



INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL

INSTALLER:

Leave this manual with the appliance.

CONSUMER:

Retain this manual for future reference.

⚠ 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.

DIRECT VENT ZERO CLEARANCE GAS FIREPLACE HEATER MODEL SERIES:

MULTIFUNCTION
REMOTE (MF)
DVLL48SP90(N,P)-1

UL FILE NO. MH30033



⚠ WARNING

If not installed, operated and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or from fuel combustion which can cause death or serious illness.

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.

⚠ WARNING



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.



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

NOTICE: Barrier required, may be sold separately.

TABLE OF CONTENTS

SECTION	PAGE
Attention Installer	3
Introduction	4
Before You Start.....	5 - 6
Carton Contents & Hardware Pack.....	7
Specifications.....	8
Accessories	9
Orientation Of Fireplace.....	10
Fireplace Dimensions (Indoor Application)	11
Clearances (Indoor Application).....	12
Fireplace Dimensions (W/DFED489SS).....	13
Clearances (W/DFED489SS)	14
Locating Fireplace	15
Vent Termination Clearances.....	16 - 17
Gas Supply	18 - 19
Safety Information For Users of Propane Gas.....	20
Electrical Connections	21 - 22
Component Wiring Diagram	23
Installation.....	24 - 29
Vent System Identification	30
Venting Fireplace	31 - 32
Venting (Horizontal)	33
Venting - Horizontal Termination.....	34
Top Vent - Vertical Termination	35
Vertical Termination	36 - 37
Dvvk-5F Flex Vent Instructions	38 - 39
Framing And Finishing	40 - 41
Liner Installation.....	42
Glass Placement.....	43
Multifunction Remote Operating Instructions.....	44 - 51
Control System Troubleshooting.....	52 - 53
Lighting Instructions.....	54
Parts List.....	56
Parts View.....	57
Maintenance And Service	58 - 60
Important Safety Information	61
Fireplace Service History.....	62
Requirements For Massachusetts	63
Master Parts Distributor List	64
How To Order Repair Parts.....	64
Warranty	65

ATTENTION INSTALLER:

Fireplace Installation Checklist

Use this checklist in conjunction with the instructions in this manual.

Customer: _____

Date Installed: _____

Lot/Address: _____

Fireplace Location: _____

Model: _____

Installer: _____

Serial # _____

Dealer Phone #: _____

FIREPLACE INSTALLATION

Verified clearances to combustibles (page 14).....

Fireplace is leveled and secured.....

VENTING

Venting configuration complies to vent diagrams (page 29).....

Venting installed, locked, secured in place with correct clearance.....

Firestops installed.....

Exterior wall/roof flashing installed and sealed.....

Terminations installed and sealed (pages 34-36).....

Light unit and test venting before enclosing the fireplace

ELECTRICAL (Pages 19-21)

Unswitched power (110-120 VAC) provided to the fireplace

GAS (Pages 17-18)
Proper appliance for fuel type.....

Was a conversion performed?.....
 _____ Yes No

Leak check performed and inlet pressure verified.....

FINISHING (Pages 23-24)

Non-combustible board installed.....

Verified all clearances meet installation manual requirements.....

Mantels and wall projections meet requirements

Finishing complies with clearance requirements

Barrier for glass front properly installed.....

FIREPLACE SETUP

All packaging and protective materials removed (inside & outside of fireplace)

Media installed correctly

Firebox glass doors cleaned, installed, and secured.....

Accessories installed properly

Started Fireplace and verified no gas leaks exist.....

Manual envelope and all of its contents removed from inside/outside the

fireplace and given to party responsible for use and operation

Empire recommends the following:

- Keep this checklist visible on the fireplace until the installation is complete.
- Photograph the installation and copy this completed checklist for your file.

Comments: Further description of the issues, who is responsible (Installer/Builder/Other) and corrective action needed:

Comments communicated to party responsible _____ by _____ on _____

INTRODUCTION

Instructions to Installer

1. Leave instruction manual with owner.
2. Have owner complete the Product Registration Card supplied with the fireplace or register online.
3. Show owner how to start and operate the fireplace.

This direct-vent gas fireplace heater is designed to operate with all combustion air being siphoned from the outside of the building and all exhaust gases expelled to the outside of the building. The information contained in this manual pertains to all models and gas control systems unless otherwise noted.

Appliance Certification

WARNING

This fireplace is not for use with solid fuels. Burning solid fuels could cause personal injury or property damage.

This fireplace is design certified in accordance with American National Standard/CSA Standard ANSI Z21.88/CSA 2.33 and by Underwriters Laboratories as a Direct-Vent Gas Fireplace Heater and shall be installed according to these instructions.

Consult your local building code agency, prior to installation, to ensure compliance with local codes-including permits and inspections.

The fireplace, when installed, must be electrically grounded in accordance with local codes or, in absence of local codes, with the *National Electric Code ANSI/NFPA 70* or Canadian Electric code, CSA C22.1, if an external electrical source is utilized.

These models may be installed in a bedroom or bed-sitting room in the U.S.A. and Canada.

Qualified Installing Agency

Installation and replacement of gas piping, gas utilization equipment or accessories and repair and servicing of equipment shall be performed only by a qualified agency. The term "qualified agency" means any individual, firm, corporation or company which either in person or through a representative is engaged in and is responsible for (a) the installation or replacement of gas piping or (b) the connection, installation, repair or servicing of equipment, who is experienced in such work, familiar with all precautions required and has complied with all the requirements of the authority having jurisdiction.

Commonwealth of Massachusetts: The installation must be made by a licensed plumber or gas fitter in the Commonwealth of Massachusetts.

WARNING

ANY CHANGE TO THIS FIREPLACE OR ITS CONTROLS CAN BE DANGEROUS.

Improper installation or use of the fireplace can cause serious injury or death from fire, burns, explosions, or carbon monoxide poisoning.

The installation must conform with local codes or, in the absence of local codes, with the *National Fuel Gas Code ANSI Z223.1/NFPA 54** *Natural Gas and Propane Installation Code*, or *CSA B149.1* in Canada. *Available from the American National Standards Institute, Inc. 11 West 42nd St., New York, N.Y. 10036. Any alteration of the original design, installation other than as shown in these instructions or use with a type of gas not shown on the rating plate is the responsibility of the person and company making the change.

NOTICE: All correspondence should refer to complete Model Number, Serial Number and type of gas.

High Altitude

When installing this fireplace at an elevation above 2000 feet (in the United States) it may be necessary to decrease the input rating by replacing the existing burner orifice with a smaller size. Generally, you should reduce input by 4 percent for each 1000 feet above sea level. However, if the heating value of the gas has been reduced, this may not apply. Check with Empire Comfort Systems for proper orifice size identification.

Canadian High Altitude

Altitude: 0-4500 feet (0-1370 m)

When installing this fireplace at an elevation above 4500 feet (in Canada), check with Empire Comfort Systems for assistance in determining the proper orifice for location.

BEFORE YOU START

SAMPLE WARNINGS AND DEFINITIONS:

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE: Addresses practices not related to personal injury.

This direct-vent gas fireplace and its components are tested and safe when installed in accordance with this installation manual. Report to your dealer any parts damaged in shipment, specifically check glass for chips or cracks. Do not install fireplace with damaged, incomplete, or substitute parts.

Read all instructions before starting installation and follow them carefully to ensure safe operation. Failure to follow the instructions will void the warranty and may cause a fire hazard.

The warranty will be voided by, and the warrantor disclaims any responsibility for the following actions:

- Installation by anyone other than the dealer or his agent.
- Installation of any damaged fireplace or component.
- Modification of the fireplace or Direct-Vent system.
- Installation other than as instructed by Empire Comfort Systems.
- Improper positioning of logs, glass door, or accessories.
- Installation and/or use of any component part not manufactured or approved by Empire Comfort Systems.

All correspondence should refer to complete Model Number, Serial Number and type of gas. Fill out the Homeowner Reference Section.

See page 3.

UNPACKING THE FIREPLACE

1. Cut binding straps and shrink wrap.
2. Remove top board and corner posts.
3. Lift fireplace from the pallet and place it near installation site.
4. Remove non-combustible boards from pallet and set aside.
5. Verify that the fireplace and components have not been damaged during shipping.
6. Using list on page 56 verify that you have all components that shipped with fireplace.

TELEVISION CONSIDERATIONS

Installing a television above a fireplace has become increasingly popular; however, the area above any fireplace gets hot and most TV manufacturers recommend against placing their products near a heat source.

If you install a television above this fireplace, Empire Comfort Systems accepts no responsibility for damage or injuries. Follow the television manufacturer's installation instructions, including any recommendations regarding proximity to heat sources.

If you have a TV above your fireplace, turn off the fireplace and let it cool completely before servicing or touching any buttons on the TV.

BEFORE YOU START (CONT'D)

PREPARATION

This fireplace and its components are safe when installed in accordance with this manual.

INSTALLATION CONSIDERATIONS

- Gas supply piping – right side entrance - **See page 10.**
- Electrical supply and connections 120V, 60Hz, 1 Amp, right side entrance - **See page 10.**
- Allowable fireplace mounting surfaces:
 1. A hard, flat, combustible or non-combustible surface
 2. A raised platform of combustible or non-combustible material.
 3. The four corners of the fireplace on non-combustible material – such as cinder blocks (where allowed by local codes) – so that contact is made on all four perimeter edges on the bottom of the fireplace.
- If the fireplace is installed directly on carpeting, tile or other combustible material other than wood flooring, install a metal or wood panel underneath extending the full width and depth of the fireplace.
- This fireplace is designed to be installed in a zero-clearance enclosure. Combustible material can come in contact with the side standoff spacers, and the fireplace can be secured to combustible framing with the framing brackets provided.

PLANNING THE INSTALLATION

Determine where the fireplace will be located and what accessories will be installed.

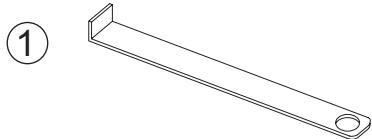
Your location must allow for:

- Venting – either vertical or horizontal.
- Choose a vent configuration. **See pages 34-36** and make sure the required access through attics and walls is not blocked by other utilities such as water lines, sewer vents, gas lines, etc. If access is blocked, move the utilities or relocate the fireplace.
- Gas supply piping (right side entrance) - **See pipe size and specs on page 17.**
- Electrical supply requirements (120V, 60Hz, 1 Amp) - right side entrance - **See page 10.**
- Proper framing required for fireplace installation. **See page 22.**
- Finishing the fireplace – drywall thickness, tile or stone thickness, and desired decorative accessories can affect how you frame the openings and how you attach the nailing flanges to set the proper depth. **See pages 23 - 24** for finishing details, before you begin.

ACCESSORIES

Accessories for this appliance must be installed after fitting the fireplace into the framed opening (excluding the DFED489SS wall kit, which must be installed prior).

CARTON CONTENTS & HARDWARE PACK



①



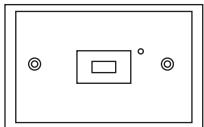
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④



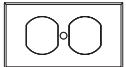
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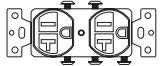
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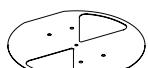
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⑧



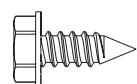
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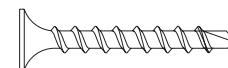
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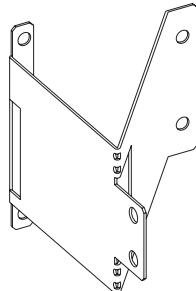


#10 X 1/2" HEX HEAD SCREW



#8 X 1" PHILLIPS SELF-DRILLING SCREW

②



NAILING FLANGES

Items not shown to scale.

INDEX NUMBER	DESCRIPTION	QUANTITY SUPPLIED
1	Door Removal Tool (attached to fireplace)	1
2	Product Registration Card	1
3	AA Battery	4
4	AAA Battery	3
5	Cover Plate, Battery Box	1
6	Remote	1
7	Junction Box Cover	1
8	Duplex Receptacle	1
9	Flue Restrictor	1
10	Battery Box	1
*11	Wire Harness	1
A	#10 x 1/2 Screw	39
**B	#8 x 1 Self-Drilling Screw	36
C	Nailing Flange	8

** For use in mounting non-combustible board to standoffs.

* Not shown

See Parts Lists on page 50 for ordering replacement parts. Do not order batteries, bolts, screws, washers or nuts. They can be purchased at your local hardware store.

SPECIFICATIONS

MODEL	DVLL48NAT	DVLL48LP
Input BTU/Hr Maximum	37,000	34,000
Input BTU/Hr Minimum	25,000	27,000
KWH (Maximum)	11.13	9.95
KWH (Minimum)	7.32	7.90
Orifice	#31	#50
Air Shutter Opening Front (inches)	1/16	Full Open
Height without standoff (inches)	34-1/2	34-1/2
Width (inches)	61-1/4	61-1/4
Depth (inches)	20-1/2	20-1/2
Gas Inlet Shutoff Valve (pipe)	1/2 NPT	1/2 NPT

NOTICE: Air shutter settings are factory minimum settings. Some venting configurations may require minor air shutter adjustments for optimum performance.

GAS SUPPLY PRESSURES (Inches water column)			
Gas Type	Maximum	Minimum	Manifold
NATURAL	14	4.5	3.5
PROPANE	14	11	10

ACCESSORIES

ACCESSORIES			
Description	Model	Color	Used On
Conversion Kit - Propane to Natural Gas	36435	NA	DVLL48SP
Conversion Kit - Natural to Propane Gas	36434	NA	DVLL48SP
Trim Kit (Beveled)	DF48BL	Black	DVLL48SP
Trim Kit (Beveled)	DF48HP	Pewter	DVLL48SP
Window Frame (Beveled 2 inch)	DF482NB	Nickel	DVLL48SP
Decorative Front	DFF48FPD	Pewter	DVLL48SP
Liner Ledge Stone	DVP48SLG	Stone	DVLL48SP
Liner Black Porcelain	DVP48SLKR	Black	DVLL48SP
Log and Rock Set	LS60THF	NA	DVLL48SP
SS Front (Exterior Install)	DFED489SS	NA	DVLL48SP
Crushed Glass Media (Black)	* DG1BKP	Black	DVLL48SP
Crushed Glass Media (Blue)	* DG1BUC	Blue	DVLL48SP
Crushed Glass Media (Clear)	* DG1CLF	Clear	DVLL48SP

* Six square feet required. These model numbers contain approximately one square foot each.

ORIENTATION OF FIREPLACE

NOTICE: When you are looking at the front side of the fireplace, the pilot will be to your right on the opposite side of the burner.

The gas line access and junction box will also be on your right. **The DFED489SS Outdoor Kit may be installed only on the back side of the fireplace.**

The front glass frame may be removed for service. The rear glass frame is fixed in place.

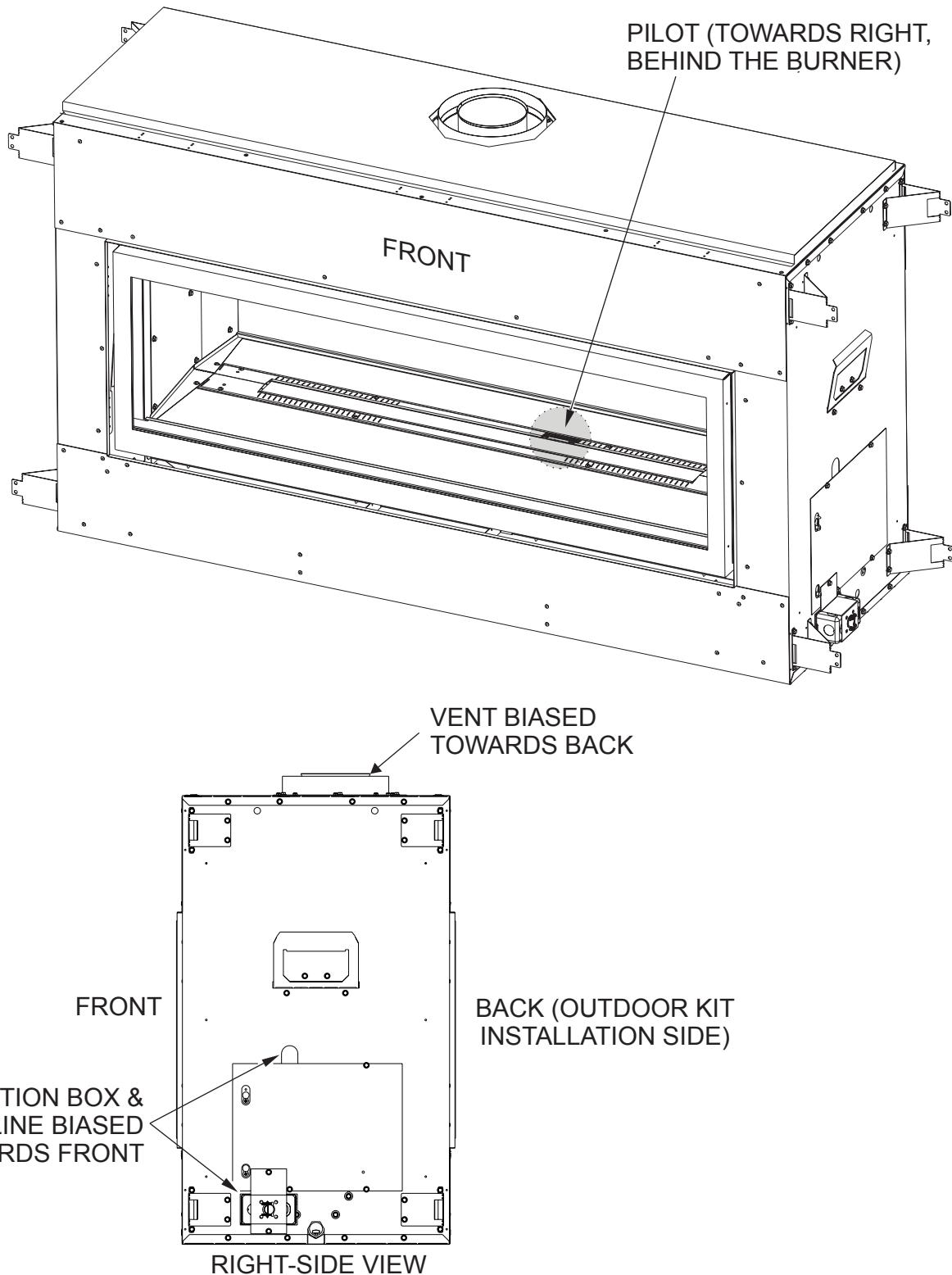
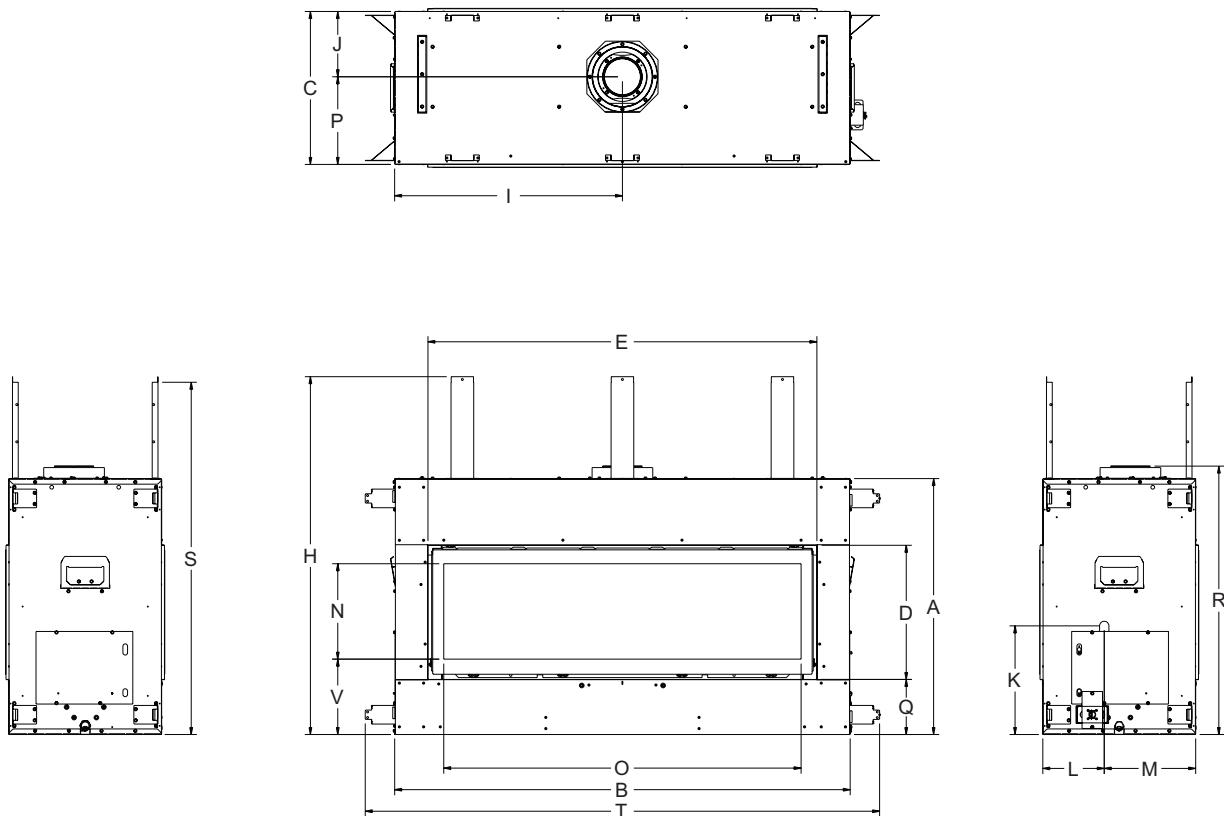


Figure 1

FIREPLACE DIMENSIONS (INDOOR APPLICATION)



INDEX LETTER	DIMENSION DESCRIPTION	DIMENSIONS IN INCHES
A	The maximum height of firebox face (excluding standoffs)	34-1/2
B	The maximum width of the firebox face (excluding nailing flanges)	61-1/4
C	The maximum depth of the firebox	20-1/2
D	The height of the firebox opening	18
E	The width of the firebox opening	52-1/4
F	The interior depth of the firebox (not shown)	16-1/4
G	The rear exterior width of the firebox	NA
H	The height to the firebox standoffs	52-3/8
I	Width from the left side of the box to the centerline of vent	30-5/8
J	Depth from back of box to centerline of top vent	8-3/4
K	Height from the bottom of the box to the gas line opening	14-5/8
L	Depth from the front of the box to gas line opening	14
M	Depth from rear of box to gas line opening	8-1/4
N	Glass height	13
O	Glass width	48
P	Depth from front of box to centerline of vent	11-3/4
Q	Distance from floor to fireplace opening	7-1/2
R	Height from floor to vent collar	35-7/8
S	Overall height to header	51-3/4
T	Distance between framing bracket ends	69
U	Interior rear width of firebox (not shown)	NA
V	Distance from the floor to the glass opening	10-1/8

CLEARANCES (INDOOR APPLICATION)

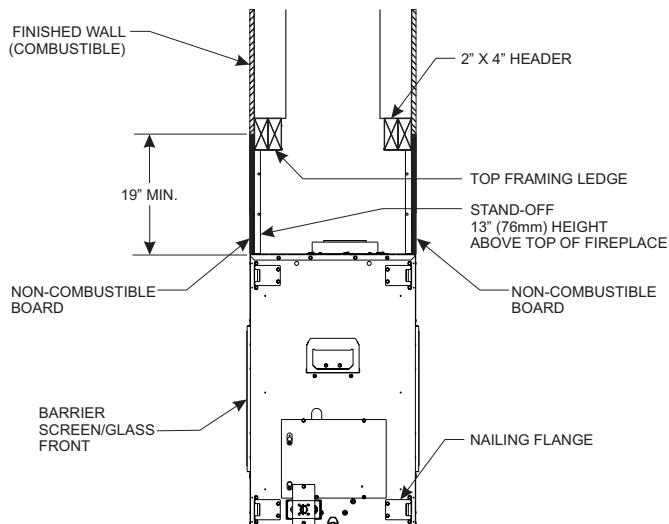


Figure 2

NOTICE: Use only non-combustible materials to finish the face of the fireplace.

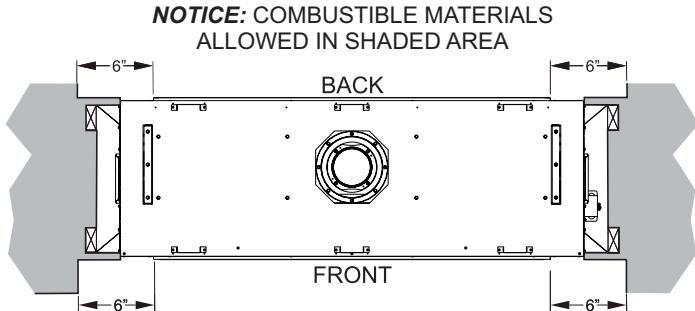


Figure 3

Vent Pipe Clearance

NOTICE: Maintain 1-inch clearance around vertical vent pipe.
See Figure 4.

For horizontal vent, maintain a minimum 1-inch clearance to the bottom and sides of the vent, and 3-inch clearance to combustibles above the vent pipe.

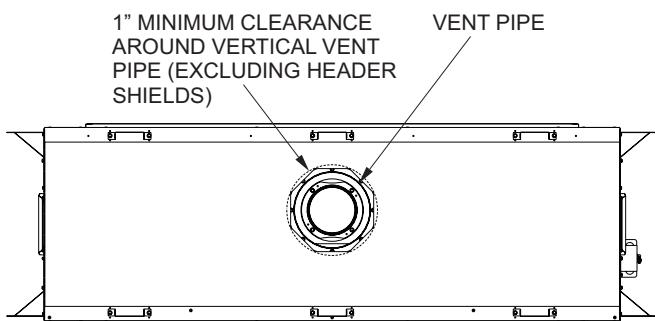
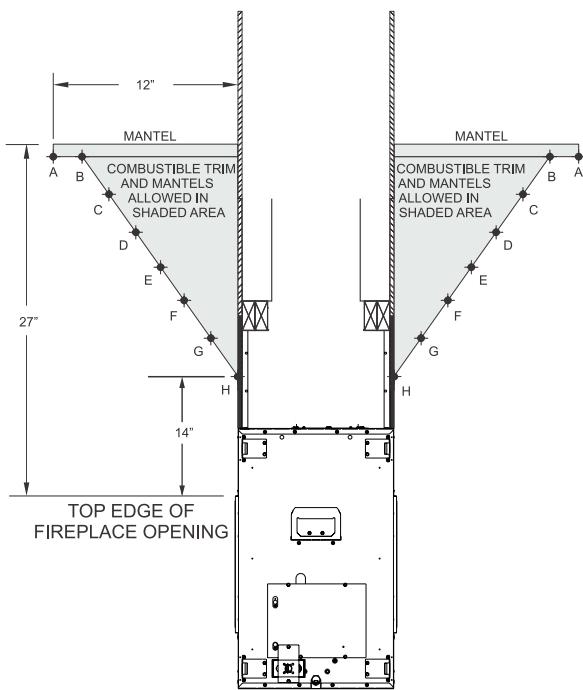


Figure 4

MANTEL CHART



INDEX LETTER	MANTEL DEPTH (Dimensions in inches)	
	A	B
C	8-3/8	24-7/8
D	6-5/8	23-5/8
E	5	20-1/2
F	3-3/8	18-3/8
G	1-5/8	16-1/8
H	0	14

Figure 5

CLEARANCES

Minimum clearance from top of fireplace opening to ceiling is 38 inches. Minimum clearance from side of fireplace opening to adjacent sidewall is 6 inches.

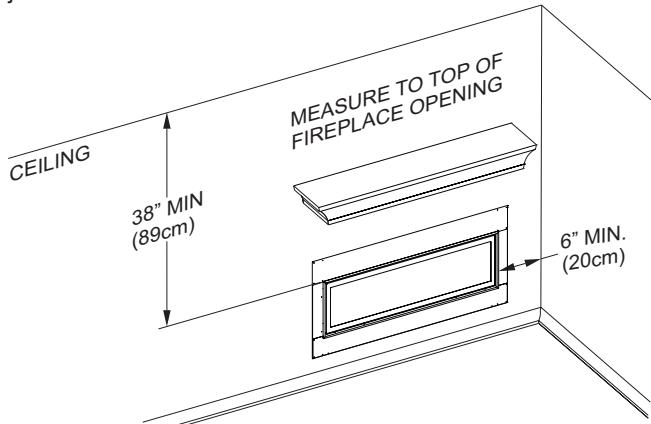
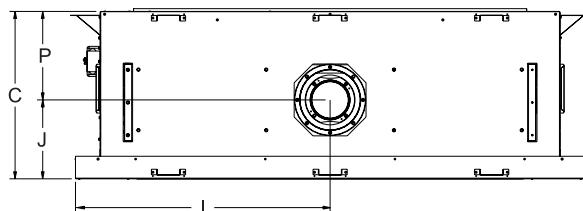
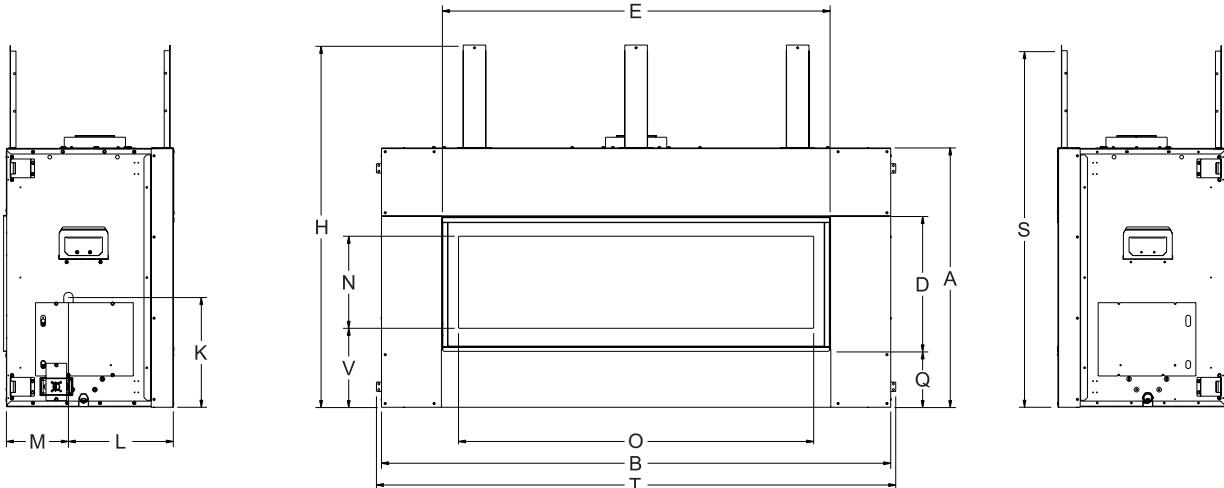


Figure 6

FIREPLACE DIMENSIONS (W/DFED489SS)



OUTDOOR KIT



NOTICE: Fireplace shown with DFED489SS outdoor kit installed.

INDEX LETTER	DIMENSION DESCRIPTION	DIMENSIONS IN INCHES
A	The maximum height of firebox face (excluding standoffs)	34-1/2
B	The maximum width of the firebox face (excluding nailing flanges)	67-3/4
C	The maximum depth of the firebox	22-1/4
D	The height of the firebox opening	17-3/4
E	The width of the firebox opening	51-3/4
F	The interior depth of the firebox (not shown)	16-1/4
H	The height to the firebox standoffs	52-3/8
I	Width from the left side of the box to the centerline of vent	30-5/8
J	Depth from back of box to centerline of top vent	10-1/2
K	Height from the bottom of the box to the gas line opening	14-5/8
L	Depth from rear of box to gas line opening	14
M	Depth from the front of the box to gas line opening	8-1/4
N	Glass height	12-1/2
O	Glass width	47-1/2
P	Depth from front of box to centerline of vent	11-3/4
Q	Distance from floor to fireplace opening	7-3/4
R	Height from floor to vent collar	35-7/8
S	Overall height to header	51-3/4
T	Distance between framing bracket ends	71
V	Distance from the floor to the glass opening	10-1/2

CLEARANCES (W/DFED489SS)

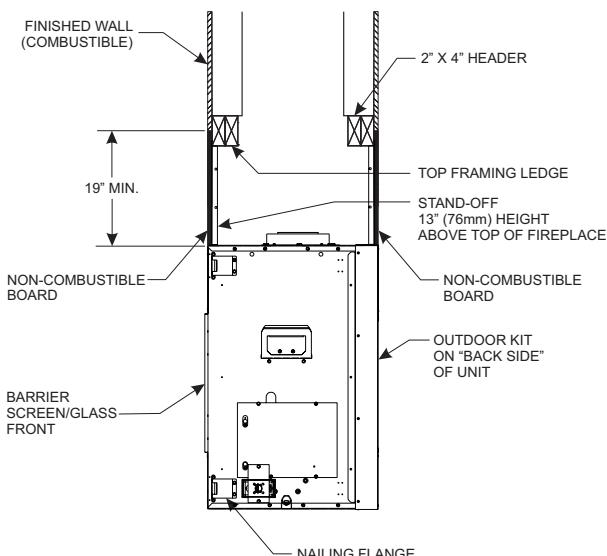


Figure 7

NOTICE: Use only non-combustible materials to finish the face of the fireplace.

MANTEL CHART

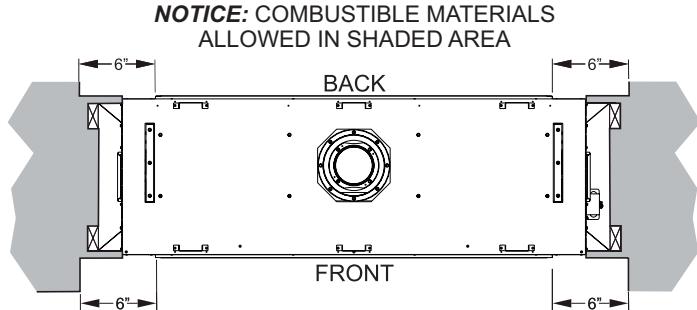
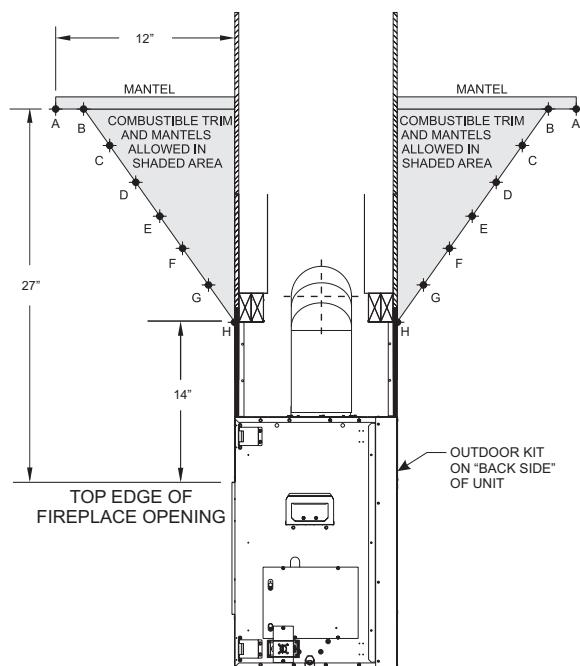


Figure 8

Vent Pipe Clearance

NOTICE: Maintain 1-inch clearance around vertical vent pipe. See Figure 9.

For horizontal vent, maintain a minimum 1-inch clearance to the bottom and sides of the vent, and 3-inch clearance to combustibles above the vent pipe.

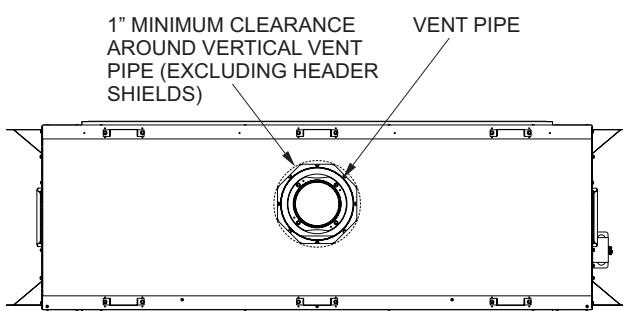


Figure 9

INDEX LETTER	MANTEL DEPTH (Dimensions in inches)	
	A	B
C	12	27
D	10	27
E	8-3/8	24-7/8
F	6-5/8	23-5/8
G	5	20-1/2
H	3-3/8	18-3/8
	1-5/8	16-1/8
	0	14

Figure 10

CLEARANCES

Minimum clearance from top of fireplace opening to ceiling is 38 inches. Minimum clearance from side of fireplace opening to adjacent sidewall is 6 inches.

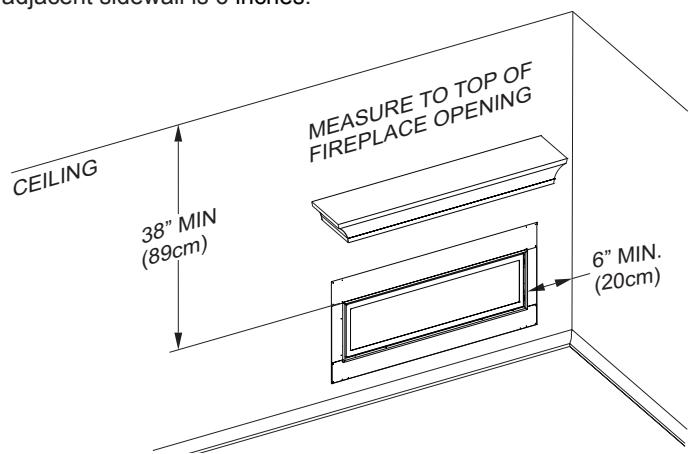
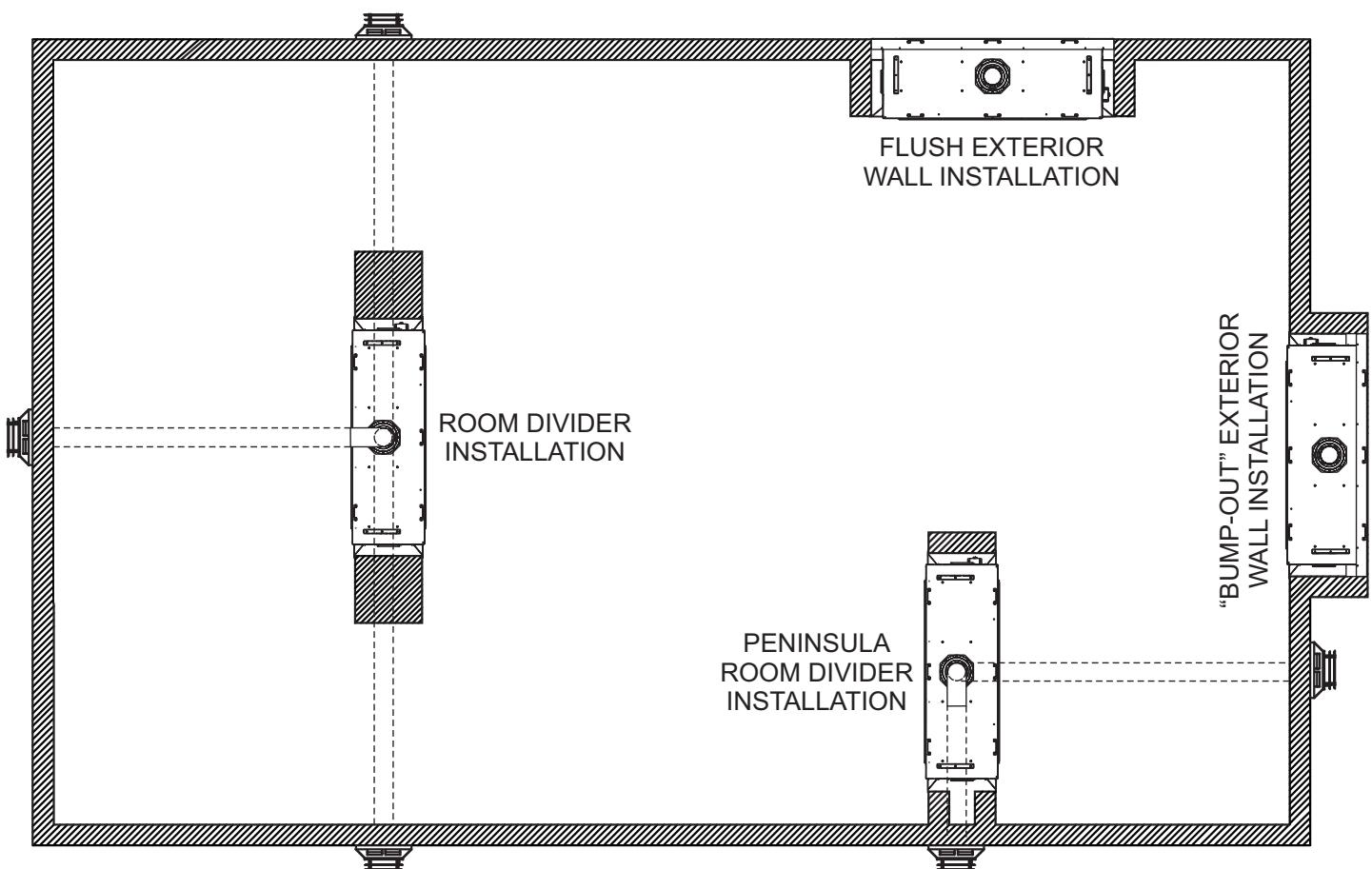


Figure 11

LOCATING FIREPLACE



NOTICE: For Room Divider installation the horizontal portion of the vent system must not exceed 20 feet with a minimum vertical run of 8 feet. See details in Venting Section.

NOTICE: When installing this fireplace against an exterior wall, insulate to applicable insulation codes.

A peninsula room divider installation requires a minimum of 6 inches of clearance from the perpendicular wall to the front opening of the fireplace.

Figure 12

VENT TERMINATION CLEARANCES

Termination clearance for buildings with combustible and noncombustible exteriors.

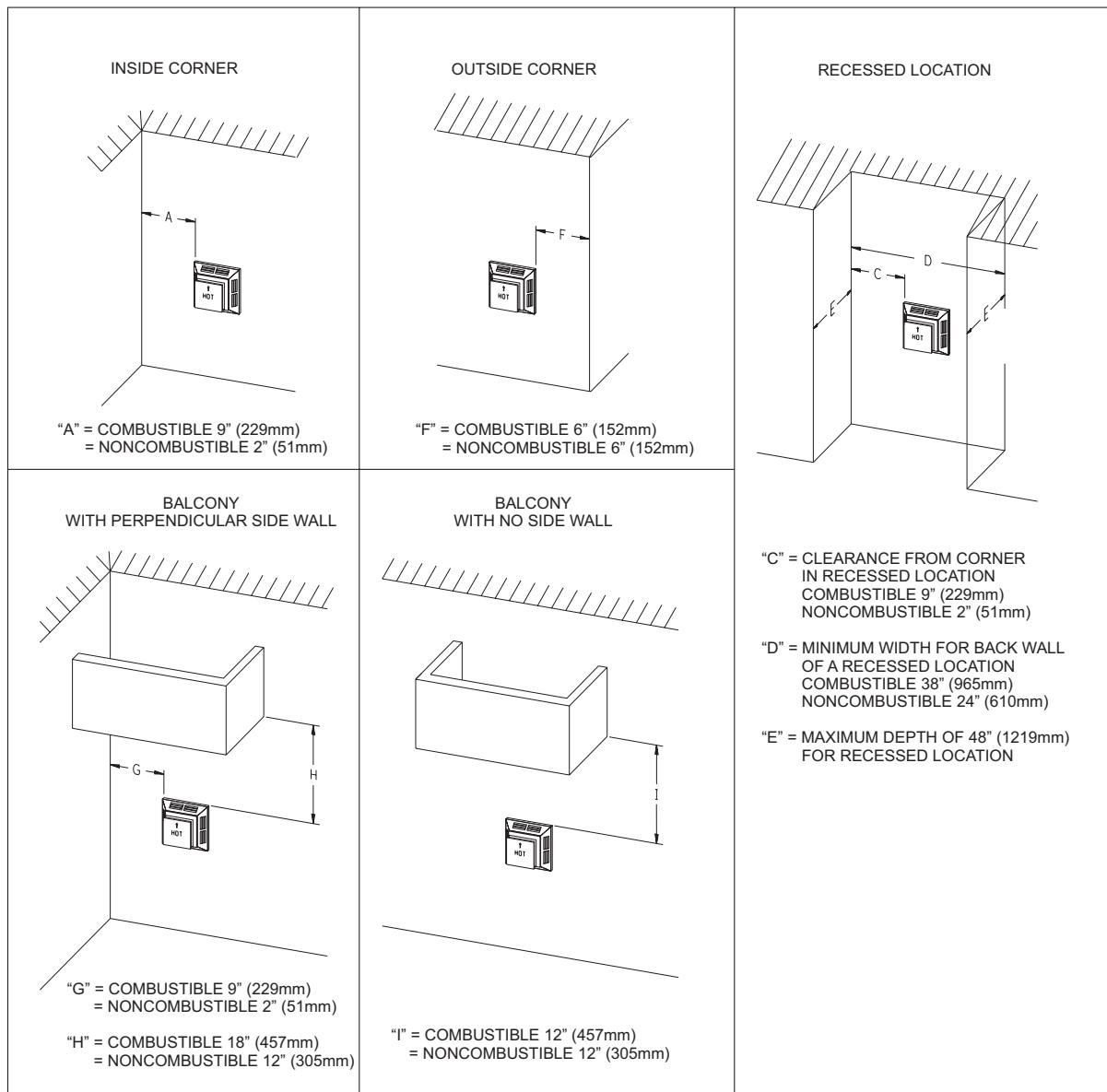


Figure 13

Vertical Sidewall Installations

Important! Minimum clearance between vent pipes and combustible materials is 3 inches (76 mm) on top, and 1 inch (25 mm) on bottom and sides.

Important! When vent termination exits through foundation less than 20 inches (508 mm) below siding outcrop, the vent pipe must extend outward so that the horizontal vent termination is located flush to, or beyond the outcrop siding.

Information on Various Venting Routes and Components

Important: It is always best to locate the fireplace in such a way that minimizes the number of offsets and horizontal vent length.

Since it is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust, certain limitations as to vent configurations apply and must be strictly adhered to.

The venting graph on page 28 shall be used to determine the allowable vertical and horizontal vent lengths.

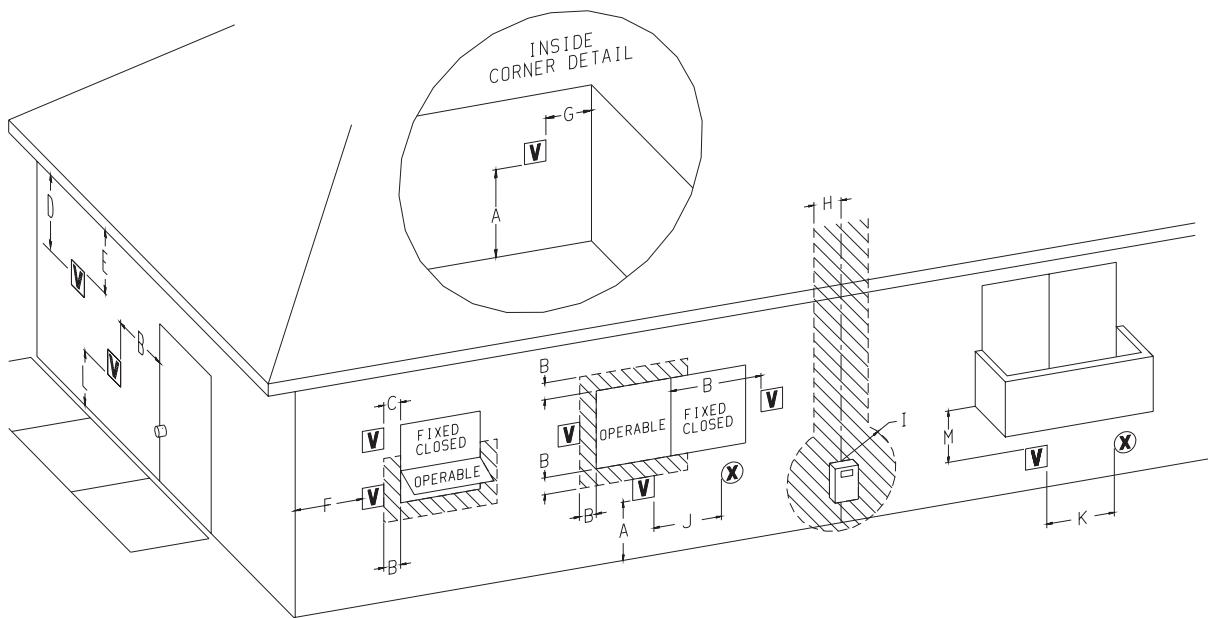
The horizontal vent run refers to the total length of vent pipe from the flue collar of the fireplace to the face of the outer wall.

Venting termination shall not be recessed into wall or siding.

ATTENTION: Vinyl Soffit, Vinyl Ceiling, Vinyl Overhang Disclaimer

Clearances are to heat resistant material (i.e. wood, metal). This does not include vinyl. Empire Comfort Systems Inc. will not be held responsible for heat damage caused from terminating under vinyl overhangs, vinyl ceilings or vinyl ventilated/unventilated soffits.

VENT TERMINATION CLEARANCES (CONT'D)



V VENT TERMINAL

X AIR SUPPLY INLET

N AREA WHERE TERMINAL IS NOT PERMITTED

	Canadian Installations1	US Installations2		Canadian Installations1	US Installations2
A= Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm)	12 in (30cm)	I= Clearance to service regulator vent outlet	3 ft (91 cm)	6 ft
B= Clearance to window or door that may be open	6 in (15 cm) for appliances ≤ 10,000 Btu/H (3 kW), 12 in (30 cm) for appliances > 10,000 Btu/H (3 kW) and ≤ 100,000 Btu/H (30 kW), 36 in (91 cm) for appliances > 100,000 Btu/H (30 kW)	6 in (15 cm) for appliances ≤ 10,000 Btu/H (3 kW), 9 in (23 cm) for appliances > 10,000 Btu/H (3 kW) and ≤ 50,000 Btu/H (15 kW), 12 in (30 cm) for appliances > 50,000 Btu/H (15 kW)	J= Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 in (15 cm) for appliances ≤ 10,000 Btu/H (3 kW), 12 in (30 cm) for appliances > 10,000 Btu/H (3 kW) and ≤ 100,000 Btu/H (30 kW), 36 in (91 cm) for appliances > 100,000 Btu/H (30 kW)	6 in (15 cm) for appliances ≤ 10,000 Btu/H (3 kW), 9 in (23 cm) for appliances > 10,000 Btu/H (3 kW) and ≤ 50,000 Btu/H (15 kW), 12 in (30 cm) for appliances > 50,000 Btu/H (15 kW)
C= Clearance to permanently closed window	12 in (30 cm)	12 in (30 cm)	K= Clearance to a mechanical air supply inlet	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally
D= Vertical clearance ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	24 in (61 cm)	24 in (61 cm)	L= Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m) †	7 ft (2.13 m) †
E= Clearance to unventilated soffit	12 in (30 cm)	12 in (30 cm)	M= Clearance under veranda, porch deck, or balcony	12 in (30 cm) ‡	12 in (30 cm) ‡
F= Clearance to outside corner	6 in (15 cm)	6 in (15 cm)	1 In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code		
G= Clearance inside corner	9 in (23 cm)	9 in (23 cm)	2 In Accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code		
H= Clearance to each side of center line extended above meter/regulator assembly	3 ft (91 cm) within a height 15 ft (4.5 m) above the meter/regulator assembly	3 ft (91 cm)	† A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings		

ATTENTION: Vinyl Soffit, Vinyl Ceiling, Vinyl Overhang

Disclaimer

Clearances are to heat resistant material (i.e. wood, metal). This does not include vinyl. Empire Comfort Systems Inc. will not be held responsible for heat damage caused from terminating under vinyl overhangs, vinyl ceilings or vinyl ventilated/unventilated soffits.

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

* For clearances not specified in ANSI Z223.1/NFPA 54 or CSA B149.1, one of the following shall be indicated:

Clearance in accordance with local installation codes and the requirements of the gas supplier.

GAS SUPPLY

The gas pipeline can be brought in through the right side of the fireplace. Consult the current National Fuel Gas Code, ANSI Z223.1 CAN/CGA-B149 (.1 or .2) installation code.

NOTICE: Never use plastic pipe. Check to confirm whether your local codes allow copper tubing or galvanized.

NOTICE: Because some municipalities have additional local codes, consult your local authority and installation code.

The following gas connectors are recommended:

- ANSI Z21.24 Appliance Connectors of Corrugated Metal Tubing and Fittings.
- ANSI Z21.45 Assembled Flexible Appliance Connectors of Other Than All-Metal Construction

The above connectors may be used if acceptable by the authority having jurisdiction. The Commonwealth of Massachusetts requires that a flexible appliance connector cannot exceed three feet in length.

FLEXIBLE GAS LINE CONNECTION

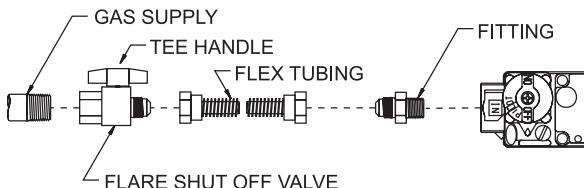


Figure 14

	Gas Supply Pressure (inches w.c.)		
	Minimum	Normal	Maximum
Natural Gas	4.5	7.0	14.0
Propane Gas	10.8	11.0	14.0
Manifold Pressure (inches w.c.)			
Normal (HI)			
Natural Gas	3.5		
Propane Gas	10.0		

A gas valve and ground joint union should be installed in the gas line upstream of the gas control to aid in servicing. It is required by the National Fuel Gas Code that a drip leg be installed near the gas inlet. **See Figure 15.** This should consist of a vertical length of pipe tee connected into the gas line that is capped on the bottom in which condensation and foreign particles may collect.

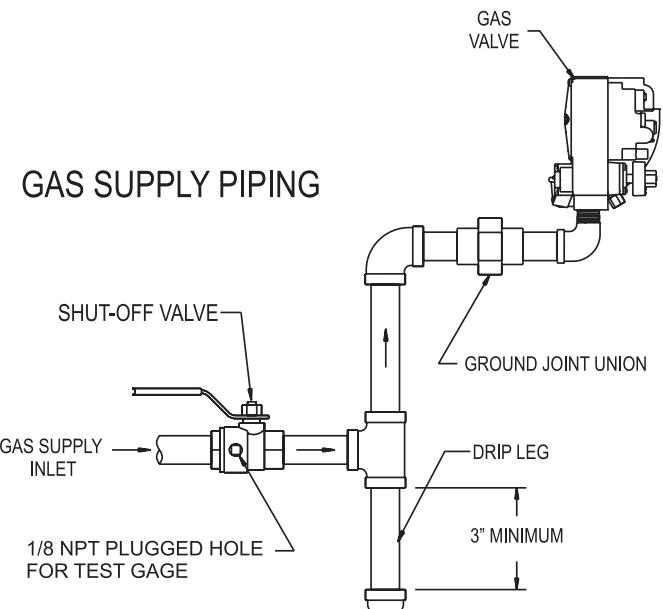


Figure 15

Installing a New Main Gas Shut-Off Valve (Check Local Code)

Each fireplace should have its own manual gas shut-off valve located in the vicinity of the fireplace. Where none exists, or where its size or location is not adequate, contact your local authorized installer for installation or relocation.

Compounds used on threaded joints of gas piping shall be resistant to the action of liquefied petroleum gases. The gas lines must be checked for leaks by the installer. Use a soap solution while watching for bubbles on all exposed connections. For unexposed pipe connections conduct a pressure test. Fireplace must be disconnected from piping at inlet of control valve and pipe capped or plugged for pressure test.

⚠ WARNING

Never use an exposed flame to check for leaks.

⚠ WARNING

Never pressure test with fireplace connected; control valve will sustain damage! To prevent damage or injury, the fireplace and its individual shut-off valve must be disconnected from supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).

NOTICE: The gas control is equipped with a captured screw type pressure test point; therefore it is not necessary to provide a 1/8 inch test point up stream of the control. **See Figure 16.**

When using copper or flex connector use only approved fittings.

GAS SUPPLY (CONT'D)

Checking Manifold Pressures

Both Propane and Natural Gas valves have a built-in pressure regulator in the gas valve. Natural Gas models will have a manifold pressure of approximately 3.5-in w.c. (.871 kPa) at the valve outlet with the inlet pressure to the valve from a minimum of 4.5-in w.c. (1.120 kPa) for the purpose of input adjustment to a maximum of 14.0-in w.c. (3.484 kPa). Propane Gas models will have a manifold pressure approximately 10.0-in w.c. (2.49 kPa) at the valve outlet with the inlet pressure to the valve from a minimum of 10.8-in w.c. (2.68 kPa) for the purpose of input adjustment to a maximum of 14.0-in w.c. (3.484 kPa).

CAUTION

If the test pressure exceeds 1/2 psig (14-in w.c.) (3.5 kPa) on the fireplace gas valve, it will damage the valve and result in a hazardous condition.

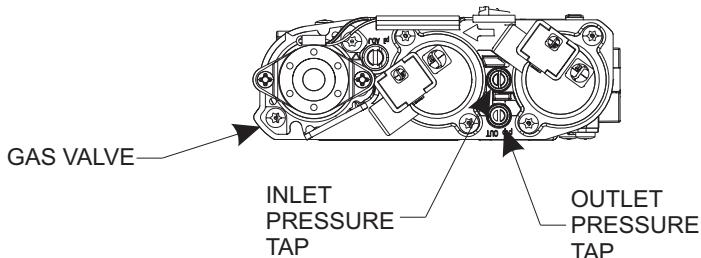


Figure 16

Gas Line Connection

Remove the access panel from the right side of the fireplace **Figure 17** to access the gas valve, gas flex line, junction box, and system wiring.

Attach the gas flex line to the pre-installed gas line. Refer to the Gas Supply section in this manual for details on the installation requirements for the gas supply line.

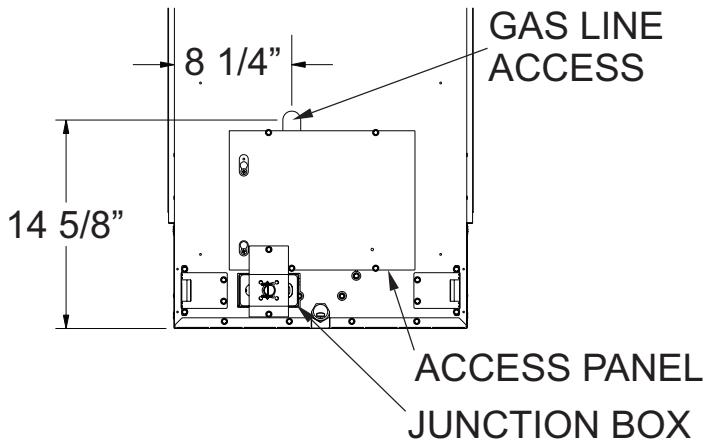


Figure 17

SAFETY INFORMATION FOR USERS OF PROPANE GAS

Propane is flammable and can cause fires and explosions. In its natural state, propane is odorless and colorless. You may not know all the following safety precautions which can protect both you and your family from an accident. Read them carefully now, then review them point by point with the members of your household. Someday when there may not be a minute to lose, everyone's safety will depend on knowing exactly what to do. If, after reading the following information, you feel you still need more information, please contact your gas supplier.

PROPANE GAS WARNING ODOR

If a gas leak happens, you should be able to smell the gas because of the odorant put in the Propane Gas. That's your signal to go into immediate action!

- Do not operate electric switches, light matches, or your phone. Do not do anything that could ignite the gas.
- Get everyone out of the building, vehicle, trailer, or area. Do that IMMEDIATELY.
- Close all gas tank or cylinder supply valves.
- Propane Gas is heavier than air and may settle in low areas such as basements. When you have reason to suspect a gas leak, keep out of basements and other low areas. Stay out until firefighters declare them to be safe.
- Use your neighbor's phone and call a trained Propane Gas service person and the fire department. Even though you may not continue to smell gas, do not turn on the gas again. Do not re-enter the building, vehicle, trailer, or area.
- Finally, let the service technician and fire department check for escaped gas. Have them air out the area before you return. Properly trained Propane Gas service people should repair the leak, then check and relight the gas appliance for you.

NO ODOR DETECTED - ODOR FADE

Some people cannot smell the odor of the chemical put into the gas. You must find out if you can smell the odorant in propane. Smoking can decrease your ability to smell. Being around an odor for a time can affect your sensitivity or ability to detect that odor. Sometimes other odors in the area mask the gas odor. People may not smell the gas odor or their minds are on something else. Thinking about smelling a gas odor can make it easier to smell.

The odorant in Propane Gas is colorless, and it can fade under some circumstances. For example, if there is an underground leak, the movement of the gas through soil can filter the odorant. Odorants in Propane Gas also are subject to oxidation. This fading can occur if there is rust inside the storage tank or in iron gas pipes. The odorant in escaped gas can adsorb or absorb onto or into walls, masonry and other materials and fabrics in a room. That will take some of the odorant out of the gas, reducing its odor intensity. Propane Gas may stratify in a closed area, and the odor intensity could vary at different levels. Because it is heavier than air, there may be more odor at lower levels. Always be sensitive to the slightest gas odor. If you detect any odor, treat it as a serious leak. Immediately go into action as instructed earlier.

- Learn to recognize the odor of Propane Gas. Your local Propane Gas Dealer can give you a "Scratch and Sniff" pamphlet. Use it to find out what the propane odor smells like. If you suspect that your Propane Gas has a weak or abnormal odor, call your Propane Gas Dealer.
- If you are not qualified, do not light pilot lights, perform service, or make adjustments to appliances on the Propane Gas system. If you are qualified, consciously think about the odor of Propane Gas prior to and while lighting pilot lights or performing service or making adjustments.
- Sometimes a basement or a closed-up house has a musty smell that can cover up the Propane Gas odor. Do not try to light pilot lights, perform service, or make adjustments in an area where the conditions are such that you may not detect the odor if there has been a leak of Propane Gas.
- Odors fade, due to oxidation by rust or adsorption on walls of new cylinders and tanks. Therefore, people should be particularly alert and careful when new tanks or cylinders are placed in service. Odor fade can occur in new tanks, or reinstalled old tanks, if they are filled and allowed to set too long before refilling. Cylinders and tanks which have been out of service for a time may develop internal rust which will cause odor fade. If such conditions are suspected to exist, a periodic sniff test of the gas is advisable. **If you have any question about the gas odor, call your Propane Gas Dealer. A periodic sniff test of the Propane Gas is a good safety measure under any condition.**
- If, at any time, you do not smell the Propane Gas odorant and you think you should, assume you have a leak. Then take the same immediate action recommended above for the occasion when you do detect the odorized Propane Gas.
- If you experience a complete "gas out," (the container is under no vapor pressure), turn the tank valve off immediately. If the container valve is left on, the container may draw in some air through openings such as pilot light orifices. If this occurs, some new internal rusting could occur. If the valve is left open, then treat the container as a new tank. Always be sure your container is under vapor pressure by turning it off at the container before it goes completely empty or having it refilled before it is completely empty.

SOME POINTS TO REMEMBER

ELECTRICAL CONNECTIONS

⚠ CAUTION

All wiring should be done by a qualified electrician and shall be in compliance with all local, city and state building codes. Before making the electrical connection, make sure that the main power supply is disconnected. The fireplace, 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 (Latest Edition).

A factory installed junction box is located on the lower right side of the fireplace. Wiring must be fed to the junction box and attached to the receptacle that is provided. Leave approximately 6in of wire in the junction box for connection.

Attach black wire to one side of the receptacle and white wire to opposite side of receptacle. The ground wire should be attached to the green (ground) screw. **See Figure 18.**

JUNCTION BOX CONNECTIONS

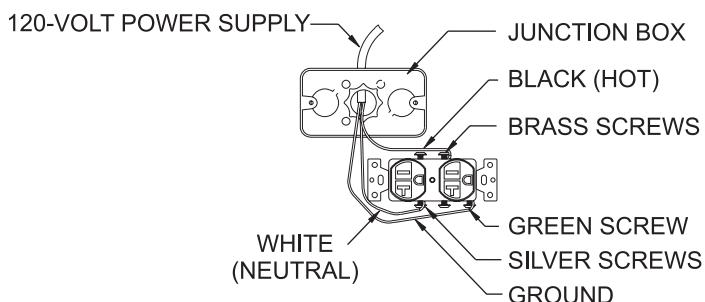


Figure 18

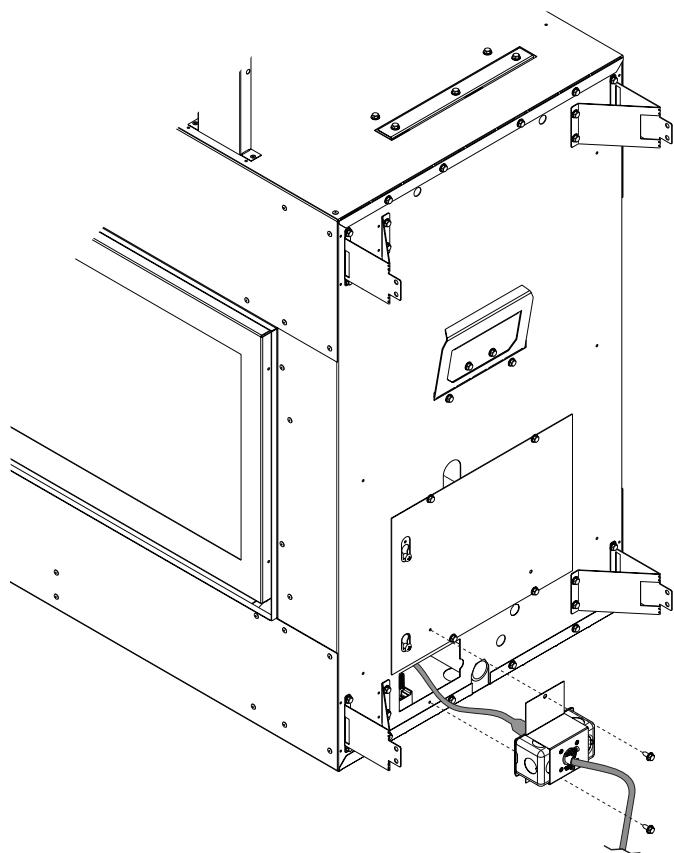


Figure 19

Install the receptacle into the junction box. Attach cover plate. After the wiring is completed to the junction box and the receptacle, and power module cord is plugged in, re-install the junction box. **See Figure 19.**

ELECTRICAL CONNECTIONS (CONT'D)

The fireplace includes a user interface wall box that must be installed in a plastic outlet box (not provided). A low voltage orange or blue box is recommended. Locate the user interface wall box within ten feet from the right side of the fireplace. Before securing the outlet box in place, make sure the wire harness for the user interface and battery extension can reach the location without causing strain on the harnesses. **See Figure 20.**

Run the extension wiring to the user interface wall box and connect the white connector to the remote receiver battery box. Install the battery box into the wall outlet box, and then install the white remote cover supplied with the provided screws.

NOTE: OUTER ACCESS PANEL AND JUNCTION BOX REMOVED.
REPLACE AFTER ALL WIRE AND GAS CONNECTIONS
HAVE BEEN MADE.

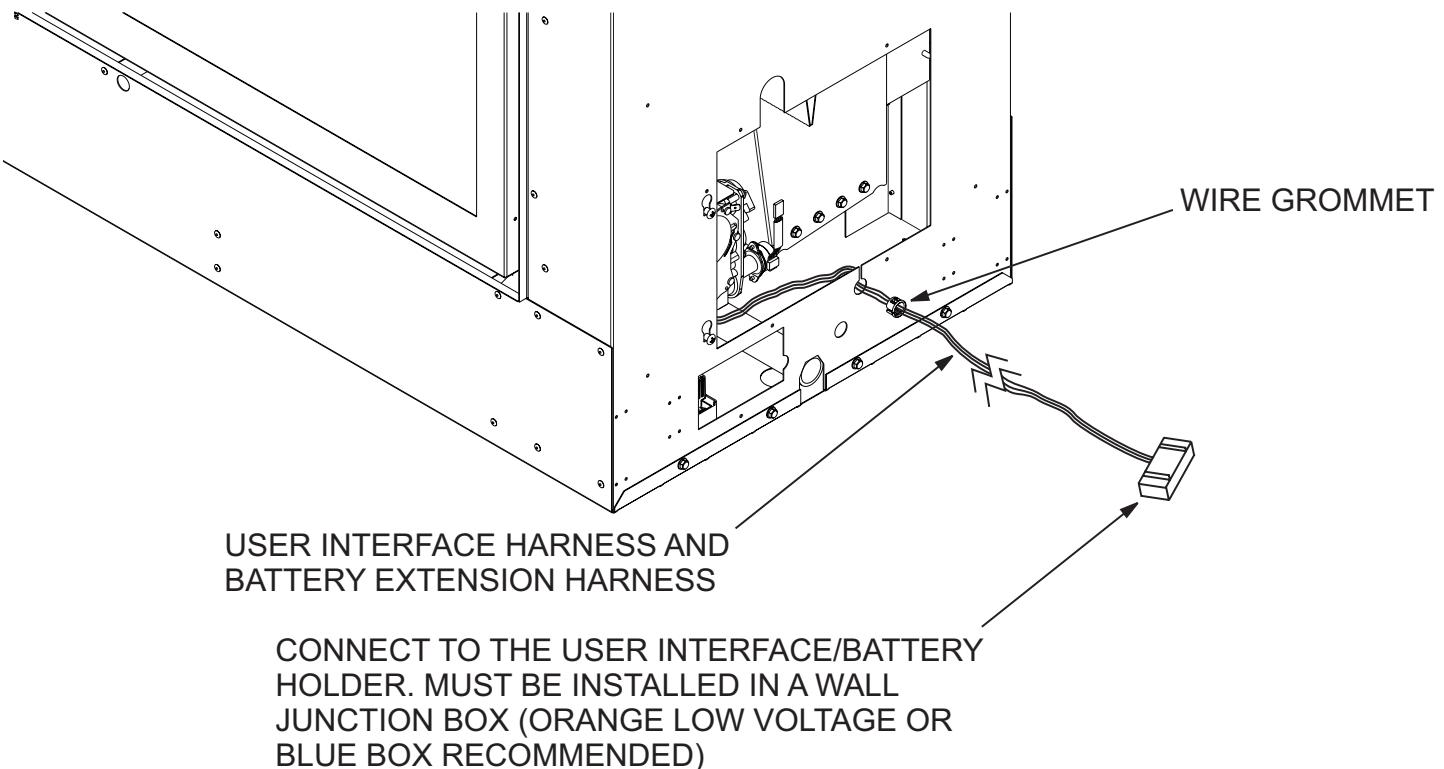
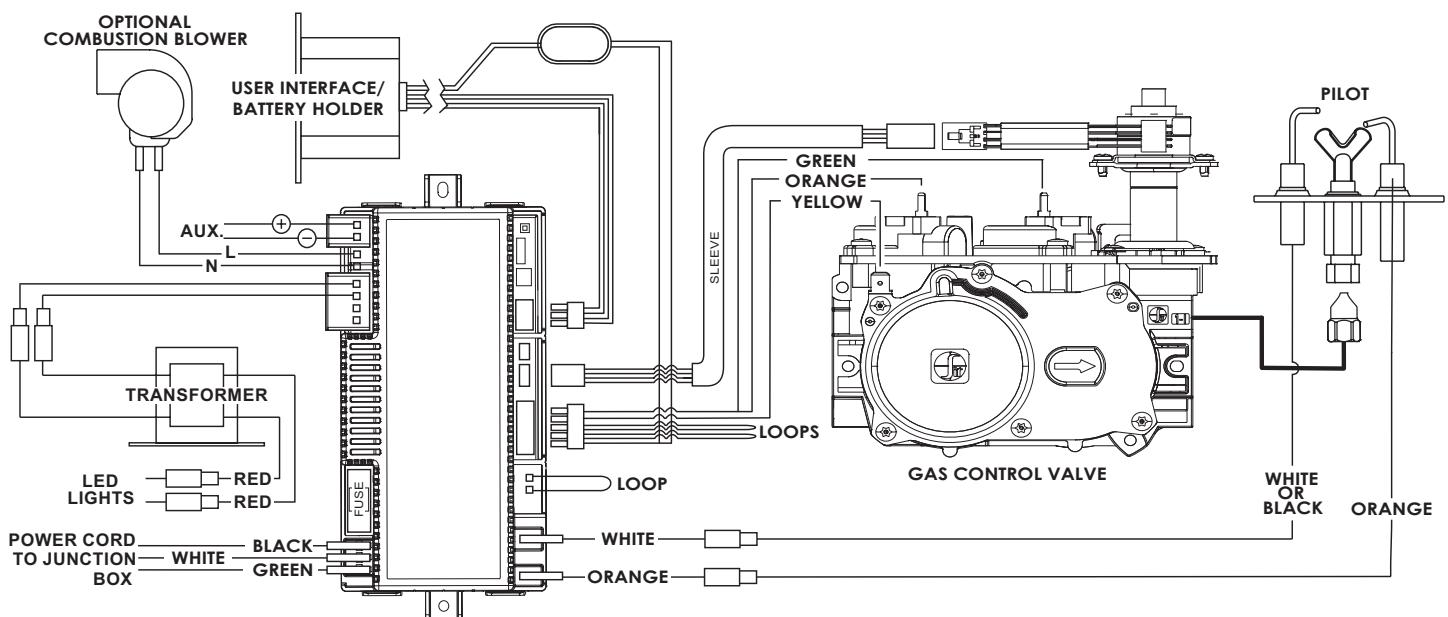


Figure 20

COMPONENT WIRING DIAGRAM



If any of the original wire supplied with this fireplace must be replaced, use equivalent gauge and temperature rated wire.

⚠️ WARNING

ELECTRICAL GROUNDING INSTRUCTIONS

This fireplace 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.

⚠️ CAUTION

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

⚠️ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier.

⚠️ CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

INSTALLATION

Framing

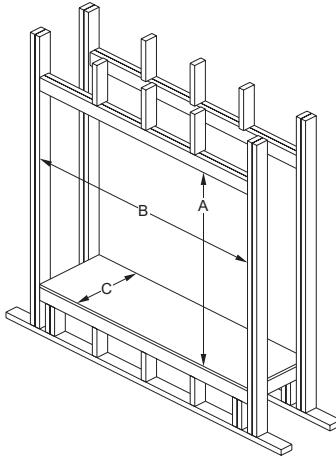
This fireplace can be elevated off the floor provided that the fireplace is properly supported by framing materials and the ceiling clearances are maintained.

Fireplace framing can be built before or after the fireplace is set in place. Framing should be positioned to accommodate wall covering and fireplace facing material. The fireplace framing should be constructed of 2 x 4 lumber. Refer to **Figure 21** for minimum framing dimensions.

NOTICE: Measure fireplace dimensions and verify framing methods, and wall covering details before framing construction begins.

NOTICE: Framing dimension A includes a 17-inch clearance for framing standoffs on fireplace. After installing fireplace into framing, the non-combustible board must cover the 17-inch opening above the fireplace.

NOTICE: Framing depth dimension C is appropriate for 1/2-inch drywall or exterior sheathing. Adjust accordingly if 3/4-inch material is used, or for flush interior wall applications.



	DVLL48SP	DVLL48SP WITH OUTDOOR KIT
	(Dimensions in inches)	
A	51-3/4	51-3/4
B	68	68
C	19-1/2	21-1/4

Figure 21

Construction of a Fireplace Chase

A chase is a vertical box-like structure built to enclose the gas fireplace and/or its vent system. In cooler climates the vent should be enclosed inside the chase.

NOTICE: Requirements for ceiling and wall shield firestops and construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Check local building codes to determine the requirements to these steps.

To prevent cold-air draft problems construct the chase in the manner of all outside walls. The chase should not break the home's outside envelope. Insulate the walls, ceiling, base plate and cantilever floor of the chase and install vapor and air infiltration barriers per code for the rest of the home.

Additionally, in regions where cold air infiltration may be an issue, the inside surfaces may be sheet rocked and taped (or an equivalent method may be used) to achieve maximum air tightness.

To further prevent drafts, the wall shield and ceiling firestops should be caulked with caulk rated for a minimum of 300°F continuous exposure rating to seal gaps. Gas line holes and other openings should be caulked or stuffed with unfaced insulation. If the fireplace is being installed on a cement surface, a layer of plywood may be placed underneath to prevent conducting cold up into the room.

Framing and Finishing

1. Choose fireplace location. See pages 14 - 15.
2. Frame in fireplace with a header across the top. It is important to allow for finished face when setting the depth of the fireplace.
3. Secure the four framing brackets and hand bend them into a V shape as shown in **Figure 22**. Secure with #10 x 1/2 inch hex-head screws.
4. Locate the nailing flanges on the sides of the fireplace (two each side). See **Figure 22**.

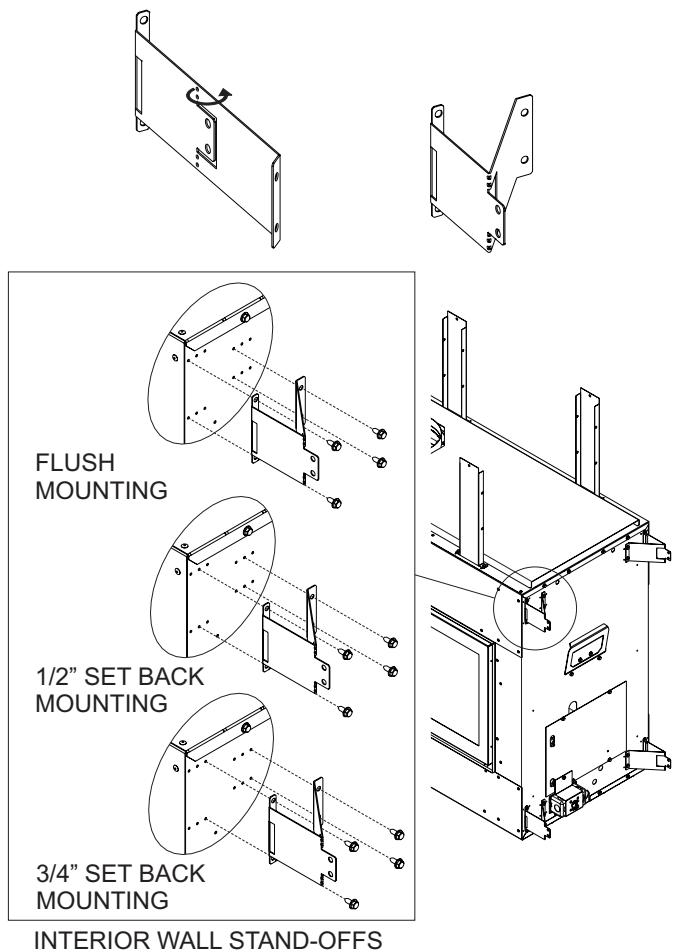


Figure 22

INSTALLATION (CONT'D)

5. Secure fireplace to framing with nailing flanges. Set the depth to suit facing material (flush, 1/2 inch, or 3/4 inch set back depths). **See Figures 23 and 24.**

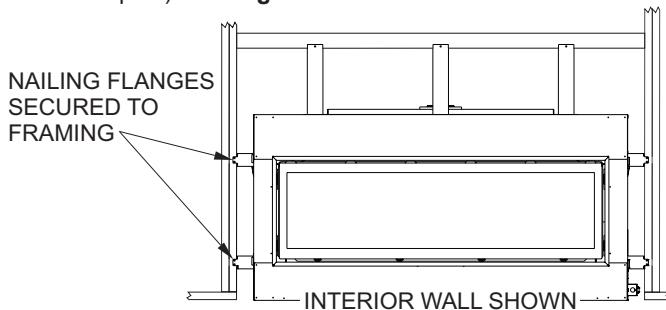


Figure 23

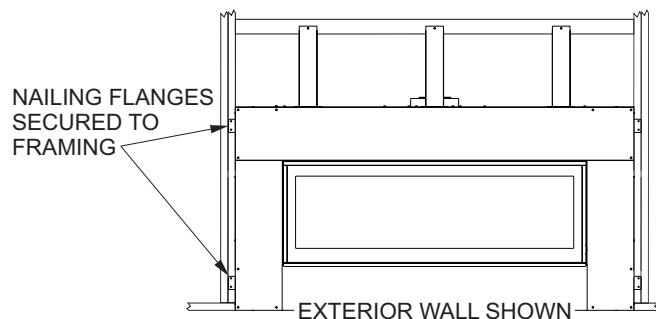


Figure 24

6. Attach three top framing brackets to the top front edge of the fireplace. These brackets support the non-combustible board above the fireplace. Preset depth to suit facing material (flush, 1/2 inch, or 3/4 inch set back depths). **See Figure 25.**

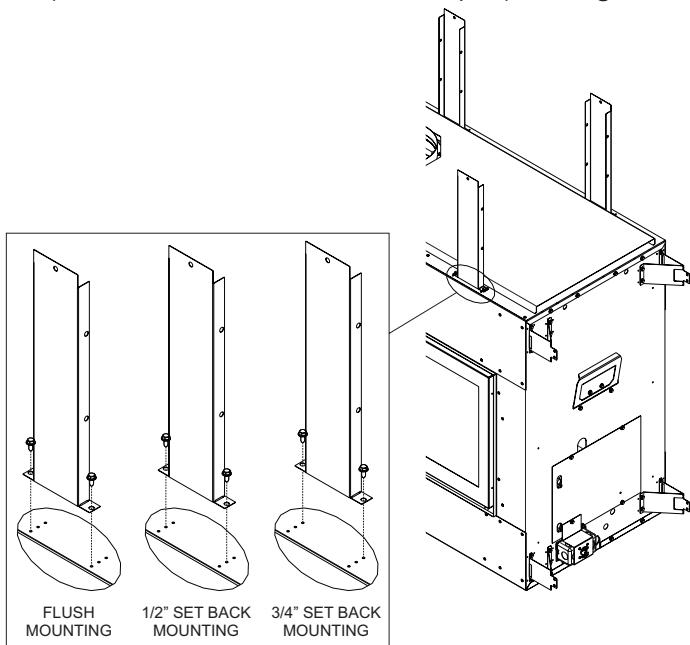


Figure 25

INSTALLATION (CONT'D)

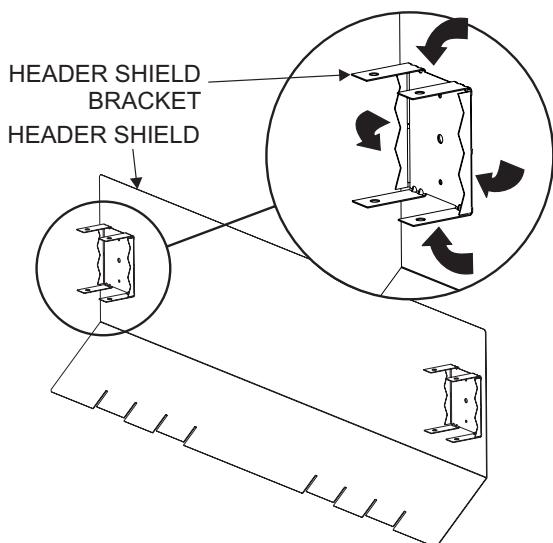


Figure 26

WARNING

The included pair of header shields must be used on all vent configurations, including vertical vents.

Header Shield Installation

1. Bend the six tabs on each Header Shield Bracket to 90°. **See Figure 26.**
2. Place both header shields on the headers according to whether the unit is vented to the right or the left. **See Figure 27.** For vertical vents, install the header shields on the right or the left.
3. Attach header shields to headers using eight 1-inch Phillips screws included. **See Figures 28 and 29.**

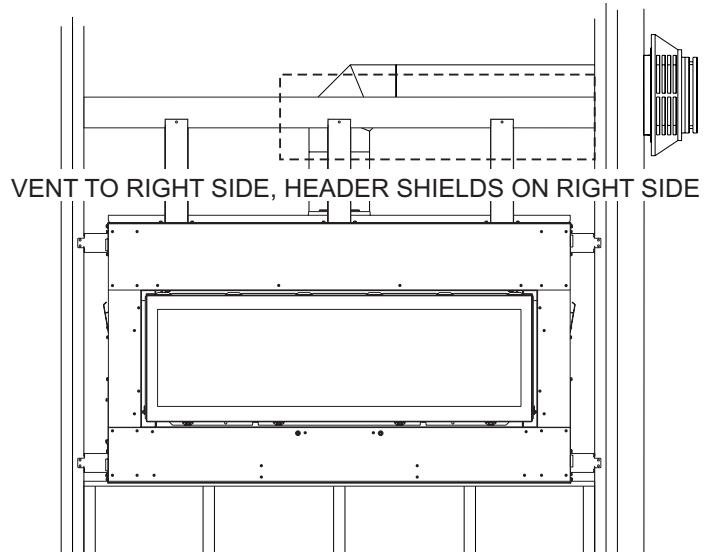
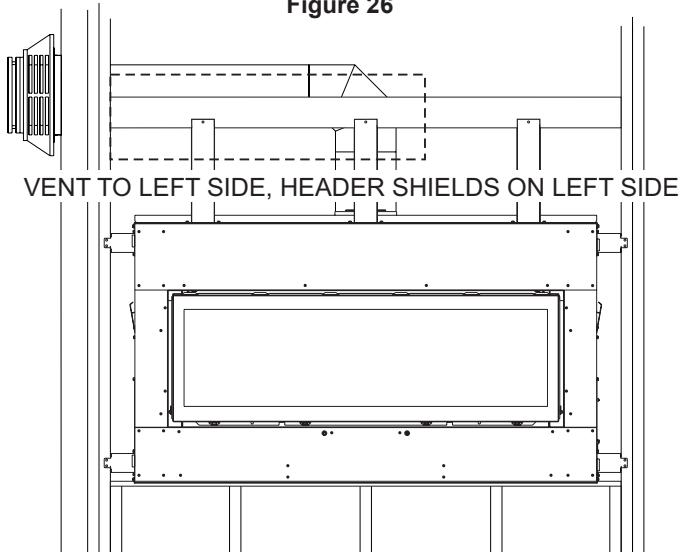


Figure 27

ATTACH HEADER SHIELDS
TO HEADER USING EIGHT
1" PHILLIPS SCREWS, INCLUDED

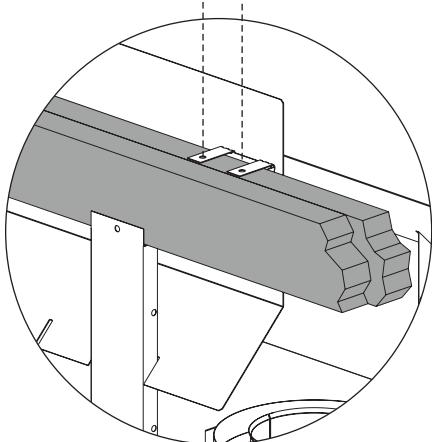


Figure 28

INSTALLATION (CONT'D)

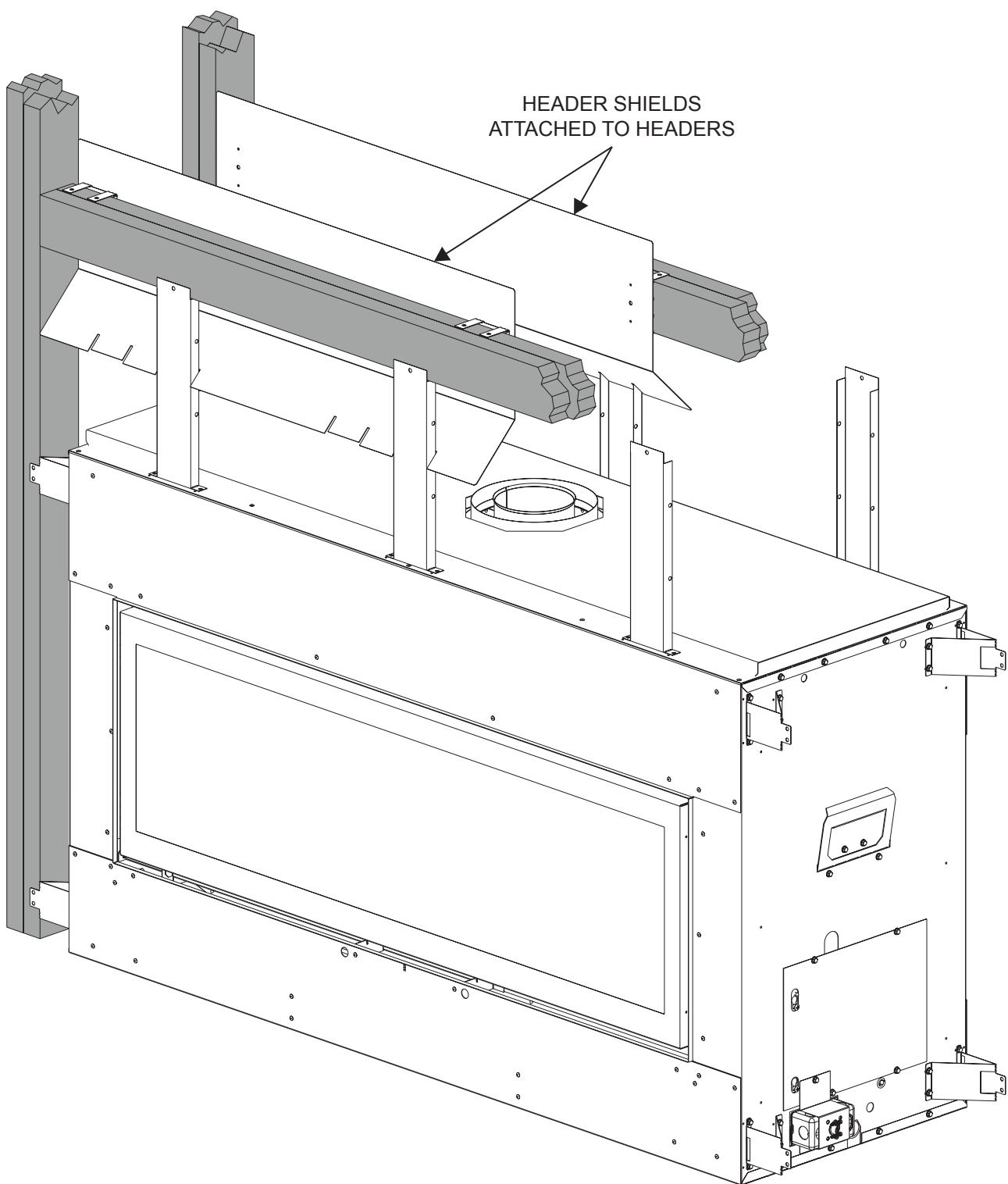


Figure 29

INSTALLATION (CONT'D)

Finishing Options

- Non-Combustible board installed over the fireplace face (framing bracket flush). **See Figures 32 and 33.**
- Non-Combustible board installed flush to face (framing brackets at 1/2 or 3/4 inch set back). **See Figures 30 and 31.**
- Exterior wall finishing (w/outdoor kit DFED48955). See page 28.
- Use Non-Combustible materials where indicated for the fireplace installation. Non-combustible materials do not ignite or burn as a result of using the fireplace. These include metal, brick, ceramic, concrete, slate, glass and plaster.

Interior Wall Installation
Non-combustible Board - Flush to Face

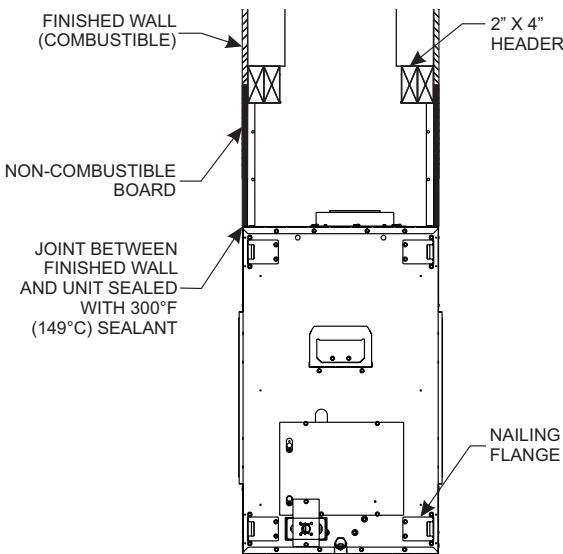


Figure 30

Flush to Face - Framing & Finishing

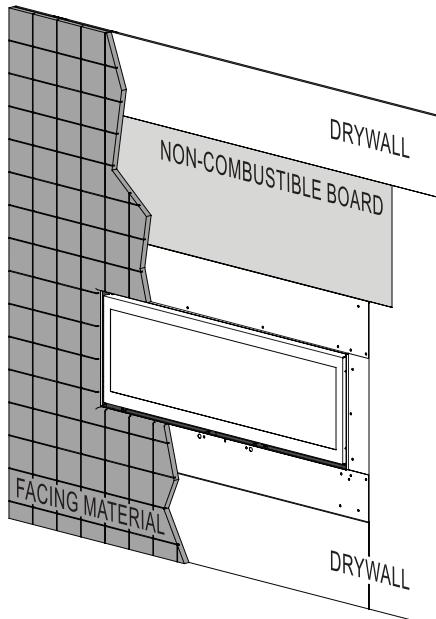


Figure 31

Adhesives must be rated for high temperatures. Any mechanical fasteners used to install material must also be non-combustible, including wall anchors and tile spacers. Materials that pass the ASTM E 136 test (Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750C) are considered non-combustible.

NOTICE: Cold climate installation recommendation: When installing this fireplace against a non-insulated exterior wall, it is recommended that the outer walls be insulated to conform to applicable insulation codes.

Interior Wall Installation
Non-combustible Board - Over Fireplace Face

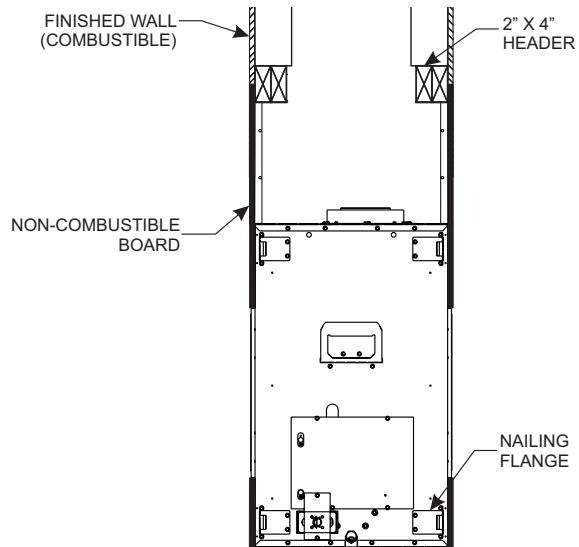


Figure 32

Over Fireplace Face - Framing & Finishing

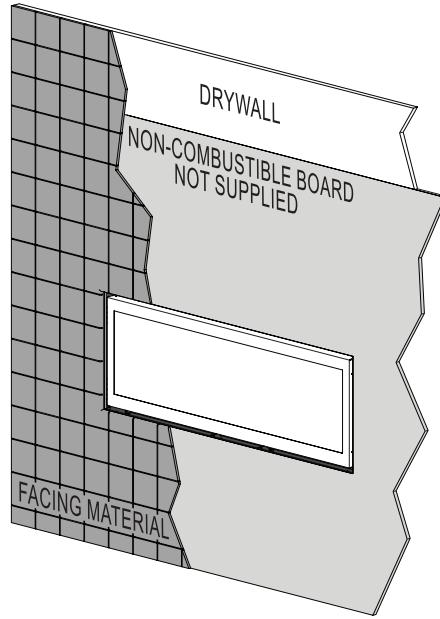


Figure 33

INSTALLATION (CONT'D)

Finishing Exterior Wall With Outdoor Kit - DFED489SS

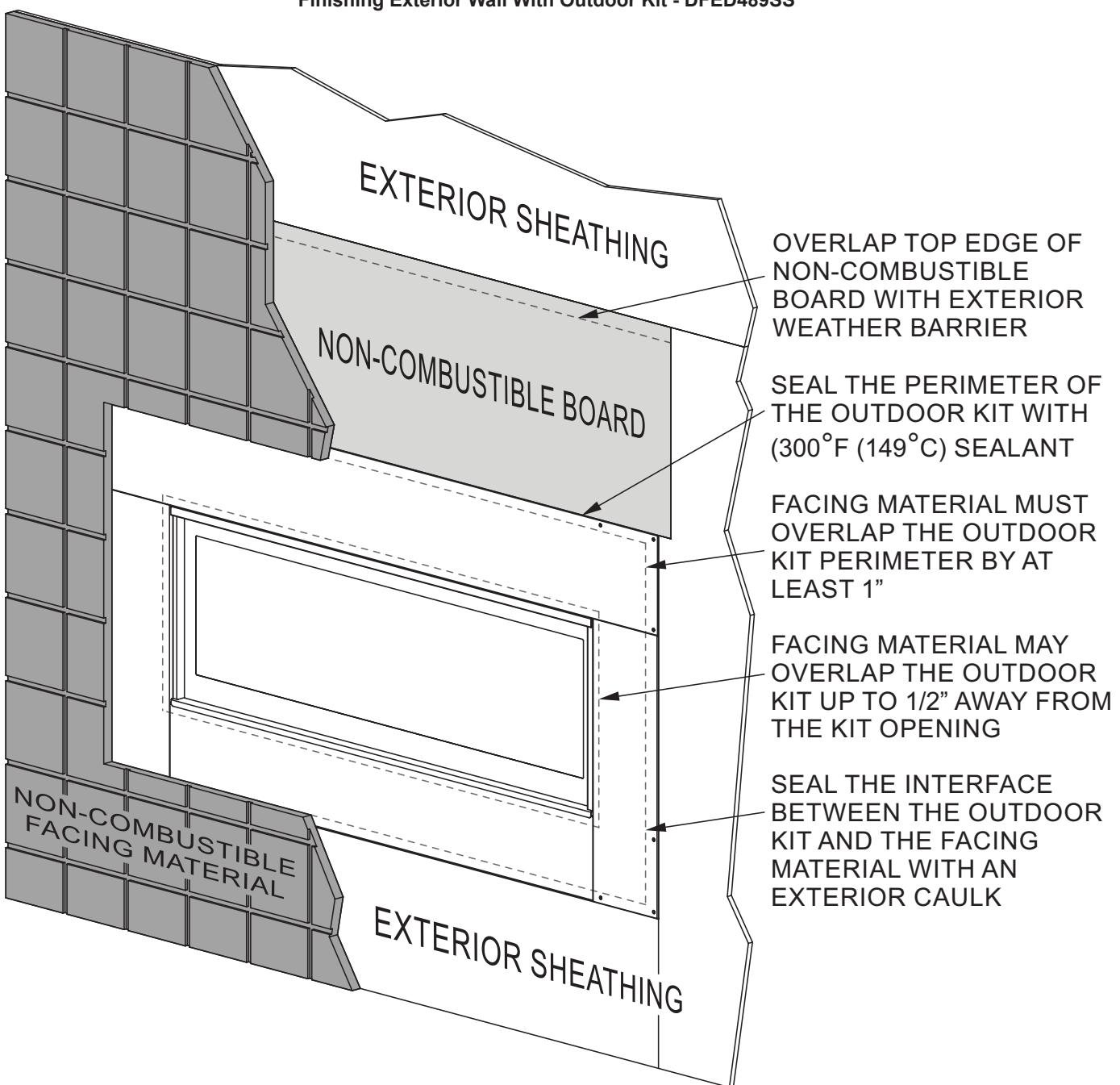


Figure 34

VENT SYSTEM IDENTIFICATION

Determine how the vent system will be terminated out the side of the house or through the roof.

Select the type of venting and the path it will take. Verify clearances throughout the path. Refer to the "Special Vent Systems" section in this manual to determine what systems are acceptable. Check all clearances and venting.

NOTICE: This fireplace cannot be vented out the rear.

Verify clearances for the termination.

Identify if any problems exist in the vent system. Use **Figure ???** on page 35 for top venting to eliminate issues after installation. Check pipe diameter on vent system and fireplace to verify the size is the same.

NOTICE: All outer connection joints must be sealed with aluminum tape, screws or silicone sealant rated above 300°F/149°C. The inner flue joints do not require any sealant.

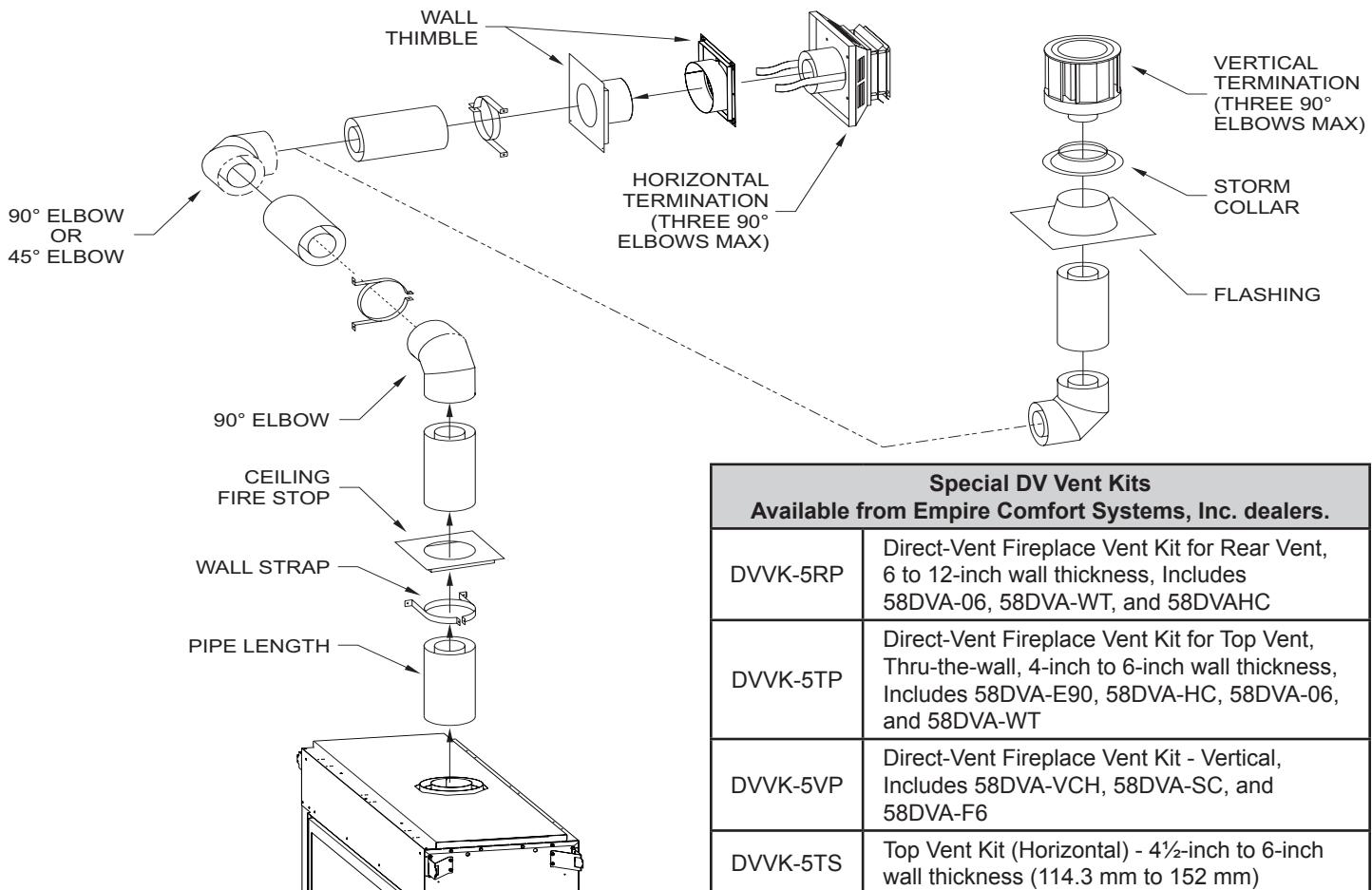


Figure 35

Special DV Vent Kits Available from Empire Comfort Systems, Inc. dealers.	
DVVK-5RP	Direct-Vent Fireplace Vent Kit for Rear Vent, 6 to 12-inch wall thickness, Includes 58DVA-06, 58DVA-WT, and 58DVAHC
DVVK-5TP	Direct-Vent Fireplace Vent Kit for Top Vent, Thru-the-wall, 4-inch to 6-inch wall thickness, Includes 58DVA-E90, 58DVA-HC, 58DVA-06, and 58DVA-WT
DVVK-5VP	Direct-Vent Fireplace Vent Kit - Vertical, Includes 58DVA-VCH, 58DVA-SC, and 58DVA-F6
DVVK-5TS	Top Vent Kit (Horizontal) - 4½-inch to 6-inch wall thickness (114.3 mm to 152 mm)
*DVVK-5F	Horizontal Flex Vent Kit (4' Flex) (1.22m)

*Requires 6 inch hard pipe off top of fireplace.

VENT SYSTEMS

This fireplace requires 5 inches x 8 inches Direct-Vent venting. In addition to the Empire kits on this page, the following vent systems are approved for use with the DVLL48SP series fireplaces:

Duravent® GS
American Metal Products

Selkirk Direct-Temp®
Security Secure Vent®
Excel DV Venting
Empire Flexvent Kit DVVK-5F
BDM
Metal Fab

VENTING FIREPLACE

To Use the Vent Graph

1. Determine the height of the center of the horizontal vent pipe. Using this dimension on the Sidewall Vent Graph, locate the point it intersects with the slanted graph line.
2. From the point of this intersection, draw a vertical line to the bottom of the graph.
3. Select the indicated dimension, and position the fireplace in accordance with same.

EXAMPLE A:

If the vertical dimension from the floor of the fireplace is 32 feet, the horizontal run to the outer wall flange must not exceed 5 feet.

EXAMPLE B:

If the vertical dimension from the floor of the fireplace is 24 feet, the horizontal run to the outer wall flange must not exceed 10 feet.

EXAMPLE C:

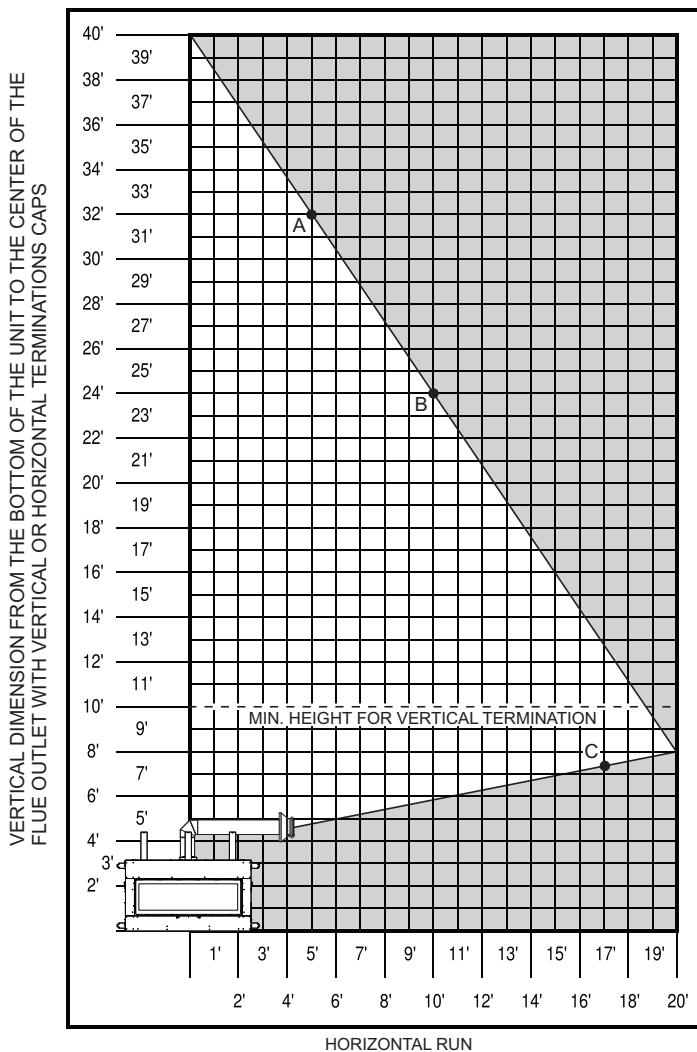
If the horizontal run to the outer wall flange is 17 feet, the vertical dimension from the floor of the fireplace to the center of the termination must not be less than 7 feet 6 inches.

SPECIAL NOTE: For each 45-degree elbow installed in the horizontal run, the length of the horizontal run MUST be reduced by 18 inches. Reduce by 3 feet for every 90-degree elbow.

Example: According to the chart the maximum horizontal vent length is 20 feet and if two 45-degree elbows are required in the horizontal, it must be reduced to 17 feet.

The maximum number of 90-degree elbows in a vent run is three.

VENTING GRAPH (Dimensions in Feet)



- Acceptable vertical and horizontal vent run.
(40' maximum vertical and 20' maximum horizontal)
- Unacceptable vertical and horizontal vent run.
See text above for Examples A, B and C.

Figure 36

VENTING FIREPLACE (CONT'D)

⚠ WARNING

Use flue restrictor for vertical rises above 10 feet only.

Figures 37 to 40 show the location and recommended use of the flue restrictor.

Installation of restrictor before venting is attached. **See Figure 37.**

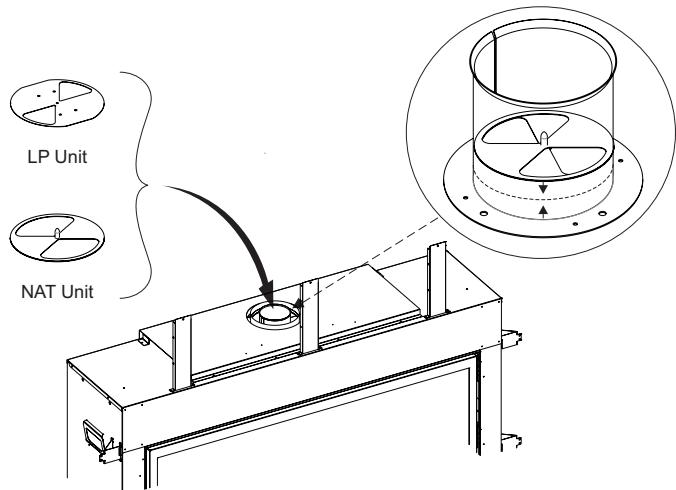


Figure 37

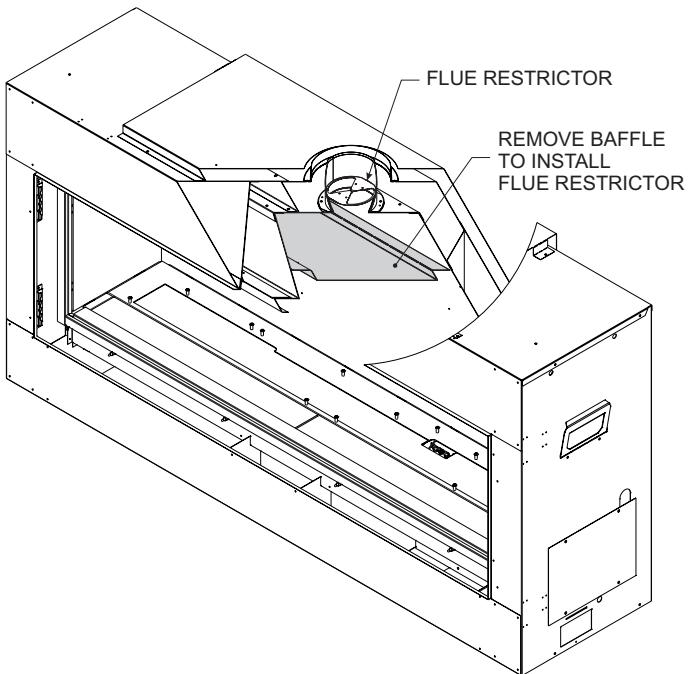


Figure 39

To install the restrictor after the venting is installed, remove two screws from the end of the flue baffle and set aside. Insert the restrictor up into the flue collar and position it as shown in **Figures 38 and 39**. Then, re-install the flue baffle.

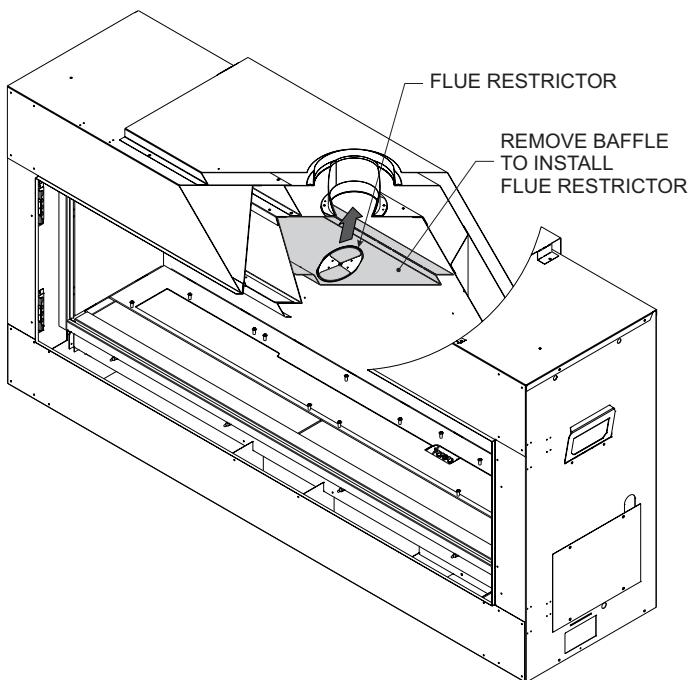


Figure 38

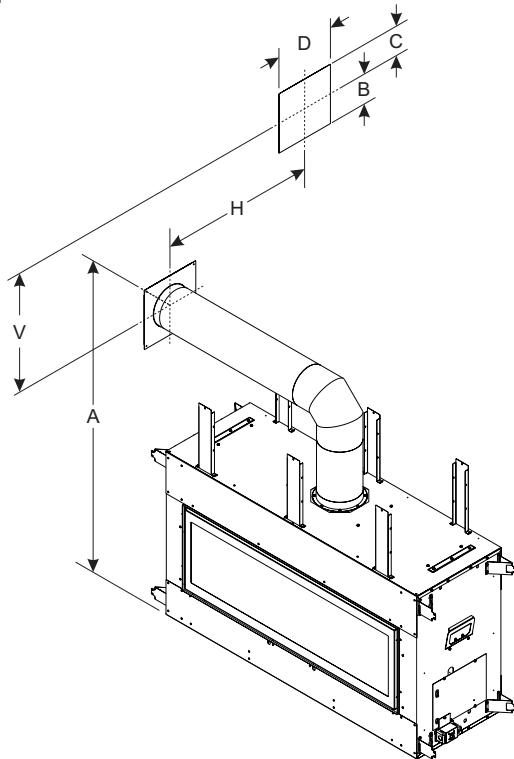
VENTING (HORIZONTAL)

Positioning the Fireplace

Position the fireplace so the direct-vent termination will be centered (if possible) between two studs. Loosely fit up the venting kit onto the fireplace. Ensure the vent pipe has proper clearance for the wall thimbles.

Cutting the Hole

After the fireplace has been positioned, mark and cut the hole through the exterior wall. This hole must be 13-inches (330 mm) high x 10-5/8-inches (270 mm) wide with its center line determined by the amount of vertical rise and horizontal run of the termination. See Figure 40. Locate the hole so the bottom of the cap is a minimum of 12-inches (305 mm) above the ground level. The top of the cap must be at least 18-inches (457 mm) below a combustible projection, and no closer than 9-inches (229 mm) to any wall running parallel to vent termination.



FIREPLACE SERIES	HARD ELBOW DIMENSIONS			
	(Dimensions in inches)			
	A1	B	C	D
DVLL48	53	5-3/8	7-5/8	10-5/8

MINIMUM HOLE LOCATION DIMENSIONS FOR THROUGH-THE-WALL HORIZONTAL INSTALLATIONS WITH 90-DEGREE ELBOW AND 12-INCH RISE OFF TOP OF FIREPLACE.

See Figure 44 on page 27 for permissible horizontal and vertical run dimensions.

Figure 40

Below Grade Installation

When it is not possible to meet the required vent termination clearances of 12-inches (305 mm) above grade level, a snorkel kit is recommended. It allows installation depth down to 7-inches (178 mm) below grade level. Measure the 7-inches (178 mm) from the center of the horizontal vent pipe as it penetrates the wall. Ensure the sidewall venting clearances are observed. For venting system installed below ground, install a window well with adequate and proper drainage around the termination.

TYPICAL BASEMENT INSTALLATION

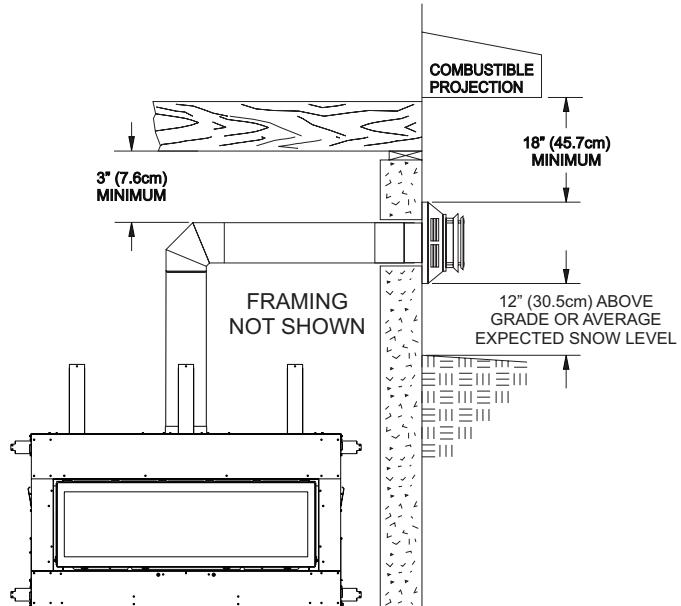


Figure 41

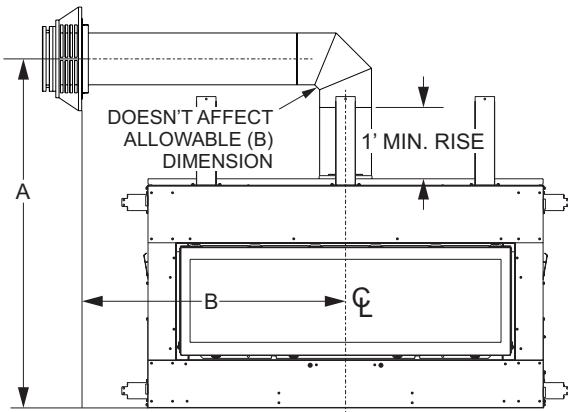
ATTENTION

VINYL SOFFIT, VINYL CEILING, VINYL OVERHANG DISCLAIMER

Clearances are to heat resistant material (i.e. wood, metal). This does not include vinyl. Empire Comfort Systems Inc. will not be held responsible for heat damage caused from terminating under vinyl overhangs, vinyl ceilings or vinyl soffits.

VENTING - HORIZONTAL TERMINATION

One 90-Degree Elbow



EXAMPLE VENT RUNS

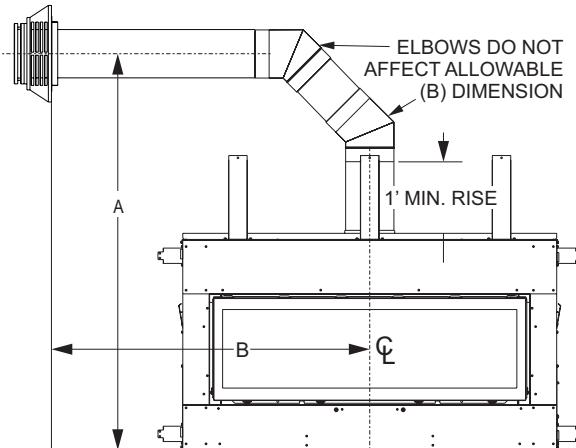
INITIAL PIPE LENGTH	A (Vertical)	B (Horizontal) MAXIMUM
(Dimensions in inches)		
12	53	45
24	65	84 (7ft)
36	77	144 (12ft)
48	89	204 (17ft)

Figure 42

NOTICE: Pipe straps must be used every 2 feet to secure venting.

Two 45-Degree Elbows

Installation requirements to replace the first 90-degree elbow with two 45-degree elbows:



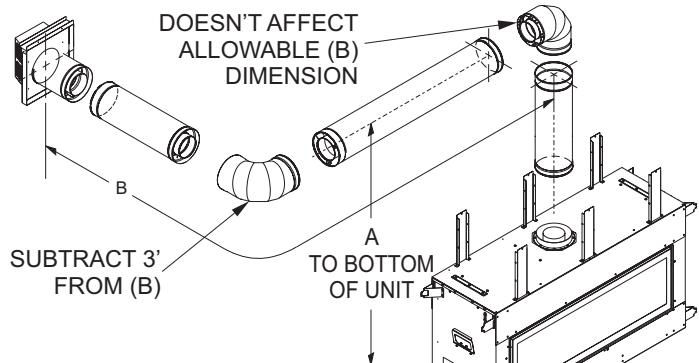
EXAMPLE VENT RUNS

INITIAL PIPE LENGTH	A (Vertical) MINIMUM	B (Horizontal) MAXIMUM
(Dimensions in inches)		
12	57	See Venting Graph
24	69	See Venting Graph
36	81	See Venting Graph
48	93	See Venting Graph

Figure 43

Two 90-Degree Elbows

NOTICE: Subtract 3 feet from the total horizontal measurement for each 90-degree elbow. Subtract 1-1/2 feet from the total horizontal measurement for each 45-degree elbow.

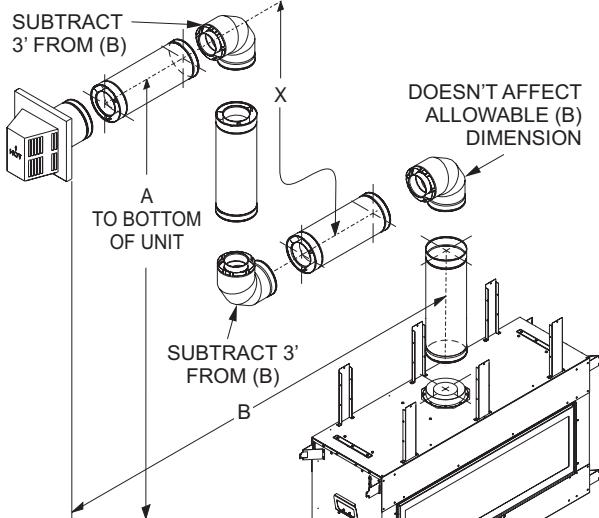


EXAMPLE VENT RUNS

INITIAL PIPE LENGTH	A (Vertical)	B (Horizontal) MAXIMUM
(Dimensions in inches)		
36	77	108 (9ft)
48	89	168 (14ft)

Figure 44

Three 90-Degree Elbows



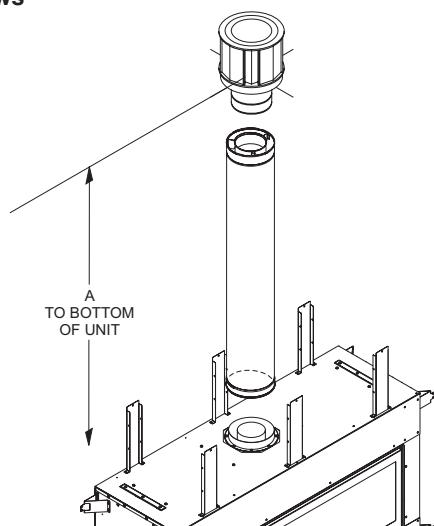
EXAMPLE VENT RUNS

INITIAL PIPE LENGTH	A (Vertical)	B (Horizontal) MAXIMUM
(Dimensions in inches)		
12	53 + (x)	See Venting Graph
24	65 + (x)	See Venting Graph
36	77 + (x)	See Venting Graph
48	89 + (x)	See Venting Graph

Figure 45

TOP VENT - VERTICAL TERMINATION

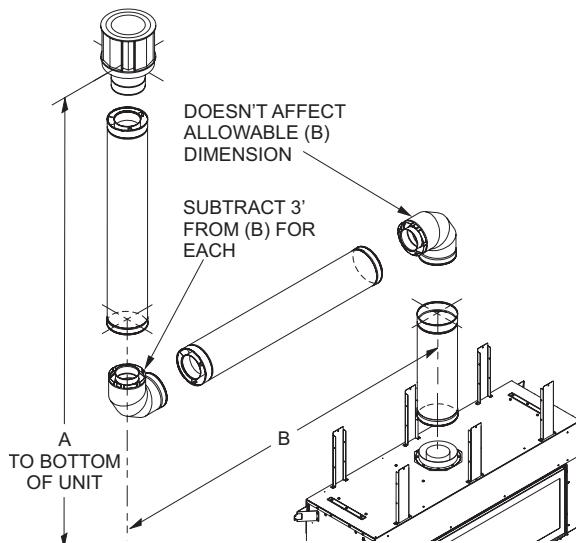
No Elbows



DIMENSIONS (in inches)	
MINIMUM	MAXIMUM
120 (10ft)	480 (40ft)

Figure 46

Two 90-Degree Elbows

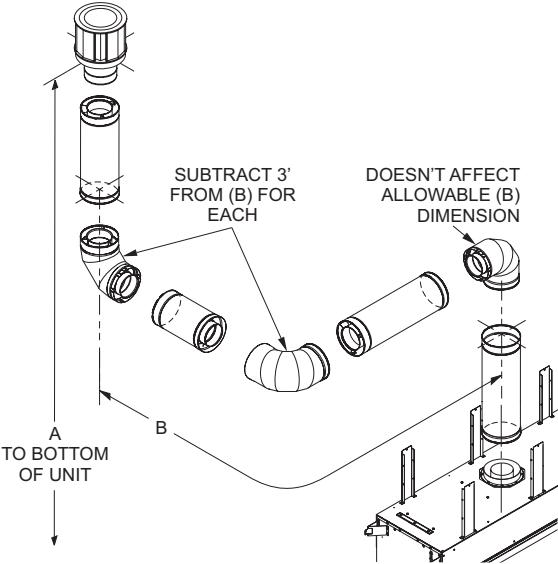


EXAMPLE VENT RUNS		
INITIAL PIPE LENGTH	A (Vertical) MINIMUM	B (Horizontal) MAXIMUM
(Dimensions in inches)		
12	120 (10ft)	204 (17ft)
24	120 (10ft)	204 (17ft)
36	120 (10ft)	204 (17ft)
48	120 (10ft)	204 (17ft)

Figure 47

Three 90-Degree Elbows

NOTICE: Subtract 3 feet from the total horizontal measurement for each 90° elbow installed horizontally. Subtract 1-1/2 feet from the total horizontal measurement for each 45° elbow installed horizontally.



EXAMPLE VENT RUNS		
INITIAL PIPE LENGTH	A (Vertical) MINIMUM	B (Horizontal) MAXIMUM
(Dimensions in inches)		
12	120 (10ft)	168 (14ft)
24	120 (10ft)	168 (14ft)
36	120 (10ft)	168 (14ft)
48	120 (10ft)	168 (14ft)

Figure 48

VERTICAL TERMINATION

Locate and mark the center point of the vent pipe on the underside of the roof. Drive a nail through the center point. Mark the outline of the roof hole around this center point.

NOTICE: Size of the roof hole dimensions depend on the pitch of the roof. There must be a 1 inch (25 mm) minimum clearance to the vertical pipe sections. Maintain this clearance to all combustible material.

To keep out debris, cover the opening of the vent pipe before you cut and frame the roof opening. Use lumber the same size as the roof rafters to frame the opening. Securely attach the flashing to frame to withstand high winds. Place the storm collar over this joint to make a water-tight seal. Seal the flashing with non-hardening sealant.

Determining Minimum Vent Height Above the Roof.

⚠ WARNING

Major U.S. building codes specify minimum chimney and vent height above the roof top. These minimum heights ensure safe operation of the fireplace. These specifications are summarized in Figure 49.

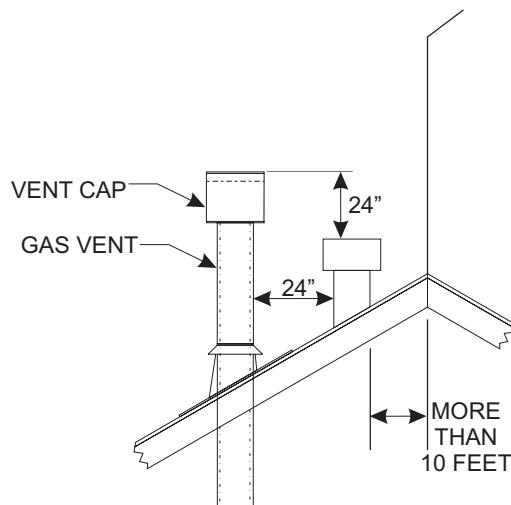


Figure 49

NOTICE: For steep roof pitches, the vent height must be increased. In high wind conditions, nearby trees, adjoining roof lines, steep pitched roofs, and other similar factors can result in poor draft, or down-drafting. In these cases, increasing the vent height may solve this problem.

Installing the Vent System in a Chase

A chase is a vertical box-like structure built to enclose the gas fireplace and/or its vent system. Vertical vent runs on the outside of a building may be, but are not required to be installed inside a chase.

⚠ CAUTION

Treatment of firestop spacers and construction of the chase may vary with the type of building. Check local building codes to determine the requirements for these steps.

NOTICE: Build the chase large enough to maintain the minimum clearance of combustible materials (including insulation) to the vent system. When installing the vent system in a chase, insulate the chase as you would the outside walls of your home. This is especially important in cold climates. Upon completion of chase framing, install the vent system by following the instructions in this manual.

The vertical termination cap for this fireplace must not be any closer than 24 inches to combustible materials. See Figure 50.

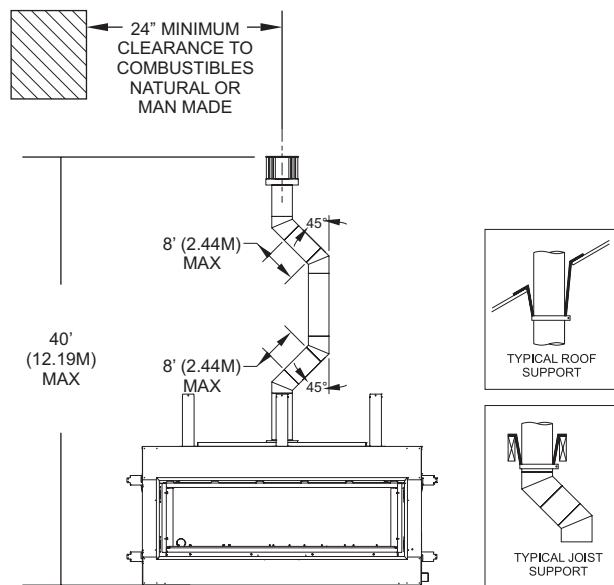


Figure 50

If two vertical terminations are run near each other, they may be placed a minimum of 12 inches between them if they are at the same height. See Figure 51. If two vent terminations are not at the same height, they must be positioned at least 24 inches apart to minimize draft issues between them.

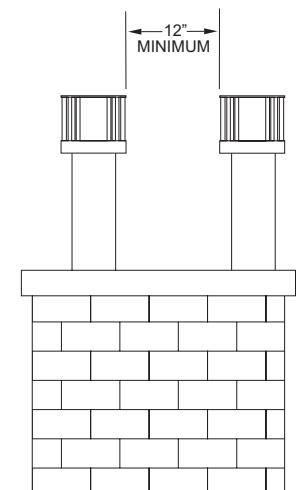


Figure 51

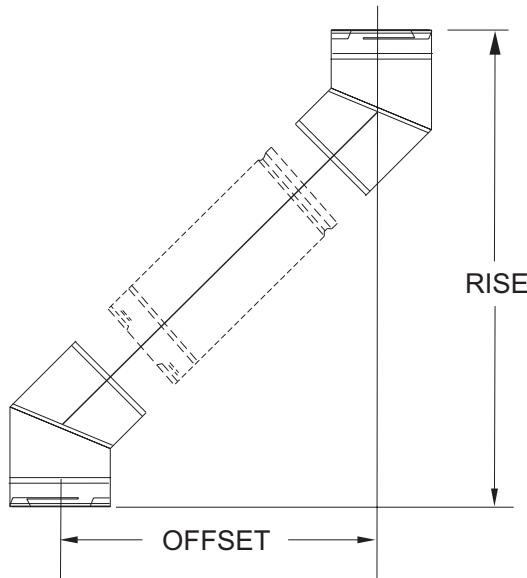
VERTICAL TERMINATION (CONT'D)

Vertical Through-the-Roof Applications

Your Gas Fireplace has been approved for:

- Vertical installations up to 40 feet in height.
 - Two sets of 45-degree elbow offsets within these vertical installations. From 0 to a maximum of 8 ft. a vent pipe can be used between elbows.
 - Wall straps must be used to support offset pipe every 4'.
- This application will require that you first determine the roof pitch and use the appropriate venting components.

OFFSET CHART



SIZE		5-in X 8-in	
ELBOW DEGREES	CHIMNEY SECTION	OFFSET INCHES	RISE INCHES
	Dimensions in Inches		
45°	0	5-5/8	15-3/8
45°	6	8-7/8	18-3/8
45°	9	10-7/8	20-5/8
45°	12	13	22-5/8
45°	24	21-3/8	31-1/8
45°	36	29-7/8	39-3/8
45°	36	28-7/8	39-3/8
45°	48	38-1/4	47-7/8

Figure 52

General Maintenance

Inspect venting system semi-annually as follows:

- Check for corrosion areas of the venting system exposed to the elements. These will appear as rust spots or streaks and, in extreme cases, holes. Replace damaged components should immediately.
- Remove the cap and shine a flashlight down the vent. Remove any bird nests or other foreign material.
- Check for evidence of excessive condensate, such as water droplets forming in the inner liner and subsequently dripping out at joints. Condensate can cause corrosion of caps, pipe and fittings. It may be caused by having excessive lateral runs, too many elbows and exterior portions of the system being exposed to cold weather.
- Inspect joints to verify that no pipe sections or fittings have been disturbed and, consequently, loosened. Also, check mechanical supports, such as wall straps or plumbers' tape for rigidity.

Venting termination shall not be recessed into a wall or siding. A removable panel or other means must be provided in the enclosure for visual inspection of the flue connection.

NOTICE: This also pertains to vertical vent systems installed on the outside of the building.

Slide the vertical vent cap over the ends of the vent pipe and secure. See Figure 53.

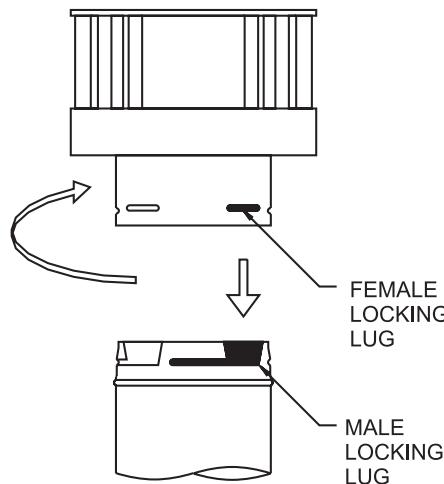


Figure 53

DVVK-5F FLEX VENT INSTRUCTIONS

The DVVK-5F FLEX VENT KIT includes the following components:

- (1) Horizontal Termination Cap
- (1) 4-foot section of Flex vent with spacers (5-inch flue/ 8-inch outer pipe) with flue adapter collar
- (1) Wall Firestop/Thimble Assembly
- Hardware pack that includes band clamps and screws

Maintain at least $\frac{1}{2}$ -inch rise for every 12 inches of vent run.

⚠ CAUTION

- Because of sharp edges, always use gloves when handling the flex vent components.
- Always follow the general venting requirements for vent terminal location, vent lengths, and clearance to combustible materials.
- Always stretch and secure venting with wire or metal strapping to ensure that the horizontal runs do not sag.
- Vent connections should overlap a minimum of 1 inch for proper sealing.

INSTALLATION

1. Unpack vent components and check that all items are included.
2. Ensure that the vent spacer springs are located at 8 inch intervals along its length. See Figures 54 and 55. If not, stretch the spacer springs to about 15 inches long and wrap them around the flue, then interlock the ends of each spring. Maintain equal distance between spring spacers.

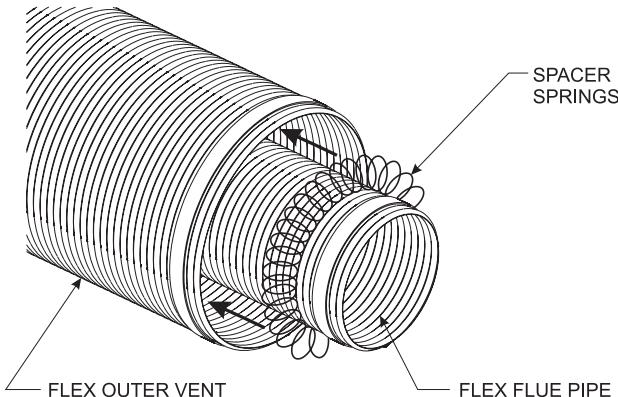


Figure 54

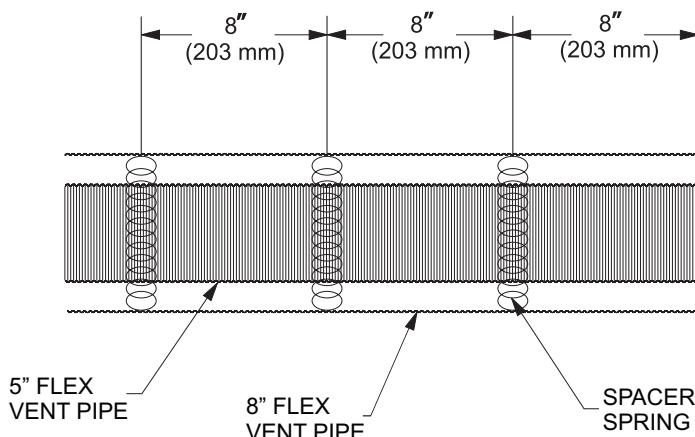


Figure 55

3. Attach a 6-inch piece of hard pipe to raise the connection point above the fireplace.
4. Use existing 8-inch diameter inlet collar to attach outer vent pipe.
5. Install the Wall Firestop/Thimble assembly as required through the wall. Refer to the venting charts on page ___ to determine the proper height and size of the vent opening. The minimum opening should be 10 inches wide by 12 inches high. The minimum combustible clearance from the horizontal vent is 1 inch from sides and bottom, and 3 inches above the vent pipe.
6. After determining the length of the vent needed, install the flue and outer vent pipes to the Termination Cap first. Then from the outside, feed the venting through the wall to the fireplace.
7. If the venting is too long, trim off any excess vent before attaching the vent end connectors.
8. Attach the Termination Cap to the outside of the house.

⚠ CAUTION

Do not force the Vent Termination into the flex venting. Fully extend the venting. Then cut off excess vent material prior to connecting the vent termination. Forcing the termination cap into the flex venting will deform the flue venting, which will restrict the exhaust gases, and cause improper fireplace operation.

DVVK-5F FLEX VENT INSTRUCTIONS (CONT'D)

9. Apply high temperature sealant (1000°F min.) to the vent connections before securing with the band clamps provided.
NOTICE: the flue pipe end without the adapter must be installed to the Termination Cap.
10. Apply sealant to the outside of the flue pipe adapter and connect to the flexible venting. Then insert the adapter into the fireplace flue. Secure flue adapter to the fireplace flue with a minimum of 2 screws provided. **See Figure 56.**
11. Attach the Outer Vent pipe to the 8-inch diameter collar on the fireplace with the large band clamp provided. Sealant may be used on the outer vent connections.
12. Check all vent connections for tightness. Make sure horizontal venting has the proper rise and combustible clearances required. Refer to venting charts in fireplace instruction manual.

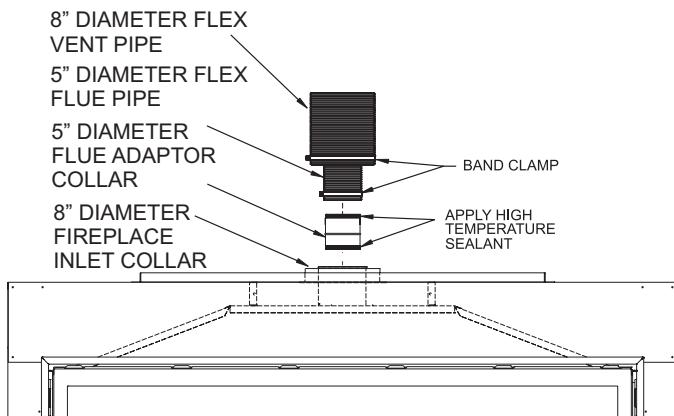


Figure 56

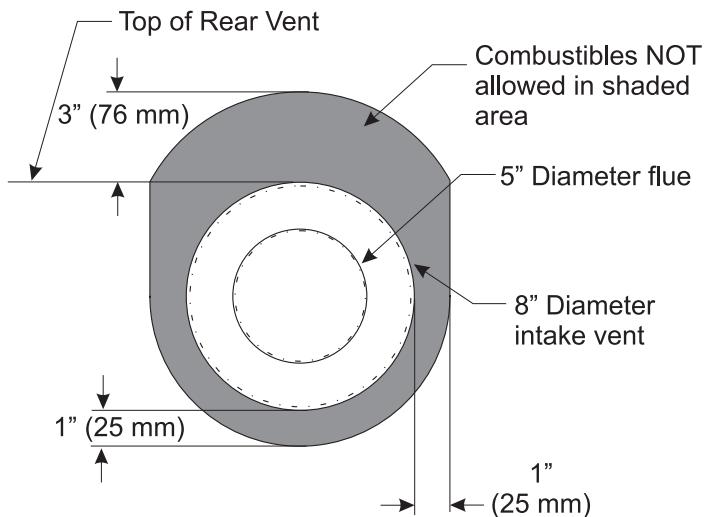


Figure 57

FRAMING AND FINISHING

Installing Support Brackets

Install a horizontal pipe support used for each 3 feet of horizontal run to framing members. Allow 3 inches of clearance to combustibles above 8-inch diameter pipe and elbows, and 1 inch of clearance to both sides and bottom.

Support vertical runs of this vent systems every 4 feet using wall brackets attached to the vent pipe, then secured with nails or screws to structural framing.

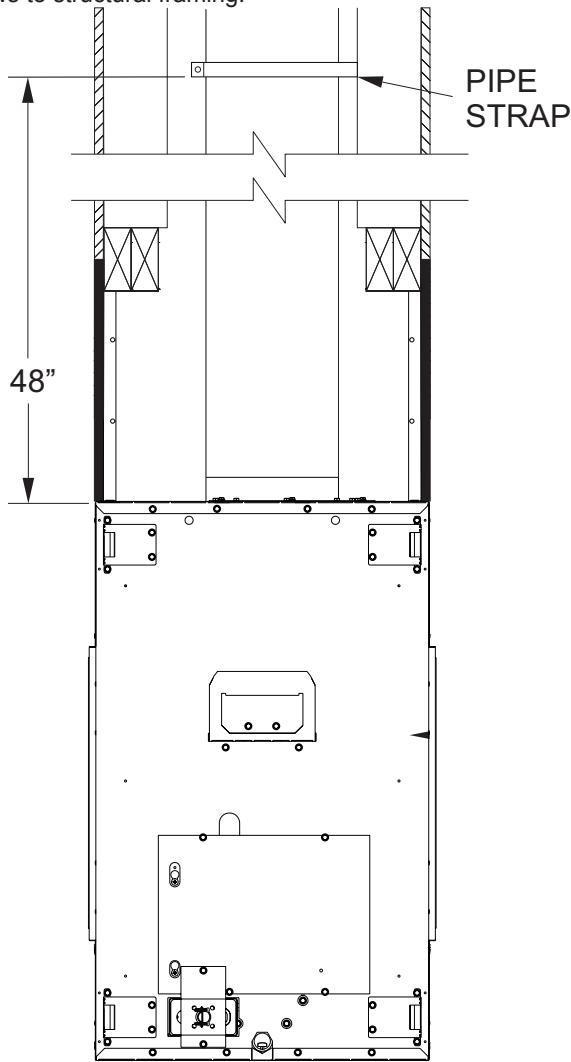


Figure 58

Installing Firestops

Firestops are required for safety whenever the vent system passes through a wall or a ceiling. These firestops act as a firebreak heat shield and as a means to ensure minimum clearances.

Horizontal Firestops

Horizontal runs require firestops on both sides of the wall.

Position the firestops on both sides of the framed hole. **See Figure 59.** Secure firestop with nails or screws. Continue the vent run through the firestops.

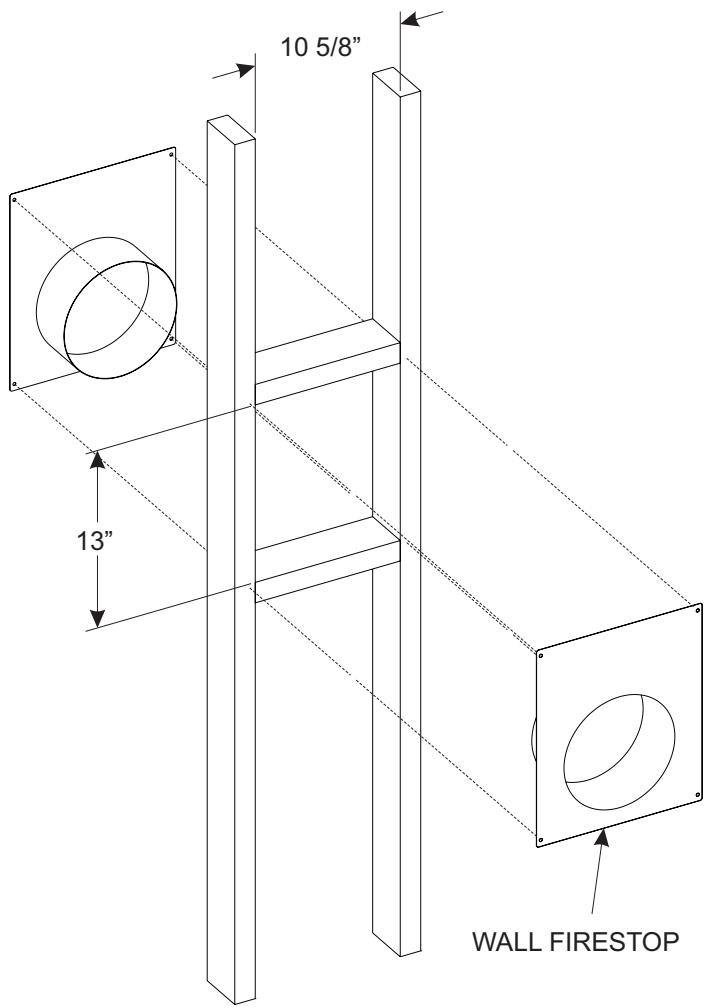


Figure 59

FRAMING AND FINISHING (CONT'D)

Vertical Firestops

Vertical runs require 1 ceiling firestop at the hole in each ceiling through which the vent passes.

Position a plumb bob directly over the center of the vertical vent component and mark the ceiling to establish the center point of the vent. Drill a hole or drive a nail through this center point and check the floor above for any obstructions such as wiring or plumbing runs. Reposition the fireplace and vent system, if necessary, to accommodate ceiling joists and/or obstructions.

Cut a 10-5/8 inch x 10-5/8 inch hole through the ceiling, using the center point previously marked. Frame the hole with lumber the same size as the ceiling joists. **See Figure 60.** If the area above the ceiling is NOT an attic, position and secure the ceiling firestop on the ceiling side of the framed hole. **See Figure 61.**

If the area above the ceiling is an attic, position and secure the firestop on top of the framed hole. **See Figure 62.**

NOTICE: Remove insulation from the framed area in the attic before installing the firestop and/or vent pipes.

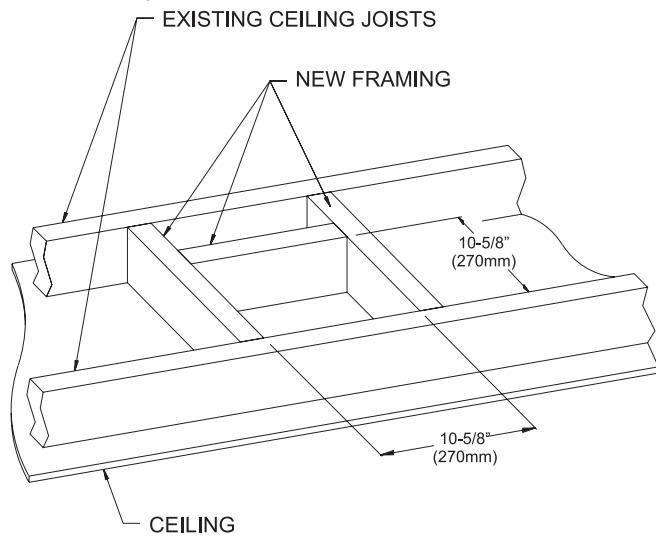


Figure 60

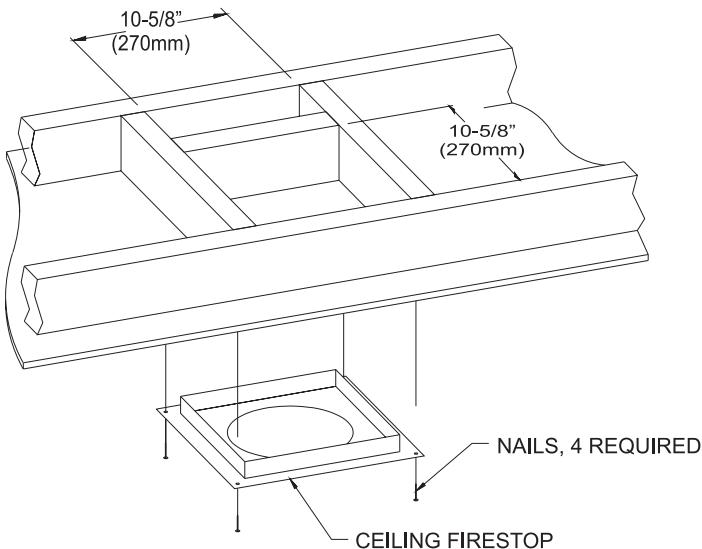


Figure 61

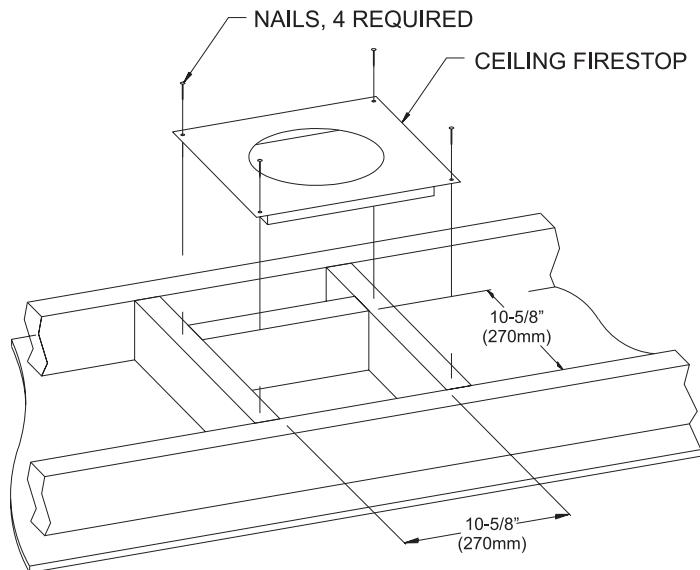


Figure 62

Finishing

Finish the walls with the material of your choice. **Figure 12** shows the minimum vertical and corresponding maximum horizontal dimensions of mantels or other combustible projections above the top front edge of the fireplace.

Only non-combustible materials may be used to cover the black fireplace front.

⚠ WARNING

When finishing the fireplace never obstruct or modify the air inlet/outlet louvers in any manner. Provide adequate clearances around air openings into the combustion chamber.

⚠ CAUTION

If the joints between the finished wall and the fireplace surround (top and sides) are sealed, use a 300 degree F minimum sealant material must be used. These joints are not required to be sealed.

LINER INSTALLATION

NOTICE: A porcelain or ceramic fiber liner is required for this fireplace. Refer to the installation instructions included with your liner for proper installation.

DVP48SLKR - Porcelain Liner Kit

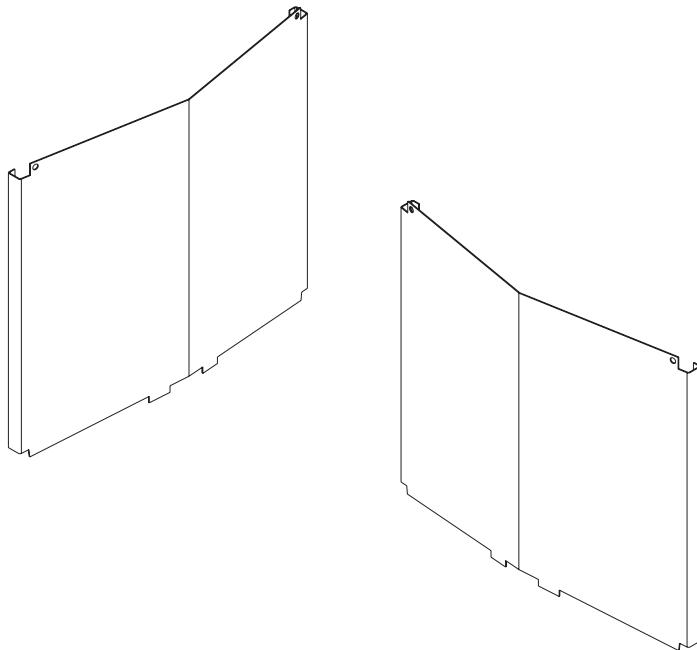


Figure 63

DVP48SLG - Fiber Liner Kit

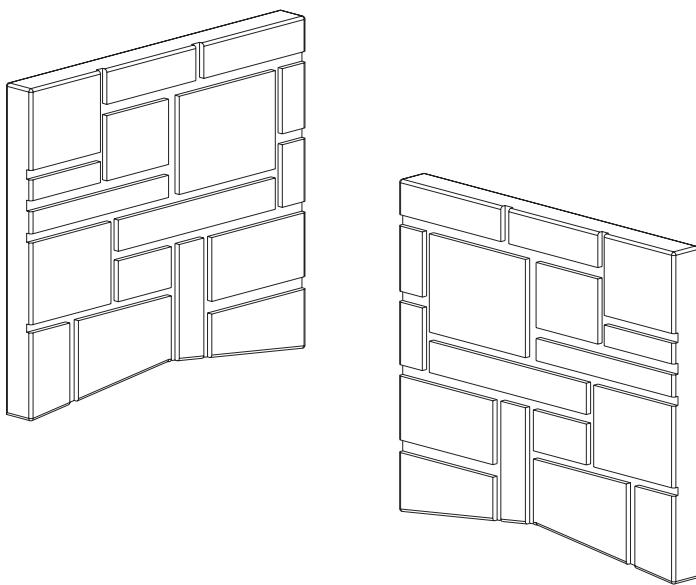


Figure 64

GLASS PLACEMENT

If a liner kit has not been installed, stop and install one before proceeding with media placement. See page 42.

If applicable, install Logs and Rock Kit prior to placing the glass media.

Place crushed glass media over the burner, burner surrounds, and screens in a single layer. Use enough crushed glass media to cover these areas (8 sq. ft. minimum). **See Figure 65.**

NOTICE: The flame appearance can be modified by varying the depth of glass media over the burner ports. Assess the flame appearance before adding more media than is necessary to cover the burner. Excessive glass media over the burner ports will cause sooting.

CAUTION

Place glass media carefully around the pilot opening. DO NOT bury the pilot with glass media.

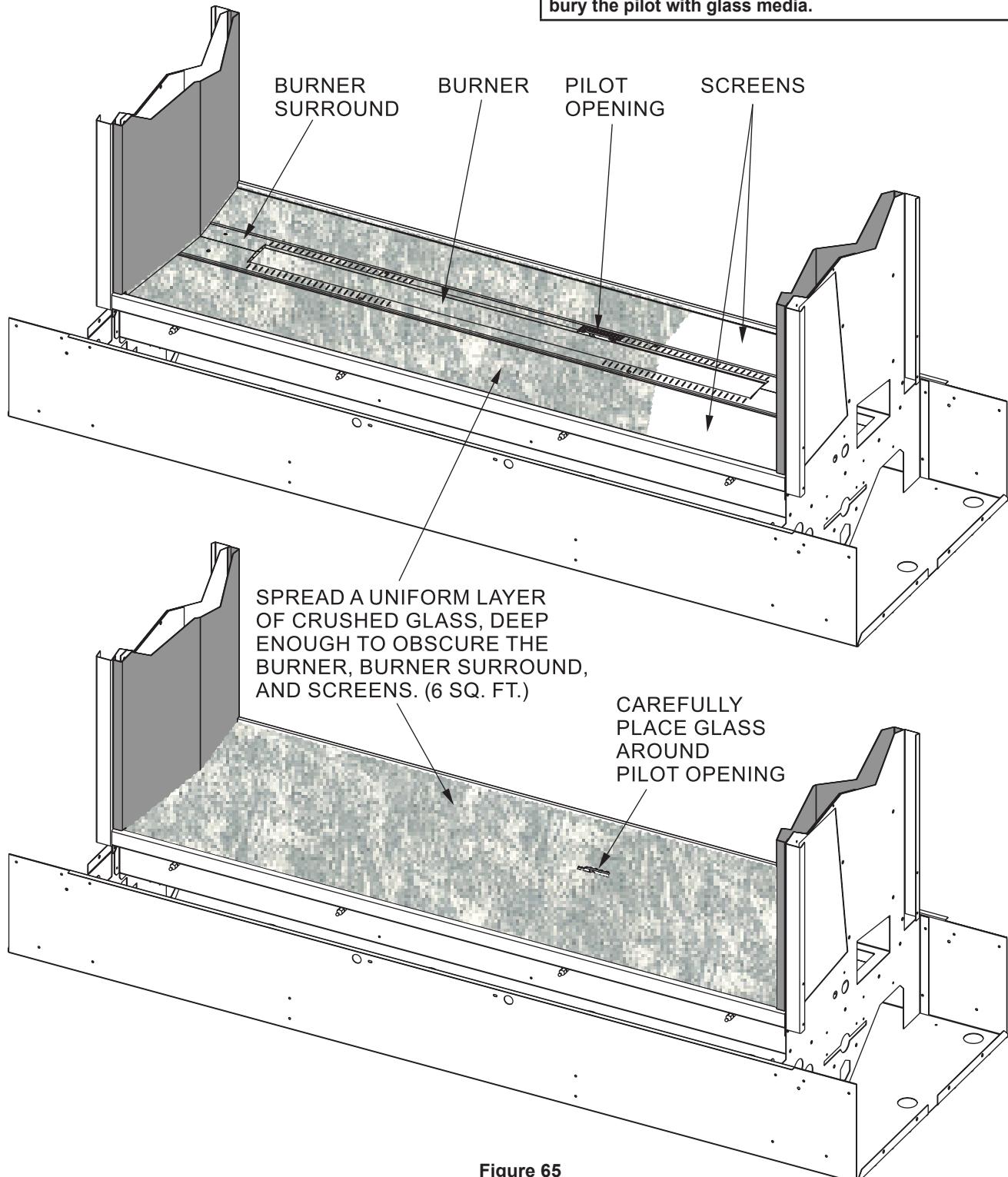


Figure 65

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

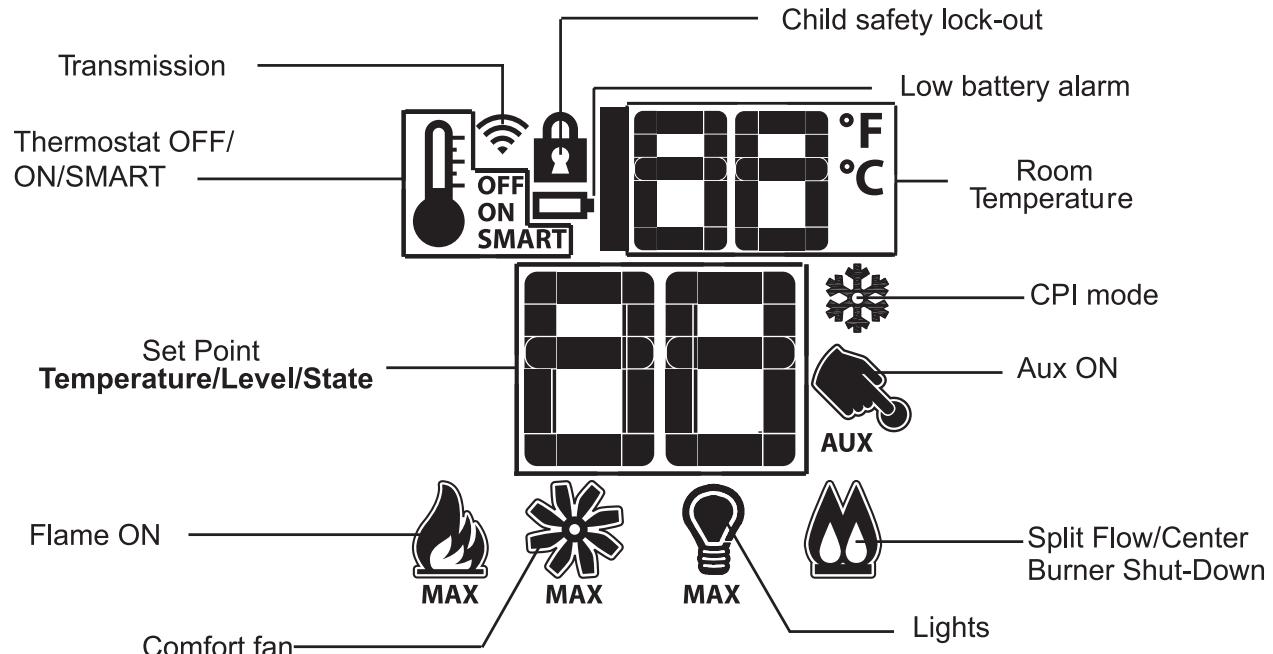


Figure 66

TECHNICAL DATA	
Remote Control	
Supply voltage	4.5 V (three 1.5 V AAA batteries)
Ambient temperature ratings	0-50°C (32 - 122°F)
Radio frequency	315 MHz

⚠ WARNING

The transmitter and receiver are radio frequency devices. Placing the receiver in or near metal may severely reduce the signal range.

⚠ WARNING

Turn off the main gas supply and electrical supply to the fireplace during installation and/or maintenance of the receiver device.

⚠ WARNING

FIRE HAZARD. CAN CAUSE SEVERE INJURY OR DEATH.
The receiver causes ignition of the fireplace. The fireplace can turn on suddenly. Keep away from the fireplace burner when operating the remote system or activating manual bypass of the remote system.

⚠ CAUTION

PROPERTY DAMAGE HAZARD.
Excessive heat can cause property damage. The fireplace can stay lit for many hours. Turn off the fireplace if it is not going to be attended for any length of time. Always place the Transmitter where children can not reach it.

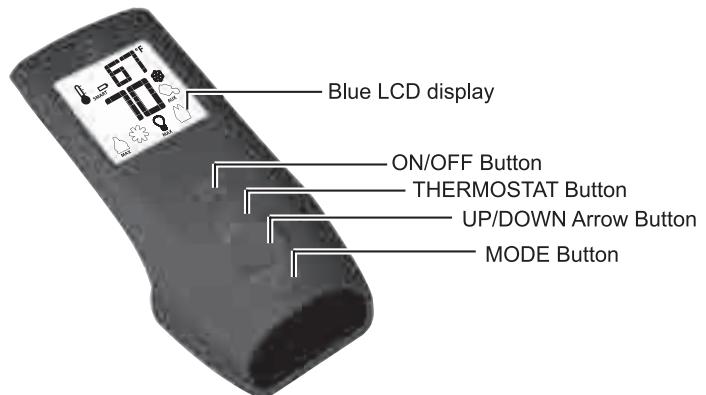


Figure 67

NOTICE: Not all features called out in the diagram above are available on this fireplace.

NOTICE: This control system includes a Battery Back-up pack that allows the Fireplace to operate in the event of a power outage.

NOTICE: The Accent Light and/or Blower features will not operate during a power outage.

NOTICE: Replace all Batteries at least once each year, preferably before at the beginning of the season.

⚠ WARNING

FIRE OR EXPLOSION HAZARD.
Can cause property damage, severe injury or death. Do not attempt to take apart the gas control or to clean it. Improper assembly and cleaning can cause unreliable operation.

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Initializing The System

1. Remove the wall cover. Open the wall mounted battery back-up holder. **See Figure 68.** Install the four AA batteries and reinstall the cover. **See Figure 69.**
2. Install three AAA batteries into the battery bay located on the base of the transmitter. **See Figure 70.**
3. Set the wall remote slide switch to the REMOTE position. **See Figure 69.**
4. Press and release the SWI button on the wall control with a paper clip. The IFC module will beep three times to indicate the IFC module is ready to synchronize with the transmitter within ten seconds. **See Figure 69.**

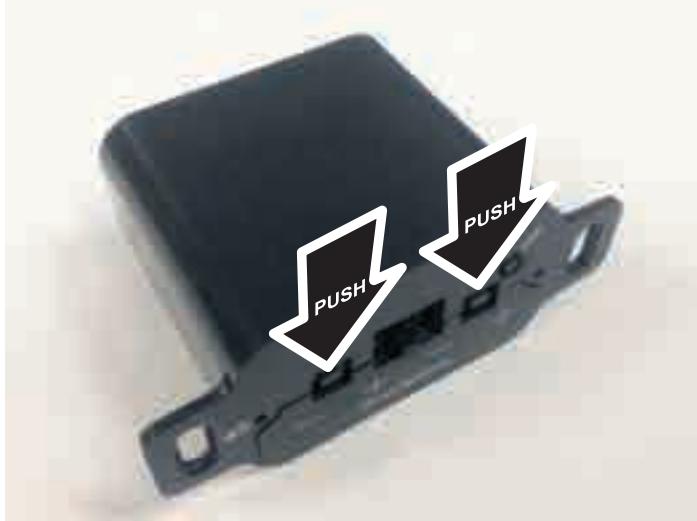


Figure 68

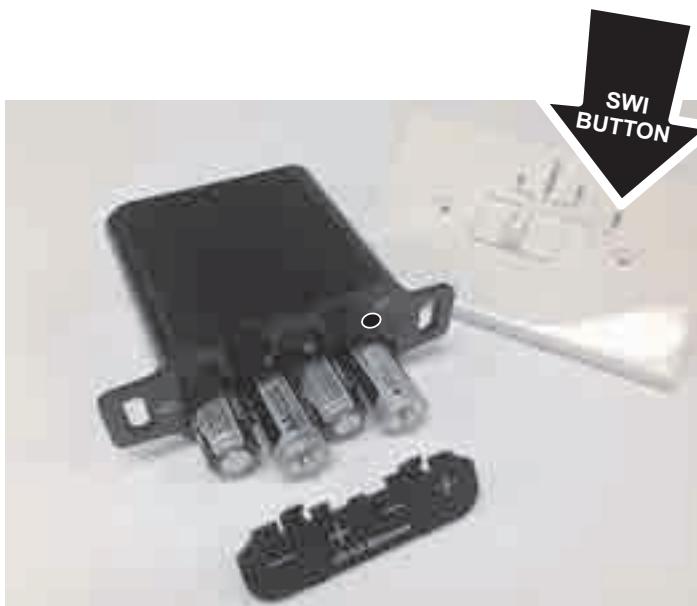


Figure 69

5. Push the On button. The Receiver will beep four times to indicate the Transmitter's command is accepted and set to the code for that Transmitter. The system is now initialized.



Figure 70

Temperature Indication Display °C or °F

With the system in the OFF position, press the Thermostat Button and the Mode Button at the same time. Look at the LCD screen on the Transmitter to verify that a °C or °F is visible to the right of the Room Temperature display. **See Figures 71 and 72.**

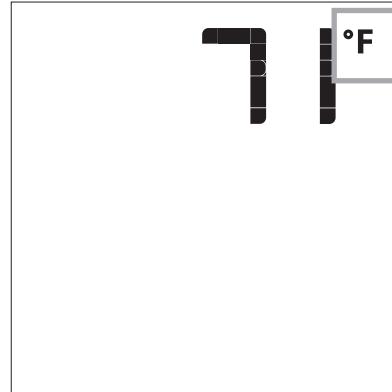


Figure 71

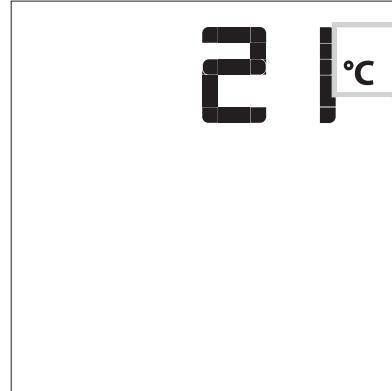


Figure 72

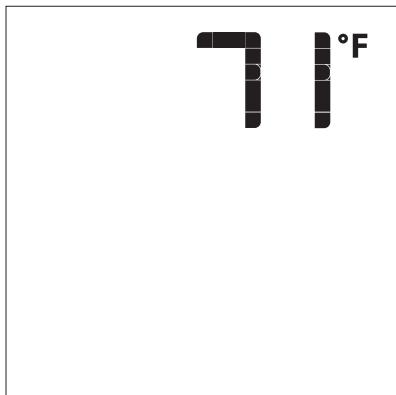
MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Turn On The Fireplace

With the system OFF, press the ON/OFF Button on the Transmitter. The Transmitter display will show other Icons on the screen. At the same time the Receiver will activate the fireplace. A single beep from the Receiver will confirm reception of the command.

Turn Off The Fireplace

With the system ON, press the ON/OFF Button on the Transmitter. The Transmitter display will show only the room temperature. **See Figure 73.** At the same time the Receiver will turn off the fireplace. A single beep from the Receiver confirms reception of the command.



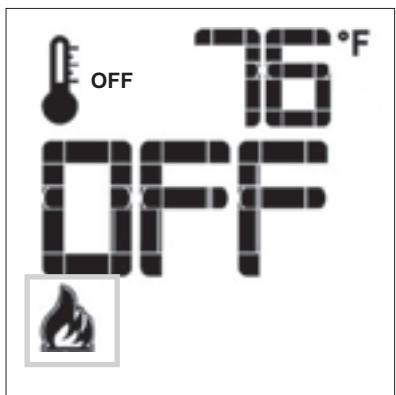
Remote Control Display - Figure 73

Remote Flame Control

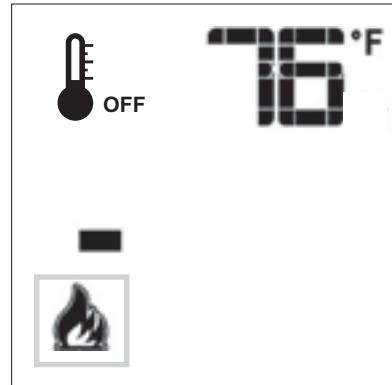
The Proflame has six flame levels. With the system on, and the flame level at the maximum in the fireplace, pressing the Down Arrow Button reduces the flame height one step at a time until the flame turns off.

The Up Arrow Button increases the flame height each time it is pressed. If the Up Arrow Button is pressed while the system is on but the flame is off, the flame will come on in the high position.

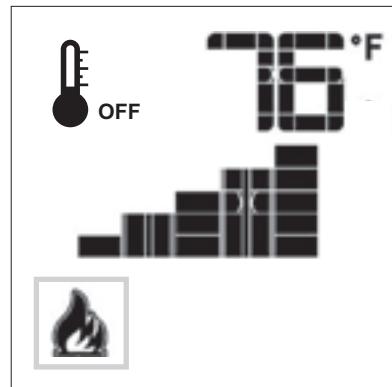
See Figures 74 through 77. A single beep will confirm reception of the command.



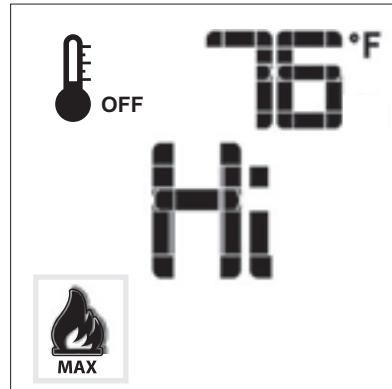
Flame Off - Figure 74



Flame Level 1 - Figure 75



Flame Level 5 - Figure 76



Flame Level Maximum - Figure 77

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Room Thermostat (Transmitter Operation)

The Remote Control can operate as a room thermostat. The thermostat can be set to a desired temperature to control the comfort level in a room. To activate this function, press the Thermostat Button. **See Figure 67.** The LCD display on the Transmitter will change to show that the room thermostat is ON and the set temperature is now displayed. **See Figure 78.** To adjust the set temperature, press the Up or Down Arrow Buttons until the desired set temperature is displayed on the LCD screen of the Transmitter. **See Figure 79.**

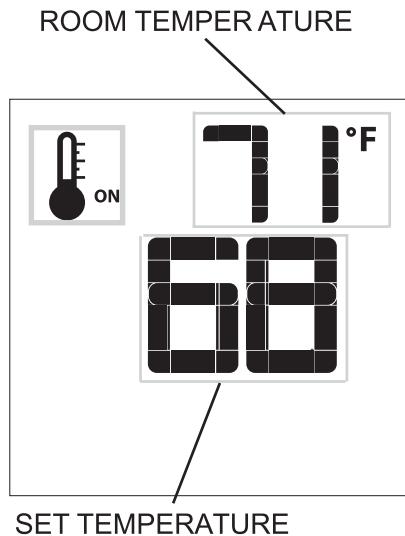


Figure 78

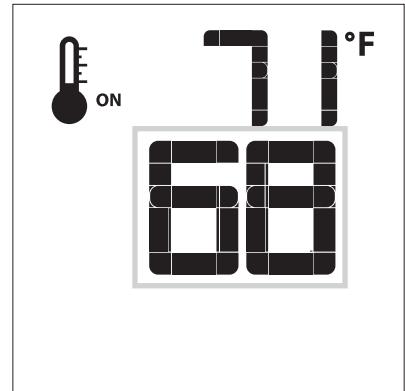


Figure 79

Smart Thermostat (Transmitter Operation)

The Smart Thermostat function adjusts the flame height in accordance to the difference between the set point temperature and the actual room temperatures. As the room temperature gets closer to the set point the Smart Function will modulate the flame down. To activate this function, press the Thermostat Button until the word SMART appears to the right of the temperature bulb graphic. **See Figure 80.** To adjust the set temperature, press the Up or Down Arrow Buttons until the desired set temperature is displayed on the LCD screen of the Transmitter. **See Figure 81.**

NOTICE: When Smart Thermostat is activated, manual flame height adjustment is disabled.

Manual On/Off (Transmitter Operation)

The Thermostat Feature may be disabled so the fireplace will operate only on manual mode.

With all the (3) AAA type batteries installed:

1. Take out one AAA battery.
2. While re-inserting the battery, push and hold down the thermostat button. This will disable the thermostat feature on the transmitter.

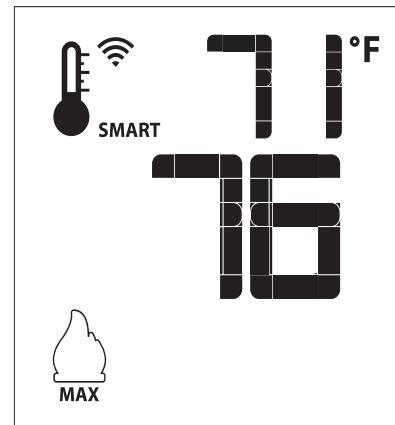


Figure 80

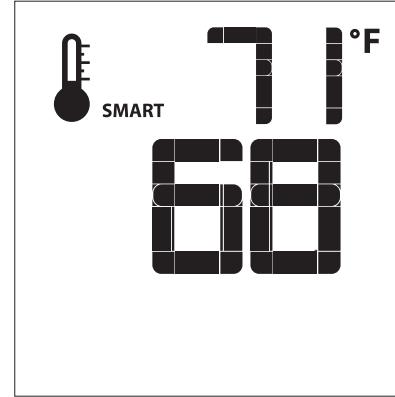


Figure 81

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Blower Control (Not available for the DVLL48SP)

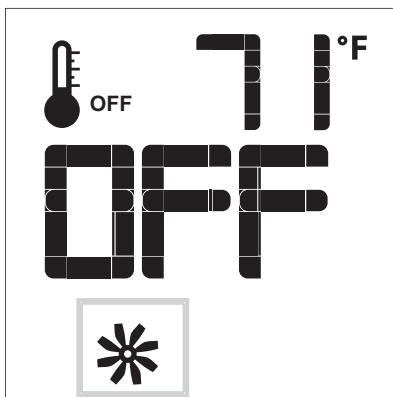


Figure 82

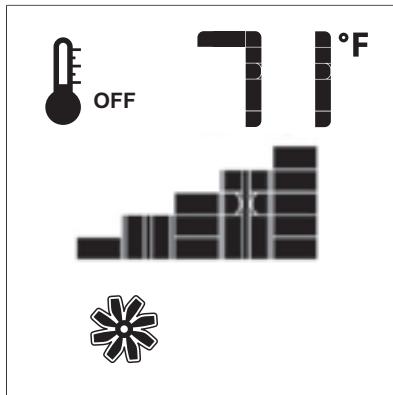


Figure 83

Remote Dimmer Control (Light)

Use the Mode Button **Figure 67** to index to the light icon.

See Figures 84 and 85.

Use the Up/Down Arrow Buttons **Figure 67** to adjust the output through six levels. A single beep will confirm reception of each command.

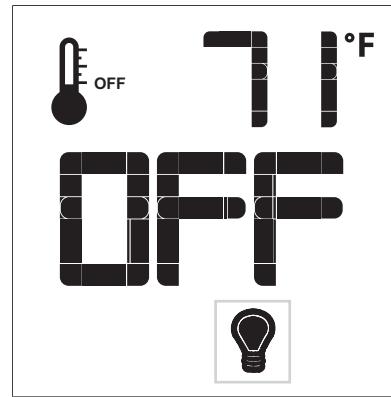


Figure 84

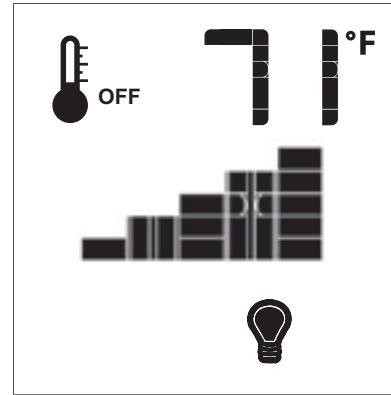


Figure 85

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Split Flow Control (Not available for the DVLL48SP)

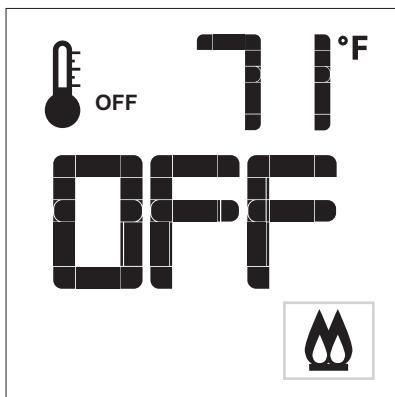


Figure 86

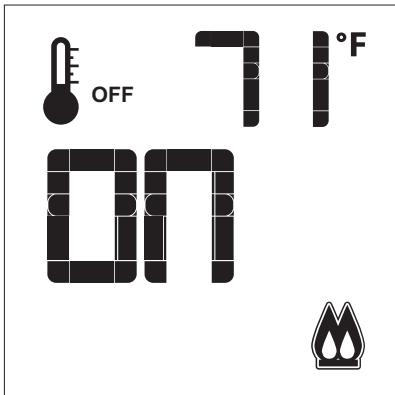


Figure 87

Remote Auxiliary Relay Control (optional with this fireplace)
Use the Mode Button **Figure 67** to index to the AUX icon. See
Figures 88 and 89. Pressing the Up Arrow Button will activate
the outlet. Pressing the Down Arrow Button will turn the outlet off.
A single beep will confirm reception of the command.

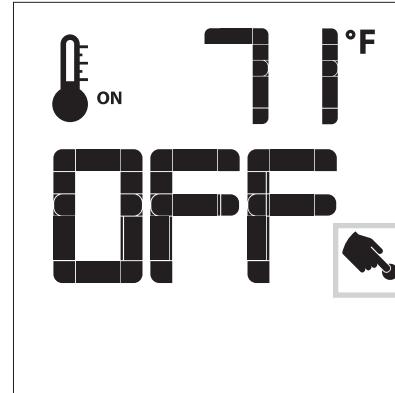


Figure 88

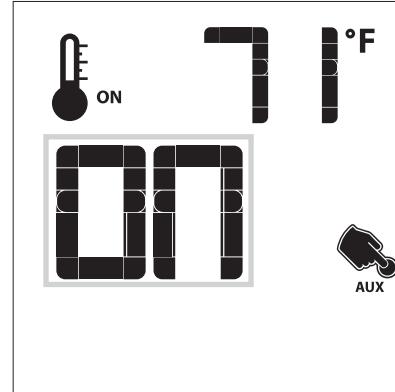


Figure 89

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

During a prolonged power outage, the fireplace can operate in Continuous Pilot mode. This reduces drain on the batteries used to ignite the burner and ensures the fireplace will continue to operate throughout the outage.

Continuous Pilot/Intermittent Pilot (CPI/IPI) Selection

With the system in OFF position press the Mode Button **Figure 67** to index to the CPI mode icon. **See Figures 90 and 91.**

Pressing the Up Arrow Button will activate the CPI. Pressing the Down Arrow Button will return to IPI. A single beep will confirm the reception of the command.

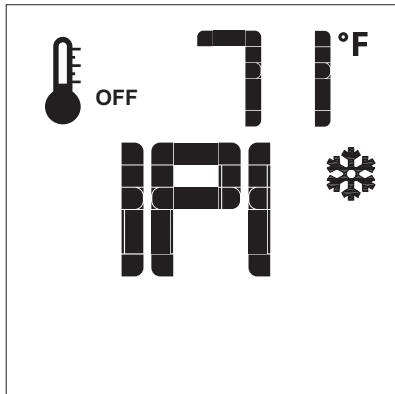


Figure 90

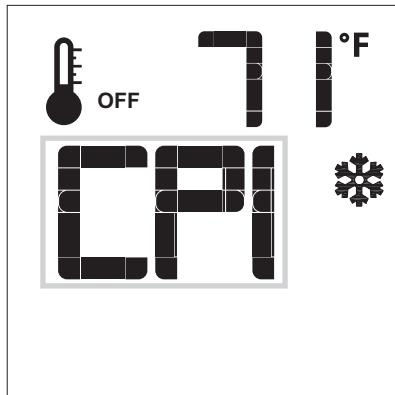


Figure 91

Button Lock

This function will lock the Buttons to avoid unsupervised operation.

To activate this function, press the MODE and UP Buttons at the same time. **See Figure 92.**

To deactivate this function, press the MODE and UP Buttons at the same time.

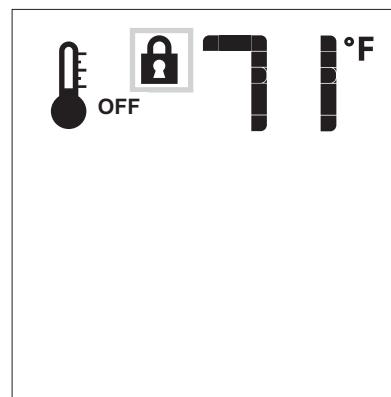


Figure 92

Low Battery Power Detection - Transmitter

The life span of the remote control batteries depends on various factors:

- Quality of the batteries
 - How frequently the fireplace cycles on and off
- When the transmitter batteries are low, an icon will appear on the LCD display of the transmitter. **See Figure 93** before all battery power is lost. When the batteries are replaced this icon will disappear.

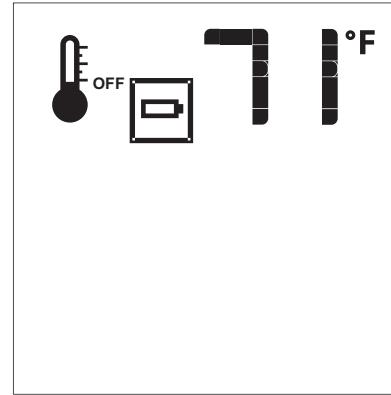


Figure 93

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Using the Fireplace without a Remote Control

The fireplace can be turned ON (HI only) and OFF with the wall switch. The fireplace flame ON/OFF is the only function that will operate; no flame adjustment, or light will work when using the wall switch. The wall control switch should be turned OFF when the fireplace is not being used for extended periods of time.

Battery Backup Operation

Install batteries (See initialization sequence on page 69). In case of power loss, the fireplace will switch to battery mode automatically. The fireplace will operate normally without the fan or light control when in battery mode.

Low Battery Detection

When the backup batteries are low, the module emits a double-beep when it receives an on/off command. The system will not accept any commands until the batteries are replaced or A/C power is restored.

Lockout State Definition

To prevent damage to the fireplace, IFC board will automatically lockout the remote control if it detects a anomalous flame or too many unsuccessful ignition attempts. The lockout state will remain as long as the power supplies are applied.

When the IFC board goes into lockout state:

1. both the Pilot and the Main Burner solenoids in the gas valve are de-energized;
2. a diagnostic code is sent through the diagnostic red LED.
3. the IFC board will ignore any burner ignition command and remain in the OFF state unless the unlock command sequence is met.

Turn the system power supplies (to the wall control or remote control) OFF for two or three seconds and then restore power. If the lockout reoccurs, call your dealer. The causes of lockout must be investigated under safe conditions by trained service personnel.

CONTROL SYSTEM TROUBLESHOOTING

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Gas odor during setup	Gas Leak	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 and call your gas supplier from a neighbor's phone or a cell phone well away from the building. Follow the gas supplier's instructions. If you cannot reach your gas supplier, call the fire department.
Gas odor before first ignition	Gas Leak	
Fireplace is "on" but no flame and pilot is not trying to light	Gas Line Valve turned "off" Control module in "lockout"	Turn shutoff valve to "open" position Turn fireplace "off" and then back "on"
Pilot continues to spark when pilot is lit.	Not enough gas to pilot Low Gas Pressure Pilot igniter/sensor is dirty Pilot not grounded well Draft in firebox Pilot sensor has been bent	Wait for pilot flame to strengthen Check pressures. See page 12. Clean pilot. See maintenance page 79. Check ground connections Vent restrictor not installed Replace pilot
Pilot will not ignite, or will not stay lit	Pilot igniter/sensor is dirty Pilot not grounded well Sensor Wire loose Gas pressure incorrect Pilot Gas Line bent or kinked Faulty pilot, Sensor bent Faulty valve	Clean flame sensor and pilot igniter. See maintenance page 79. Check ground connections Check sensor wire terminals Adjust gas pressure Replace pilot tube Replace Pilot Replace Valve
Burner takes too long to fully light	Low gas pressure Clogged or dirty carryover/burner ports Blocked orifice Faulty valve	Check gas supply pressure Clean ports Check orifice opening Replace valve
Burner does not light but pilot remains on	Low gas pressure Clogged or dirty burner ports Blocked orifice Loose wire connections Faulty pilot Faulty valve	Check gas supply pressure Clean burner ports Check orifice opening Check valve/control module connections Replace pilot Replace valve
Burner lights but does not stay lit while pilot remains on	Low gas pressure Loose sensor wire Faulty valve Faulty pilot or thermocouple Clogged or dirty burner ports (For fireplace equipped with optional thermostat or thermostat remote) Room temperature is higher than thermostat setting (Optional) Remote control batteries failing	Check gas supply pressure Check wire connection Replace valve Replace Safety pilot Clean burner ports Move (optional) remote away from fireplace Set higher temperature on (Optional) remote/thermostat Replace batteries in remote transmitter and receiver

CONTROL SYSTEM TROUBLESHOOTING (CONT'D)

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Burner & pilot light but will not stay lit	Flame sensor dirty	Clean pilot sensor
	Low gas pressure	Check gas supply pressure
	Not enough fresh air for pilot	Open door or window - ventilate
	Clogged or dirty burner ports	Clean burner ports
	Room temperature is higher than thermostat setting	Move remote away from fireplace Set higher temperature on remote/thermostat
	Remote control batteries failing	Replace batteries in remote transmitter and receiver
	Faulty pilot or thermocouple	Replace pilot
Incorrect burner flame	Incorrect gas supply or pressure	Check gas supply pressure
	Blocked orifice	Check orifice opening
	Clogged or dirty burner ports	Clean burner ports
	Faulty valve	Replace valve
	High altitude	Adjust orifice size for altitude
Backfire of burner	Blocked orifice	Check orifice opening
	Clogged or dirty burner ports	Clean burner ports
	Low gas pressure	Check gas supply pressure
Fireplace produces unwanted odors	Vapors from paint, hairspray, glue, etc.	Ventilate room until odor stops. Do not use paint, hairspray, glue, etc. around fireplace
	Initial burn-off of manufacturing chemicals	Ventilate room until odor stops
Whistle noise from fireplace	Check gas pressure	Adjust gas pressure to recommended setting.
	Air in gas line	Bleed lines
	Control knob not in fully open position	Open control knob to full position
	Spiral gas flex line pinched or too small diameter line	Straighten flex line where pinched or replace gas feed line with larger diameter

LIGHTING INSTRUCTIONS

FOR YOUR SAFETY READ BEFORE LIGHTING

⚠ WARNING

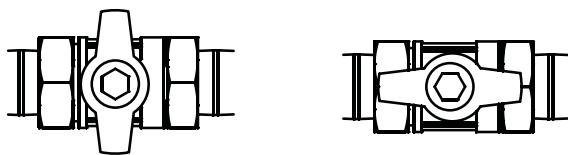
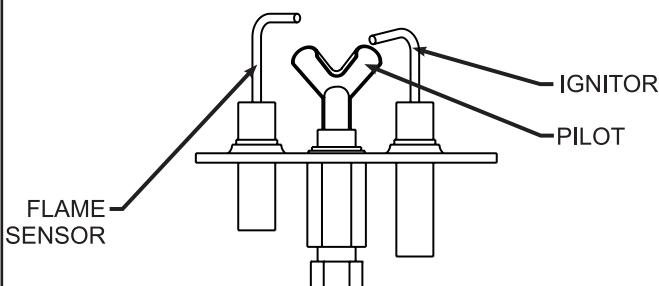
If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

- A. This appliance must be lighted with the remote control. 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 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.
- C. Use only the remote control to operate the valve. Never use tools. If valve does not operate, don't 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 underwater. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been underwater.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above.
2. Turn OFF electric power to the appliance.
3. Turn gas shut-off counterclockwise  to ON position.
4. Wait ten 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 on this label. If you do not smell gas, go to the next step.
5. Turn ON electric power to the appliance.
6. Using the remote control, turn main flame to ON. Refer to the Multifunction Remote Operating Instructions for more information. If the pilot does not light within 60 seconds, stop and go back to Step 4.

7. Refer to remote control instructions for detailed information, control features, and operation. Note: Refer to Multifunction Remote operating instructions for selection of continuous standing pilot mode or intermittent pilot mode. If the pilot or burner does not stay lit (in the continuous pilot mode), stop and immediately call a qualified service technician or gas supplier.
8. If the burner or pilot does not operate properly after several tries, turn the gas control knob clockwise  to OFF and call your service technician or gas supplier.
9. Operation of the gas valve, blower, and/or optional light must be controlled by using the hand held remote control. Refer to remote instructions for detailed operation information.



TO TURN OFF GAS TO APPLIANCE

1. Turn off all electric power to the appliance if service is to be performed (if applicable).
2. Locate On/Off gas shut-off and turn clockwise to  OFF. Do not force.

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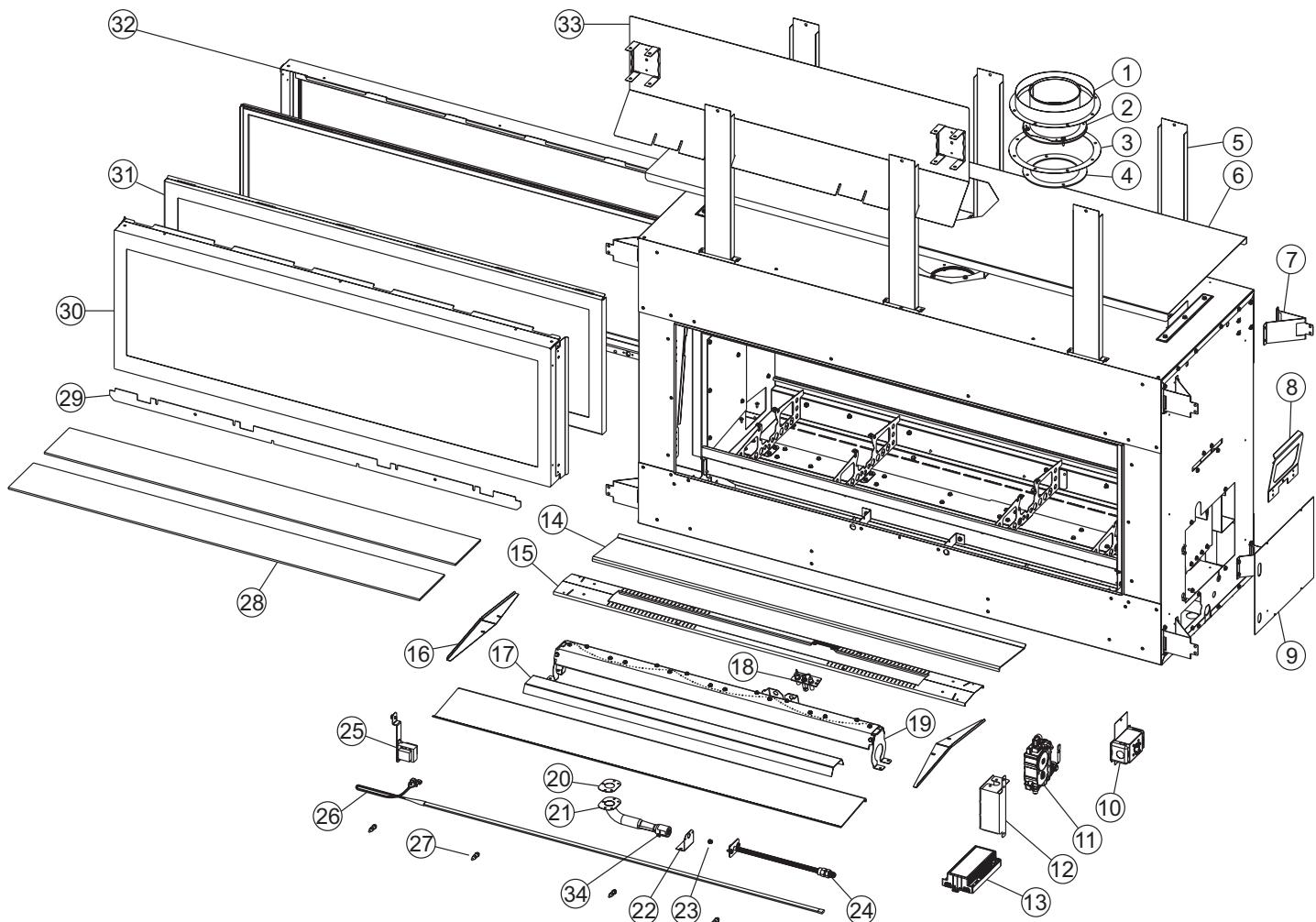
PARTS LIST

INDEX NO.	PART NO. DVLL48	DESCRIPTION
1	34033	Flue Outlet
2	R7567	Inlet Vent Adapter
3	R7573	Gasket, Inlet Vent
4	M170	Gasket, Flue Outlet
5	38531	Framing Bracket, Top
6	38161	Heat Shield, Top
7	28450	Nailing Flange
8	34360	Handle
9	37761	Access Panel
10	35652	Junction Box (Box Only)
11	R11233	Natural Valve
11	R11234	Propane Valve
12	37459	Valve Bracket
13	R12383	Control Module
14	38343	Screen, Firebox Floor
15	37762	Burner Surround
16	37526	Floor Edge Trim
17	37457	Burner Screen
18	R10914	Natural Pilot
18	R10918	Propane Pilot
19	38168	Burner Assembly
20	R11977	Venturi Gasket

INDEX NO.	PART NO. DVLL48	DESCRIPTION
21	R11978	Venturi
22	37753	Orifice Bracket
23	P209 (#31)	Orifice
24	R10915	Orifice Holder, Flex Line
25	38577	Transformer With Bracket
26	R12451	LED Light Strip
27	38578	Glass Frame Stud & Hardware Includes One - (4 Are Required)
28	R12391	Glass, 5-9/16" X 48"
29	37755	Glass Frame Stop (Front)
30	38575	Screen Frame (Front)
31	38576	Glass Frame
32	36450	Screen Frame (Rear)
33	38563	Header Shield
34	R7624	Air Shutter
35 (NS)	R11522	Remote Transmitter
36 (NS)	R11584	Battery Holder Box
37 (NS)	R11552	Wire Harness (Control Module To Wall Box)
38 (NS)	R11524	Wire Harness (Control Module To Valve)
39 (NS)	R11584	Battery Holder W/ Switch
40 (NS)	R11783	Battery Holder Cover Plate

NS - Not Shown

PARTS VIEW



⚠ WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this fireplace may result in property damage or personal injury.

MAINTENANCE AND SERVICE

NOTICE: Only the front side screen or glass frames can be removed for maintenance and service. See page 13 "Orientation of Fireplace".

Removing the Barrier Screen

Lift the barrier up approximately 1/4in with one hand under the lower barrier frame edge to disengage the lower flange. Grasp the top of the barrier and pull forward to disengage it. Remove the barrier by pulling straight forward. **See Figure 94.**

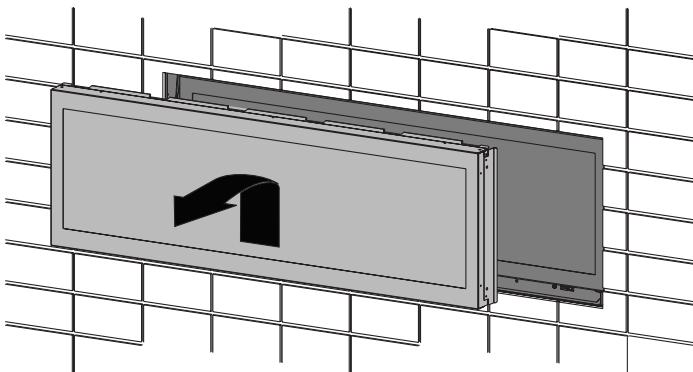


Figure 94

Removing the Glass Door Assembly

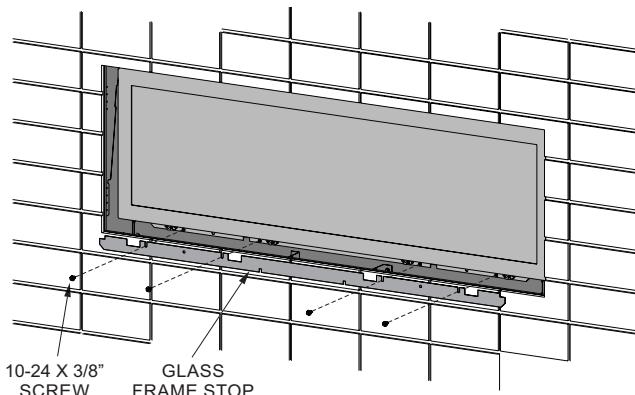


Figure 95

Remove the glass frame stop as shown in **Figure 95**. Locate the glass door tool (secured to the top of the fireplace for shipping). Use the tool as a lever to release the bottom of the glass door as shown in **Figure 96**.

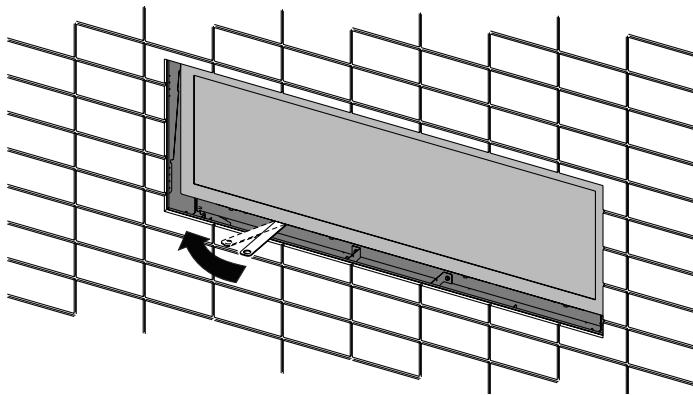


Figure 96

NOTICE: The glass door is secured to the top of the firebox with tabs that allow the glass door to pivot outward at the bottom. The bottom of the door frame engages into the four bullet type retainers.

Pivot the glass door out until the bottom of the door is about 6 to 8 inches from the firebox face, then lift upward on the door assembly to disengage the top of the door from the tab retainers on top of the firebox. **See Figure 97.**



Figure 97

Wiring

If any of the original wire supplied with this unit must be replaced, it must be replaced with 18 GA. 150°C wire or its equivalent.

Gas Valve and Control Access Instructions



NOTICE: To service or inspect the gas valve and control system after the fireplace has been installed, or if there is no right side outer accessibility, follow these steps for servicing the fireplace gas control valve.

Accessing the Gas Valve And Control Module

Always turn off gas and electrical supply to the fireplace before servicing the controls.

1. Remove the barrier screen and glass door assemblies and set them aside in a safe location.
2. It is not necessary to remove decorative glass media from the burner cover or screen to gain access to the valve compartment.
3. Remove the right-side porcelain or fiber liner.
4. The gas valve and control module access panel is shown in **Figure 98**. Remove the six screws and slide the panel upwards to remove.
5. The gas valve is now accessible for checking inlet and outlet gas pressures, flex line connections, and wiring to the valve.
6. If necessary, remove the valve from the firebox wall by removing the screw shown in **Figure 99**.
7. The control module is located on the floor of the fireplace beneath the valve.

MAINTENANCE AND SERVICE (CONT'D)

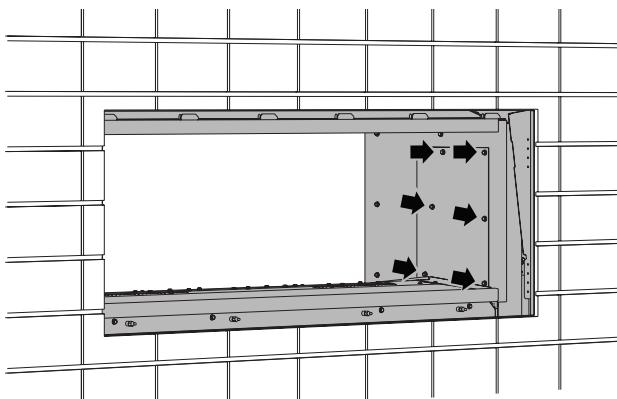


Figure 98

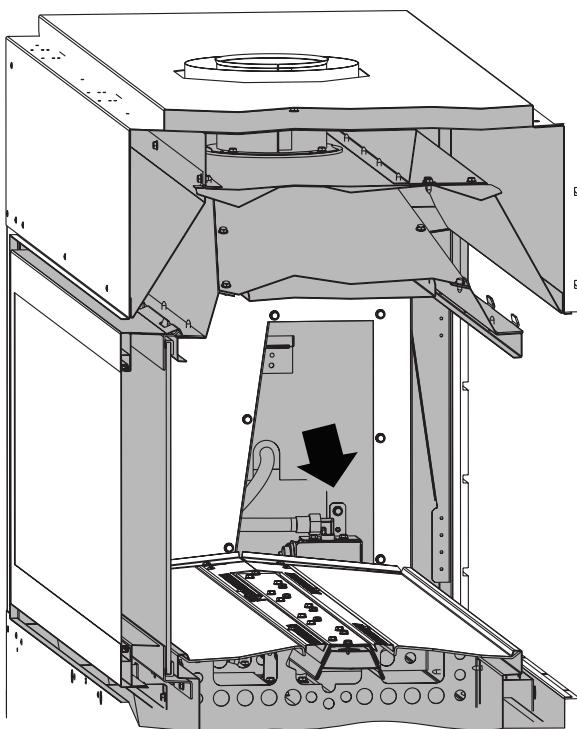


Figure 99

Maintenance

Maintenance frequency must be determined individually for each application. Some considerations are:

- Exposure to water, dirt, chemicals and heat can damage the gas control and shut down the control system.
- Cycling frequency. Fireplaces that may cycle 20,000 times annually should be checked monthly.
- Intermittent use. Fireplaces that are used seasonally should be checked before shutdown and again before the next use.
- Dusty, wet or corrosive environment. Because these environments can cause the gas control to deteriorate more rapidly, the system should be checked more often.
- Any control should be replaced if it does not perform properly on checkout or service. In addition, replace any module if it is wet or looks like it has been wet.

Service

Do not disassemble the gas control; it contains non-replaceable components. Attempted disassembly or repair can damage the control.

Exactly follow the warnings and the lighting instructions.

1. Before lighting, smell around the fireplace area for gas. If the fireplace uses Propane (bottled) gas, be sure to smell next to the floor because Propane Gas is heavier than air. If you smell gas, immediately shut off the manual valve in the gas piping to the fireplace or on Propane at the tank. Do not try to light any appliance. Do not touch any electrical switch or use the phone. Leave the building and call your gas supplier. If your gas supplier cannot be reached, call the fire department.
2. The gas control must be replaced if it has been flooded with water. Call a qualified service technician.
3. The gas control is a safety device. It must be replaced in case of any physical damage such as bent terminals, missing parts, stripped threads, or evidence of exposure to excessive heat.

Follow the operating instructions provided by the manufacturer of your appliance.

NOTICE: It is normal for fireplaces fabricated of steel to give off some expansion and/or contraction noise during the start up or cool down cycle. Similar noises are found with your furnace heat exchanger or car engine. It is normal for your gas fireplace to give off some odor the first time it is burned. This is due to the curing of the paint and oil from the manufacturing process. Please ensure that your room is well ventilated - open a window.

Burn your fireplace for at least one hour the first time you use it.

IMPORTANT: Turn off gas before servicing fireplace. Have a qualified service person perform these check-ups once a year preferably before the using of the fireplace.

Clean Burner and Control Compartment

Keep the control compartment and burner area clean by vacuuming or brushing at least twice a year.

Cleaning Procedure

1. Turn off fireplace.
2. Remove the barrier screen and glass door assembly. See Glass Door Removal.
3. Remove decorative media (a clean portable shop-vac is recommended).
4. Vacuum burner cover and burner screen areas.
5. Replace decorative media. See page 43.
6. Reinstall the glass door and barrier screen.
7. Ignite fireplace. See Lighting Instructions.
8. If flame appears abnormal, call a service person.

Check Vent System

The fireplace and venting system should be inspected before initial use and at least annually by a qualified service person. Inspect the external vent cap on a regular basis to make sure that no debris is interfering with the air flow.

MAINTENANCE AND SERVICE (CONT'D)

Glass Cleaning

Clean the glass before use and two or three times each heating season. During start-up condensation (which is normal) forms on the inside of the glass and causes lint, dust and other airborne particles to cling to the glass surface. Also initial paint curing may deposit a slight film on the glass. Use a non-abrasive household cleaner and warm water (we recommend gas fireplace glass cleaner).

General Glass Information

WARNING

Do not operate fireplace with the glass front removed, cracked or broken.

Only glass approved for use by the manufacturer in fireplace may be used for replacement. The glass replacement should be done by a licensed or qualified service person.

WARNING

1. The use of substitute glass will void all product warranties.
2. Care must be taken to avoid breakage of the glass.
3. Under no circumstances should this fireplace be operated without the glass front or with a broken glass front. Replacement of the glass (with gasket) as supplied by the manufacturer should be done by a qualified service person.
4. Do not abuse the glass by striking or hitting it.

WARNING

**Do not use Ammonia based or abrasive cleaners on glass.
Do not attempt to clean glass when glass is hot.**

IMPORTANT SAFETY INFORMATION

⚠ WARNING

Read and follow these safety precautions prior to operating this fireplace. Failure to follow these precautions may result in death, injury, or property damage.

Before enclosing the vent pipe assembly, operate the fireplace to ensure it is venting properly.

⚠ WARNING

DO NOT operate this fireplace without the glass panel installed.

- Alert children and adults to the hazards of high surface temperatures and warn them to stay away to avoid burns or clothing ignition.
- Carefully supervise young children when they are in the same room as the fireplace.
- Do not place clothing or other flammable material on or near the fireplace.
- Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapor and liquids.
- Never burn solid fuels (wood, coal, paper or cardboard etc.) in this fireplace.
- Do not restrict the flow of combustion and ventilation air around the fireplace.
- Due to high temperatures, keep furniture and draperies away from the fireplace.
- Replace the glass front or any part removed for servicing prior to operating the fireplace.
- Vent cap is **hot** while fireplace is in operation and some time afterward.
- Installation and repair should be done by a **QUALIFIED SERVICE PERSON**. The fireplace should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. Keep the control compartments, burners and circulating air passageways clean.

⚠ CAUTION

If the glass is cracked or damaged in any way, it should be replaced only with a complete glass frame assembly from Empire. See parts list on pages 50 and 51 for ordering.

- Do not use this fireplace if any part has been under water. Immediately call a qualified service technician to inspect the fireplace and to replace any part of the control system and any gas control which has been under water.
- Have a qualified technician examine the venting system each year and replace damaged parts.
- Make a periodic visual check of pilot and burners. Clean and replace damaged parts.
- A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this fireplace 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 the manufacturer's barrier for this fireplace.

Combustible Material

Do not attach combustible material to the mantel of your fireplace. This is a fire hazard. No greeting card, stockings or ornamentation of any type should be placed on or attached to the fireplace. This is a heating appliance. The heat can ignite combustibles.

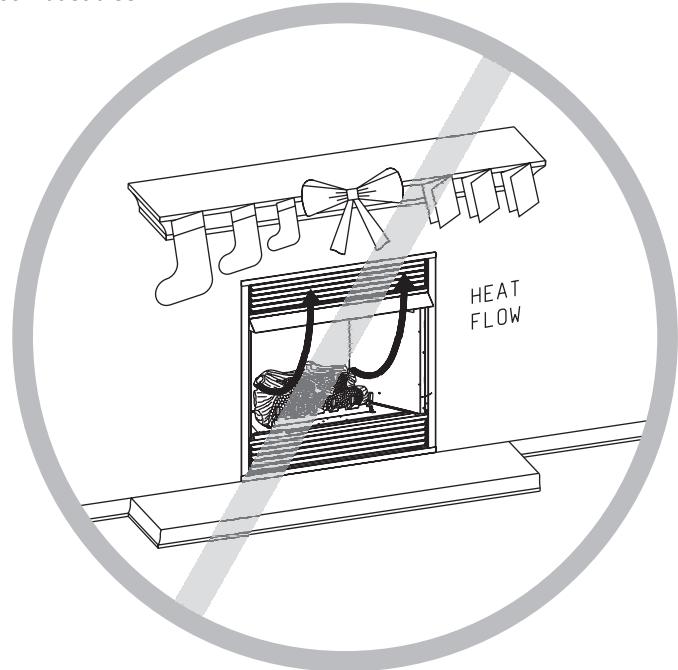


Figure 100

FIREPLACE SERVICE HISTORY

Date	Dealer Name	Service Technician Name	Service Performed/Notes

REQUIREMENTS FOR 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 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. **INSTALLATION OF CARBON MONOXIDE DETECTORS.** At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gasfitter 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 gasfitter 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
 - a. 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.
 - b. 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 days to comply with the above requirements; provided, however, that during said thirty day period, a battery operated carbon monoxide detector with an alarm shall be installed.
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.

3. **SIGNAGE.** A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight feet above grade directly in line with the exhaust vent termination for the horizontally vented gas fueled appliance or equipment. The sign shall read, in print size no less than 1/2 inch in size, "**GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS**".
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.
 - (b) **EXEMPTIONS:** The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:
 1. 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
 2. 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.
 - (d) **MANUFACTURER REQUIREMENTS - 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:
 1. The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
 2. 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 instruction.
 - (e) 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.

MASTER PARTS DISTRIBUTOR LIST

To Order Parts Under Warranty, please contact your local Empire dealer. See the dealer locator at www.empirecomfort.com. To provide warranty service, your dealer will need your name and address, purchase date and serial number, and the nature of the problem with the unit.

To Order Parts After the Warranty Period, please contact your dealer or one of the Master Parts Distributors listed below. This list changes from time to time. For the current list, please click on the Master Parts button at www.empirecomfort.com. Please note: Master Parts Distributors are independent businesses that stock the most commonly ordered Original Equipment repair parts for Heaters, Grills, and Fireplaces manufactured by Empire Comfort Systems Inc.

Dey Distributing

1401 Willow Lake Boulevard
Vadnais Heights, MN 55101

Phone: 651-490-9191

Toll Free: 800-397-1339

Website: www.deydistributing.com

Parts: Heater, Hearth and Grills

F. W. Webb Company

200 Locust Street
Hartford, CT 06114

Phone: 860-722-2433

Toll Free: 800-243-9360

Fax: 860-293-0479

Toll Free Fax: 800-274-2004

Websites: www.fwwebb.com & www.victormfg.com

Parts: Heater, Hearth and Grills

East Coast Energy Products

10 East Route 36
West Long Branch, NJ 07764

Phone: 732-870-8809

Toll Free: 800-755-8809

Fax: 732-870-8811

Website: www.eastcoastenergy.com

Parts: Heater, Hearth and Grills

HOW TO ORDER REPAIR PARTS

Parts Not Under Warranty

Order parts through your Service Person, Dealer, or a Master Parts Distributor. See this page for the Master Parts Distributors list. For best results, the **service person or dealer** should order parts through the distributor. Parts can be shipped directly to the **service person/dealer**.

Warranty Parts

Warranty parts will need a proof of purchase and can be ordered by your Service Person or Dealer.

When ordering parts, first obtain the Model Number and Serial Number from the rating plate on your equipment. Then determine the Part Number from the list in this manual (**not** the Index Number) and the Description of each part from the illustration and part list. Be sure to give all this information . . .

Fireplace Model Number _____

Part Description _____

Fireplace Serial Number _____

Part Number _____

Type of Gas (Propane or Natural) _____

Do not order bolts, screws, washers or nuts. These standard hardware items can be purchased at any local hardware store.

WARRANTY

Empire Comfort Systems Inc. warranties this hearth product to be free from defects at the time of purchase and for the periods specified below. Hearth products must be installed by a qualified technician and must be maintained and operated safely, in accordance with the instructions in the owner's manual. Empire will not warranty any Château, Boulevard, or Mantis fireplace that is not installed by the selling dealer or that dealer's direct contract agents. This warranty applies to the original purchaser only and is not transferable. All warranty repairs must be accomplished by a qualified gas appliance technician.

Limited Lifetime Parts Warranty – Combustion Chamber, Heat Exchanger, And Factory-Installed Glass

If the combustion chamber, heat exchanger (see parts list) or factory-installed glass fails because of defective workmanship or material, Empire will repair or replace at Empire's option.

Limited Three-Year Parts Warranty – All Other Components

(Except Remote Controls, Thermostats, Accessories And Replacement Parts)

Should any part fail because of defective workmanship or material within three years from the date of purchase, Empire will repair or replace at Empire's option.

Limited One-Year Parts Warranty – Remote Controls, Thermostats, Accessories, And Parts

Should any remote control, thermostat, accessory, or other part fail because of defective workmanship within one year from the date of purchase, Empire will repair or replace at Empire's option.

Duties Of The Owner

The appliance must be installed by a qualified installer and operated in accordance with the instructions furnished with the appliance. A bill of sale, cancelled check, or payment record should be kept to verify purchase date and establish warranty period. Ready access to the appliance for service.

What Is Not Covered

Damages that might result from the use, misuse, or improper installation of this appliance.

Travel, diagnostic costs and freight charges on warranted parts to and from the factory.

Claims that do not involve defective workmanship or materials.

Unauthorized service or parts replacements.

Removal and reinstallation cost.

Inoperable due to improper or lack of maintenance.

How To Get Service

To make a claim under this warranty, please have your receipt available and contact your installing dealer.

Provide the dealer with the model number, serial number, type of gas, and purchase verification. The installing dealer is responsible for providing service and will contact the factory to initiate any warranted parts replacements. Empire will make replacement parts available at the factory. Shipping expenses are not covered.

If, after contacting your Empire dealer, service received has not been satisfactory, contact: Consumer Relations Department, Empire Comfort Systems Inc., PO Box 529, Belleville, Illinois 62222, or send an e-mail to info@empirecomfort.com with "Consumer Relations" in the subject line.

Your Rights Under State Law

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.



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www.empirecomfort.com

**Empire Comfort Systems Inc.
Belleville, IL**

If you have a general question
about our products, please e-mail
us at info@empirecomfort.com.

If you have a service or repair
question, please contact your dealer.