12 to 12/12	4.0	1.22	
Over 12/12 to 14/12	5.0	1.52	
Over 14/12 to 16/12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

FIGURE 6.1 Vertical Vent Cap Clearance

28

6.2 Minimum Vent Termination Clearances



		Canadian installations	US installations
Α	Clearance above grade, veranda, porch, deck, or balcony	12" (30cm)	12" (30cm)
В	Clearance to window or door that may be opened	12" (30cm)	9" (23cm)
С	Clearance to permanently closed window (recommended to prevent condensation on window)	12" (30cm)*	12" (30cm)*
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the edge of the terminal	24" (61cm)*	24" (61cm)*
E	Clearance to unventilated soffit	12" (30cm)*	12" (30cm)*
F	Clearance to outside corner	0" (0cm)*	0" (0cm)*
G	Clearance to inside corner	12" (30cm)*	12" (30cm)
Н	Clearance to each side of center line extended above meter/regulator assembly	3' (91cm) within a height 15' (4.5m) above the meter/ regulator assembly	*
1	Clearance to service regulator vent outlet	3'(91cm)	*
J	Clearance to non mechanical air supply inlet to building or the combustion air inlet to any other appliance	12" (30cm)	9" (23cm)
K	Clearance to mechanical air supply inlet	6′(1.83m)	3' (91cm) above if within 10' (3m) horizontally Massachusetts: 10' (3m)
L	Clearance above paved sidewalk or paved driveway located on public property	7' (2.13m)†	*
M	Clearance under veranda, porch deck, or balcony	12" (30cm)‡	12" (30cm)
N	Clearance between two horizontal terminations	12" (30cm)	12" (30cm)
0	Clearance between two vertical terminations (may be same height)	12" (30cm)	12" (30cm)
Р	Above furnace exhaust or inlet	12"(30cm)	12" (30cm)

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

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

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

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

7.1 Approved Vent Systems

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

This appliance is approved for use with Kozy Heat 5" (127mm) x 8" (203mm) #800 Series Flexible Direct Vent System (horizontal terminations only). Refer to Section **7.8** on page 41 for venting components and installation instructions.

Vertical 5" x 8" co-axial flexible vent pipe with vertical terminations are not approved for use with this fireplace.

Other approved vent manufacturers (horizontal and vertical terminations): American Metal Products (Ameri-Vent), BDM, ICC, Metal Fab*, Olympia Chimney Supply, Inc., Selkirk, and Simpson DuraVent.

***WHEN INSTALLING METAL FAB VENT SYSTEM** with this appliance an adapter must be used. Use adapter part number 5DDA.

The following 5" x 8" termination caps are not allowed: BDM 940285 Round and 94040836 Snorkel; Simpson DuraVent 58DVA-H2, 58DVA-H2-SNK14, 58DVA-H2-SNK36

This appliance may be reduced from a 5"x 8" to a 4"x 6-5/8" vent system using a vent reducer. See Section **7.5.2** on page 36.

The following 4" x 6-5/8" termination caps are not allowed: Simpson DuraVent 46DVA-H2, 46DVA-H2-SNK14, 46DVA-H2-SNK36

This appliance can be adapted to use 4" diameter aluminum flexible pipe with a 4" x 6-5/8" reducer when used in combination with an existing minimum 7" ID Class A metal chimney. See **7.6** on page 39.

This appliance can be adapted to use $3" \times 3"$ flexible co-linear vent pipes with a $4" \times 6-5/8"$ reducer when used in combination with an existing minimum $6" \times 8"$ ID masonry or 7" ID Class A metal chimney. See Section **7.7** on page 40.

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

7.2 Venting Requirements

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

IMPORTANT: The vertical vent heat shield must be installed for all venting applications and figurations. The horizontal heat shield must be installed for minimum horizontal venting. See section 7.4 on page 32.

- Flame height and appearance will vary depending upon venting configuration and the type of fuel used.
- Provide a means for visually checking the vent connection to the appliance after the fireplace is installed.
- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe (for both 5" x 8" and 4" x 6-5/8" installations) must be maintained. Attic insulation shields may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.
- A minimum of 1" (25mm) clearance on all sides of the horizontal vent pipe at the wall pass-through must be maintained (for both 5" x 8" and 4" x 6-5/8" installations). Wall thimble products that comply with the required 1" (25mm) clearance to combustibles must be installed for all horizontal vent runs that pass through interior or exterior walls. These wall thimble products may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136. If using 4" x 6-5/8" reducer, follow vent pipe manufacturer's wall thimble installation instructions.

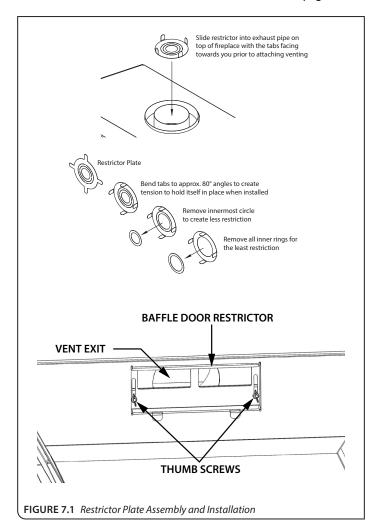
7.3 Vent Restriction

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

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

Follow FIGURE 7.1 for restrictor plate installation before attaching venting, or through the baffle restrictor if venting is already attached. If you are adjusting the baffle restrictor, loosen the (2) thumb screws to adjust the setting to achieve desired flame appearance.

For vent restriction recommendations and adjustments, see section 11.2.2, VENT RESTRICTION (AFTER INSTALLATION) on page 54.



7.4 Vent Heat Shield Assembly Installation

IMPORTANT: The vertical vent heat shield MUST be installed for every venting installation. The horizontal vent heat shield must be installed when using minimum horizontal venting.

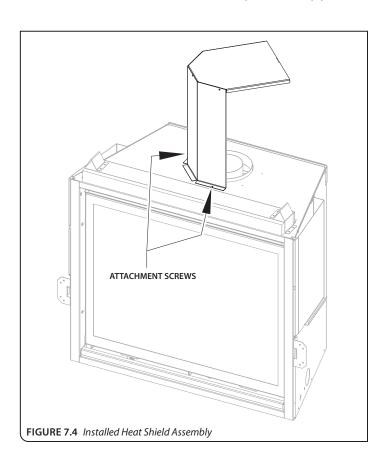
NOTE: There are (6) screw holes located in front of the flue outlet to offset the vent heat shield assembly in front of the vent pipe. Align the heat shield as necessary for your venting installation.

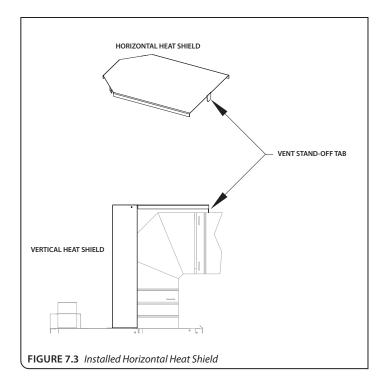
7.4.1 Vertical Vent Heat Shield Installation

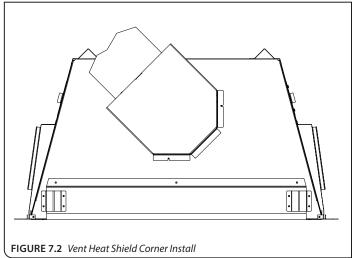
- Position the vertical vent heat shield in front of the vent pipe, with the flanges facing towards the fireplace face as necessary for the type of installation.
- 2. Align the (2) slots on the vertical heat shield flanges with corresponding screw holes located in front of the flue outlet on the top of the fireplace.
- 3. Secure the vertical vent heat shield to the fireplace with (2) attachment screws (provided in the components package).

7.4.2 Minimum Horizontal Venting

- Bend perforation on the (3) hand-tabs down on the horizontal vent heat shield.
- 2. Locate (3) screw holes on the vertical vent heat shield.
- Align the (3) slots on horizontal vent heat shield tabs to the corresponding (3) screws holes on the vertical vent heat shield.
- Attach the horizontal vent heat shield with screws (provided) through the screw holes on the vertical vent heat shield. The 1" (25mm) vent stand-off tab will rest on top of the vent pipe.







7.5 Vent Installation

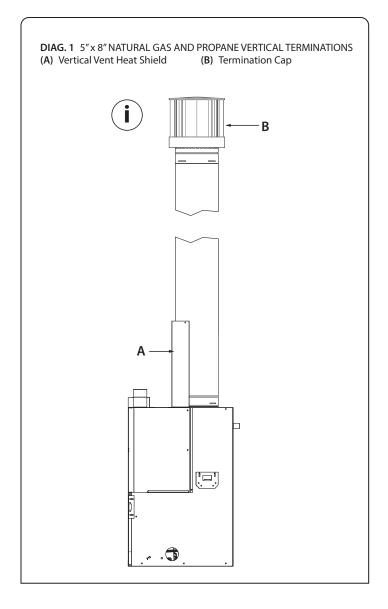
7.5.1 5" x 8" Venting

IMPORTANT: The vertical vent heat shield must be installed for all venting installations. Refer to Section 7.4 on page 32.

IMPORTANT: Horizontal vent sections require $\frac{1}{4}$ " (6mm) rise for every 12" (305mm) of travel.

7.5.1.1 5" x 8" Vertical Terminations

(i) Minimum / Maximum Vertical Terminations: 3' (914mm) minimum vertical length / 50' (15.24m) maximum vertical length + termination cap



7.5.1.2 Natural Gas and Propane

5" x 8" Combination Venting

IMPORTANT: The vertical vent heat shield must be installed for all venting installations. The vent heat shield assembly must be installed when installing minimum vertical rise combination venting. Refer to Section 7.4 on page 32.

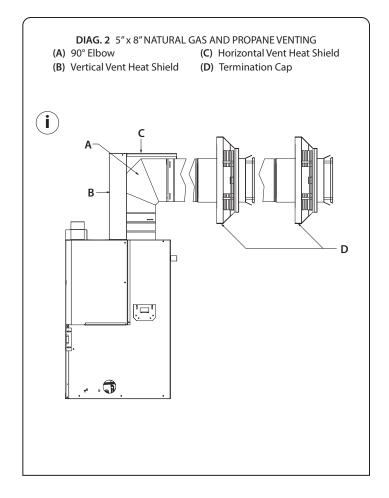
IMPORTANT: Horizontal vent sections require $\frac{1}{4}$ " (6mm) rise for every 12" (305mm) of travel.

(i) Minimum 6" Vertical Rise / Minimum / Maximum Horizontal Termination

6'' (152mm) minimum vertical rise + 90° elbow + 6'' (152mm) minimum horizontal run / 24" (610mm) maximum horizontal run + termination cap

Minimum 12" Vertical Rise / Maximum Horizontal Termination 12" (305mm) minimum vertical rise + 90° elbow + 10' (3m) maximum horizontal run + termination cap

Minimum 24" Vertical Rise / Maximum Horizontal Termination 24" (610mm) minimum vertical rise + 90° elbow + 16' (4.8m) maximum horizontal run + termination cap

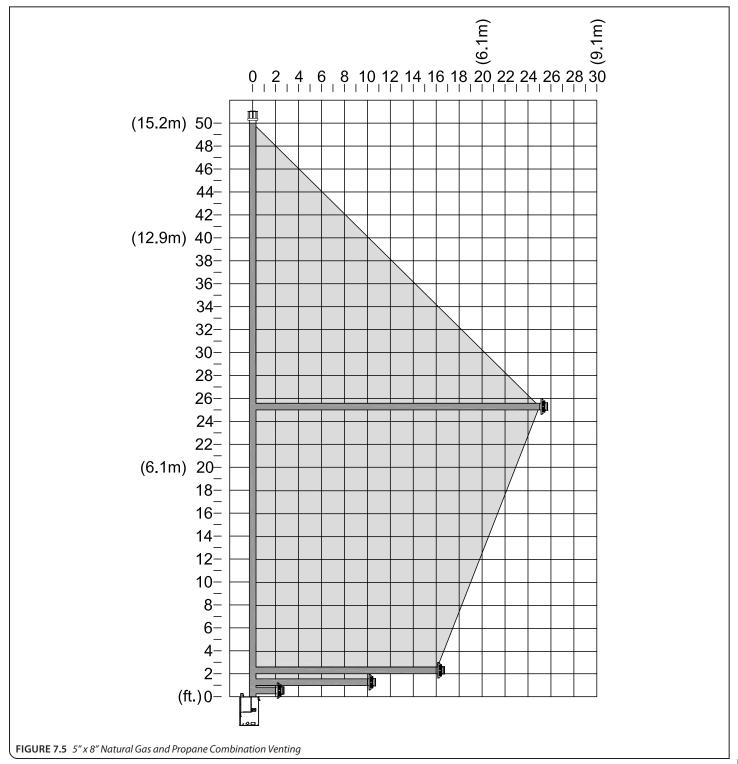


7.5.1.3 Natural Gas and Propane 5" x 8" Maximum Combination Venting

For maximum vertical and maximum horizontal combination venting, the vent terminations must be within the shaded area in FIGURE 7.5.

- 25' (7.6m) maximum vertical rise + 25' (7.6m) maximum horizontal run = 50' (15.2m) of total length
- Maximum of (5) 90° elbows.

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



7.5.2 4" x 6-5/8" Reducer Venting

IMPORTANT: The vertical vent heat shield must be installed for all venting installations. Refer to Section 7.4 on page 32.

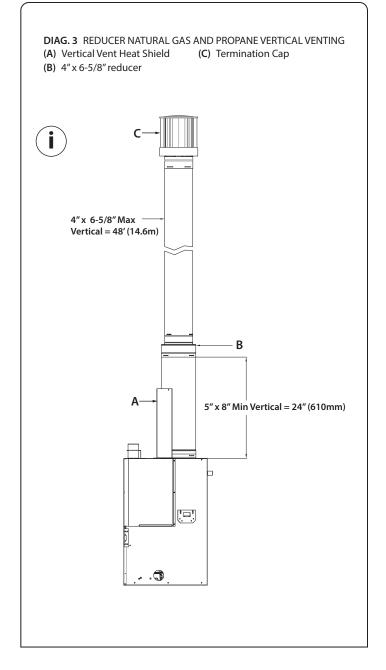
IMPORTANT: Horizontal vent sections require 1/4" (6mm) rise for every 12" (305mm) of travel.

Flexible pipe may be used for approved venting configurations by vent manufacturers listed in section 7.1, APPROVED VENT SYSTEMS on page 30.

7.5.2.1 4" x 6-5/8" Vertical Terminations

+ termination cap

(i) Minimum / Maximum Vertical Terminations 24" (610mm) minimum vertical length of 5" x 8" pipe + 4" x 6-5/8" reducer + 48' (14.6m) maximum vertical length of 4" x 6-5/8" pipe



7.5.2.2 4" x 6-5/8" Combination Venting

The vertical vent heat shield must be installed for all venting installations. Refer to Section 7.4 on page 32.

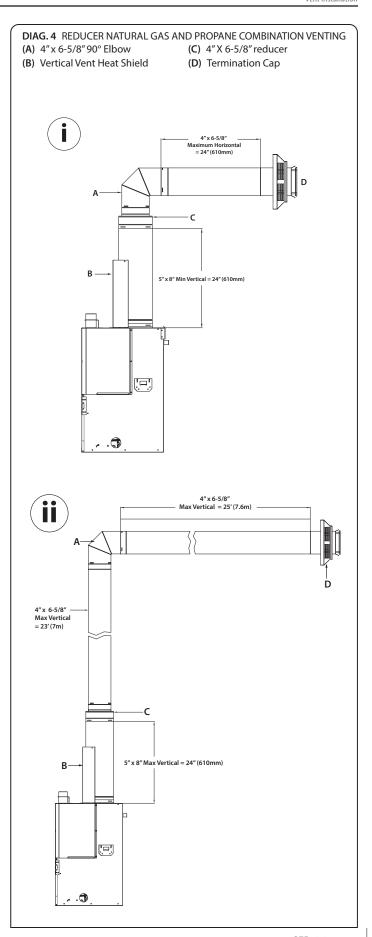
IMPORTANT: Horizontal vent sections require $\frac{1}{4}$ " (6mm) rise for every 12" (305mm) of travel.

- (i) Minimum Vertical and Maximum Horizontal Venting:

 24" (610mm) min 5" x 8" vertical length + 4" x 6-5/8" reducer +

 90° elbow for 4" x 6-5/8" pipe + 24" (610mm) max 4" x 6-5/8"
 horizontal length + termination cap
- (ii) Maximum Vertical and Maximum Horizontal Venting:

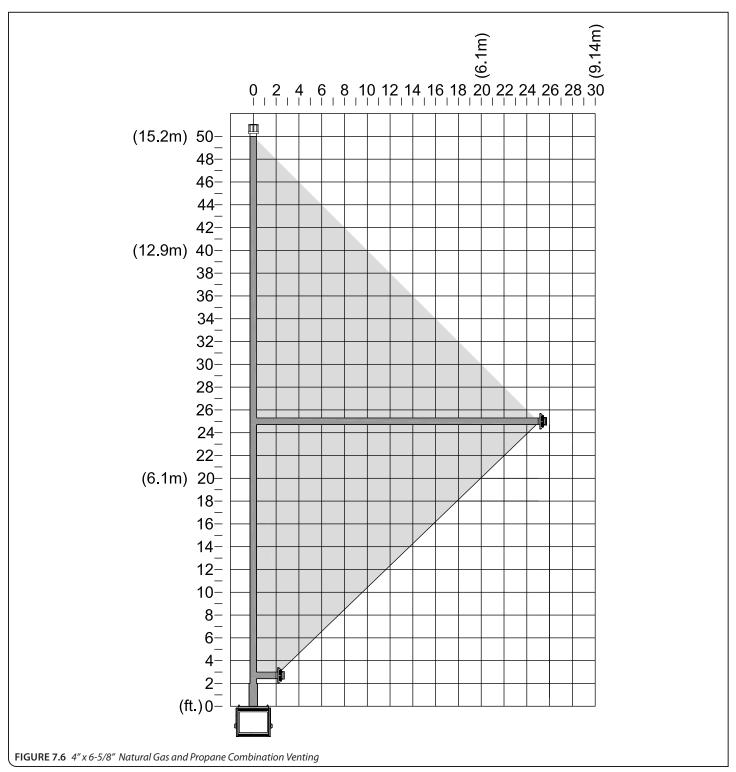
 24" (610mm) min 5" x 8" vertical length + 4" x 6-5/8" reducer
 + 23' (7m) max 4" x 6-5/8" vertical length _ 90° elbow for 4" x
 6-5/8" pipe + 25' (7,6mm) max 4" x 6-5/8" horizontal length +
 termination cap



7.5.2.3 Natural Gas and Propane 4" x 6-5/8" Maximum Combination Venting

For maximum vertical and maximum horizontal combination venting, the vent terminations must be within the shaded area in FIGURE 7.6.

- 24" (610mm) min 5" x 8" vertical length + 4" x 6-5/8" reducer + 23' (7m) max 4" x 6-5/8" vertical length + 90° elbow for 4" x 6-5/8" pipe + 25' (7.6m) max 4" x 6-5/8" horizontal length + termination cap
- Maximum of (5) 90° elbows.
- For each additional 90° elbow used after the first elbow, 3'
 (914mm) must be subtracted from maximum venting allowed.
- For each 45° elbow used, 18" (457mm) must be subtracted from maximum venting allowed.
- (2) 45° degree elbows may be used in place of (1) 90° elbow.



7.6 Class A Chimney/Masonry Chimney Conversion

This appliance is approved to be adapted to utilize conversion kits for factory-built Class A metal chimneys and masonry chimneys.

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

Follow **DIAG. 5** for allowable venting configurations for installation in existing through-the-ceiling, Class A chimney or masonry chimney. Route the exhaust gases and intake air through the existing Class A chimney/masonry chimney.

7.6.1 4" Flex Pipe Venting Configurations

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

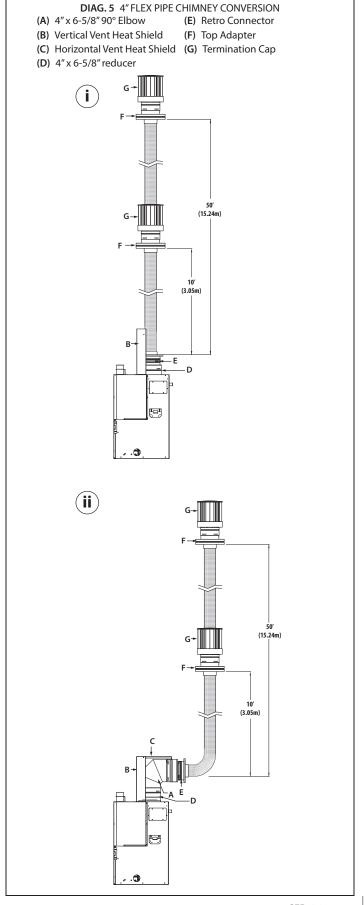
IMPORTANT: The vent heat shield assembly must be installed when incorporating minimum horizontal venting off the top of the appliance.

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

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

- (i) Minimum / Maximum Vertical Terminations:

 4" x 6-5/8" reducer + Retro Connector + 10' (3.05m) minimum length of 4" aluminum flexible pipe / 50' (15.24m) maximum length of 4" aluminum flexible pipe + top adapter + termination
- (ii) Minimum / Maximum with Rigid Pipe Vertical Terminations: 4" x 6-5/8" reducer + 90° elbow for 4" x 6-5/8" pipe + Retro Connector + 10' (3.05m) minimum length of 4" aluminum flexible pipe / 50' (15.24m) maximum length of 4" aluminum flexible pipe + top adapter + termination cap



7.7 Coaxial to Co-Linear Chimney Conversion

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

Follow DIAG. 6 for allowable venting configurations for installation in existing masonry chimney. Route the exhaust gases and intake air through the existing masonry chimney.

7.7.1 Coaxial to Co-Linear Venting Configurations

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

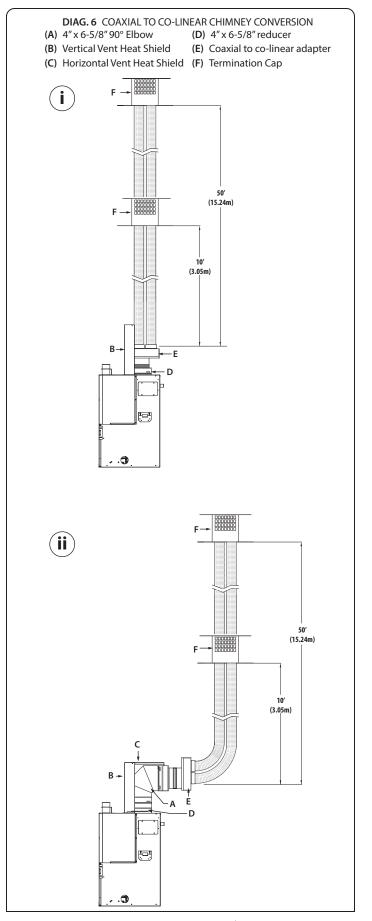
IMPORTANT: The vent heat shield assembly must be installed when incorporating minimum horizontal venting off the top of the appliance.

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

Vent option listed below (i,ii) allows for a minimum of 0" (0mm) to a maximum of 24" (610mm) horizontal run using riqid or flexible pipe.

- (i) Minimum / Maximum Vertical Terminations:

 4" x 6-5/8" reducer + coaxial to co-linear adapter + 10' (3.05m) minimum length of 3" x 3" aluminum flexible pipe / 50' (15.24m) maximum length of 3" x 3" aluminum flexible pipe + termination
- (ii) Minimum / Maximum with Rigid Pipe Vertical Terminations: 4" x 6-5/8" reducer + 90° elbow for 4" x 6-5/8" pipe + coaxial to colinear adapter + 10' (3.05m) minimum length of 3" x 3" aluminum flexible pipe / 50' (15.24m) maximum length of 3" x 3" aluminum flexible pipe + termination cap



7.8 #800-1 Series Direct Vent Termination Kit(s)

IMPORTANT: The vertical vent heat shield included with this fireplace must be installed. Refer to Section 7.4 on page 32.

IMPORTANT: The flex pipe is permanently attached to the exterior plate. DO NOT ATTACH either #844-1 or #845-1 termination kit to fireplace (or extension kit) until it has passed through the wall. Install termination plates to the outside wall exterior.

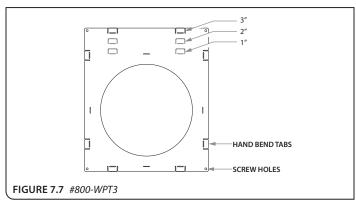
IMPORTANT: Care should be taken when installing the flexible vent pipe to avoid a tight bend that may cause abrasion or damage to the flexible pipe.

- The minimum bend radius to center is 6" (152mm) required for installation of the flexible vent pipe.
- If terminating against vinyl siding, a vinyl siding protector must be used (included with the #844-1 and #845-1 direct vent kits).
 Follow instructions included.
- Each #846-1 extension kit contains enough 5" & 8" flexible aluminum pipe to extend chimney an additional 6'(1.83m)

7.8.1 #800-WPT3 Installation Instructions

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

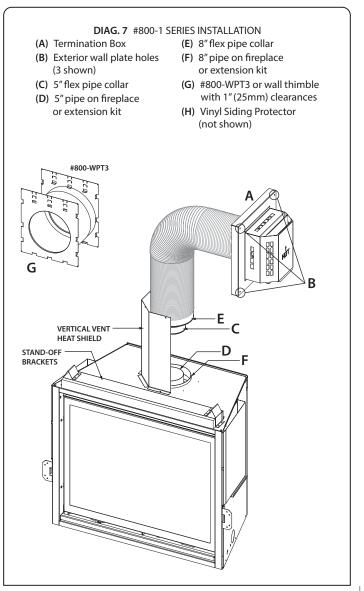
- 1. Hand bend the (2) tabs on the top of the wall pass through at the 1" (25mm) top required clearance. Hand bend the (6) tabs on the sides and bottom of the wall pass through. Repeat for the other section.
- 2. From the interior, install one section of the wall pass through. Secure with (4) screws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



7.8.2 Vent Assembly and Installation

 Mount the required #800-WPT3 (G), or a wall thimble that complies with the required 1" (25mm) top, bottom, and side clearances to the exterior wall, and seal. (OPTIONAL) insulate the wall-pass through with any unfaced insulation products listed as non-combustible per ASTM E 136.

- 2. Apply a liberal bead of exterior sealant around outer edge of termination box (A), placing assembly through the wall-pass through in exterior wall. Place screws through the four holes (B), securing it in place.
- Form the 5" & 8" flexible aluminum pipes on termination kit (#844-1 or #845-1), and if applicable, on each extension kit.
- 4. Gently pull 5" & 8" pipes down to the top of the fireplace, or if applicable, the extension kit. DO NOT stretch extension kit beyond 6' (1.83m); DO NOT stretch beyond what is required. It is very difficult to decompress flex pipes once stretched.
- Place a bead of sealant outside 5" flex pipe collar (C) (end with EXTERNAL LIP) and sliding it into 5" pipe on extension kit or top of fireplace (D). Secure with 3 evenly spaced screws.
- Place a bead of sealant inside 8" flex pipe collar (E) (end with the INTERNAL lip), sliding it over 8" pipe on top of fireplace (F). Secure with 3 evenly spaced screws.
- 7. If additional extension kits are required, repeat Steps 4 and 5, placing 5" & 8" pipes onto previous extension kit.



8.1 Glass Frame Assembly

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

8.1.1 Remove Glass Frame Assembly

WARNING: Do not remove the glass assembly when hot.

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

8.1.2 Install Glass Frame Assembly

- Align the slots on top of the glass assembly over the tabs at the top of the firebox while lowering the bottom of the assembly into position.
- 2. Pull the spring-loaded latches out and up to secure assembly bottom of the fireplace.
- 3. Reinstall safety barrier.

8.2 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.

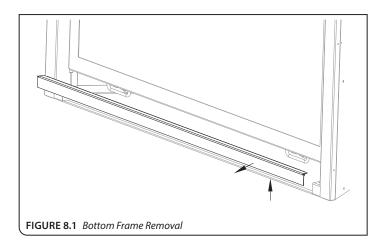
8.2.1 Install Light Kit

- 1. Remove the safety barrier and glass frame assembly.
- 2. Remove log set (if installed).
- 3. Remove the pilot shield.
- 4. Remove the burner assembly (2) screws.
- 5. Remove the burner heat shield (2) screws.
- Install (4) halogen bulbs (included in component packet) into lamp bases.
- Reinstall the burner heat shield, burner assembly, and pilot shield.
- Place the crushed glass media (included with the fireplace) into the cavity in front of the burner.
- 9. Randomly place lava rock on top of glass media.
- 10. Reinstall log set, glass frame assembly, and safety barrier.

8.3 Bottom Frame Removal and Installation

To access the control module housing, the bottom frame will need to removed. It must be reinstalled after servicing to maintain clearances .

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



8.4 #SF36-500 Log Set Installation

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

- If converting to propane, complete the conversion before installing the log set. Follow the conversion instructions included with the kit.
- Log numbers are located on the bottom of each log. Refer to the following instructions and illustrations for proper log placement.
- 1. Position the ember panel in front of the burner assembly.
- 2. Position the holes in the bottom of log SF36-1 onto the (2) mounting pins at the back of the burner assembly.
- 3. Position the holes in the bottom of SF36-2 and SF36-3 onto the

- corresponding mounting pins on the burner.
- Position the hole in the bottom of log SF36-4 onto the corresponding mounting pin on the burner.
- 5. Position the holes in the bottom of log SF36-5 onto the corresponding (2) mounting pins on the burner.
- 6. Position log SF36-6 as shown. Position SF36-6 with the notch in SF36-2, and align the hole on the bottom with the pin on the left of SF36-1. Set log SF36-6 into position.
- 7. Position log SF36-8 as shown. Position SF36-8 with the notch in SF36-3, and align the hole on the bottom with the pin on the right of SF36-1. Set log SF36-8 into position.
- 8. Position logs SF36-9, SF36-7, and SF36-10 as shown.
- Use a steel or stiff bristle nylon brush to distribute rock wool embers onto logs and burner.





8.5 Control Board Removal and Installation

WARNING: Avoid burns or personal property damage by using appropriate protection to remove any components if the burner and/or pilot have been burning.

WARNING: DO NOT operate this appliance without the sealing gasket (located under the control board) in place. If the sealing gasket is damaged, it must be replaced.

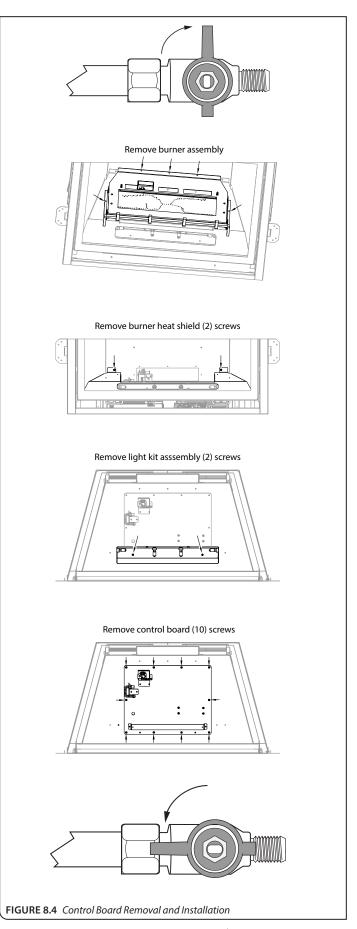
CAUTION: Check all connections for leaks with soapy water, whether field or factory made.

8.5.1 Control Board Removal

- 1. Disconnect electrical power.
- Locate the manual valve installed by your qualified service technician. Turn the manual valve clockwise to the OFF position.
- 3. Remove the safety barrier and glass frame assembly.
- 4. Remove logs.
- 5. Remove pilot shield
- Remove the burner assembly. There are (2) screws located on the left and right side, and (3) screws located at the back of the firebox. Release the burner tube venturi off of the burner orifice and remove from firebox.
- 7. Remove the burner heat shield. There are (2) screws located at the back firebox wall.
- 8. Remove light kit assembly (2) screws.
- Remove and save (10) screws securing control board to firebox floor.
- 10. Lift the control board out of the firebox, being careful not to damage the sealing gasket underneath.

8.5.2 Control Board Installation

- Place the control board in the firebox, aligning the holes in control board with the holes and alignment screws in firebox bottom. VERIFY SEALING GASKET IS IN PLACE.
- 2. Secure the control board with (10) screws previously removed.
- 3. Reinstall light kit assembly (2) screws.
- 4. Reinstall burner heat shield (2) screws.
- Position the burner tube venturi over the burner orifice and secure the burner assembly to the firebox with (5) screws previously removed.
- 6. Reinstall the pilot shield.
- 7. Reinstall log set.
- 8. Reinstall the glass frame assembly and safety barrier.
- 9. Turn the manual valve counterclockwise to the ON position.
- 10. Reconnect electrical power.
- 11. Verify proper log placement, operation of fireplace, and any electrical components.



9.0 ELECTRICAL INFORMATION

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

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.

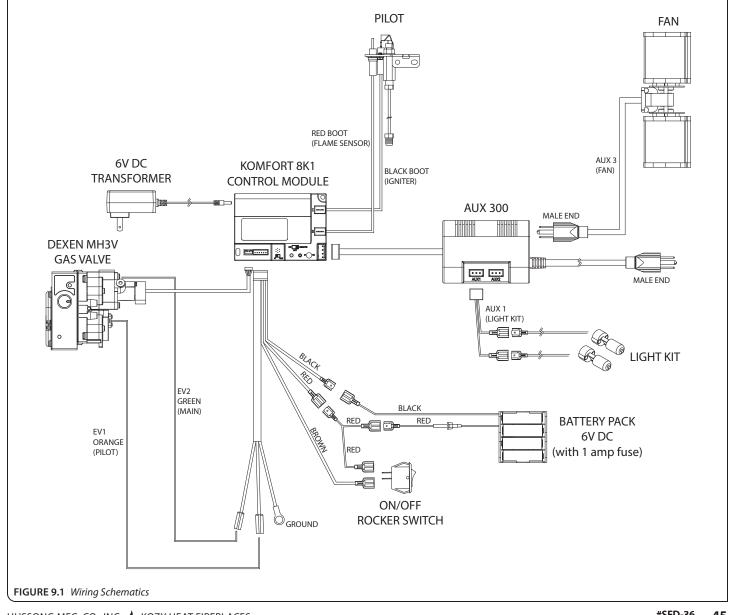
9.1 Electrical Specifications

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.

9.2 Wiring Requirements

The wiring diagram for this appliance is shown in FIGURE 9.1 below.

- The Komfort 8K1 system requires 120 VAC of electricity and/or batteries to operate.
- Using the battery backup will operate flame modulation of the burner.
- Fan component and light kit will not function on battery backup power.



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 A. automatically lights the pilot. Do not try to light the pilot by hand.
- **BEFORE OPERATING** smell around the appliance area for gas. B. 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.
- Do not use this appliance if any part has been under water. D. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

WARNING

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

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

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

CAUTION

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

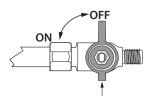
Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to a fireplace or stove,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

OPERATING INSTRUCTIONS

- STOP! Read all the safety information above on this page. 1.
- Press the wireless remote POWER button. 2.
- 3. Turn off all electric power to the appliance.
- This appliance is equipped with an ignition device which 4. automatically lights the pilot. Do not try to light the pilot by hand.
- Locate the manual valve installed by your qualified service 5. technician.
- Turn the manual valve clockwise \circ to the OFF position. 6.
- Wait five (5) minutes to clear out any gas. Then, smell 7. 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.
- Turn the manual valve counterclockwise C to the ON position. 8.

- Turn on all electric power to the appliance.
- Press the wireless remote POWER button.
- 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

- Press the wireless remote POWER button. 1.
- 2. Turn off all electric power to the appliance if service is to be performed.
- Locate the manual valve installed by your qualified service technician.
- Turn the manual valve clockwise 7 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.

10.1 Setup Komfort 8K1 Control Module

- 1. Set the main ON/OFF rocker switch in the OFF position.
- Remove the remote control components from packaging.
- 3. Install (3) AAA batteries (included in the components packet) in the remote control battery bay.
- 4. Connect the transformer to an AC power supply.
- Connect the fan to the AUX 300 control module FIGURE 9.1 (page 45).

10.2 Initialize the Komfort 8K1 Control System

- Verify the ON/OFF/REMOTE switch is in the REMOTE position. A green LED will illuminate and blink three times.
- Using a small item, such as a paper clip, press and release the LEARN button located near the ON/OFF/REMOTE switch.
- The control module will beep once and illuminate a green LED for 10 seconds.
- While the green LED is blinking, press the POWER button on the remote control. The control module will emit a double beep to indicate that the remote is initialized to the control system.

10.3 Automatic Safety Turn-off

This system will execute an automatic turn OFF command after 8 hours of continuous main burner operation.

10.4 Backup Battery Operation

This appliance will operate on the backup battery pack in a power outage. The lifespan of the backup batteries depends on various factors, such as the quality of the batteries, number of ignitions, etc.

Only install backup batteries in power outages only. Do not leave batteries installed in the backup battery pack.

10.5 Control System 7 Day Time-out

If your Komfort 8K1 control system is set to pilot-on-demand ignition with **7** consecutive days without ignition of the main burner, the pilot will turn off. This is a standard safety feature of the Komfort 8K1 control system.

Once you turn the pilot-on-demand on, the **7** day timer will start. If at any time during the following **7** days your main burner ignites, it will reset the timer back to **7** days.

See section **10.8.7** on page 49 for more information about pilot ignition selection.

How to check if your system is set to pilot-on-demand:

 The remote control screen will display the snowflake with text PILOT icon.

To select the preferred pilot ignition:

- 1. Press the MENU button to activate the menu.
- Using the UP and DOWN arrows, highlight the PILOT icon and press SELECT.
- 3. Use the UP and DOWN arrows to turn the pilot-on-demand ON or OFF, then press SELECT.
- A single beep will be emitted from the control module indicating pilot-on-demand feature has been activated.
- A double beep will be emitted from the control module indicating the pilot-on-demand feature has been deactivated.

10.6 Komfort 8K1 Control System Ignition Sequence

The Komfort 8K1 control module will attempt (1) time for ignition, for approximately 60 seconds.

If there is no flame ignition (rectification) within the (60) second time frame, the Komfort 8K1 system will go into a lockout. The control module will display an error code (see section 10.7), followed by a blinking red/green LED, indicating a system lockout.

10.6.1 Reset Control Module after Lockout

10.6.1.1 Disconnect Power Supply

 Disconnect the power supply to the control module. After approximately (5) second, reconnect power supply.

10.6.1.2 ON/OFF/REMOTE Switch

- Turn the ON/OFF/REMOTE switch on the control module to OFF.
 Wait approximately (5) seconds, and turn the ON/OFF/REMOTE switch to REMOTE. The control module will illuminate a green LED (2) times and emit a beep.
- Turn the ON/OFF/REMOTE switch on the control module to OFF.
 Wait approximately (5) seconds, and turn the ON/OFF/REMOTE switch to ON. The control module will illuminate a green LED (2) times and emit a beep. The ignition sequence will start again.

10.7 Additional Diagnostic Information

Diagnostic codes are outlined below and should be used as an additional troubleshooting tool.

Red LED will blink (1) time, then a red/green LED blink (lockout)

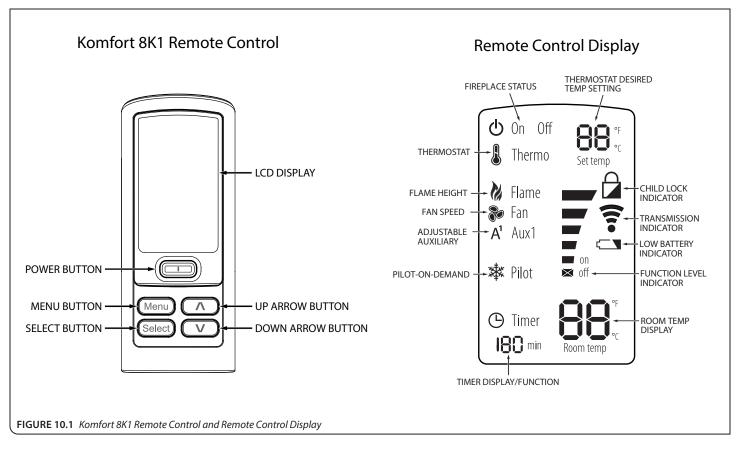
 Error caused by fuel-type selector switch is in incorrect position or fuel-type selector switch is damaged. Verify selector is in correct position. If condition persists, replace the control module.

Red LED will blink (2) times, then a red/green LED blink (lockout)

 Error caused by Insufficient voltage from ignition coil to pilot flame igniter. Clear the lockout (see section 10.6.1 above) and attempt ignition. If condition persists, replace the control module.

Red LED will blink (3) times, then a red/green LED blink (lockout)

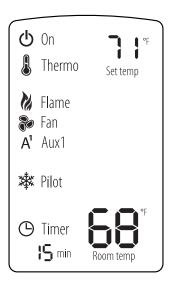
- Error caused by inadequate gas supply. Verify proper inlet pressure to the gas line.
- Error caused by detection of false flame or short in sensor lead.
 Verify that pilot leads are correctly terminated to the control module, and that no shorted wires exist.
- Error caused by sense and/or igniter lead disconnected. Verify that the pilot sensor rod, igniter rod, and hood are clean.



10.8 Remote Control Operation

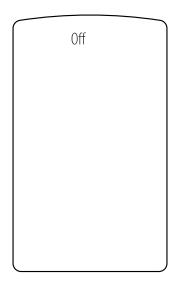
10.8.1 Idle Mode

The remote control will go into an idle mode when the remote is ON if no buttons are pressed within (5) seconds. Press any button to resume full functionality. In idle mode, only active functions will show on the screen.



10.8.2 Standby Mode

The remote control will go into a standby mode if no buttons are pressed within (5) minutes. Press the POWER button to reactivate the remote control to ON mode. Active functions will be displayed once in ON mode.



10.8.3 Temperature Display

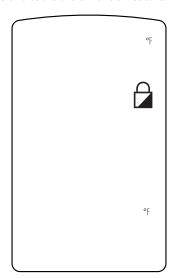
To change the temperature display between Celsius and Fahrenheit, Remove the battery cover from the back of the control. Slide the switch to desired temperature scale. Reinstall batteries and battery cover.



10.8.4 Child Lock

To lock the remote to avoid unsupervised operation,

Press and hold the MENU and UP arrow buttons simultaneous for 4 seconds to enable or disable the child lock feature.



10.8.5 Turn ON the Appliance

With the system in the OFF position, press the remote control POWER button to turn ON the appliance.

- The appliance will attempt to ignite the pilot (if Pilot-on-Demand function is OFF). Once the pilot flame is rectified, the main burner will ignite.
- Whenever the appliance is cycled from OFF to ON, the main burner will light on high for 10 seconds before returning to the previous user setting.
- All functions can be accessed when the remote control is ON. Only active functions will be displayed when the remote control is ON.
- The transmission indicator icon will flash and a single beep will confirm the reception of the command.

10.8.6 Turn OFF the Appliance

With the system in the ON position, press the remote control POWER button to turn OFF the appliance.

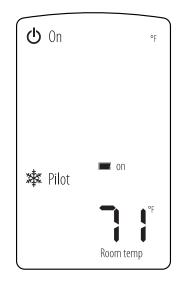
- Functions AUX1, AUX2, and Pilot-on-Demand can be accessed when the remote control is OFF. Only active functions will be displayed when the remote control is OFF.
- The transmission indicator icon will flash and a single beep will confirm the reception of the command.

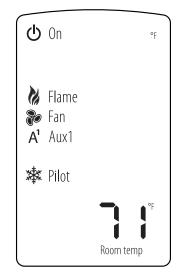
10.8.7 Pilot Ignition Selection (Intermittent or Pilot-on-Demand)

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

To select the preferred

- 1. Press the MENU button to activate the menu.
- 2. Using the UP and DOWN arrows, highlight the PILOT icon and press SELECT.
- 3. Use the UP and DOWN arrows to turn the pilot-on-demand ON or OFF, then press SELECT.
- The transmission indicator icon will flash and a single beep will be emitted from the control module indicating pilot-on-demand feature has been activated. The remote control screen will display the snowflake with text PILOT icon.
- The transmission indicator icon will flash and a double beep will be emitted from the control module indicating the pilot-ondemand feature has been deactivated. The remote control will not display the snowflake with text PILOT icon.



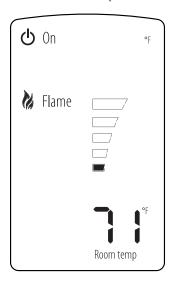


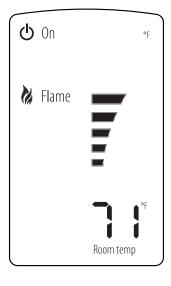
10.8.8 Flame Adjustment

This control system has (5) flame levels. Flame height will not be adjustable for the first (10) seconds when the appliance is turned ON. The control system will remember the previous flame level setting and will automatically adjust after (10) seconds.

To adjust the flame level,

- Press the MENU button to activate the menu. 1.
- Using the UP and DOWN arrows, highlight the FLAME icon and 2. press SELECT.
- Use the UP and DOWN arrows to adjust the flame level to desired setting, then press SELECT.
- The transmission indicator icon will flash and a single beep will confirm the reception of the command.





10.8.9 Thermostat Operation

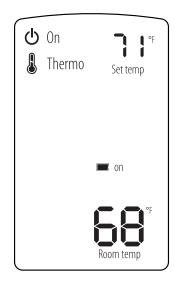
The remote control can operate as a room thermostat. The thermostat can be set to a desired temperature to control a room's comfort level.

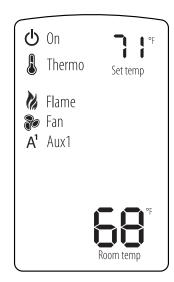
This control system requires a two degree Fahrenheit or higher temperature difference between the room temperature and set temperature for the fireplace to turn on.

The system will remember the previous temperature setting when thermostat mode is cycled ON or OFF.

To activate this function.

- 1. Press the MENU button to activate the menu.
- 2. Using the UP and DOWN arrows, highlight the THERMO icon and press SELECT.
- Use the UP and DOWN arrows to turn the THERMO ON or OFF, then press SELECT. The SET TEMP will start blinking. Using the UP and DOWN arrows, select the desired temperature and press SELECT.
- If the thermostat function is on, the set temperature can be adjusted at any time by pressing the UP and DOWN arrows.
- As the room temperature approaches the set temperature, the remote system will automatically adjust the flame height.
- If the room temperature rises above the set temperature, the fireplace will shut down the main burner. The fireplace will turn back on after the room temperature drops below the set temperature.





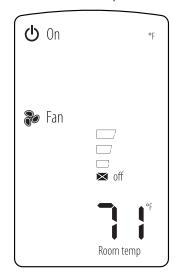
10.8.10 Fan Speed Control

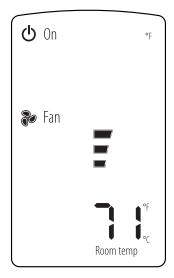
The fan speed can be adjust through (3) speeds: HIGH, MEDIUM, LOW.

The fan is controlled by a timer built into the control module. After the fireplace is turned ON, the timer will wait for (3) minutes before turning on the fan. After the fireplace is turned OFF, the fan will remain on for (12) minutes.

To activate this function.

- Press the MENU button to activate the menu.
- Using the UP and DOWN arrows, highlight the FAN icon and press SELECT.
- Use the UP and DOWN arrows to adjust to desired fan speed, then press SELECT.
- The transmission indicator icon will flash and a single beep will confirm the reception of the command.





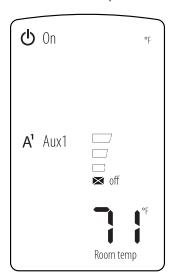
10.8.11 AUX1 Function (Light Kit)

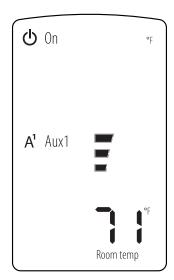
The light kit intensity can be adjusted through (4) levels: HIGH, MEDIUM, LOW, and OFF.

The system will remember the previous AUX1 setting from the menu. However, when the appliance is turned OFF, AUX1 function will be turned off. AUX1 can be activated when the remote control is OFF. When the appliance is turned back ON, the AUX1 setting will be restored to the previous ON setting.

To activate this function,

- 1. Press the MENU button to activate the menu.
- Using the UP and DOWN arrows, highlight the AUX1 icon and press SELECT.
- Use the UP and DOWN arrows to adjust to desired light kit intensity.
- The transmission indicator icon will flash and a single beep will confirm the reception of the command.



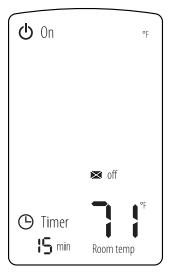


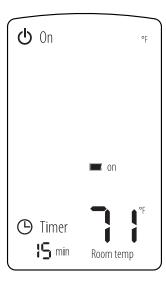
10.8.12 Timer Adjustment

This control system has the option to set a timer function to turn OFF the main burner operation. The timer operates in increments of 15, 30, 45, 60, 90, 120, and 180 minutes.

To activate this function,

- 1. Press the MENU button to activate the menu.
- 2. Using the UP and DOWN arrows, highlight the TIMER icon and press SELECT.
- 3. Use the UP and DOWN arrows to turn the TIMER ON or OFF, then press select.
- Using the UP and DOWN arrows, select the desired set time and press SELECT.
- The transmission indicator icon will flash to confirm the reception of the command.





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 $\frac{1}{2}$ 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. The pressure tap marked IN measures incoming pressure.

11.1.1 Inlet Pressure Test

NOTE: Make sure to apply these 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.

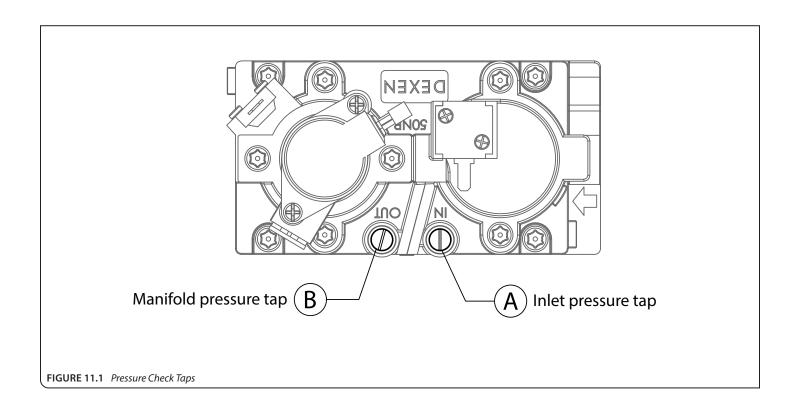
- Loosen the inlet (IN) pressure tap by turning screw counterclockwise. See (A) in FIGURE 11.1.
- 2. Attach manometer using a ¼" (6mm) I.D. hose.
- Light pilot and burner. Check pressure to ensure it is between the minimum and maximum recommended pressure settings.
- 4. Turn off burner and pilot.
- Disconnect 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.

11.1.2 Manifold Pressure Test

- 1. Light pilot.
- Loosen manifold (OUT) pressure tap by turning screw counterclockwise. See (B) in FIGURE 11.1.
- 3. Attach manometer to pressure tap using a ¼" (6mm) I.D. hose.
- 4. Light burner. Check manometer reading.
- 5. Turn burner and pilot off.
- Disconnect manometer hose and tighten the manifold (OUT) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
- 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 11.1, Inlet Pressures			
Fuel Natural Gas Propane			
Gas Supply	Min - Max	Min - Max	
Inlet Pressure Tap (A)	5" - 10"WC (1.25 - 2.49 kPa)	12" - 13"WC (2.99 - 3.24 kPa)	

Table 11.2, Manifold Pressure		
Fuel Natural Gas Propane		
Gas Supply	Low - High Low - High	
Manifold Pressure Tap (B)	1.0" - 3.5" WC (0.24 - 0.87 kPa)	2.7" - 10"WC (0.67 - 2.49 kPa)



11.2 Burner Flame Adjustments

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

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

11.2.1 Burner Venturi

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

NOTE: Burner venturi air shutter settings have been factory set. Refer to TABLE 11.3.

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.

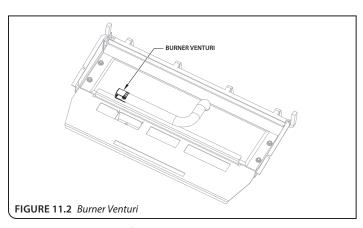
Slight adjustments to the venturi opening will create dramatic results. Adjust at slight increments until desired look is achieved.

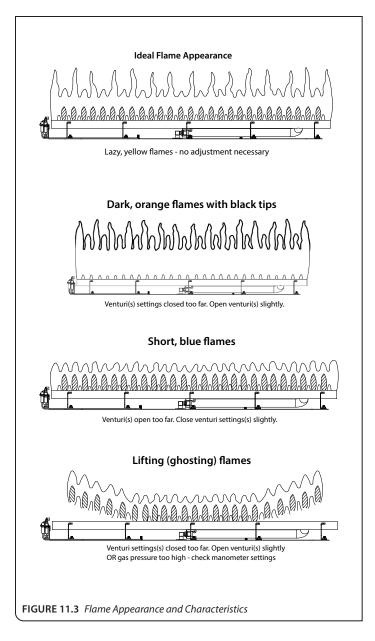
Table 11.3, Factory Set Venturi Openings	
Fuel Air Shutter Opening	
Natural Gas	3/16" (4.7mm) OPEN
Propane	5/8" (16mm) OPEN

11.2.1.1 Venturi Adjustment

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

- 1. Remove the safety barrier and glass frame assembly.
- 2. Remove the log set.
- 3. Remove the pilot shield.
- 4. Remove (2) screws securing burner assembly. Release the burner tube venturi off the burner orifice.
- Loosen screw on venturi and adjust as necessary. Retighten screw.
- 6. Reinstall all components previously removed.





11.2.2 Vent Restriction (after installation)

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

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

Vertical terminations may display an active, compact flame. To achieve desirable flame appearance, the vent exit may be restricted by the restrictor plate (included in components packet) and/ or by adjusting the built-in baffle door restrictor located in the fireplace baffle.

This fireplace is shipped with the restrictor located in the fireplace baffle set in the open position. Follow the tables below to adjust the restrictor to desired flame appearance. Allow the fireplace to burn for 15 minutes before making any adjustments to the restrictor setting.

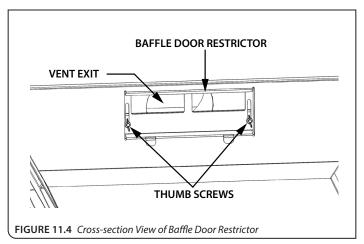
Table 11.4, Restricton Adjustment Guidelines		
Flame Appearance	Draft Problem	Solution
Short, flickering	Excessive draft Not enough restriction	Close baffle door restrictor
		Install restrictor plate
Lifting or ghosting*	Insufficient draft	Open baffle door restrictor
		Remove inner ring(s) on restrictor plate, or Remove restrictor plate

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

11.2.2.1 Baffle Door Restrictor Adjustment

NOTE: Verify the baffle door restrictor is set into 'down' position and not flipped 'up.'

- Remove the safety barrier and glass frame assembly to access the baffle door restrictor adjustment handle.
- 2. Loosen (2) thumb screws to adjust the setting to achieve desired flame appearance.
- 3. Tighten screws after adjustment.
- 4. Reinstall the glass frame assembly and safety barrier.

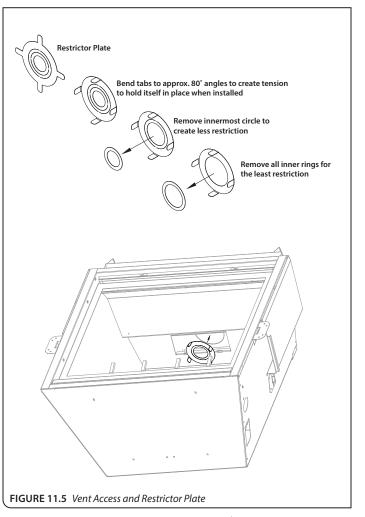


11.2.2.2 Restrictor Plate Installation

- 1. Remove the safety barrier and the glass frame assembly.
- 2. To access the vent exit through the fireplace baffle, push baffle door restrictor back.
- 3. Bend the tabs on the restrictor plate (included in components packet) to approximately 80° angles. This will create tension when the restrictor is inserted into the exhaust pipe.
- 4. Insert restrictor plate into the 5" (127mm) exhaust pipe with the tabs pointing towards you.
- 5. Set the baffle door restrictor back into position.
- 6. Reinstall all components previously removed.

11.2.3 Restrictor Plate Modification

- 1. Remove the safety barrier and the glass frame assembly.
- 2. To access the vent exit through the fireplace baffle, push baffle door restrictor back.
- Remove the restrictor plate by pulling it down and out of the 5" (127mm) exhaust pipe.
- 4. Make necessary modifications to achieve desired flame appearance.
- 5. Insert restrictor plate into the 5" (127mm) exhaust pipe with the tabs pointing towards you.
- 6. Set the baffle door restrictor back into position.
- 7. Reinstall all components previously removed.



12.0 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 6V DC transformer.
- Verify the control module back-up 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 Komfort 8K1 control module.
- Verify inlet pressure meets the recommended inlet pressure. If necessary, adjust line pressure regulator.
- To isolate remote functionality from the control system when troubleshooting, turn the ON/OFF/REMOTE selector switch on the control module to ON.

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.
	Control module selector switch not set properly	Verify the ON/OFF/REMOTE selector switch is ON mode or REMOTE mode.
	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.
	LP/NG switch on control system not engaged	Verify the switch on the control module is set to the correct gas fuel type.
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 Pilot-on- Demand ignition mode	Set control system to intermittent pilot ignition mode. Refer to 10.8.7 , PILOT IGNITION SELECTION on page 49.

Issue	Cause	Solution
Main burner flame will not light	ON/OFF rocker switch in ON position	Switch rocker switch to OFF 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. Refer to FIGURE 9.1, WIRING SCHEMATICS on page 45.
	Plugged main burner orifice	Remove blockage.
	Pilot flame	Verify the pilot flame is properly directed to ignite burner. See pilot flame troubleshooting in this section.
	Remote control not working properly	Replace batteries.
	No call for heat	Verify remote control is powered ON and thermostat operation is turned OFF.
Pilot and burner extinguish while in operation	No propane in tank	Check propane tank. Refill if necessary.
	Incorrect glass assembly installation	Refer to section 8.1, GLASS FRAME ASSEMBLY on page 42.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.
	Improper pitch on horizontal venting	1/4" (6mm) rise for every 12" (305mm) of travel is required on horizontal venting
	Exhaust vent pipe leaking exhaust gases back into firebox	Check for leaks and repair if necessary.
	Excessive draft	A restrictor may need to be installed or modified. Refer to section 11.2.2, VENT RESTRICTION (AFTER INSTALLATION) on page 54.
Soot appears on glass	Improper log placement	Refer to section 8.4 , #SF36-500 LOG SET INSTALLATION on page 43.
	Improper venturi setting	Venturi air shutter may need to be opened slightly to allow more air into the gas mix. Refer to section 11.2.1, BURNER VENTURI on page 53.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.

Issue	Cause	Solution
Flame burns blue and lifts off burner	Improper venturi setting	The venturi air shutter may need to be closed slightly to allow less air into the gas mix. Refer to section 11.2.1, BURNER VENTURI on page 53.
	Incorrect vent cap installation	Adjust if necessary.
	Blockage or leakage of the vent system	Check the vent 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 control module	Reprogram remote control to Komfort 8K1 module. Refer to section 10.2, INITIALIZE THE KOMFORT 8K1 CONTROL SYSTEM on page 47.
	A maximum number of failed ignitions or flame restorations has been reached	Reset Komfort 8K1 control module. Refer to section 10.2, INITIALIZE THE KOMFORT 8K1 CONTROL SYSTEM on page 47.

13.0 MAINTENANCE

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

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

13.1 Firebox

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

13.2 Fan

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

Performed by: Qualified Service Person

Frequency: Every 6 months

Action:

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

13.3 Vent System

NOTE: If the vent-air intake system is disassembled for any reason, reinstall per instructions provided with installation. Refer to section 7.0, VENTING on page 30.

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

13.4 Glass Assembly

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

WARNING: Do not use substitute materials.

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

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

Performed by: Homeowner **Frequency:** Annually

Action:

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

Performed by: Qualified Service Person

Frequency: Annually

Action:

- Clean glass window with a suitable fireplace glass cleaner using a soft cloth. Abrasive cleaners must not be used. Be careful not to scratch the glass when cleaning.
- Inspect the glass for cracks, scratches, and nicks.
- Verify the glass assembly is properly intact and not damaged.
- Replace the glass and the assembly #701-018T as necessary.
- Only Hussong Mfg. Co., Inc. will supply the replacement of glass assembly as a complete unit.

13.5 Burner and Pilot System

The burner assembly may be removed for easier access to the control compartment. Refer to section **8.5**, **CONTROL BOARD REMOVAL AND INSTALLATION** on page 44 for instructions. Verify gas supply is turned on and filled. Consult with plumber or gas supplier as necessary.

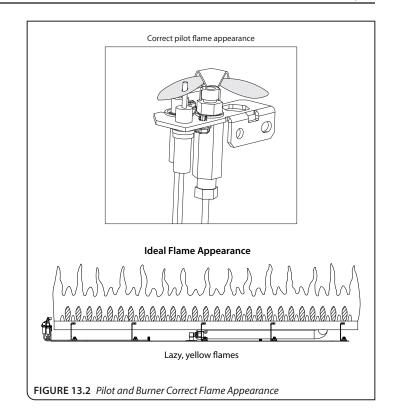
Performed by: Qualified Service Person

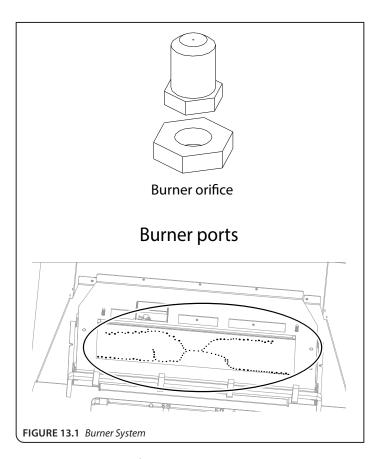
Frequency: Annually

Action:

- Vacuum all components of the burner system.
- Check all accessible gas-carrying tubes, connections, pipes and other components for leaks.
- Inspect the operation of the flame safety system Pilot or Flame rectification device. Visually check pilot light when in operation.
- Inspect and ensure the lighting of the main burner occurs within

 (4) seconds of the main gas valve opening. Check for faulty or
 incorrect wiring and correct or replace as necessary. Inspect
 primary air openings (burner ports) for blockage, especially near
 the pilot.
- Visually check burner flame pattern when in operation. Flames should be steady, not lifting or floating.
- Test and measure the flame failure response time of the flame safety system. It must de-energize the safety shutoff in no more than (30) seconds.





14.0 REPLACEMENT PARTS LIST

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

The following warning is for replacement parts for this appliance.

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

SFD-36 CONTROL
Dexen Control Board - Natural Gas
Dexen Control Board - Propane
Dexen MH3V Gas Valve - Natural Gas
Dexen MH3V Gas Valve - Propane
Komfort 8K1 Control Module
AUX 300 Control Module
Main Wire Harness
AUX 1 Wire Harness
NG Dexen PSE IPI Pilot Assembly (700-191)
Propane Dexen PSE IPI Pilot Assembly (700-191-1)
Dexen Transmitter (Remote Control)
Pilot Orifice - Natural Gas #.018 NG

L BC	L BOARD AND PARTS		
	700-095-P	Pilot Orifice - Propane #.012 LP	
	DEX-SMN	Dexen Valve Step Motor - Natural Gas	
	DEX-SMLP	Dexen Valve Step Motor - Propane	
	700-213B	18" Black Flex Tube (Gas Line to Valve)	
	700-226F	Flexible Gas Line - Valve to Burner Connection	
	700-234	Natural Gas Burner Orifice #34	
	700-175M	Propane Burner Orifice 1.75mm	
	NCK-SF36-D	Dexen Conversion Kit - Natural Gas	
	LCK-SF36-D	Dexen Conversion Kit - Propane	
	SF36-350	Burner Assembly	
	SF36-351	Burner Heat Shield	
	SF36-043	Pilot Shield	

GLASS AND GLASS GASKET	
701-018T	31-5/8" x 24-1/4" Glass with Gasket
900-006 1-1/8" Glass Gasket	
SF36-005 Replacement Valance	

SAFETY BARRIERS		
SF36A-PSF	Arched Prairie Screen Front	
SF36-RSF	Rectangle Screen Front	
SF36A-MSF	Arched Mission Screen Front	
SF36R-MSF	Rectangle Mission Screen Front	
SF36A-FPDSF	Arched Full Prairie Door Screen Front	
SF36R-FPSF	Rectangle Full Prairie Screen Front	
CERC EDGE	Full Destance Consent	

31 30A-1 F D31	Alched Full Frame Door Scieen Front
SF36R-FPSF Rectangle Full Prairie Screen Front	
SF36-FRSF	Full Rectangle Screen Front
FAN KIT	
IPI-028	Fan Assembly

LIGHT KIT				
SF36-LKT	Light Kit			
600-676	20W 120V Halogen Bulb			
600-697	1.5 lb (0.68kg) Ember Panel Crushed Glass			

TRADITIONAL LOG SET				
SF36-500	10 Piece Log Set			
SF36-900E	Ember Panel			
SF36-1	#1 Log			
SF36-2	#2 Log			
SF36-3	#3 Log			
SF36-4	#4 Log			
SF36-5	#5 Log			
SF36-6	#6 Log			
SF36-7	#7 Log			
SF36-8	#8 Log			
SF36-9	#9 Log			
SF36-10	#10 Log			
900-REMB	Rock Wool Embers			

ADDITIONAL COMPONENTS			
900-086	5" (127mm) Restrictor Plate		
700-203	Manual Gas Shut-off Valve		
SF36-HHS	Vent Heat Shield Assembly		
SF36-201B	Bottom Frame		

Hussong Manufacturing Co., Inc. 204 Industrial Park Drive PO Box 577 Lakefield, MN 56150-0577, USA SFD-36

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