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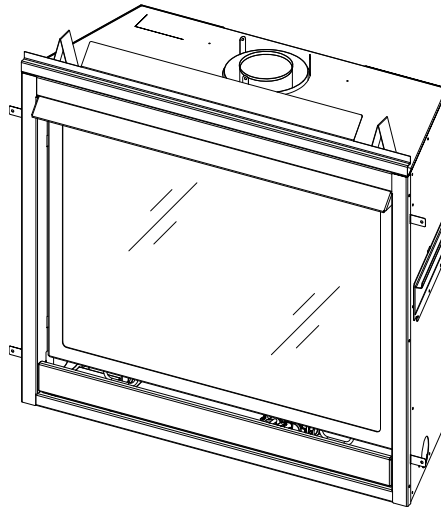
SP-34-L SP-34-MV

Model #SP34-L, SP34-MV
Direct Vent Gas Fireplace

English and French installation manuals are available through your local dealer or website. 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.

INSTALLATION AND OPERATION MANUAL



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

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

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

Installation and service must be performed by a qualified installer, service agency or the gas supplier

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

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



DANGER



**HOT GLASS WILL
CAUSE BURNS**

**DO NOT TOUCH GLASS
UNTIL COOLED**

**NEVER ALLOW CHILDREN
TO TOUCH GLASS**

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

INSTALLER: Leave this manual with the appliance.

CONSUMER: Retain this manual for future reference.

CONGRATULATIONS

Hussong Manufacturing welcomes you as a new owner of a Kozy Heat gas fireplace. Kozy Heat products are designed with superior components and materials, assembled with care by trained craftsmen who take pride in their work. To ensure you receive a quality product, the burner and valve assembly are 100 percent test-fired, and the complete fireplace is thoroughly inspected before packaging. Our commitment to quality and customer satisfaction has remained the same for over 40 years. We offer a complete line of gas, and 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



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

Homeowner Reference Information

Model name: _____

Serial Number: _____

Date Purchase / Installed: _____

Location of fireplace: _____

Dealership purchased from: _____

Dealership Phone Number: _____

Notes:

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1.0 Introduction

1.1 Appliance Certification

Laboratory: PFS in Cottage Grove, Wisconsin

Standards:

- ANSI Z21.88-2019/CSA 2.33-2019, Vented Gas Fireplace Heaters
- CSA 2.17 2017 (R2022), 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 than 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

Gas Equipment Venting System Provided

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

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

Gas Equipment Venting System NOT Provided

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

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

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

2.0 Specifications

2.1 Heating Specifications

	SP-34-L		SP-34-MV	
	Natural Gas	Propane	Natural Gas	Propane
Maximum Input Rating	20,500 Btu/h (6.0 kW)	20,500 Btu/h (6.0 kW)	20,500 Btu/h (6.0 kW)	20,500 Btu/h (6.0 kW)
Orifice Size (DMS)	#46	#55	#46	#55
Minimum Input Rating	14,000 Btu/h (4.10 kW)	15,000 Btu/h (4.40 kW)	14,000 Btu/h (4.10 kW)	15,000 Btu/h (4.40 kW)
Minimum Inlet Pressure	5" WC (1.24 kPa) 7" WC (1.74 kPa)recommended	11"WC (2.74 kPa)	5" WC (1.24 kPa) 7" WC (1.74 kPa)recommended	11"WC (2.74 kPa)
Maximum Inlet Pressure	10"WC (2.49 kPa)	13"WC (3.23 kPa)	10"WC (2.49 kPa)	13"WC (3.23 kPa)
Manifold Pressure (High)	3.5" WC (0.87 kPa)	10" WC (2.49 kPa)	3.5" WC (0.87 kPa)	10" WC (2.49 kPa)
Manifold Pressure (Low)	1.6" WC (0.40 kPa)	6.4" WC (1.59 kPa)	1.6" WC (0.40 kPa)	6.4" WC (1.59 kPa)
Venturi Opening Settings	1/16" (1.5mm)	5/8" (16mm)* *Fully Open	1/16" (1.5mm)	5/8" (16mm)* *Fully Open

2.1.1 Altitude Adjustment

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

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.

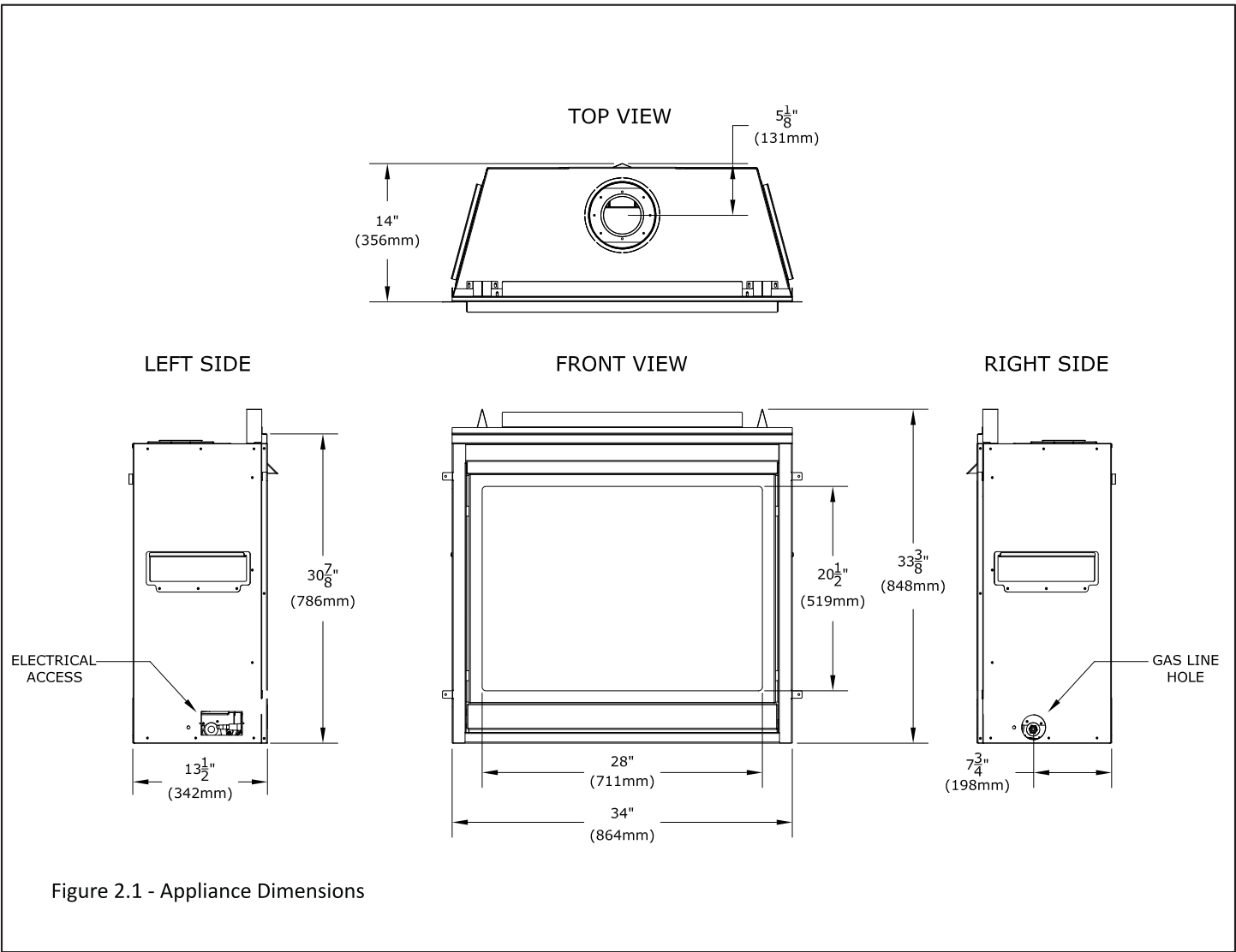
Canadian Installations

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.
- SP-34-L
 - The AC power supply to this appliance must be hot at all times and shall not have a switch installed in it.
- SP-34-MV
 - Electrical specifications ONLY apply to when the optional fan kit (#SP-028) is used.

2.3 Appliance Dimensions



2.4 Safety Barrier Information

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.

Please refer to Section 4.3 Safety Barrier Installations for mounting and installation options.

NOTE: The appliance includes the standard screen barrier (SP34-ES2) preinstalled. There are optional decorative overlays for the appliance which are installed on top of the provided screen barrier. See SP34A-POL or SP34-POL.

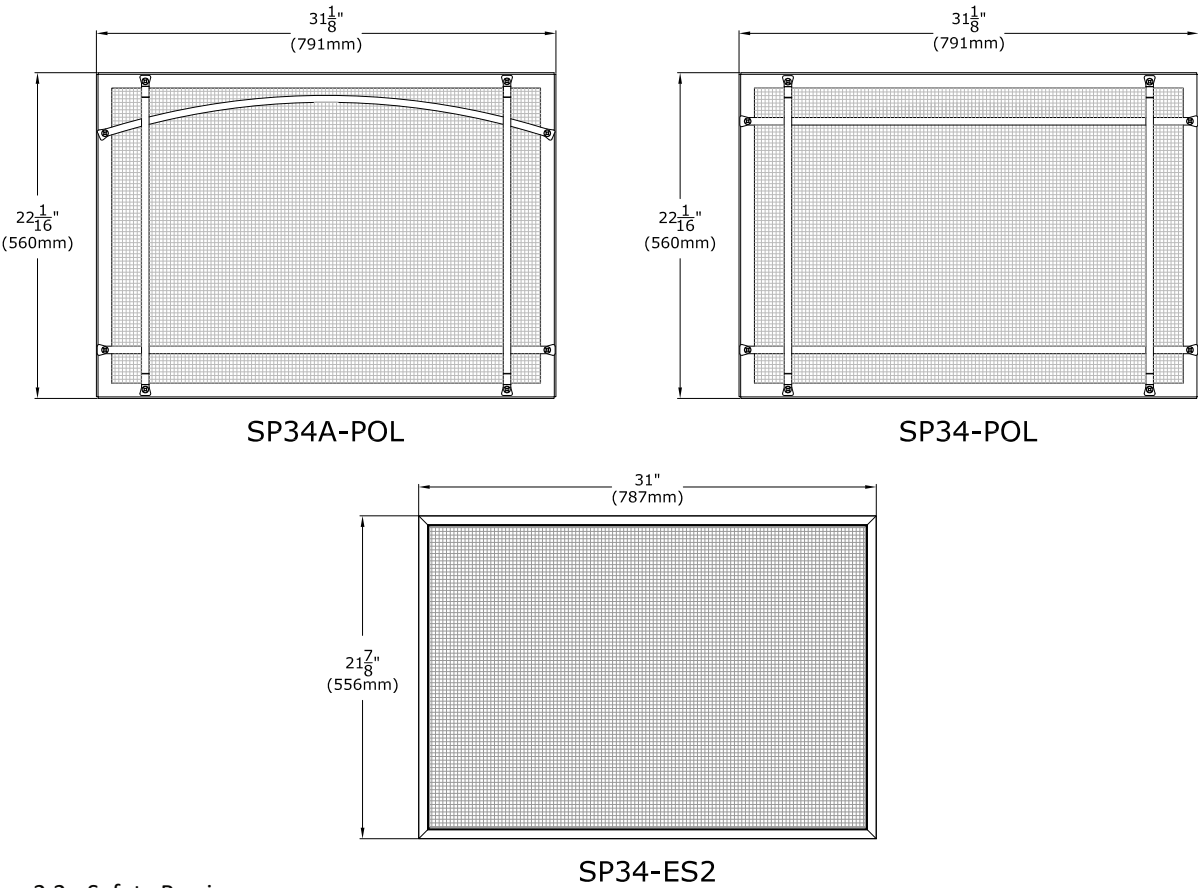


Figure 2.2 - Safety Barriers

3.0 Framing

3.1 Appliance Placement Considerations

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

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

FIRE HAZARD: Do NOT install this appliance directly on carpeting, vinyl, or any other combustible material other than wood.

Note: Unless otherwise noted all clearances / images in this manual are based off of nominal 2" x 4" framing being used.

- This appliance must be installed on a level surface capable of supporting the fireplace and venting. If possible, place the fireplace in a position where the vent terminates between two studs, eliminating the need for any additional framing.
- 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 Floor Support and Protection

- Floor protection in front of the fireplace is not required. Combustible material may be used if installing a hearth extension. Consider the thickness of the hearth extension finishing material if building a fireplace platform. The bottom of the fireplace must be level with finished hearth extension for proper fit of a safety barrier.
- If 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.
- If the appliance is to be installed above floor level, a solid, continuous platform must be constructed below the appliance.

3.3 Setting the Appliance

- This section outlines information on setting the appliance in the framed opening and starting the installation process. .

General Procedure

1. Frame your opening. Refer to Section 3.7 for information for the framed opening.
2. Lay out the path for your vent run before installing appliance.
3. We recommend understanding how this appliance has different positions to set the appliance in the framed opening depending on how you want your finishing material to butt up against the appliance or overlap the allowed perimeter of the appliance. See Section 4.0 for more information.
4. Install the nailing flanges on the appliance. Refer to Section 3.5 for assembly and installation. The nailing flanges are where you secure your appliance to the framed opening. The framing will be flush with the appliance when it is installed.
5. Assemble and install the top header stand-off assembly. Refer to Section 3.4 for more information on the top stand-off assembly. This stand-off assembly provides the necessary thermal protection of the header.
6. Place the fireplace inside the framed opening and secure the appliance into the framing.
7. The next steps would involve installing the vent pipe, connecting gas line, connecting electrical wiring, and finally finishing material.

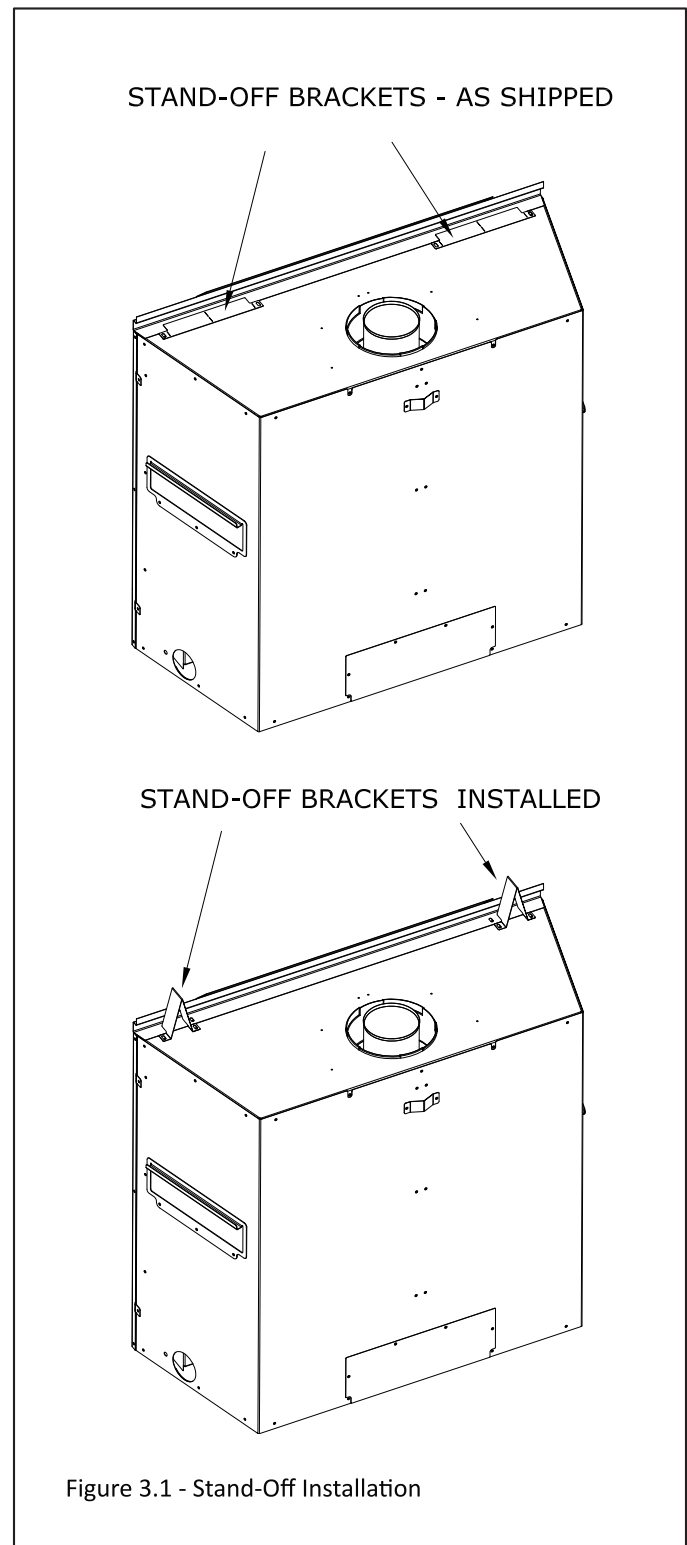
3.4 Stand-Off Assembly and Installation

WARNING: The top stand-offs provide the 3-1/2" (89mm) minimum clearance to the header. The clearance to header must be maintained. The 1" (25mm) top stand-off flange accommodates 1/2" (12mm) combustibile facing material (sheetrock).

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

Installation:

1. Remove and save (4) screws securing stand-off brackets on top of the fireplace.
2. Form each top stand-off bracket by bending at perforations, as shown.
3. Align the holes in the formed top stand-offs with the holes in the fireplace top. Secure with the (4) screws previously removed.



3.5 Nailing Flange Installation

The nailing flange tabs on both sides of the appliance allow for different positions in the framed opening. The appliance is designed for 1/2" (13mm) for facing material.

Note: The finishing material cannot overlap the component access panel or the safety barrier. See Section 4.1 Facing and Finishing Requirements.

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

Important Finishing Material Consideration:

Combustible finishing material must butt up against and stop at the edge of the fireplace. See Figure 4.2 and 4.3.

Noncombustible finishing material can overlap the appliance edge. See Figure 4.4.

Instructions:

1. Locate the nailing tabs on the right and left side of the fireplace necessary to accommodate the 1/2" facing material.
2. Bend out the (4) nailing tabs until parallel with fireplace face. Do not bend toward fireplace face.
3. When installing, center the fireplace in the rough opening to allow for the minimum 1/4" (6mm) clearance from the appliance corners.
4. Secure the appliance to the framing studs by using nails or screws through the nailing tabs.

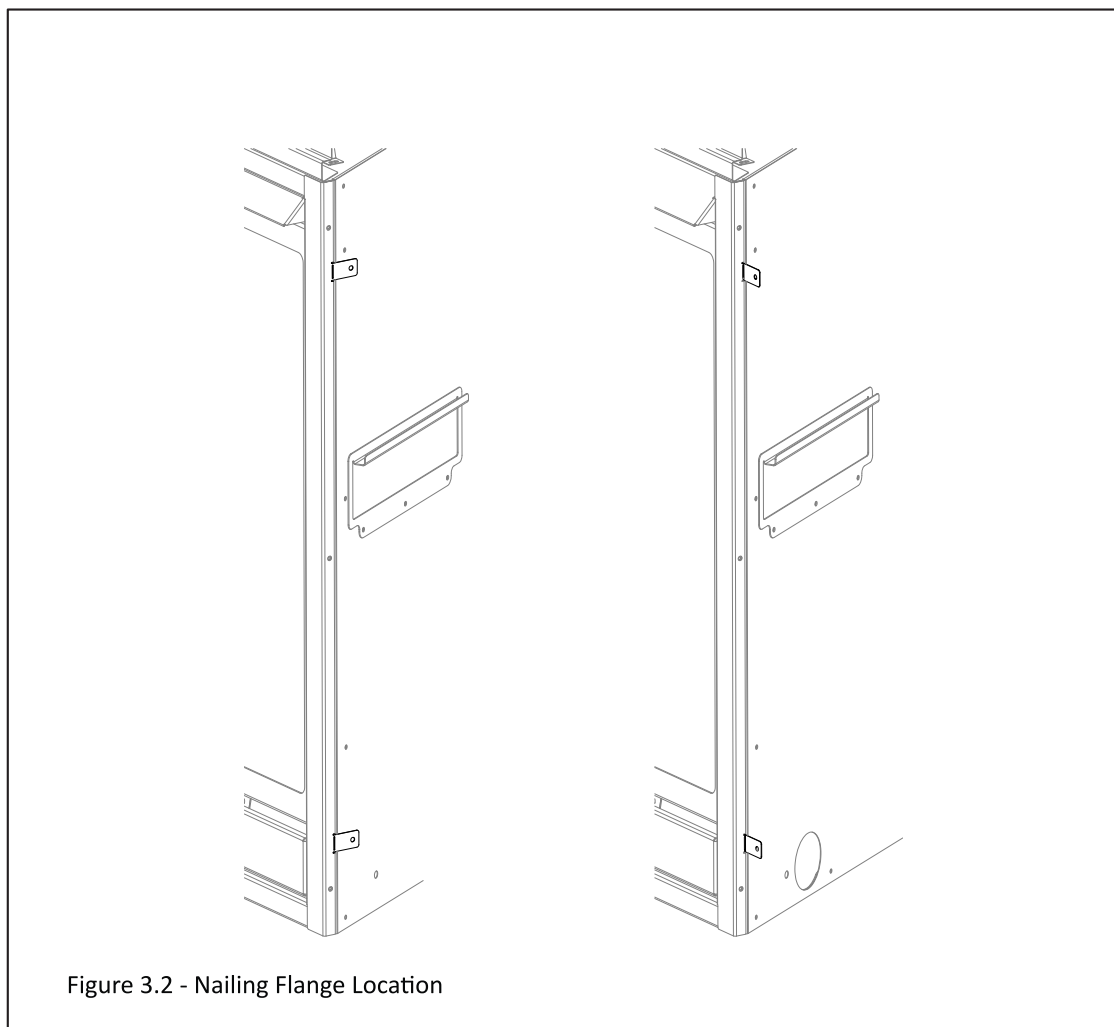


Figure 3.2 - Nailing Flange Location

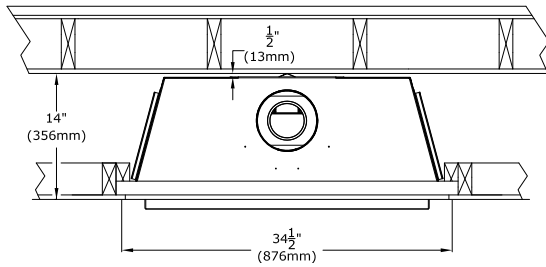
3.6 Clearances to Combustibles

- See Table 3.1 below for minimum clearances for the standard installation option.
- See Figure 3.3 on the following pages for typical standard installation options.
- Unless otherwise noted all clearances / images in this manual are based off of nominal 2" x 4" framing being used.

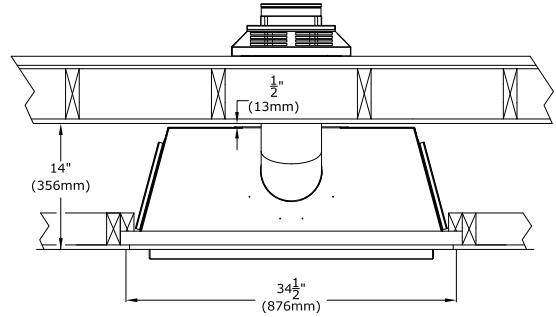
Table 3.1, Minimum Fireplace Clearances to Combustible Material

Minimum height of fireplace enclosure	42"	1076mm
Minimum width of fireplace enclosure	34-1/2"	876mm
Minimum depth of fireplace enclosure	14"	356mm
From fireplace base to ceiling	63"	1600mm
From fireplace top stand-off brackets	0"	0mm
From fireplace left and right stand-off brackets (nailing flanges)	0"	0mm
From fireplace back stand-off brackets	0"	0mm
From fireplace corners	1/4"	6mm
From fireplace front	36"	914mm
Fireplace sides to adjacent sidewall	4-1/2"	114mm
Fireplace enclosure floor to 3/4" (19mm) mantel trim	33-1/2"	851mm
Fireplace enclosure floor to 6" (152mm) mantel projection	37"	940mm

TYPICAL VERTICAL INSTALLATION



TYPICAL HORIZONTAL INSTALLATION



TYPICAL CORNER INSTALLATION

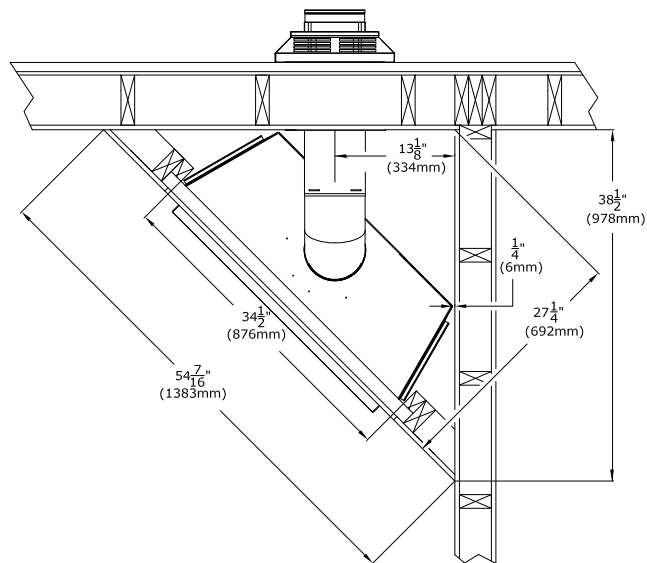


Figure 3.3 - Typical Appliance Installations

3.7 Wall Enclosure Rough Framing

Note: Unless otherwise noted all clearances / images in this manual are based off of nominal 2" x 4" framing being used.

3.7.1 Rough Framing

WARNING: Provide adequate clearances around air openings into the combustion chamber. Provide adequate clearance in front of the fireplace for barrier removal, component access, gas line installation, service access, etc.

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

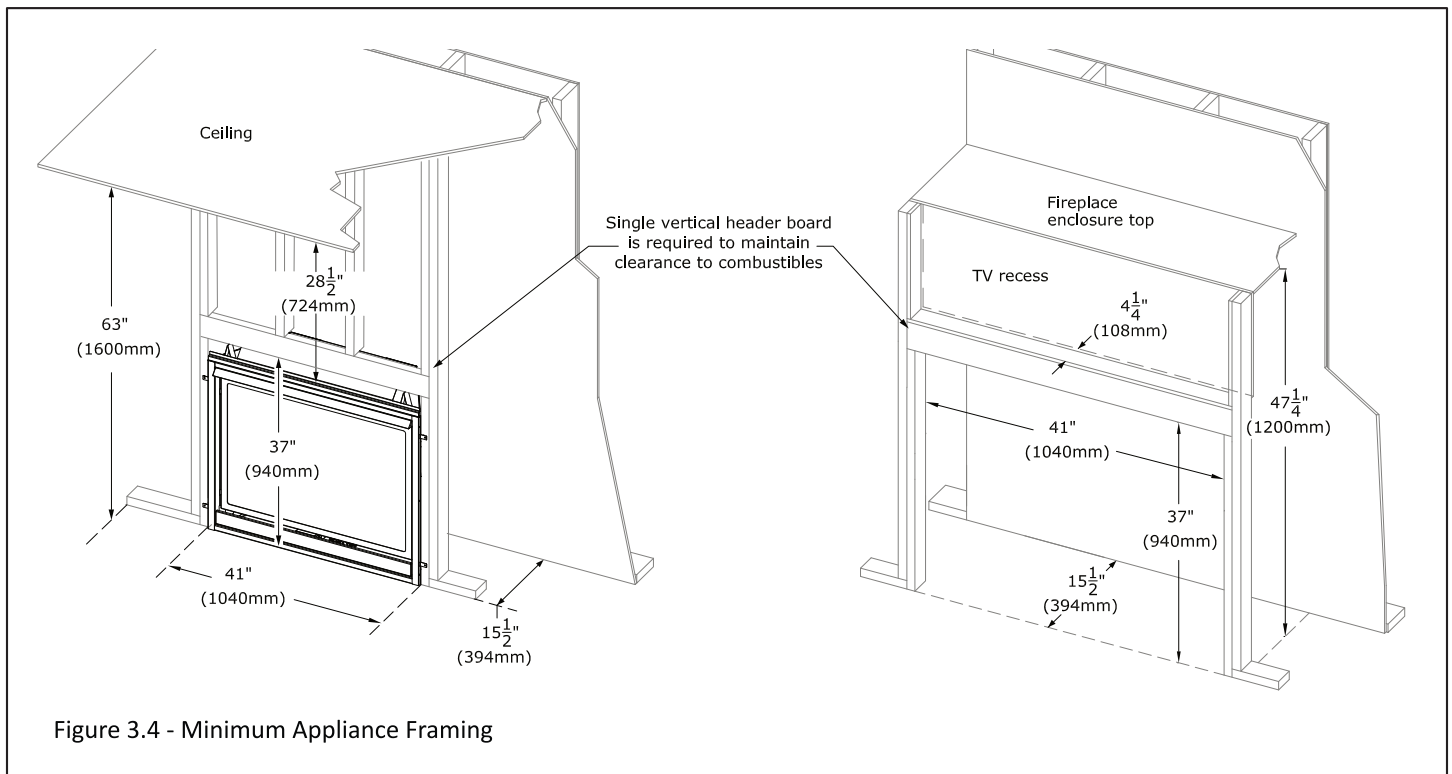
Rough-in dimensions outlined in FIGURE 3.4 below are the same for all design options and must be followed.

- 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 hearth may be flush with the bottom finishing edge of the fireplace. You cannot cover the access cover.
- 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.
- Framing dimensions should allow for wall covering thickness and fireplace facing materials.
- If masonry (optional) is to be used, prepare the foundation necessary for the full masonry load. A lintel must be used over the top of the appliance to support the added weight of the masonry construction above the fireplace.

3.7.2 Mounting a Television Above a Fireplace and Television Recess Construction

WARNING: All clearances to venting must be maintained.

- 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.
- We recommend the use of a mantel to deflect heat away from the television.
- 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.



3.8 Vent Termination Framing

3.8.1 Vent Termination Location

- Exterior vent termination location must be in compliance with section 6.0, TERMINATION LOCATIONS.

3.8.2 Clearances

- A minimum of 1" (25mm) clearance on all sides of the vertical vent pipe must be maintained.

Refer to FIGURE 3.5 below for the following clearances

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

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

3.8.3 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

3.8.4 Horizontal Terminations

WARNING: Do not recess the vent cap into wall or siding.

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

Wall thimble products that comply with the required 1" (25mm) top clearance to combustibles must be installed for all horizontal vent runs that pass through interior or exterior walls. These wall thimble products may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136.

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.

Kozy Heat's #700-WPT, or wall thimble products that comply with the required 1" (25mm) top clearance to combustibles, must be installed for all horizontal vent runs that pass through interior or exterior walls. These wall thimble products may be insulated using unfaced insulation products listed as noncombustible per ASTM E 136. Wall Thimble #700-WPT is designed for wall thickness that is 4" (101mm) to 6-1/2" (165mm)

Flexible pipe framing dimensions are tested with Kozy Heat #700-2 Series Flexible Vent System. See the drawing below.

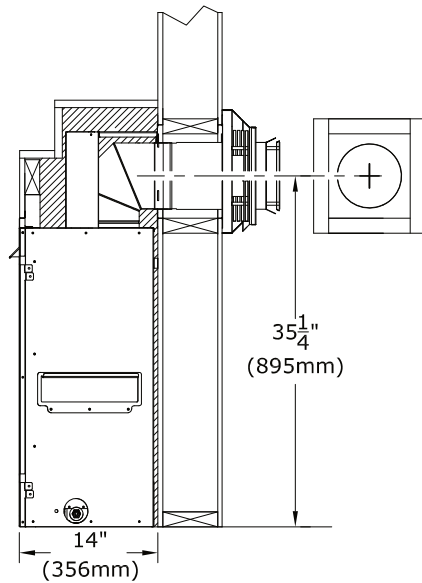
3.8.5 Wall Pass Through Framing Instructions

Follow FIGURE 3.6 below for minimum rough-in dimensions.

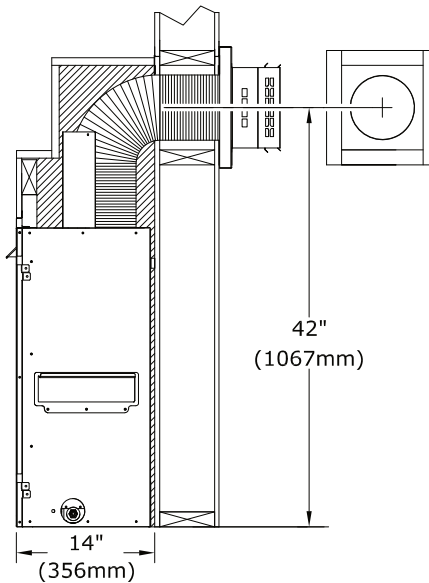
1. Measure from floor level of the fireplace to the center of where the vent pipe will penetrate the wall. The dimension in FIGURE 3.5 is used with a Simpson DuraVent elbow.
2. Cut and frame an opening in the wall to allow the vent system to run level through the wall pass-through.
3. Follow the vent pipe manufacturer's installation instructions for natural draft vent installation.

Note: Vent pipe dimensions are tested with listed Simpson DuraVent pipe. Other manufacturers product dimensions may vary.

Minimum Horizontal Termination
Natural Gas and Propane



Minimum Horizontal 700-2 Series Venting
Natural Gas and Propane



700-WPT Framing Dimension
Ships with 700-2 Series

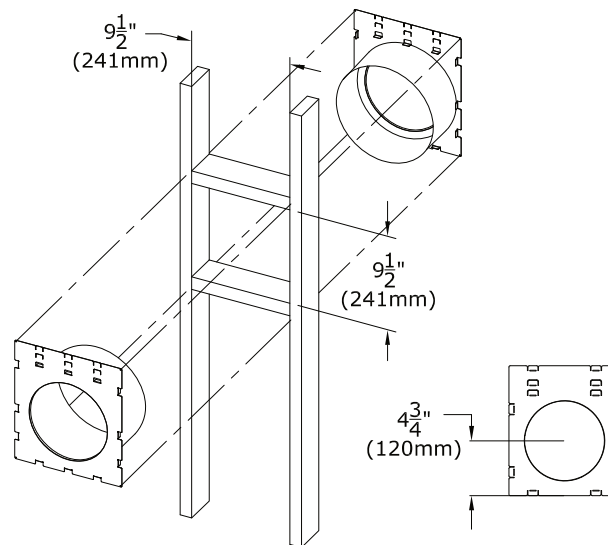


Figure 3.5 - Minimum WPT Framing

3.9 Outdoor Covered Fireplace Installation

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

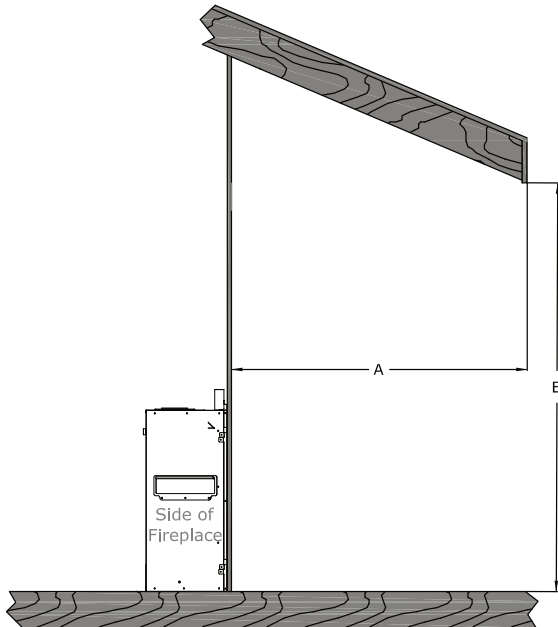
Follow the instructions and illustrations in this section for installation procedures.

3.9.1 Safety Screen Barriers

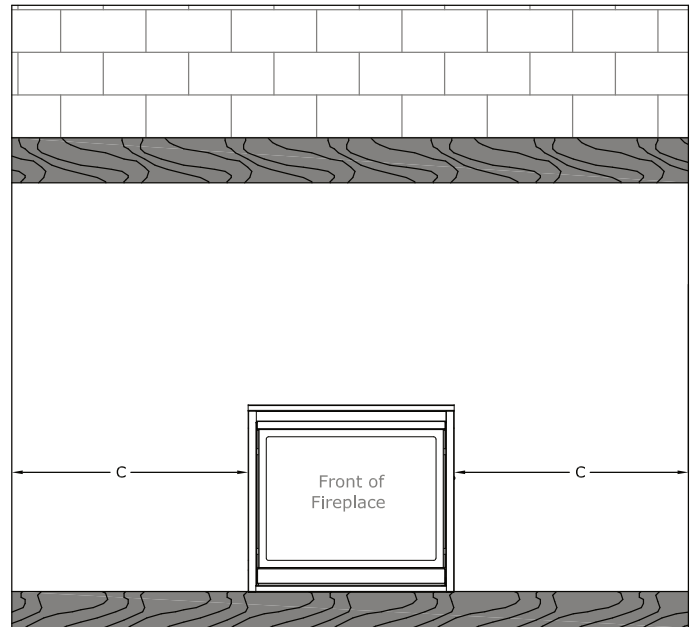
Hussong Mfg. highly recommends to use black painted safety barriers in outdoor installations. Other screen barriers that incorporate a plated or patina finish are highly susceptible to oxidation and discoloration.

3.9.2 Requirements

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



The overhang (A) must be a minimum of $\frac{1}{2}$ 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 $\frac{1}{2}$ or greater of the roofline elevation (B) above the base of the fireplace.

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

Figure 3.6 - Outdoor Covered Installation

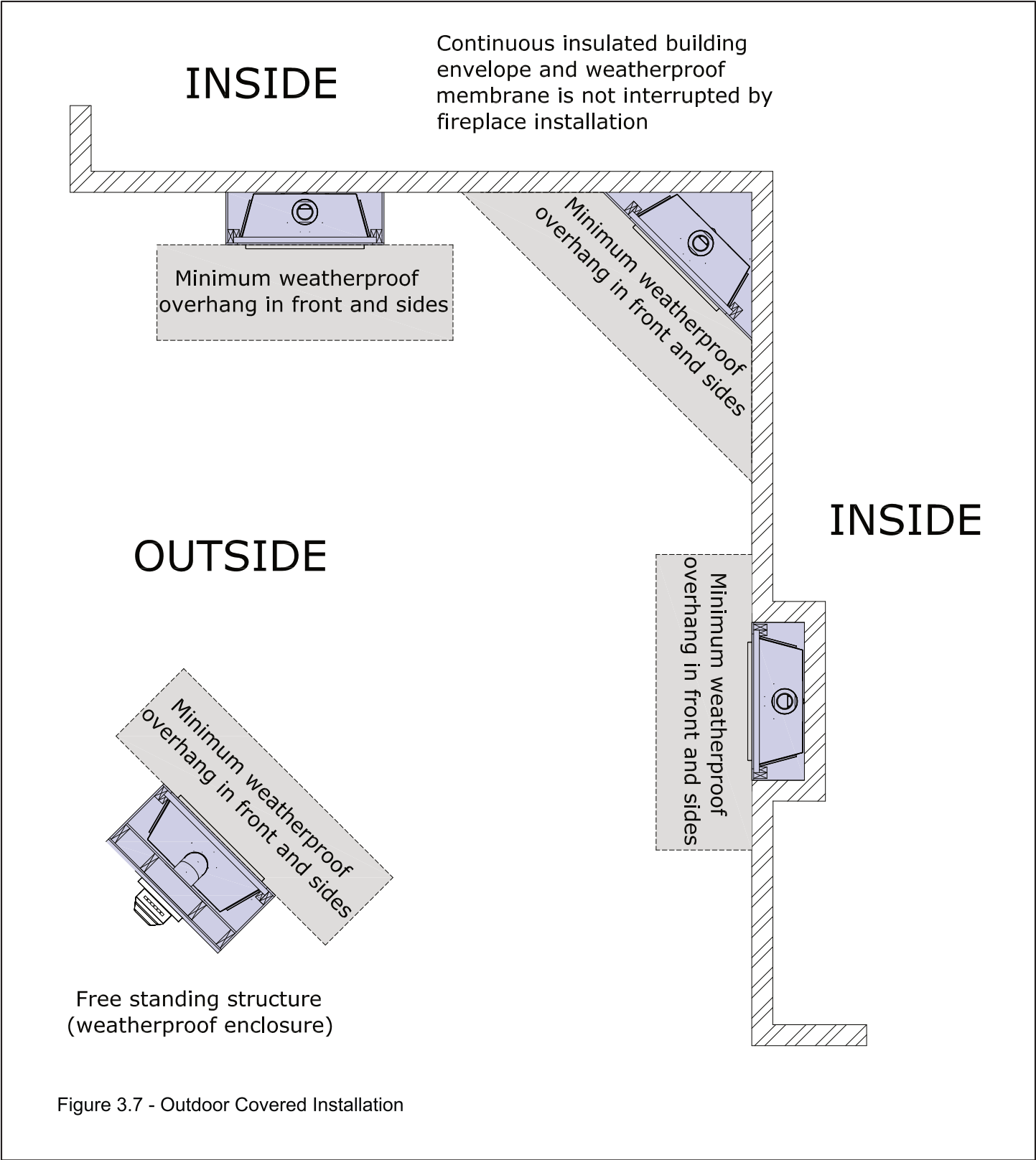


Figure 3.7 - Outdoor Covered Installation

4.0 Facing and Finishing

4.1 Facing and Finishing Requirements

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

Ensure finishing material does not inhibit the installation and removal of the safety barrier (See Section 2.4). Finishing material cannot obstruct ventilation air.

4.1.1 Combustible Hearth and Mantel Requirements

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

- **Combustible Mantel Projections:** As referenced in FIGURE 4.1, the 3/4" (19mm) trim can start at 33-1/2" (851mm) above the fireplace enclosure floor with a 6" (152mm) mantel starting at 37" (940mm) above the fireplace enclosure floor. Mantel projections can increase 1" (25mm) of depth for every 1" (25mm) of height starting at 6" (152mm) mantel.
- **Combustible Hearth:** Combustible flooring can run underneath this appliance which would then allow an unlimited combustible hearth projection. The hearth projection cannot be elevated (vertically) past the base of the fireplace / enclosure floor.
- **Mantel Leg:** Follow "Side Combustible Clearance" below. See FIGURE 4.5.
- **Combustible Sidewall Clearance:** the adjacent sidewall projection is unlimited and starts at 4-1/2" (114mm) from the side of the fireplace. See FIGURE 4.5.

4.1.2 Non-combustible Mantel Requirements

- **Noncombustible Mantel Projections:** A 6" (152mm) noncombustible mantel projection can start 6" above the top finishing edge of the fireplace.
- Follow projection 1" (25mm) up for every 1" (25mm) deeper.

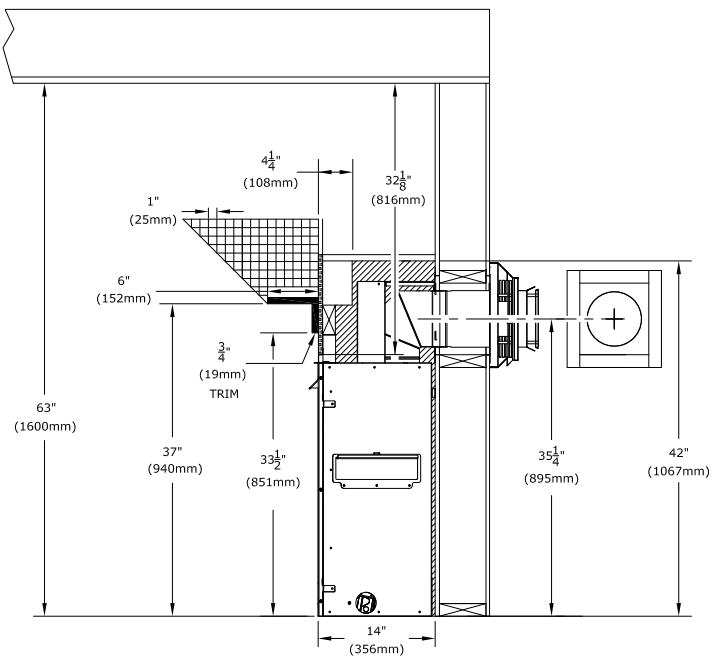
4.1.3 Finishing Recommendations

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

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

Disclaimer: Kozy Heat does not guarantee any materials used around the fireplace. Kozy Heat disclaims any and all liability for any damage to finishing materials including warping, discoloring, cracking, peeling or flaking. This also includes any off-gassing or unpleasant smells from materials when they are heated.

RIGID PIPE



FLEX PIPE

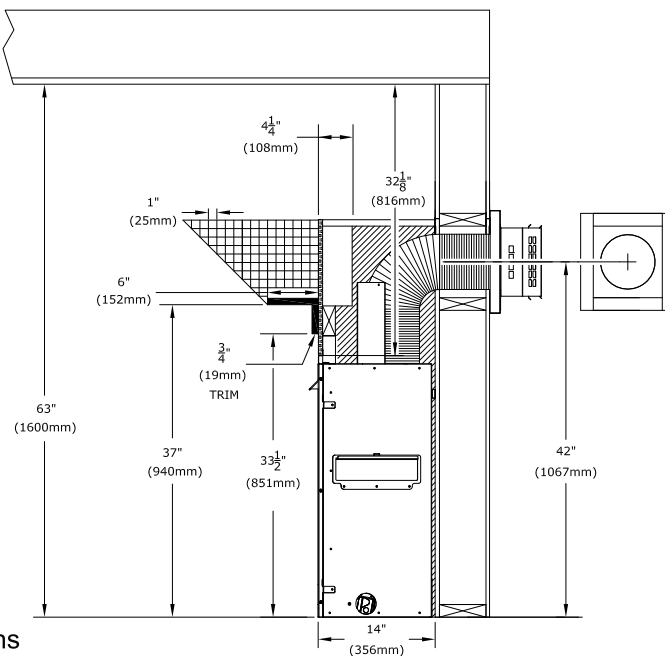


Figure 4.1 - Mantel Projections

Note: Shown below (Figure 4.2) is where combustible finishing material is allowed. Combustible finishing material is allowed to butt up against the appliance. Figure 4.3 shows a side profile of how the combustible finishing material butts up against the top finishing material standoff.

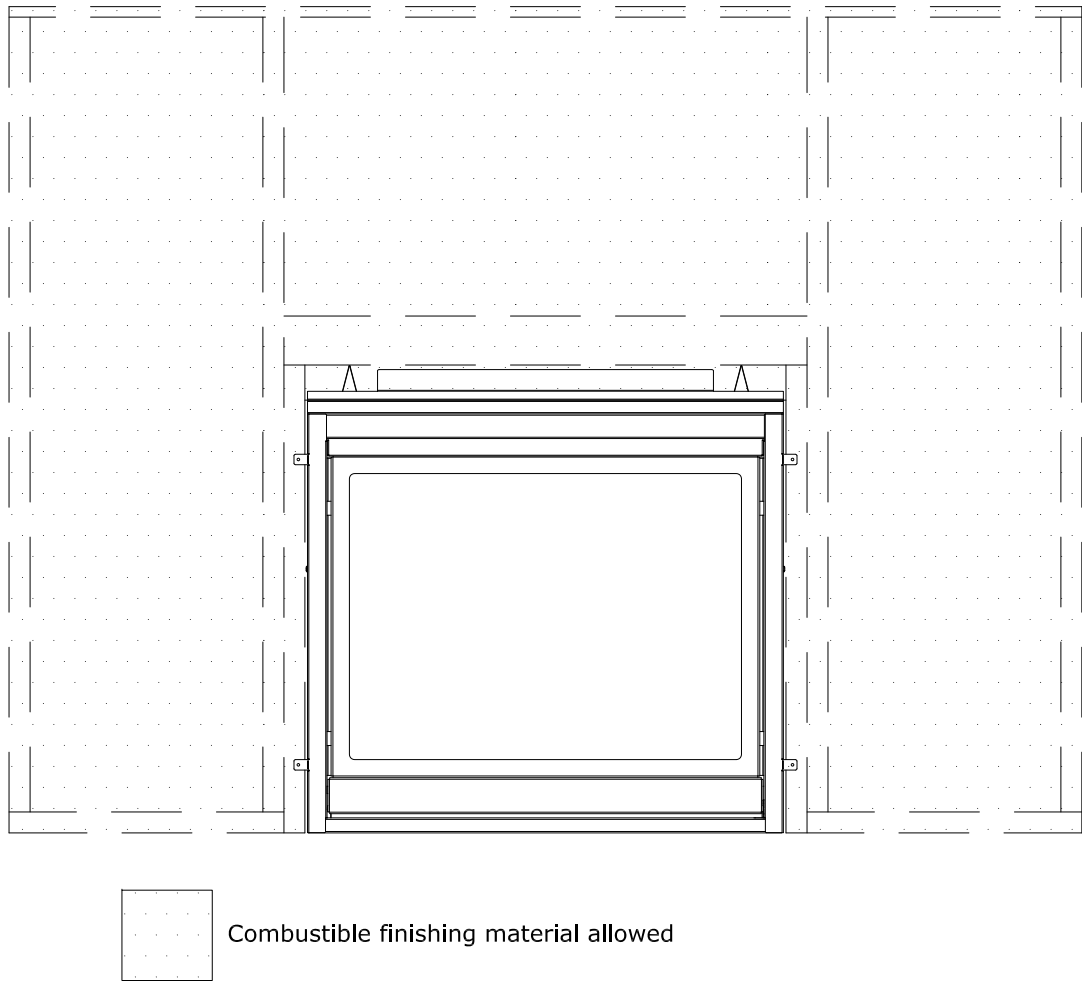


Figure 4.2 - Combustible Finishing Material

Note: Figure 4.3 shows the facing material flush with the appliance.

- The top of the appliance has a 1" (25mm) stand-off flange where the combustible facing material butts up against.

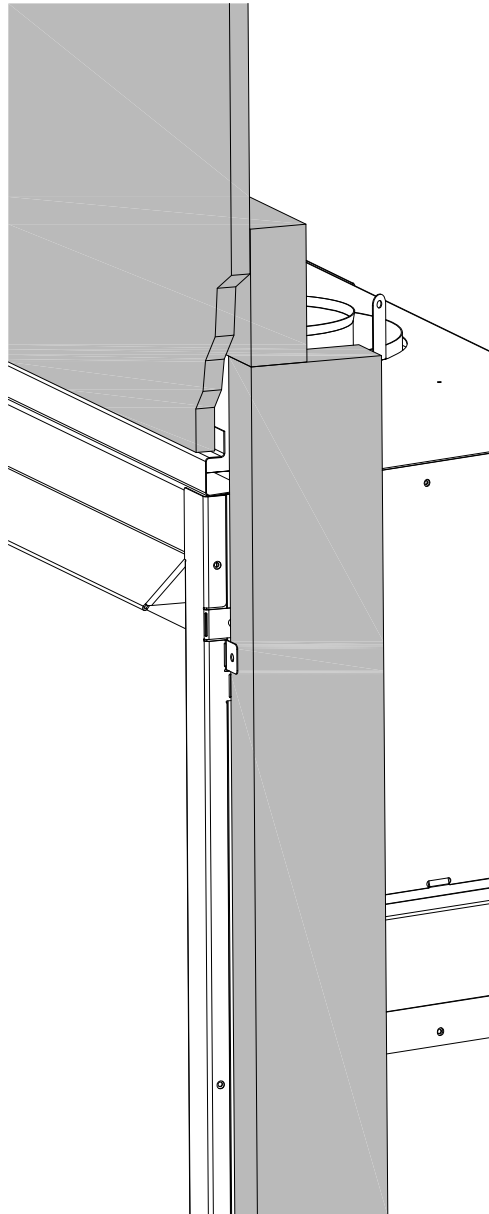


Figure 4.3 - Combustible Finishing Material

Note: Shown below is where noncombustible finishing material is allowed. If you want the finishing material to overlap the front of the fireplace you are required to use noncombustible finishing material on top of the appliance. Finishing material cannot cover the glass frame assembly, upper hood, and component access panel.

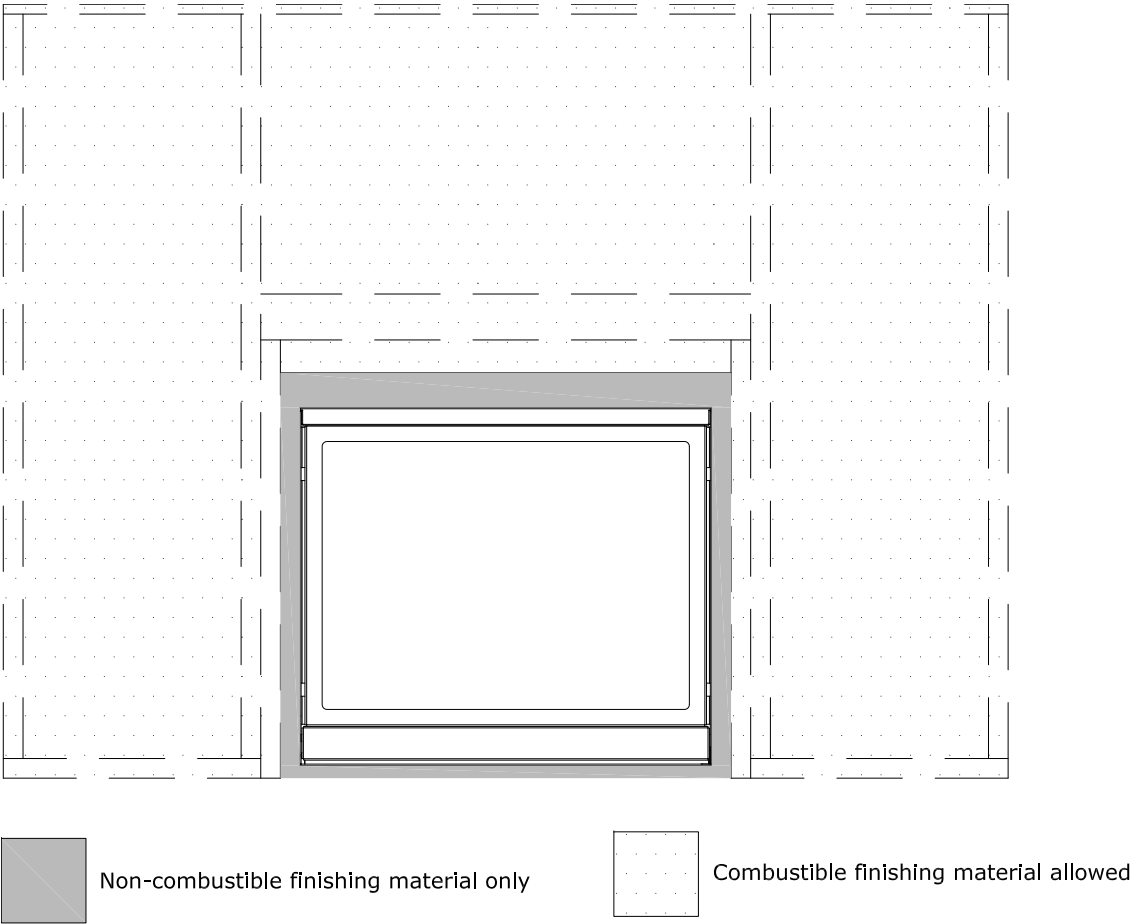


Figure 4.4 - Noncombustible Finishing Material

Note: Sidewall clearance of 4-1/2" (114mm) is shown from the side of the fireplace.

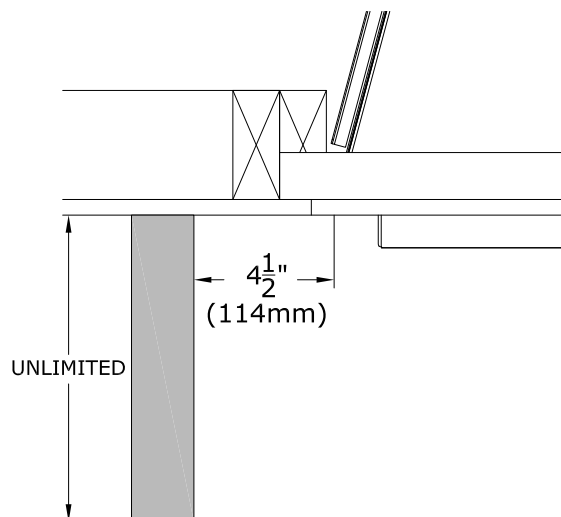


Figure 4.5 - Combustibleside Wall Projection

4.1.4 Recommended Installation of Marble and other stone materials

Kozy Heat recommends the following statements when using marble, granite, or other stone finishing materials

- Never use a one-piece marble, granite or natural stone that is cut in a U-shape for finishing material to cover the sides and top areas around the fireplace opening.
- If you use a one piece U-shaped piece of marble, or stone finishing material the material is susceptible to cracking due to thermal expansion
- Refer to the manufacturer and supplier of your finishing material for use in high heat applications like around a fireplace. Ensure the material can be exposed to temperatures greater than 160°F. Kozy Heat does not assume any liability for discoloring, cracking, or other heat related damage.

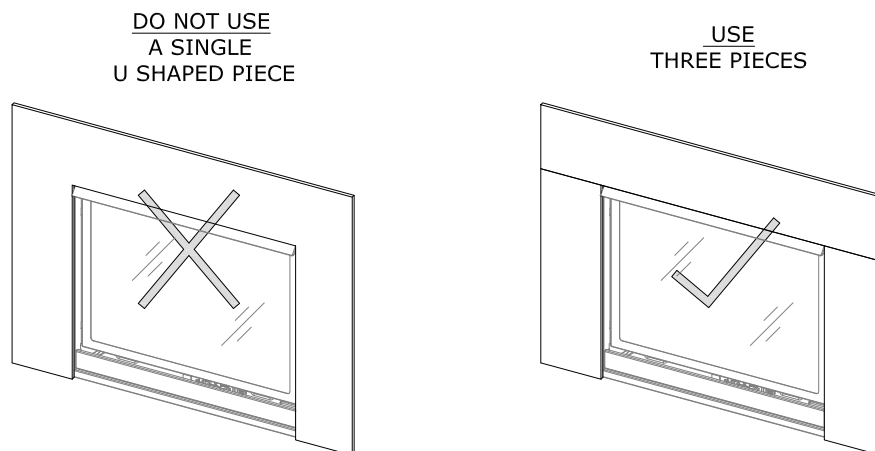


Figure 4.6 - Marble Installation Example

4.2 Exterior Trim - Purpose and Installation (SP34-081)

Kit Includes: (2) Side Trim Pieces, and (1) Top Trim Piece

Purpose:

The exterior trim is an optional accessory.

- This trim is intended to be used when the finishing material is flush with the appliance and covers an unfinished / exposed edge. The appliance should be installed at the recessed nailing flange position of 1/2" or 5/8". Choose the correct nailing flange location based on the thickness of your finishing material. See the appliance manual for more information.
- The exterior trim is held on by friction between the finishing material with the appliance and with double side adhesive tape on the backside of the trim. Make sure the finishing material is free of dust and debris to ensure the adhesive tape sticks to the finishing material.
- Note: if you are installing tile, stone, or another thick finishing material it is recommended that you use the SP34-FTK, Finishing Trim Kit. That kit provides a metal edge for finishing material to butt up against.

Installation:

1. Remove the backing paper on the adhesive tape for each side piece. Install the side trim so the section of the trim with the adhesive tape stick on the finishing material. The trim pieces will have cut outs to go around the screws on the side of the fireplace.
2. Remove the backing paper on the adhesive tape for the top pieces. The top pieces slides in between the finishing material and the top of the fireplace. Figure 4.7 shows installation of the exterior trim.

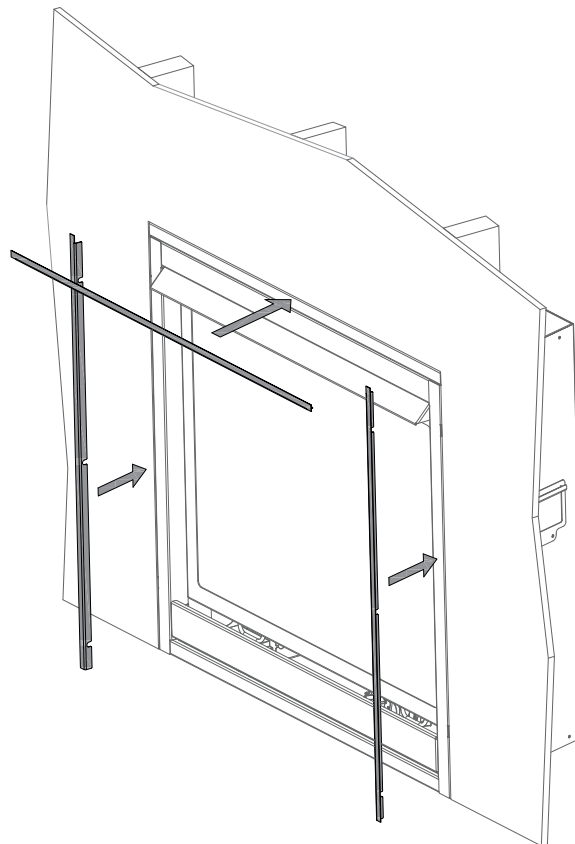


Figure 4.7 - Exterior Trim Installation

4.3 Finishing Trim Kit - Purpose and Installation (SP34-FTK)

Kit Includes: (2) Side Trim Pieces, and (1) Top Trim Piece

Purpose:

The finishing trim kit is an optional accessory.

- This trim is intended to be used when the finishing material that projects past the fireplace such as tile or stone.
 - If your finishing material will be flush with the fireplace (drywall installation) it is recommended that you use the exterior trim kit (SP34-081)
- The appliance should be installed at the recessed nailing flange position of 1/2" or 5/8". Choose the correct nailing flange location based on the thickness of your initial finishing material such as durock cement board.
- The finishing material you choose (tile, or stone) would then project past the fireplace and butt up against the finishing trim kit. The finishing trim kit helps cover an exposed edge of the finishing material.

Installation:

1. Install the side trim pieces first. Loosen the (3) sheet metal screws shown in Figure 4.8 and slide the trim piece in. Tighten the screws down to secure the trim piece to the fireplace.
2. Install the top trim pieces. Loosen the (2) sheet metal screws shown in Figure 4.8 and slide the trim piece in. Tighten the screws down to secure the trim piece to the fireplace.

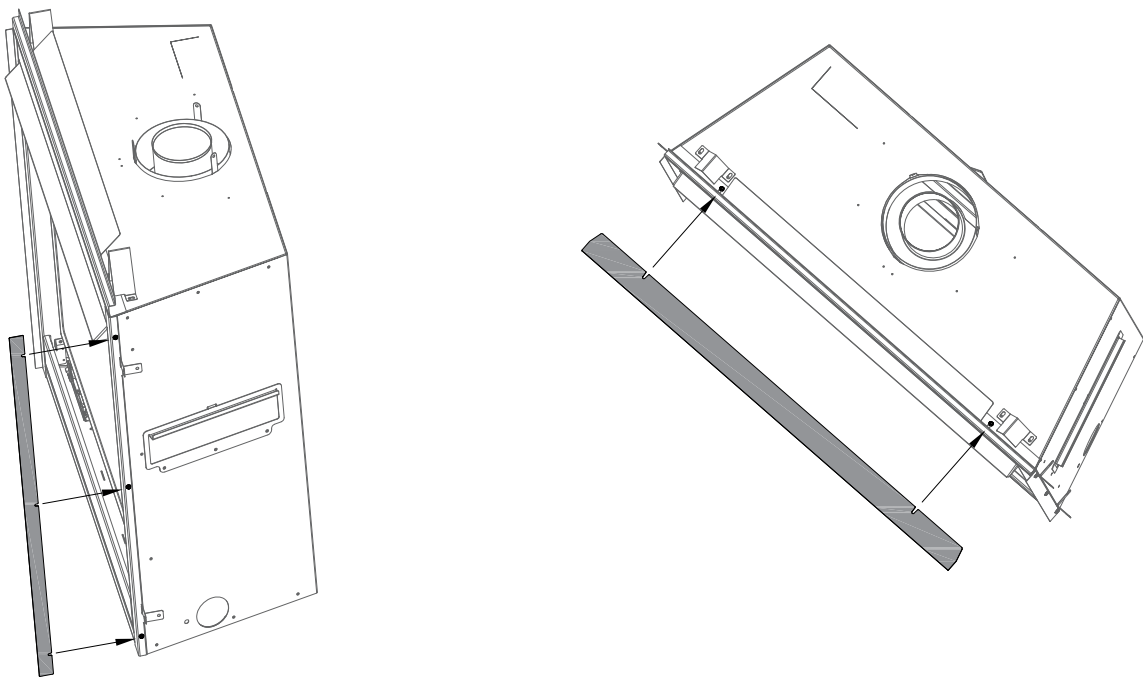


Figure 4.8 - Finishing Trim Kit Installation

4.4 Safety Barrier Installations

4.4.1 Safety Barrier Screen (#SP34-ES2)

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

4.4.2 Overlay Designs (#SP34-POL & #SP34A-POL)

1. If installed, remove the safety barrier screen.
 2. Center the overlay over the safety screen.
 3. Located the (4) tabs on the overlay. Hand bends the tabs to secure the overlay to the safety screen front.
 4. Located the (4) slots located on each side of the fireplace frame.
 5. Align notched tabs located on the back of the safety screen with the slots on the fireplace frame.
 6. Raise the safety barrier slightly into slots and allow the tabs to lower into position.
- To remove the safety screen: lift the screen up and out of slots.

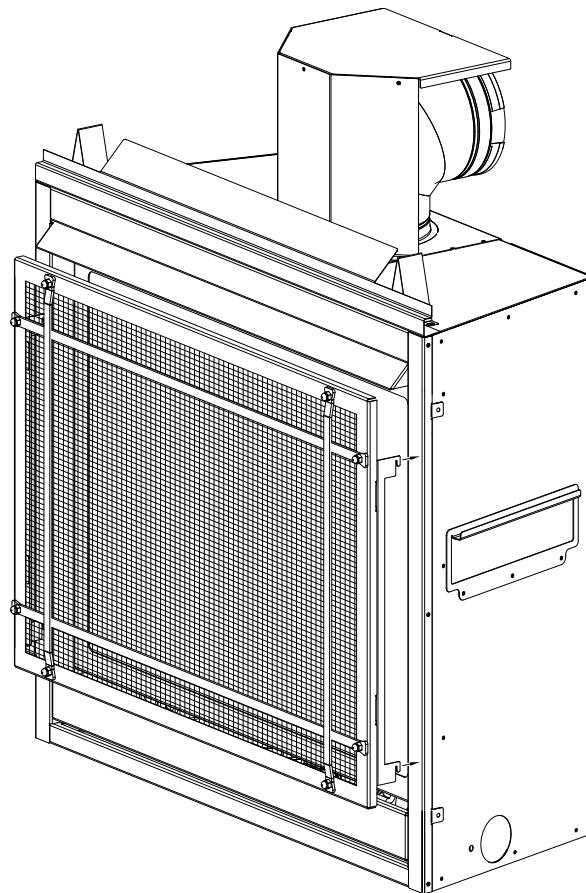


Figure 4.9 - Safety Barrier Installation

5.0 Gas Line Connection

5.1 Gas Conversion

SP-34-L: Stepper Motor sold separately to complete 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 through gas line hole provided. The gas line should be run to the point of connection where the shut-off valve and flexible gas line will connect. See Figure 2.1, Appliance Dimensions on page 9 for gas line access.
- 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 - SP-34-L (IPI)

	Natural Gas	Propane
Minimum Pressure	5" WC (1.25kPa) 7" WC (1.74kPa)* *recommended	11" WC (2.74kPa)
Maximum Pressure	10" WC (2.49kPa)	13" WC (3.24kPa)

Table 5.2, Inlet Gas Supply Pressures - SP-34-MV (Millivolt)

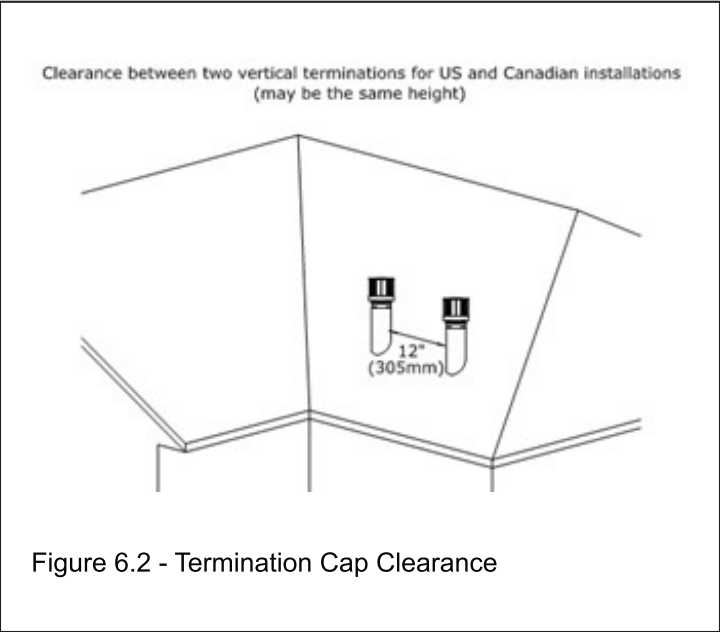
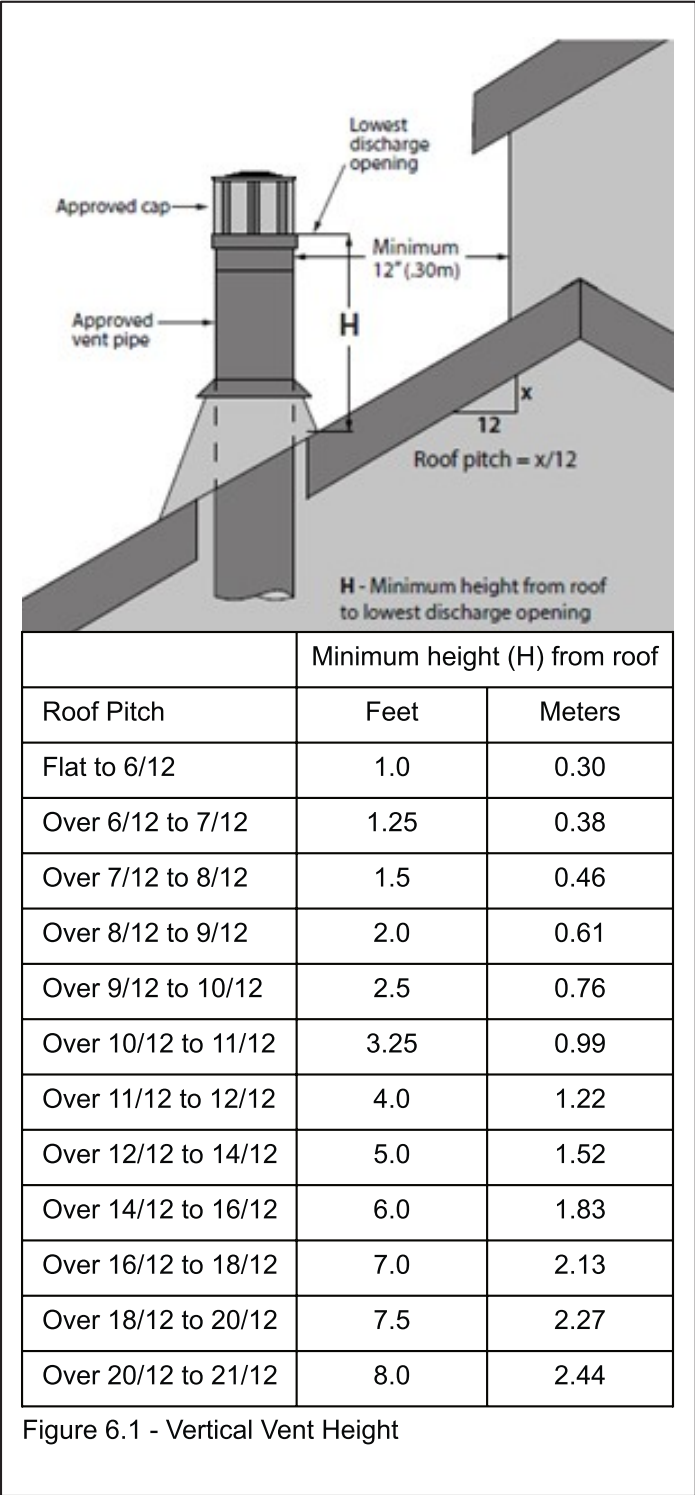
	Natural Gas	Propane
Minimum Pressure	5" WC (1.25kPa) 7" WC (1.74kPa)* *recommended	11" WC (2.74kPa)
Maximum Pressure	10" WC (2.49kPa)	13" WC (3.24kPa)

6.0 Termination Locations

6.1 Vertical Vent Cap Termination

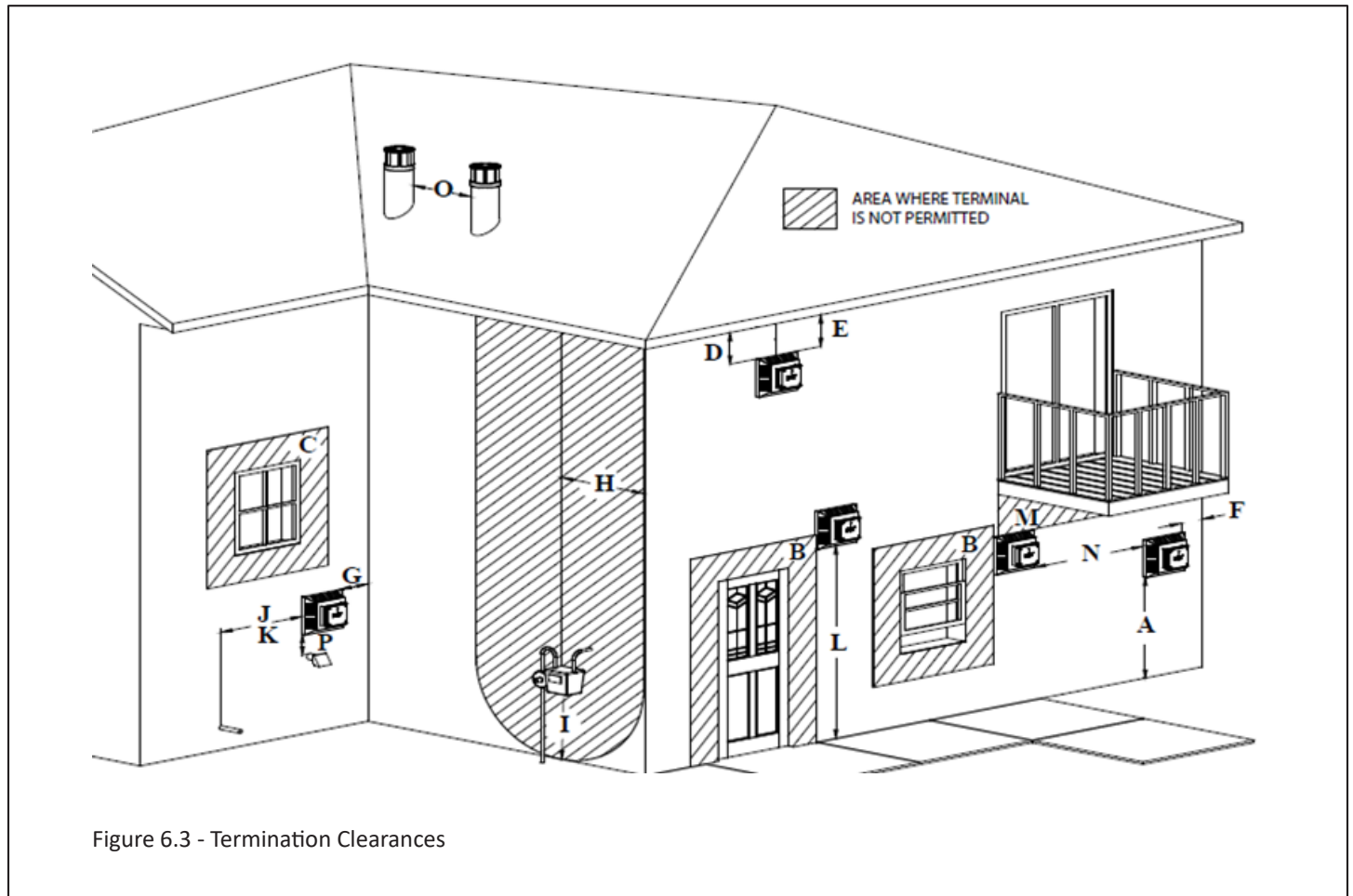
Note: Natural Draft Applications only.

- Refer to Figure 6.1 below for vertical vent terminations clearances.
- Refer to Figure 6.2 below for clearance between two vertical terminations.



6.2 Minimum Termination Clearances

Refer to Figure 6.3 and the table below for natural draft vent termination clearance locations.



Vinyl & PVC Siding Recommendation

- Vinyl and PVC siding is likely to bend, buckle, and deform due to heat reflecting from a fireplace horizontal termination cap.
- Please refer to vent manufacturer for information regarding vinyl siding protectors.
- Kozy Heat assumes no responsibility or liability for damages caused to vinyl or PVC siding in this type of installation.

	Table 6.1	Canadian Installations	US Installations
A	Clearance above grade, veranda, porch, desk, or balcony.	12" (30cm)	12" (30cm)
B	Clearance to window or door that may be opened.	12" (30cm)	9" (23cm)
C	Clearance to permanently closed window (recommended to prevent condensation on window).	12" (30cm)	12" (30cm)*
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61cm) 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)
H	Clearance to each side of center line extended above meter / regulator assembly.	3' (91cm) within a height 15' (4.5m) above the meter/regulator assembly	*
I	Clearance to service regulator vent outlet.	3' (91cm)	*
J	Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance.	12" (30cm)	9" (23cm)
K	Clearance to mechanical air supply inlet.	6' (1.83m)	3' (91cm) above**
L	Clearance above paved sidewalk or paved driveway located on public property	7' (2.13m)†	*
M	Clearance under veranda, porch deck, or balcony.	12" (30cm)‡	12" (30cm)
N	Clearance between two horizontal terminations.	12" (30cm)	12" (30cm)
O	Clearance between two vertical terminations (may be the same height)	12" (30cm)	12" (30cm)
P	Above furnace exhaust or inlet	12" (30cm)	12" (30cm)
*Clearance in accordance with local installation codes and the requirements of the gas supplier.			
**Massachusetts: 10' (3m) above] if within 10' (3m) horizontally			
†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, desk, or balcony if fully open on a minimum of two sides beneath the floor			
VINYL SOFFIT, VINYL CEILING, AND VINYL OVERHANG DISCLAIMER: Clearances to heat resistant materials (i.e. wood, metal). This does not include vinyl. Hussong Manufacturing Co., Inc. Will not be held responsible for heat damage caused from terminating under vinyl overhangs, vinyl ceilings, or vinyl ventilated / unventilated soffits.			

7.0 Venting

7.1 Approved Vent Systems

This appliance is equipped for use with a 4" (102mm) exhaust by 6-5/8" (168mm) air intake co-axial vent pipe system.

This appliance is approved for use with manufacturers (horizontal and vertical terminations): American Metal Products (Ameri-Vent), BDM, ICC, Metal Fab, Olympia Chimney Supply, Inc., Selkirk, and Simpson DuraVent. See sections 7.1.1.

This appliance can be adapted to use 4" diameter aluminum flexible pipe by any listed vent manufacturer when used in combination with an existing minimum 7" ID Class A metal/masonry chimney. Refer to section 7.6 for more information.

This appliance can be adapted from co-axial to co-linear vent system. Refer to section 7.7 for more information.

This appliance is approved for use with Kozy Heat 4" x 7" #700-2 series Flexible Direct Vent System (horizontal termination only). Refer to Section 7.8 for venting components and installation instructions.

Refer to the vent manufacturer's installation manual for complete installation instructions. Installation must conform with the requirements and restrictions specified in this manual.

7.1.1 Approved 4" x 6-5/8" Vent Systems

Table 7.1, Approved 4" x 6-5/8" Vent Systems	
Vent Manufacturer	Vent Cap Part Number
American Metal Products (Ameri-Vent)	4DHCS 4DHC 4DVC 4D14S 4D36S DVCC33
BDM	940033HWS 940033 DVR6-HC DVR6-HCP DVR6-VCLP DVR-VCH DVR6-SNK14 DVR6-SNK36
Simpson DuraVent	46DVA-CL33H 46DVA-CL33P 46DVA-HSCH 46DVA-VCH 46DVA-VC 46DVA-VCE 46DVA-HTC
ICC	CT3 IVT TM-4VTA TM-4HT TM-4RHT TM-4DHT TM-4SVT TM-4ST14 TM-4ST36

Table 7.1 continued, Approved 4" x 6-5/8" Vent Systems	
Vent Manufacturer	Vent Cap Part Number
Kozy Heat	745-2 718-2
Metal Fab	4DVT33F 4DHT 4DVT 4DVTHW 4DST14 4DST36
Olympia Chimney Supply, Inc.	VDV-HC04 VDV-VC04 VDV-VCH04 VDV-SNC0414 VDV-SNC0436 VDV-RCL33 VDV-CC33 VDV-VCCH33
Selkirk	4DT-HC 4DT-HCR 4DT-VT 4DT-VC 4DT-ST14 4DT-ST36 4DT-CC33

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.

- 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 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 the top, sides, and bottom of the horizontal vent pipe must be maintained. Wall thimble products that comply with the required clearances 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.
- The provided vent heat shield is required to be installed in all venting scenarios. See Figure 7.1, 7.2, and 7.3. The stand off assembly and heat shields are cut away in this image to show the vent heat shield better.
- The gas appliance cannot be connected to a chimney flue that is serving a separate solid-fuel burning appliance.
- Horizontal vent sections require at least 1/4" (6mm) rise for every 12" (305mm) of travel.

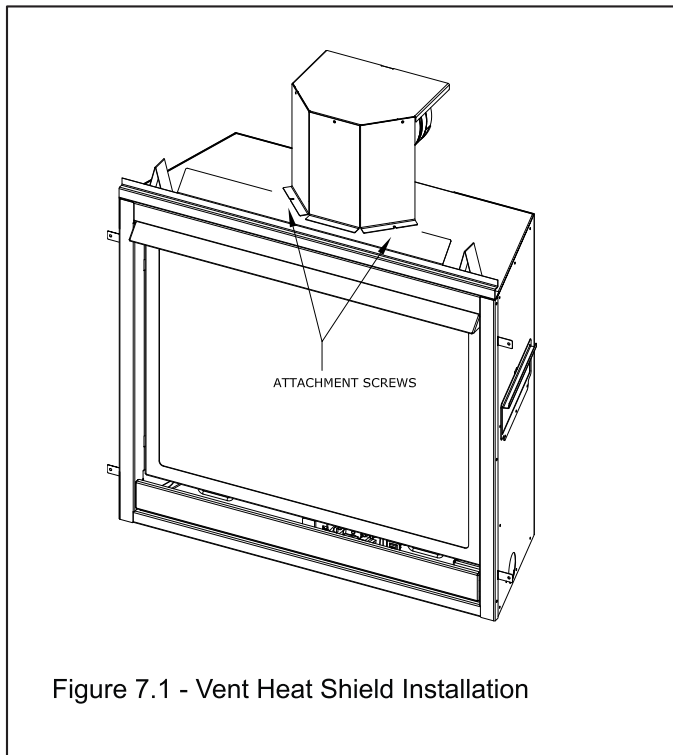


Figure 7.1 - Vent Heat Shield Installation

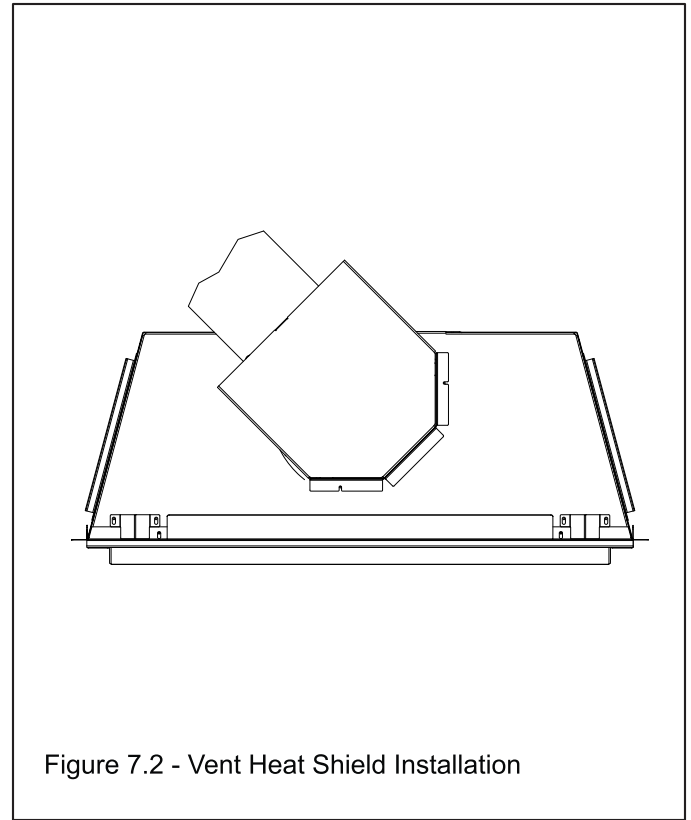


Figure 7.2 - Vent Heat Shield Installation

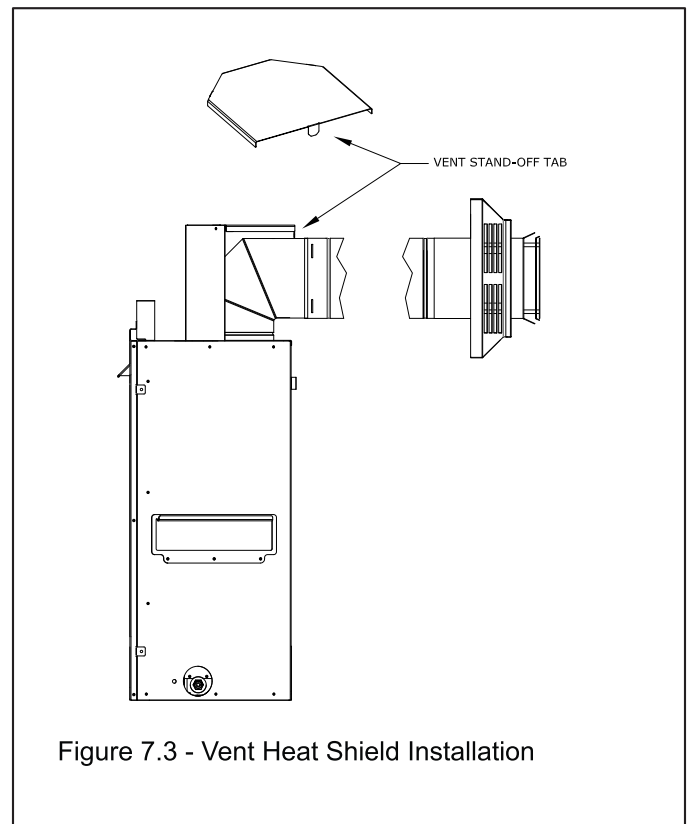


Figure 7.3 - Vent Heat Shield Installation

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).
- 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. As you knock out and remove an inner ring you have less vent restriction where removing both inner rings you will have the least amount of vent restriction.
- Follow FIGURE 7.4 for restrictor plate installation before attaching venting or through the baffle if venting is already attached. For vent restriction plate recommendations and adjustments, see section 12.3.3, Vent Restriction (after installation).

7.4 Use of Flexible Venting Outside the Appliance Enclosure

- If an approved venting manufacturer offers flexible venting options that can replace rigid vent pipe follow the vent manufacturer's instructions.
- Flexible vent pipe can only be used outside of the appliance enclosure.
 - Exception: SP34 is approved for #700-2 Series Horizontal Flex Vent Termination Kit. This is a horizontal vent termination kit that would be inside the fireplace enclosure. See Section 7.8.
- Flexible vent pipe cannot be used to terminate the vent system vertically. Only approved flex systems are approved for horizontal termination (#700-2).

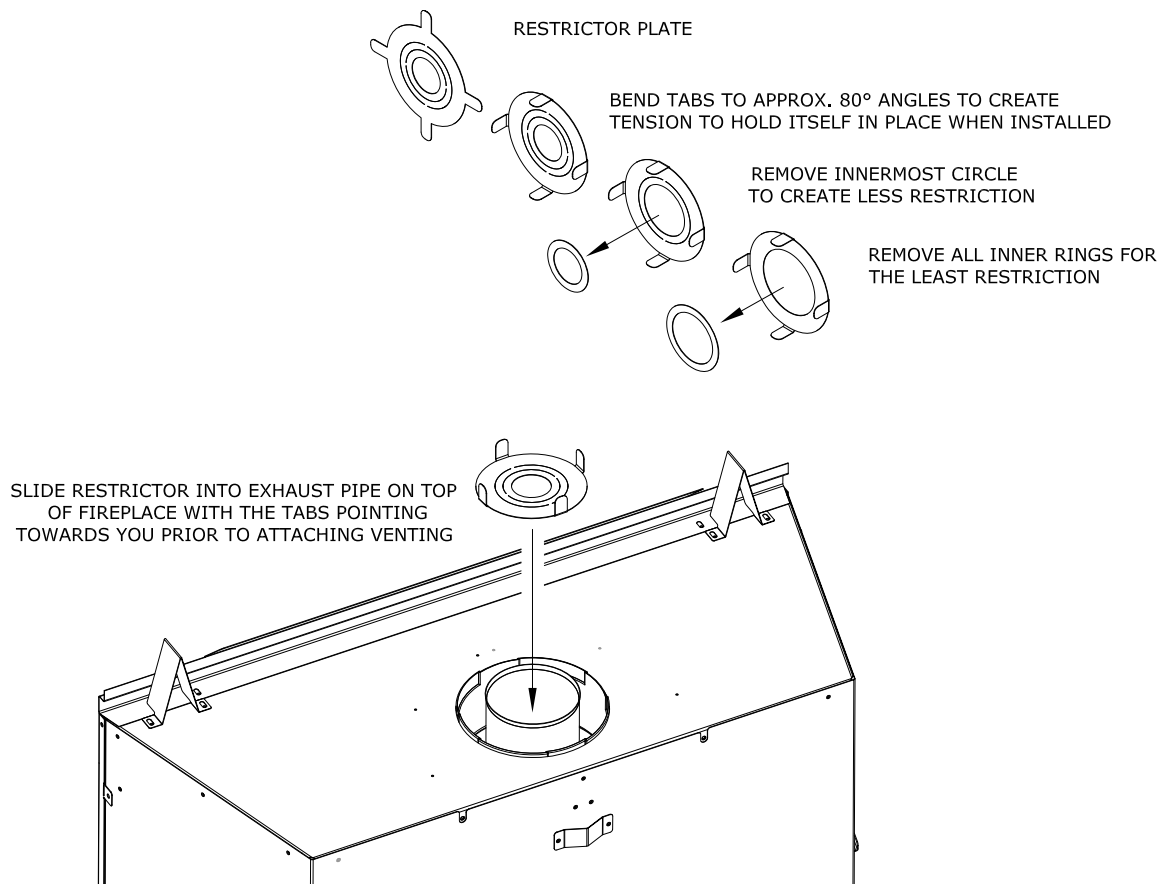


Figure 7.4 - Restrictor Installation

7.5 Natural Draft Co-Axial Pipe Installations

7.5.1 Vertical Terminations

Note: Natural Gas and Propane Installations

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

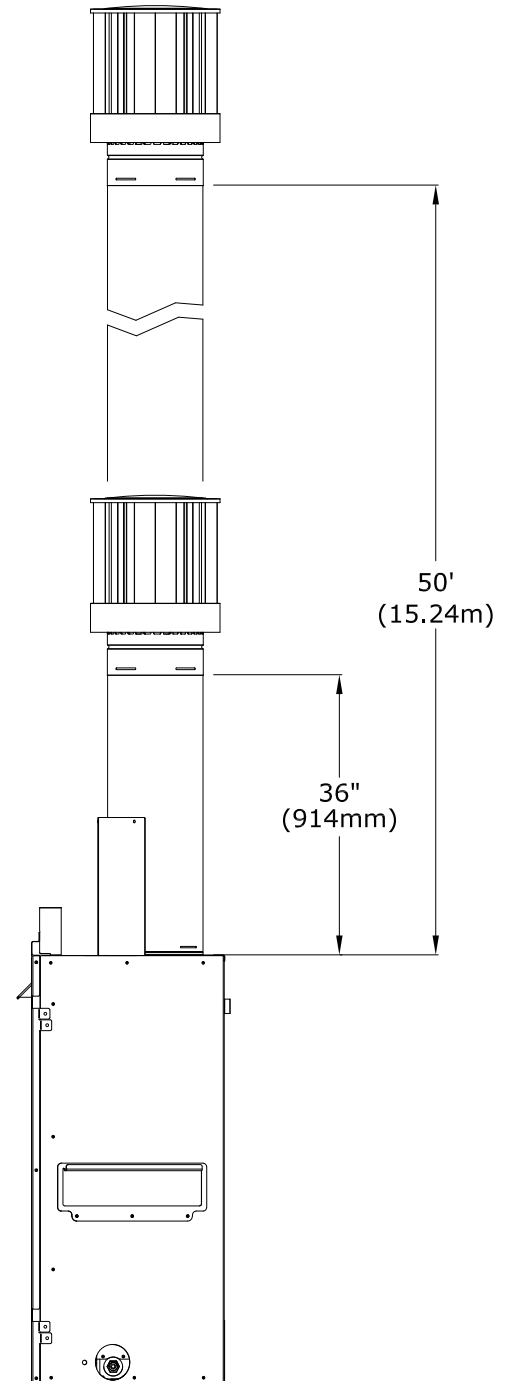


Figure 7.5 - Vertical Vent Pipe

7.5.2 Horizontal Terminations

Note: Natural Gas and Propane Installations

Note: Figures shown in this section use rigid pipe. Venting requirements also apply to Section 7.8 #700-2 Flex Vent.

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

- (i) Minimum 0" Vertical Vent Pipe / Minimum Horizontal:
0" (0mm) vertical vent pipe + 90° horizontal elbow + 6" (152mm) minimum horizontal vent pipe + termination cap
- (i) Minimum 0" Vertical Vent Pipe / Maximum Horizontal:
0" (0mm) vertical vent pipe + 90° horizontal elbow + 48" (1219mm) maximum horizontal vent pipe + termination cap
- (ii) Minimum 9" Vertical Vent Pipe / Minimum Horizontal:
9" (228mm) vertical vent pipe + 90° horizontal elbow + 6" (152mm) minimum horizontal vent pipe + termination cap
- (ii) Minimum 9" Vertical Vent Pipe / Maximum Horizontal:
9" (228mm) vertical vent pipe + 90° horizontal elbow + 10' (3m) maximum horizontal vent pipe + termination cap

- (iii) Minimum 12" Vertical Vent Pipe / Minimum Horizontal:
12" (305mm) vertical vent pipe + 90° horizontal elbow + 6" (152mm) minimum horizontal vent pipe + termination cap
- (iii) Minimum 12" Vertical Vent Pipe / Maximum Horizontal:
12" (305mm) vertical vent pipe + 90° horizontal elbow + 14' (4.27m) maximum horizontal + termination cap
- (iv) Maximum 24" Vertical / Minimum Horizontal:
24" (609mm) maximum vertical vent length + 90° horizontal elbow + 6" (152mm) horizontal vent pipe + termination cap
- (iv) Maximum 24" Vertical / Maximum Horizontal:
24" (609mm) maximum vertical + 90° horizontal elbow + 20' (6m) maximum horizontal + termination cap
- (v) Maximum 25' Vertical / Minimum Horizontal:
25' (7.62m) maximum vertical vent length + 90° horizontal elbow + 6" (152mm) horizontal vent pipe + termination cap
- (v) Maximum 25' Vertical / Maximum Horizontal:
25' (7.62m) maximum vertical + 90° horizontal elbow + 25' (7.62m) maximum horizontal + termination cap

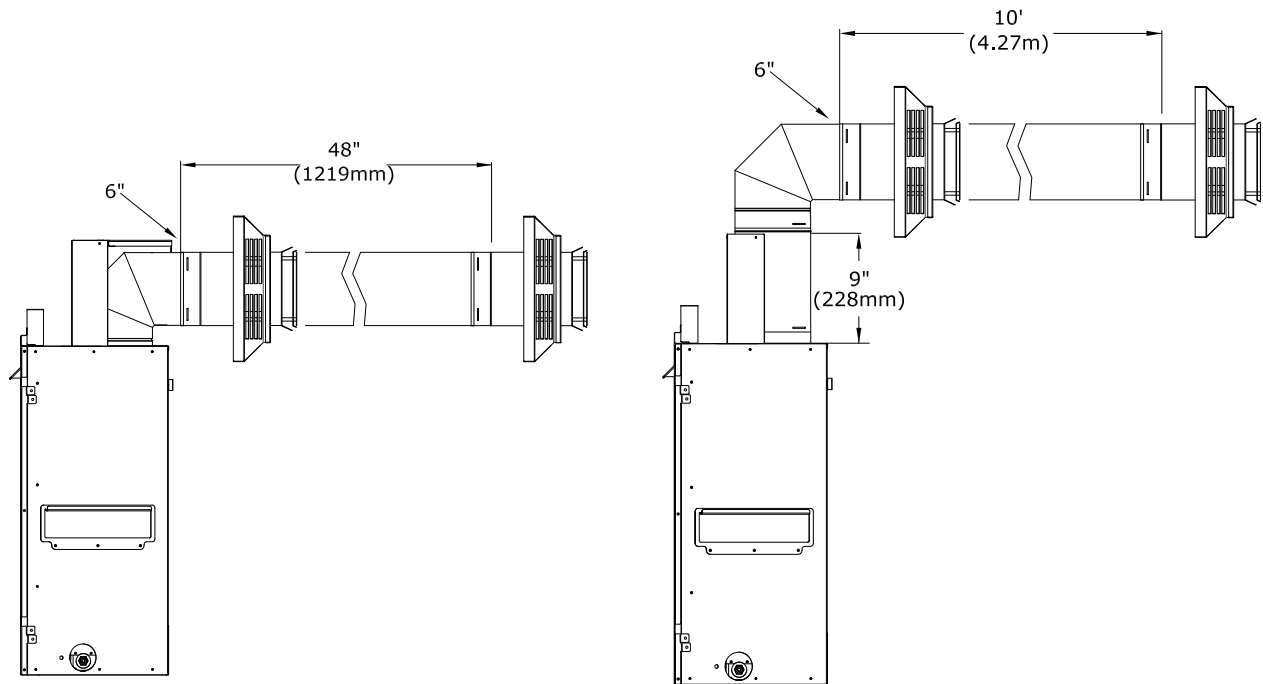


Figure 7.6 - Horizontal 4" x 6-5/8" Vent Pipe

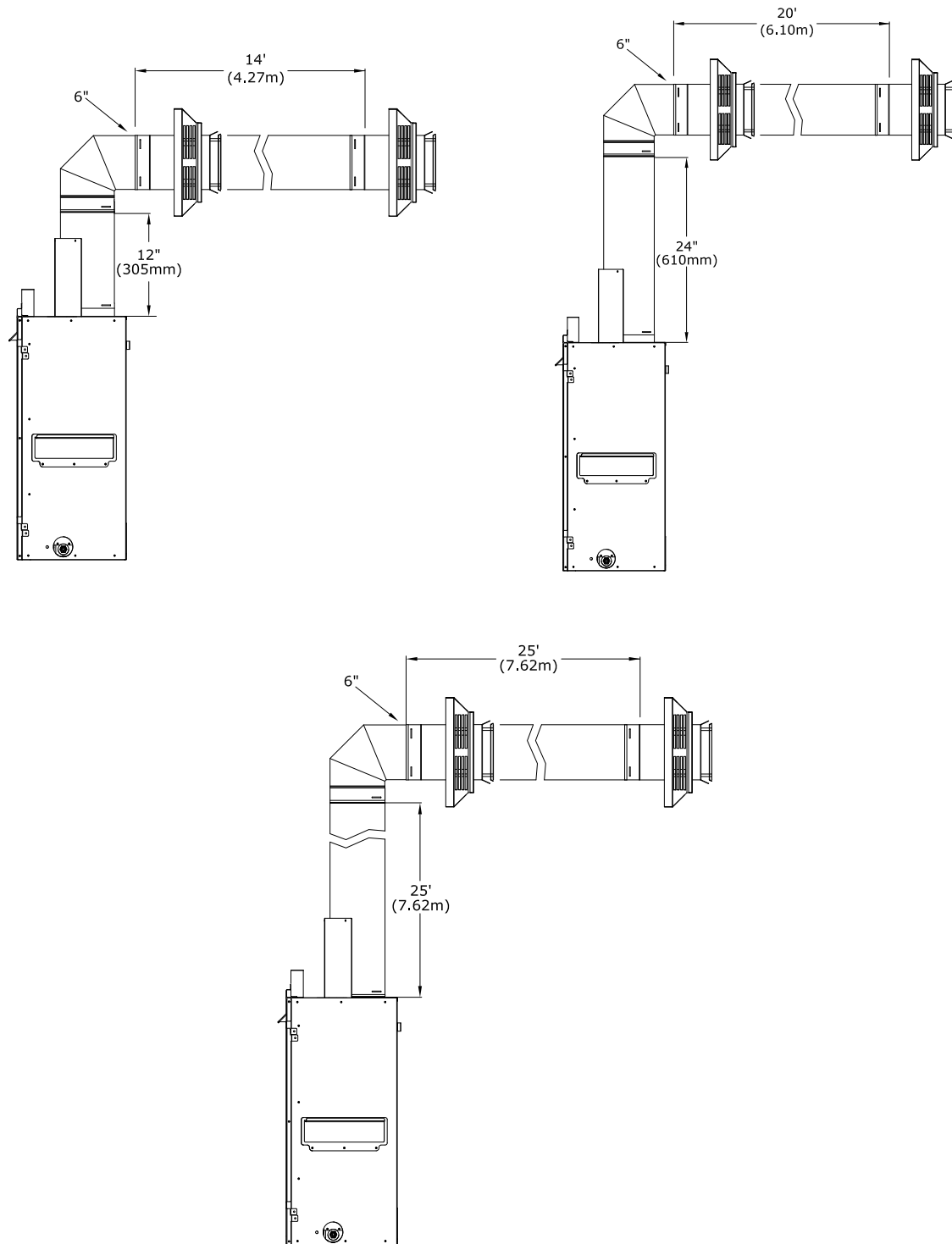


Figure 7.7 - Horizontal 4" x 6-5/8" Vent Pipe

7.5.3 Combination Venting

Note: Natural Gas and Propane Installations

Vent termination must be within the shaded area in FIGURE 7.8.

- 25' (7.62m) maximum vertical rise + 25' (7.62m) 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.
- (2) 45° degree elbows may be used in place of (1) 90° elbow. For each 45° elbow used, 18" (457mm) must be subtracted from maximum venting allowed.

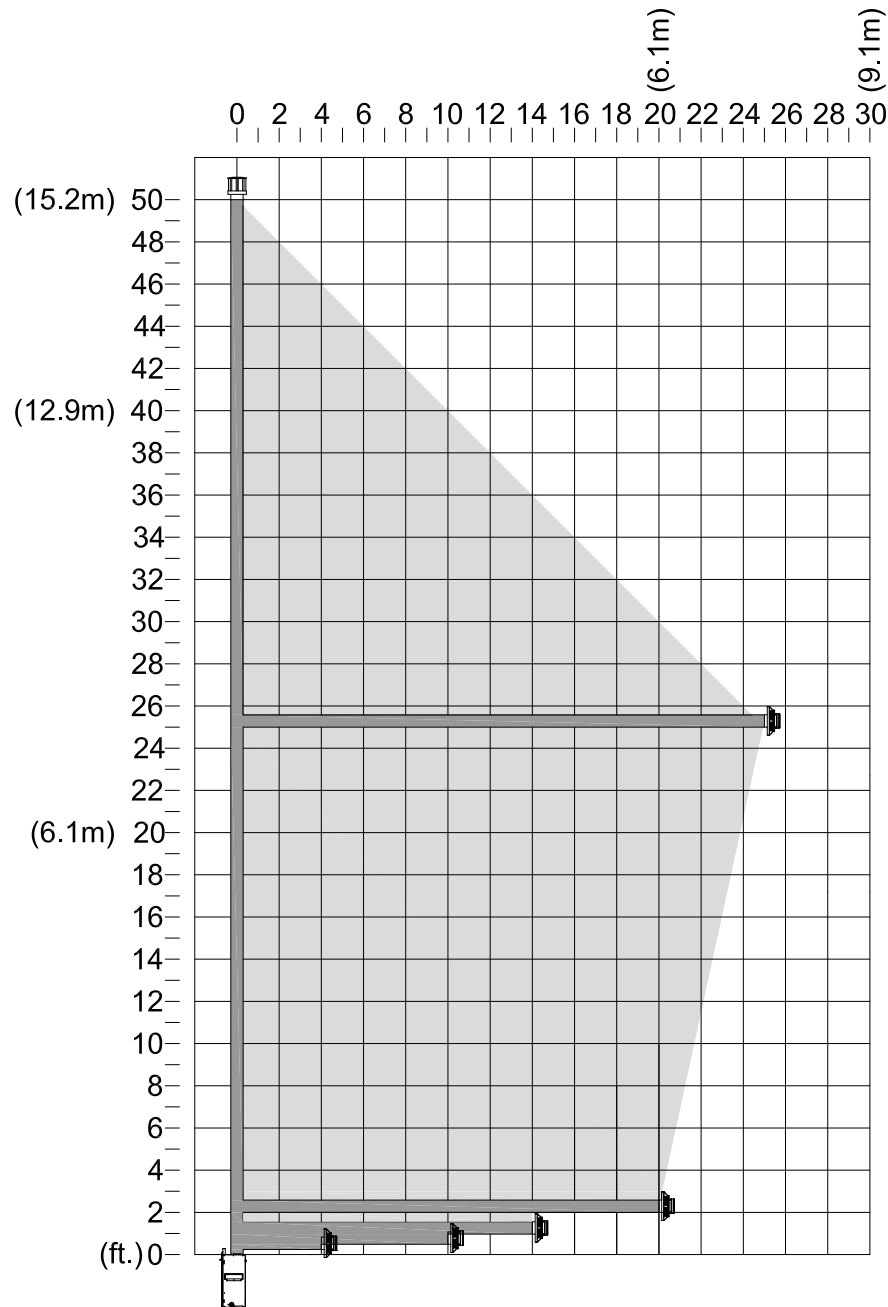


Figure 7.8 - Combination 4" x 6-5/8" Vent Pipe Chart

7.6 Class A Chimney / Masonry Chimney Conversion

This appliance is approved to be adapted for Class A/Masonry Chimney conversion with kits utilizing a 4" (102mm) flexible exhaust by any vent manufacturers listed in section 7.1, APPROVED VENT SYSTEMS.

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 Figure 7.9 for allowable venting configurations for installation in existing through-the-ceiling, Class A/Masonry chimney. Route the exhaust gases and intake air through the existing Class A/Masonry chimney.

The gas appliance cannot be connected to a chimney flue that is serving a separate solid-fuel burning appliance.

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.

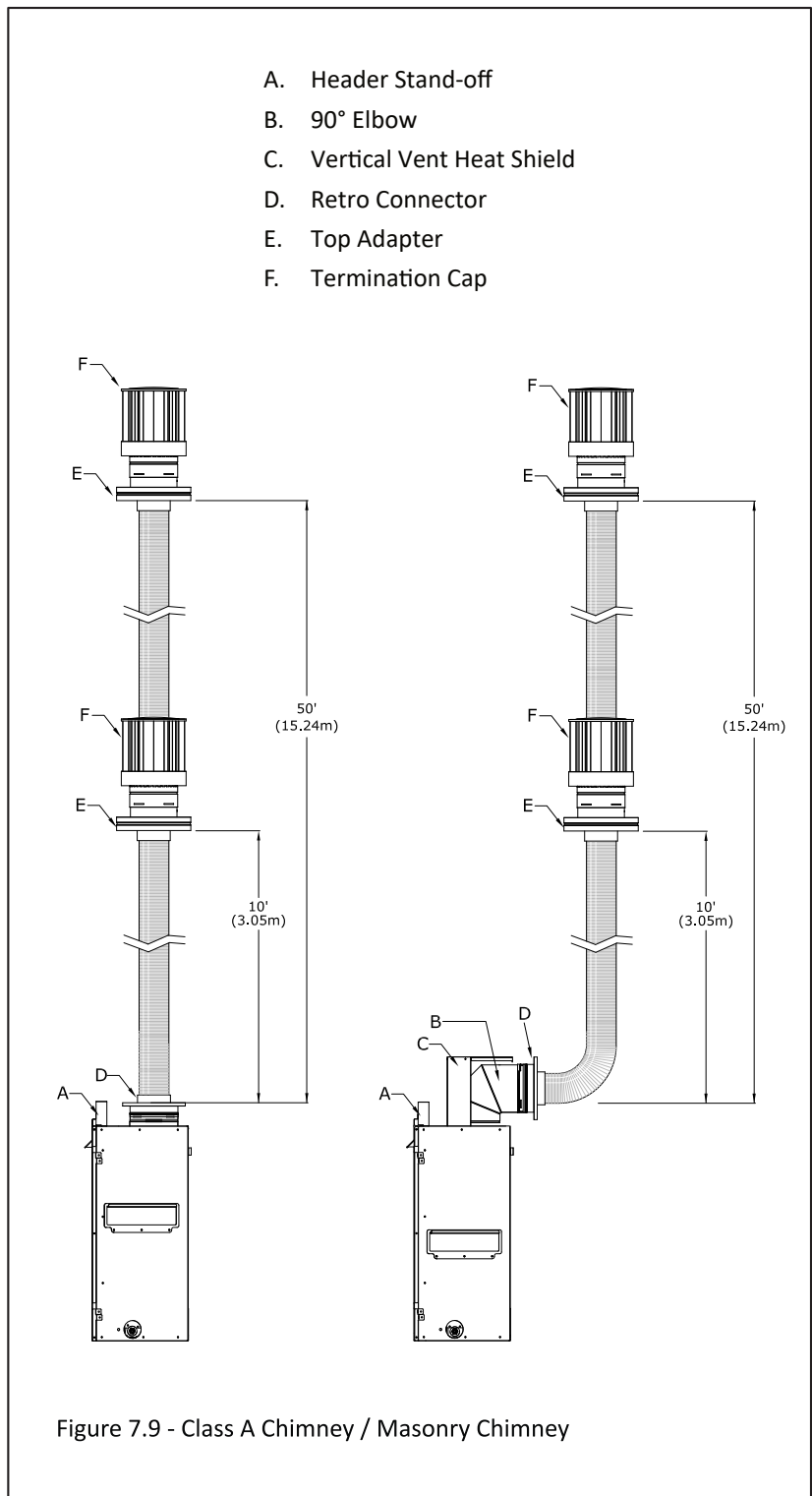
IMPORTANT: Care should be taken when installing flexible pipe to avoid a tight bend that may cause abrasion or damage to the flexible pipe.

The vent option listed below allow for a minimum of 0" (0mm) to a maximum of 24" (610mm) horizontal run using rigid or flexible pipe.

(1) Minimum / Maximum Vertical Terminations

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

(2) Minimum / Maximum Vertical Terminations using a 90° elbow 4" x 6-5/8" 90° elbow + 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 Co-Axial 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 Figure 7.10 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 Co-axial to Co-Linear Venting Configurations

IMPORTANT: Horizontal vent sections require at least 1/4" (6mm) rise for every 12" (305mm) of travel. Care should be taken when installing flexible pipe to avoid a tight bend that may cause abrasion or damage to the flexible pipe.

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

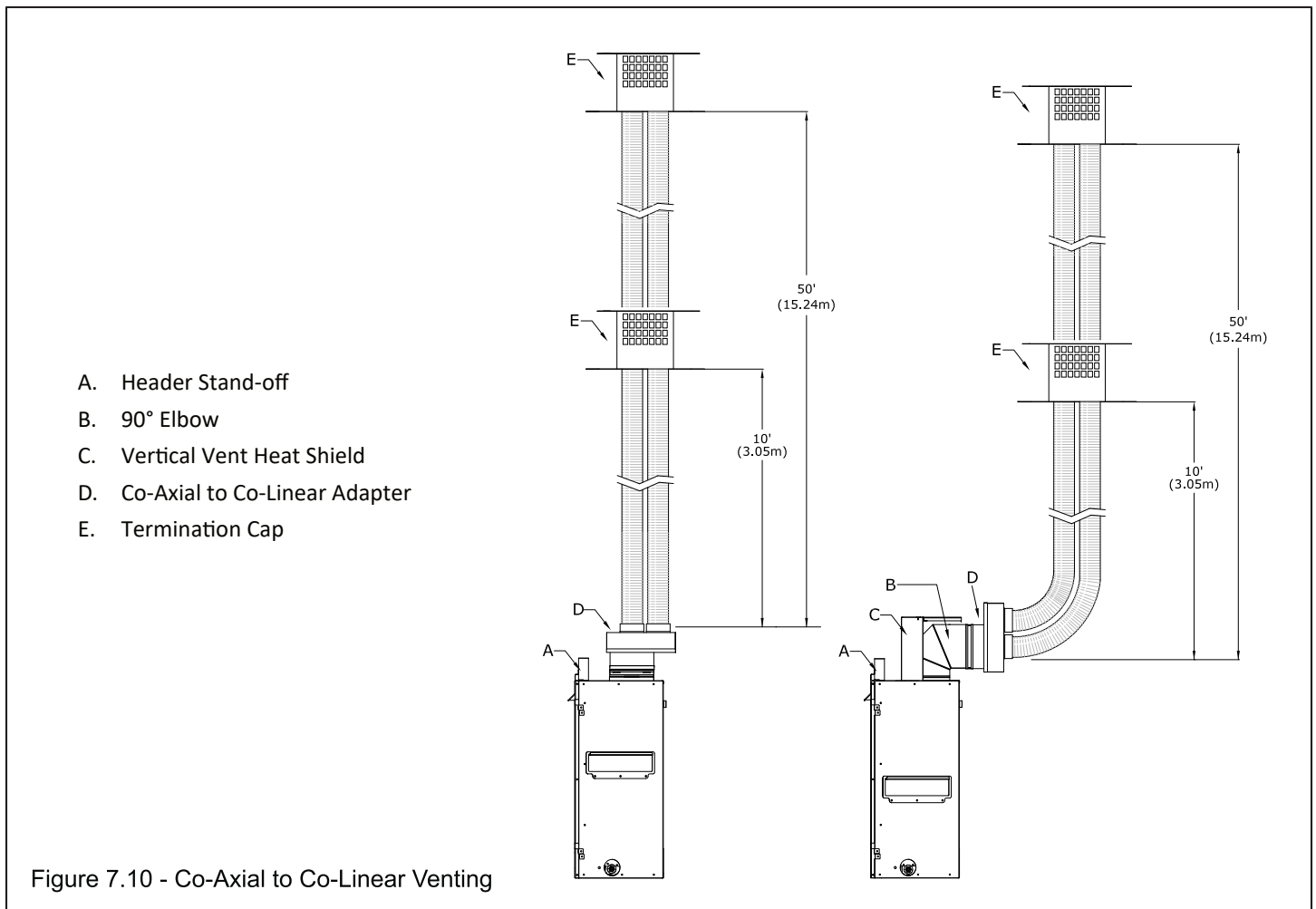
The vent option listed below allows for a minimum of 0" (0mm) to a maximum of 24" (610mm) horizontal run using rigid or flexible pipe.

1. Minimum / Maximum Vertical Terminations

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

2. Minimum / Maximum Vertical Terminations

90° horizontal elbow + Coaxial to Co-linear adapter + 10' (3.05m) minimum length of 3" aluminum flexible pipe / 50' (15.24m) maximum length of 3" x 3" aluminum flexible pipe + termination cap



7.8 #700-2 Series Horizontal Flex Vent Termination Kit

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

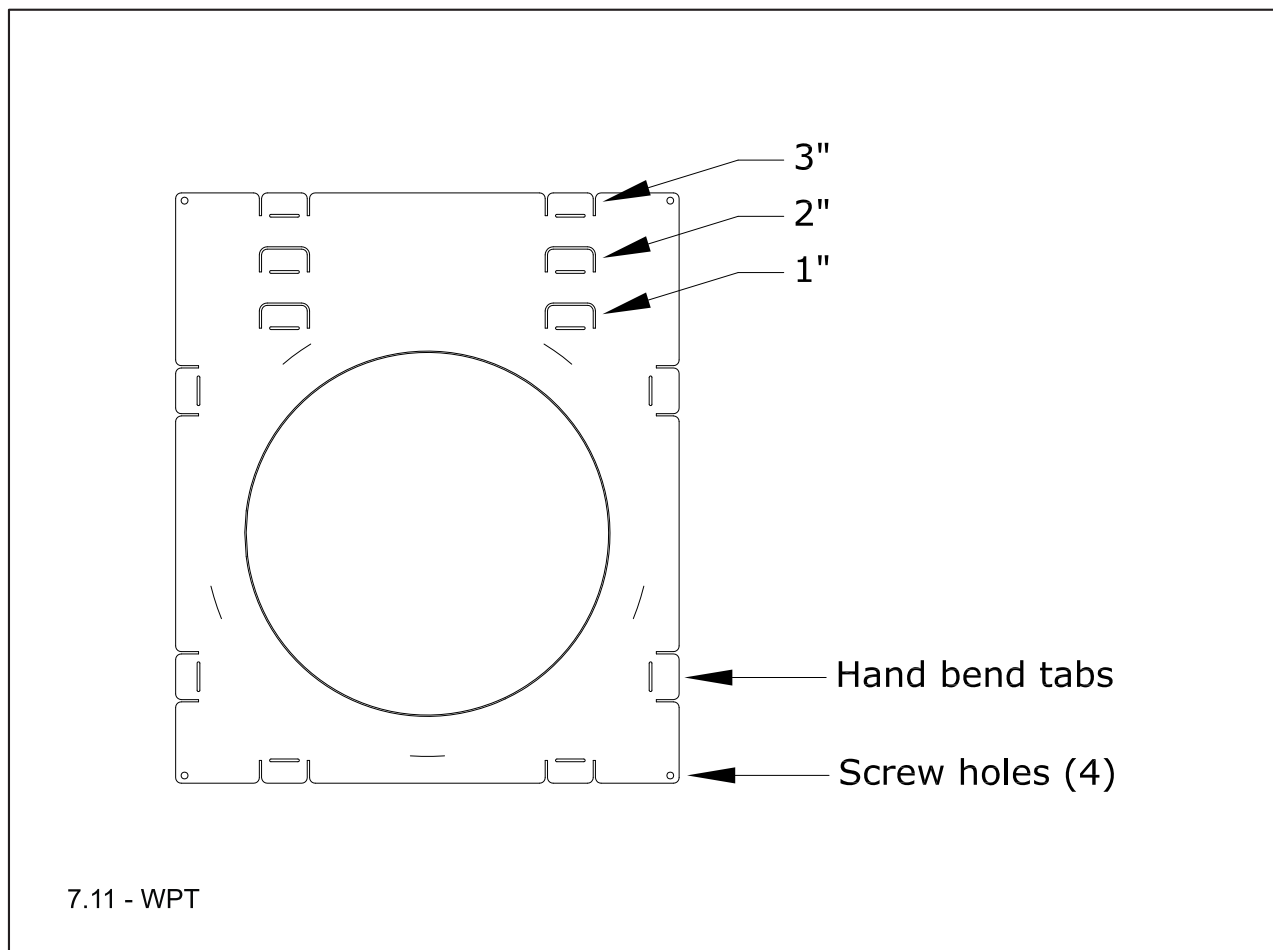
IMPORTANT: The minimum bend radius to center is 6" (152mm) required for installation of the flexible vent pipe. Care should be taken when installing to avoid a tight bend that may cause abrasion or damage to the flexible pipe.

The vertical vent heat shield must be installed. See Section 7.2.

7.8.1 700-WPT Installation Instructions

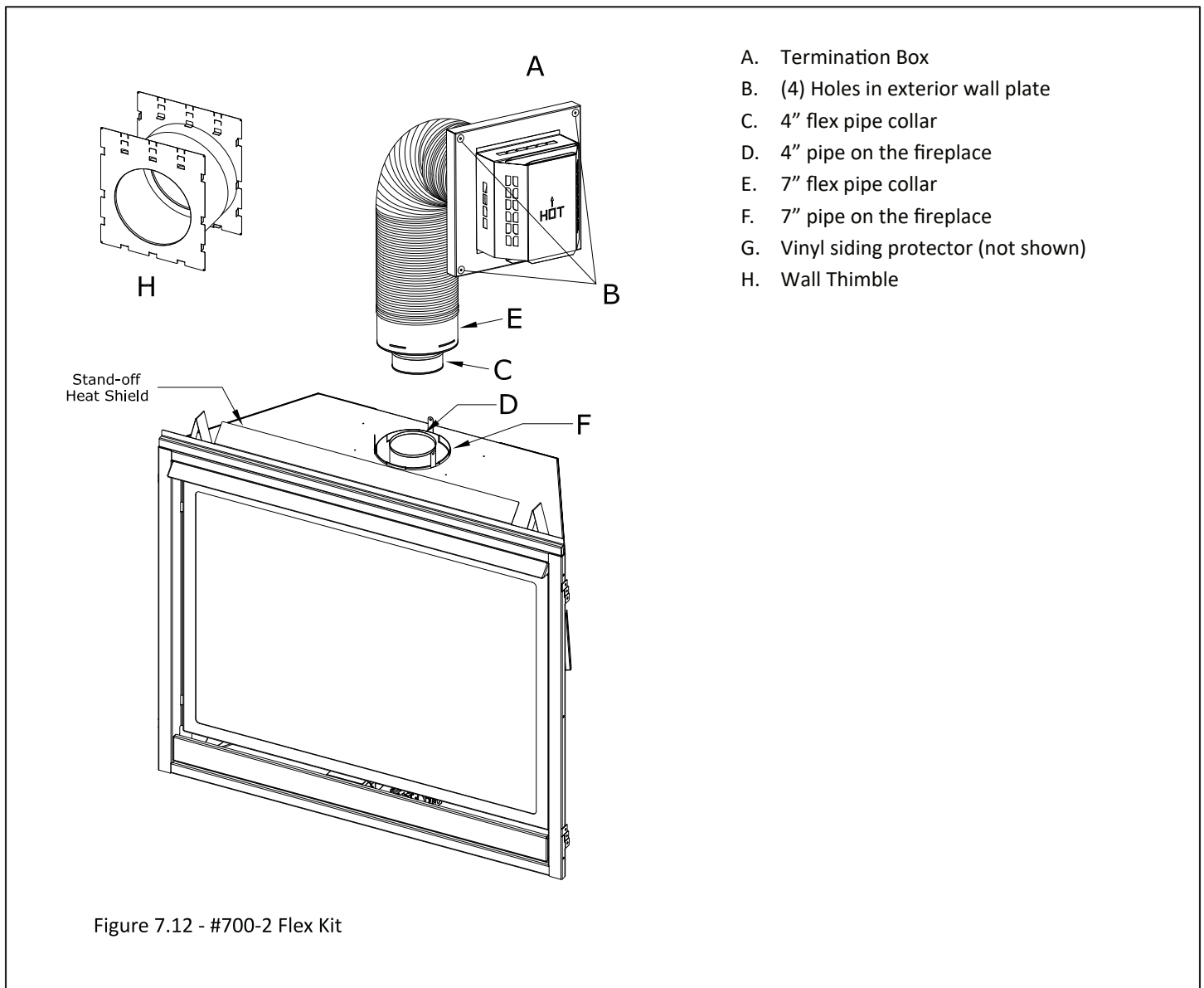
IMPORTANT: The heat shield within the wall thimble must overlap a minimum of 1-1/2" (38mm). An extension will be needed if going through a thicker wall than 6-1/2" (165mm). Refer to BDM vent manufacturer if wall extension is necessary.

1. Hand bend the (2) tabs on the top of the wall pass through at the 1" (25mm) top clearance. Hand bend the (6) tabs on the sides and bottom of the wall pass through. Repeat for 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 section must overlap a minimum of 1-1/2" (38mm). Secure to exterior wall with (4) screws (not provided).
4. Follow vent manufacturer installation instructions for vent installation.



7.8.2 700-2 Series Flex Vent Installation

1. Attach vinyl siding protector (G) (not shown).
 2. Mount the required wall thimble (H) with 1" (25mm) top and side clearances as referenced in Section 7.8.1. It is optional to insulate the wall thimble with any unfaced insulation products listed as non-combustible per ASTM E 136.
 3. Apply a liberal bead of exterior sealant around the outer edge of the termination box (A). Place assembly through the wall-pass through in exterior wall, and secure with (4) screws through the four holes (B).
 4. Form the 4" & 7" flexible aluminum pipes on the termination kit (#745-2), and if applicable, on each extension kit (#718-2).
 5. Gently pull 4" & 7" pipes down to the top of the fireplace, or if applicable, the extension kit. **IMPORTANT: DO NOT stretch extension kit beyond 6' (1.83m); DO NOT stretch beyond what is required as it is very difficult to decompress flex pipes once stretched.**
 6. Place a bead of sealant outside 4" flex pipe collar (C) (the end with external lip) and sliding the collar into the 4" pipe on the extension kit or on the top of the fireplace (D). Secure with (3) evenly spaced screws.
 7. Place a bead of sealant inside the 7" flex pipe collar (E) (the end with the internal lip), and sliding the collar over 7" pipe on the extension kit or on the top of the fireplace (F). Secure with (3) evenly spaced screws.
- If additional extension kits are required, repeat steps 4 and 5, placing 4" & 7" pipes onto previous extension kit.



8.0 Fireplace Setup

8.1 Glass Frame Assembly

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

8.1.1 Remove Glass Frame Assembly

WARNING: Do not remove the glass assembly when hot.

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

8.1.2 Install Glass Frame Assembly

1. Tilt the top of the glass frame assembly as shown in Figure 8.1. Align the slots on top of the glass assembly over the tabs at the top of the firebox while lowering the bottom of the glass assembly into position.
2. Pull the spring-loaded latches out and up to secure the bottom of glass to the bottom of the fireplace.
3. Reinstall safety barrier.

8.2 Component Access Panel Location

To access the control module housing, the access panel will need to be opened. The access panel is held vertically in place by a magnet at the top

1. Locate component access panel under the safety screen barrier.
2. Pull on the top of the access panel to open.

8.3 Hood Installation

Installation of the upper hood is required.

1. Locate the (2) clips above the glass frame assembly.
2. Push the hood so it slides into the (2) clips.

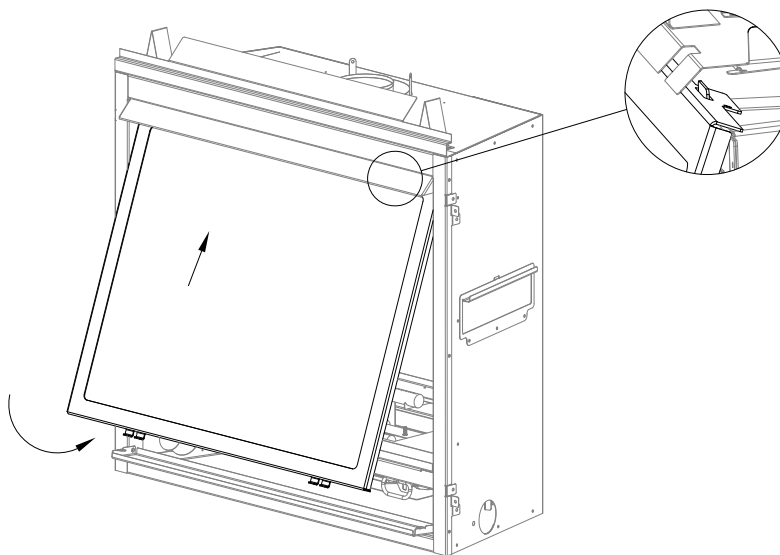


Figure 8.1 - Glass Frame Installation

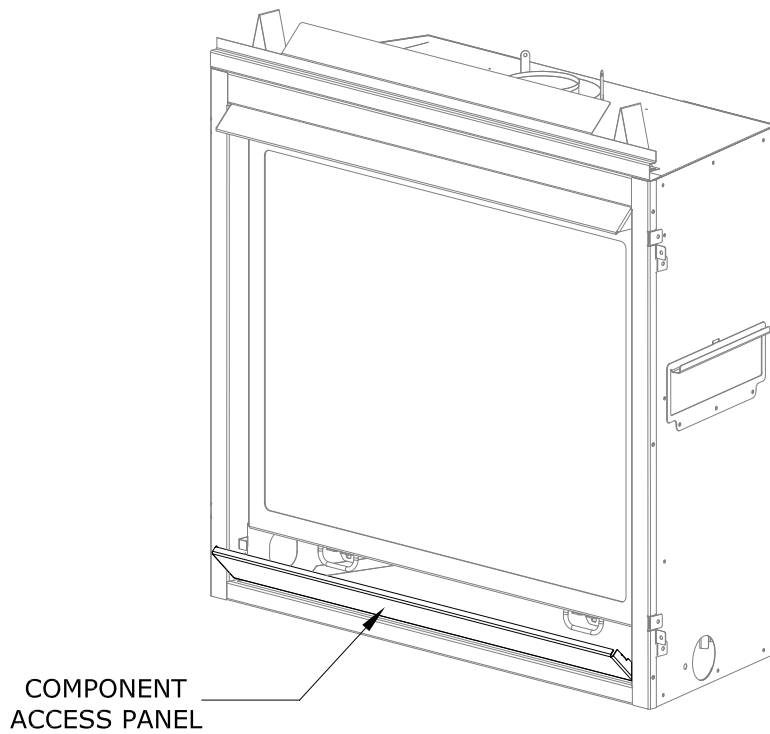


Figure 8.2 - Component Access Panel

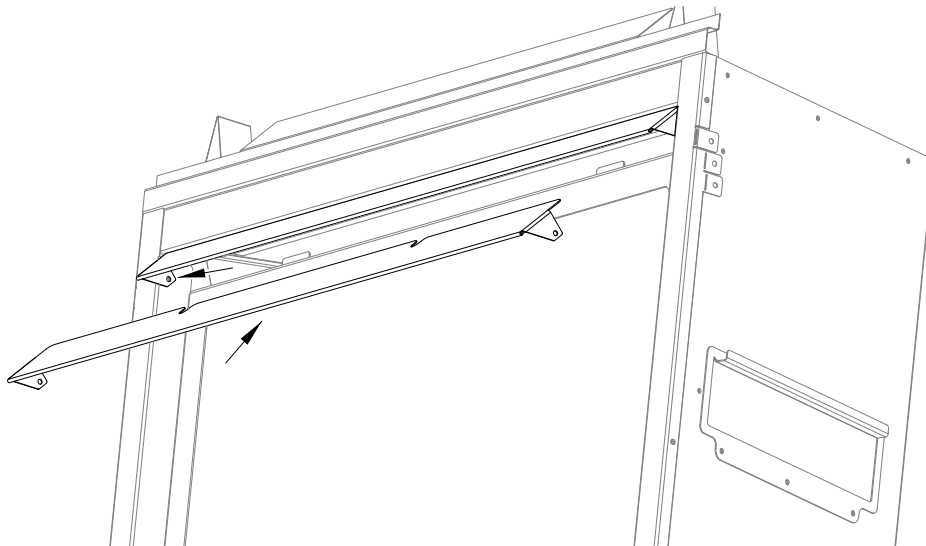


Figure 8.3 - Hood Installation

8.4 #SP34-50A Log Set Installation

NOTE: Log numbers are located on the bottom or side of each log. Refer to the following instructions and illustration for proper placement. Your components may look different than the ones shown.

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

- If converting to propane, complete the conversion before installing the log set. Follow the conversion instructions included with the kit.
 - If installing a panel set, complete installation of panel set before log installation
1. Remove valance from fireplace.
 2. Place log SP34-1A on the back log plate.
 3. Align the holes in log SP34-2A with the mounting pins on the left front log plate. Push log down to seat.
 4. Align the holes in log SP34-3A with the mounting pins on the right front log plate. Push log down to seat.
 5. Distribute lava rock in front of the burner. Do not block burner ports or air spaces.
 6. Align log SP34-4A with the notches in logs SP34-1A and SP34-2A.
 7. Align log SP34-5A with the notches in logs SP34-1A and SP34-2A.
 8. Align log SP34-6A with the notches in logs SP34-3A.
 9. Distribute rockwool embers onto logs and burner using a stiff bristle brush. DO NOT block the area as shown below.

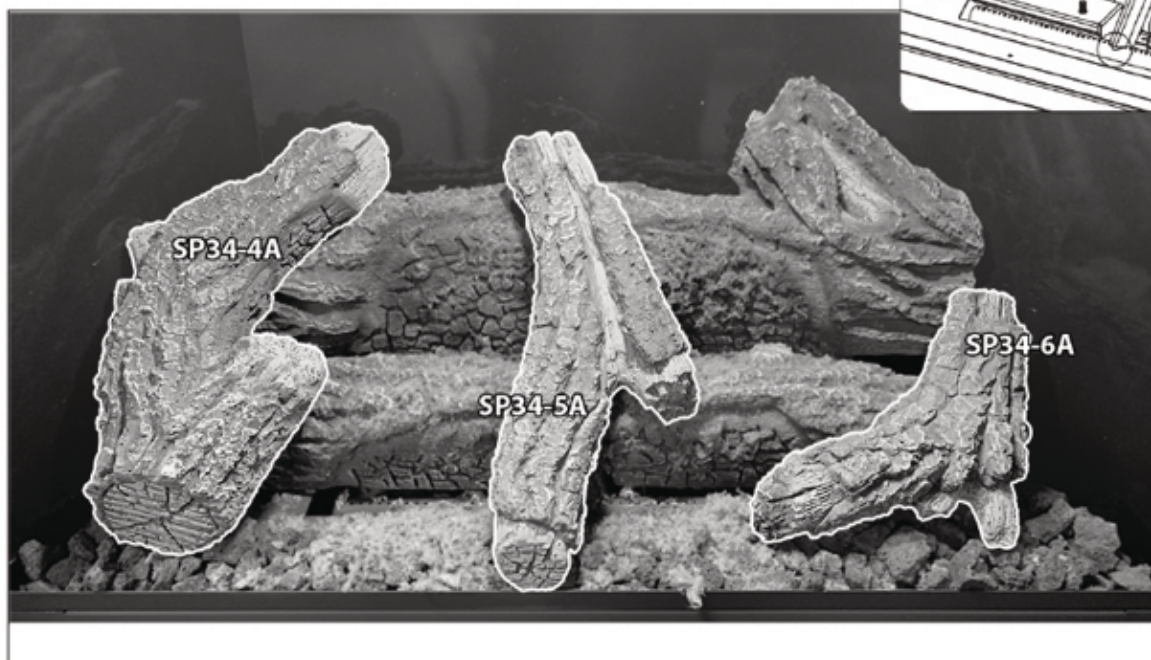
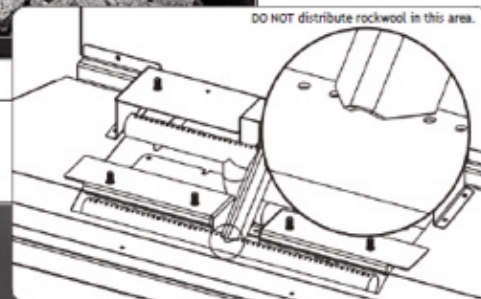
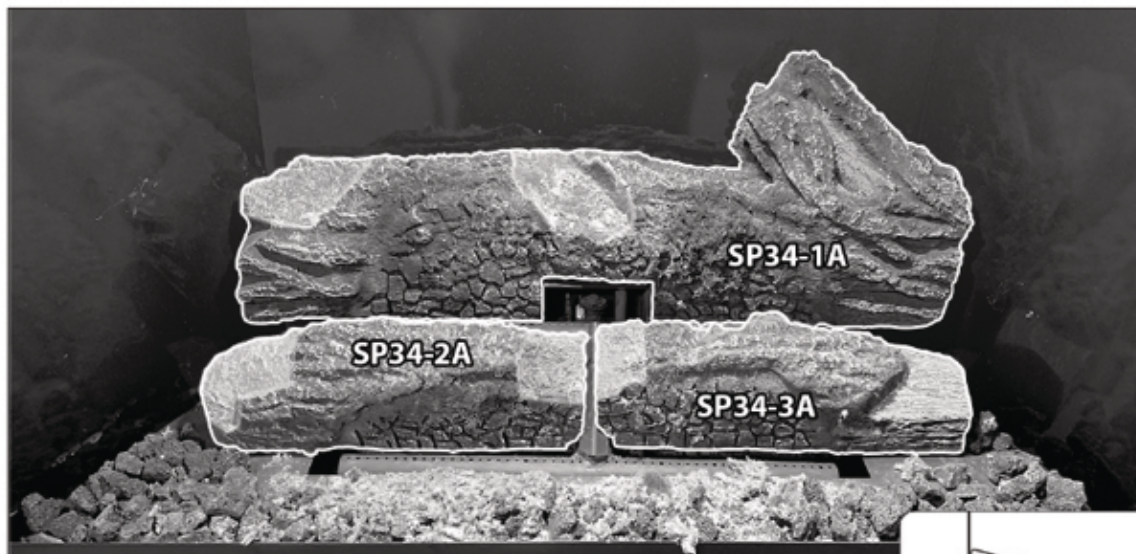


Figure 8.4 - Log Set

8.5 Control Board Removal and Installation

WARNING: If burner and/or pilot have been burning, use appropriate protection to avoid burns or damage to personal property before removing any components.

DO NOT OPERATE THIS APPLIANCE WITHOUT THE SEALING GASKET (LOCATED UNDER THE CONTROL BOARD) IN PLACE. IF GASKETING IS DAMAGED, IT MUST BE REPLACED.

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

8.5.1 Control Board Removal

1. Disconnect electrical power. Locate the main shut-off valve upstream of the appliance connector and close valve.
2. Open the component access panel.
3. Remove the safety barrier and glass frame assembly.
4. On MV models disconnect any optional thermostat or controls from the top and bottom terminals on the gas valve. On IPI models unplug all components from the electrical receptacle and disconnect all wiring harnesses attached to the gas valve.
5. Remove log set, lava rock, and panels (if installed).
6. Remove the burner tube by sliding it to the left off the burner orifice.
7. Remove pilot shield.
8. Remove and save (4) screws securing the back log plate.
9. Remove and save (4) screws securing the left and right front log plates.
10. Remove and save (5) screws securing the heat shield.
11. Remove and save (10) screws securing control board to firebox floor.
12. Lift the control board out of the firebox, being careful not to damage the sealing gasket underneath.

8.5.2 Control Board Installation

1. Place control board in the firebox, aligning the holes in the control board with the holes in the firebox bottom. **VERIFY SEALING GASKET IS IN PLACE.**
2. Secure the control board to the firebox with previously removed screws.
3. Reinstall the heat shield using (5) screws previously removed.
4. Reinstall the front log plates. There is "L" etched into the left log plate and "R" etched into the right plate. Position the plates correctly into the firebox and secure with (4) screws previously removed.
5. Reinstall back log plate (4) screws previously removed.
6. Reinstall pilot shield.
7. Reinstall the burner tube by sliding it to the right and positioning the burner tube venturi over the burner orifice.
8. Reinstall log set, lava rock, and panels (if installed).
9. Reconnect all wiring previously disconnected.
10. Reinstall the glass frame assembly and safety barrier.
11. Set component access panel back into its closed position.
12. Verify proper log placement, operation of fireplace, and any electrical components.

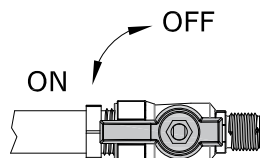
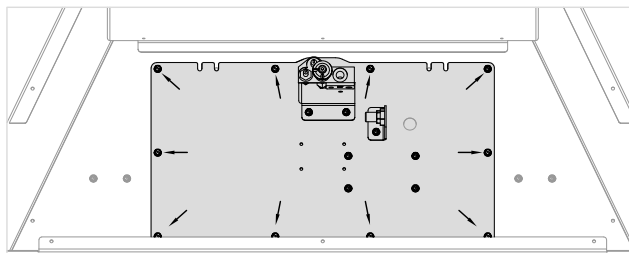
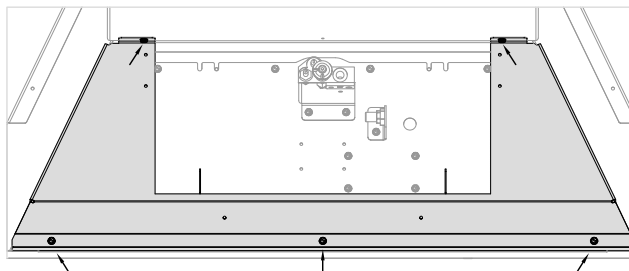
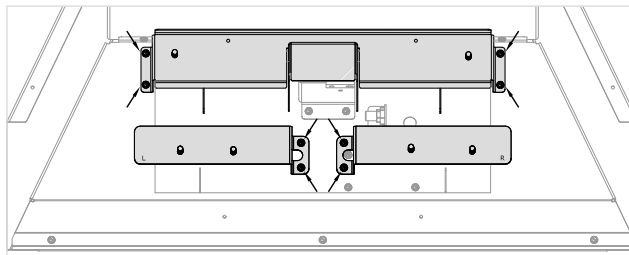
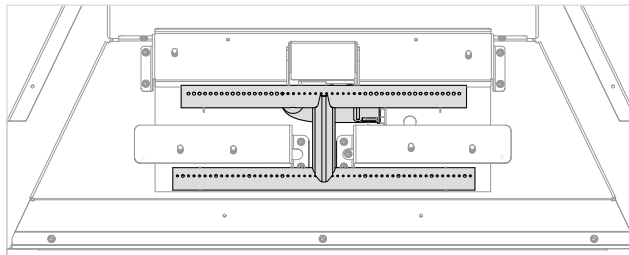
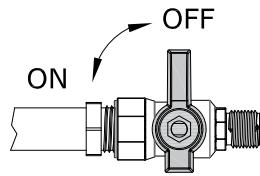


Figure 8.5 - Control Board Removal

8.6 #SP-028 Optional Fan Kit (SP-34-MV Only)

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

WARNING: Installation of this fan kit should be done by a qualified installer. Verify household breaker is shut off prior to working on any electrical lines.

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

- This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1.
- Code-approved line voltage wiring, 14 gauge or better, must be used when wiring this assembly. Refer to your local electrical codes for specific requirements.
- A pre-installed electrical box is included with the appliance, along with a receptacle/box cover assembly in the fireplace components packet.
- If installing this optional fan kit after appliance installation, remove the control board to access the control compartment and follow instructions below. Refer to 8.5 Control Board Removal and Installation.

This kit includes:

- (1) fan assembly
- (1) temperature control switch with magnet attached
- (2) Phillips head screws (black)
- (1) speed control box with cord

Instructions:

1. Before unit installation, remove the back access panel (4) screws.
2. With the motor end facing to the right, slide the fan underneath the firebox. The fan assembly has magnetic tape located on the bottom and does not require mounting.
3. Mount the speed control box onto the lower right side frame. Align the slots in the speed control box to the holes in bracket. Secure with (2) black Philips head screws (included).
4. Place the temperature control switch (magnet attached) onto the firebox floor on the right.
5. Plug fan cord into the speed control assembly.
6. Plug the speed control box cord into the electrical box receptacle.
7. Reinstall all components previously removed.
8. Turn speed control counter-clockwise until it 'clicks'. This is the OFF position. Turn speed control ON by turning knob clockwise past the 'click' -this is the highest setting.

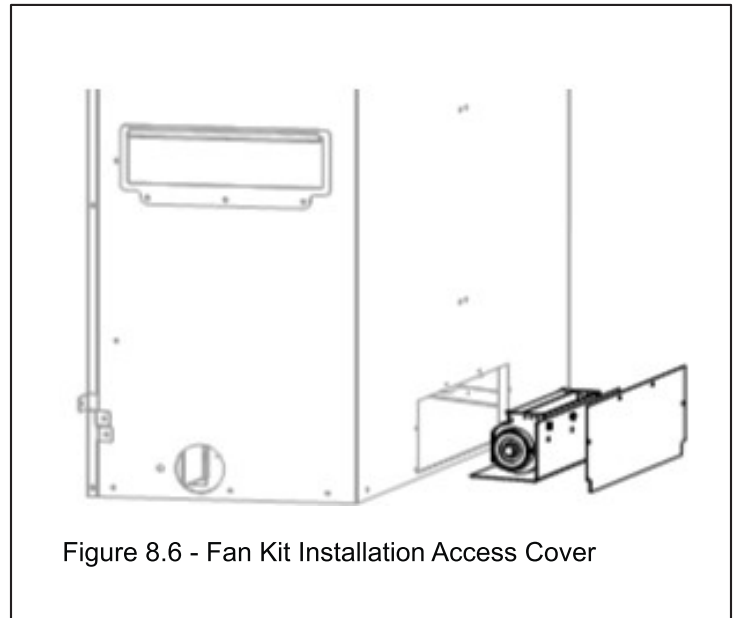


Figure 8.6 - Fan Kit Installation Access Cover

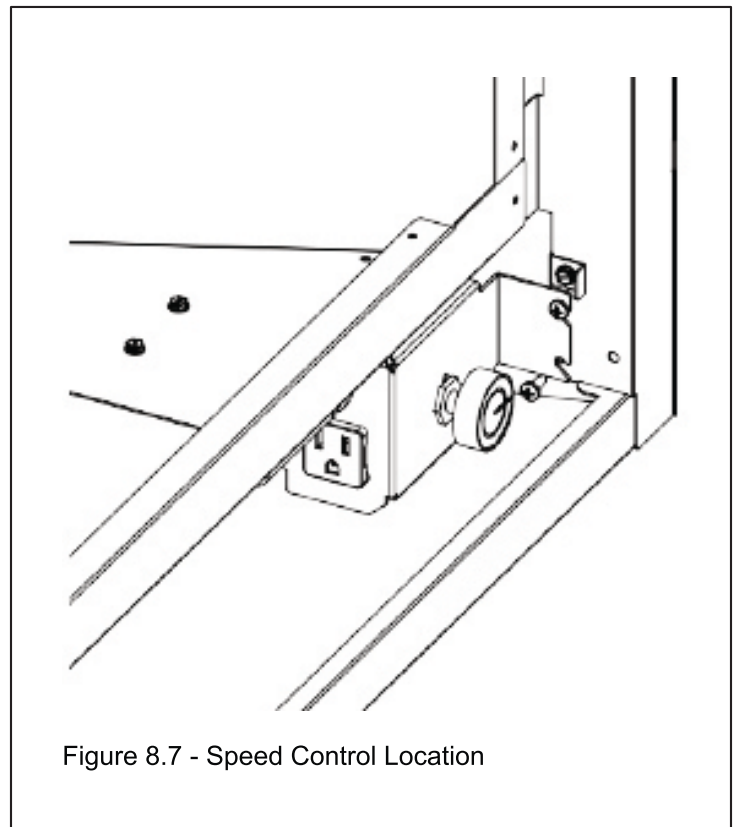
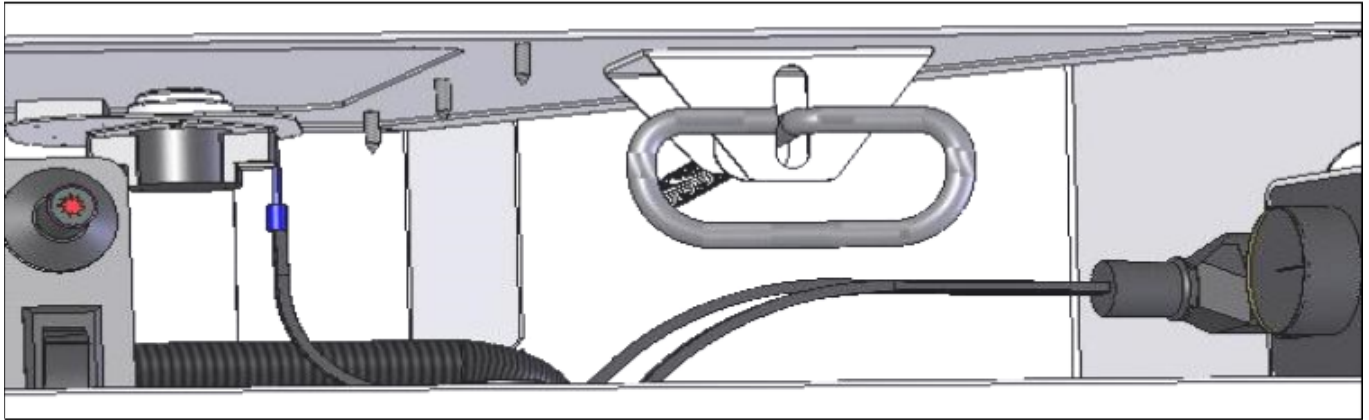


Figure 8.7 - Speed Control Location



TEMPERATURE CONTROL SWITCH POSITION

Before adjusting temperature control switch, unplug 3-prong plug on fan cord from receptacle.

Adjust position of temperature control switch to a warmer location under firebox to turn fan ON sooner or move it to a cooler location under firebox to turn fan ON later. The fan will turn on when sensor in temperature control switch reaches 110° F and will turn OFF when sensor reaches 90° F.

After adjustment, plug 3-prong plug on fan cord into receptacle.

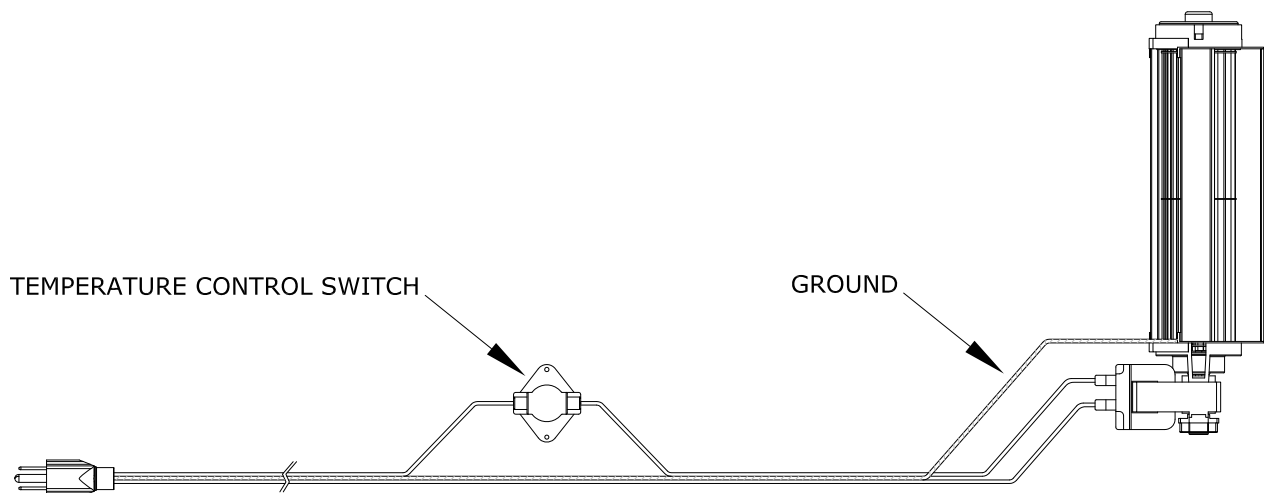


Figure 8.8 - Temperature Control Switch

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

WARNING: An optional component connection for the SP34-MV is for low voltage battery or direct current only. Do not connect to 120 or 240 volts. The optional fan kit is the only component on the MV system that connects to 120 volts.

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

9.2.1 SP-34-L Wiring Requirements

- The system requires 120 VAC of electricity and/or batteries to operate.
- Using the battery backup will operate flame modulation of the burner only.

9.2.2 SP-34-MV Wiring Requirements

- The millivolt gas valve system does not require 120 VAC supply to operate. Do not connect 120 VAC to the gas valve.
- If desired, a thermostat or a wall switch may be installed for main burner operation control using low voltage wires (not included).
 - The ON/OFF rocker switch will override the thermostat / wall switch. If you choose to leave the rocker switch wired up it must be placed in the OFF position to allow the thermostat / wall switch to operate correctly. If you place the rocker switch in the ON position it will turn the fireplace on and override any command from the thermostat / wall switch
 - It is optional to disable the ON/OFF rocker switch by disconnecting the wire from the back of the gas valve. If you do this then the fireplace burner will only operate from the commands received from the thermostat / wall switch.
- If you choose to install the optional SP-028 fan kit then you will need 120 VAC at the appliance to power the fan kit.

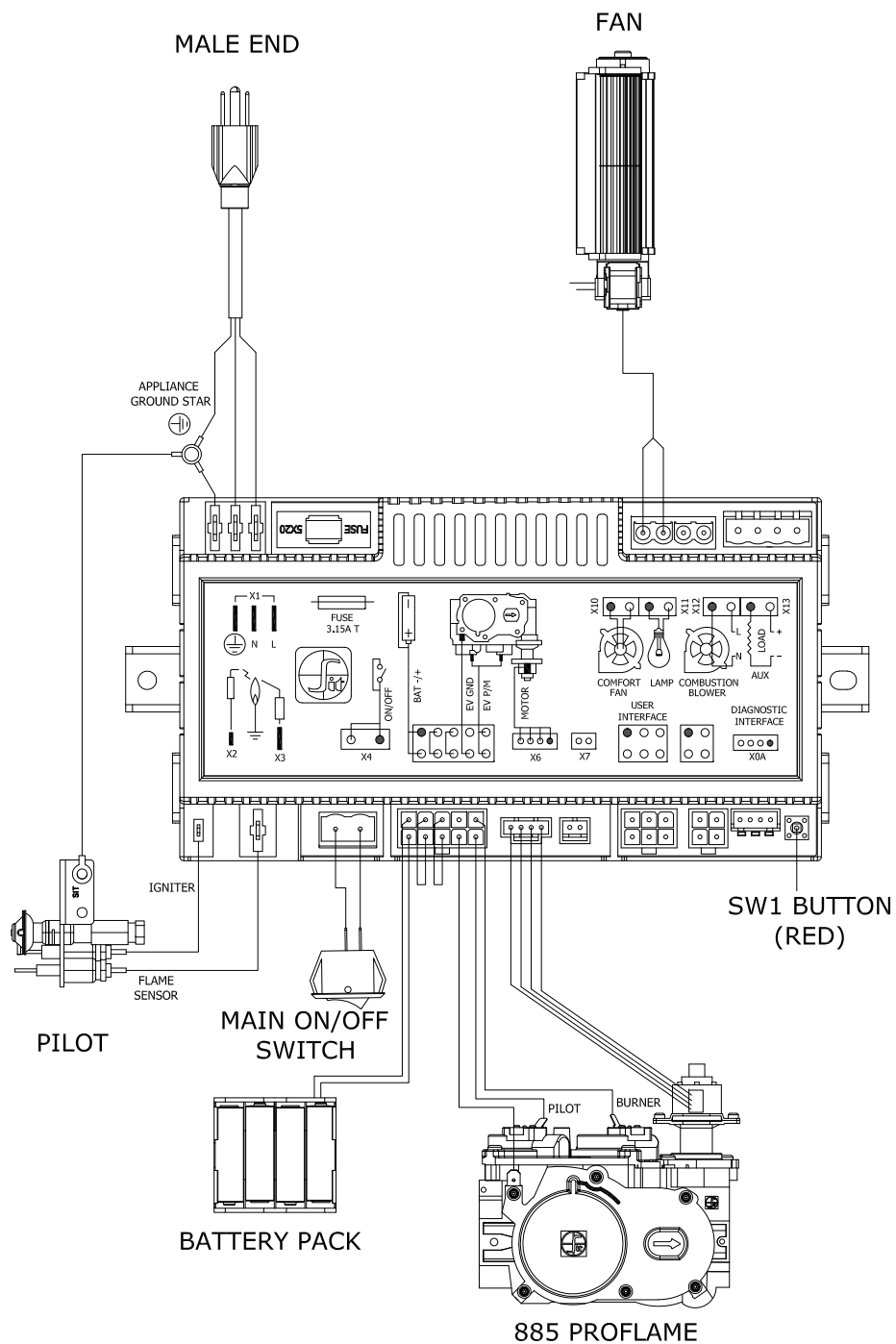
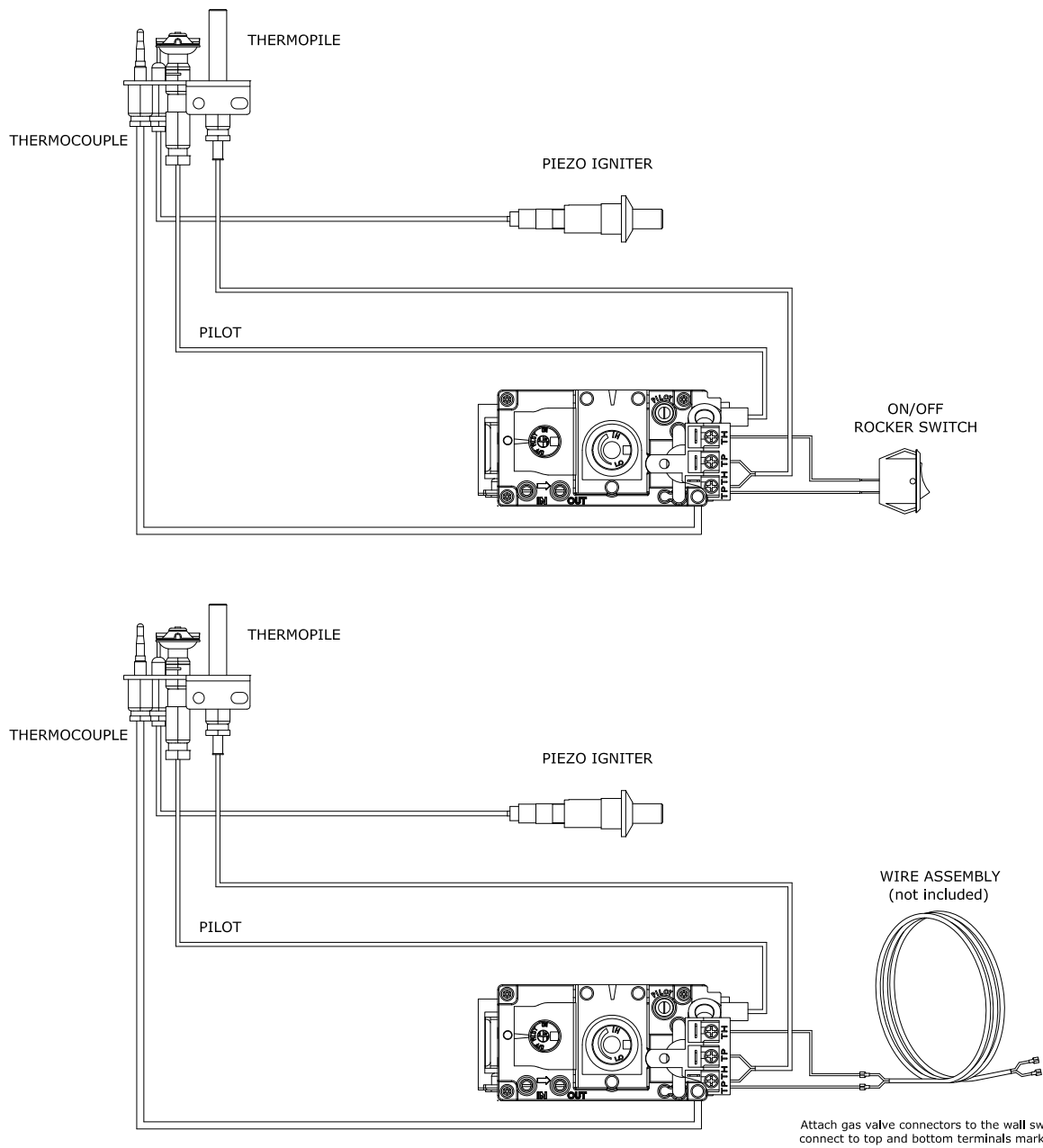


Figure 9.1 - SP-34-L Electrical Diagram



Attach gas valve connectors to the wall switch/thermostat wires, connect to top and bottom terminals marked TH and TP-TH on gas valve

Figure 9.2 - SP-34-MV Electrical Diagram



10.0 Operating Instructions - SP-34-L

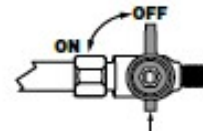
FOR YOUR SAFETY READ BEFORE OPERATING

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


- A. This appliance is equipped with an ignition device that automatically lights the pilot. Do not try to light the pilot by hand.
- B. BEFORE OPERATING, smell around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to turn the gas control manual valve. Never use tools. If the valve will not turn by hand, do not try to repair it; call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

OPERATING INSTRUCTIONS

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



TO TURN OFF GAS TO APPLIANCE

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



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.

10.1 Setup Proflame 2 IFC Module

1. Set the main ON/OFF rocker switch in the OFF position.
2. Install (4) AA batteries (not included) into backup battery holder on the control module.
3. Install (3) AAA batteries (included in the components packet) in the remote control battery bay, located at the base of the remote.
4. Connect the IFC Module to an AC power supply.

10.2 Initialize the Control System

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

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

1. To access the ON/OFF toggle switch and remote learn button on, remove the safety barrier screen by lifting up and out of its slots.
2. Open the component access panel (See Section 8.2). Locate the remote sync button by sliding out the control module.
3. Press the remote sync button. The IFC module will BEEP (3) times and illuminate an amber LED. This indicates the receiver is ready to synchronize with the transmitter.
4. Within (5) seconds, push the ON/OFF button on the remote control. The receiver will BEEP (4) times to indicate the transmitter's command is accepted, and is set to the transmitter's particular code. The pilot will automatically ignite.
5. Press the remote control ON/OFF button again. The pilot will extinguish, confirming the remote control command. The control system is now initialized.
6. Set the main ON/OFF rocker switch to ON position for remote control operation of the main burner and fireplace features. Reinstall safety barrier screen.

10.3 Reset the System for Manual Operation

1. Access the toggle switch and remote learn button on the left side of the unit by removing the safety barrier screen by lifting up and out of its slots.
 2. Open the component access panel (See Section 8.2). Locate the remote sync button by sliding out the control module.
 3. Set the ON/OFF rocker switch to OFF position.
 4. Press and hold the remote sync button until it emits (3) beeps and an amber LED is illuminated.
 5. Within (5) seconds, press the remote sync button again. This will close synchronization with the remote control. The pilot will automatically light.
- Turn the main burner ON by setting the ON/OFF switch in ON position. The main burner will only operate on HI.
 - Turn the main burner OFF by setting the ON/OFF switch in the OFF position. The pilot will remain lit even if burner is turned off, provided CPI mode is turned on.

10.4 Automatic Safety Turn-off

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

10.5 Backup Battery Operation

This appliance will operate on the backup battery pack when electric power is interrupted, or in a power outage. During the power outage, the appliance burner and flame height adjustment will function. The fan and accent light kit will not function.

- The lifespan of the backup batteries depend on various factors, such as the quality of the batteries, number of ignitions, etc.
- When the backup battery pack is low, the IFC module will emit a double-beep while receiving an ON/OFF command. No commands will be accepted after this alert until the back up batteries are replaced. Once replaced, the IFC module will emit a 'beep' as soon as it is powered.

10.6 Control System 7 Day Timeout

- If you have your Proflame 2 system set to CPI (continuous pilot ignition) with 7 consecutive days without ignition of the main burner, the pilot will turn off. This is a standard safety feature of the SIT Proflame 2 system.
- Once you turn CPI 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 10.9.3 PILOT IGNITION SELECTION for more information.

How to check if your system is set to CPI:

The LCD screen will display the snowflake icon.

To select the preferred pilot ignition feature,

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

To Turn ON the appliance

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

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

10.7 IFC Module Ignition Sequence

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

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

10.7.1 Reset IFC Module after Lockout

10.7.1.1 ON/OFF Rocker Switch

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

10.7.1.2 Remote Control ON/OFF Key

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

10.7.1.3 Cycling Flame

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

10.8 Additional Diagnostic Information

Low Battery Condition (<4V) Remote Control:

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

Low Battery Condition (<4V) Battery Backup:

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

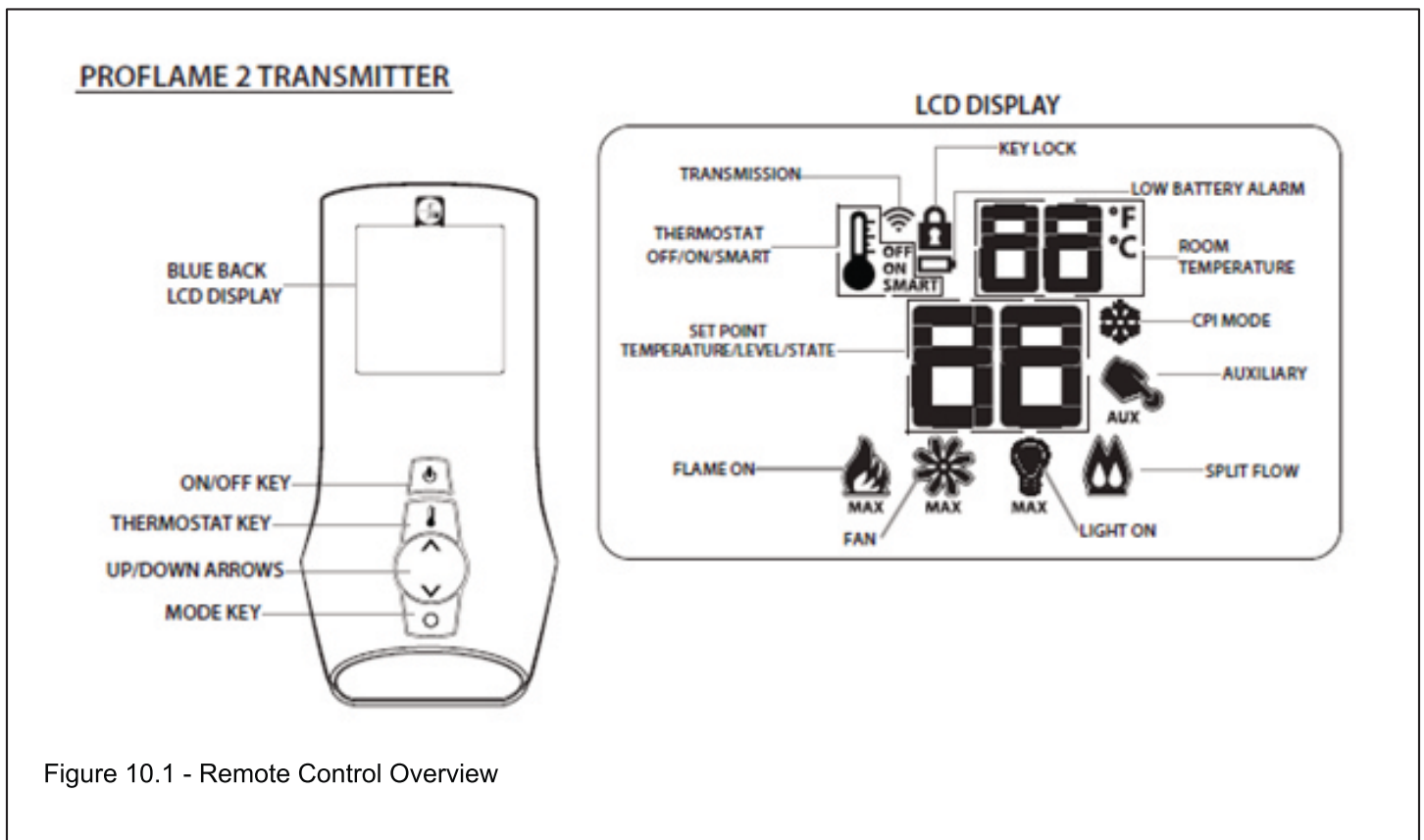
Pilot Flame Error Condition:

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

System Lock Out Condition:

- Red LED Indicator will blink (3) times in intervals.
- Verify gas is turned on.
- Verify sensor is not shorted.
- Follow section 10.2, INITIALIZE THE CONTROL SYSTEM.

10.9 Remote Control Operation



10.9.1 Temperature Display

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

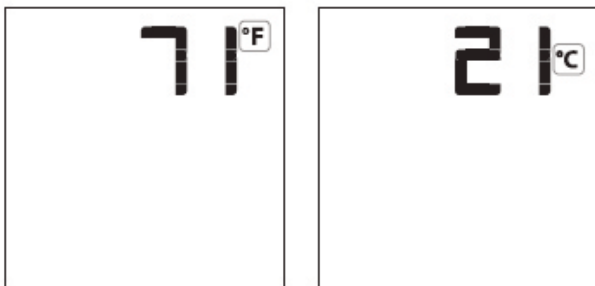


Figure 10.2 - Temperature Display

10.9.2 Key Lock

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

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



Figure 10.3 - Key Lock

10.9.3 Pilot Ignition Selection (IPI/CPI)

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

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

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

When the system is ON,

IPI mode: LCD screen will not display the snowflake icon

CPI mode: LCD screen will display the snowflake icon

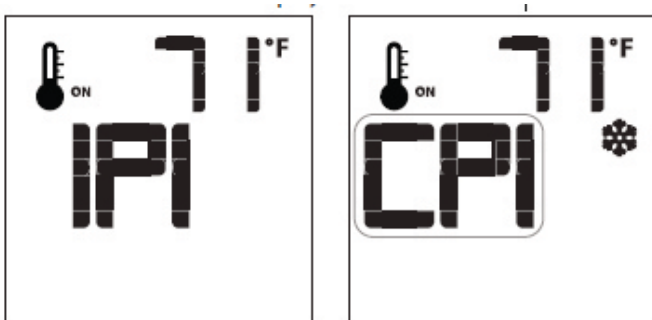


Figure 10.4 - Pilot Selection

10.9.4 Turn ON the Appliance

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

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

10.9.5 Turn OFF the appliance

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

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

10.9.6 Remote Control Flame Adjustment

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

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

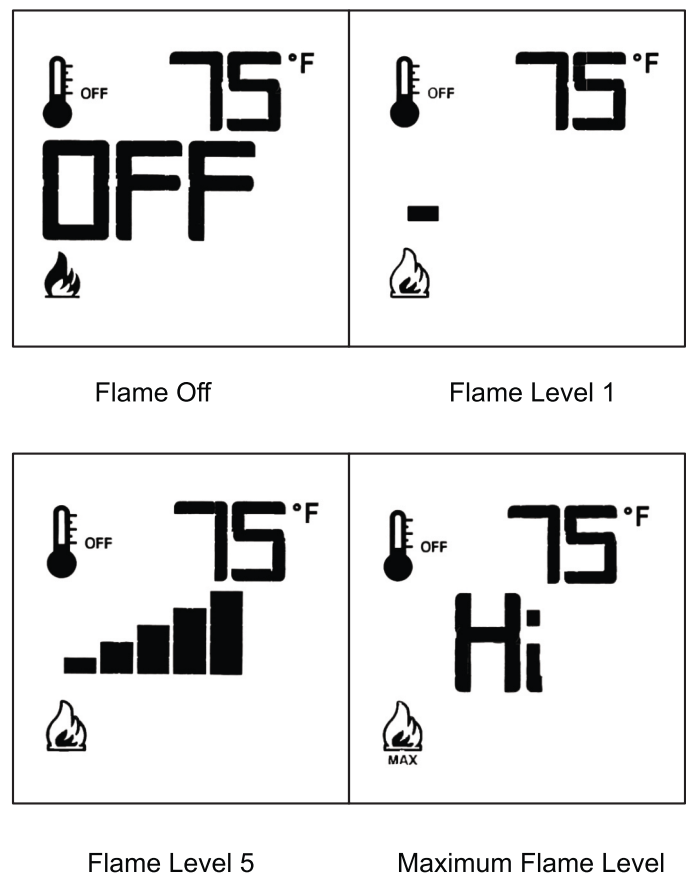


Figure 10.5 - Flame Adjustment

10.9.6.1 Deactivate Flame Modulation

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

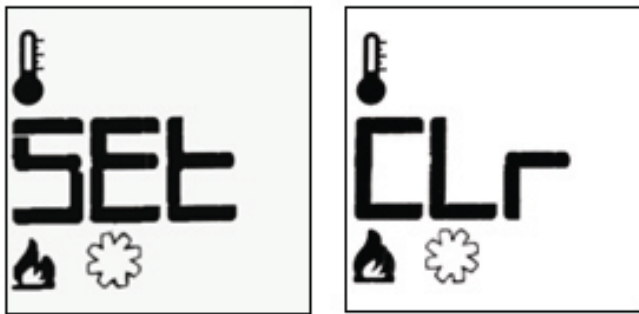


Figure 10.6 - Deactivate Flame Modulation

10.9.7 Remote Control Thermostat Operation

10.9.7.1 Room Thermostat

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

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

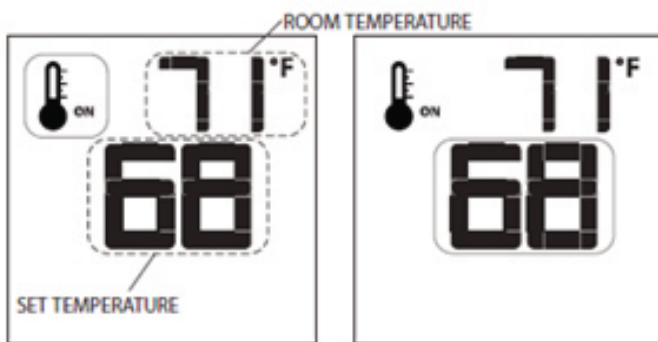


Figure 10.7 - Thermostat Operation

10.9.7.2 Smart Thermostat

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

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

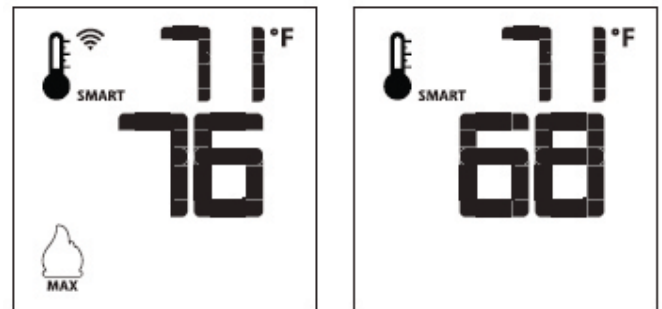


Figure 10.8 - Smart Thermostat Operation

10.9.7.3 Deactivate Remote Control Thermostat Operation

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

1. Verify all (3) AAA batteries are installed in the remote control.
 2. Remove (1) AAA battery.
 3. While reinserting the battery, push and hold the thermostat key. You will see "CLR" across the screen. This means the thermostat function is turned off. The temperature bulb graphic will not be displayed on the LCD screen.
- To reactivate remote thermostat operation, follow the same key sequence procedure above. The screen will then say "SEL" which means the thermostat function is turned on. The temperature bulb graphic will reappear on the LCD screen.

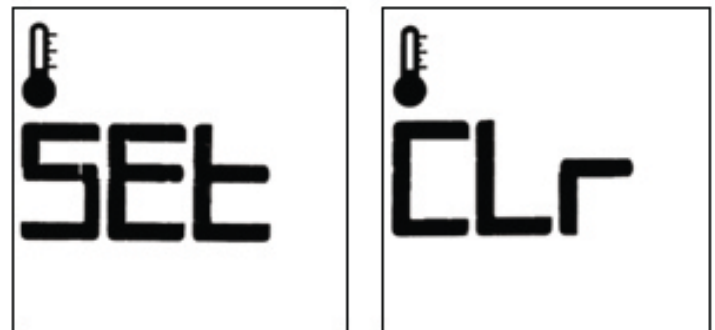


Figure 10.9 - Deactivate Thermostat Operation

10.9.8 Fan Speed Control

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

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

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

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

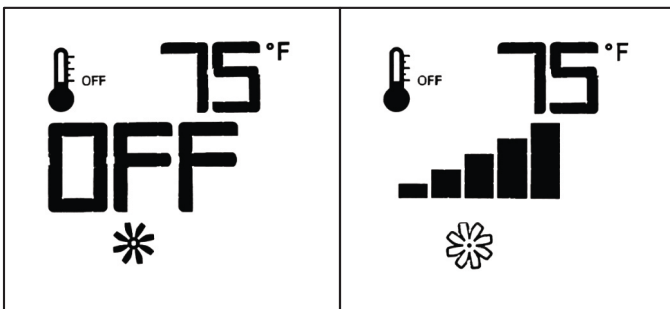


Figure 10.10 - Fan adjustment

10.9.8.1 Deactivation Fan Speed Control

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

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

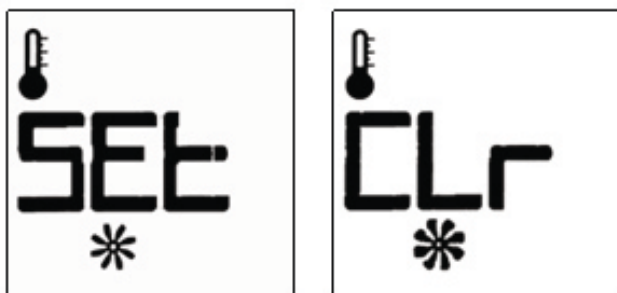


Figure 10.11 - Fan Control Deactivation

10.9.9 Remote Control Low Battery Detection

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

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

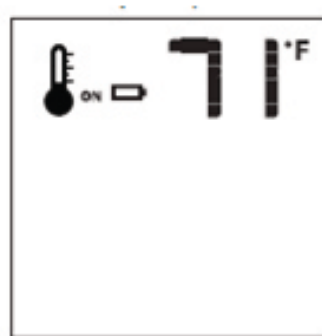


Figure 10.12 - Low Battery




11.0 Operating Instructions - SP-34-MV

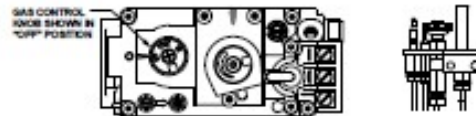
FOR YOUR SAFETY READ BEFORE LIGHTING

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


- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING**, smell around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to repair it; call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

LIGHTING INSTRUCTIONS

1. **STOP!** Read the safety information above on this label.
2. Set thermostat to lowest setting (if applicable).
3. Turn off all electric power to the appliance.
4. To access gas controls under the fireplace, either remove the safety barrier, or open the control compartment access panel, or lift up the gas valve cover plate.
5. Push in gas control knob slightly and turn clockwise  to "OFF".
NOTE: Knob cannot be turned from "PILOT" to "OFF" unless the knob is pushed in slightly. Do not force.
6. Wait five (5) minutes to clear out any gas. Then, smell for gas, including near the floor. If you smell gas, **STOP!** Follow 'B' in the safety information above. If you do not smell gas, go to the next step.
7. Locate pilot - follow metal tube from gas control. The pilot is located inside the combustion chamber.
8. Push in gas control slightly and turn counterclockwise  to "PILOT".
9. Push in control knob all the way and hold. Press the piezo igniter button repeatedly until the pilot is lit and continue to hold in the gas control knob.
10. Hold the gas control knob in for one (1) minute after pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 10.
 - If the knob does not pop out when released, stop and immediately call your service technician or gas supplier.
 - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
11. Turn the gas control knob counterclockwise  to "ON."
12. Reinstall safety barrier, or set the control compartment access panel or gas valve cover plate back into position.
13. Turn on all electric power to the appliance.
14. Set thermostat to desired setting (if applicable).



TO TURN OFF GAS TO APPLIANCE

1. Set thermostat to lowest setting (if applicable).
2. Turn off all electric power to the appliance if service is to be performed.
3. To access gas controls under the fireplace, either remove the safety barrier, or open the control compartment access panel, or lift up the gas valve cover plate.
4. Push in gas control knob slightly and turn clockwise  to "OFF".
5. Reinstall safety barrier, or set the control compartment access panel or gas valve cover plate back into position.



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.

11.1 Flame Height and Heat Output Adjustment

Model #SP-34-MV (millivolt system) is equipped with a manual HI/LO pressure modulator knob, located on the gas valve, for adjusting main burner flame height and the heat output of the fireplace.

- Open the control compartment access panel to access the gas valve and the HI/LO pressure regulator knob.
- To adjust, turn the HI/LO knob counterclockwise to LO position or clockwise to HI position, until desired flame appearance and heat output is achieved.

11.2 7 Day Time-out Pilot-on- Demand Installations

For regions that require installations a 7 day time-out (refer to your local dealer to see if this applicable to your installation), model #SP-34-MV is fitted with a millivolt Pilot-on-Demand gas control valve equipped with a timer set for 7 consecutive days once the pilot has been ignited. If there is no appliance operation within the 7 days, the main burner and/or the pilot will turn off, but the gas control knob will still be set in its original position ('PILOT' or 'ON').

- You must manually cycle the system to reignite operation, i.e. turn the ON/OFF toggle switch to "off", wait 5 seconds, then back to "ON".
- This a standard safety feature of the SIT Millivolt Pilot-on-Demand control system.
- Once you turn the pilot 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.

To operate your millivolt pilot-on-demand system, open the control compartment access panel to access the gas valve and gas control knob. Refer to the lighting instructions on the previous page for lighting procedures and safety information.

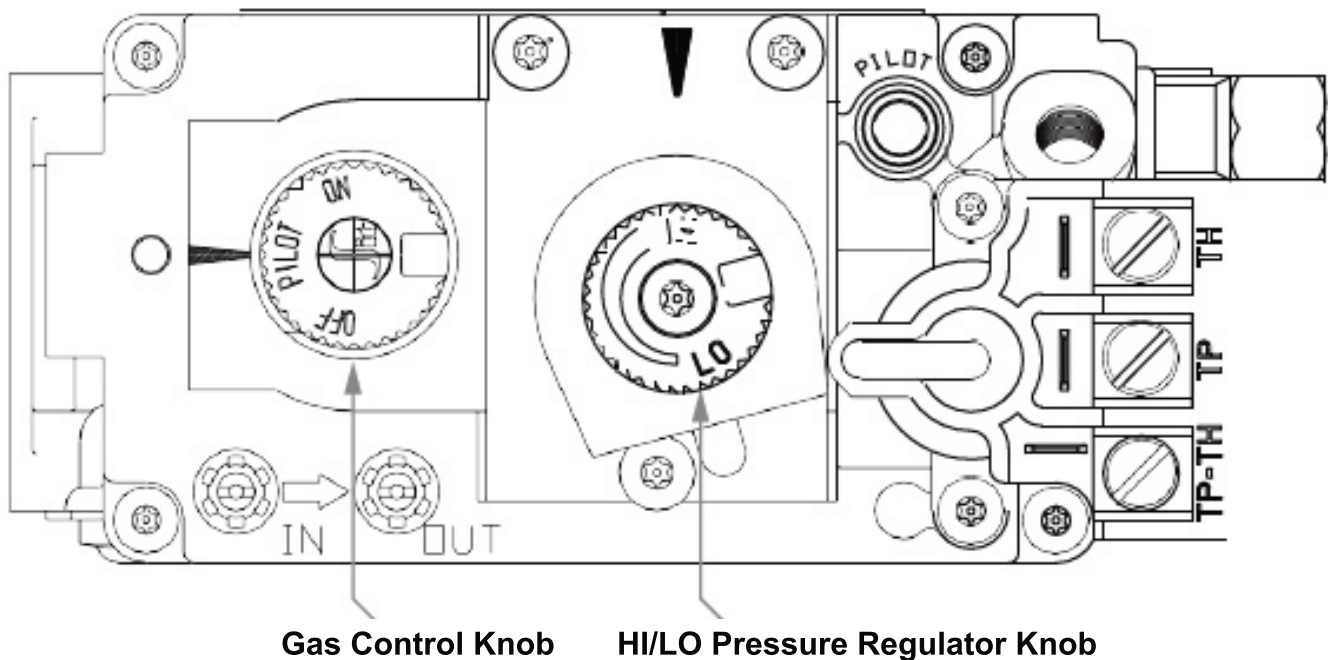


Figure 11.1 - MV Gas Control Valve

12.0 Pressure Testing and Burner Adjustments

12.1 Pressure Testing (SP-34-L)

NOTE: The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 1/2 psi (3.5 kPa).

IMPORTANT: Pressure check taps for manifold (outgoing) and inlet (incoming) pressure have been incorporated into the valve. The pressure tap marked OUT measures outgoing pressure. The pressure tap marked IN measures incoming pressure.

12.1.1 Inlet Pressure Test

NOTE: Make sure to apply 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.

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

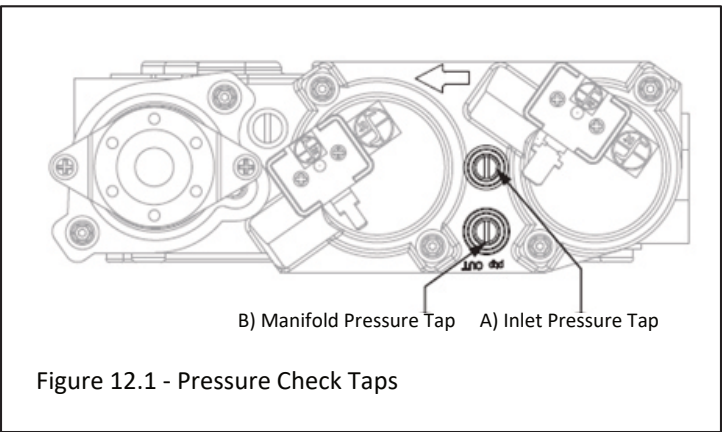


Figure 12.1 - Pressure Check Taps

12.1.2 Manifold Pressure Test

1. Light pilot.
2. Loosen manifold (OUT) pressure tap by turning screw counter-clockwise. See (B) in FIGURE 12.1.
3. Attach manometer to pressure tap using a 1/4" (6mm) I.D. hose.
4. Light burner. Check manometer reading. Refer to TABLE 12.2.
5. Turn burner and pilot off.
6. Disconnect manometer hose and tighten the manifold (OUT) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
7. Attach the manometer to the manifold pressure tap (B) to verify it is completely sealed. The manometer should read no pressure when pilot and burner are on.

Table 12.1 - Inlet Pressures		
Fuel	Natural Gas	Propane
Gas Supply	Min - Max	Min-Max
Inlet Pressure Tap A	5" - 10.0" WC (1.24 - 2.49 kPa) 7" WC (1.74 kPa) recommended	11"-13" WC (2.74 - 3.23 kPa)

Table 12.2 - Manifold Pressures		
Fuel	Natural Gas	Propane
Gas Supply	Min - Max	Min-Max
Manifold Pressure Tap B	1.6" - 3.5" WC (0.40 - 0.87 kPa)	6.4" - 10" WC (1.59 - 2.49 kPa)

12.2 Pressure Testing (SP-34-MV)

IMPORTANT: Pressure check taps for manifold (outgoing) and inlet (incoming) pressure have been incorporated into the valve. The pressure tap marked OUT measures outgoing pressure. The pressure tap marked IN measures incoming pressure.

12.2.1 Inlet Pressure Test

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

- 1. Loosen the inlet (IN) pressure tap by turning screw counterclockwise. See (A) in Figure 12.2.
- 2. Attach manometer using 1/4" (6mm) I.D. hose.
- 3. Light pilot.
- 4. Turn the gas control knob to ON. Burner should not light. Note the manometer reading.
- 5. Press the ON/OFF rocker switch to ON. Check pressure to ensure it is near maximum inlet pressure.
- 6. Press the ON/OFF rocker switch to OFF.
- 7. Turn the gas control knob to OFF.
- 8. Disconnect hose and tighten the inlet (IN) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
- 9. Relight pilot and turn the gas control knob to ON. Reattach manometer to the inlet pressure tap (A) to verify the tap is completely sealed. Manometer should read no pressure.

12.2.2 Manifold Pressure Test

- 1. Light pilot.
- 2. Loosen manifold (OUT) pressure tap by turning screw counter-clockwise. See (B) in FIGURE 12.2.
- 3. Attach manometer to pressure tap using a 1/4" (6mm) I.D. hose.
- 4. Turn gas control knob to ON.
- 5. Press the rocker switch to ON and note manometer reading.
- 6. Disconnect manometer hose and tighten the manifold (OUT) pressure tap by turning screw clockwise. Screw should be snug. Do not over tighten.
- 7. Attach the manometer to the manifold pressure tap (B) to verify it is completely sealed. The manometer should read no pressure when pilot and burner are on.

Table 12.3 - Inlet Pressures		
Fuel	Natural Gas	Propane
Gas Supply	Min - Max	Min - Max
Inlet Pressure Tap A	5" - 10.0" WC (1.24 - 2.49 kPa) 7" WC (1.74 kPa) recommended	11"-13" WC (2.74 - 3.23 kPa)

Table 12.4 - Manifold Pressures		
Fuel	Natural Gas	Propane
Gas Supply	Min - Max	Min - Max
Manifold Pressure Tap B	1.6" - 3.5" WC (0.40 - 0.87 kPa)	6.4" - 10" WC (1.59 - 2.49 kPa)

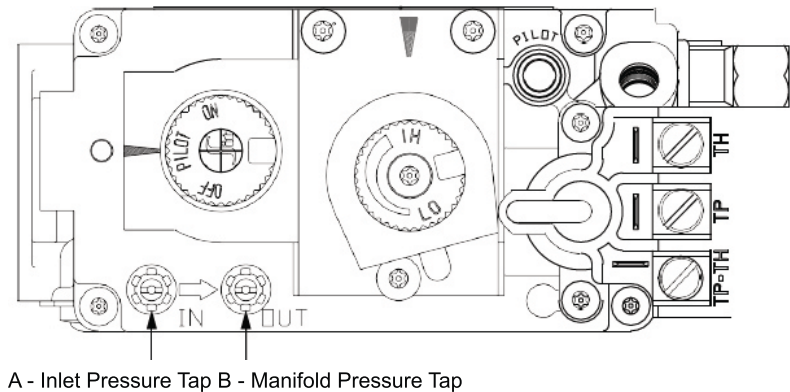


Figure 12.2 - Pressure Check Taps

12.3 Flame Appearance Adjustment

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

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

12.3.1 Burner Venturi

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

NOTE: Burner venturi air shutter settings have been factory set. Refer to TABLE 12.5.

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.

12.3.2 Venturi Opening Adjustments

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

1. Open components access cover.
2. Remove the safety barrier and glass frame assembly.
3. Remove log set, lava rock, and panels (if installed).
4. Loosen screw on venturi and adjust as necessary. Re-tighten screw.
5. Reinstall all components previously removed.
6. Set component access cover back into closed position.

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

Table 12.5 - Factory Set Venturi Openings	
Fuel	Air Shutter Settings
Natural Gas	1/16" (1.5mm) OPEN
Propane	5/8" (16mm) OPEN

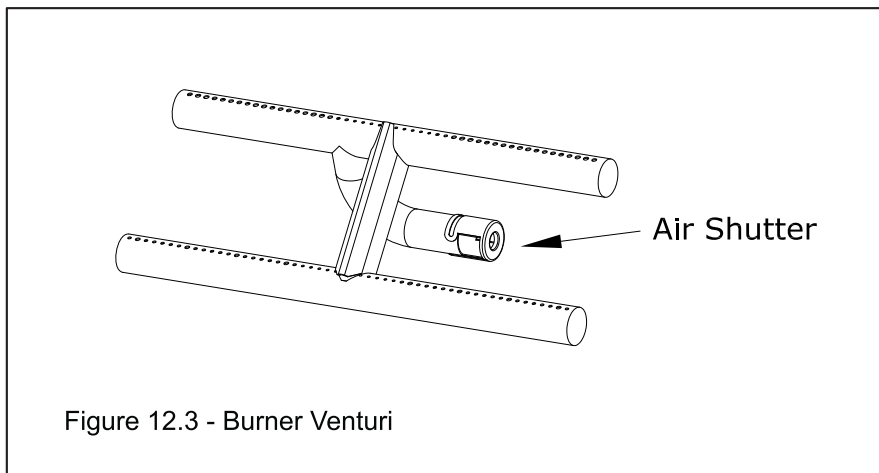
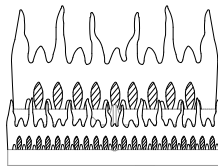
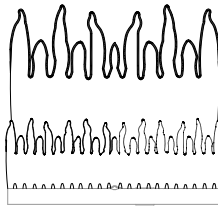


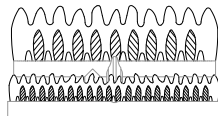
Table 12.6 Flame Appearance Venturi Adjustment		
Flame Characteristics	Cause	Solution
Dark, orange flame with black tips	Venturi closed too far	Open venturi slightly
Short, blue flames	Venturi open too far	Close setting slightly
Lifting (ghosting) flames	Gas pressure too high and/or venturi closed too far	Check manometer settings and/or open venturi setting slightly



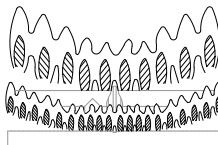
Lazy, yellow flames-no adjustment necessary
(Ideal Flame Appearance)



Dark, orange flames with black tips
(Venturi closed too far. Open venturi slightly)



Short, blue flames
(Venturi open too far. Close venturi slightly)



Lifting (ghosting) flames
(Venturi closed too far. Open venturi slightly)
OR
(Gas pressure too high-check with manometer)

Figure 12.4 - Flame Appearance

12.3.3 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. If this appearance is not desirable, a restrictor plate may need to be installed or modified after vent termination installation. Access to the vent exit for restriction can be reached through the fireplace baffle. See Figure 12.5

Refer to TABLE 12.7 and FIGURE 12.4 for flame appearance adjustments. Allow the fireplace to burn for 15 minutes before making any adjustments.

Restrictor Plate Installation

1. Open the component access cover. Remove the safety barrier and glass frame assembly.
2. Remove refractory (if installed) and log set.
3. Remove (3) screws at the firebox ceiling securing the baffle. Lift the baffle out of slots on the firebox back wall.
4. Bend the tabs on the restrictor (included in fireplace components packet) to approximately 80° angles. This will create tension when the restrictor is inserted into the exhaust pipe.
5. Insert restrictor into the 4” (102mm) exhaust pipe with the tabs pointing towards you.
6. Reinstall the fireplace baffle with screws previously removed and other components.
7. Close the component access cover.

Restrictor Plate Modification

1. Open the component access cover. Remove the safety barrier and glass frame assembly.
2. Remove refractory (if installed) and log set.
3. Remove (3) screws securing the fireplace baffle.
4. Remove the restrictor from the 4” (102mm) exhaust pipe by pulling the restrictor down and out.
5. Make necessary modifications to achieve desired flame appearance.
6. Insert restrictor into the 4” (102mm) exhaust pipe with the tabs pointing towards you.
7. Reinstall the fireplace baffle with (3) screws previously removed.
8. Reinstall all components previously removed.

Table 12.7 Restrictor Plate Adjustment Guidelines		
Flame Appearance	Draft Problem	Solution
Short, flickering	Excessive draft and/or not enough restriction	Add restrictor plate
Lifting or ghosting	Insufficient draft	Remove inner ring(s) on restrictor plate or remove restrictor plate
*If flames continue to lift or ghost after opening the restrictor plate and verifying correct vent installation, shut off the gas supply and call a qualified service technician.		

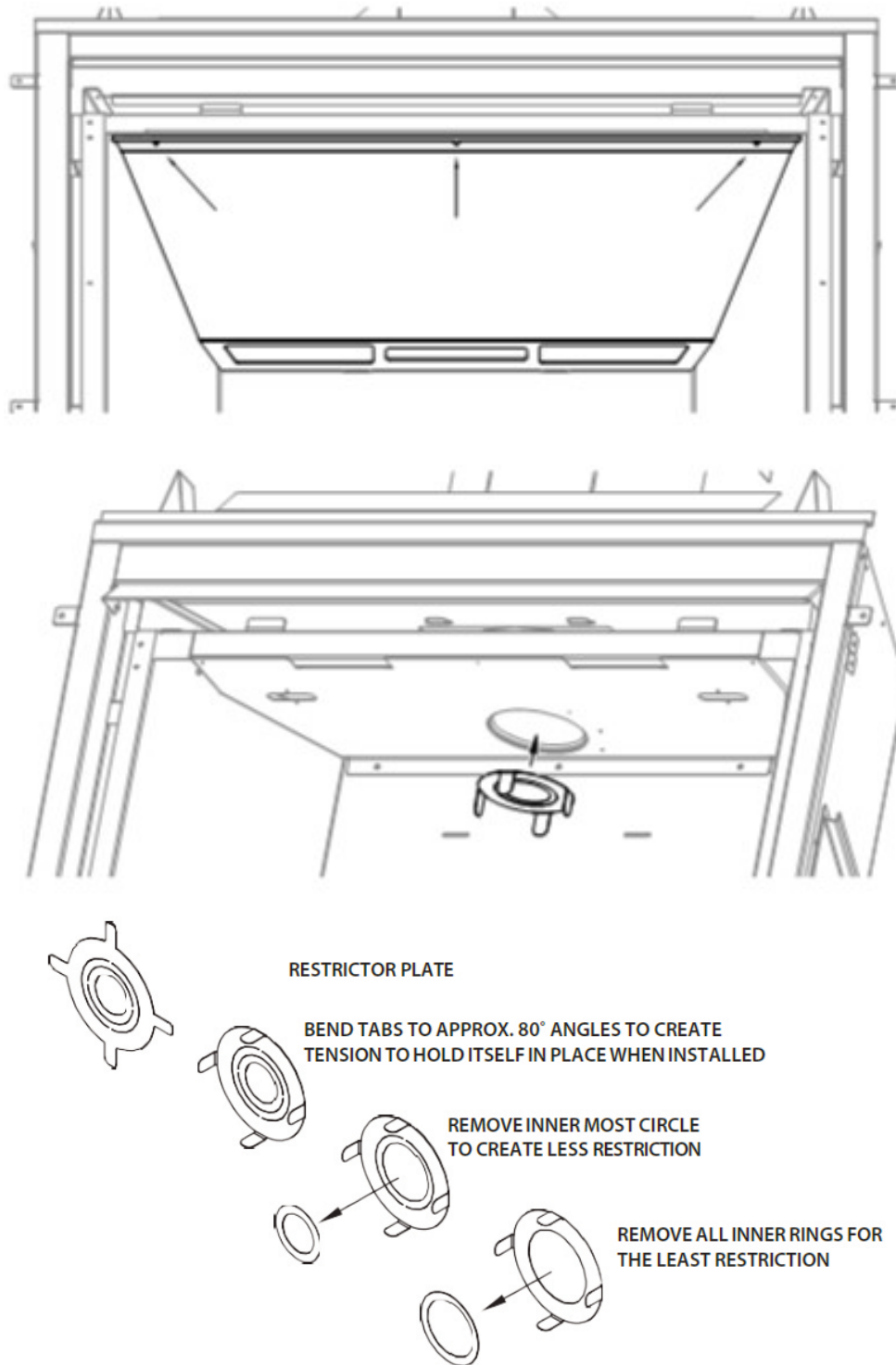


Figure 12.5 - Restrictor Installation

13.0 Troubleshooting

13.1 Electronic Ignition System (SP-34-L)

ATTENTION: Troubleshooting must be performed by a qualified technician.

Before proceeding with the steps in the following troubleshooting guide,

- Verify proper 120VAC power supply to the control module.
- Verify the control module 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 inlet pressure meets the recommended inlet pressure. If necessary, adjust line pressure regulator.
- Verify the communication link is established between the remote control and the IFC module.
- CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

Issue	Cause	Solution
Pilot will not light	Electrical power interrupted or disconnected	Restore electrical power to appliance or use battery back-up
	Wiring disconnection	Ensure batteries are fully charged if using battery back-up as power source. Use wiring schematic in this manual to determine that all wiring connections are secure and correct.
	Gas supply turned off	Check remote shut-off valves from the appliance. Usually there is a valve near the main gas line. There may be more than (1) valve between the appliance and main gas line.
Pilot will not stay lit	No propane in tank	Check propane tank. Refill if necessary.
	Low gas pressure	Consult a plumber or gas supplier Can be caused by situation such as a bent line, too narrow diameter or pipe, or a low line pressure
	Pilot adjustment screw not sealed	Seal pilot adjustment screw. Do not over-tighten.
	Pilot flame not making contact with the flame rectification sensor on the pilot assembly	Verify the pilot envelopes the top of the flame sensor and extends far enough onto the burner for ignition
Pilot flame always on, or will not extinguish	Control system set to CPI mode.	Set control system to IPI mode.

Issue	Cause	Solution
Burner flame will not light	ON/OFF rocker switch in OFF position	Switch rocker switch to ON position.
	Gas supply turned off	Check for multiple shut-offs in the supply line. Verify gas supply is turned on.
	Low gas supply	Consult with plumber or gas supplier. Check propane tank. Refill if necessary.
	Wiring disconnection or improper wiring	Check for faulty or incorrect wiring. Refer to FIGURE 9.1, SP-34-L Electrical Diagram.
	Plugged 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	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.
	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 12.3.3 Vent Restriction.
Soot appears on glass	Improper log placement	Refer to section 8.4, SP34-50A LOG SET INSTALLATION.
	Improper venturi settings	Venturi air shutters may need to be opened slightly to allow more air into the gas mix. Refer to section 12.3.1, BURNER VENTURI.
	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 close slightly to allow less air into the gas mix. Refer to section 12.3.1, BURNER VENTURI.
	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 backup batteries or remote control batteries low	Replace the batteries.
	No communication between remote control and control module	Reprogram remote control to IFC module
	A maximum number of failed ignitions or flame restorations has been reached.	Reset IFC module

13.2 Millivolt Ignition System (SP-34-MV)

ATTENTION: Troubleshooting must be performed by a qualified technician.

Issue	Cause	Solution
No spark from electrode to pilot when piezo button is triggered	Piezo igniter wiring disconnection	Verify piezo igniter is properly grounded. Tighten mounting fastener, if required.
		Check and repair, if necessary, the wire connections between the piezo igniter and igniter electrode.
	Wiring disconnection	Check the wiring at back of electrode igniter for proper connection
	Incorrect electrode position	Verify there is a 1/8" (3mm) gap between the electrode and pilot. Readjust if necessary. Direct metal contact may cause an arc below the electrode and along the electrode wire.
Spark igniter will not light after repeated triggering of the piezo button	No gas	Check for multiple shut-off valves in the supply line.
		Check propane tank for gas supply. Refill if necessary.
Pilot will not stay lit after carefully following lighting instructions	Pilot flame does not impinge on thermocouple	Clean pilot hood.
		Adjust pilot flame at gas valve for proper flame impingement.
	Loose thermocouple connection	Ensure thermocouple from valve is fully inserted and tight—hand tight plus 1/4 turn.
	Thermocouple reading below 15 millivolts	Disconnect the thermocouple from the valve. Place one millivolt meter lead wire on the end of the thermocouple, and the other millivolt meter lead wire on the thermocouple's copper wire. Start the pilot while holding the gas valve control knob in. If the millivolt reading is less than 15 millivolts, replace thermocouple.
	Thermopile not generating sufficient millivolts	Adjust, if necessary, the pilot flame to envelope thermopile.
		Check thermopile connections are properly wired to the gas control valve. Tighten if necessary.
		Measure millivolt production with a millivolt meter. Turn remote / thermostat / wall switch, or ON/OFF rocker switch to OFF. Turn the gas valve control to the PILOT position (pilot should remain lit). Take millivolt reading at TH-TP and TP terminals on gas valve. Reading should be 350 millivolts, minimum. If reading is less than 350 millivolts, replace thermopile.

Issue	Cause	Solution
Frequent pilot outages	Pilot shield not installed	Install pilot shield.
	Pilot safety dropout	Pilot flame is too high or too low. Clean pilot hood and adjust pilot flame for maximum flame impingement on thermopile.
Burner will not light	Light instructions not followed	Turn gas control knob to ON position. Turn the ON/OFF rocker switch to ON position. Put wall switch, remote, or thermostat in heat demand position .
	Plugged main burner orifice	Remove blockage as necessary.
	Switching device is defective	Check remote, thermostat, or wall switch wires for proper connection.
		Place jumper wires across terminals at switch. If burner lights, replace the defective switch, thermostat, or batteries in remote control as necessary.
		If switching device checks out as described above, place jumper wires across switches on the gas valve. If the burner lights, the switching wires are faulty, or connections are bad. Replace as necessary.
Burner will not stay lit	Thermopile wires loose at valve terminals	Tighten if necessary.
	Thermopile wires ground out due to pinched wires	Free pinched wires if necessary.
	Improper refractory panel placement (if installed)	Refractory panels must be tight against firebox walls. It may be necessary to secure panels with high-temperature sealant, especially around the intake duct.

Issue	Cause	Solution
Pilot and burner extinguish while in operation	No propane in tank	Check propane tank. Refill if necessary.
	Incorrect glass frame assembly installation	Refer to Section 8.1 Glass Frame Assembly.
	Improper pitch on horizontal venting	1/4" (6mm) rise per 12" (30mm) horizontal pipe is required.
	Defective thermopile or thermocouple	Check thermopile and thermocouple for proper millivolts.
	Inner vent pipe leaking exhaust gas back into the firebox	Check for leaks and repair if necessary.
	Vent cap blockage	Remove debris if necessary
	Excessive draft	A restrictor plate may need to be installed or modified, Refer to Section 12.3.3 Vent Restriction (After Installation).
Glass Sooting	Improper log placement	Refer to Section 8.4 #SP34-50A Log Set Installation.
	Improper venturi setting	Venturi may need to be opened slightly to allow more air into gas mix. Refer to Section 12.3.1 Burner Venturi.
	Incorrect vent cap installation	Adjust if necessary.
	Vent cap blockage	Remove debris if necessary.
Flame burns blue and lifts off burner	Improper venturi setting	Venturi may need to be opened slightly to allow more air into the gas mix. Refer to Section 12.3.1 Burner Venturi.
	Incorrect vent cap installation	Adjust if necessary.
	Blockage or leakage of the vent system	Check the vent pipe for leaks, and the vent cap for debris. Repair vent pipe or remove debris from vent cap if necessary.

14.0 Maintenance

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

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

14.1 Firebox

Performed by: Qualified Service Person

Frequency: Annually

Action:

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

14.2 Fan (if applicable)

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: Annually

Action:

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

14.2.1 Fan Kit Removal

1. Disconnect electrical power.
2. Remove the safety barrier screen and glass valance.
3. Remove optional panel set and log set.
4. Remove the control board - refer to Section 8.5. As you remove the control board disconnect the fan kit wiring from the control module
5. After the control board is removed you can reach through the control board opening to remove the fan kit to the bottom of the fireplace.
6. Remove the fan kit and service.
7. Reinstall in reverse order. Reinstall all previously removed components

14.3 Vent System

NOTE: If the vent-air intake system is disassembled for any reason, reinstall per instructions provided with installation. For natural draft vent installation, refer to section 7.0, VENTING.

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.

14.4 Glass Assembly

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

WARNING: Do not use substitute materials.

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

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

Performed by: Homeowner

Frequency: Annually

Action:

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

Performed by: Qualified Service Person

Frequency: Annually

Action:

- Clean glass window with a suitable fireplace glass cleaner using a soft cloth. Abrasive cleaners must not be used. Be careful not to scratch the glass when cleaning.
- Inspect the glass for cracks, scratches, and nicks.
- Verify the glass assembly is properly intact and not damaged.
- Replace the glass and the assembly #701-016T as necessary.
- Only Hussong Mfg. Co., Inc. will supply the replacement of glass assembly as a complete unit.

14.5 Burner and Pilot System

The burner assembly may be removed for easier access to the control compartment. See **Section 8.5 Control Board Removal and Installation for instructions.**

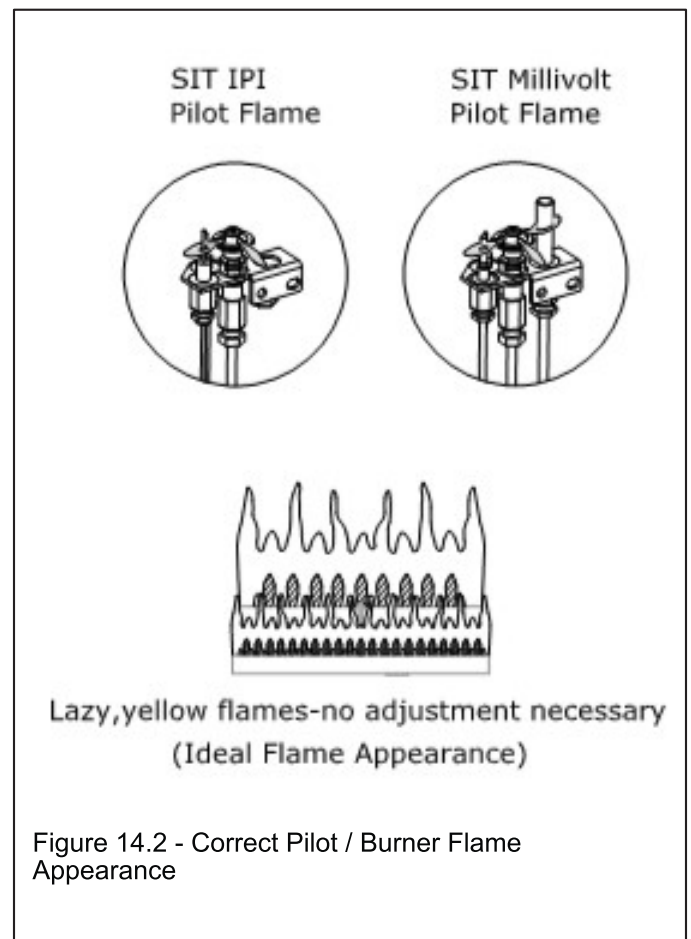
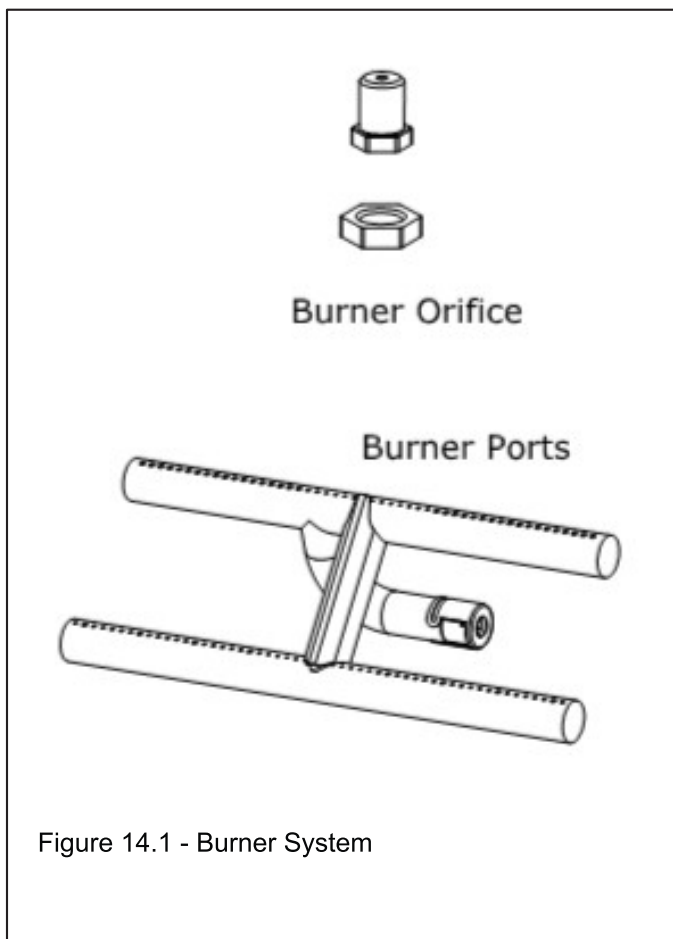
Verify gas supply is turned on and filled. Consult with plumber or gas supplier as necessary.

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.



15.0 Replacement Parts List



HUSSONG MANUFACTURING CO., INC.
P.O. BOX 557 204 INDUSTRIAL PARK DRIVE LAKEFIELD,
MINNESOTA USA 56150-0577

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](http://www.P65Warnings.ca.gov).

SP-34-L Control Board and Parts				
S.I.T. Complete Board Assembly - Natural Gas	SP34L-130		S.I.T. Conversion Kit - Natural Gas	NCK-SP34L-S30
S.I.T. Complete Board Assembly - Propane	SP34L-131		S.I.T. Conversion Kit - Propane	LCK-SP34L-S30
S.I.T. IPI Gas Valve - Natural Gas	700-660		Natural Gas - Valve Stepper Motor (30% Turn down)	700-503
S.I.T. IPI Gas Valve - Propane	700-660-1		Propane - Valve Stepper Motor (30% turn down)	700-503-1
Proflame 2 IFC Module	700-652		S.I.T. IPI Pilot Assembly - Natural Gas	700-551
IFC Wire Harness Assembly	700-653		S.I.T. IPI Pilot Assembly - Propane	700-551-1
Main Line Wire Harness	700-654		Burner Orifice - #46 - Natural Gas	700-246
ON/OFF Wire Harness	700-656		Burner Orifice - #55 - Propane	700-255
Fan Receptacle / Light Kit Wire Harness	700-657		18" Black Flex Tube	700-213B
Pilot Orifice - Natural Gas #62	700-166		7" Flare x Brazed Fitting	700-223F
Pilot Orifice - Propane #35	700-168		Burner Tube	SP34-351A
S.I.T. Transmitter (Remote Control)	700-408		Pilot Shield	SP34-043A
SIT IPI Pilot Hood	700-598			

SP-34-MV Control Board and Parts

S.I.T. Complete Board Assembly - Natural Gas	SP34-770A		Pilot Orifice - Natural Gas	700-165
S.I.T. Complete Board Assembly - Propane	SP34-771A		Pilot Orifice - Propane	700-095
S.I.T. MV Gas Valve - Natural Gas	700-086N		SIT Millivolt Pilot Hood	700-098
S.I.T. MV Gas Valve - Natural Gas (7-day timeout)	700-086N-7		SIT Millivolt Quick Change Screw	900-QCS
S.I.T. MV Gas Valve - Propane	700-087A		18" Flexible Gas Line - Black	700-213B
S.I.T. MV Gas Valve - Propane (7-day timeout)	700-087A-7		Flexible Gas Line - Valve to Burner Connection	700-226F
ON/OFF Rocker Switch	700-023		Natural Gas Burner Orifice #46	700-246
S.I.T. Pilot Assembly - Natural Gas	700-088		Propane Burner Orifice #55	700-255
S.I.T. Pilot Assembly - Propane	700-089		Conversion Kit - Natural Gas	OCK-S46A
Push Button Ignitor	700-032		Conversion Kit - Propane	OCK-S55A
Flexible Pilot Tubing	700-091		Burner Tube	SP34-351A
Millivolt Generator	700-092		Pilot Shield	SP34-043A
Thermocouple	700-093			

Glass and Glass Parts	
Glass with Gasket - 30" x 20 1/2"	701-016T
1 1/8" Glass Gasket with Adhesive	900-006
Replacement Valance	SP34-005

Safety Barrier	
31" x 21.875" Safety Screen (with brackets)	SP34-ES2

Safety Barrier Overlays	
Prairie Design Overlay	SP34-POL
Arched Prairie Design Overlay	SP34-APOL

Additional Components	
4" (102mm) Restrictor Plate	900-085
Manual Gas Shut-off Valve	700-203
Upper Hood	SP34-200
Component Access Cover	SP34-201
Vent Heat Shield Assembly	SP34-HHS

Log Set	
6 Piece Log Set	SP34-50A
Log #1	SP34-1A
Log #2	SP34-2A
Log #3	SP34-3A
Log #4	SP34-4A
Log #5	SP34-5A
Log #6	SP34-6A
1/2" Lava Rock	600-702
Rock Wool Embers	900-REMB

Fan Kit	
Fan Kit (SP34-L) (Standard)	SP-028-IP1
Fan Kit (SP34-MV) (Optional)	SP-028

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.

Limited Lifetime Warranty

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

