

HEAT & GLO™

No one builds a better fire

FOUNDATION SERIES - SINGLE SIDED

Co-linear Direct Vent Gas Fireplaces

Installation and Operating Manual

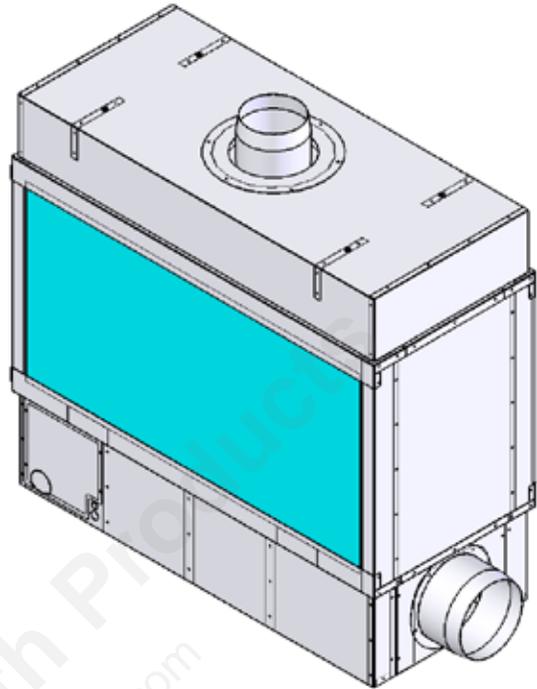
Natural Gas

FDN-4-SS

FDN-5-SS

FDN-6-SS

FDN-7-SS



DO NOT DISCARD

Installer: Leave this manual with the appliance.
Consumer: Retain this manual for future reference.

WARNING: If the information in these instructions are not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- 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.
 - 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.

⚠ WARNING



**HOT GLASS WILL
CAUSE BURNS.
DO NOT TOUCH GLASS
UNTIL COOLED.
NEVER ALLOW CHILDREN
TO TOUCH GLASS.**

GAS-FIRED



**NATIONAL
FIREPLACE
INSTITUTE**



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

Heat & Glo, a brand of Hearth & Home Technologies
7571 215th Street West, Lakeville, MN 55044
www.heatnglo.com

Please contact your Heat & Glo dealer with any questions or concerns.
For the location of your nearest Heat & Glo dealer,
please visit www.heatnglo.com.

TABLE OF CONTENTS

1	Safety Information	3-4
	A. Safety Icon Designations	3
	B. Important Safety Considerations	3
	C. Requirements for the Commonwealth of Massachusetts	4
2	Fireplace Specifications	5-7
	A. Single Sided Dimensions	5
	B. Clearances	6
	C. Installation Overview	7
	D. Placement Clearance Requirements	7
3	Prepare The Fireplace	8-9
	A. Standoff Installation	8
	B. Nailing Tab Installation	9
4	Framing	10-11
	Single Sided	10
5	Mantel Requirements	12-13
	A. Non-Combustible Zone - Using the Provided 1/2" Standoffs	12
	B. Non-Combustible Zone - Not Using the Provided 1/2" Standoffs	13
6	Glass Frame Assembly	14-15
	A. Glass Frame Assembly Identification	14
	B. Install Glass Frame Assembly	15
	C. Remove Glass Frame Assembly	15
7	Gas Line Specifications & Access	16-17
	A. Gas Line Connection	16
	B. Gas and Electrical Access Panels	17
8	Venting	18-26
	A. Approved Venting	18-21
	B. Pitot Tube Information	22
	C. Horizontal Vent System Clearances	22
	D. Wall Pass-Through	22
	E. Vertical Terminations	23
	F. Horizontal Termination Vent Cap Location & Clearances	23-24
	G. Vertical Vent Cap Location & Clearances	25
	H. Roof Termination Cap Installation-With and Without Damper	26
	I. Wall Termination-With and Without Damper	27
	J. Intake Air	28
	K. Changing From Side Intake Air to Bottom Intake Air	28

9	Electrical	29-35
	A. Field Wiring (At Install)	29
	B. Field Wiring (Service and Troubleshooting)	30
	C.1 Terminals 1 & 2 - LED Lights	31
	C.2 Terminals 3 & 4 - Main Flame	31
	C.3 Terminals 5 & 6 - Fireplace Power	32
	C.4 Terminals 7 & 8 - Powervent Connection	32
	C.5 Terminals 9 & 10 - Flue Damper Connection	33
	C.6 Terminals 11 & 12 - Flue Damper Prove	34
	C.7 Terminals 13 & 14 - Vacuum Switch	35
10	Finishing The Wall	36-37
	A. Finishing the Wall - Using the Provided 1/2" Standoffs	36
	B. Finishing the Wall -Not Using the Provided 1/2" Standoffs	37
11	Lighting & Shutdown	38-39
	A. Lighting the Fireplace	38
	B. If the Fireplace Does Not Light	39
12	Pressure Testing	40
	Inlet Pressure Test	40
13	Finalizing The Installation	40
	A. Installing The Media	40
	B. Flame Appearance	40
14	Maintenance	41-42
	A. Vent System	41
	B. Glass Cleaning and Replacement	41
	C. Replacement Parts List	42
	Limited Lifetime Warranty	43-44

→ = Contains updated information.

1 - SAFETY INFORMATION

This fireplace complies with ANSI Z21.50-2016-CSA 2.22-2016 "VENTED DECORATIVE GAS APPLIANCES".

Installation must conform with local building codes or in the absence of local building codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 - Current Edition, or the Natural or Propane Installation Code, CSA B149.1

A. SAFETY ICON DESIGNATIONS

Various safety icons appear throughout this installation manual. Please familiarize yourself with the icons making sure you understand the serious consequences that may occur if ignored or of handling the products inappropriately.



IMPORTANT NOTE

This indicates additional instructions that you should consider during the installation.



HOT GLASS WARNING

This indicates danger of serious bodily injury or property damage if glass is handled while still hot.



DO NOT

This indicates something that you must never do.



CAUTION

This indicates danger of serious bodily injury or property damage.



RISK OF FIRE

This designates a danger of risk of fire or damage to property.



STOP!

This indicates notes that may include reviewing warnings on other pages throughout the manual.

B. IMPORTANT SAFETY CONSIDERATIONS

- Installation and repair should be done only by a qualified service person. The appliance should be inspected by a qualified service person before use. Annual inspection by a qualified service person is required to maintain warranty. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is imperative that control compartments, burners and circulation air passageways of the appliance be kept clean.
- Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.
- Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.
- Clothing or other flammable material should not be placed on or near the appliance.
- Adequate accessibility clearances for servicing and proper operation must be maintained.
- This appliance must not share or be connected to a chimney flue serving any other appliance.
- Keep area around the appliance clear of combustible materials, gasoline and other flammable vapor and liquids.
- The flow of combustion and ventilation air must not be obstructed.
- Due to high temperatures the appliance should be located out of traffic and away from furniture and draperies.
- The glass front or any part removed for servicing the appliance must be replaced prior to operating the appliance. Work should be done by a qualified service technician.
- Clean glass only when cool and only with non-abrasive cleansers.
- Do not operate this appliance with the glass/frame assembly removed, cracked or broken. Replacement of the glass assembly must only be performed by a licensed or qualified service person. **DO NOT SUBSTITUTE MATERIALS.**
- Do not strike or slam glass assembly.
- Keep burner and control compartment clean.
- Do not use this fireplace if any part has been under water. Immediately call a qualified service technician to inspect this appliance and to replace any part of the control system and any gas control which has been under water.
- **DANGER:** Under no circumstances should any solid fuel (wood, coal, paper or cardboard etc.) be used in this appliance.
- **STATE OF CA WARNING:** This product and the fuels used to operate this product (liquid propane or natural gas), and the combustion of such fuels, can expose you to chemicals including benzene, which is known to the State of California to cause cancer and reproductive harm.
For more information go to: www.P65Warnings.ca.gov.

Note: The following requirements reference various Massachusetts and national codes not contained in this document.

C. Requirements for the Commonwealth of Massachusetts

For all side wall 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 seven (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:

Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal 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 with an alarm 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 an 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.

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.

Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height 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 size no less than one-half (1/2) in. in size, "**GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS**".

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.

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.

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 a Product Approved side wall horizontally vented gas fueled 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 system" 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.

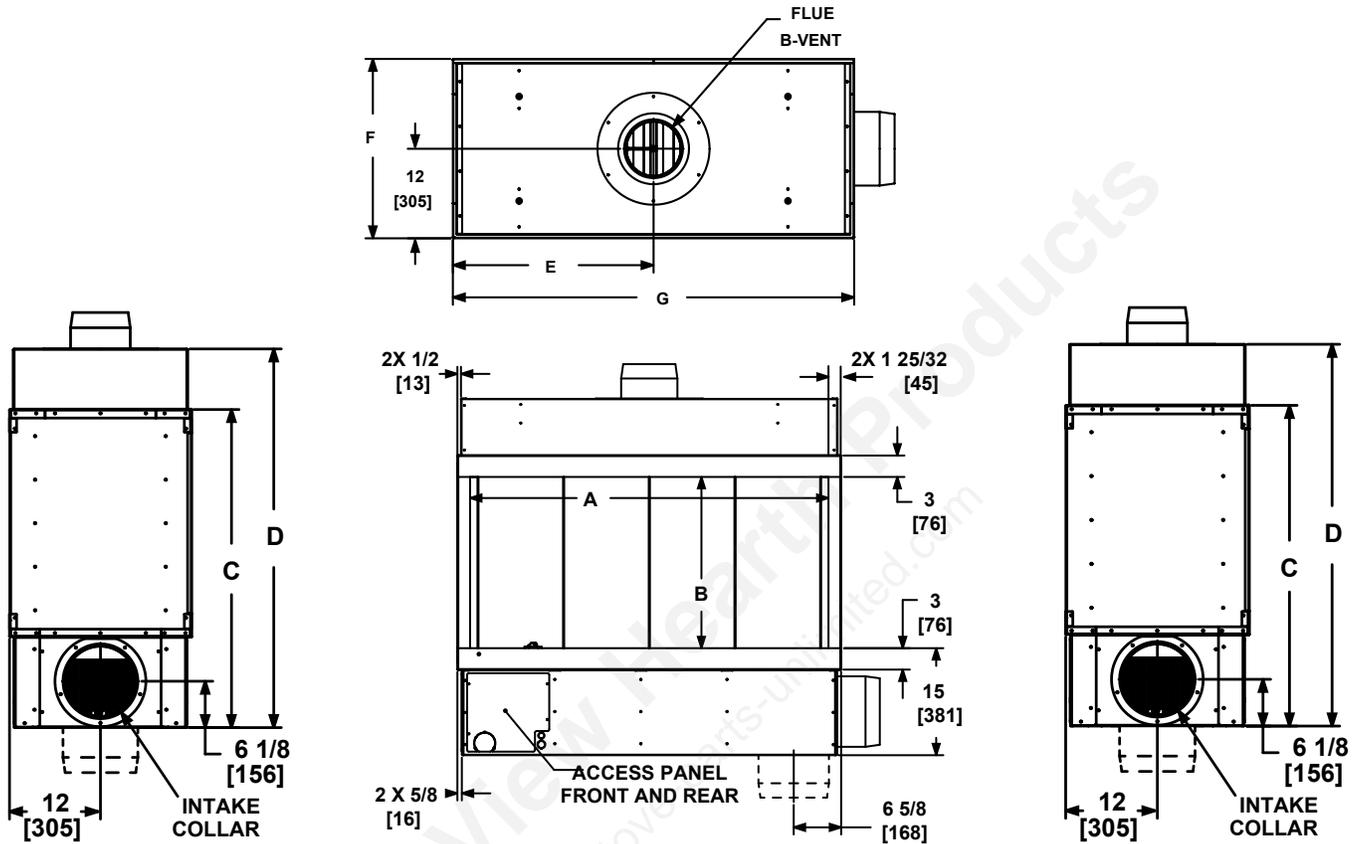
A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

See Gas Connection section for additional Commonwealth of Massachusetts requirements.

2 - FIREPLACE SPECIFICATIONS

A. SINGLE SIDED DIMENSIONS

Figure 2A



SPECIFICATIONS			DIMENSIONS Inches (Millimeters)						
Model #	B-VENT FLUE	B-VENT FLUE	A*	B*	C	D	E	F	G
	Diameter	Diameter	Finishing Width	Glass Height	Height Firebox Top	Height Overall	Edge to Center Flue	Depth	Overall Width
FDN-4-SS	8"	10"	50-3/16 [1,275]	24 [610]	42 [1,067]	50 [1,270]	26-7/8 [683]	24-1/32 [610]	53-3/4 [1,365]
FDN-5-SS	8"	10"	62-3/16 [1,580]	24 [610]	42 [1,067]	50 [1,270]	32-7/8 [835]	24-1/32 [610]	65-3/4 [1,670]
FDN-6-SS	10"	10"	74-3/16 [1,884]	24 [610]	42 [1,067]	50 [1,270]	38-7/8 [987]	24-1/32 [610]	77-3/4 [1,975]
FDN-7-SS	10"	10"	86-3/16 [2,189]	24 [610]	42 [1,067]	50 [1,270]	44-7/8 [1,140]	24-1/32 [610]	89-3/4 [2,280]
A* & *B*	This is the allowable finishing width and height required to fit the glass panels into the fireplace. Finishing materials shall not overlap dimensions.								

2 - FIREPLACE SPECIFICATIONS

SPECIFICATIONS TABLE

Model #		B-VENT	OA	REG PV	IN-LINE PV	BTU'S	NG ORIFICE	PROPANE ORIFICE
FDN-4-SS	4X2 SINGLE SIDED	8"	10"	PVK-45	PVI-45	60,000	(3X) #43	(3X) #55
FDN-5-SS	5X2 SINGLE SIDED	8"	10"	PVK-45	PVI-45	80,000	(4X) #43	(4X) #55
FDN-6-SS	6X2 SINGLE SIDED	10"	10"	PVK-67	PVI-67	100,000	(5X) #43	(5X) #55
FDN-7-SS	7X2 SINGLE SIDED	10"	10"	PVK-67	PVI-67	120,000	(6X) #43	(6X) #55

B. CLEARANCES



WARNING: NON-COMBUSTIBLE ZONE: USE ONLY NON-COMBUSTIBLE MATERIAL IN THIS AREA FOR ENTIRE WIDTH OF FIREPLACE. DO NOT USE WOOD, SHEETROCK, ETC., IN THIS ZONE. SEE FIGURE 2B.

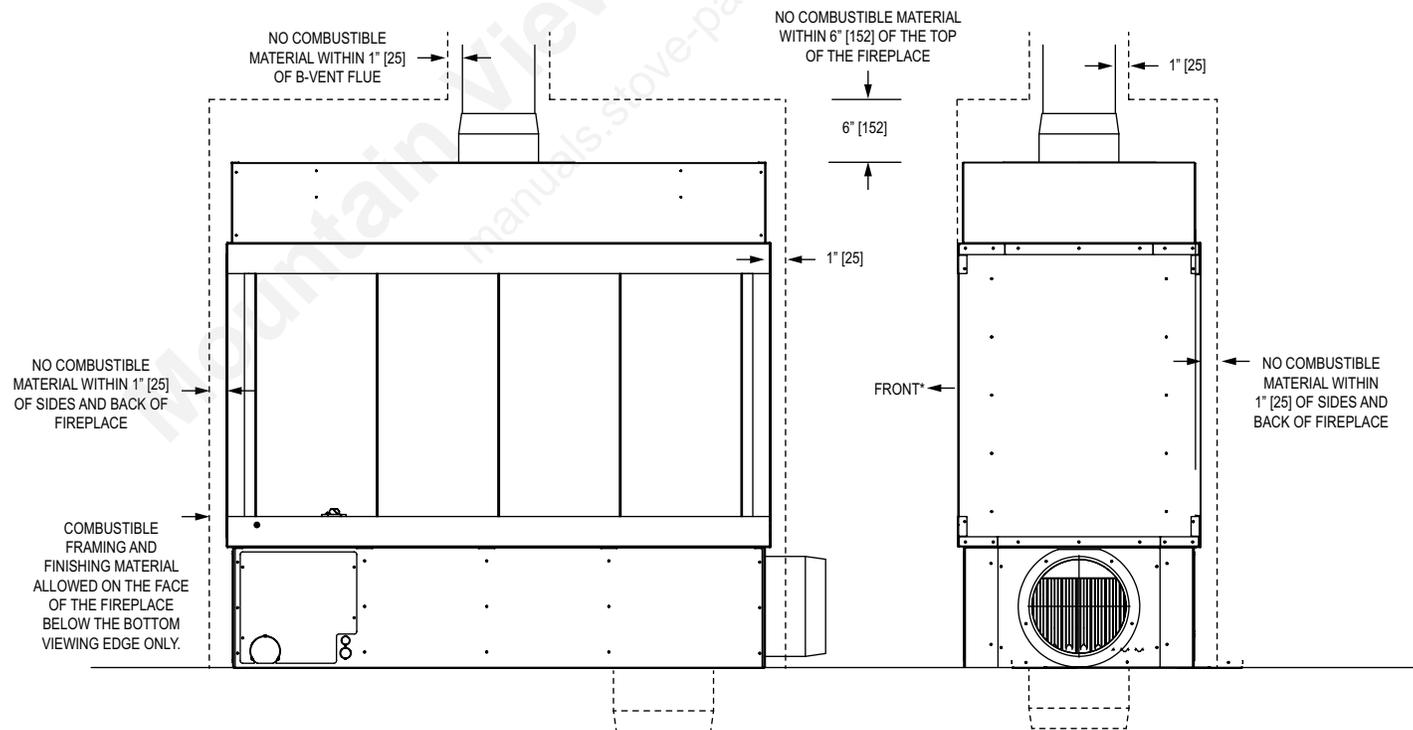


NOTE: OTHER CLEARANCES APPLY. ALL CLEARANCES MUST BE MAINTAINED. Refer to Section 5 (Non-Combustible Zone) and Section 10 (Finishing) for more information.

CLEARANCES

From unit left & right sides	1"	25mm
To flooring under fireplace	0	0
Unit top to ceiling	6"	152mm
Unit side to adjacent sidewall	1"	25mm
From appliance front*	*See note below	

Figure 2B



OTHER CLEARANCES:
 DO NOT PLACE ON CARPET, VINYL OR SOFT SURFACES.
 A COMBUSTIBLE MANTEL MAY BE PLACED AT THE TOP OF THE GLASS VIEWING AREA. DO NOT OVERLAP GLASS.
 A COMBUSTIBLE HEARTH EXTENSION MAY BE USED AT THE BOTTOM OF GLASS VIEWING. DO NOT OVERLAP GLASS.
 * MINIMUM DISTANCE RECOMMENDED FROM FRONT OF APPLIANCE FOR SERVICE ACCESS = 24 IN. [610 mm].

2 - FIREPLACE SPECIFICATIONS



NOTE: The qualified installer should follow the procedure best suited for the installation.

C. INSTALLATION OVERVIEW

1. Framing should be built after the fireplace is installed or extra clearance must be planned for at the intake collar. Framing must allow for vent installation.
2. If masonry (optional) will be used, prepare foundation for the masonry load. A lintel is required to support the added weight above the fireplace.
3. Install hearth if desired.
4. Insert fireplace into framing.
5. Double check clearances to combustibles.
6. Complete gas line installation.
7. Complete electrical hook-up.
8. Complete venting installation.
9. Install facing material, mantel or cabinetry.
10. Install optional mirrored glass, optional logs, media, and required glass.
11. Verify proper operation of fireplace and all components.

D. PLACEMENT CLEARANCE REQUIREMENTS

- This fireplace must be installed on a level surface capable of supporting the fireplace and venting.
- Fireplace must be placed directly on wood or non-combustible surface (not linoleum or carpet) extending entire depth and width of fireplace.
- Due to high surface temperatures, fireplace should be located out of traffic and away from furniture and draperies.
- This fireplace may be installed in a bedroom.

3 - PREPARE THE FIREPLACE



CAUTION: FIREPLACE IS NOT LOAD-BEARING.



NOTE: OTHER CLEARANCES APPLY. ALL CLEARANCES MUST BE MAINTAINED.

A. STANDOFF INSTALLATION

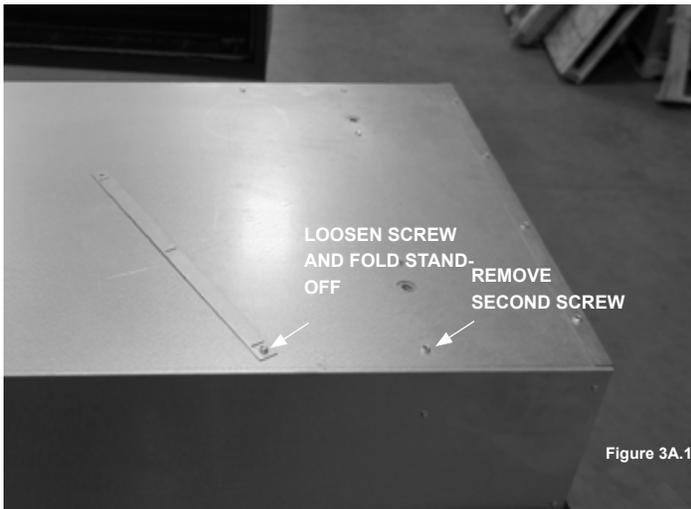


Figure 3A.1



Figure 3A.2

STEP 1: Refer to Figure 3A.1

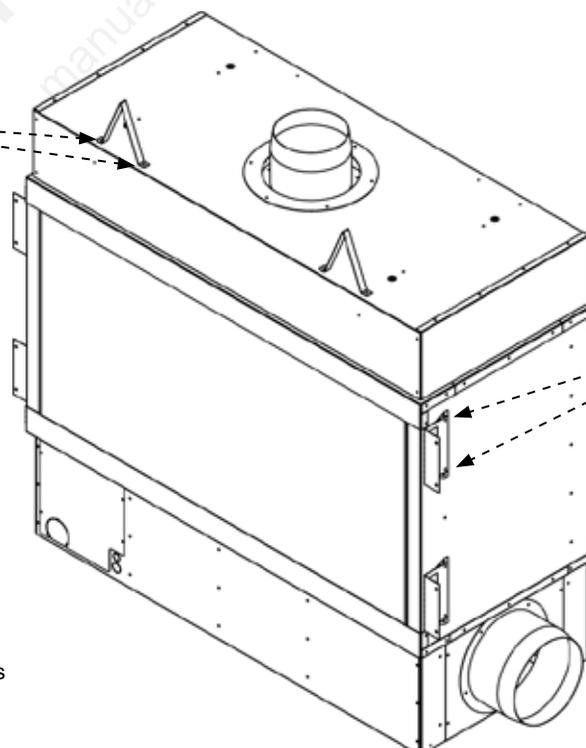
The two (2) standoffs will be shipped in a flat state placed on the firebox top. Locate the standoffs and loosen the screws holding them in place.

STEP 2: Refer to Figure 3A.2

Fold the center of the standoff up and both ends out at the perforated lines. Using Figure 3A.2 for reference, locate the second pre-installed screw on the firebox top at each standoff location. Remove the screw, pivot the folded standoff into location and re-install the screw to secure the standoff. Tighten up the screw that was loosened in Step 1.

STANDOFFS

Single Sided fireplace has a quantity of two (2) standoffs that are secured with two (2) screws each (left and right sides of top).



NAILING FLANGES

Single Sided fireplace has a quantity of four (4) nailing flanges that are secured with two (2) screws each (left and right sides of fireplace).

Figure 3A.3

Placement of the standoffs and nailing flanges on the Single Sided fireplace.

3 - PREPARE THE FIREPLACE

B. NAILING TAB INSTALLATION



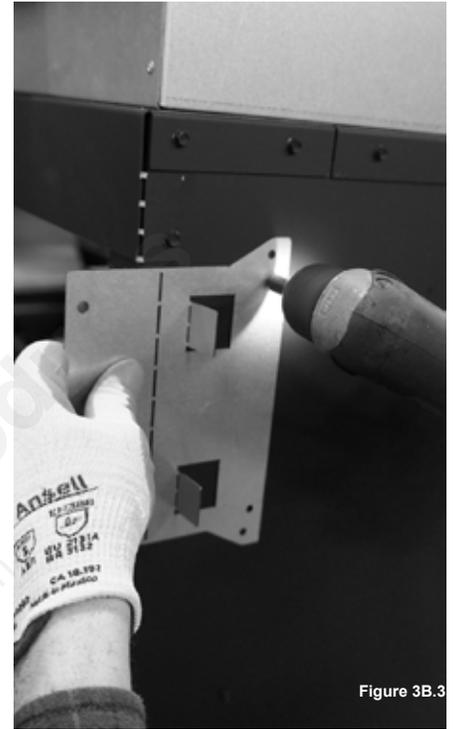
STEP 1: Refer to Figure 3B.1

The four (4) nailing flanges will be shipped in a flat state placed on the firebox sides. Locate the nailing flanges and remove the screws holding them in place.



STEP 2: Refer to Figure 3B.2

Bend the two (2) small tabs out on each nailing flange at the perforated lines. Using Figure 3A.3 for reference, locate the pre-drilled holes on the firebox side each nailing flange will be placed at.



STEP 3: Refer to Figure 3B.3 & Figure 3B.4

Set each nailing flange in place and secure using two (2) screws each. Bend the nailing flange out from fireplace at the remaining perforated line.



The nailing flanges will ensure the 1" minimum clearance is kept to combustible framing. Refer to Figure 3B.5

Depending on your installation and how you frame it out, you may not use the provided nailing flanges.

4 - FRAMING



NOTE: Framing dimensions should allow for wall covering thickness and fireplace facing materials. When using a hearth, adjust rough opening size as necessary to maintain at least minimum clearance requirements.



CAUTION: Install fireplace on metal, concrete or hard wood surface extending the full width and depth of fireplace.



CAUTION: Vent cap location must be in compliance with guidelines in Section 8 of this manual.



CAUTION: FIREPLACE IS NOT LOAD-BEARING.

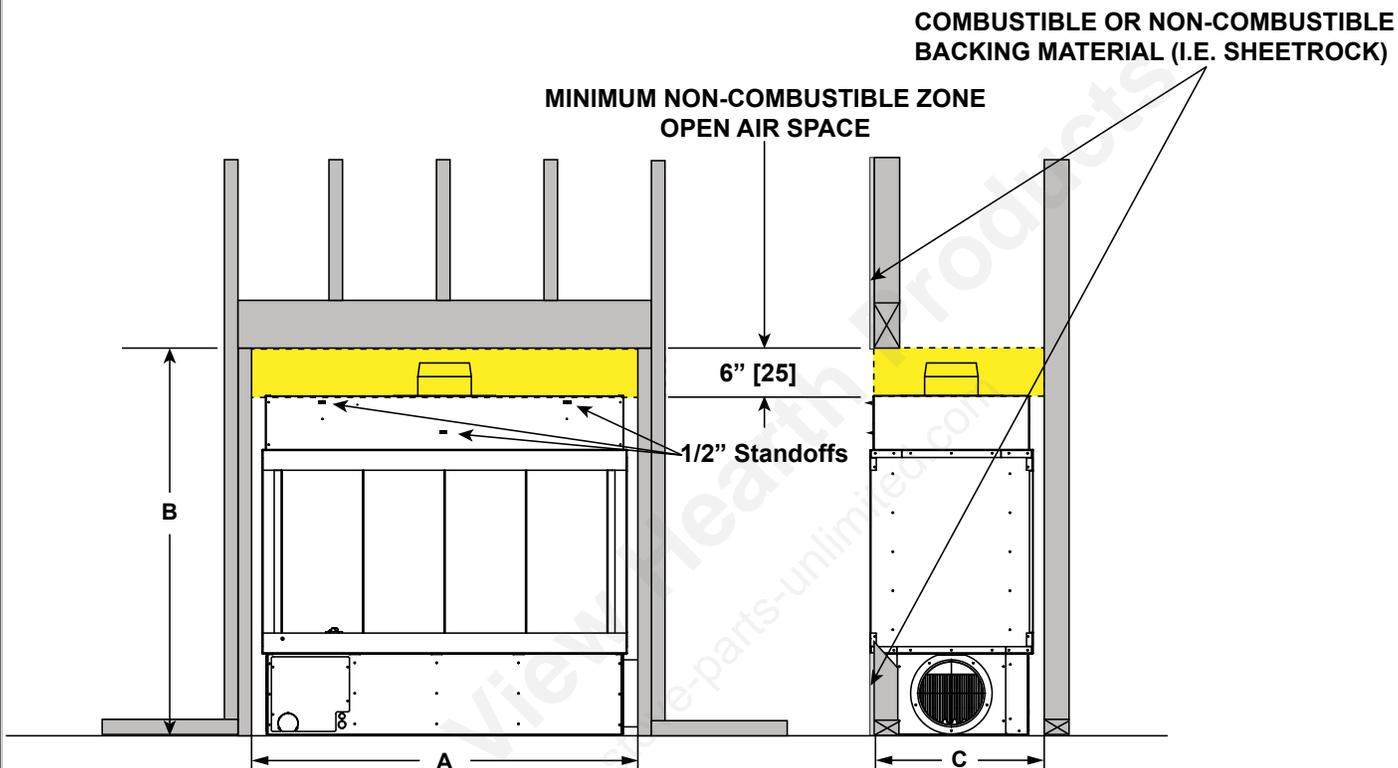
If masonry is to be used (optional), prepare the necessary foundation for the masonry load. When masonry construction is being used, a lintel must be used over top of fireplace to support the added weight. Build hearth to desired size and height. If a hearth extension is desired, combustible material may be used.

4 - FRAMING

SINGLE SIDED

Figure 4

IMPORTANT: FIREPLACE IS NOT LOAD-BEARING.



SINGLE SIDED			
Model #	A	B	C
FDN-4-SS	55-3/4 [1,416]	56 [1,422]	25-1/32 [636]
FDN-5-SS	67-3/4 [1,721]	56 [1,422]	25-1/32 [636]
FDN-6-SS	79-3/4 [2,026]	56 [1,422]	25-1/32 [636]
FDN-7-SS	91-3/4 [2,330]	56 [1,422]	25-1/32 [636]

IMPORTANT FRAMING NOTES:

FRAMING SHOULD BE BUILT AFTER THE FIREPLACE IS INSTALLED OR EXTRA CLEARANCE MUST BE PLANNED FOR AT THE INTAKE COLLAR AND FOR THICKNESS OF MATERIALS USED.

FRAMING DIMENSIONS ASSUMING 1/2" [13] DRYWALL AND NON-COMBUSTIBLE BOARD USED.

THESE DIMENSIONS REPRESENT THE FRAMING DIMENSIONS FOR COMBUSTIBLE MATERIAL.

NON-COMBUSTIBLE FRAMING AND FINISHING MATERIALS MAY BE USED WITHIN THESE DIMENSIONS RIGHT UP TO THE UNIT.

NO COMBUSTIBLE MATERIAL WITHIN 6" [152] OF THE TOP OF THE FIREPLACE.

NO COMBUSTIBLE MATERIAL WITHIN 1" [25] OF THE SIDES AND BACK OF THE FIREPLACE.

COMBUSTIBLE MATERIAL SHALL NOT BE PLACED DIRECTLY ON THE FACE OF THE FIREPLACE, TOP AND SIDES.

SEE SECTION 10 (FINISHING) FOR DETAILS REGARDING 1/2 INCH STANDOFFS.

STEEL SURFACE MAY BE COVERED WITH NON-COMBUSTIBLE FINISHING MATERIAL.

1" [25] CLEARANCE TO THE B-VENT MUST BE MAINTAINED.

5 - MANTEL REQUIREMENTS

A. NON-COMBUSTIBLE ZONE - USING THE PROVIDED 1/2" STANDOFFS

The fireplace has standoffs installed on the front of the fireplace standard from the factory. They are located on the upper left, center and right front of the fireplace and are to ensure that the 1/2" [12.7mm] required clearance to combustibles on the surface of the fireplace is maintained.

If the standoffs are removed, only non-combustible material can be installed against the surface of the fireplace such as a non-combustible backer cement board. 1/2" [12.7mm] minimum thickness must be used in the 15" [381mm] between the top of the 3" trim to the combustible framing the full width of the fireplace. The 15" includes a 7" [178mm] minimum above the top of the fireplace that is recommended for ease of attachment.

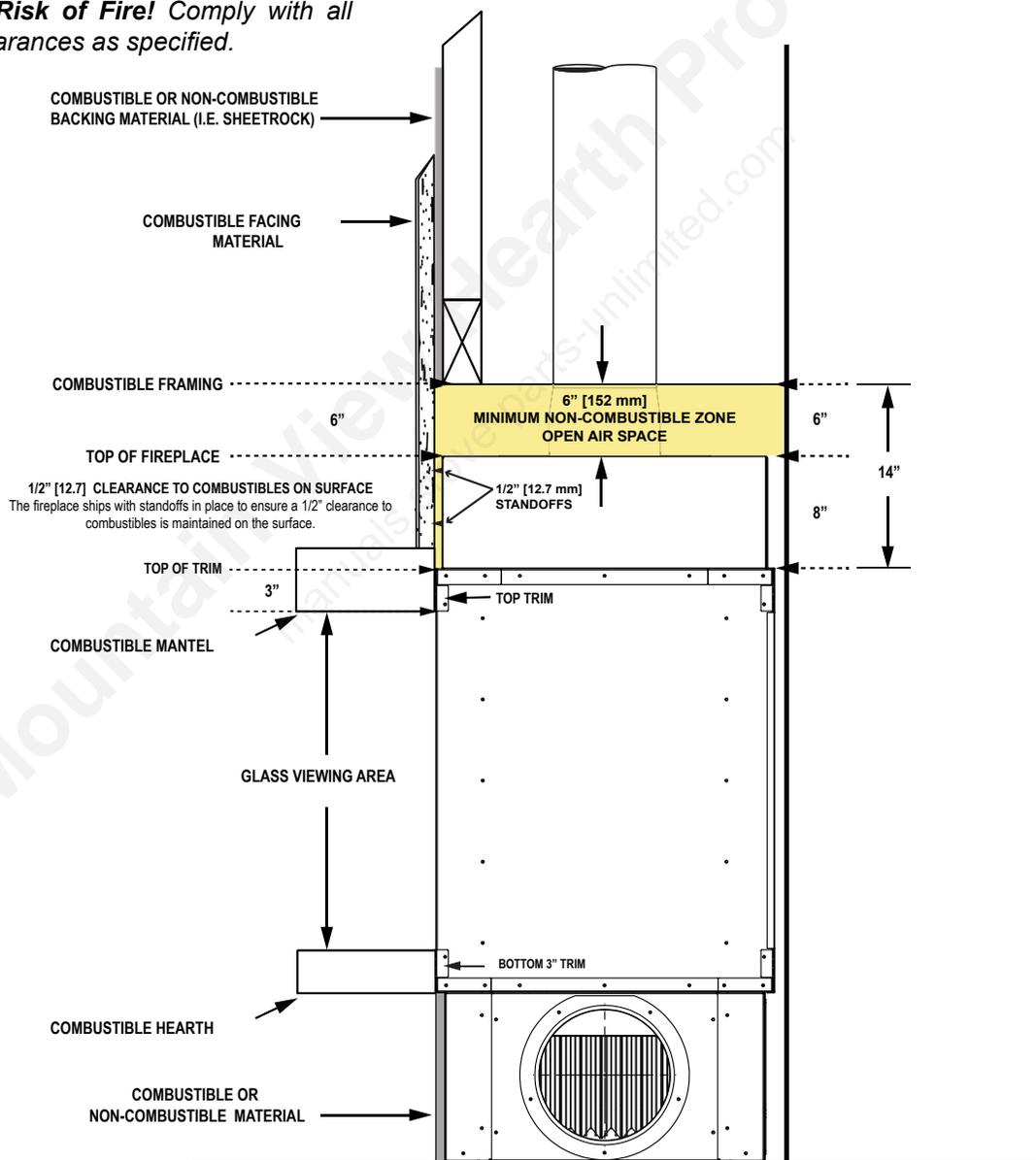
Refer to Figure 5.1 for a standard installation using the provided 1/2" standoffs.
Refer to Figure 5.2 for requirements when not using the provided 1/2" standoffs.



1/2" [12.7mm] Standoff

Figure 5.1

WARNING! Risk of Fire! Comply with all minimum clearances as specified.



SINGLE SIDED EXAMPLE: RIGHT SIDE VIEW
APPLIES TO ALL SIDES THAT HAVE A VIEWABLE AREA

NOTE: Refer to Section 10 for more information on finishing the wall.

5 - MANTEL REQUIREMENTS

B. NON-COMBUSTIBLE ZONE - **NOT** USING THE PROVIDED 1/2" STANDOFFS

The fireplace has standoffs installed on the front of the fireplace standard from the factory. They are located on the left, center and right front hood of the fireplace and are to ensure that the 1/2" [12.7mm] required clearance to combustibles on the surface of the fireplace is maintained.

If the standoffs are removed, only non-combustible material can be installed against the surface of the fireplace such as a non-combustible backer cement board. 1/2" [12.7mm] minimum thickness must be used in the 15" [381mm] between the top of the 3" trim to the combustible framing the full width of the fireplace. The 15" includes a 7" [178mm] minimum above the top of the fireplace that is recommended for ease of attachment.

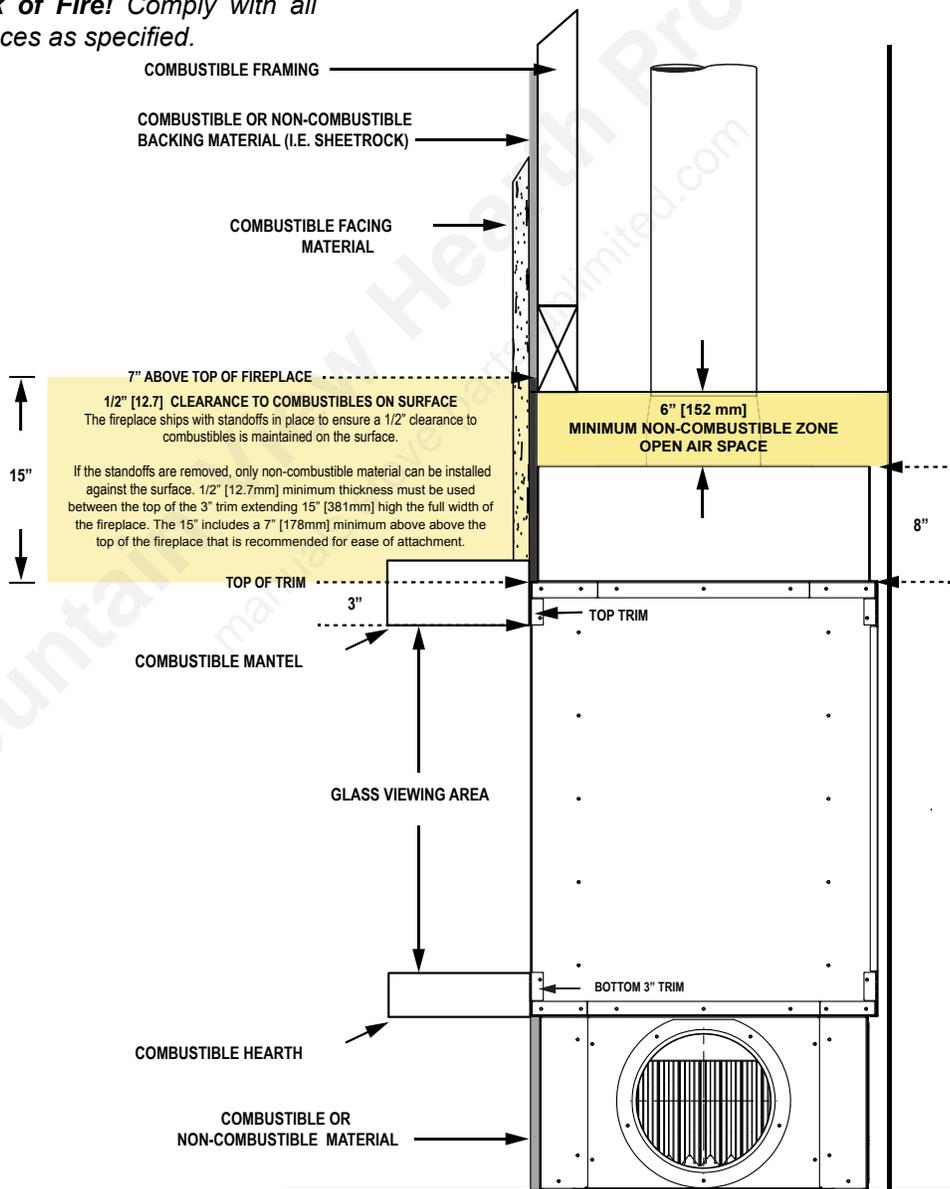
Refer to Figure 5.2 for requirements when not using the provided 1/2" standoffs.
Refer to Figure 5.1 for a standard installation using the provided 1/2" standoffs.



1/2" [12.7mm] Standoff

Figure 5.2

WARNING! Risk of Fire! Comply with all minimum clearances as specified.



SINGLE SIDED EXAMPLE: RIGHT SIDE VIEW
APPLIES TO ALL SIDES THAT HAVE A VIEWABLE AREA

NOTE: Refer to Section 10 for more information on finishing the wall.

6 - GLASS FRAME ASSEMBLY

A. GLASS FRAME ASSEMBLY IDENTIFICATION

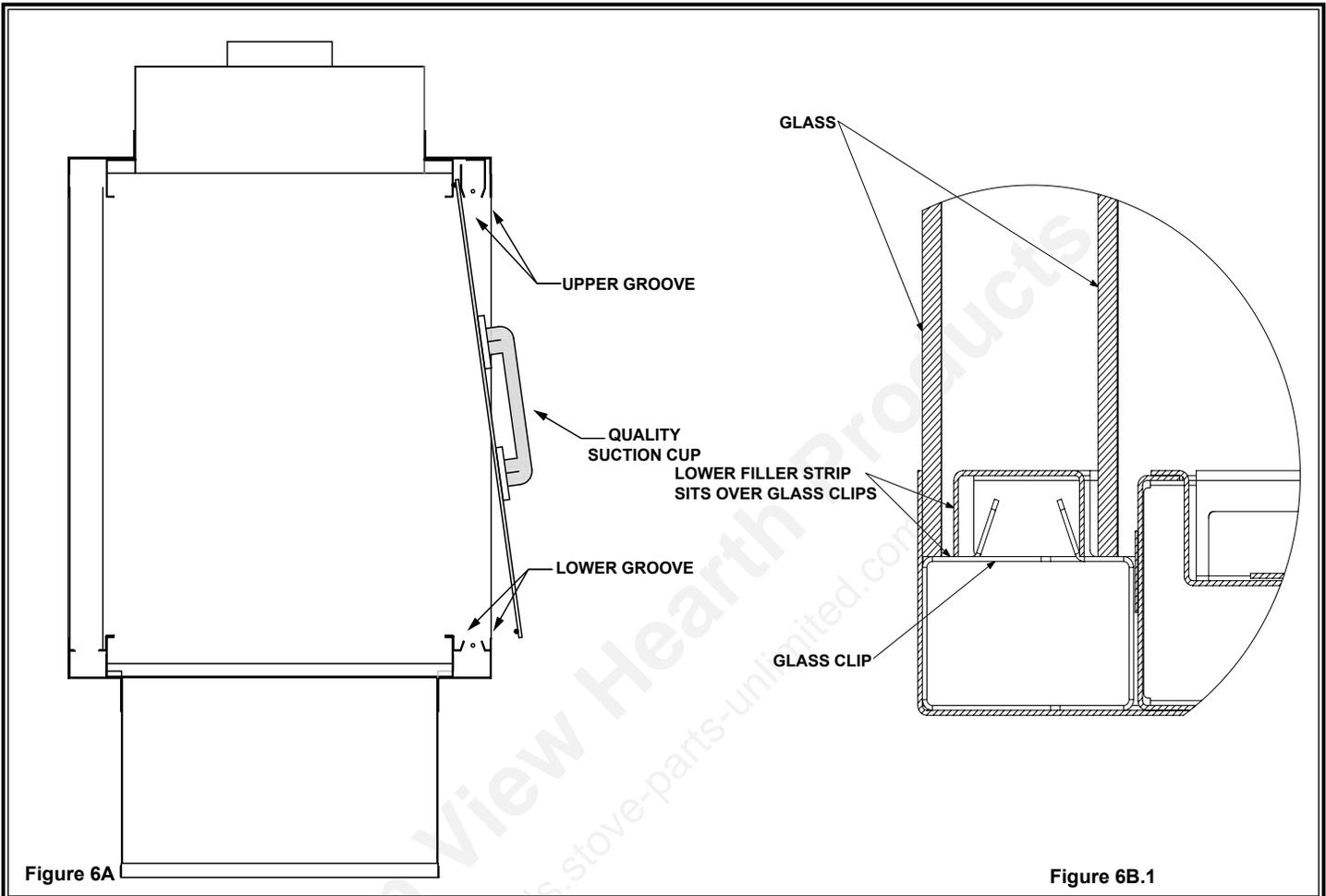


Figure 6A

Figure 6B.1



CAUTION: To prevent glass frame assembly from falling from fireplace and becoming damaged, follow the instructions exactly when removing and installing glass frame assembly.



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



WARNING! RISK OF INJURY! DO NOT remove glass until it is cooled to room temperature. Glass breakage could occur.



NOTE: Glass removal and installation must be performed with two people.



NOTE: GLASS MUST BE REMOVED USING QUALITY SUCTION CUPS. DO NOT attempt to remove the glass without using proper suction cups.



NOTE: IN CASE OF CHIPPED OR BROKEN GLASS
Have your dealer assist you with contacting Hearth & Home Technologies to get the proper glass replacement.

6 - GLASS FRAME ASSEMBLY

Refer to Glass Frame Assembly Identification Figures 6A & 6B.1 when installing and removing the glass frame assembly.

B. INSTALL GLASS FRAME ASSEMBLY

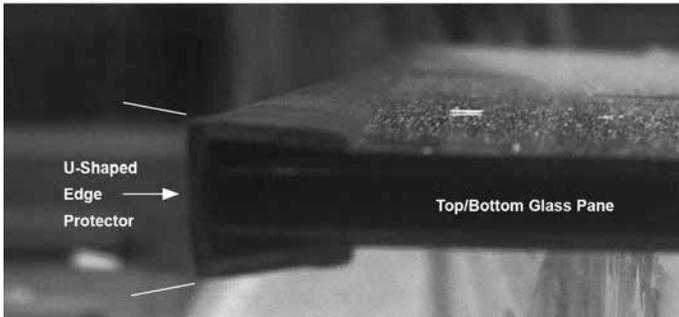


Figure 6B.2



Figure 6B.3

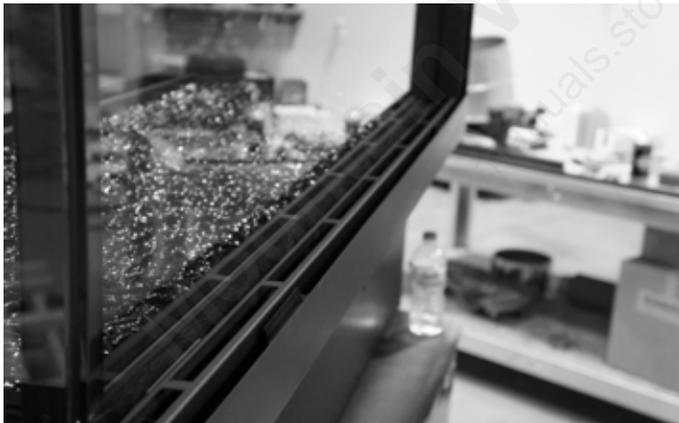


Figure 6B.4

IMPORTANT: PLASTIC GLASS EDGE PROTECTORS

The fireplace is shipped with a plastic edge protector on the outer pane of glass only.

If the edge protector is not installed, the glass may rattle during operation. See Figure 6B.2.

Inner Glass

1. Unwrap the panes of glass carefully making sure to protect the edges.
2. Apply the suction cups to the inner glass assembly, following instructions included with the suction cups.
3. Lift the glass into place. The top edge slips into the top groove, lift into the groove until the bottom is clear of the bottom trim. Slide the glass down into the inner bottom groove. See Figure 6A.
4. Push inner trim vertical panels into place on each side. See Figure 6B.3.
5. Place the lower trim panel between the lower glass clips. Slide back against the vertical trim piece. See Figure 6B.4.

Outer Glass

6. Apply the suction cups to the outer unframed glass (which has the U-shaped edge protector) and lift it into place in the same manner as the inner glass.

C. REMOVE GLASS FRAME ASSEMBLY



WARNING! RISK OF INJURY! DO NOT remove glass until it is cooled to room temperature. Glass breakage could occur.

1. Apply the suction cups to the outer glass panel following the instructions included with the suction cups.
2. Gently lift the glass until the bottom edge is clear of the groove it sits in.
3. Bring the bottom edge of the glass towards you while lowering it to disengage it from the top groove.
4. Set the glass on a padded surface to protect it. **IMPORTANT:** Protect the glass's edges.
5. Remove the lower trim panel that sits between the layer of glass.
6. Remove the inner trim vertical panels.
7. Using the suction cups, remove the inner panel in the same manner.

7 - GAS LINE SPECIFICATIONS & ACCESS

This fireplace is manufactured for use with Natural Gas or Propane.



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 Z223.1.



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.



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



NOTE: For high altitude installations above 2000 feet, fireplace does not need to be derated.

A. GAS LINE CONNECTION

GAS LINE CONNECTION	Propane	Natural
MINIMUM INLET GAS PRESSURE	11.0 inches W.C. (recommended)	7.0 inches W.C. (recommended)
MAXIMUM INLET GAS PRESSURE	14.0 inches W.C.	10.0 inches W.C.
MANIFOLD PRESSURE (HI)	10.0 inches W.C.	3.5 inches W.C.
ORIFICE SIZE	See Specifications Table in Section 2.A.	See Specifications Table in Section 2.A.
INPUT BTU/HR	See Specifications Table in Section 2.A.	See Specifications Table in Section 2.A.

Note: Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI Z223.1. Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter).

Note: A listed (and Commonwealth of Massachusetts approved) 1/2 in. (13 mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 in. (13 mm) control valve inlet.

- **If substituting for these components, please consult local codes for compliance.**

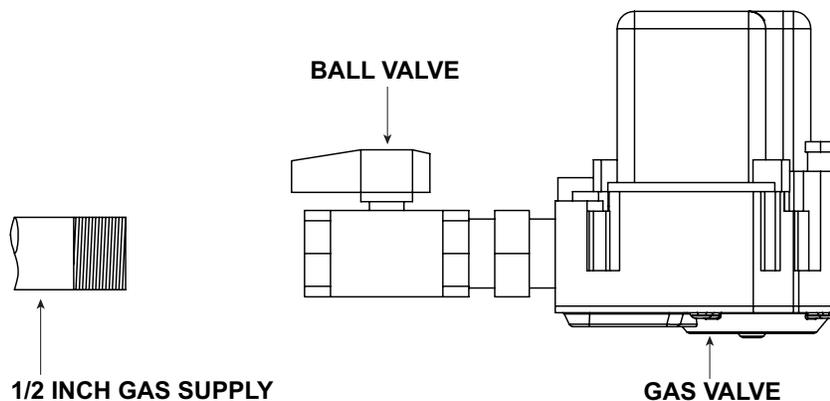
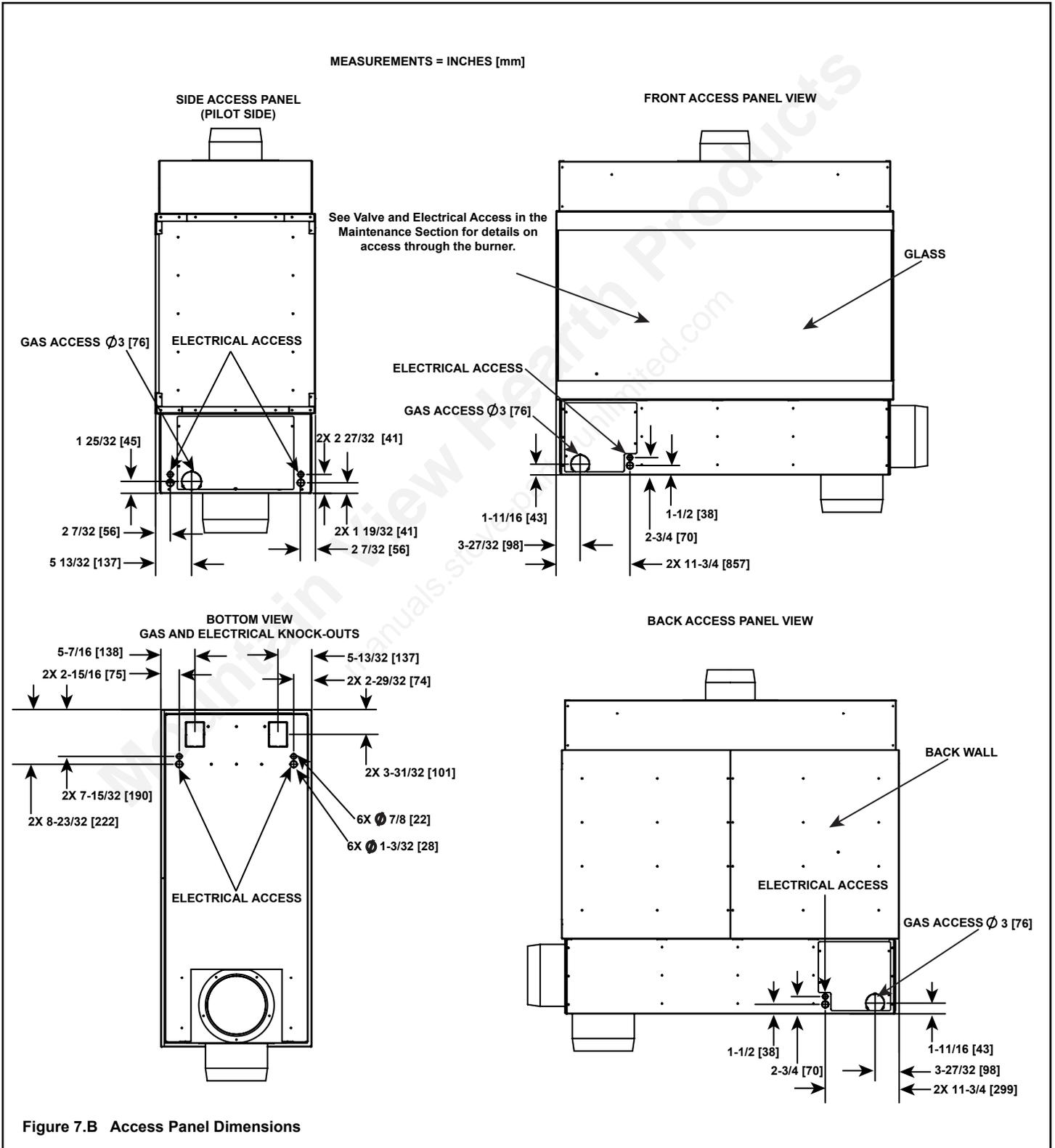


Figure 7.A

7 - GAS LINE SPECIFICATIONS & ACCESS

B. GAS AND ELECTRICAL ACCESS PANELS

Each fireplace will have four points of access for installation and service. There are access panels on the pilot side of the fireplace front, side and rear of the fireplace. **Plan in advance of the installation which access location will be used and accommodate for it in the finish work to allow for easy access to service later.** You also have access through the interior of the fireplace by removing the mesh on the burner pan in the pilot area. There are gas and electrical gas knock-outs on the bottom if you need to come up from below the fireplace.



8 - VENTING



CAUTION: Consult the local and national installation codes to assure adequate combustion and ventilation air is available.



NOTE: Flame height and appearance will vary depending upon venting configuration and type of fuel used. Venting requirements apply to both Natural and Propane gas.



STOP: MAINTAIN ALL CLEARANCES AS STATED IN THIS INSTALLATION MANUAL.

A. APPROVED VENTING

Model #		B-VENT	OUTSIDE AIR	POWER VENT	IN-LINE POWER VENT	VAC	AMP*	kW
FDN-4-SS	4X2 SINGLE SIDED	8"	10"	PVK-45	PVI-45	120	4.9	.59
FDN-5-SS	5X2 SINGLE SIDED	8"	10"	PVK-45	PVI-45	120	4.9	.59
FDN-6-SS	6X2 SINGLE SIDED	10"	10"	PVK-67	PVI-67	120	7.3	.88
FDN-7-SS	7X2 SINGLE SIDED	10"	10"	PVK-67	PVI-67	120	7.3	.88

*Amperage listed is the maximum required for the appliance with all options.

Refer to the vent systems manufacturer's installation manual for complete installation instructions.

Installation must conform with the venting requirements and restrictions as outlined in this manual.

SEE CHART ABOVE FOR SIZE diameter B-Type Venting that must be used. UL/CSA approved B-Vent only.

DO NOT decrease the vent size.

Vent runs are approved for up to 110 feet with quantity of eleven 90 degree elbows.

Vent runs may also contain a downward component. The downward component may be a maximum of 6 feet plus the distance to the center line of the elbow. See Figure 8A.1.

This will be about 87" for 8" diameter pipe and 92" for 10" diameter pipe.

Due to natural buoyancy of flue gas products, venting downward increases restriction.

Every inch of vertical drop counts as triple inches subtracted off the total vent run.

Example: a maximum drop of 92" means the total allowed vent run is decreased by 276" (23')

Once a downward component has been utilized, the vent cannot go upwards again. Moisture may get trapped in the vent pipe.

Important: Be sure to do your own calculations based on the center line dimension given from the pipe manufacture you are using for your installation.

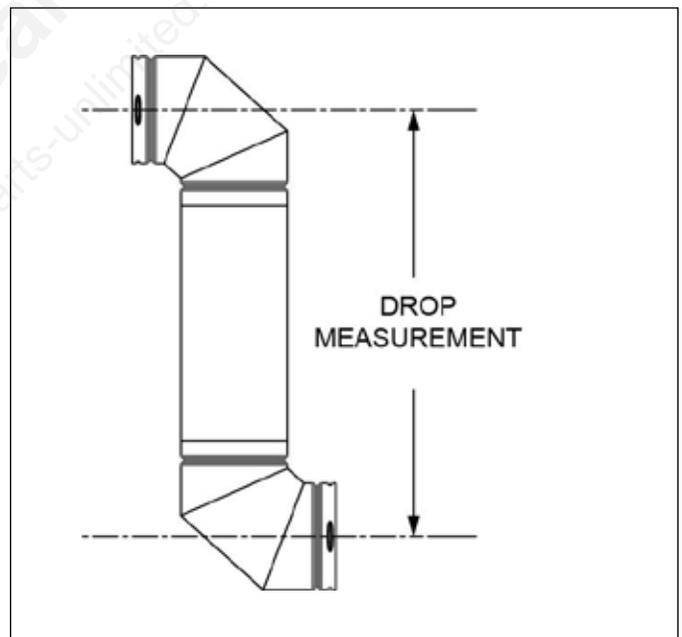


Figure 8A.1

Available Power Venting

A power vent (PVK-45 or PVK-67) is approved for use with this appliance. It is crucial that all B-Vent pipe and elbow joints, and the longitudinal seam are sealed using a high temperature RTV Silicone and/or foil tape.



NOTE: All pipe and elbow joints must be sealed. This includes the longitudinal seam on the pipe. High Temp RTV Silicone and/or foil tape MUST be used on each joint/seam. Failure to do so may cause lack of vacuum and may not trigger the vacuum switch.

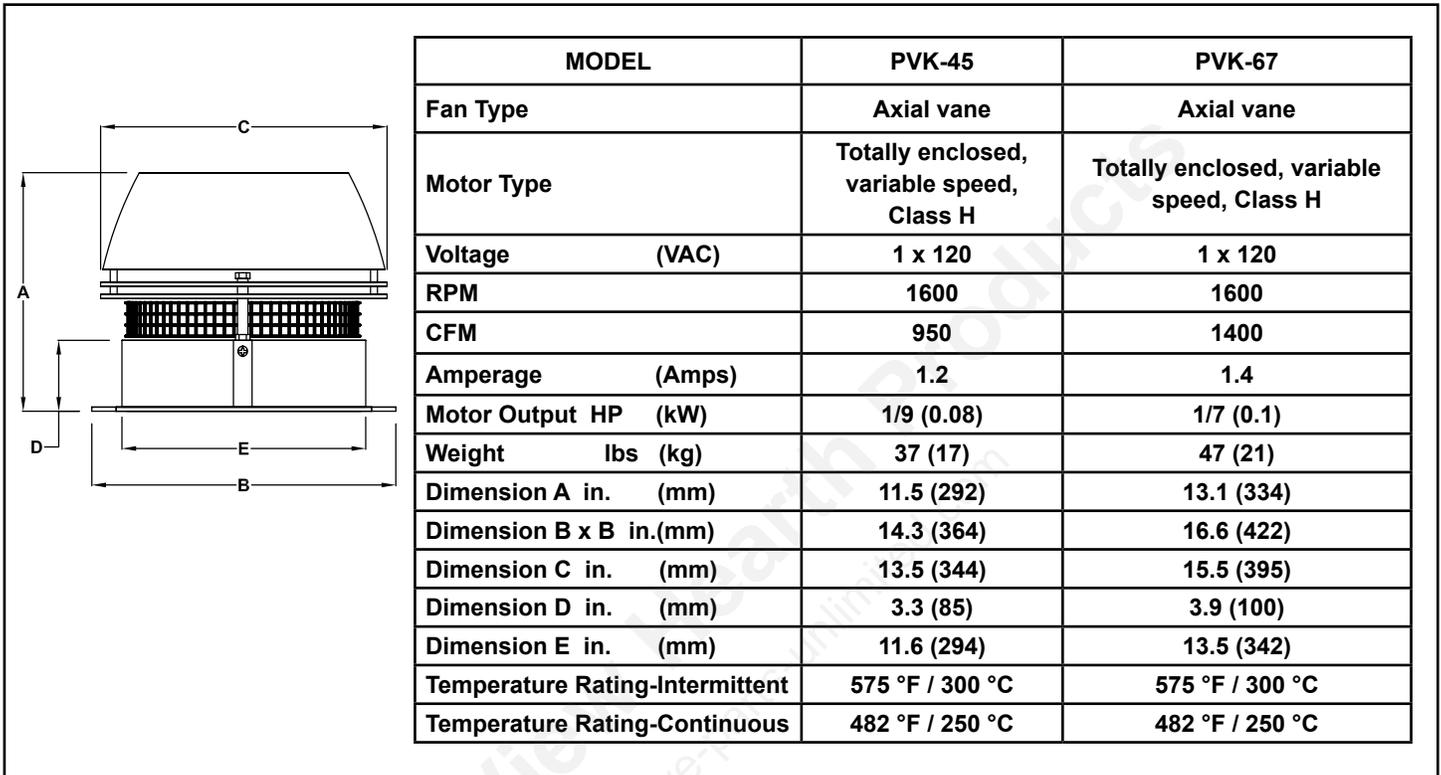


Figure 8A.2

Chimney Collar Dimensions

A chimney collar is included for use with the PVK-45 and PVK-67. The chimney collar is used to attach the PVK power vent. Figures 8A.3 and 8A.4 show the dimensions of the chimney collar.

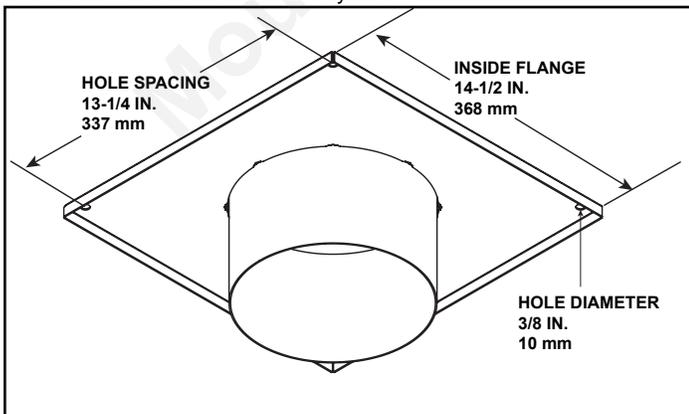


Figure 8A.3 8 Inch Chimney Collar Dimensions (PVK-45)

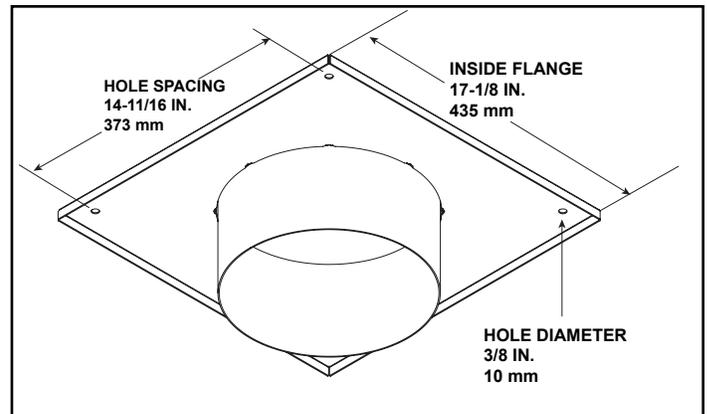


Figure 8A.4 10 Inch Chimney Collar Dimensions (PVK-67)

Available In-Line Power Venting

An in-line power vent (PVI-45 or PVI-67) is approved for use with this appliance. It is crucial that all B-Vent pipe and elbow joints, and the longitudinal seam are sealed using a high temperature RTV Silicone and/or foil tape.



NOTE: All pipe and elbow joints must be sealed. This includes the longitudinal seam on the pipe. High Temp RTV Silicone and/or foil tape MUST be used on each joint/seam. Failure to do so may cause lack of vacuum and may not trigger the vacuum switch.

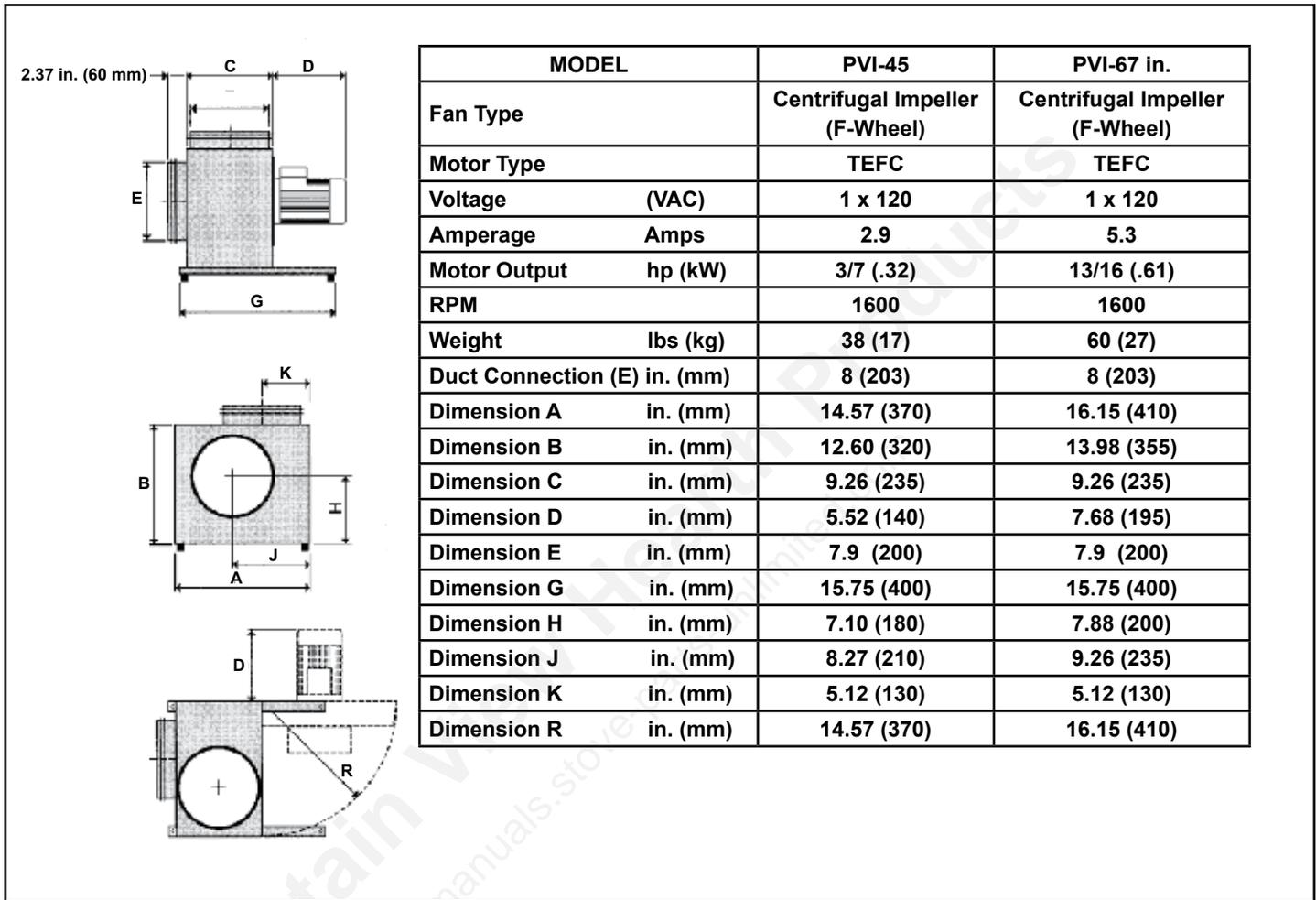


Figure 8A.5

IN-LINE POWERVENT PREPARATION - PVI-67

Perform the following steps when installing the PVI-67 on six foot and seven foot models.

1. Attach the provided 10 inch B-Vent collar to the intake side of the powervent. The intake side is located opposite the fan motor as shown in Figure 8A.6. The 10 inch B-Vent collar is packaged separately from the powervent. See Figure 8A.7.
2. Note the silhouette circle printed on the intake side of the powervent. The pre-drilled screw holes within the circle will be matched with the holes on the intake collar of the base plate. See Figure 8A.8.
3. Place the intake collar base plate onto the silhouette, matching up the holes as shown in Figure 8A.9. Fasten the base plate to the silhouette using five self-tapping screws.
4. Add the rope gasket included with the kit to the outlet side of the in-line powervent.
5. An adapter to increase from eight inch pipe to ten inch pipe is required on the outlet side of the in-line powervent. The adapter is included in the PVI-67 kit. See Figure 8A.10. Connect the adapter directly to the eight inch outlet collar of the in-line powervent. Connect the ten inch exhaust B-Vent to the collar and continue the vent run.

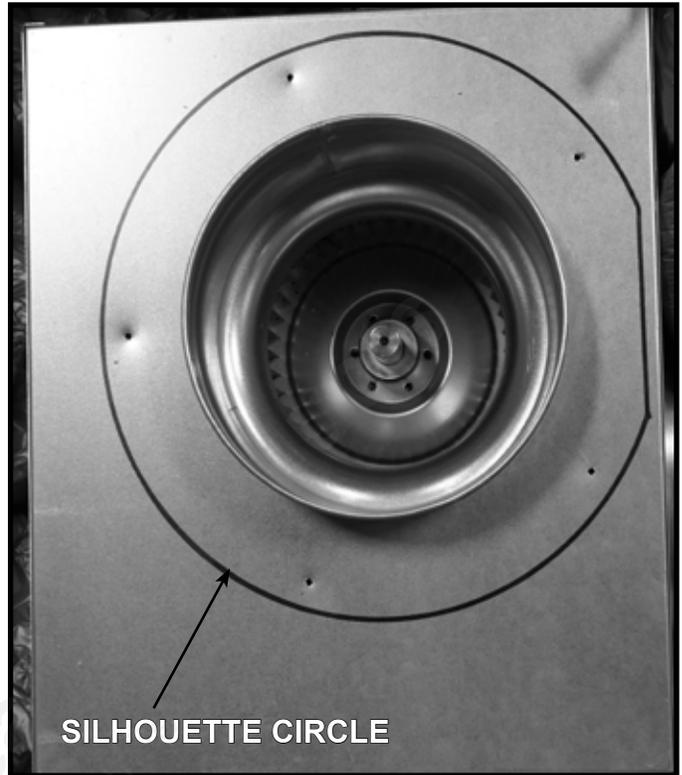


Figure 8A.8 Silhouette Circle on Intake

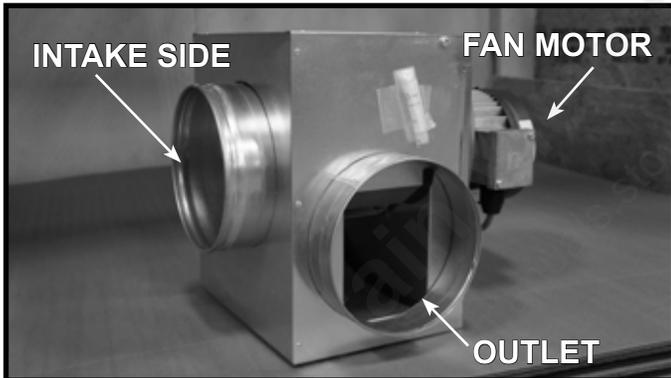


Figure 8A.6 In-Line Powervent (PVI-67)

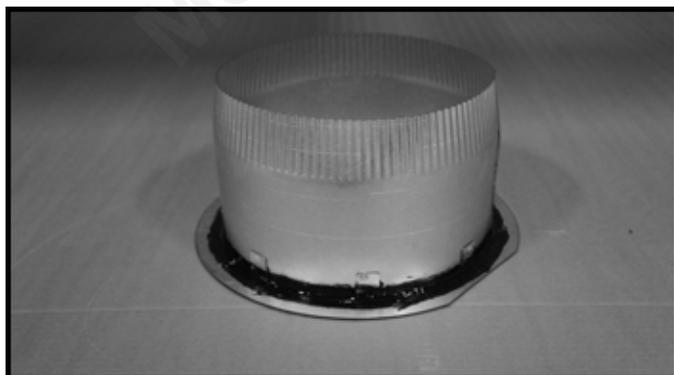


Figure 8A.7 Ten Inch B-Vent Collar

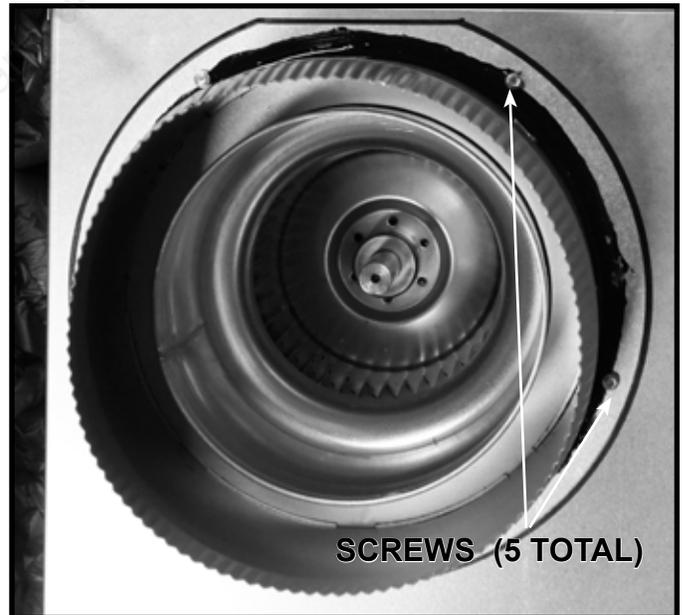


Figure 8A.9 Base Plate Fastened to Intake

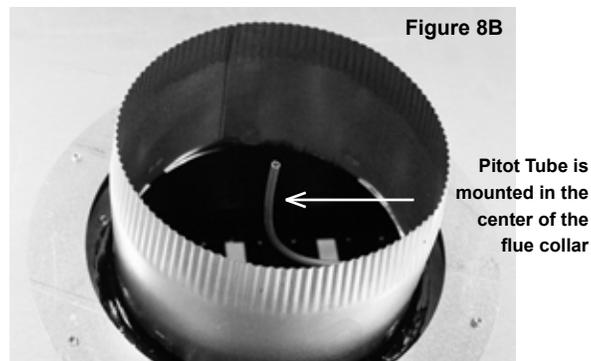


Figure 8A.10

B. PITOT TUBE INFORMATION

There is a 1/4" pitot tube mounted in the center of the flue collar and is connected to the pressure switch (Figure 8B). This monitors the pressure in the flue and is necessary for proper operation. Take care to keep the end of the tube clean.

IMPORTANT: THIS TUBE MUST NOT BE BENT, CLOGGED, REMOVED, OR ALTERED IN ANY WAY.



C. HORIZONTAL VENT SYSTEM CLEARANCES

ALL APPROVED VENTING	TOP	BOTTOM	SIDES
HORIZONTAL	1 inch (25mm)	1 inch (25mm)	1 inch (25mm)

D. WALL PASS-THROUGH - Follow all local codes for requirement of firestops.

8 - VENTING

E. VERTICAL TERMINATIONS

- The Foundation Series fireplace must terminate with the approved powervent termination cap.
- **NO SUBSTITUTION IS ACCEPTABLE.**
- Carefully follow the instructions included with the approved powervent termination cap.
- **DO NOT** use an additional speed control on this powervent.
- You must use the included Capacitor.

F. HORIZONTAL TERMINATION VENT CAP LOCATION & CLEARANCES

This gas appliance must not be connected to a chimney serving any other appliance.

- DO NOT RECESS TERMINATION KIT INTO OUTSIDE BUILDING MATERIALS - i.e.: brick, stone, siding, etc. If necessary, extend framing so that termination kit will be exposed once building materials are installed.
- Vent termination must not be located where it will become plugged by snow or other material. The flow of combustion and ventilation air must not be obstructed.

LOCATION CLEARANCES:

- A. Above grade, veranda, porch, deck, balcony - 12 inches (305 mm).
 - B. Operable window or door - 12 inches (305 mm).
 - C. Permanently closed window* - 12 inches (305 mm) (recommended to prevent condensation on window).
 - D. Ventilated soffit* - 24 inches (610 mm).
 - E. Unventilated soffit* - 12 inches (305 mm).
 - F. Outside corner* - 12 inches (305 mm).
 - G. Inside corner* to non-combustibles - 12 inches (305 mm). Inside corner* to combustibles - 24 inches (610 mm).
 - H. Meter / Regulator: Not to be installed above a gas meter/regulator assembly within 3 ft. (914 mm) horizontally from the center-line of the regulator.
 - I. Gas Service regulator vent outlet - 3 ft. (914 mm).
 - J. Non-mechanical air supply inlet to building or the combustion air inlet to any other appliance.
US: 9" (229 mm) CANADA: 12 inches (305 mm).
 - K. Mechanical air supply inlet.
US: 3 ft. (914 mm) above if within 10 ft. (3.05 m) horizontal. Massachusetts installations: 10 ft. (3.05 m).
CANADA: 6 ft. (1.83 m).
 - L. Above paved side-walk or paved driveway located on public property - 7 ft. (2.13 m).
 - M. Under veranda, porch, deck, or balcony (must be fully opened on a minimum of 2 sides) - Combustible - 24 inches (610 mm),
Non-Combustible - 12 inches (305 mm)
 - N. Between two horizontal terminations - 12 inches (305 mm) (Not shown in Figure 8F.1).
 - O. Between two vertical terminations - 12 inches (305 mm). Terminations may be same height (Not shown in Figure 8F.1).
- N & O: Minimum of 12 inches (305 mm) required when two exhaust termination caps are placed next to each other. Measurement must be taken from inside edge of one steel chimney adapter to the inside edge of the other steel chimney adapter. A metal divider plate with same length and height as termination cap is required to be installed between the caps. Divider plate is not required if caps are at least 24 inches (610 mm) apart, measured edge to edge.

- P. Above furnace exhaust or inlet - 12 inches (305 mm) (Not shown in Figure 8F.1).

*Clearance must be in accordance with local installation codes & the requirements of the gas supplier.



NOTE: A vent cannot be located directly above a side-walk or paved driveway that is located between two single family dwellings and serves both dwellings.

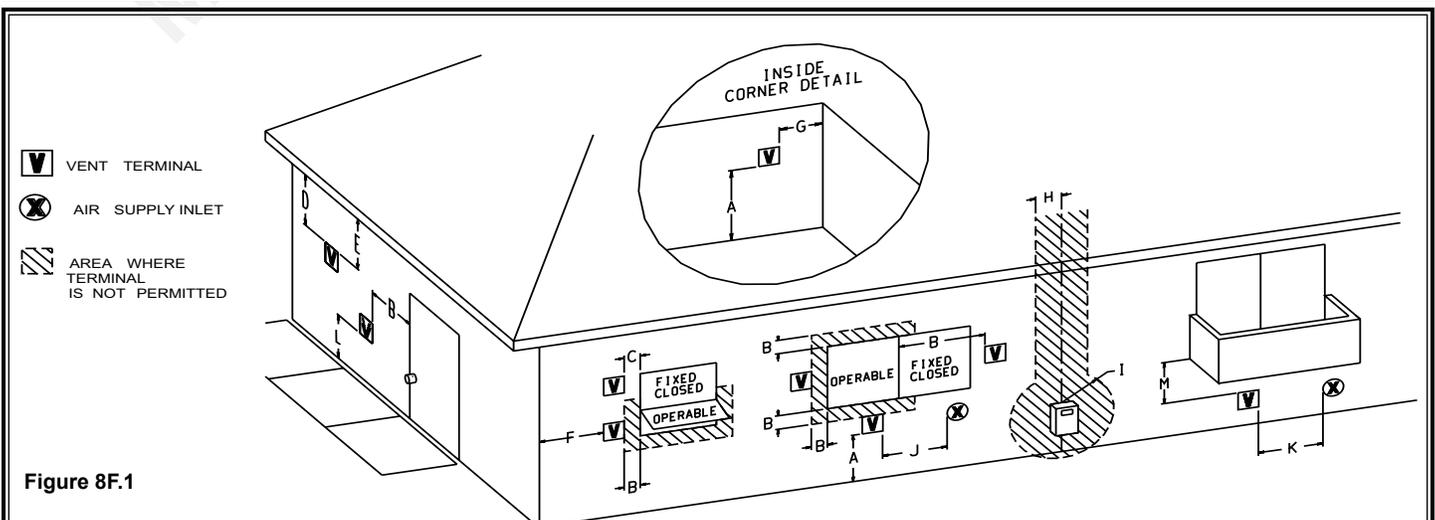
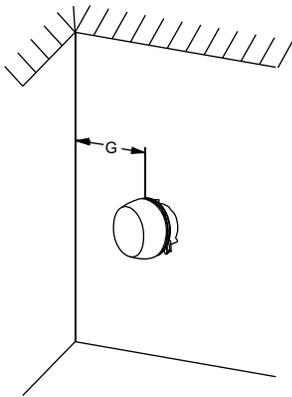


Figure 8F.1

8 - VENTING

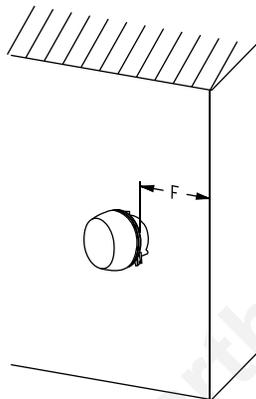
F. HORIZONTAL TERMINATION VENT CAP LOCATION & CLEARANCES

Inside Corner



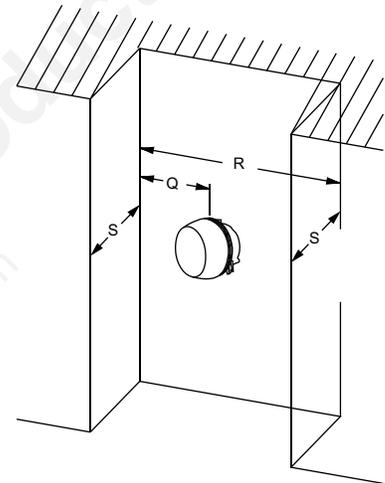
G = Combustible 24" (609.6mm)
= Non-combustible 12" (304.8mm)

Outside Corner



F = Combustible 12" (305 mm)
= Non-combustible 12" (305 mm)

Recessed Location

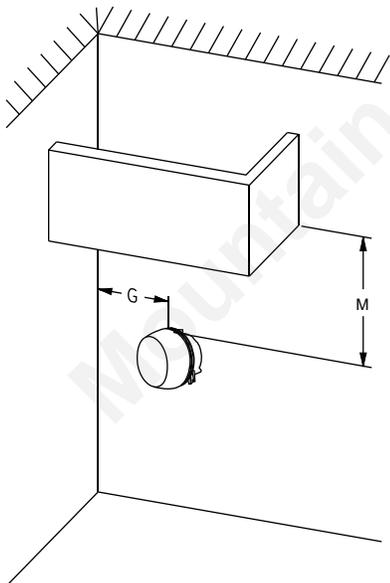


Q = Clearance from corner in recessed location
= Combustible 24" (609.6mm)
= Non-combustible 12" (304.8mm)

R = Minimum width for back wall of a recessed location
= Combustible 64" (1,625.6mm)
= Non-combustible 40" (1,016mm)

S = Maximum depth of 48" (1,219mm) for recessed location

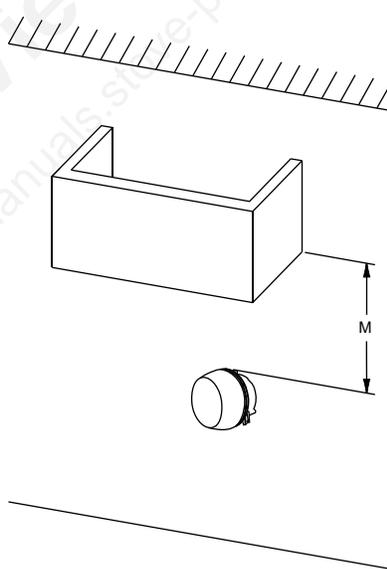
Balcony with perpendicular side wall



G = Combustible 24" (609.6mm)
= Non-combustible 12" (304.8mm)

M = Combustible 24" (609.6mm)
= Non-combustible 12" (304.8mm)

Balcony with no side wall



M = Combustible 24" (609.6mm)
= Non-combustible 12" (305mm)

IMPORTANT:
All dimensions are from the edge of the cap.

Figure 8F.2

8 - VENTING

G. VERTICAL VENT CAP LOCATION AND CLEARANCES

ROOF PITCH	H (Min.) Ft.	H (Min.) M
FLAT TO 6/12	1.0*	0.30
OVER 6/12 TO 7/12	1.25*	0.38
OVER 7/12 TO 8/12	1.5*	0.46
OVER 8/12 TO 9/12	2.0*	0.61
OVER 9/12 TO 10/12	2.5*	0.76
OVER 10/12 TO 11/12	3.25	0.99
OVER 11/12 TO 12/12	4.0	1.22
OVER 12/12 TO 14/12	5.0	1.52
OVER 14/12 TO 16/12	6.0	1.83
OVER 16/12 TO 18/12	7.0	2.13
OVER 18/12 TO 20/12	7.5	2.27
OVER 20/12 TO 21/12	8.0	2.44

* = 3 foot minimum in snowy regions

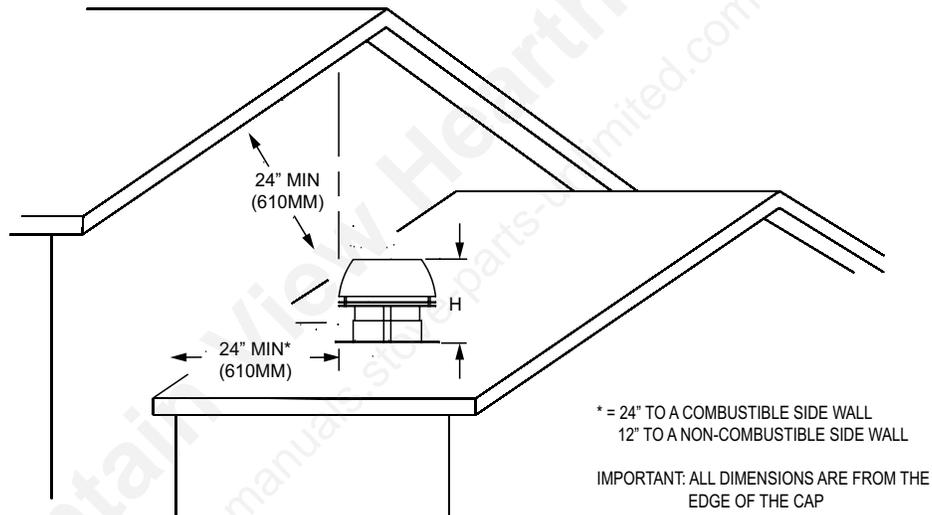


Figure 8G

8 - VENTING

H. ROOF TERMINATION CAP INSTALLATION - WITH AND WITHOUT OPTIONAL DAMPER

Roof Termination Without Optional Mechanical Damper

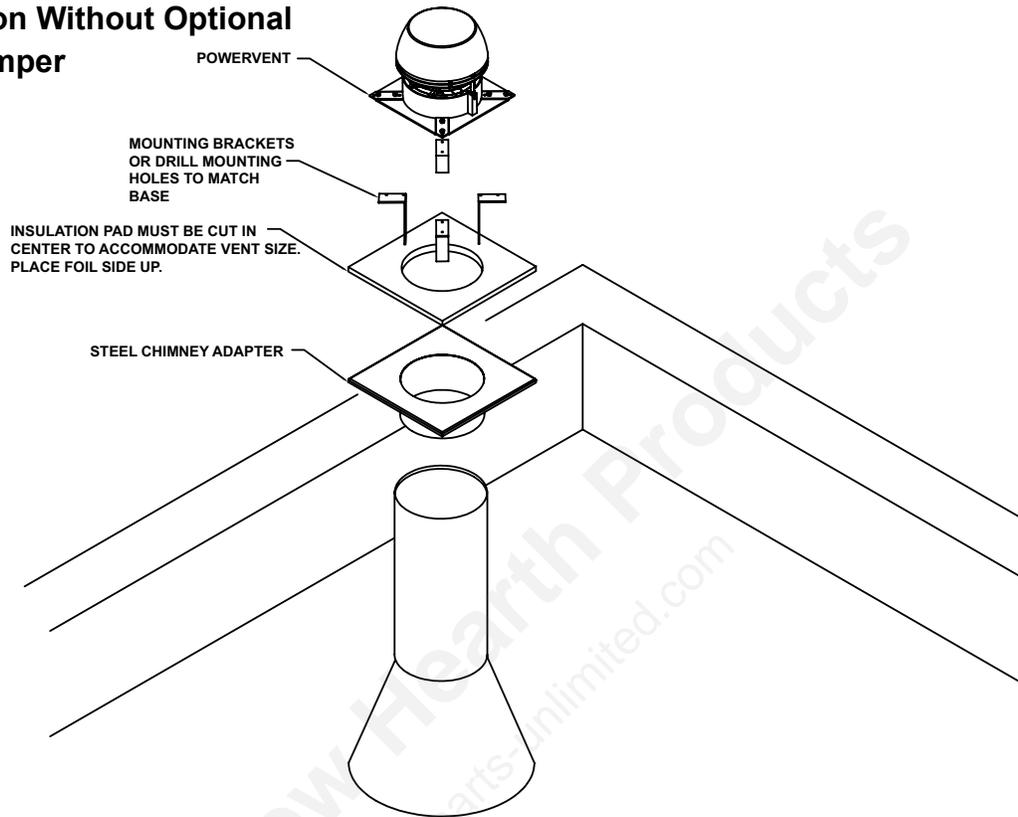


Figure 8H.1

Roof Termination With Optional Mechanical Damper

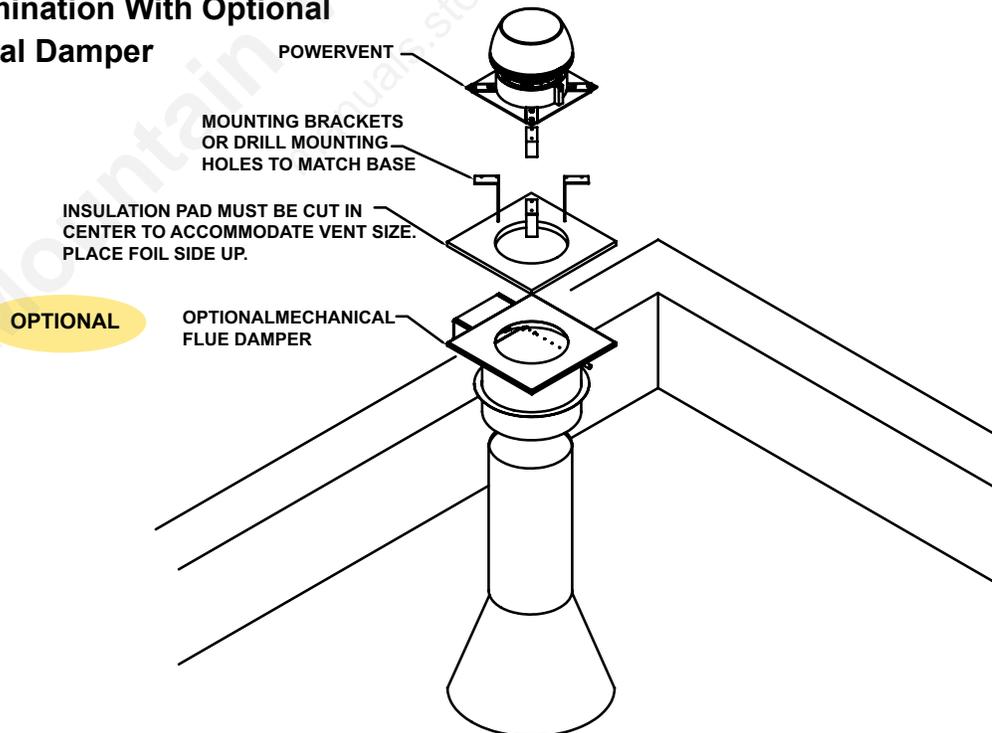


Figure 8H.2

8 - VENTING

I. WALL TERMINATION - WITH AND WITHOUT OPTIONAL DAMPER

Wall Termination Without Optional Mechanical Damper

FRAMING:

8" = 11-3/4" W X 11-3/4" H

10" = 13-1/4" W X 13-1/4" H

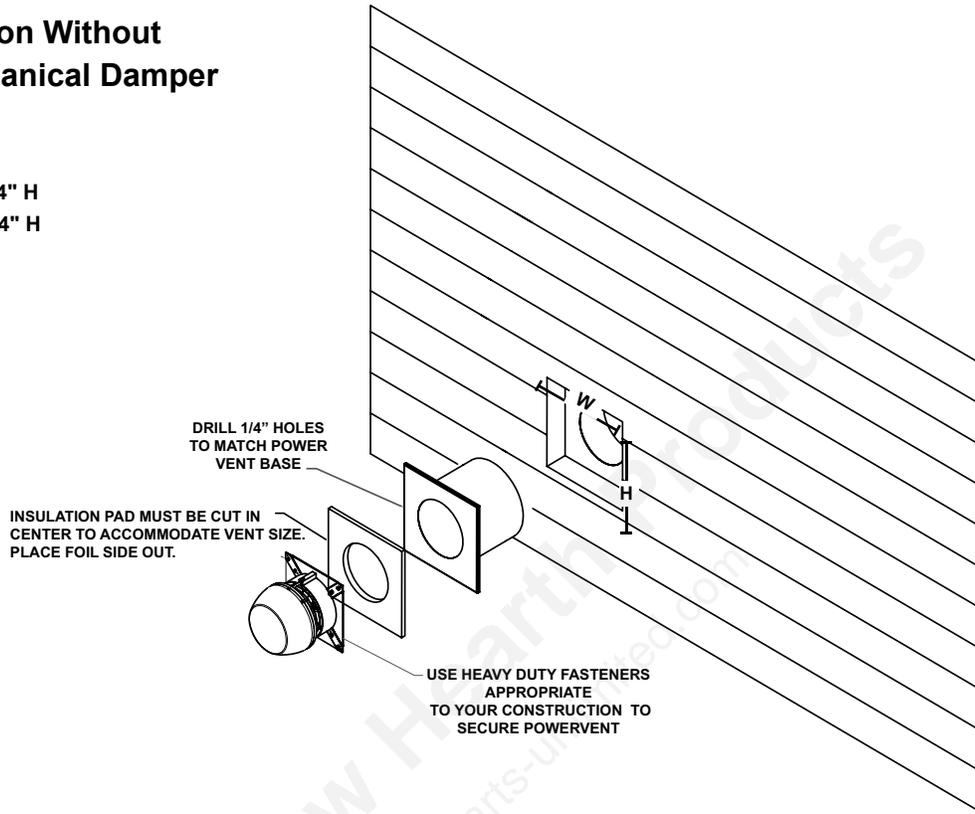


Figure 8I.1

Wall Termination With Optional Mechanical Damper

OPTIONAL

OPTIONAL MECHANICAL FLUE DAMPER

DRILL 1/4" HOLES TO MATCH POWER VENT BASE

INSULATION PAD MUST BE CUT IN CENTER TO ACCOMMODATE VENT SIZE. PLACE FOIL SIDE OUT.

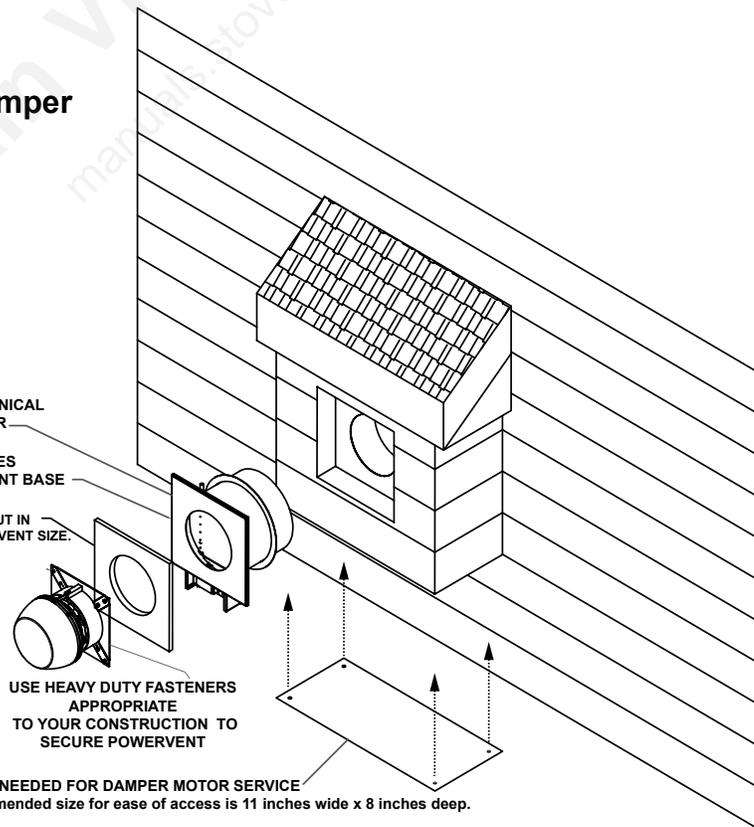


Figure 8I.2

J. INTAKE AIR

This fireplace has the options of air intake connections on the side or the bottom of the fireplace. This fireplace is approved for use with 10 inch rigid metal pipe or UL approved 10 inch Class 0 or Class 1 flex for intake air. Use Table 8J.1 for venting requirements if using UL approved 10 inch flex for intake air.

Vent runs utilizing 10 inch rigid metal pipe may be 110 feet with 11 elbows. We recommend insulating the intake air duct or using UL approved Class 1 insulated flex in hot, humid or cold climates.

The intake pipe must maintain 1.5X the square inches of the flue pipe in free area. Intake screen/vent must be sized appropriately. Failure to do so will result in higher operating temperatures.

The fireplace may also take room air for combustion. Intake screen/vent must be sized appropriately. You must plan for the replacement air that is consumed from the room by the fireplace. Do not draw intake air from a crawl space or an attic (ventilated or not ventilated).

WARNING! Risk of Fire! DO NOT draw intake air from an attic or crawl space. Appliance could overheat.

Use Table 8J.2 for reference on CFM replacement air if drawing intake air from inside the house and open air requirements for intake screen/vent or consult Hearth & Home Technologies for more information.

Table 8J.1

UL Approved 10 Inch Class 1 or Class 0 Flex Intake Air Venting Requirements		Number of offsets					
		0-3	4	5	6	7	8
FDN-4-SS	Length of Run	100 ft	90 ft	80 ft	70 ft	60 ft	50 ft
FDN-5-SS		45 ft	35 ft	25 ft	15 ft	5 ft	N/A
FDN-6-SS		70 ft	60 ft	50 ft	40 ft	30 ft	20 ft
FDN-7-SS		32 ft	20 ft	15 ft	10 ft	N/A	N/A

Table 8J.2

Fireplace Size	Required CFM	Open Air Requirement
FDN-4-SS	480 CFM	75 Sq. Inches
FDN-5-SS	640 CFM	75 Sq. Inches
FDN-6-SS	800 CFM	75 Sq. Inches
FDN-7-SS	960 CFM	75 Sq. Inches

K. CHANGING FROM SIDE INTAKE AIR TO BOTTOM INTAKE AIR

Step 1: Remove 4 screws that hold collar plate in place. Refer to Figure 8K.1.

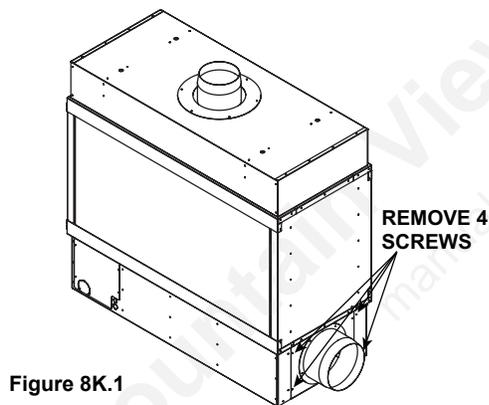


Figure 8K.1

Step 2: Slide collar plate off fireplace. Refer to Figure 8K.2.

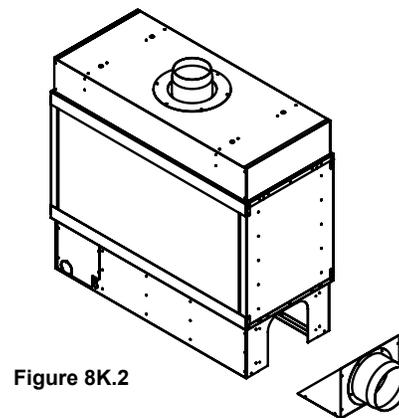


Figure 8K.2

Step 3: Turn plate so collar is facing down, slide plate into slots on each side. Refer to Figure 8K.3A and Figure 8K.3B.

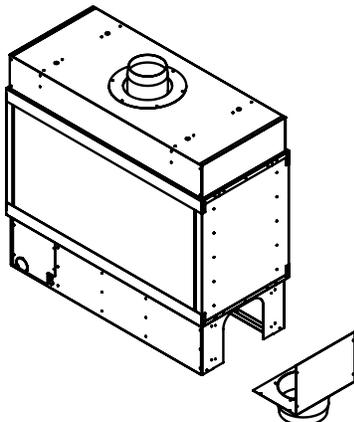


Figure 8K.3A

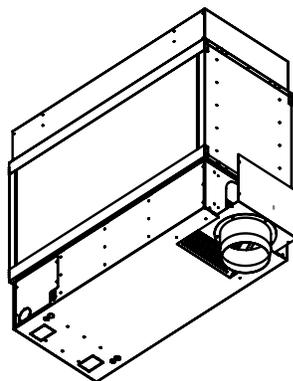


Figure 8K.3B

Step 4: Re-attach the plate with four screws. Refer to Figure 8K.4.

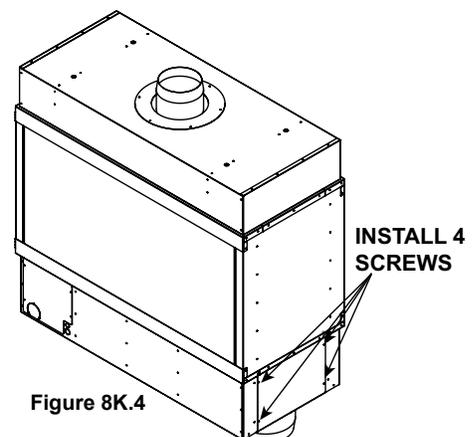


Figure 8K.4

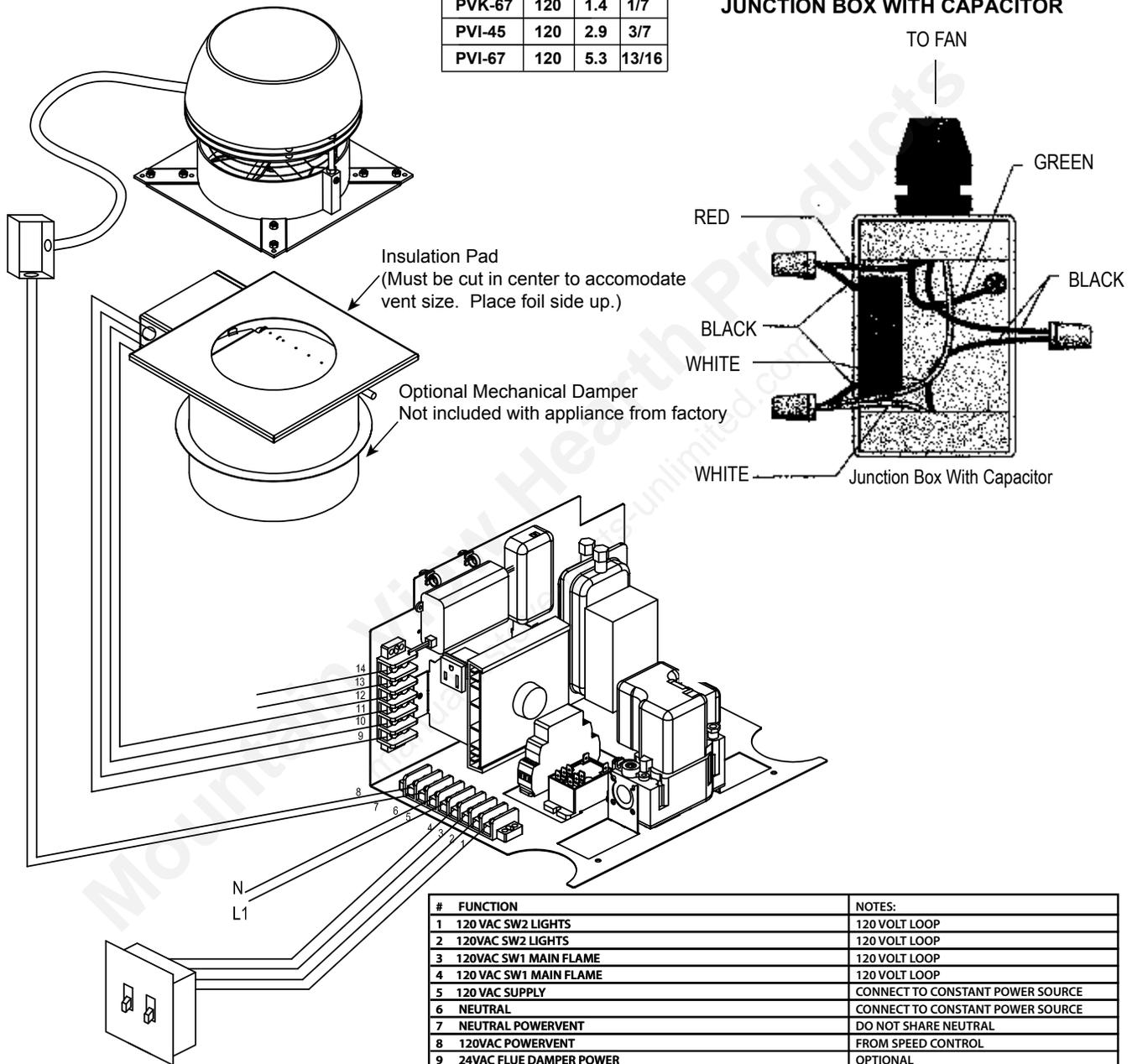
9- ELECTRICAL

A. FIELD WIRING (AT INSTALL) See Terminal Details in Section 9B and 9C.

→ Figure 9A

*Cap shown is from the PVK Series

CAP	VAC	AMP	HP
PVK-45	120	1.2	1/9
PVK-67	120	1.4	1/7
PVI-45	120	2.9	3/7
PVI-67	120	5.3	13/16



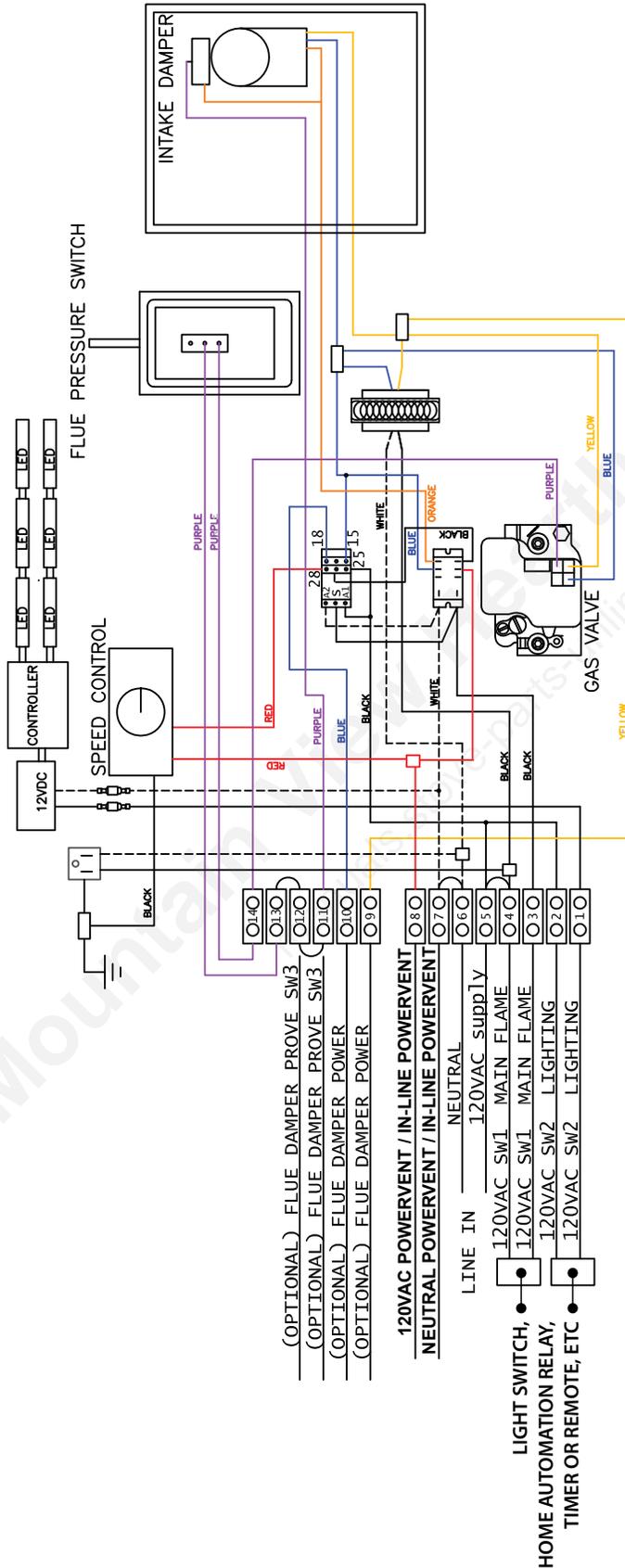
#	FUNCTION	NOTES:
1	120 VAC SW2 LIGHTS	120 VOLT LOOP
2	120VAC SW2 LIGHTS	120 VOLT LOOP
3	120VAC SW1 MAIN FLAME	120 VOLT LOOP
4	120 VAC SW1 MAIN FLAME	120 VOLT LOOP
5	120 VAC SUPPLY	CONNECT TO CONSTANT POWER SOURCE
6	NEUTRAL	CONNECT TO CONSTANT POWER SOURCE
7	NEUTRAL POWERVENT	DO NOT SHARE NEUTRAL
8	120VAC POWERVENT	FROM SPEED CONTROL
9	24VAC FLUE DAMPER POWER	OPTIONAL
10	24VAC FLUE DAMPER NEUTRAL	OPTIONAL
11	SW3 FLUE DAMPER PROVE	OPTIONAL. USE PURPLE AND WHITE, NOT RED
12	SW3 DAMPER PROVE	OPTIONAL. USE PURPLE AND WHITE, NOT RED
13	CONNECTION FOR EXTERNAL FLUE PRESSURE SWITCH (4 SIDED ONLY)	FOUR SIDED ONLY
14	CONNECTION FOR EXTERNAL FLUE PRESSURE SWITCH (4 SIDED ONLY)	FOUR SIDED ONLY

To light the fireplace: Activate the switch.
 The fireplace has a pre and post timer, set at the factory for 30 seconds.
 The powervent will start after switch is activated.
 The flame will not turn on for 30-60 seconds after switch is activated.
 The powervent will run for 30 seconds after the fireplace has been shut off.

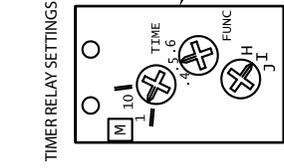
9 - ELECTRICAL

B. FIELD WIRING (SERVICE & TROUBLESHOOTING)

Figure 9B



To light the fireplace: Activate the switch.
 The fireplace has a pre and post timer set at the factory for 30 seconds.
 The powervent will start after switch is activated.
 The flame will not turn on for 30-60 seconds after switch is activated.
 The powervent will run for 30 seconds after the fireplace has been shut off.



RELAY TOP:
 FIRST DIAL - SET TO "1"
 SECOND DIAL - SET TO "5"
 THIRD DIAL - SET TO "1"

LED STATUS: GREEN = POWER APPLIED, POWERVENT OFF
 RED FLASHING = TIMING PERIOD, PRE OR POST PURGE
 RED SOLID = CLOSED STATE, POWERVENT ON

#	FUNCTION	NOTES:
1	120VAC SW2 LIGHTS	120 VOLT LOOP
2	120VAC SW2 LIGHTS	120 VOLT LOOP
3	120VAC SW1 MAIN FLAME	120 VOLT LOOP
4	120VAC SW1 MAIN FLAME	120 VOLT LOOP
5	120VAC SUPPLY	CONNECT TO CONSTANT POWER SOURCE
6	NEUTRAL	CONNECT TO CONSTANT POWER SOURCE
7	NEUTRAL POWERVENT	DO NOT SHARE NEUTRAL
8	120VAC POWERVENT	FROM SPEED CONTROL
9	24VAC FLUE DAMPER POWER	OPTIONAL
10	24VAC FLUE DAMPER NEUTRAL	OPTIONAL USE PURPLE AND WHITE, NOT RED
11	SW3 FLUE DAMPER PROVE	OPTIONAL USE PURPLE AND WHITE, NOT RED
12	SW3 DAMPER PROVE	OPTIONAL USE PURPLE AND WHITE, NOT RED
13	CONNECTION FOR EXTERNAL FLUE PRESSURE SWITCH (4 SIDED ONLY)	FOUR SIDED ONLY
14	CONNECTION FOR EXTERNAL FLUE PRESSURE SWITCH (4 SIDED ONLY)	FOUR SIDED ONLY

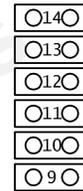
9 - ELECTRICAL

C.1 TERMINALS 1 & 2 - LED Lights

TERMINALS 1 AND 2 LED LIGHTING

TERMINAL #2 HAS 120VAC POWER
TO SUPPLY A SWITCH, RELAY, TIMER,
REMOTE, ETC.

TERMINAL #1 RETURNS 120VAC POWER
TO ACTIVATE THE LED DRIVER.



LIGHT SWITCH OR
HOME AUTOMATION RELAY OR
TIMER OR REMOTE
ETC.

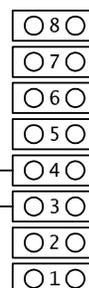
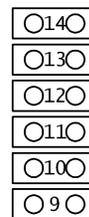
Figure 9C.1
Terminals 1 & 2

C.2 TERMINALS 3 & 4 - Main Flame

TERMINALS 3 AND 4 MAIN FLAME

TERMINAL #4 HAS 120VAC POWER
TO SUPPLY A SWITCH, RELAY, TIMER,
REMOTE, ETC.

TERMINAL #3 RETURNS 120VAC POWER
TO ACTIVATE TO MAIN FLAMES.



LIGHT SWITCH OR
HOME AUTOMATION RELAY OR
TIMER OR REMOTE
ETC.

Figure 9C.2
Terminals 3 & 4

9 - ELECTRICAL

C.3 TERMINALS 5 & 6 - Fireplace Power

TERMINALS 5 AND 6 FIREPLACE POWER

TERMINAL #5 IS THE 120VAC POWER SUPPLY FOR THE FIREPLACE. THIS IS A CONSTANT POWER SUPPLY AND SHOULD NOT BE SWITCHED. A SERVICE DISCONNECT MAY BE DESIRED.

TERMINAL #6 IS THE NEUTRAL CONNECTION.

LINE IN



Figure 9C.3
Terminals 5 & 6

C.4 TERMINALS 7 & 8 - Powervent Connection

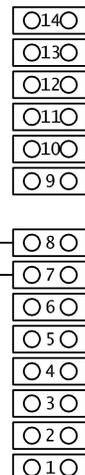
MOTOR

TERMINAL #7 IS THE NEUTRAL CONNECTION FOR THE POWERVENT MOTOR.

TERMINAL #8 IS THE HOT CONNECTION FOR THE POWERVENT MOTOR FROM THE SPEED CONTROL.

POWERVENT POWER MUST COME FROM THE TERMINAL BLOCK AND NOT ANY OTHER POWER SOURCE.

120VAC POWERVENT / IN-LINE POWERVENT
NEUTRAL POWERVENT / IN-LINE POWERVENT

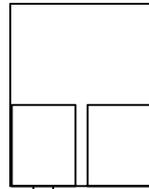


TERMINALS 7 AND 8 POWERVENT CONNECTION

Figure 9C.4
Terminals 7 & 8

9 - ELECTRICAL

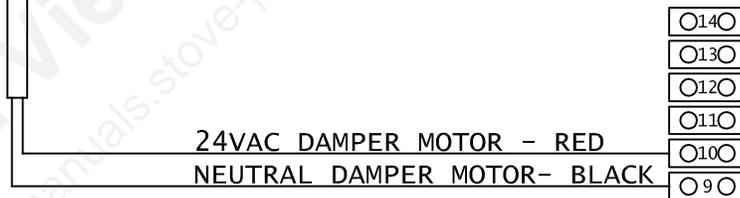
C.5 TERMINALS 9 & 10 - Flue Damper Connection



TERMINAL #9 IS THE NEUTRAL CONNECTION FOR THE DAMPER MOTOR. BLACK WIRE

TERMINAL #10 IS THE HOT CONNECTION FOR THE DAMPER MOTOR. RED WIRE

THIS IS LOW VOLTAGE AND EXTERNAL POWER MUST NOT BE APPLIED.



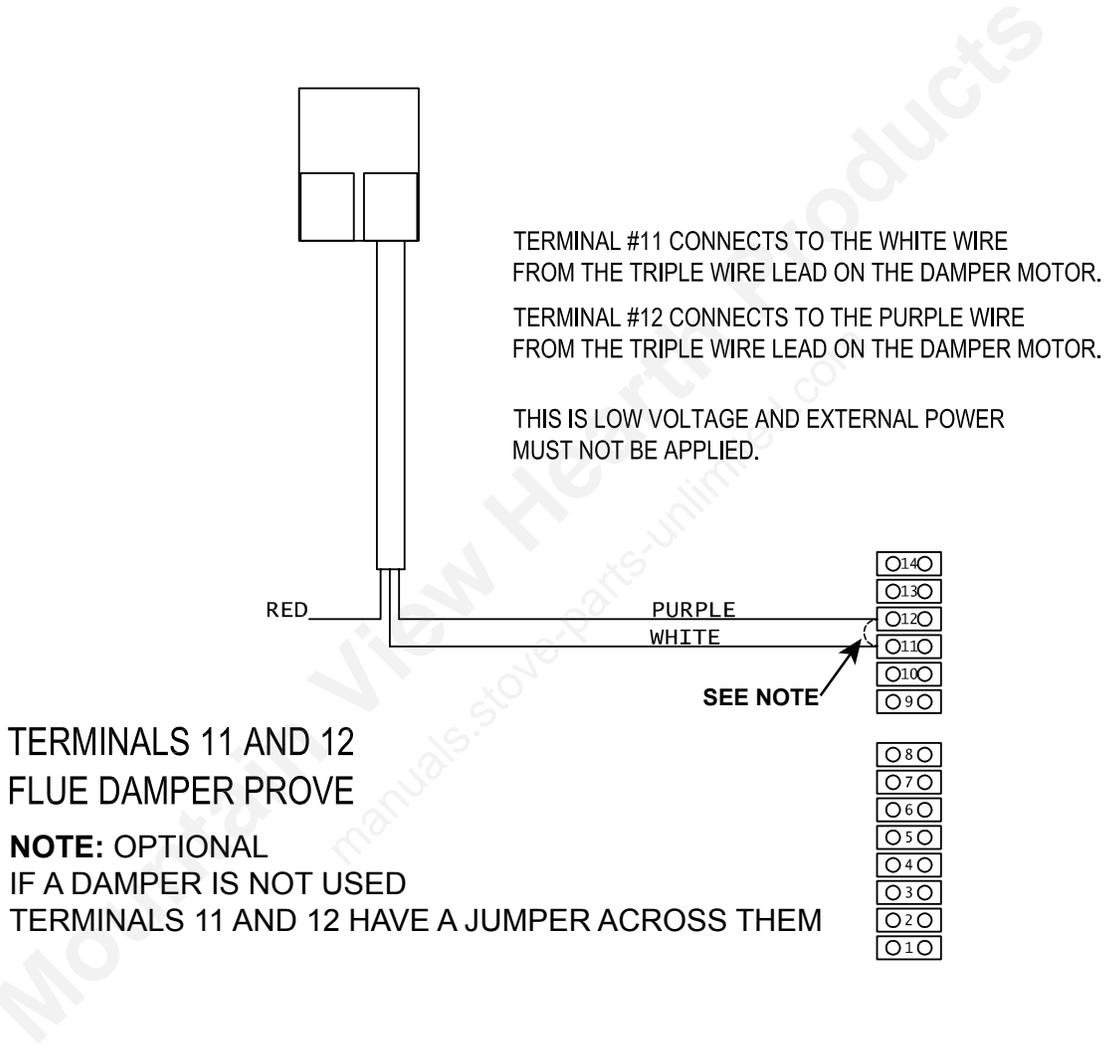
TERMINALS 9 AND 10 FLUE DAMPER CONNECTION

NOTE: OPTIONAL
IF A DAMPER IS NOT USED DO NOT CONNECT
ANYTHING TO TERMINALS 9 & 10

Figure 9C.5
Terminals 9 & 10

9 - ELECTRICAL

C.6 TERMINALS 11 & 12 - Flue Damper Prove



TERMINALS 11 AND 12
FLUE DAMPER PROVE

NOTE: OPTIONAL
IF A DAMPER IS NOT USED
TERMINALS 11 AND 12 HAVE A JUMPER ACROSS THEM

Figure 9C.6
Terminals 11 & 12

9 - ELECTRICAL

C.7 TERMINALS 13 & 14 - Vacuum Switch

TERMINALS 13 AND 14 VACUUM SWITCH FACTORY WIRED

TERMINAL #13 CONNECTS TO THE
“COM” OR “NO” TERMINALS IN THE
VACUUM SWITCH FOR FIREPLACE 1.

TERMINAL #14 CONNECTS TO THE
“COM” OR “NO” TERMINALS IN THE
VACUUM SWITCH FOR FIREPLACE 1.

FLUE VACUUM SWITCH
MOUNTED INTO FLUE STREAM

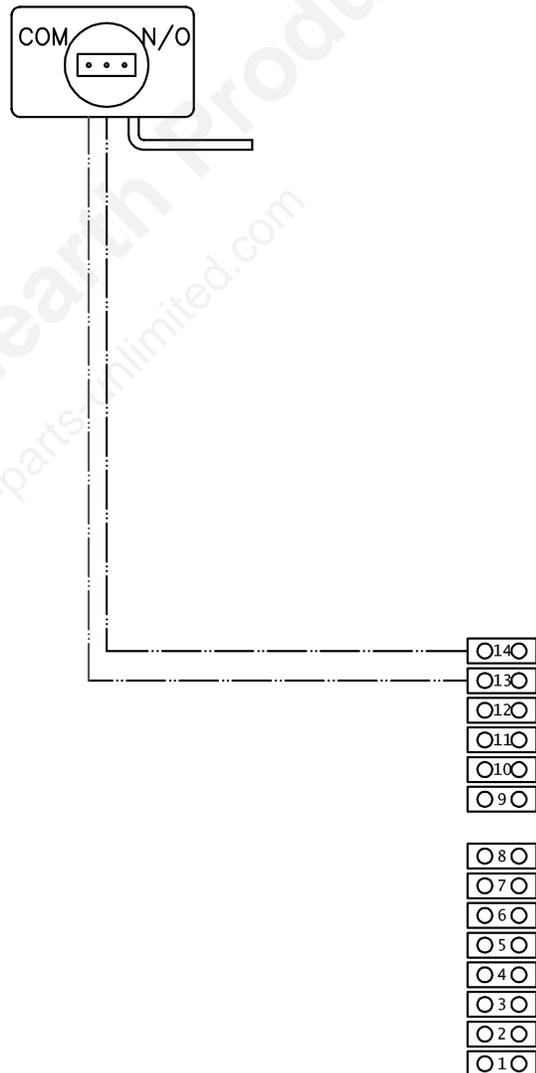


Figure 9C.7
Terminals 13 & 14

10 - FINISHING

A. FINISHING THE WALL - USING THE PROVIDED 1/2" STANDOFFS



NOTE: REFER TO DIMENSIONS SECTION FOR ALLOWABLE FINISHING DIMENSIONS REQUIRED TO FIT THE GLASS PANELS INTO THE FIREPLACE. FINISHING MATERIALS MUST NOT OVERLAP THE FRAMING DIMENSIONS REFERENCED IN SECTION 2.A. NEVER COVER THE GLASS WITH FINISHING MATERIALS.



NOTE: ***DO NOT*** PIERCE ANY OF THE BLACK PAINTED SURFACES WITH SCREWS, RIVETS, ETC. THIS INCLUDES THE 3" BLACK TOP AND BOTTOM GLASS TRIM AND ANY PAINTED SIDES ADJACENT TO THE GLASS.

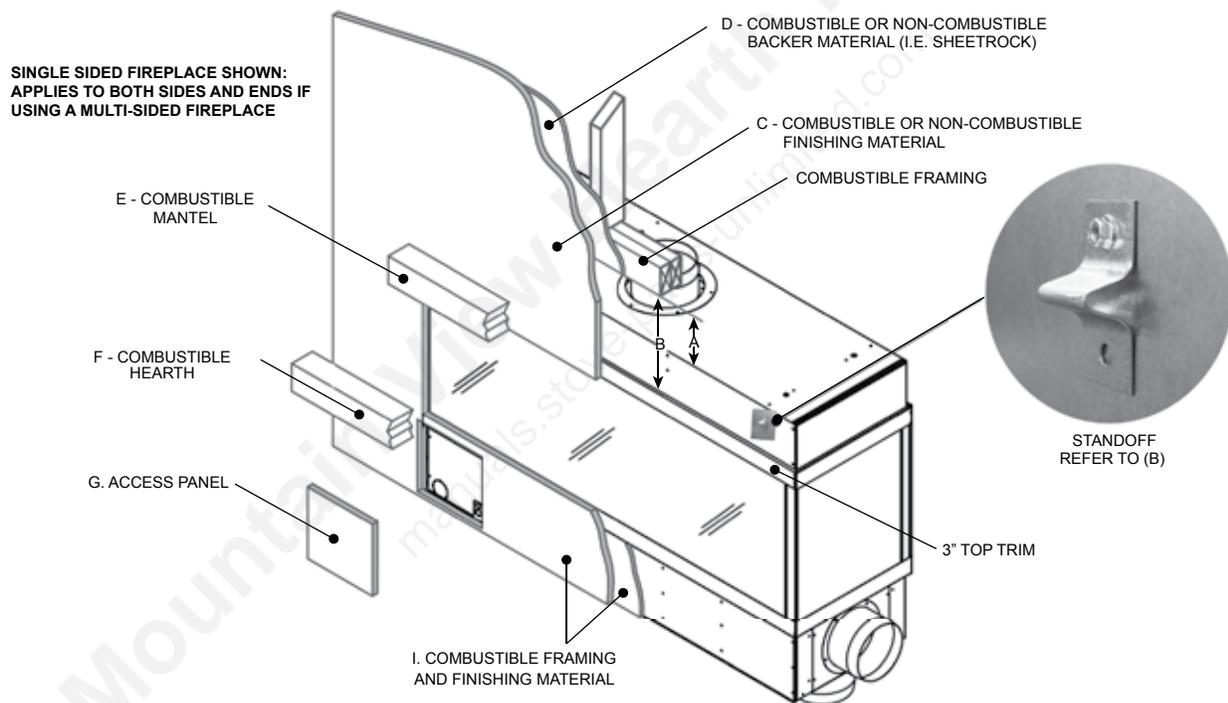


NOTE: REFER TO MANTEL REQUIREMENTS: NON-COMBUSTIBLE ZONE USING PROVIDED 1/2" STANDOFFS FOR MORE INFORMATION (SECTION 5A).

Figure 10A.1

WARNING! Risk of Fire! DO NOT apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual.

IMPORTANT: NEVER COVER THE GLASS WITH FINISHING MATERIALS



A. No combustible materials may be within 6" [152mm] of the top of the fireplace.

B. 1/2" [12.7] CLEARANCE TO COMBUSTIBLES ON SURFACE. The fireplace ships with standoffs in place to ensure a 1/2" clearance to combustibles is maintained on the surface. See Figure 10A.1. If the standoffs are removed, only non-combustible material can be installed against the surface of the fireplace such as a non-combustible backer cement board. 1/2" [12.7mm] minimum thickness must be used in the 15" [381mm] between the top of the 3" trim to the combustible framing the full width of the fireplace. The 15" includes a 7" [178mm] minimum above above the top of the fireplace that is recommended for ease of attachment. See Figure 10A.2

C. Combustible material may cover the non-combustible area mentioned in B.

D. Combustible finishing materials allowed.

E. Combustible or Non-Combustible mantel may be placed above the top of the glass viewing area. There are no restrictions on mantel depth.

F. Combustible hearth may be placed below the bottom of the glass viewing area.

G. Flat covers will cover the components access. Gas and electric inlets are located behind this panel. There are four access panel options all located on the pilot side of the fireplace; front (shown above), side, back and inside behind the glass.

Please take consideration of which option will be used to access the components for service later during planning.

I. Combustible framing and finishing materials allowed.

10 - FINISHING

B. FINISHING THE WALL - **NOT** USING THE PROVIDED 1/2" STANDOFFS



NOTE: REFER TO DIMENSIONS SECTION FOR ALLOWABLE FINISHING DIMENSIONS REQUIRED TO FIT THE GLASS PANELS INTO THE FIREPLACE. FINISHING MATERIALS MUST NOT OVERLAP THE FRAMING DIMENSIONS REFERENCED IN SECTION 2.A. NEVER COVER THE GLASS WITH FINISHING MATERIALS.



NOTE: **DO NOT** PIERCE ANY OF THE BLACK PAINTED SURFACES WITH SCREWS, RIVETS, ETC. THIS INCLUDES THE 3" BLACK TOP AND BOTTOM GLASS TRIM AND ANY PAINTED SIDES ADJACENT TO THE GLASS.



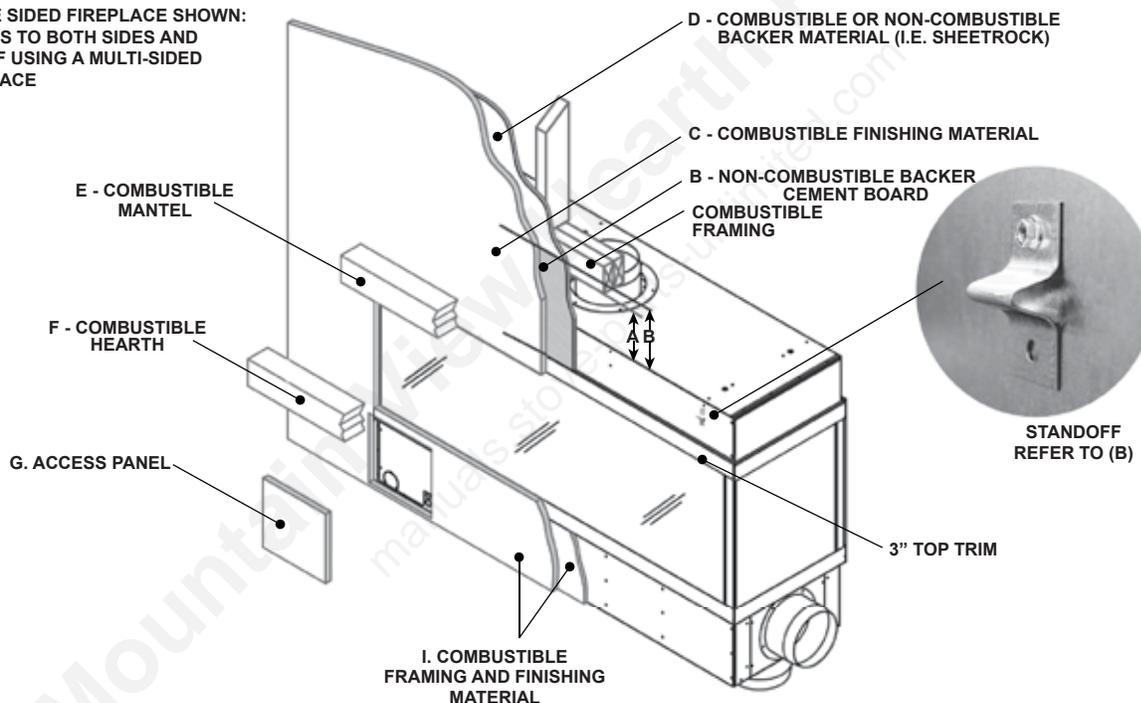
NOTE: REFER TO MANTEL REQUIREMENTS: NON-COMBUSTIBLE ZONE NOT USING PROVIDED 1/2" STANDOFFS FOR MORE INFORMATION (SECTION 5B).

Figure 10A.2

WARNING! Risk of Fire! DO NOT apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual.

IMPORTANT: NEVER COVER THE GLASS WITH FINISHING MATERIALS

SINGLE SIDED FIREPLACE SHOWN:
APPLIES TO BOTH SIDES AND
ENDS IF USING A MULTI-SIDED
FIREPLACE



A. No combustible materials may be within 6" [152mm] of the top of the fireplace.

B. 1/2" [12.7] CLEARANCE TO COMBUSTIBLES ON SURFACE. The fireplace ships with standoffs in place to ensure a 1/2" clearance to combustibles is maintained on the surface. See Figure 10A.1. If the standoffs are removed, only non-combustible material can be installed against the surface of the fireplace such as a non-combustible backer cement board. 1/2" [12.7mm] minimum thickness must be used in the 15" [381mm] between the top of the 3" trim to the combustible framing the full width of the fireplace. The 15" includes a 7" [178mm] minimum above above the top of the fireplace that is recommended for ease of attachment. See Figure 10A.2

C. Combustible material may cover the non-combustible area mentioned in B.

D. Combustible finishing materials allowed.

E. Combustible or Non-Combustible mantel may be placed above the top of the glass viewing area. There are no restrictions on mantel depth.

F. Combustible hearth may be placed below the bottom of the glass viewing area.

G. Flat covers will cover the components access. Gas and electric inlets are located behind this panel. There are four access panel options all located on the pilot side of the fireplace; front (shown above), side, back and inside behind the glass.

Please take consideration of which option will be used to access the components for service later during planning.

I. Combustible framing and finishing materials allowed.

11 - LIGHTING & SHUTDOWN

FOR YOUR SAFETY - READ BEFORE LIGHTING



STOP: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT, CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

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

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air. It is important to make sure the termination cap remains unobstructed at all times from snow, ice, leaves or other debris.

- This fireplace is equipped with an ignition device which automatically lights the pilot and main burner. The pilot and burner light automatically with the wall switch. **DO NOT** try to light the pilot by hand. Before lighting this fireplace, follow these instructions exactly.
- **BEFORE LIGHTING**, smell all around the appliance for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- 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 which has been under water.

WHAT TO DO IF YOU SMELL GAS:

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

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



NOTE: A PAINT SMELL WILL OCCUR DURING THE FIRST FEW HOURS OF BURNING.



NOTE: THIS FIREPLACE MAY PRODUCE NOISES OF VARYING DEGREE AS IT HEATS AND COOLS DUE TO METAL EXPANSION AND CONTRACTION. THIS IS NORMAL AND DOES NOT AFFECT THE PERFORMANCE OR LONGEVITY OF THE FIREPLACE.

A. LIGHTING THE FIREPLACE

To light the fireplace:

Activate the wall switch.

The fireplace has a pre and post timer, set at the factory for 30 seconds. The powervent and flame will not turn on for 30-60 seconds after switch is activated and the powervent will run for 30 seconds after it has been shut off.

11 - LIGHTING & SHUTDOWN



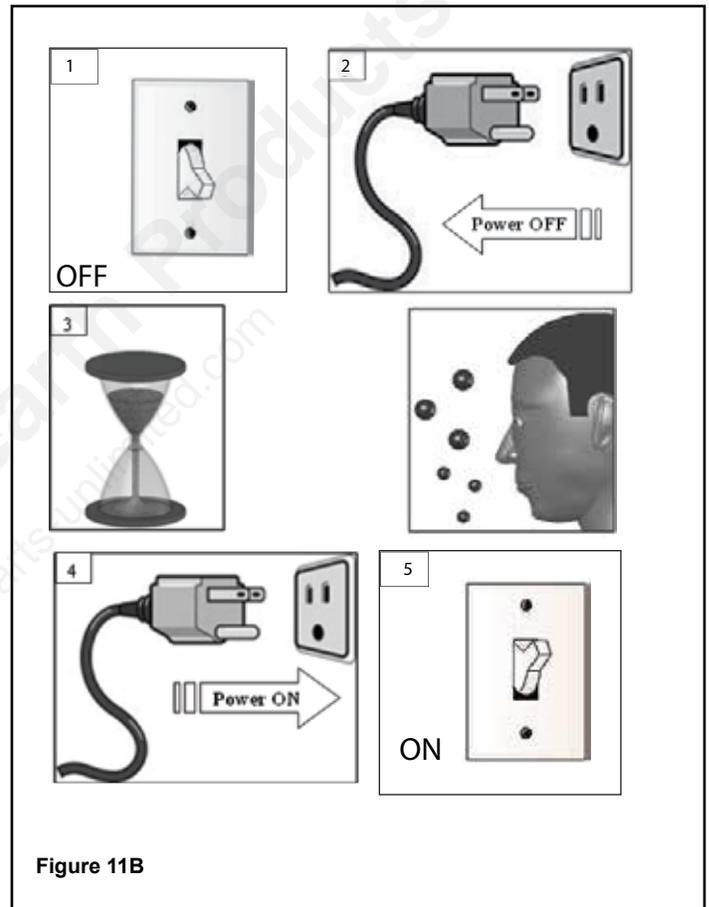
STOP! Read safety information on previous page and front cover of this manual before continuing.



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

B. IF THE FIREPLACE DOES NOT LIGHT

1. Turn off the fireplace at switch.
2. Turn off all electrical power to fireplace.
3. Wait five (5) minutes to allow any gas that may have accumulated inside firebox to escape. If you then smell gas, STOP! Follow safety information on front cover and on previous page of the installation manual. If you don't smell gas, go to next step.
4. Turn ON all electrical power to fireplace.
5. Turn fireplace on at switch.



CAUTION: If fireplace will not operate, follow instructions **TO TURN OFF GAS TO APPLIANCE** on lighting instructions tag fastened to the appliance and call your service technician or the gas supplier.



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

12 - PRESSURE TESTING



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.



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

INLET PRESSURE TEST

1. The valve has an allen-plug on the inlet and outlet.
2. Install a barb fitting on the tap you want to measure.
3. Light the fireplace, check the pressure.
4. Turn off fireplace; reinstall plug.
5. Check for leaks.



CAUTION: A LOW PRESSURE READING CAN CAUSE DELAYED IGNITION



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

13 - FINALIZING THE INSTALLATION

A. INSTALLING THE MEDIA

Figure 13A

Place the supplied glass media into the base tray.
Cover the base evenly. Do not use more than the supplied amount.

Do not get any glass media into the pilot area; a hazardous condition could result!

You should be able to see the burner slightly through the media. If you can't, push the media back from the burner. Smaller flames will result from too much media over the burner.

DO NOT COVER THE BURNERS; POOR FLAME APPEARANCE WILL RESULT.

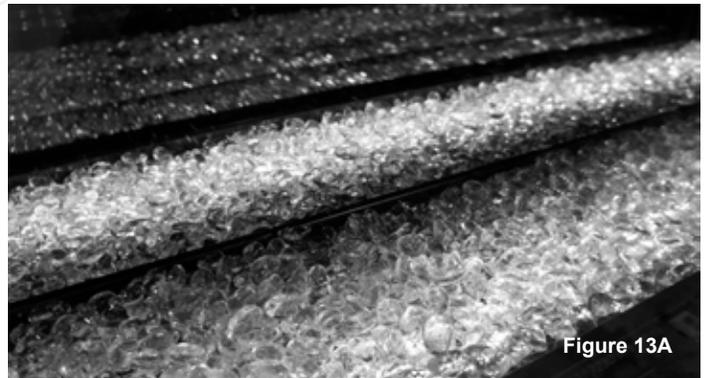


Figure 13A

NOTE: DO NOT SUBSTITUTE THE SUPPLIED MEDIA WITH ANY OTHER KIND OF MEDIA.

B. FLAME APPEARANCE

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

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

14 - MAINTENANCE

The appliance is required to be inspected at least once a year by a professional service person. The compartment below firebox (behind lower access panel) must be cleaned at least once a year, more frequent cleaning may be required due to excessive lint from carpeting, bedding materials, or other fibrous materials. It is imperative that the burner be cleaned once a year.

VALVE AND ELECTRICAL ACCESS

There is an access panel in the floor of the firebox should more extensive service be needed. Using the suction cups, remove the inner and outer glass panels. Remove the glass media or natural stones on the end with the pilot. Remove the screws on the mesh screen and remove the mesh screen. Remove the Phillips head screws on the LED "U" shaped metal tray and gently fold metal tray over the burners. Remove the 6 screws on the solid access panel and remove panel.



NOTE: INSTALLATION AND REPAIR SHOULD BE DONE ONLY BY QUALIFIED SERVICE PERSON. THE APPLIANCE SHOULD BE INSPECTED BEFORE USE AND ANNUALLY BY A QUALIFIED SERVICE PERSON. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIALS, ETC. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS AND CIRCULATION AIR PASSAGEWAYS OF THE APPLIANCE BE KEPT CLEAN.

A. VENT SYSTEM

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

B. GLASS CLEANING & REPLACEMENT



WARNING! RISK OF INJURY! DO NOT remove glass until it is cooled to room temperature. Glass breakage could occur. See Section 6 for glass installation and removal instructions.

- Clean glass only when cool and only with non-abrasive cleansers.
- Do not operate this fireplace with glass/frame assembly removed, cracked or broken.
- The glass assembly shall only be replaced as a complete unit, as supplied by Hearth & Home Technologies.
- Replacement of glass & frame assembly, must only be performed by a licensed or qualified service person. **DO NOT SUBSTITUTE MATERIALS.**
- Do not strike or slam glass assembly.

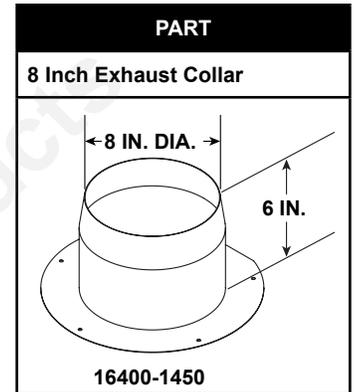
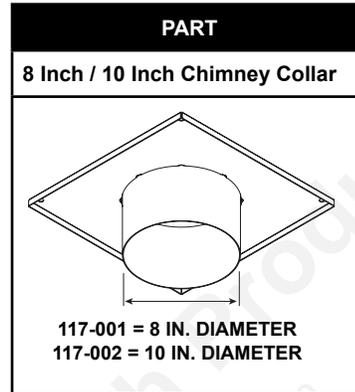


CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING. KEEP APPLIANCE AREA CLEAR OF COMBUSTIBLE MATERIALS, SUCH AS GASOLINE AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

C. REPLACEMENT PARTS LIST

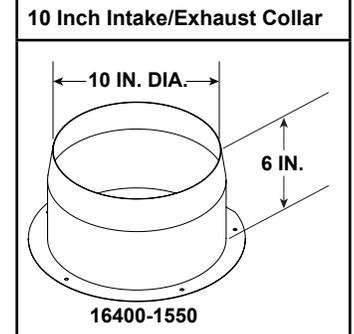
PART	PART NUMBER
Gas Valve	SV9501
Pilot	112-5000
Vacuum Switch	112-5003
Transformer, 24 VAC	112-5002
Orifice, NG #43	16400-2043
Orifice, Propane #55	16400-2055
Propane Conversion Kit	LPK-FDN
Service Glass, 4 ft.	GLA-4 (INNER)
	GLA-4-OUT (OUTER)
Service Glass, 5 ft.	GLA-5 (INNER)
	GLA-5-OUT (OUTER)
Service Glass, 6 ft.	GLA-6 (INNER)
	GLA-6-OUT (OUTER)
Service Glass, 7 ft.	GLA-7 (INNER)
	GLA-7-OUT (OUTER)

PART	PART NUMBER
Replacement Capacitor - PVK-45	601.0400.0064
Replacement Capacitor - PVK-67	604.0400.0064
Replacement Capacitor - PVI-45	604.0600.0064
Replacement Capacitor - PVI-67	604.0800.0064



PART	PART NUMBER	QUANTITY
Crystal Rock, 5 lb bag	2188-851	Varies by model size FDN-4-SS = 8 bags FDN-5-SS = 9 bags FDN-6-SS = 11 bags FDN-7-SS = 13 bags

PART	PART NUMBER
8 Inch Exhaust Collar	16400-1450
10 Inch Intake/Exhaust Collar	16400-1550
LED Controller	16400-1901
LED Remote Control	16400-1901R
Switch, 15 Amp Toggle	16400-3013
2-Gang Electrical Box	16400-3014
White Nylon 2-Gang Plate	16400-3015
Suction Cup	675-9605
12 Inch Rain Guard (For use on PVK-45)	028-1704
14 Inch Rain Guard (For use on PVK-67)	028-1705
8 Inch Chimney Collar	117-001
10 Inch Chimney Collar	117-002



MODEL	Vertical Trim Pieces Between Glass		Horizontal Trim Pieces Between Glass	
	Part #	Qty	Part #	Qty
FDN-4-SS	SRV16400-1033	2	16400-1144	1
FDN-5-SS	SRV16400-1033	2	16500-1144	1
FDN-6-SS	SRV16400-1033	2	16600-1144	1
FDN-7-SS	SRV16400-1033	2	16700-1144	1

Hearth & Home Technologies LIMITED LIFETIME WARRANTY

Hearth & Home Technologies, on behalf of its hearth brands (“HHT”), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage begins on the date of original purchase. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term “Limited Lifetime” in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered	
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting		
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed	
2 years				X	X	X			Igniters, electronic components, and glass	
		X	X	X	X	X			Factory-installed blowers	
			X							Molded refractory panels
		X								Ignition Modules
3 years				X					Firepots and burnpots	
5 years	1 year			X	X				Castings and baffles	
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination	
10 years	1 year	X							Burners, logs and refractory	
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger	
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period	

See conditions, exclusions, and limitations on next page.

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- This warranty is only valid in the country in which the HHT authorized dealer or distributor that sold the appliance resides.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets, firebricks, grates, flame guides, batteries and the discoloration of glass.
- Expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY:

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.