

# INSTALLATION INSTRUCTIONS

**INSTALLER:**

Leave this manual with the appliance.

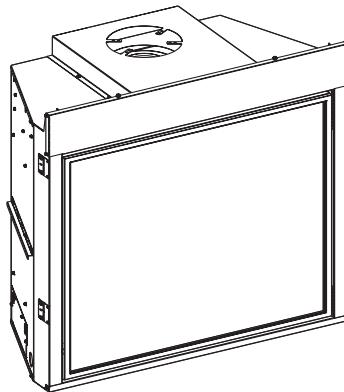
**CONSUMER:**

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 SERIES MODELS:****MILLIVOLT (MV)**  
DVCP42BP30K(N,P)-4**INTERMITTENT PILOT (IP)**  
DVCP42BP70K(N,P)-4

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

**NATIONAL  
FIREPLACE  
INSTITUTE****CERTIFIED**[www.nficertified.org](http://www.nficertified.org)

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



UL FILE NO. MH30033

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.

# TABLE OF CONTENTS

SECTION	PAGE
ATTENTION INSTALLER.....	3
BEFORE YOU START .....	4-5
CARTON CONTENTS .....	6
INTRODUCTION.....	7
HOMEOWNER REFERENCE INFORMATION.....	7
SPECIFICATIONS.....	8
ACCESSORIES .....	9
FIREPLACE DIMENSIONS .....	10
FBB10 BLOWER KIT INSTALLATION (OPTIONAL) .....	11-13
CLEARANCES .....	14
TERMINATION CLEARANCES .....	15
VENT TERMINAL CLEARANCES .....	16
GAS SUPPLY.....	17
SAFETY INFORMATION FOR USERS OF PROPANE GAS.....	18
LOCATING FIREPLACE .....	19
JUNCTION BOX WIRING INSTALLATION INSTRUCTIONS .....	19
MILLIVOLT STANDING PILOT WIRING DIAGRAM .....	20
IPI ELECTRONIC SYSTEM WIRING DIAGRAM.....	21
INSTALLATION .....	22-25
VENT FRAMING .....	26-27
VENT SYSTEM IDENTIFICATION.....	28
SPECIAL VENT SYSTEMS .....	28
VENTING FIREPLACE - TOP .....	29-32
EXAMPLES - TOP VENT RUN .....	33
HORIZONTAL TERMINATION .....	34
VERTICAL TERMINATION .....	35-36
DVK-4F FLEX VENT INSTRUCTIONS.....	37-38
MILLIVOLT STANDING PILOT LIGHTING INSTRUCTIONS.....	39
MILLIVOLT OPERATING INSTRUCTIONS .....	40
MILLIVOLT STANDING PILOT TROUBLESHOOTING .....	41
INTERMITTENT PILOT LIGHTING INSTRUCTIONS.....	42
IPI ELECTRONIC SYSTEM OPERATING INSTRUCTIONS .....	43
INTERMITTENT PILOT CONTROL SYSTEM TROUBLESHOOTING .....	44-45
MILLIVOLT PARTS VIEW - DVCP42BP3 .....	46
MILLIVOLT PARTS LIST - DVCP42BP3 .....	47
IP PARTS VIEW - DVCP42BP7 .....	48
IP PARTS LIST - DVCP42BP7 .....	49
MAINTENANCE AND SERVICE .....	50-52
IMPORTANT SAFETY INFORMATION .....	53
REQUIREMENTS FOR MASSACHUSETTS .....	54
APPLIANCE SERVISE HISTORY.....	55-56
ANNUAL FIREPLACE INSPECTION CHECKLIST .....	57
MASTER PARTS DISTRIBUTOR LIST.....	58
HOW TO ORDER REPAIR PARTS .....	58
WARRANTY .....	59

# 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 (pg. 14).....  
 \_\_\_\_\_
- Fireplace is leveled and secured.....  
 \_\_\_\_\_

### VENTING/CHIMNEY HEAT DISTRIBUTION

- Venting configuration complies to vent diagrams (pg. 29).....  
 \_\_\_\_\_
- Venting installed, locked, secured in place with correct clearance.....  
 \_\_\_\_\_
- Firestops installed.....  
 \_\_\_\_\_
- Exterior wall/roof flashing installed and sealed.....  
 \_\_\_\_\_
- Terminations installed and sealed (pgs. 25-38).....  
 \_\_\_\_\_
- Light unit and test venting before enclosing the fireplace .....
- \_\_\_\_\_

### COMMENTS

### ELECTRICAL (pgs. 19-21)

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

### GAS (pgs. 17-18)

- Proper appliance for fuel type.....  
 \_\_\_\_\_
- Was a conversion performed?.....  
 Yes    No  
 \_\_\_\_\_
- Leak check performed and inlet pressure verified.....  
 \_\_\_\_\_

### FINISHING (pg. 24)

- Non-combustable board installed as required .....
- \_\_\_\_\_
- Verified all clearances meet installation manual requirements.....  
 \_\_\_\_\_
- Mantels and wall projections meet requirements .....
- \_\_\_\_\_
- Granite or Clean Face finishing complies with clearance requirements screen .....
- \_\_\_\_\_
- Barrier for glass front properly installed.....  
 \_\_\_\_\_

### FIREPLACE SETUP

- All packaging and protective materials removed (inside & outside of fireplace) .....
- \_\_\_\_\_
- Media installed correctly .....
- \_\_\_\_\_
- Firebox glass door 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.....  
 \_\_\_\_\_
- Provide homeowner with "Scratch & Sniff" odor card .....
- \_\_\_\_\_

### 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, etc) and corrective action needed:

Comments communicated to party responsible \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_

# BEFORE YOU START

## Sample Warnings and Definitions:

<b>DANGER</b>
Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
<b>WARNING</b>
Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
<b>CAUTION</b>
Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

**NOTICE:** Addresses practices not related to personal injury.

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

The warranty will be voided by, and the warrantee 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 away shrink-wrap material around the unit.  
Retain instruction manual and instruction sheets.
2. Remove non-combustible board from the rear of the fireplace, and place in a safe location. It will be needed for installation.
3. Get help to lift fireplace.

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.

## Television Considerations

# BEFORE YOU START (CONT'D)

## Preparation

This fireplace and its components are safe when installed in accordance with this manual. Report any parts damaged in shipment to your dealer. Do not install the fireplace with damaged, incomplete or substitute parts.

## Installation Considerations

- Gas supply piping – right or left side entrance
- Electrical supply and connections 120V, 60Hz, 1 Amp, right side entrance
- Allowable fireplace mounting surfaces:
  1. A flat, hard, combustible or non-combustible surface
  2. A raised platform of combustible or non-combustible material.
  3. The four corners of the fireplace onto non-combustible material so that contact is made on all four perimeter edges on the bottom of the fireplace – such as on cinder blocks (where allowed by local codes).
- If the fireplace is installed directly on carpeting, tile or other combustible material other than wood flooring, it should be installed on a metal or wood panel 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 with the fireplace.

## Planning the installation

First 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 31-38**) 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, you will need to move the utilities or relocate the fireplace.
- Gas supply piping (right or left side of entrance) – (**See pipe size and specs on Page 17**).
- Electrical supply requirements (120V, 60Hz, 1 Amp) (right side entrance)
- Proper framing required for installation of the fireplace. See framing dimensions on (**See Page 22**).
- Finishing the fireplace – drywall thickness, tile or stone thickness, and the desired decorative accessories can affect how you frame the opening and how you attach the nailing flanges to set the proper depth. (**See Page 24**) for finishing details, before you begin.

## Accessories

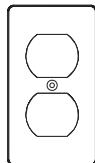
Most accessories install much more easily before fitting the fireplace to the opening.

For example, it takes just 10-15 minutes to install the blower side before it's framed in. Once the fireplace is framed in, it takes up to an hour.

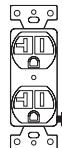
# CARTON CONTENTS



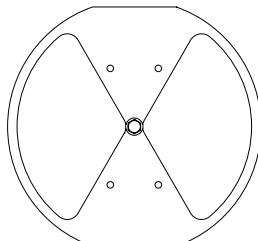
1



2



3



LP

4



5



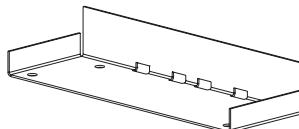
6



7



8



9

**NOTICE:** Items not shown to scale.

INDEX NUMBER	DESCRIPTION	QUANTITY SUPPLIED	
		DVCP42BP3 SERIES	DVCP42BP7 SERIES
1	Rock Wool	1	1
2	Receptacle Cover	1	2
3	Receptacle	1	2
4	Flue Restrictor Assembly - <b>(See Page 30)</b>	1	1
5	10 X 1/2 Phillips Screw	12	12
6	#8 X 1 Self-Drilling Drywall Screw	8	8
7	AA Battery	0	4
8	AC Adaptor	0	1
9	Backer Stud	4	4

**See Parts Lists on pages 48 - 51** for ordering replacement parts. Do not order batteries, bolts, screws, washers or nuts. They are standard hardware items and can be purchased at any local hardware store.

# INTRODUCTION

The information in this manual pertains to all models and gas control systems unless otherwise noted.

## Instructions to Installer

1. Leave this manual with homeowner.
2. Have the homeowner complete the product registration card or register online at [www.empirecomfort.com](http://www.empirecomfort.com)
3. Show the homeowner how to start and operate the fireplace.

## Notes to Installer

- This direct-vent fireplace is designed to:
  - Operate with combustion air drawn from outside of the building.
  - Expel all exhaust gases to the outside of the building.
- 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.
- This fireplace is not for use with solid fuels.
- These fireplace models may be installed in a bedroom or bed-sitting room in the U.S.A. and Canada.

## WARNING

**Any change to this fireplace can be dangerous. Improper installation or use can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.**

## Fireplace Certification

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.

## 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. Requirements on Page 54.

## High Altitude (USA)

When installing this fireplace at an elevation above 2000 feet (in the United States) it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Generally, input should be reduced 4 percent for each 1000 feet above sea level.

## High Altitude (CANADA)

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

When installing this fireplace at an elevation above 4500 feet (in Canada), check with local authorities.

Consult your local gas utility for assistance in determining the proper orifice for your location.

# SPECIFICATIONS

	<b>DVCP42NAT</b>	<b>DVCP42LP</b>
Input BTU/Hr Maximum	28,500	26,500
Input BTU/Hr Minimum (millivolt only)	21,000	22,000
KWH (Maximum)	8.35	7.77
KWH (Minimum)	6.15	6.45
Orifice	39	1.55mm
Air Shutter Opening	1/8-in	Full Open
Gas Inlet Shut-Off Valve (Pipe)	1/2 NPT	1/2 NPT

**NOTICE:** Air shutters are factory set for typical venting. Some venting configurations may require minor air shutter adjustments for optimum performance.

<b>GAS SUPPLY PRESSURES</b>			
<b>GAS TYPE</b>	<b>MAXIMUM</b>	<b>MINIMUM</b>	<b>MANIFOLD</b>
Natural	14.0-in	4.5-in	3.5-in
Propane	14.0-in	10.8-in	10.0-in

<b>Remote Control Options And Accessories</b>	<b>Description</b>	<b>Models Used On</b>
FRBC	Millivolt Battery Remote ON/OFF	ALL
FRBTC	Millivolt Battery Remote Thermostat	ALL
TMW	Millivolt Wireless Wall Thermostat	ALL
TRW	Millivolt Reed Switch Wall Thermostat	ALL
FWS-1	Direct Ignition/Millivolt Wall Switch	ALL
FRBTP	Battery Operated Remote Control with Programmable Thermostat	ALL
RVKN-1	Remote Kit, Natural (Stepper Motor)	DVCP42BP7N
RVKP-1	Remote Kit, Propane (Stepper Motor)	DVCP42BP7P

<b>Venting Options</b>	<b>Description</b>
DVK-4TSP	Top vent kit (horizontal) - 4-½-in to 6-in (114.3mm to 152mm) wall thickness
DVK-4TP	Top vent kit (horizontal) - 8-in to 12-in (203mm to 305mm) wall thickness
DVK-4VP	Vertical vent kit
DVK-4F	Horizontal flex vent kit (4ft FLEX)
SD46DVA-FCFX7	Flex Adaptor Collar (must be used with flex kits)

<b>Conversion Kits</b>	<b>Description</b>	<b>Used On</b>
31772	Conversion Kit, DV (Natural to Propane)	DVCP42BP30
31773	Conversion Kit, DV (Propane to Natural)	DVCP42BP30
32878	Conversion Kit, DV (Natural to Propane)	DVCP42BP70
32879	Conversion Kit, DV (Propane to Natural)	DVCP42BP70

## ACCESSORIES

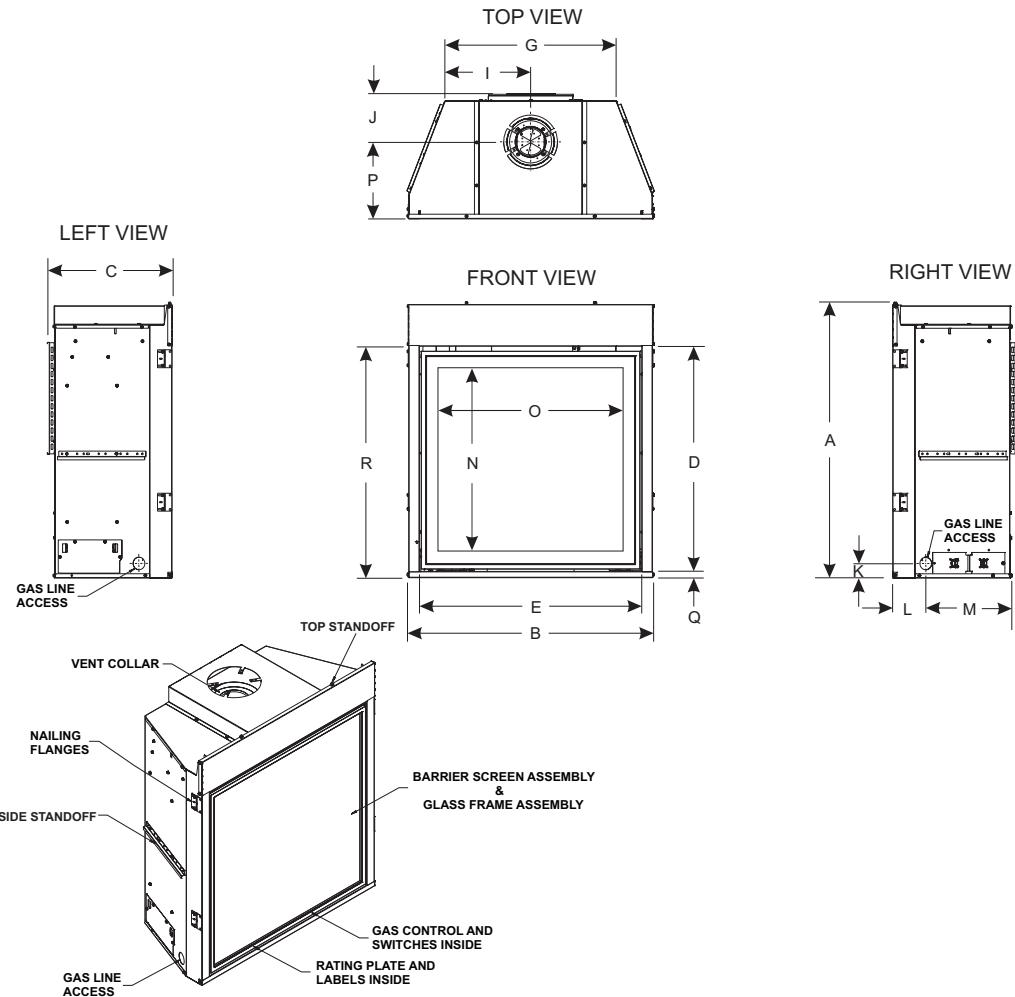
The following accessories are available from your Empire Comfort Systems dealer. If you need additional information beyond what your dealer can furnish, contact Empire Comfort Systems Inc., 918 Freeburg Ave., Belleville, Illinois 62220-2623 or info@empirecomfort.com.

DVCP42	Description
DVP42FAB	Liner, Aged Brick, Ceramic Fiber
DVP42FCB	Liner, Cottage Brick, Ceramic Fiber
DVP42FRB	Liner, Rustic Brick, Ceramic Fiber
DVP42NKR	Liner, Black Reflective
FBB10	Blower, Auto Variable-Speed
LK6	Lighting Kit, 120 V

### REQUIRED

This unit requires Ceramic Fiber Logs to complete the fireplace interior. Contact your Empire Comfort Systems Dealer (**See Page 58**) for further information. Do not operate the fireplace without the Ceramic Fiber Logs installed.

# FIREPLACE DIMENSIONS



INDEX LETTER	DIMENSION DESCRIPTION	DVCP42 (Inches)
A	The maximum height of fireplace face (excluding standoffs)	40-1/4
B	The maximum width of the fireplace face (excluding nailing flanges)	43-7/16
C	The maximum depth of the fireplace	17-1/2
D	The height of the fireplace opening	33-3/8
E	The width of the fireplace opening	40
F	The interior depth of the fireplace (not shown)	11-1/2
G	The rear exterior width of the fireplace	32-15/16
I	Width from the left side of the fireplace to the centerline of vent	16-1/2
J	Depth from back of fireplace to centerline of top vent	6-3/4
K	Height from the bottom of the fireplace to the left gas line opening	2
L	Depth from the front of the fireplace to the left gas line opening	4-5/8
M	Depth from rear of fireplace to gas line opening	12-5/16
N	Viewing area height	26-3/8
O	Viewing area width	36-1/2
P	Depth from front of fireplace to centerline of vent	10-3/4
Q	Distance from floor to bottom fireplace opening	7/8
R	Distance from floor to top fireplace opening	34-1/4

# FBB10 BLOWER KIT INSTALLATION (OPTIONAL)

## BEFORE FIREPLACE IS INSTALLED IN WALL

- With power turned off, remove plate and four screws from left panel. **See Figure 1.**

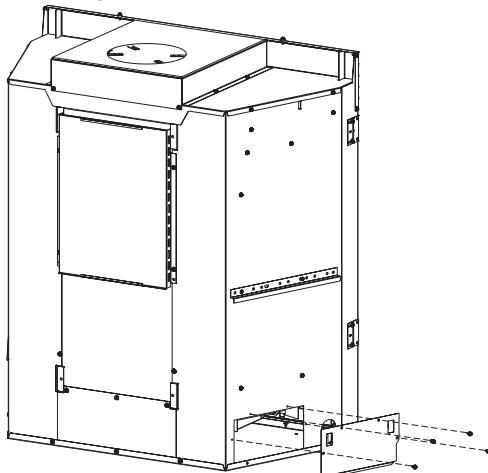
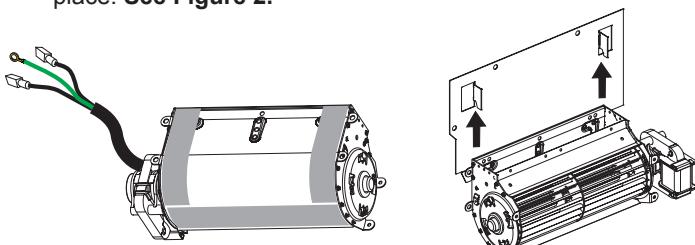


Figure 1

- Install the blower onto the pre-bent brackets on the blower plate. Ensure the Velcro connects to secure the blower in place. **See Figure 2.**



Back side of Blower  
showing Velcro

Figure 2

- Route wiring through opening created in Step 1.
- Secure blower assembly into place per step 2 with velcro.
- Install thermo disc by snapping into valve bracket burner assembly. **See Figure 3.**

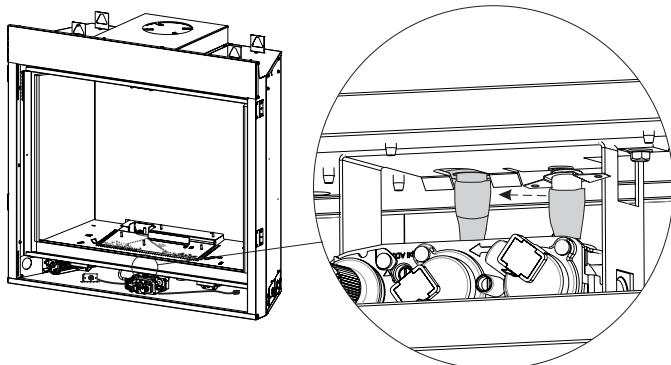


Figure 3

- Connect power source into outlet on the bottom right side of the fireplace.

## AFTER FIREPLACE IS INSTALLED IN WALL

**NOTICE:** Do not handle barrier screen or door with your bare hands! (Always Wear Gloves)

- Turn off power and gas. Lift barrier screen and pull away from the unit. **See Figure 4.**

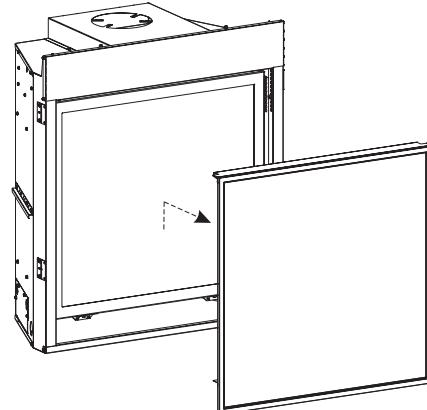


Figure 4

- Pull outward to release both latches at bottom of firebox assembly. **See Figure 5.**

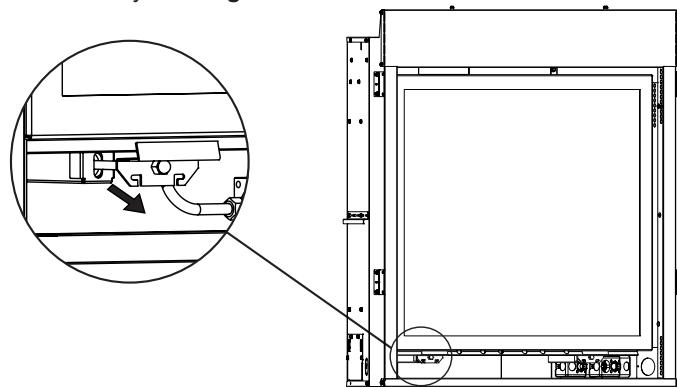


Figure 5

- Disengage Glass Frame by pulling outward in a swinging motion. Place Glass Frame aside in a safe out-of-the-way location. **See Figure 6.**

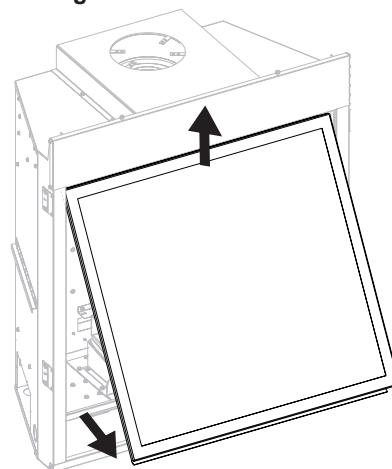


Figure 6

## FBB10 BLOWER KIT INSTALLATION (OPTIONAL) (CONT'D)

4. Remove log set and decorative media. Remove brackets and liners if installed. Retain bracket and screws for reassembly. **See Figure 7. (Reflective liners shown)**

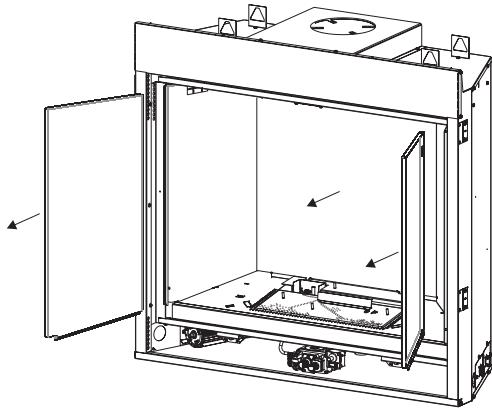


Figure 7

7. Remove the four screws securing burner and slide to right then lift burner off. Retain burner and screws for reassembly. **See Figure 10.**

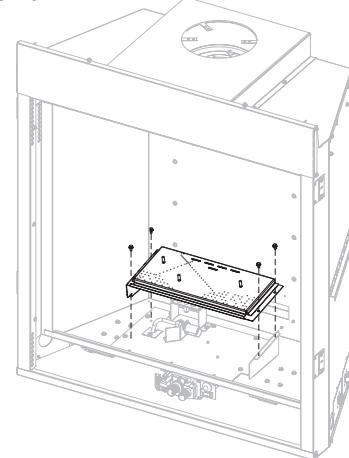


Figure 10

5. Remove burner cover by lifting off. **See Figure 8.**

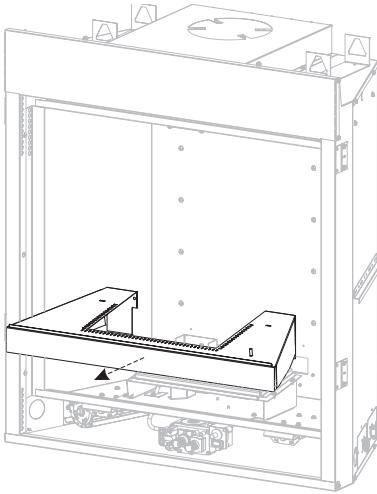


Figure 8

8. Remove ten screws and lift burner assembly. Disconnect gas line. Retain screws and burner assembly for reassembly. **See Figure 11.**

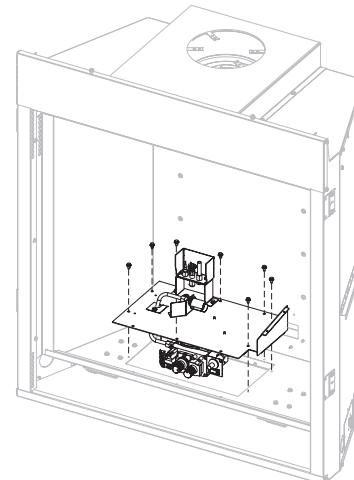


Figure 11

6. Remove log support by removing the two screws securing the metal plate to log support. Retain log support and screws for reassembly. **See Figure 9.**

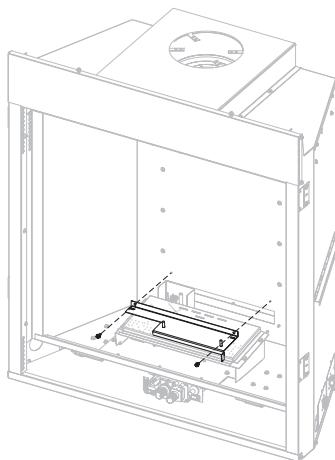


Figure 9

9. Remove the four screws securing the left latch assembly to the underside of the firebox. Retain screws and latch assembly for reassembly. **See Figure 12.**

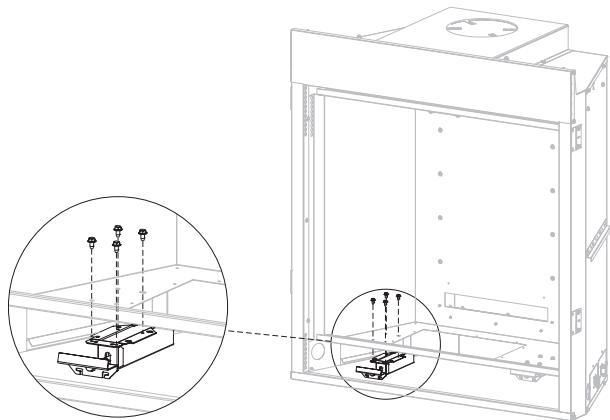
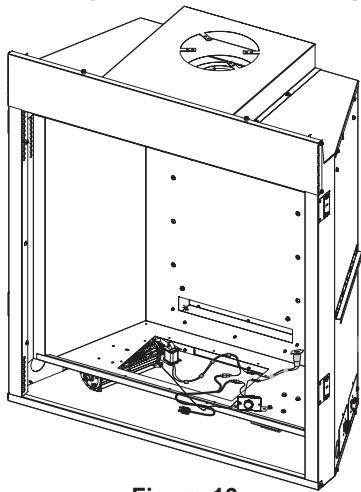


Figure 12

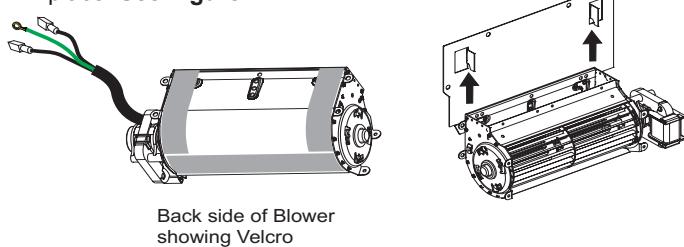
# FBB10 BLOWER KIT INSTALLATION (OPTIONAL) (CONT'D)

10. Install blower through firebox cutout. **See Figure 13.**



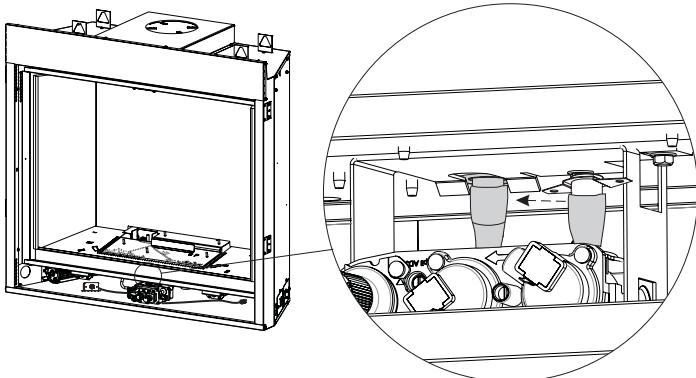
**Figure 13**

11. Install the blower onto the pre-bent brackets on the blower plate. Ensure the Velcro connects to secure the blower in place. **See Figure 14.**



**Figure 14**

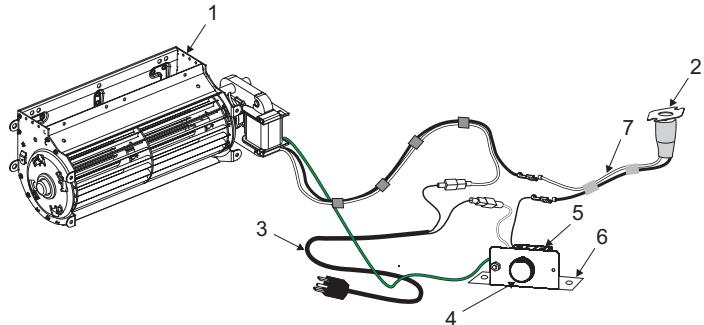
12. Reinstall the latch assembly removed in step 9. **See Figure 12.**  
13. Install thermo disc by snapping into valve bracket burner assembly. **See Figure 15.**



**Figure 15**

14. Reconnect gas line and turn gas on. Check for leaks.  
15. Reinstall the burner assembly and ten screws removed in step 8. **See Figure 11.**  
16. Reinstall the burner and four screws removed in step 7. **See Figure 10.**  
17. Reinstall the log support and secure it with metal plate and two screws removed in step 6. **See Figure 9.**  
18. Replace burner cover removed in step 5. **See Figure 8.**  
19. Replace liner and bracket if removed in step 4. **See Figure 7.**  
20. Replace log set and decorative media.

21. Turn on power.  
22. Reinstall the glass frame removed in steps 2 and 3. **See Figures 5 and 6.**  
23. Replace barrier screen removed in step 1. **See Figure 4.**



**BLOWER ASSEMBLY PARTS LIST**

Index No.	Part No.	Description	Qty.
1	R2804	Blower Assembly	1
2	R7649	Fan, Control L120-20	1
3	R2099	Cord Set, 30-Inches	1
4	R4192	Rheostat, Knob	1
5	R4186	Rheostat, 3.0 AMP 115 VAC	1
6	10088	Rheostat Box Bracket	1
7	R11768	Wire Harness, Fan Control	1

**Figure 16**

# CLEARANCES

CLEARANCE TO COMBUSTIBLES	
Dimensions (Inches)	
Back	0
Side	0
Floor	0
Top Framing Edge	See Below

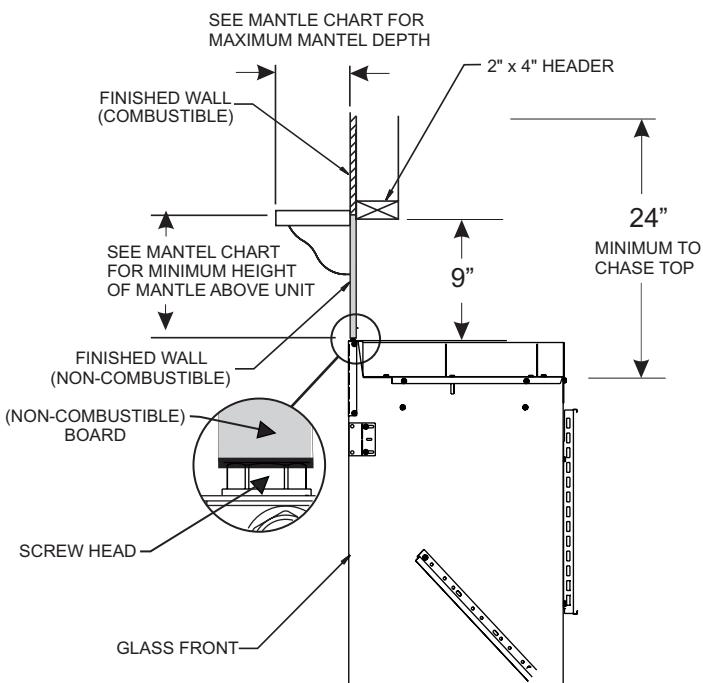


Figure 17

## Combustible Material

No greeting cards, stockings or ornamentation of any type should be placed on or attached to the fireplace. The flow of heat can ignite combustibles.

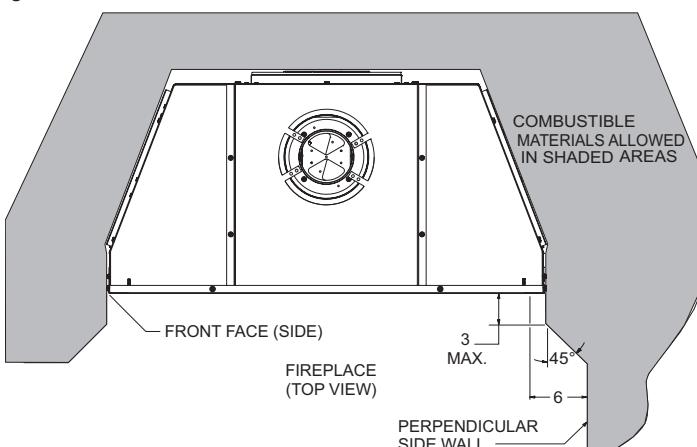
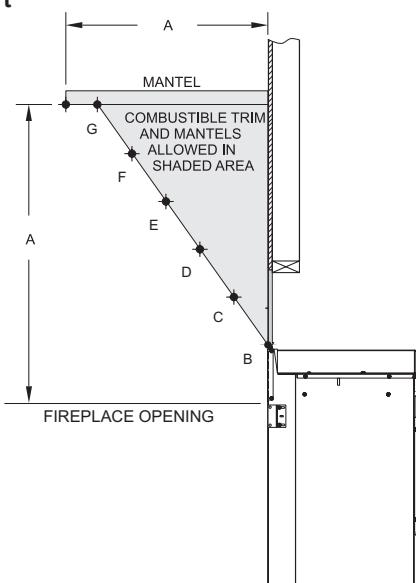


Figure 18

## Mantel Chart



INDEX LETTER	DISTANCE FROM TOP EDGE OF FIREPLACE (VERTICAL)	DISTANCE FROM FIREPLACE FRONT (HORIZONTAL)
	Dimensions (Inches)	
A	18	12
B	6	0
C	9	2-1/4
D	11	3-3/4
E	14	6
F	16-3/4	8
G	18	10

Figure 19

## Clearances

Clearance from bottom edge of fireplace to ceiling is 72-inches. Clearance from side of fireplace to adjacent sidewall is 6-inches. Refer to framing dimensions on page 22.

**NOTICE:** 72 inch minimum applies when unit is installed in wall above floor level.

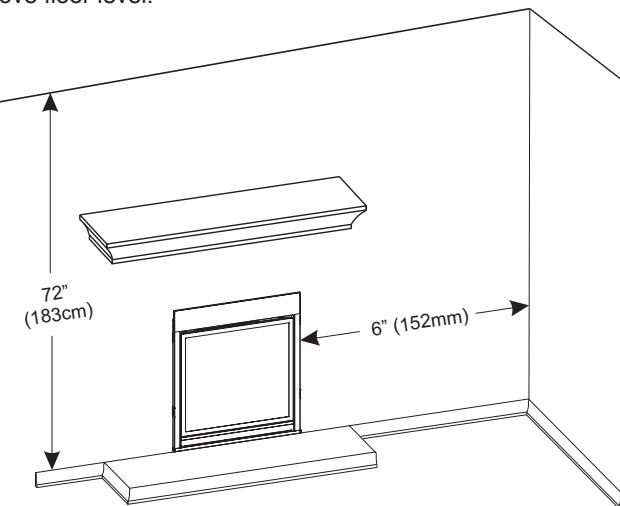


Figure 20

# TERMINATION CLEARANCES

Termination clearance for buildings with combustible and noncombustible exteriors.

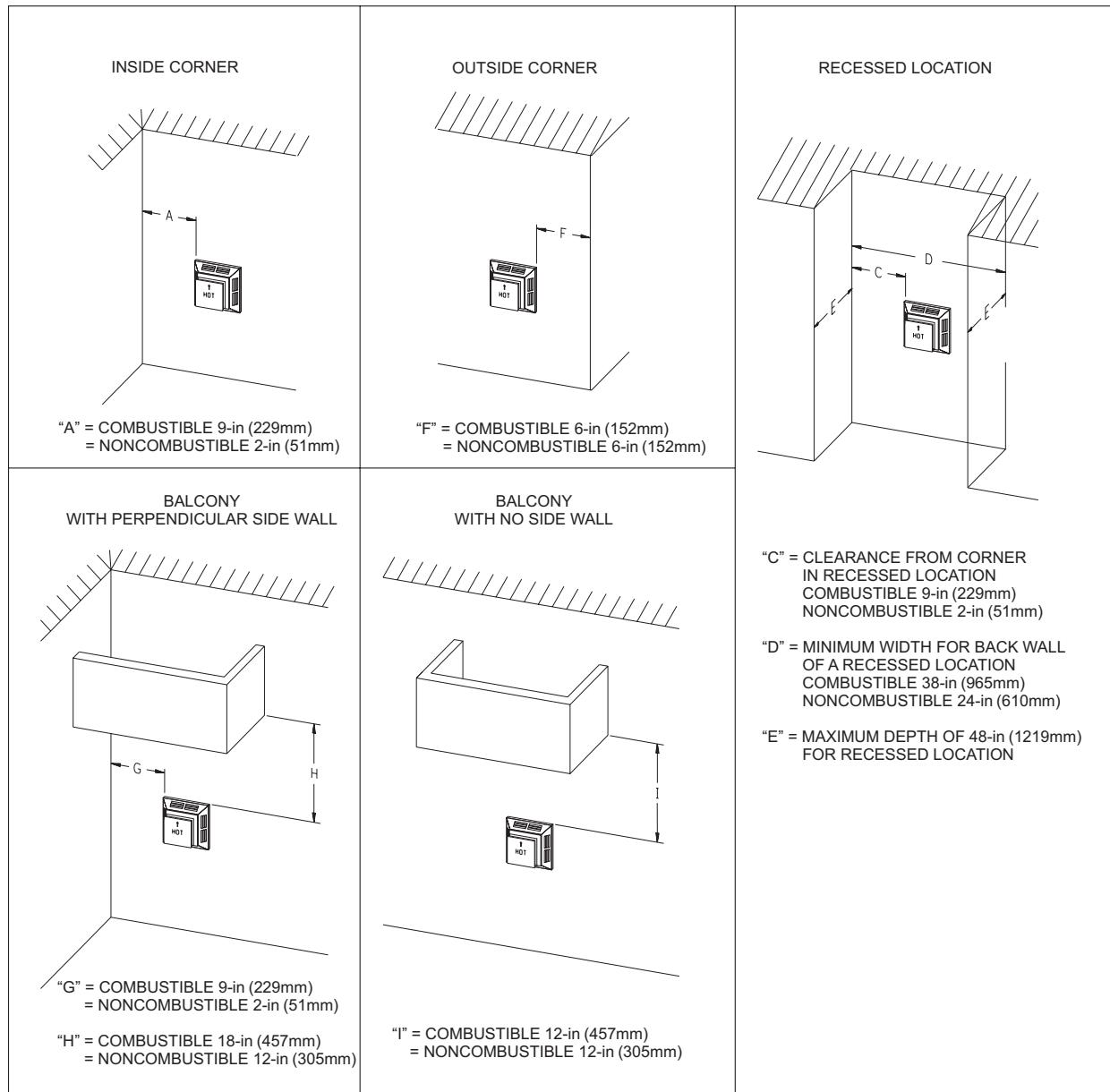


Figure 21

## Vertical Sidewall Installations

**Important!** Minimum clearance between vent pipes and combustible materials is 3 inches (76 millimeter) on top, and 2 inches (51 millimeter) on bottom and sides.

**Important!** When vent termination exits through foundation less than 20 inches (508 millimeter) 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

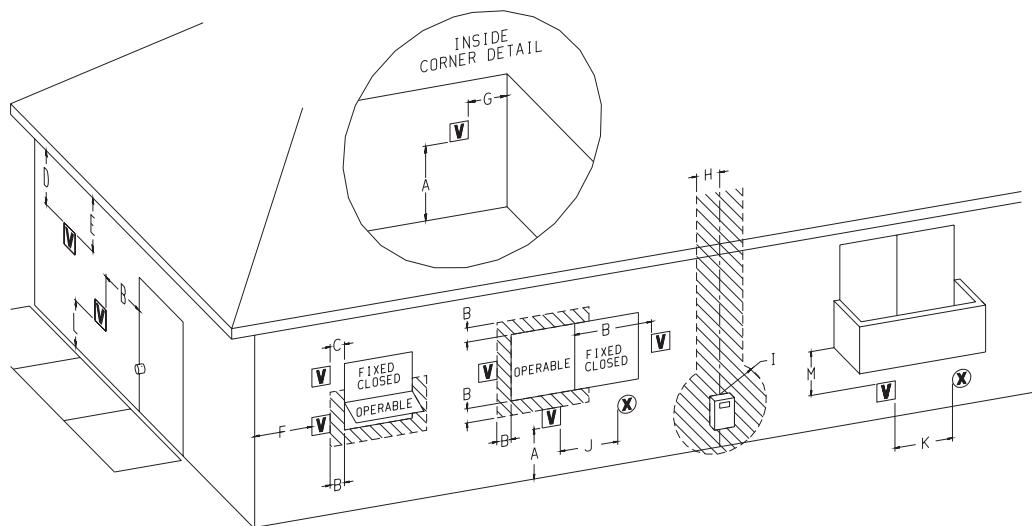
**Important:** Locate the fireplace in such a way that minimizes the number of offsets and horizontal vent length.

Venting system must maintain a balance between the combustion air intake and the flue gas exhaust. Limitations to vent configurations apply.

## 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 TERMINAL CLEARANCES



**V** VENT TERMINAL

**X** AIR SUPPLY INLET

**¶** AREA WHERE TERMINAL IS NOT PERMITTED

	Canadian Installations1	US Installations2
A= Clearance above grade, veranda, porch, deck, or balcony	12-in (30cm)	12-in (30cm)
B= Clearance to window or door that may be open	6-in (15cm) for appliances ≤ 10,000 Btuh (3kW), 12-in (30cm) for appliances > 10,000 Btuh (3kW) and ≤ 100,000 Btuh (30kW), 36-in (91cm) for appliances > 100,000 Btuh (30kW)	6-in (15cm) for appliances ≤ 10,000 Btuh (3kW), 9-in (23cm) for appliances > 10,000 Btuh (3kW) and ≤ 50,000 Btuh (15kW), 12-in (30cm) for appliances > 50,000 Btuh (15kW)
C= Clearance to permanently closed window	12-in (30cm)	12-in (30cm)
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 (61cm)	24-in (61cm)
E= Clearance to unventilated soffit	12-in (30cm)	12-in (30cm)
F= Clearance to outside corner	6-in (15cm)	6-in (15cm)
G= Clearance inside corner	9-in (23cm)	9-in (23cm)
H= Clearance to each side of center line extended above meter/regulator assembly	3ft (91cm) within a height 15ft (4.5m) above the meter/regulator assembly	3ft (91cm)

## 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.

	Canadian Installations1	US Installations2
I= Clearance to service regulator vent outlet	3ft (91cm)	6ft
J= Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6-in (15cm) for appliances ≤ 10,000 Btuh (3kW), 12-in (30cm) for appliances > 10,000 Btuh (3kW) and ≤ 100,000 Btuh (30kW), 36-in (91cm) for appliances > 100,000 Btuh (30kW)	6-in (15cm) for appliances ≤ 10,000 Btuh (3kW), 9-in (23cm) for appliances > 10,000 Btuh (3kW) and ≤ 50,000 Btuh (15kW), 12-in (30 cm) for appliances > 50,000 Btuh (15kW)
K= Clearance to a mechanical air supply inlet	6ft (1.83m)	3ft (91cm) above if within 10ft (3m) horizontally
L= Clearance above paved sidewalk or paved driveway located on public property	7ft (2.13m) †	7ft (2.13m) †
M= Clearance under veranda, porch deck, or balcony	12-in (30cm) ‡	12-in (30cm) ‡

1 In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code

2 In Accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code

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

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

\* 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.

Figure 22

# GAS SUPPLY

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

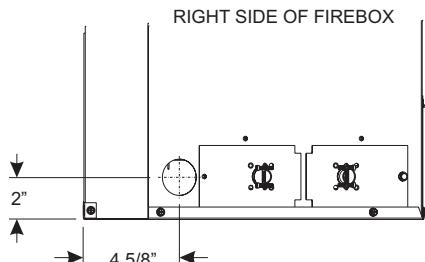


Figure 23

## FLEXIBLE GAS LINE CONNECTION

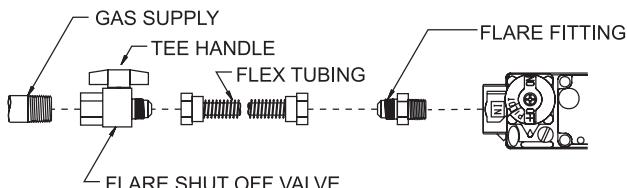


Figure 24

The gas lines must be checked for leaks by the installer. This should be done with a soap solution watching for bubbles on all exposed connections, and if unexposed, a pressure test should be made.

### WARNING

**Never use an exposed flame to check for leaks. Appliance must be disconnected from piping at inlet of control valve and pipe capped or plugged for pressure test. Never pressure test with appliance connected; control valve will sustain damage!**

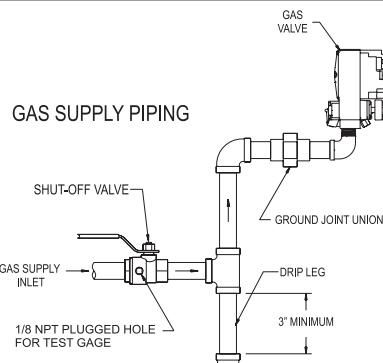


Figure 25

**NOTICE:** The millivolt gas controls are 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.

On direct ignition valves, hex plugs may be replaced with hose fittings for pressure checks, then reinstalled before operating fireplace. When using copper or flex connector use only approved fittings. 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 (3.5kPa).

The fireplace must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5kPa).

### WARNING

**Pressures in excess of 1/2 psig (14 inches w.c.) (3.5kPa) on the fireplace gas valve, may damage the valve.**

## Checking Manifold Pressures

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

Propane Gas models will have a manifold pressure approximately 10.0 inches w.c. (2.49kPa) at the valve outlet with the inlet pressure to the valve from a minimum of 10.8 inches w.c. (2.68kPa) for the purpose of input adjustment to a maximum of 14.0 inches w.c. (3.484 kPa).

	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.)			
Natural Gas	3.5 - Normal (HI)		
Propane Gas	10.0 - Normal (HI)		

**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 use of the following gas connectors is 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. 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 25. 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.

## Installing a New Main Gas Supply Valve (Check Local Code)

Each appliance should have its own manual gas supply valve. A manual main gas supply valve should be located in the vicinity of the unit. 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.

# 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 firefighters 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.

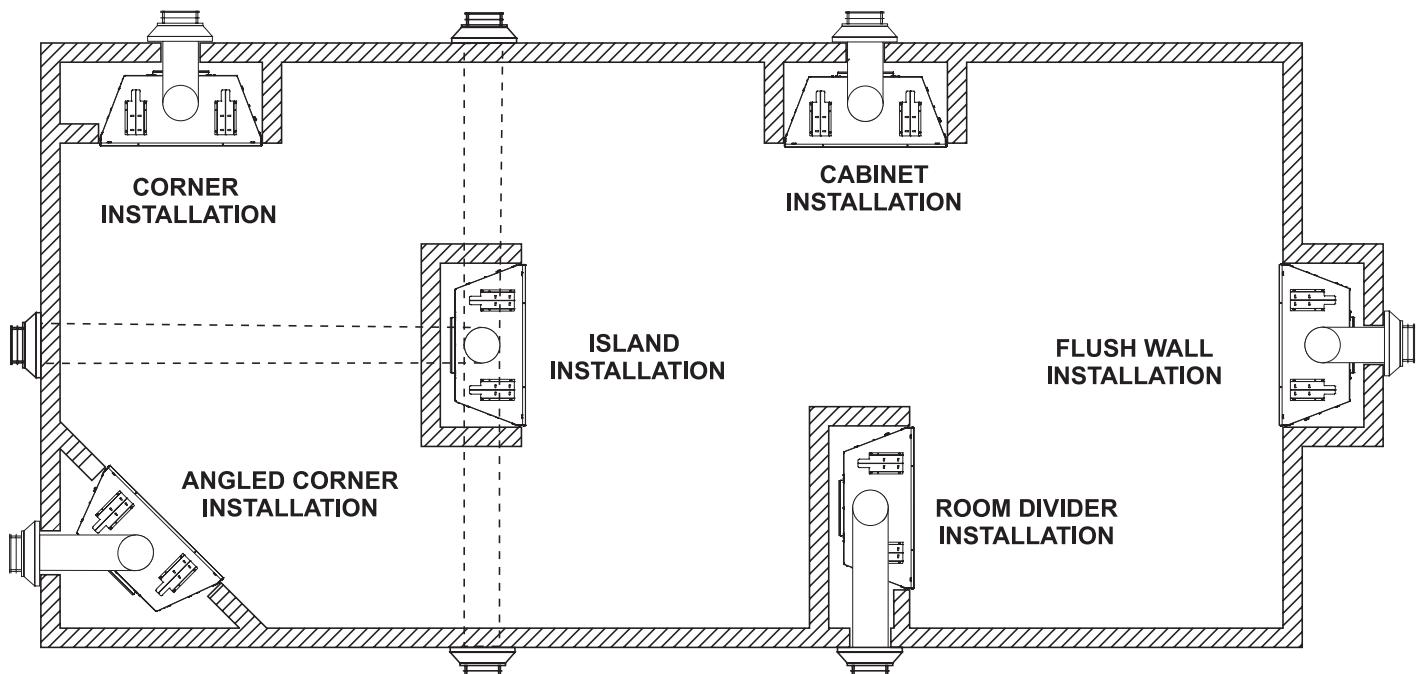
The odorant in escaped gas can adsorb or absorb onto or into walls, masonry and other materials and fabrics in a room. That will take some of the odorant out of the gas, reducing its odor intensity.

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.

## SOME POINTS TO REMEMBER

- 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.

# LOCATING FIREPLACE



**NOTICE:** Island and room divider installation is possible as long as the horizontal portion of the vent system does not exceed 20 feet with a minimum vertical run of 8 feet. See details in Venting Section.

When you install your Direct Vent Fireplace in Room divider or Flat on wall corner positions, a minimum of 6 inches clearance must be maintained from the perpendicular wall and the front edge of the appliance.

Figure 26

## JUNCTION BOX WIRING INSTALLATION INSTRUCTIONS

### ⚠ CAUTION

All wiring shall 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 appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code ANSI/NFPA 70 (Latest Edition).

#### Junction Box

For electric accessories such as a light kit or blower, make all wiring connections inside the junction box located on lower right side of fireplace.

Attach black to black and white to white. Attach the ground wire to the ground on the junction box. (**Figure 27**)

**NOTICE:** A one-inch diameter hole should be used to pass wiring through studs.

#### JUNCTION BOX WIRING

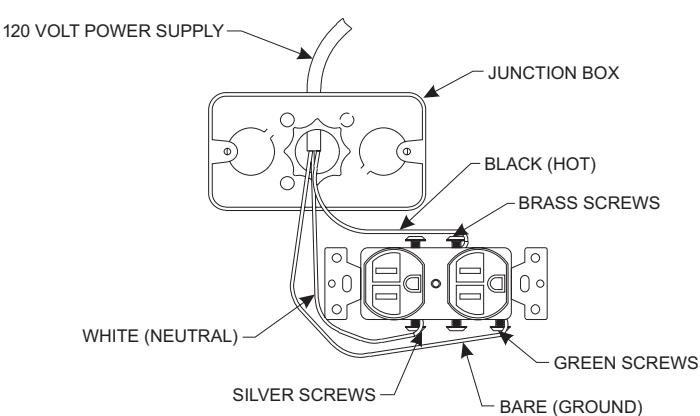


Figure 27

# MILLIVOLT STANDING PILOT WIRING DIAGRAM (BP3 SERIES)

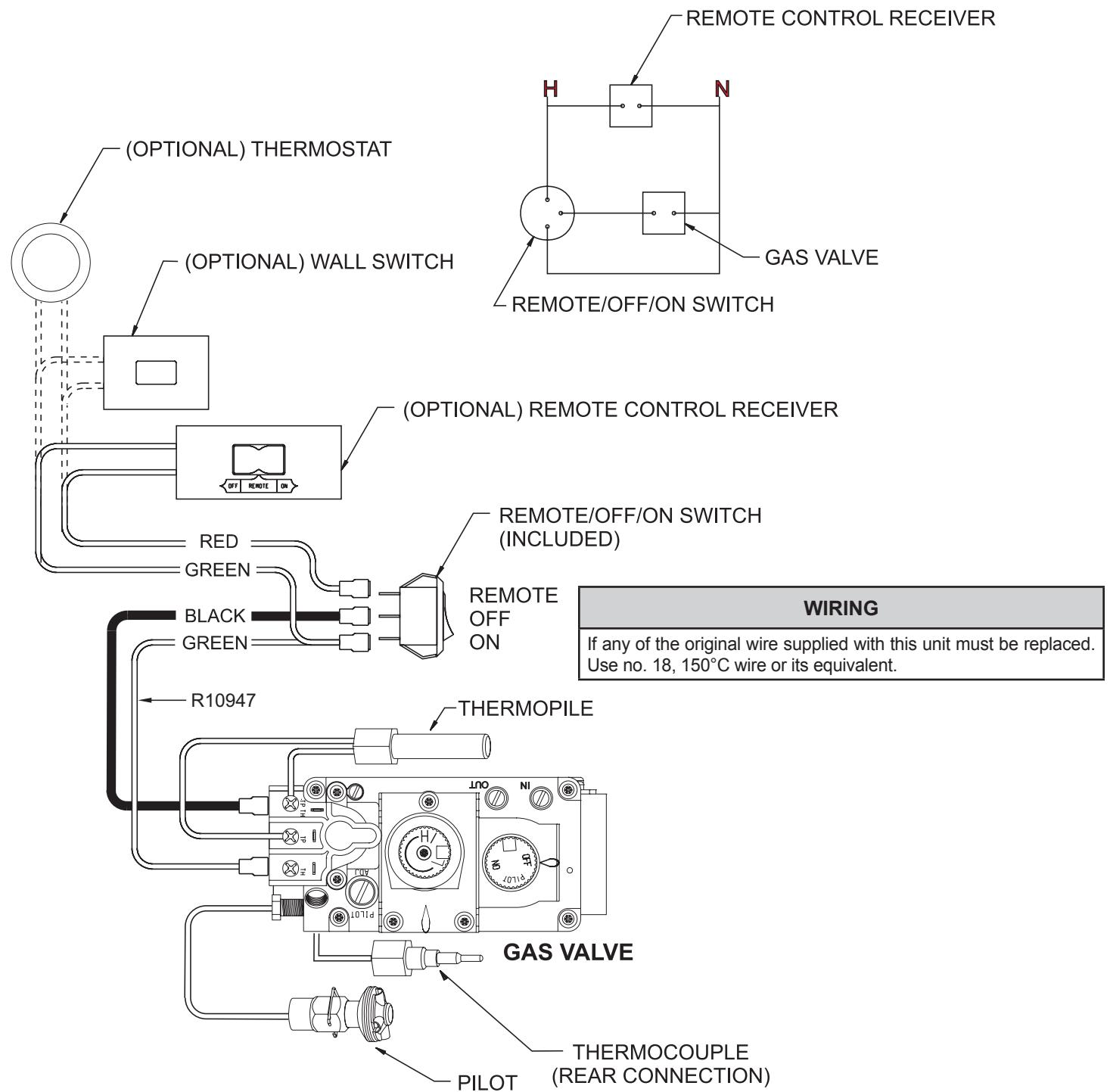
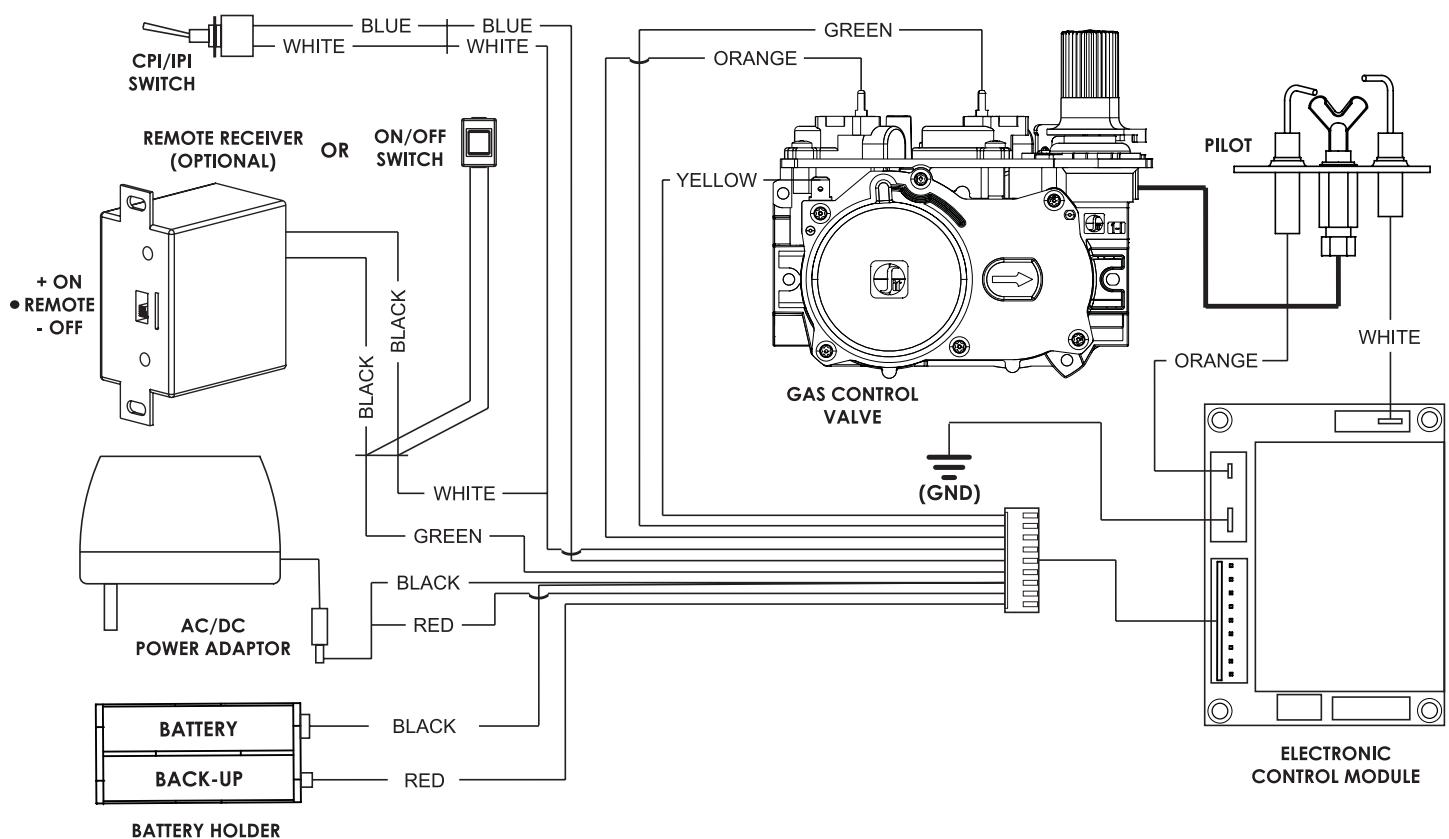


Figure 28

# IPI ELECTRONIC SYSTEM WIRING DIAGRAM (BP7 SERIES)



## ⚠ 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.

## WIRING

If any of the original wire supplied with this unit must be replaced. Use no. 18, 150°C wire or its equivalent.

# INSTALLATION

You must install certain components before the fireplace is permanently installed. These include the direct-vent system, gas piping for the appliance and the electrical wiring. (If the optional blower is used.)

The appliance can be mounted on any of the following surfaces:

1. A flat, hard combustible (burnable) surface.
2. A raised wooden platform.
3. Four corner supports. (Example: masonry blocks) Position these supports so they contact all four perimeter edges on the bottom of the unit.

## FRAMING - IN THE WALL

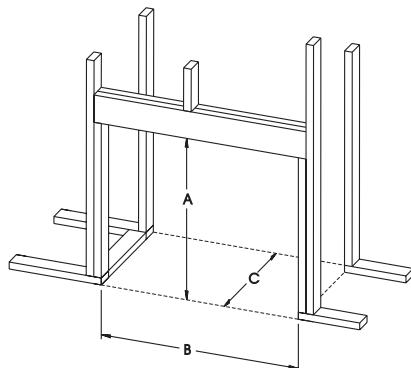
Fireplace framing can be built before or after the fireplace is set in place. Framing should be positioned to accommodate wall covering and fireplace facing material. The fireplace framing should be constructed of 2 x 4 lumber. Refer to **Figure 29** for minimum framing dimensions.

### NOTICE

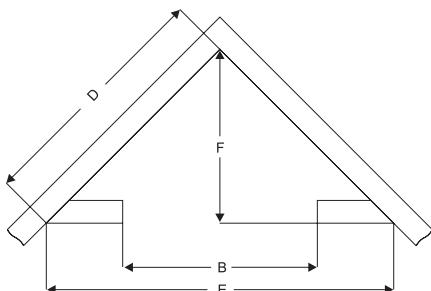
**Measure fireplace dimensions and verify framing methods, and wall covering details before framing construction begins.**

**NOTICE:** For finishing to top of fireplace, refer to **Figure 33**.

**NOTICE:** Minimum chase top to top of framing edge is 24 inches. See **Figure 17**.



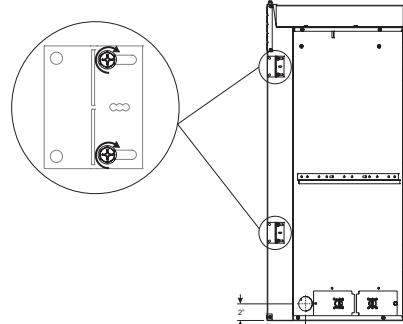
DVCP42	
Dimensions (Inches)	
A	49-1/4
B	44
C	17-5/8
D	47-7/8
E	67-5/8
F	34



**Figure 29**

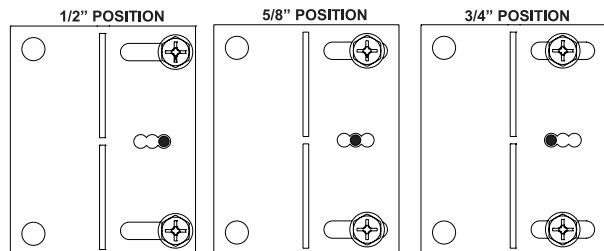
## FRAMING THE FIREPLACE

1. Choose fireplace location.
2. Frame in fireplace with a header across the top. It is important to allow for finished face when setting the depth of the frame.
3. Attach fireplace to frame using adjustable frame. Preset depth to suit facing material (adjustable to 1/2 inch, 5/8 inch or 3/4 inch depths).
4. Loosen but do not remove the eight screws securing the nailing flanges to the firebox. See **Figure 30**.



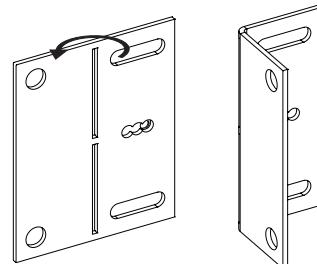
**Figure 30**

5. Measure from face of fireplace to face of drywall strip to determine final depth and adjust nailing flanges as shown in **Figure 31**.



**Figure 31**

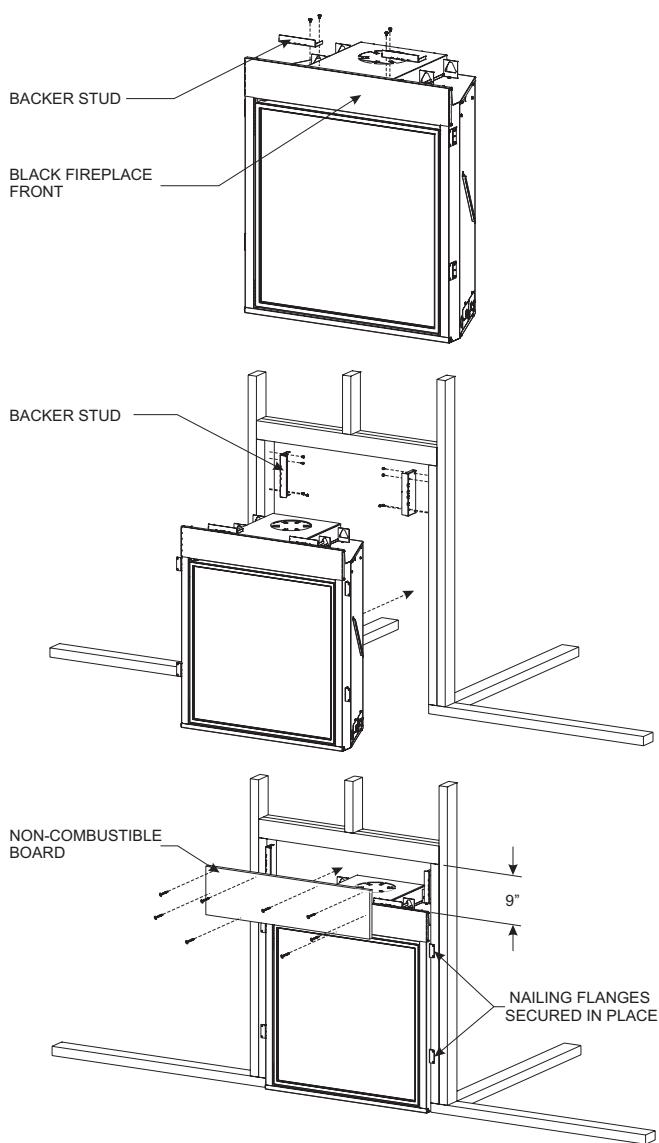
6. Tighten the eight screws loosened in step 4.
7. Bend the nailing flanges 90 degrees as shown in **Figure 32**.



**Figure 32**

8. Attach the two backer studs to the firebox with four #10 x 1/2 Phillips screws (provided) as shown in **Figure 33**.
9. Attach the two backer studs to the vertical studs with four screws appropriate for installation (not provided) as shown **Figure 33**.
10. Slide unit into position and secure to wall with nailing flanges.
11. Mark non-combustible board for backer stud locations. Position the non-combustible board and secure with four #8 x 1 self-drilling drywall screws (provided) as shown in **Figure 33**. Four screws appropriate for installation (not provided) screw into the header. See **Figure 33**. To avoid damage to the non-combustible board, do not use more screws.

# INSTALLATION (CONT'D)



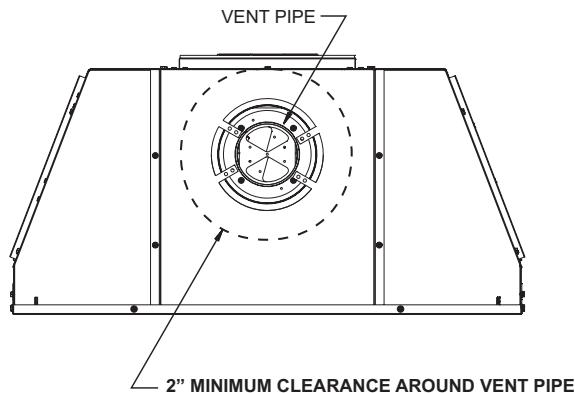
**Figure 33**

## INSTALLING DECORATIVE MEDIA

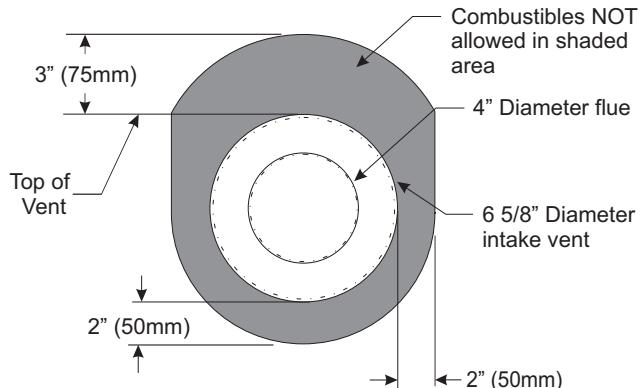
1. Insert log set along with additional decorative media according to directions included with accessory.

## VENT PIPE CLEARANCE

For horizontal vent, maintain a minimum 2 inch clearance to the bottom and sides of the vent, and 3 inch clearance to combustibles above the vent pipe. **See Figures 34 and 35.**



**Figure 34**



**Figure 35**

## FINISHING

Finish the walls with the material of your choice. **Figure 19** on page 14 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. 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 Fahrenheit minimum sealant. These joints are not required to be sealed. Only non-combustible material (using 300 degree Fahrenheit minimum adhesive if needed), can be applied as facing to the fireplace surround.**

# INSTALLATION (CONT'D)

## FLUSH WALL INSTALLATION

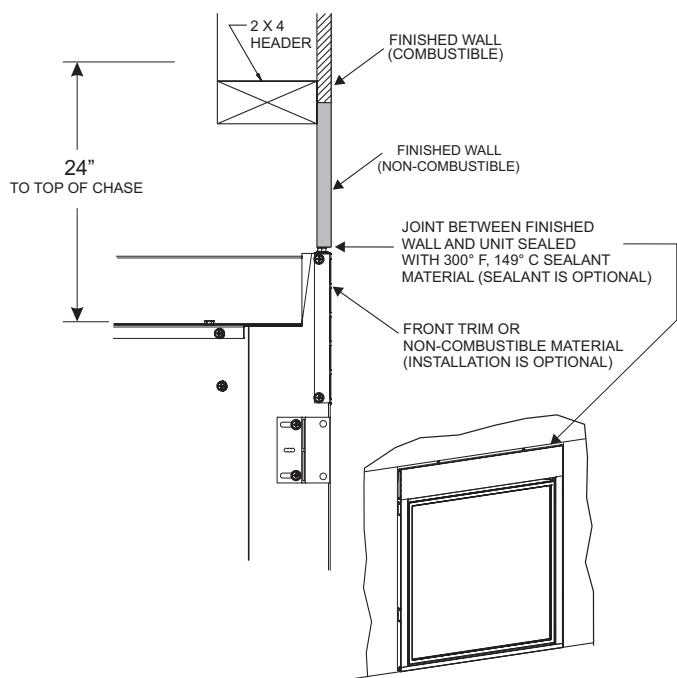


Figure 36

## COMBUSTIBLE SURROUND INSTALLATION

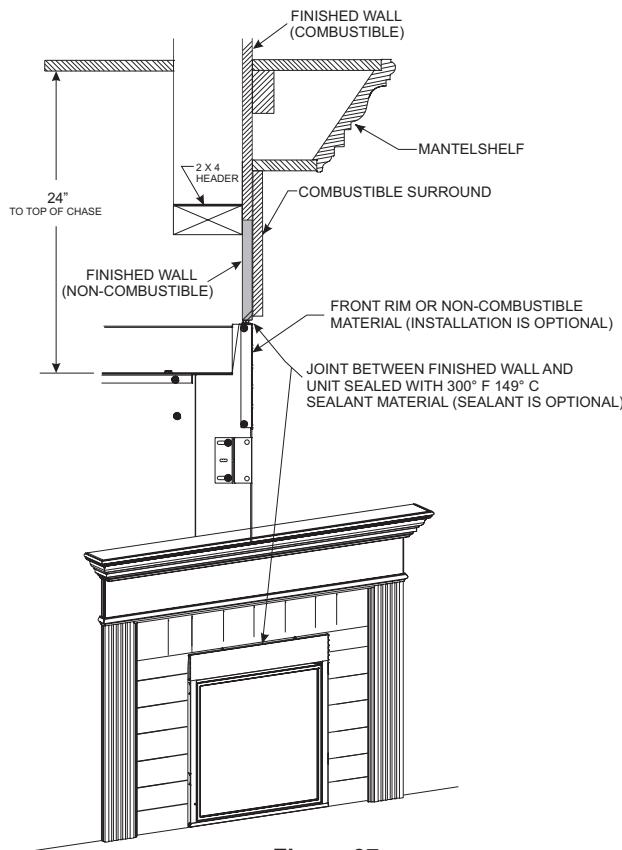
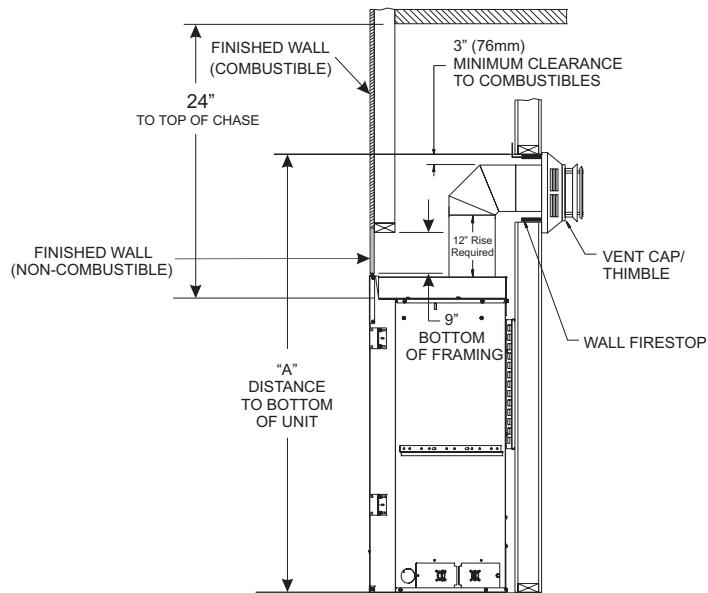


Figure 37

# INSTALLATION (CONT'D)

**NOTICE:** Cold climate installation recommendation: When installing this unit against a non-insulated exterior wall, it must conform to applicable codes.

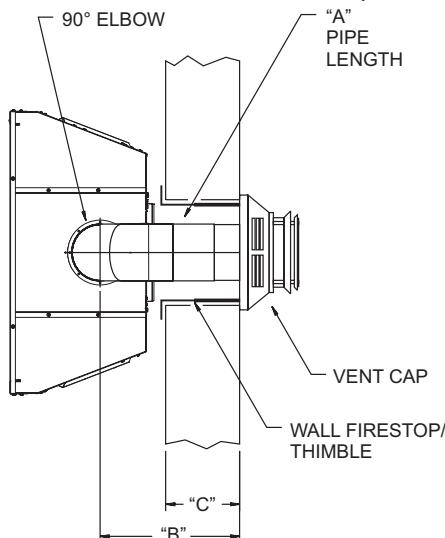
## VERTICAL, 90-DEGREE ELBOW WITH HORIZONTAL TERMINATION



A DIMENSION		
Dimensions (Inches)		
DVCP42		59-1/8

Figure 38

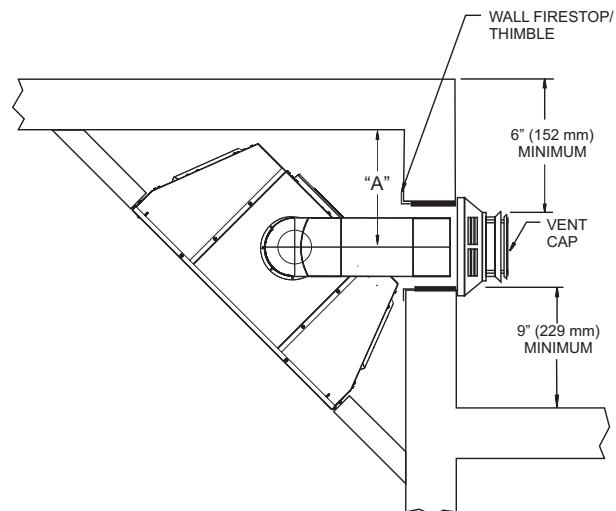
## VERTICAL, 90-DEGREE ELBOW TO HORIZONTAL OUT THE WALL (12 inch minimum rise before elbow)



A	B	C
Dimensions (Inches)		
6	11-1/4 to 12-3/4	4-3/4 to 6-1/4
9	14-1/4 to 15-3/4	7-3/4 to 9-1/4
12	17-1/4 to 18-3/4	10-3/4 to 12-1/4

Figure 39

## CORNER INSTALLATION - VERTICAL, 90-DEGREE ELBOW TO HORIZONTAL OUT THE WALL (12 inch minimum rise before elbow)



DIM.	DVCP42
Dimensions (Inches)	
A	15-15/16

Figure 40

# VENT FRAMING

## Installing Support Brackets

Install a horizontal pipe support used for each 3 feet of horizontal run to framing members. Allow 6 inch clearance to combustibles above vent pipe and elbows and 2 inch clearance on both sides and bottom.

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

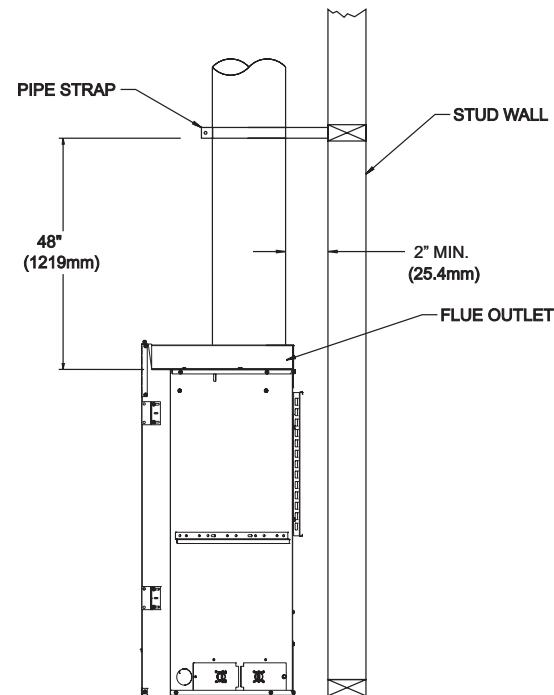


Figure 41

## 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 are maintained to the vent system.

### Horizontal Firestops

Horizontal runs in the vent system which pass through either interior or exterior walls, require the use of wall firestops on both sides of the wall through which the vent passes.

Position the firestops on both sides of the framed hole previously cut. **See Figure 42.** Secure firestop with nails or screws. Continue the vent run through the firestops.

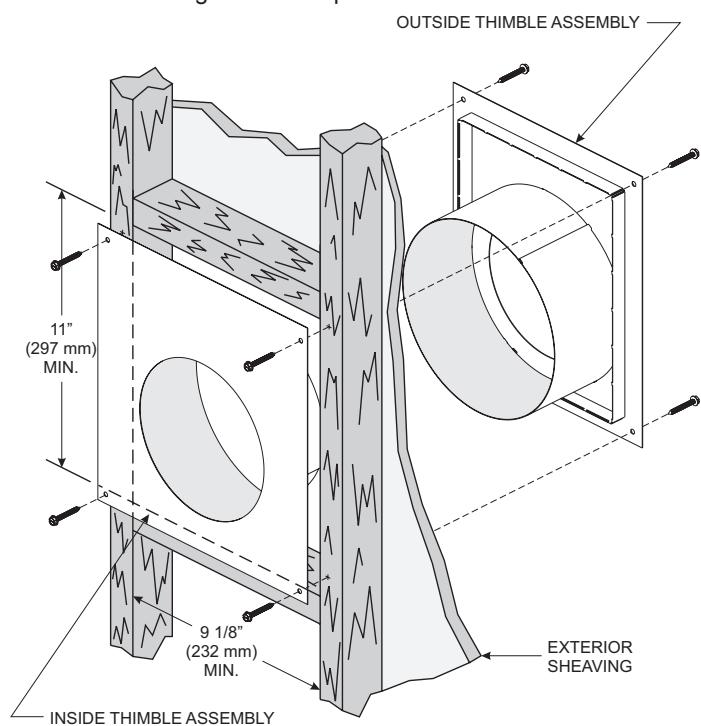


Figure 42

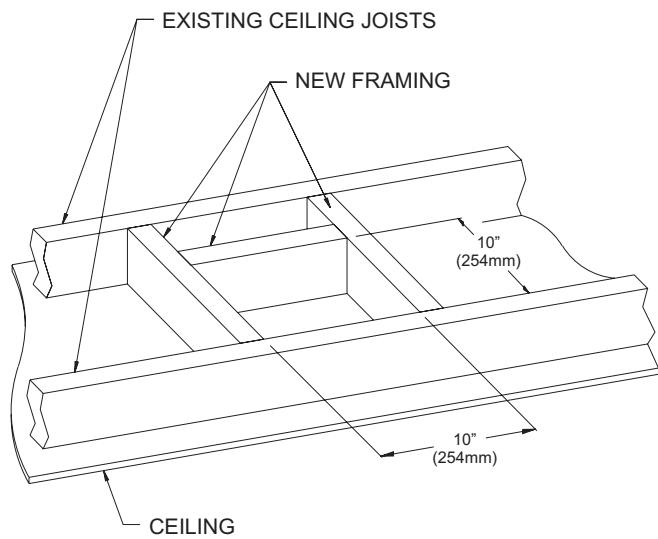
## VENT FRAMING (CONT'D)

### Vertical Firestops

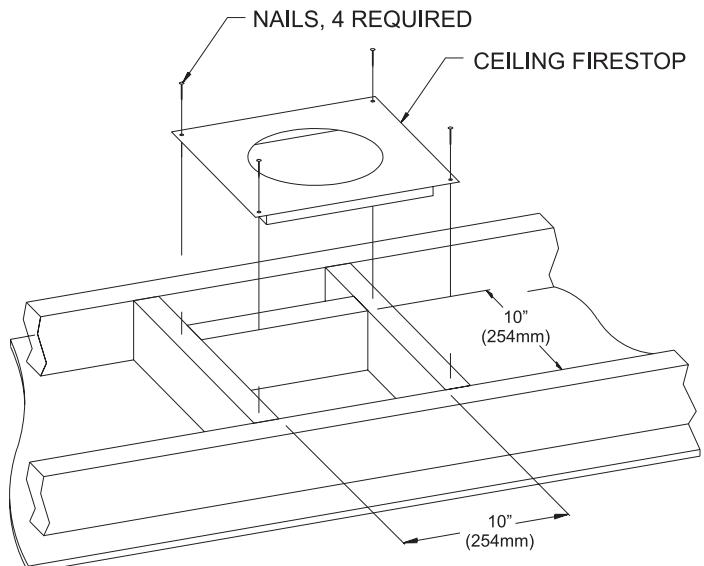
Vertical vent runs which pass through ceilings require one ceiling firestop at the hole in each ceiling through which the vent passes. Position a plumb bob directly over the center of the vertical vent component and mark the ceiling to establish the center point of the vent. Drill a hole or drive a nail through this center point and check the floor above for any obstructions such as wiring or plumbing runs. Reposition the appliance and vent system, if necessary, to accommodate ceiling joists and/or obstructions.

Cut a 10-inch x 10-inch hole through the ceiling, using the center point previously marked. Frame the hole with framing lumber the same size as the ceiling joists. **See Figure 43.** If the area above the ceiling is not an attic, position and secure the ceiling firestop on the ceiling side of the previously cut and framed hole. **See Figure 54.** If the area above the ceiling is an attic, position and secure the firestop on top of the previously framed hole. **See Figure 44.**

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

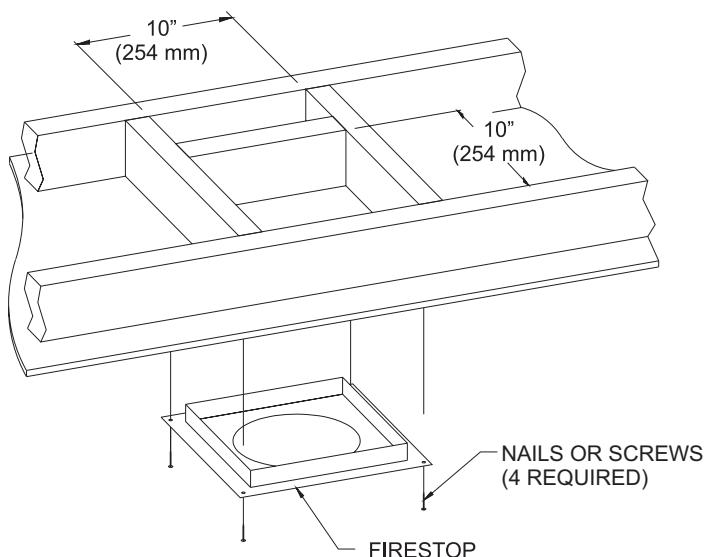


**Figure 43**



**Figure 45**

See Vertical Termination Pages 30 - 31.



**Figure 44**

# VENT SYSTEM IDENTIFICATION

Determine if the fireplace termination is to be vented vertically or horizontally. Begin the vent system installation by selecting the type of venting to be installed and the path it will take. Verify that clearances are met throughout the path of the venting system.

**NOTICE:** Unit requires 12 inches of rise before elbow, as well as 2 inches of clearance around first 12 inches of pipe.

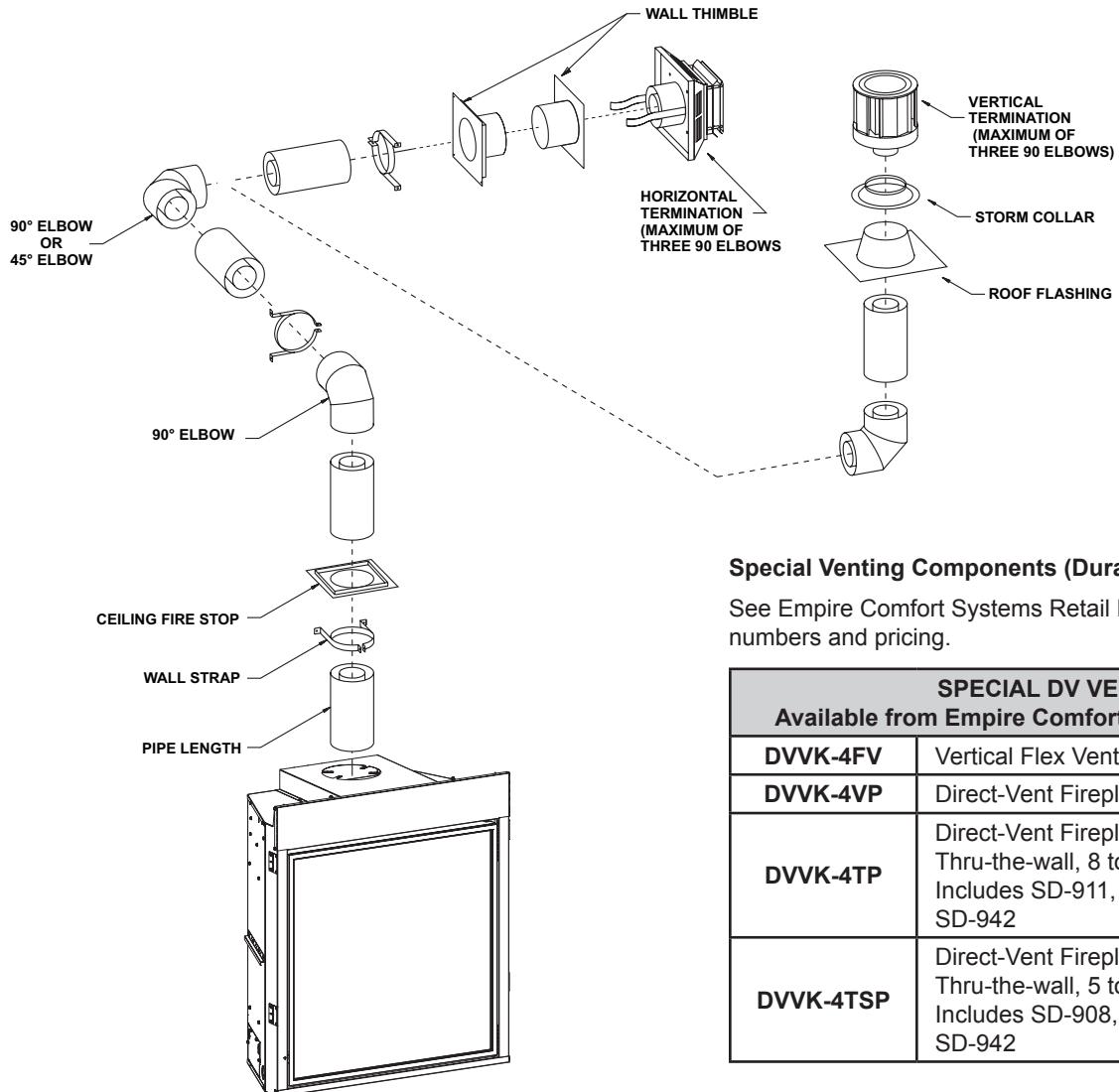


Figure 46

## Special Venting Components (Duravent)

See Empire Comfort Systems Retail Price List for Venting part numbers and pricing.

SPECIAL DV VENT KITS Available from Empire Comfort Systems, Inc. dealers	
DVVK-4FV	Vertical Flex Vent Kit 4 inch x 7 inch
DVVK-4VP	Direct-Vent Fireplace Vent Kit - Vertical.
DVVK-4TP	Direct-Vent Fireplace Vent Kit for Top Vent, Thru-the-wall, 8 to 11-inch wall thickness, Includes SD-911, SD-985, SD-990 and SD-942
DVVK-4TSP	Direct-Vent Fireplace Vent Kit for Top Vent, Thru-the-wall, 5 to 7-inch wall thickness, Includes SD-908, SD-985, SD-990 and SD-942

## SPECIAL VENT SYSTEMS

### Use one of the following 4 x 6-5/8 vent systems:

- Duravent® DVA-H2
- Duravent® Pro
- American Metal Products
- Selkirk Direct-Temp®
- Security Secure Vent®
- Empire Flexvent Kit DVVK-4F, refer to page 37 - 38.
- Metal Fab Sure Seal®
  - Adapter is required to use this vent
  - Contact Metal Fab
- Olympia VENTIS®

# VENTING FIREPLACE - TOP

## To Use the Vent Graph

- 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.
- From the point of this intersection, draw a vertical line to the bottom of the graph.
- Select the indicated dimension, and position the unit in accordance with same.

## EXAMPLE A:

If the vertical dimension from the floor of the unit is 35 feet, the horizontal run to the outer wall flange must not exceed 6.5 feet.

## EXAMPLE B:

If the vertical dimension from the floor of the unit is 6.5 feet, the horizontal run to the outer wall flange must not exceed 14.5 feet.

**SPECIAL NOTICE:** For each 45-degree elbow installed in the horizontal run, the length of the horizontal run MUST be reduced by 18 inches (457 millimeters). This does not apply if the 45-degree elbows are installed on the vertical part of the vent system. Reduce 3 feet for every 90-degree elbow.

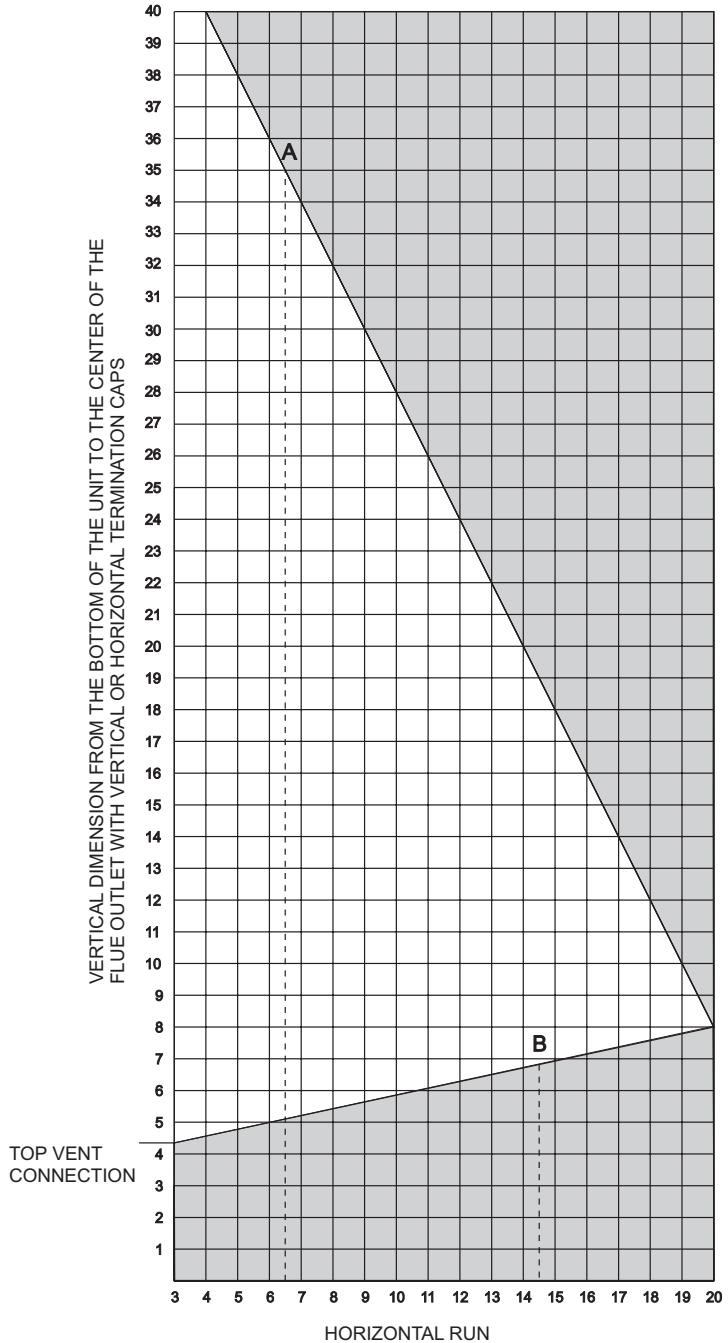
**Example:** According to the chart the maximum horizontal vent length is 20 feet and if two 45-degree elbows are required in the horizontal vent it must be reduced to 17 feet.

The maximum number of 45-degree elbows permitted per side wall installation is two. These elbows can be installed in either the vertical or horizontal run.

**NOTICE:** Do not count the first elbow on vertical venting.

## Venting Graph (Dimensions in Feet)

TOP EXIT - VERTICAL AND HORIZONTAL TERMINATION  
(DIMENSIONS IN FEET)



- Acceptable vertical and horizontal vent run.  
(40 feet maximum vertical and 20 feet maximum horizontal)
- Unacceptable vertical and horizontal vent run.

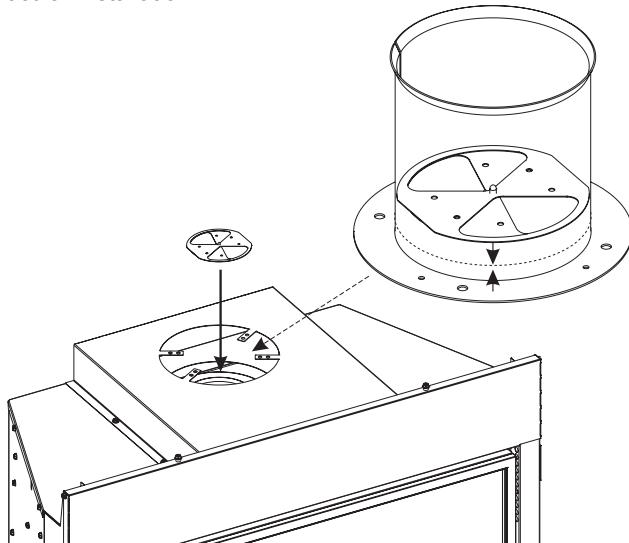
Figure 47

# VENTING FIREPLACE - TOP (CONT'D)

## NOTICE

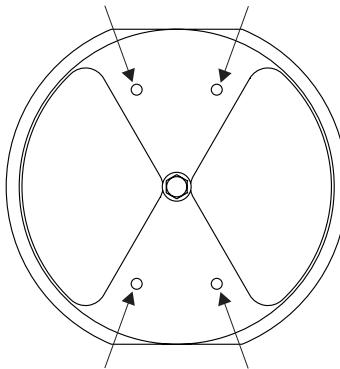
**Use flue restrictor for vertically terminated units only. Do not use for horizontally terminated units.**

**Figures 48 to 50** show the location and recommended openings for the flue restrictor. Adjustments may be made for each particular installation.



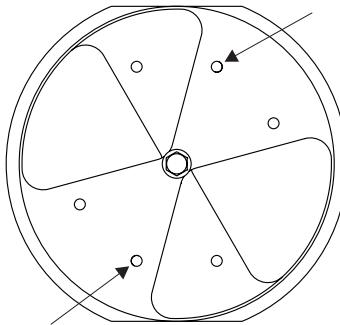
**Figure 48**

**NOTICE:** When installing flue restrictor, install with screws pointing in downward position.



FULL OPEN AND FOUR INDICATED HOLES ALIGNED

**Propane Gas Setting - Figure 49**



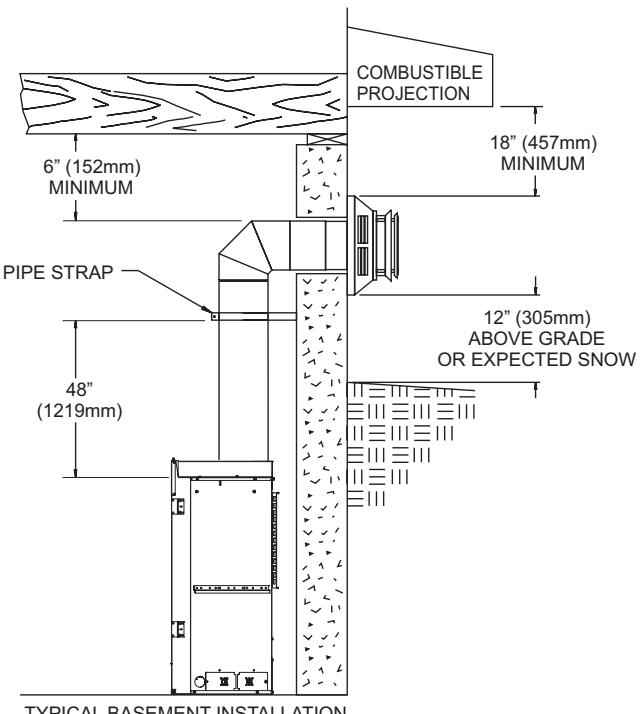
2/3 OPEN AND TWO INDICATED HOLES ALIGNED

**Natural Gas Setting - Figure 50**

## Below-Grade Installation

When it is not possible to meet the required vent termination clearances of 12 inches (305 millimeters) above grade level, a snorkel kit is recommended. It allows installation depth down to 7 inches (178 millimeters) below-grade level. The 7 inches (178 millimeters) is measured from the center of the horizontal vent pipe as it penetrates through the wall.

**Observe the sidewall venting clearances. If the venting system is installed below-grade, we recommend a window well with adequate and proper drainage to be installed around the termination area.**

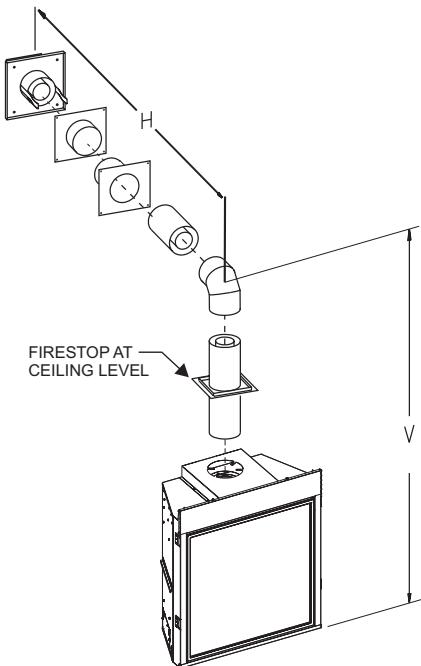


**Figure 51**

## VENTING FIREPLACE - TOP (CONT'D)

### Example of venting system using one 90-degree elbow

Eight feet is minimum vertical vent run with 20 feet of maximum horizontal vent run. Vertical dimensions are based on center-line to center-line of pipe. Horizontal dimensions are based on center line of pipe to end of termination.

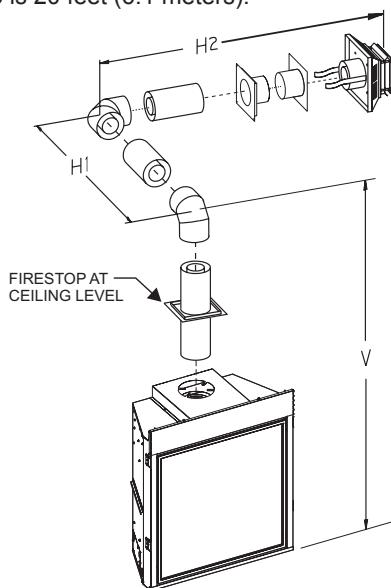


SEE GRAPH FOR PERMISSIBLE "H" AND "V" DIMENSIONS

**Figure 52**

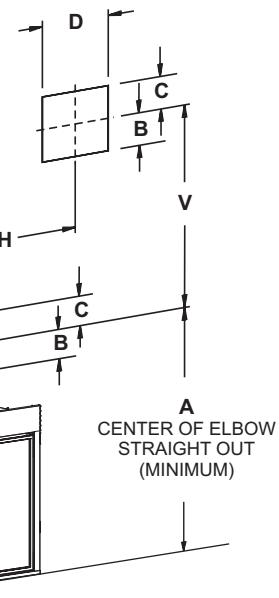
### Examples of venting systems using two 90-degree elbows.

V is the minimum vertical dimension and total of  $H_1 + H_2$ . V is also the maximum horizontal dimension. The maximum vertical and horizontal distances for the two 90-degree elbows as shown in **Figure 53** is 20 feet (6.1 meters).



SEE GRAPH FOR PERMISSIBLE "H" AND "V" DIMENSIONS  
NOTE:  $H_1$  AND  $H_2$  MUST BE ADDED TOGETHER TO USE CHART

**Figure 53**



FIREPLACE SERIES	HARD ELBOW DIMENSIONS (in inches)			
	A	B	C	D
DVCP42	52-13/16	4	6	9-1/8

FIREPLACE SERIES	FLEX PIPE 90 DEGREE BEND (in inches)			
	A	B	C	D
DVCP42	53-11/16	4-1/2	6-1/2	9-1/8

Minimum hole location dimensions for through-the-wall horizontal installations with 90-degree elbow and 12 inch rise off top of fireplace.

See **Figure 47** on **Page 29** for permissible horizontal and vertical dimensions.

**Figure 54**

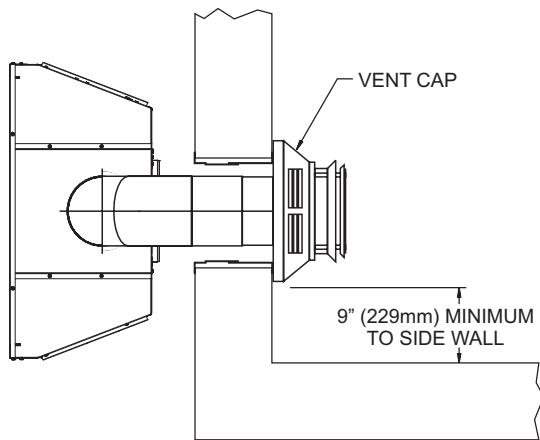
## VENTING FIREPLACE - TOP (CONT'D)

### Positioning the Fireplace

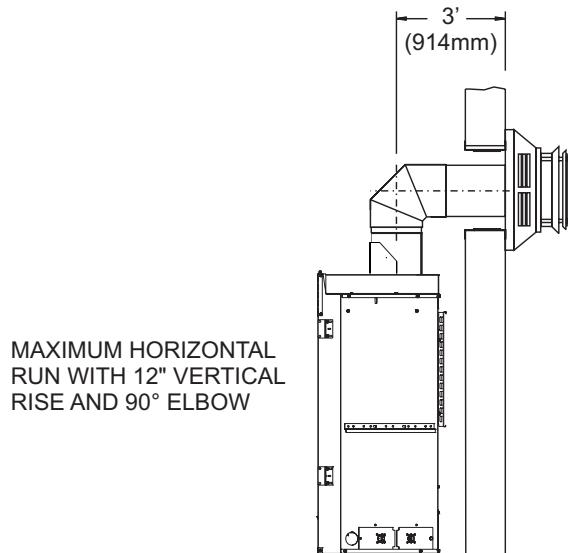
Determine the exact position of the appliance so the direct-vent termination will be centered (if possible) between two studs. This will avoid any extra framing. Assemble the vent pipes on the unit after it is moved into the final position.

### Cutting the Hole

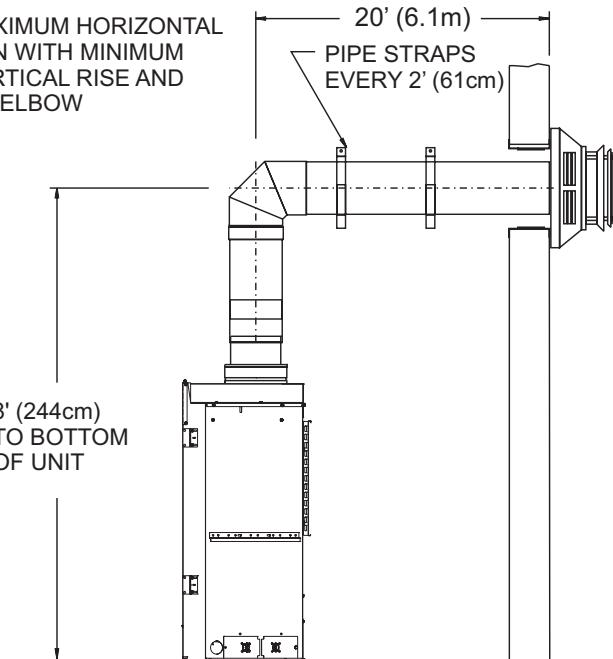
After the fireplace has been positioned in its permanent location, cut the hole through the exterior wall of the house. This hole must be 10 inches (254 millimeters) high x 10-5/8 inches (270 millimeters) wide with its center line determined by the amount of vertical rise and horizontal run of the termination. **See Figure 55.** When locating the hole, the bottom of the must be 12 inches (305 millimeters) above the ground level, and top of the cap must be no less than 18 inches (457 millimeters) below a combustible projection, and at least 9 inches (229 millimeters) to any wall running parallel to vent termination.



**Figure 55**



MAXIMUM HORIZONTAL  
RUN WITH MINIMUM  
VERTICAL RISE AND  
90° ELBOW



**Figure 56**

## EXAMPLES - TOP VENT RUN

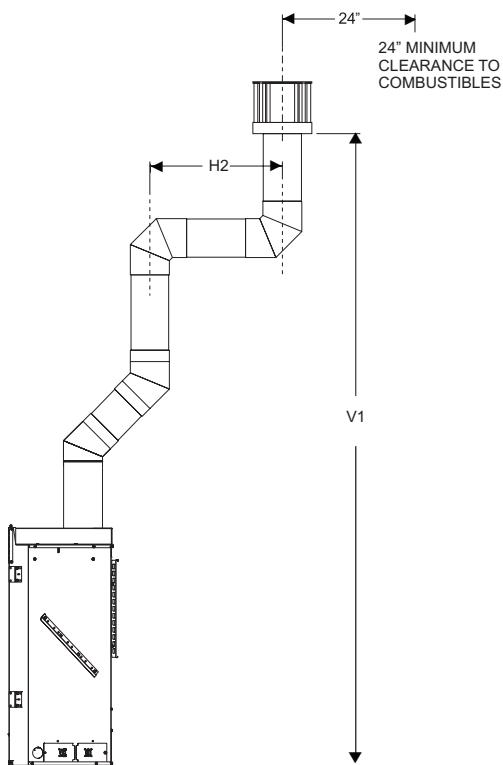


Figure 57

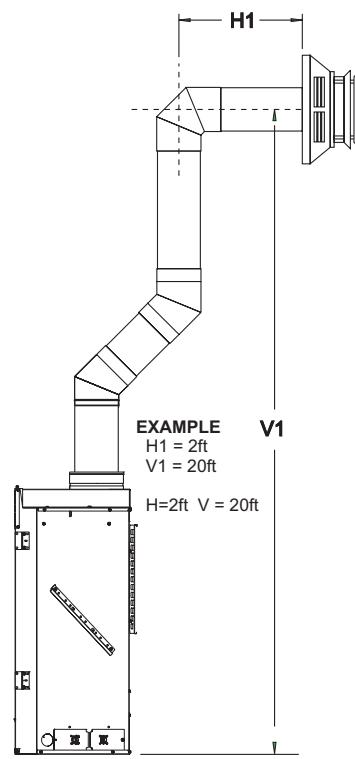


Figure 59

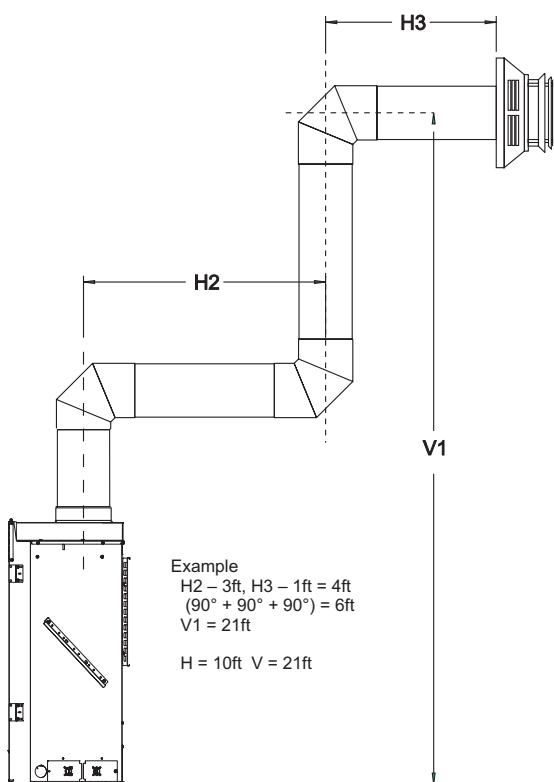
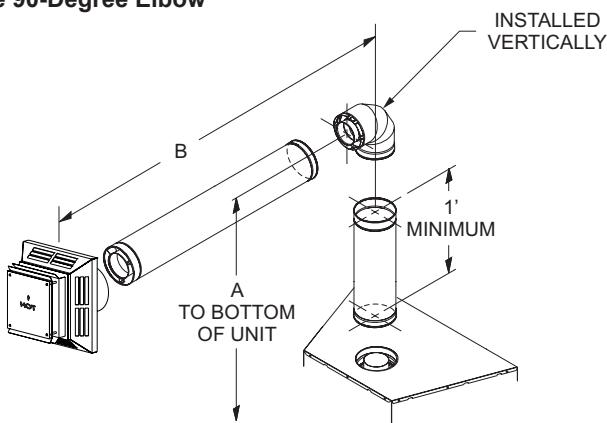


Figure 58

# HORIZONTAL TERMINATION

## One 90-Degree Elbow



**EXAMPLE VENT RUNS**

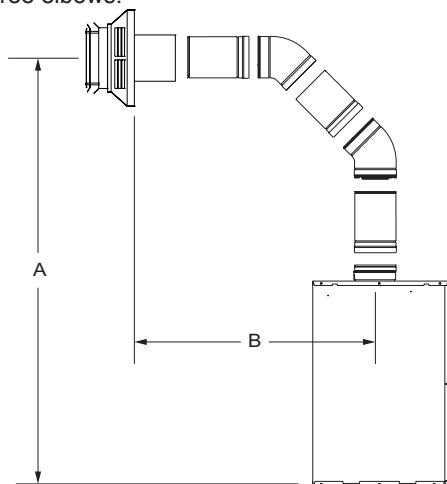
INITIAL PIPE LENGTH (Feet)	A-Vertical (Feet)	B-Horizontal (Feet)
1	15	12
2	6	6
3	7	9
4	8	12

**Figure 60**

**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:



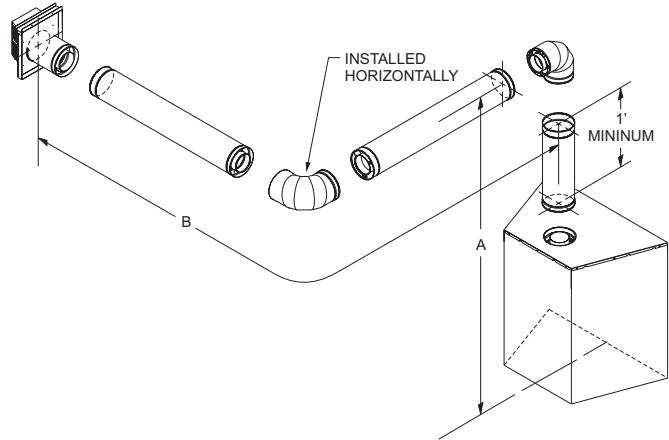
**EXAMPLE VENT RUNS**

Initial Pipe Length (Feet)	A-Vertical (Feet)	B-Horizontal (Feet)
1	6	6
2	7	9
3	8	12
4	9	15

**Figure 61**

## Two 90-Degree Elbows

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

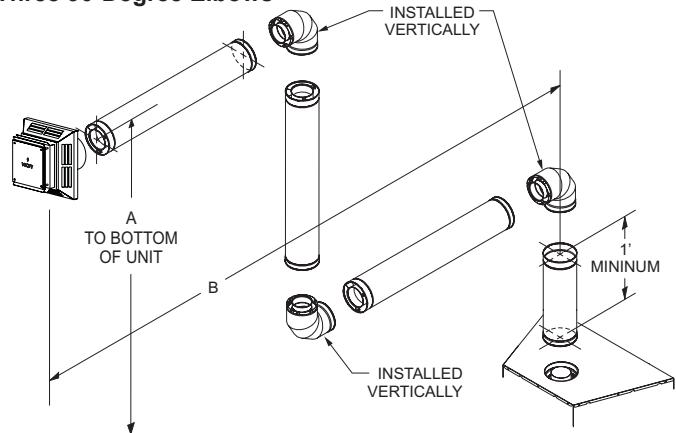


**EXAMPLE VENT RUNS**

INITIAL PIPE LENGTH (Feet)	A-Vertical (Feet)	B-Horizontal (Feet)
1	5	Not Allowed
2	6	3
3	7	6
4	8	9

**Figure 62**

## Three 90-Degree Elbows



**EXAMPLE VENT RUNS**

Initial Pipe Length (Feet)	A-Vertical (Feet)	B-Horizontal (Feet)
1	5	Not Allowed
2	6	6
3	7	9
4	8	12

**Figure 63**

# VERTICAL TERMINATION

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

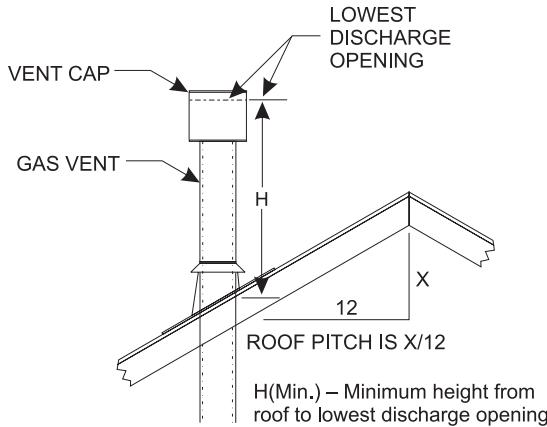
**NOTICE:** Size of the roof hole dimensions depend on the pitch of the roof. Maintain a 2 inch (50 millimeter) clearance to the vertical pipe sections. This clearance is to all combustible material.

Cover the opening of the vent pipe and cut and frame the roof hole. Use framing lumber the same size as the roof rafters and install the frame securely. Flashing anchored to frame must withstand high winds. The storm collar is placed over this joint to make a water-tight seal. Non-hardening sealant should be used to completely seal this flashing installation.

## Determining Minimum Vent Height Above the Roof.

### ⚠ WARNING

Major U.S. building codes specify minimum chimney and/or vent height above the roof top. These minimum heights are necessary to prevent a fire. These specifications are summarized in Figure 64.



ROOF PITCH	MINIMUM HEIGHT	
	(Inches)	(Millimeters)
Flat to 6/12	12	305
6/12 to 7/12	15	381
Over 7/12 to 8/12	18	457
Over 8/12 to 16/12	24	610
Over 16/12 to 21/12	36	914

Figure 64

Note that 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.

## General Maintenance

Inspect venting system semi-annually as follows:

1. 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.
2. Remove the cap and shine a flashlight down the vent. Remove any bird nests or other foreign material.
3. 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.
4. 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 65.

## Installing the Vent System in a Chase

A chase is a vertical 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.

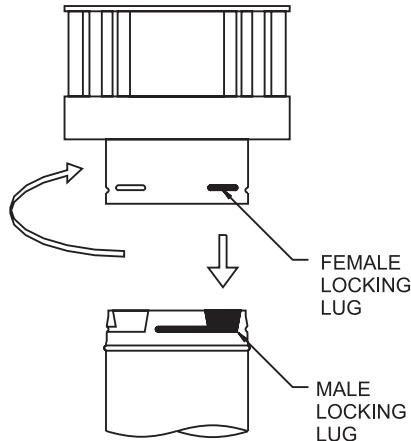


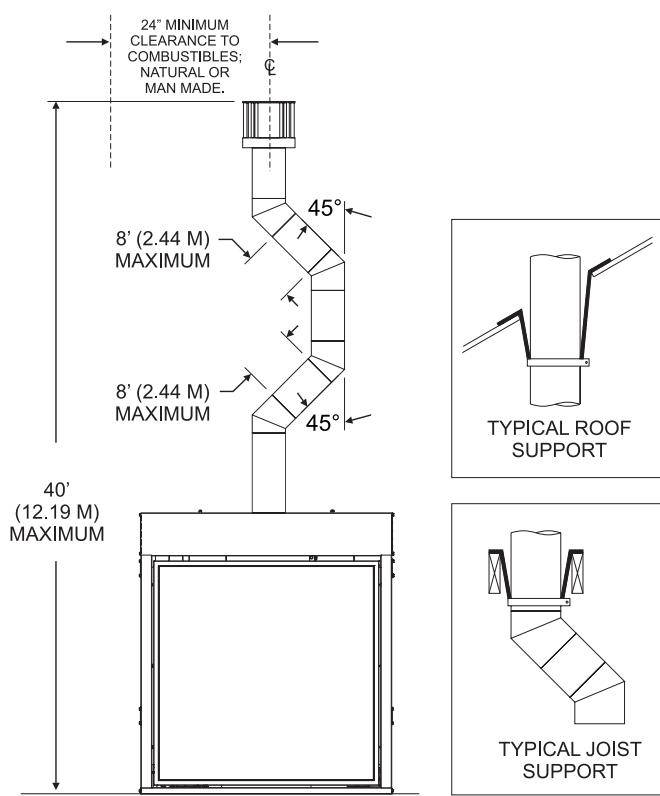
Figure 65

### ⚠ CAUTION

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

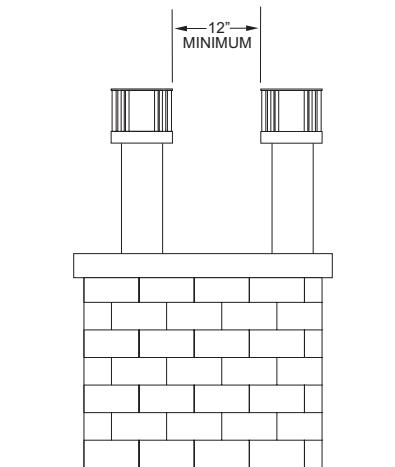
**NOTICE:** Build the chase large enough to the minimum clearance of combustible materials (including insulation) to the vent system. When installing the vent system in a chase, insulate the chase as you would the outside walls of your home. This is especially important in cold climates. Upon completion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

# VERTICAL TERMINATION (CONT'D)



**Figure 66**

If two vertical runs terminate near each other, they must be placed a minimum of 12 inches apart if they are the same height. See **Figure 67**. If the vent terminations are not the same height, they must be positioned at least 24 inches apart to minimize draft issues between them.



**Figure 67**

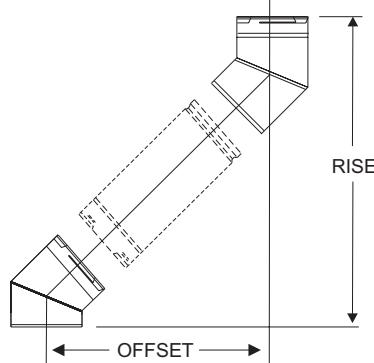
## Vertical Through the Roof Applications

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 feet a vent pipe can be used between elbows.
- Wall straps must be used to support offset pipe every 4 feet.

This application will require that you first determine the roof pitch and use the appropriate venting components.

**OFFSET CHART**



ELBOW (Degrees)	CHIMNEY SECTION	OFFSET	RISE
Dimensions (Inches)			
45	0	4-7/8	13-3/8
45	6	8	16-1/2
45	9	10-1/8	18-5/8
45	12	12-1/4	20-3/4
45	24	20-5/8	29-1/8
45	36	29	37-1/2
45	36	29	37-1/2
45	48	37-3/8	45-7/8

**Figure 68**

# DVVK-4F FLEX VENT INSTRUCTIONS FOR HORIZONTAL TERMINATION

The following termination kits can only be used with direct-vent fireplaces listed for use with Magnaflex DVVK-4F. Please verify your fireplace model number.

DVVK4F 4-in./7-in. - 48-in. FLEX TERMINATION KIT	
Item	Qty.
Termination Cap	1
Wall Firestop/Thimble Assembly	1
2 Ply Alum Flex 4-in. Dia by 48-in. (with attached starter collar)	1
2 Ply Alum Flex 7-in. Dia by 48-in.	1
Flex Adapter Collar w/Gasket	1
Clamp 4-in. Dia	2
Clamp 7-in. Dia	2
Spring	3
Screws 1/8 x 3-in.	4
Self Tapping Screws #6 x 1/2-in.	16
Screws #6 x 1/2-in.	2
Deflector Shield	1

**NOTICE:** DVVK-4F Flex Vent Kit requires the SD46DVA-FCFX7 Flex Adaptor Collar Assembly, (purchased separately).

When installing a horizontal vent run from top connections, maintain at least a 1/2 inch rise for every 12 inches of vent run.

## NOTICE

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.

## ⚠ WARNING

Because of sharp edges, always wear gloves when handling the flex vent components.

Follow the general venting requirements for vent termination location, vent lengths, and clearance to combustible materials.

### Installing the DV Horizontal Flex Vent Kit

1. Unpack vent kit components and check for damaged or missing components.
2. To operate as designed, it is dependent on the use of all parts and procedures detailed in these instructions. Failure to follow these instructions may potentially affect the performance of this vent system and the attached appliance.
3. Replace the existing fireplace vent adapter with the fireplace adapter included in the vent kit. Install the adapter collar with the screws removed from the fireplace.
- 4a. Install the Wall Firestop/Thimble to the framed wall assembly using common nails (not supplied) as required through the wall. Refer to the venting charts in the fireplace manual to determine the proper height and size of the vent opening. The minimum framed opening should be 11 inches wide by 11 inches high. The minimum combustible clearance from the horizontal vent is 2 inches from sides and bottom, and 3 inches above the vent pipe. **See Figure 69.**

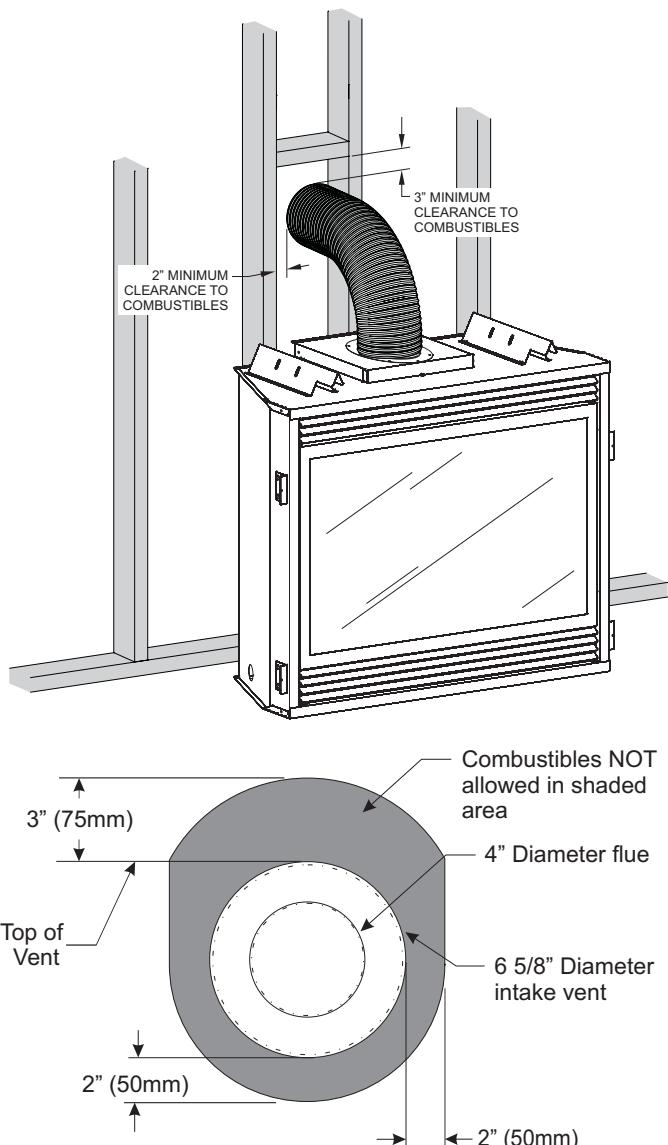


Figure 69

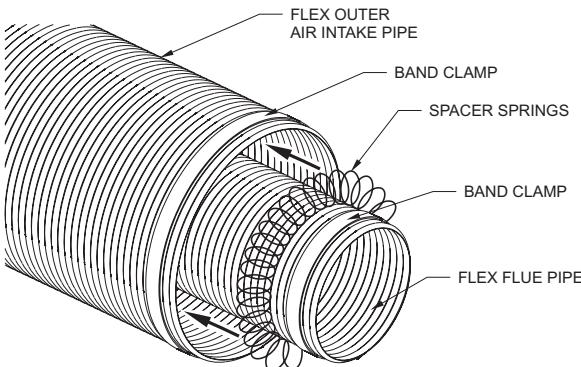
- 4b. Install the Wall Firestop/Thimble with the top clearance tab to the inside of the framed wall opening. Install the mating telescope thimble to the inside thimble, and secure the thimble wall plate to the exterior of the framed wall opening.

## NOTICE

**Do not force the Horizontal Vent Termination into the flex venting. Always stretch out the venting, and cut off excess vent material. Forcing the termination cap into the flex venting will deform the flue venting, which will restrict the exhaust gases, and cause improper operation of the fireplace.**

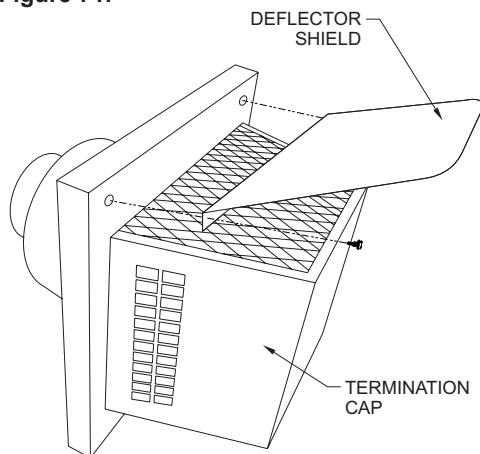
## DVK-4F FLEX VENT INSTRUCTIONS FOR HORIZONTAL TERMINATION (CONT'D)

5. Determine the length of the vent needed, allowing slightly more vent than required. Stretch the inner and outer flex vent out to 48 inches, then, trim off the extra length of vent not needed.  
**NOTICE:** If the venting is too long, trim off the excess venting as needed, however, make sure you leave enough extra to make the connections at the termination cap.
6. Locate the inner flex vent (which has a pre-assembled flue collar connector) and attach the spacer springs by interlocking ends of the springs about 2 inches. The springs should be spaced evenly apart starting at 12 inches from the fireplace flue collar. **See Figure 70.**



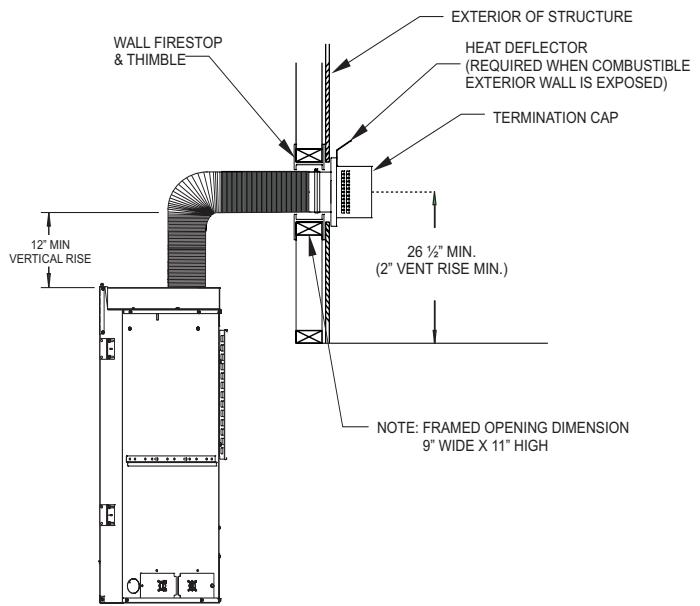
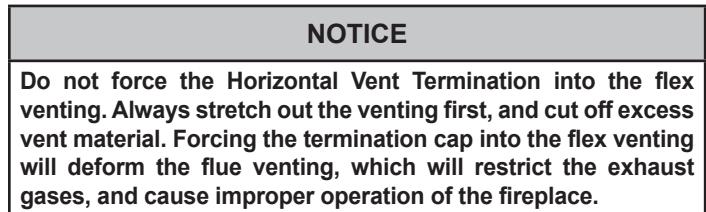
**Figure 70**

7. Attach the flex flue (non-connector end) to the Termination Cap. Use silicone sealant on connection, and secure with the 4 inch diameter band clamp.
8. Slip the outer flex vent over the inner flex flue (with spacer springs), then secure the Inlet Flex vent to the Termination Cap. Use silicone sealant on connection, and secure with a 7 inch diameter band clamp.
9. Feed the Flex pipe (with cap attached) through the wall thimble assembly from the outside.
10. Secure the termination cap to the house exterior using four 1/8 x 3 inch long screws. Be sure to install the Deflector Shield with the two screws at the top of the termination base. **See Figure 71.**



**Figure 71**

11. Add sealant to the flue adapter collar, (SD46DVA-FCFX7 sold separately) then insert the adapter collar to the flue collar on the fireplace. Secure the flue vent collar using four #6 x 1/2 inch self tapping screws provided.
12. Feed the outer flex vent over the inner flex flue vent and secure to the 7 inch diameter fireplace collar. Tighten the band clamp, then secure the clamp to the fireplace with (4) evenly spaced #6 x 1/2 inch self tapping screws provided.
13. With the fireplace secured, check to make sure that the required rise (1/4 inch per feet.) of the vent is maintained from the fireplace and upward through the thimble assembly and termination cap.



**Figure 72**

# MILLIVOLT STANDING PILOT LIGHTING INSTRUCTIONS (BP3 SERIES)

## FOR YOUR SAFETY READ BEFORE LIGHTING

### ⚠ WARNING

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

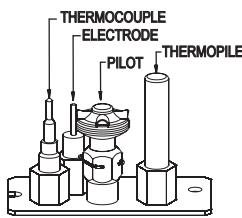
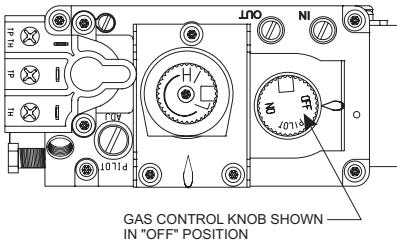
- A. This appliance has a pilot which must be lit by hand. When lighting the pilot, follow these instructions exactly.
- B. Before lighting smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, 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 under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

### 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.

## LIGHTING INSTRUCTIONS

1. Stop! Read the safety information above.
  2. Set REMOTE/OFF/ON switch to OFF.
  3. Turn off all electric power to the appliance (if applicable).
  4. Remove barrier screen.
  5. Push in gas control knob slightly and turn clockwise  to "OFF."
- NOTICE:** Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
6. Wait ten minutes to clear out any gas. Then smell for gas, including near the floor. If you then smell gas, STOP! Follow "B" in the safety information above. If you do not smell gas, go to the next step.
  7. Find pilot - Follow metal tube from gas control. The pilot is behind the burner on the right side.
  8. Turn gas control knob counterclockwise  to "PILOT."



9. Push in control knob all the way and hold in. Repeatedly push the piezo ignitor button until the pilot is lit. Continue to hold the control knob in for about one minute after the pilot is lit. Release knob, and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.
  - If the control knob does not pop up when released, STOP and IMMEDIATELY call a qualified service technician or gas supplier.
  - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
10. Turn gas control knob counterclockwise  to "ON."
11. Replace barrier screen.
12. Turn on all electric power to the appliance (if applicable).
13. Set REMOTE/OFF/ON switch to desired setting.

## TO TURN OFF GAS TO FIREPLACE

1. Turn off all electric power to the appliance if service is to be performed (if applicable).
2. Remove barrier screen.
3. Set REMOTE/OFF/ON switch to OFF.
4. Push in gas control knob slightly and turn clockwise  to "OFF." Do not force.
5. Replace barrier screen.

# MILLIVOLT OPERATING INSTRUCTIONS (BP3 SERIES)

## MILLIVOLT SYSTEM - "PILOT ON DEMAND"

- In the "Pilot On Demand" mode, the pilot remains ON continuously even when the burner is turned OFF. The pilot will shut off after 7 days if there is no activity or call for heat. When you ignite the pilot, the thermopile produces millivolts (electrical current) which energizes the magnet in the gas valve. After 30 seconds you can release the gas control knob and the pilot will stay ON. Allow the pilot flame to burn an additional one to two minutes before you turn the gas control knob from the PILOT position to the ON position. This allows current millivolt build-up to a sufficient level to operate the gas control properly.
- Follow the SAFETY and LIGHTING INSTRUCTIONS for standing pilot controls found in this manual and on labels found in control compartment behind the barrier screen.

### ⚠ CAUTION

During the initial purging and subsequent lightings, never allow the gas valve control knob to remain depressed in the "pilot" position without pushing the piezo ignitor button at least once every second.

- During the operating season, leave the control valve knob in the "ON" position. This will allow the pilot flame to remain lit. Turn the burner flame on or off with the fireplace REMOTE OFF/ON switch, wall switch or remote controls.
- When the heating season ends, turn the REMOTE OFF/ON switch to "OFF" and the control valve to "OFF". The system, including the pilot light, will shut down.

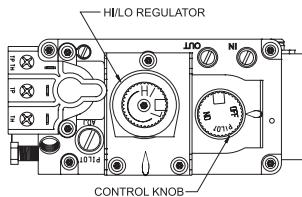


Figure 73

The OWNER should carefully read and follow these operating instructions.

### Initial Lighting

Remove the barrier screen assembly to view the gas controls for the fireplace. Upon turning the gas valve on after it has been in the "OFF" position, a small amount of air will be in the lines. When first lighting the fireplace, it will take a few minutes for the lines to purge this air. Once the purging is complete, the fireplace will light and operate satisfactorily.

Subsequent lightings of the fireplace will not require purging if the gas valve is not turned to "OFF".

### Pilot Flame

The pilot flame should cover the thermopile and thermocouple.

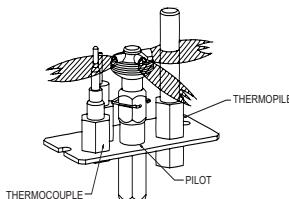


Figure 74

## STANDING PILOT OPERATING INSTRUCTIONS

### REMOTE OFF/ON SWITCH

The fireplace is equipped with a REMOTE OFF/ON switch. A wire harness is attached to the REMOTE OFF/ON switch. The red, black and green (wires) female push-ons attach to the REMOTE OFF/ON switch. At the opposite end of the wire harness, the black and green (wires) female push-ons attach to the gas valve. An additional green wire and the red wire, which are stripped and bare, will attach to one of the control accessories (purchase separately).

### Operation of REMOTE OFF/ON SWITCH with no Accessories

To ignite main burner, turn the control knob on the gas valve from the PILOT position to the ON position. Turn the REMOTE/OFF/ON switch from the OFF position to the ON position. The additional green wire and red wire, which are stripped and bare are not used.

### Wall Switch, FWS-1

Connect the green and red wires, stripped and bare, on the wire harness to the wall switch. Turn the REMOTE OFF/ON switch to the REMOTE position. Pivot the rocker switch on the FWS-1 to the ON position.

### Wall Thermostats (optional)

TRW - Wireless for Millivolt models

TMV - Reed switch for Millivolt models

### Battery-Operated Remote Controls, FRBC, FRBTC, and TRW

Connect the green and red wires on the wire harness to the remote receiver. Turn the REMOTE OFF/ON switch to the REMOTE position. Follow instructions included with the remote to complete installation.

**NOTICE:** If batteries fail in the remote, and immediate heat is desired, turn the REMOTE OFF/ON switch from the REMOTE position to the ON position.

### Installation of Remote Receiver

Place remote receiver on the floor of fireplace behind the barrier screen assembly as far forward as possible.

**NOTICE:** The Velcro loop and hook are not necessary in this installation but can be used to secure remote receiver.

Refer to remote control installation and operating instructions for more details on remote control.

### Millivolt Control

The valve regulator controls the burner pressure which should be checked at the pressure test point. Turn captured screw counter clockwise 2 or 3 turns and then place tubing to pressure gauge over test point (Use test point "A" closest to control knob). After taking pressure reading, be sure to turn captured screw clockwise firmly to re-seal. Do not over torque. Check for gas leaks.

Millivolt thermopile is self generating. Gas valve does not require 24 volts or 110 volts.

### Check System Operation

Millivolt system and all individual components may be checked with a millivolt meter 0-1000 MV range.

Use wire of a gauge proper for the length of the wire:

RECOMMENDED WIRE GAUGES	
Maximum Length (feet)	Wire Gauge
1 to 10	18
10 to 25	16
25 to 35	14

### NOTICE

#### "ON DEMAND PILOT" System Operation

After seven days of inactivity of the main burner, the pilot will shut off.

# MILLIVOLT STANDING PILOT TROUBLESHOOTING (BP3 SERIES)

With proper installation and maintenance, your new Direct-Vent Gas Fireplace will provide years of trouble-free service. If you do experience a problem, refer to the Troubleshooting Guide below. This guide will assist a qualified service person in diagnosis and corrective action.

## 1. Spark ignitor will not light pilot after repeated triggering of piezo ignitor button.

- a. Defective ignitor (no spark electrode)

—Check for spark at electrode and pilot; if no spark and electrode wire is properly connected, replace ignitor.

- b. No gas or low gas pressure.

—Check remote shut off valves from fireplace. Usually there is a valve near the main. There can be more than one valve between the fireplace and main.

—Low pressure can be caused by a variety of situations such as a bent line, too narrow diameter of pipe, or low line pressure. Consult with plumber or gas supplier.

- c. No Propane in tank.

—Check Propane tank. Refill tank.

## 2. Pilot will not stay lit after carefully following lighting instructions.

- a. Defective thermocouple.

—Check that pilot flame impinges on thermocouple. Clean and/or adjust pilot for maximum flame impingement.

—Ensure the thermocouple connection at the gas valve is fully inserted and tight (hand tight plus 1/4 turn). Faulty thermocouple if reading is below specified minimum of 15 millivolts.

—Disconnect the thermocouple from the valve, place one millivolt meter lead wire on the end of the thermocouple and the other millivolt meter lead wire on the thermocouple copper wire. Start the pilot and hold the valve knob in. If the millivolt reading is less than 15 millivolt, replace the thermocouple.

- b. Defective valve.

—If thermocouple is producing more than 15 millivolts, replace faulty valve.

## 3. Pilot burning, no gas to burner, valve knob "ON", REMOTE/OFF/ON switch "ON."

- a. REMOTE/OFF/ON switch, wall switch, remote control or wires defective.

—Check REMOTE/OFF/ON switch and wires for proper connections. Place jumper wires across terminal at switch. If burner comes on, replace defective switch. If OK, place jumper wires across switch wires at gas valve-if burner comes on, wires are faulty or connections are bad.

- b. Thermopile may not be generating sufficient millivolts.

—If the pilot flame is not close enough physically to the thermopile, adjust the pilot flame.

—Be sure the wire connections from the thermopile at the gas valve terminals are tight and the thermopile is fully inserted into the pilot bracket.

—Check the thermopile with a millivolt meter. Take the reading at TH-TP & TP terminals of the gas valve. The meter should read 350 millivolts minimum, while holding the valve knob depressed in the PILOT position, with the pilot lit, and the REMOTE/OFF/ON switch in the OFF position. Replace the faulty thermopile if the reading is below the specified minimum.

—With the pilot in the ON position, disconnect the thermopile leads from the valve. Take a reading at the thermopile leads. The reading should be 350 millivolts minimum. Replace the thermopile if the reading is below the minimum.

- c. Defective valve.

—Turn valve knob to ON. Place REMOTE/OFF/ON switch to ON. Check with millivolt meter at thermopile terminals. Millivolt meter should read greater than 200 millivolts and the main burner does not ignite, replace the gas valve.

- d. Plugged main burner orifice.

—Check main burner orifice for blockage and remove.

## 4. Frequent pilot outage problem.

- a. Pilot flame may be too high or too low, or blowing (high), causing pilot safety to drop out.

—Clean and adjust flame for maximum flame impingement on the thermocouple. Follow lighting instructions carefully.

## 5. The pilot and main burner extinguish while in operation.

- a. No Propane in tank.

—Check Propane tank. Refill fuel tank.

- b. Inner vent pipe leaking exhaust gases back into system

—Check for leaks.

- c. Door not installed correctly, gasket leaks in corners after usage.

—Be certain door is installed correctly.

- d. Horizontal vent improperly pitched.

—The horizontal vent cap should slope down only enough to prevent any water from entering the unit. The maximum downwards slope is 1/4 inch.

- e. Bad thermopile or thermocouple.

—Replace if necessary.

- f. Improper vent cap installation.

—Check for proper installation and freedom from debris or blockage.

## 6. Glass soots.

- a. Flame impingement on logs.

—Check and adjust log position. Contact Empire Comfort Systems, Inc.

- b. Debris around throat of main burner.

—Inspect the opening at the base of the main burner. It is imperative that NO material be placed in this opening.

## 7. Flame burns blue and lifts off main burner.

- a. Insufficient oxygen being supplied.

—Check to make sure vent cap is installed properly and free of debris. Make sure that vent system joints are tight and have no leaks.

—Check to make sure that no material has been placed at the main burner base.

# INTERMITTENT PILOT LIGHTING INSTRUCTIONS (BP7 SERIES)

## FOR YOUR SAFETY READ BEFORE LIGHTING

### ⚠ WARNING

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

- A. This appliance has a pilot which can be lit with the manual on/off switch, a remote control, or by switching the receiver switch to the "ON" position. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

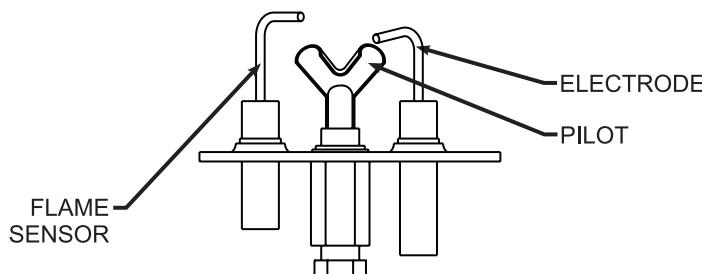
#### What To Do If You Smell Gas

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

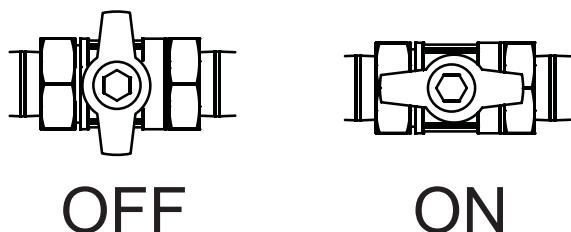
- C. Use only the remote control or manual remote receiver switch to operate the gas valve. Never use tools. If valve does not operate, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

## LIGHTING INSTRUCTIONS

1. **STOP!** Read the safety information above.
2. Turn OFF electric power to the appliance.
3. Remove barrier screen.
4. Turn gas supply knob counterclockwise ↙ to "On" position.
5. 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 page. If you do not smell gas, go to the next step.
6. Turn ON electric power to the appliance.
7. Find pilot - The pilot is behind the burner on the left side.
8. Turn main flame to on. If the pilot does not light within 60 seconds, stop and go to Step 5.
9. Refer to remote control instructions for detailed information, control features, and operation. **NOTICE:** There is a CPI/IPI switch that allows for a continuous standing pilot mode or an intermittent pilot mode. See appliance manual for location of this switch. If the pilot or burner does not stay lit (in the standing pilot mode), stop and immediately call a qualified service technician or gas supplier.
10. If the burner or pilot does not operate properly after several tries, turn the gas supply knob clockwise ↘ to "OFF" and call your service technician or gas supplier.
11. Replace barrier screen.
12. Operation of the gas valve is controlled by a manual on/off switch or a hand held remote control. Refer to remote instructions for detailed operation information.



### GAS SHUT-OFF VALVE



## TO TURN OFF GAS TO FIREPLACE

1. Turn off all electric power to the appliance if service is to be performed (if applicable).
2. Gain access to control compartment. Remove barrier screen.
3. Locate On/Off gas supply knob and turn clockwise to ↘ "OFF". Do not force.
4. Replace barrier screen.

# IPI ELECTRONIC SYSTEM OPERATING INSTRUCTIONS (BP7 SERIES)

## ELECTRONIC CONTROL VALVE

The electronic control valve system includes the ability to switch the pilot from a standing pilot mode to an intermittent pilot mode.

- **IPI Mode** - In the Intermittent Pilot mode, when the unit is turned ON, it will cause spark to the pilot, light the pilot, then allow the burner to light. When the unit is turned to OFF, both the burner and pilot will be OFF.
- **CPI Mode** – In the “Pilot On Demand” mode, the pilot remains ON continuously even when the burner is turned OFF. The pilot will shut off after 7 days if there is no activity or call for heat.

**NOTICE:** A small toggle switch on the front of the module tray that is used to switch from IPI (left) to the CPI (right).

See Figure 75.

When the unit is turned to ON, the electrical current will energize a spark to the pilot igniter. Once the pilot sensor heats up (after a few seconds), the valve will be energized, allowing gas to flow to the burner.

1. Follow the SAFETY and LIGHTING INSTRUCTIONS for Intermittent Pilot controls found in this manual, and on labels found in the control compartment located in the lower cavity of the appliance.
2. During the heating season (or in power outage periods), it is recommended that the pilot remain in the CPI (standing pilot mode) to reduce cold start issues, and/or conserve battery backup power during a power outage.
3. The gas valve has inlet and outlet pressure taps as shown in **Figure 75**. Refer to pages 8 and 17 for gas pressure requirements.

**NOTICE:** The gas control has a manual HI/LO flame adjustment knob (regulator) that allows you to increase or decrease the height of the burner flame. **See Figure 75.** Rotate the HI/LO knob counterclockwise to “HI” to increase the flame height, and clockwise to “LO” to decrease the flame height.

## OPTIONAL REMOTE CONTROLS

Optional remote controls are available for use with this appliance. It is recommended that the remote receiver be placed either in a wall outlet box with extended wiring, or in the control compartment area as far forward as possible.

The placement options for the remote receiver are given to allow flexibility, however battery life will be extended when the receiver is placed in cooler areas.

To connect the remote receiver to the appliance, first disconnect the ON/OFF switch wires from the white and green wire connectors and connect the wires from the remote receiver to the green and white wire connectors. **See Figure 75.**

Follow the instructions included with the remote control for programming and other operational information.

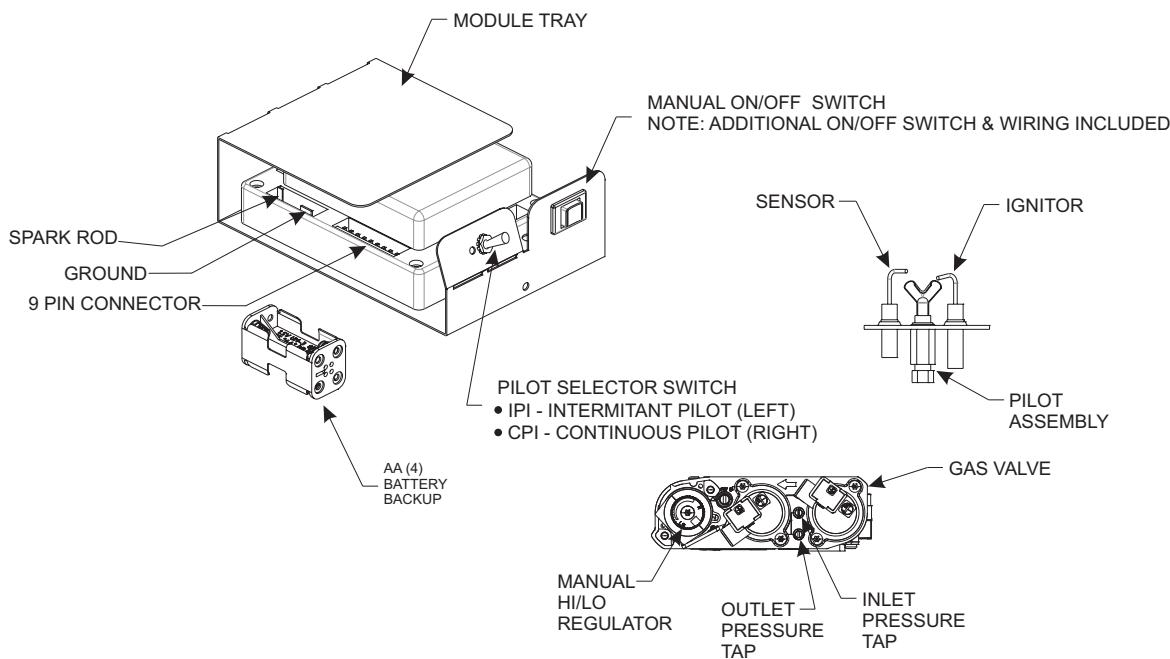


Figure 75

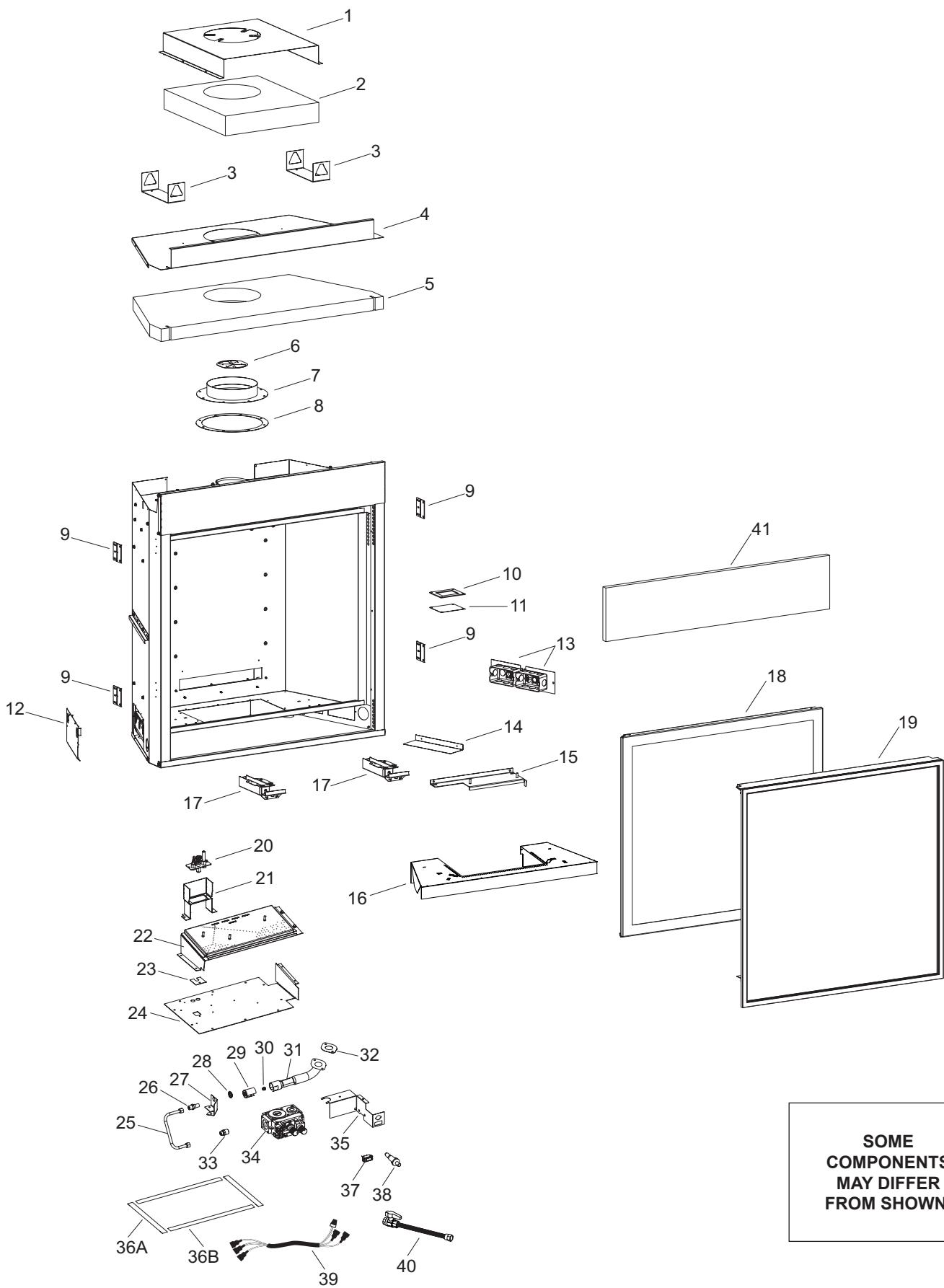
## INTERMITTENT PILOT CONTROL SYSTEM TROUBLESHOOTING

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Gas odor during setup	Gas Leak	See "What to do if you smell gas" Page 1. Check all gas connections. Tighten all loose connections.
Gas odor before first ignition	Gas Leak	See "What to do if you smell gas" Page 1. Check all gas connections. Tighten all loose connections.
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 power "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 8. Clean pilot. Check ground connections Redirect draft from room or wall 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. 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

## INTERMITTENT PILOT CONTROL SYSTEM TROUBLESHOOTING (CONT'D)

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Burner lights but does not stay lit while pilot remains on	Low gas pressure	Check gas supply pressure
	Loose sensor wire	Check wire connection
	Faulty valve	Replace valve
	Faulty pilot or thermocouple	Replace Safety pilot
	Clogged or dirty burner ports	Clean burner ports
	(For fireplace equipped with optional thermostat or thermostat remote) Room temperature is higher than thermostat setting	Move (optional) remote away from fireplace Set higher temperature on (Optional) remote/thermostat
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
	For fireplace equipped with optional thermostat or thermostat remote, the room temperature is higher than the thermostat setting	Move remote away from fireplace Set higher temperature on remote/thermostat
	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
Appliance 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 appliance	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

# MILLIVOLT PARTS VIEW - DVCP42BP3



SOME  
COMPONENTS  
MAY DIFFER  
FROM SHOWN.

# MILLIVOLT PARTS LIST - DVCP42BP3

INDEX NO.	DVCP42	DESCRIPTION
1	35918	INSULATION BOX
2	R12177	INSULATION TOP, CENTER
3	35997	BRACKET, SHIPPING (QTY. 2)
4	35908	OUTER WRAPPER TOP
5	R12176	INSULATION TOP
6	32730	FLUE RESTRICTOR ASSEMBLY
7	R7566	INLET VENT ADAPTER 6-5/8
8	R7573	GASKET, INLET VENT
9	31579	NAILING FLANGE (QTY. 4)
10	R11751	GASKET, ACCENT LAMP
11	32214	COVER PLATE, ACCENT LIGHT
12	31587	BLOWER MOUNTING PLATE
13	17162	JUNCTION BOX ASSEMBLY (QTY. 2)
14	17357	JUNCTION BOX SHIELD
15	32768	LOG SUPPORT ASSEMBLY
16	37599	BURNER COVER
17	29057	SPRING RETAINER ASSEMBLY (QTY. 2)
18	32256	GLASS FRAME ASSEMBLY
19	37596	SCREEN ASSEMBLY COMPLETE
20	R7612	PILOT ASSEMBLY, NATURAL
20	R7611	PILOT ASSEMBLY, PROPANE
21	31600	PILOT BRACKET
22	37594	BURNER WELDED ASSEMBLY
23	R11269	GAS LINE BRACKET
24	39653	BURNER BASE
25	31785	TUBING ASSEMBLY, INLET
26	R11675	ORIFICE HOLDER
27	31714	ORIFICE BRACKET
28	R7572	JAMB NUT, 1/4-in-18 NPS
29	R7624	AIR SHUTTER
30	N/A	ORIFICE #54 PROPANE
30	N/A	ORIFICE #42 NATURAL
30	N/A	ORIFICE #1.45mm PROPANE
30	P258	ORIFICE #1.55mm PROPANE
30	P285	ORIFICE #39 NATURAL
31	R11978	VENTURI
32	R11977	VENTURI GASKET
33	R2423	CONNECTOR, MALE 5/16 X 3/8 NPT

INDEX NO.	DVCP42	DESCRIPTION
34	R7577	VALVE, NATURAL
34	R7578	VALVE, PROPANE
35	31595	VALVE BRACKET
36A	17626	GASKET 3/4 X 7 (QTY. 2)
36B	17625	GASKET 3/4 X 13 3/4 (QTY. 2)
37	R3436	SWITCH, REMOTE OFF/ON
38	R9760	IGNITOR, PIEZO
39	R10947	WIRE ASSEMBLY
40	R7591	FLEXLINE 3/8 X 12 WITH SHUTOFF
41	36073	NON-COMBUSTIBLE BOARD
NS	36094	BACKER STUD (QTY. 4)
NS	R3491	COVER, JUNCTION BOX
NS	R3492	RECEPTICAL, 3-PRONG

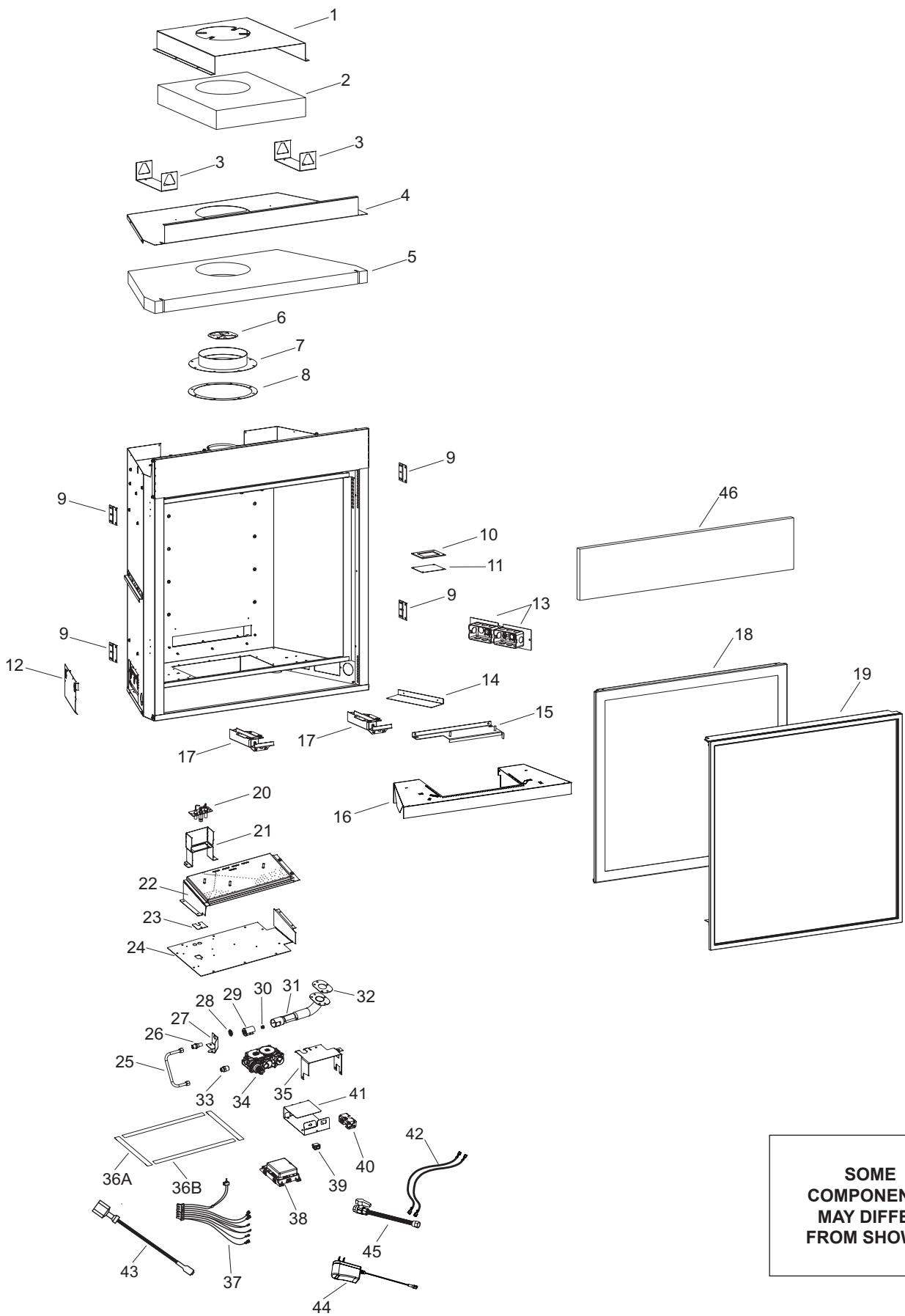
NS - Part Not Shown on Exploded View

N/A - Part not applicable for that particular unit.

## ⚠ WARNING

Use only manufacturer's replacement parts. Use of any other parts could cause injury or death.

# IP PARTS VIEW - DVCP42BP7



SOME  
COMPONENTS  
MAY DIFFER  
FROM SHOWN.

# IP PARTS LIST - DVCP42BP7

INDEX NO.	DVCP42	DESCRIPTION
1	35918	INSULATION BOX
2	R12177	INSULATION TOP, CENTER
3	35997	BRACKET, SHIPPING (QTY. 2)
4	35908	OUTER WRAPPER TOP
5	R12176	INSULATION TOP
6	32730	FLUE RESTRICTOR ASSEMBLY
7	R7566	INLET VENT ADAPTER 6-5/8
8	R7573	GASKET, INLET VENT
9	31579	NAILING FLANGE (QTY. 4)
10	R11751	GASKET, ACCENT LAMP
11	32214	COVER PLATE, ACCENT LIGHT
12	31587	BLOWER MOUNTING PLATE
13	17162	JUNCTION BOX ASSEMBLY (QTY. 2)
14	17357	JUNCTION BOX SHIELD
15	32768	LOG SUPPORT ASSEMBLY
16	37599	BURNER COVER
17	29057	SPRING RETAINER ASSEMBLY (QTY. 2)
18	32256	GLASS FRAME ASSEMBLY
19	37596	SCREEN ASSEMBLY COMPLETE
20	R10423	PILOT ASSEMBLY, NATURAL
20	R10424	PILOT ASSEMBLY, PROPANE
21	31600	PILOT BRACKET
22	37594	BURNER WELDED ASSEMBLY
23	R11269	GAS LINE BRACKET
24	39653	BURNER BASE
25	31785	TUBING ASSEMBLY, INLET
26	R11675	ORIFICE HOLDER
27	31714	ORIFICE BRACKET
28	R7572	JAMB NUT, 1/4-in-18 NPS
29	R7624	AIR SHUTTER
30	N/A	ORIFICE #54 PROPANE
30	N/A	ORIFICE #42 NATURAL
30	N/A	ORIFICE #1.45mm PROPANE
30	P258	ORIFICE #1.55mm PROPANE
30	P285	ORIFICE #39 NATURAL
31	R11978	VENTURI
32	R11977	VENTURI GASKET
33	R2423	CONNECTOR, MALE 5/16 X 3/8 NPT
34	R11125	VALVE, NATURAL
34	R11126	VALVE, PROPANE

INDEX NO.	DVCP42	DESCRIPTION
35	31926	VALVE BRACKET
36A	17626	GASKET 3/4 X 7 (QTY. 2)
36B	17625	GASKET 3/4 X 13 3/4 (QTY. 2)
37	R11123	WIRE HARNESS, PROFLAME DFC
38	R11127	CONTROL BOARD, PROFLAME DFC
39	R2522	SWITCH, ON/OFF
40	R11122	BATTERY HOLDER, AA WITH SNAP-ON
41	29382	MODULE TRAY
42	R2566	WIRE ASSEMBLY (QTY. 2)
43	R11034	WIRE ASSEMBLY
44	R11128	POWER ADAPTOR, 7.0 VDC
45	R7591	FLEXLINE 3/8 X 12 WITH SHUTOFF
46	36073	NON-COMBUSTIBLE BOARD
NS	36094	BACKER STUD (QTY. 4)
NS	R3491	COVER, JUNCTION BOX (QTY. 2)
NS	R3492	RECEPTICAL, 3-PRONG (QTY. 2)

NS - Part Not Shown on Exploded View

N/A - Part not applicable for that particular unit.

## WARNING

**Use only manufacturer's replacement parts. Use of any other parts could cause injury or death.**

# MAINTENANCE AND SERVICE

**NOTICE:** It is normal for steel appliances to give off some expansion and/or contraction noise during start up or cool-down. 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 any undetected oil from the manufacturing process.

Please ensure that your room is well ventilated during initial warming - open a window.

Burn your fireplace for at least six hours the first time you use it. If optional fan kit has been installed, place fan control in the "OFF" position during this time.

**IMPORTANT:** Turn off gas before servicing appliance. Have a qualified service person perform these check-ups at the beginning of each heating season.

- **Clean Burner and Control Compartment**

Keep the control compartment, logs, and burner areas surrounding the logs clean by vacuuming or brushing at least twice a year.

## Maintenance and Service

The only recommended maintenance for the homeowner is periodically cleaning the glass. Before cleaning the glass read the warnings below.

This fireplace has no user-serviceable mechanical components. Contact your dealer or a qualified gas appliance service technician for all service and repair.

### **⚠ WARNING**

- Handle the glass with care to avoid breaking it. Never strike the glass.
- To prevent etching or discoloring, clean the glass with Fireplace Glass Cleaner (available from your dealer). Never use cleaners that contain ammonia or abrasives.
- Never clean the glass while it is hot or even warm. Touching hot glass can cause severe burns. Using liquids or aerosols on hot glass will cause it to shatter.
- Never operate the fireplace with the glass removed or cracked.
- Have your dealer replace damaged glass only with glass and gasket material from Empire Comfort Systems. Using substitute glass will void the warranty.

## Glass Cleaning Procedure

Turn off the fireplace and allow it to cool for at least an hour.

Wear clean protective gloves when handling the glass door to prevent injury to your hands and avoid leaving smudges.

1. Remove the barrier screen by lifting and pulling towards you.
2. Turn off gas valve.
3. Use a feather duster or soft cloth to remove any accumulated dust in the bottom of fireplace and around valve. Avoid disturbing any wiring or metal tubing.
4. Locate the two spring clamps at the bottom of the glass frame. Pull out and downward to release them.
5. Remove the glass front by swinging the bottom outward. Hold the frame at the sides and gently lift up.
6. Clean the glass inside and out using a product specifically designed for fireplace glass. (Do not use glass cleaner that contains ammonia.)

7. Reinstall glass front by hanging the top of the frame on top of the firebox, making sure the gasket at the top is positioned in front of the firebox flange and not on top **See Figure 78**.
  8. Gently lower the glass into position and secure with the two latches at the bottom.
  9. Wipe off any smudges on the glass or frame. (Heat from the fireplace can cause residue on the frame to discolor the finish.)
  10. Ignite the pilot. (**See Lighting Instructions.**)
  11. Replace the barrier screen by hanging the top flange on the door and swinging the bottom down. Adjust, if necessary, to sit squarely in the fireplace opening.
  12. Light the fireplace and let it burn for 5 minutes. If either the pilot or the flames appear abnormal, contact your dealer.
- **Check Vent System**  
The appliance 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.

## General Glass Information

### **⚠ WARNING**

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

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

Make periodic visual check of pilot and burners. Clean and replace damaged parts.

Additional maintenance and service checklist is provided on Page 54 for the service technician. These are only to be completed by a service technician.

## MAINTENANCE AND SERVICE (CONT'D)

### Glass Door & Barrier Screen Removal

**NOTICE:** Do not handle barrier screen or door with your bare hands! (Always Wear Gloves)

1. Remove the barrier screen by lifting and pulling towards you.

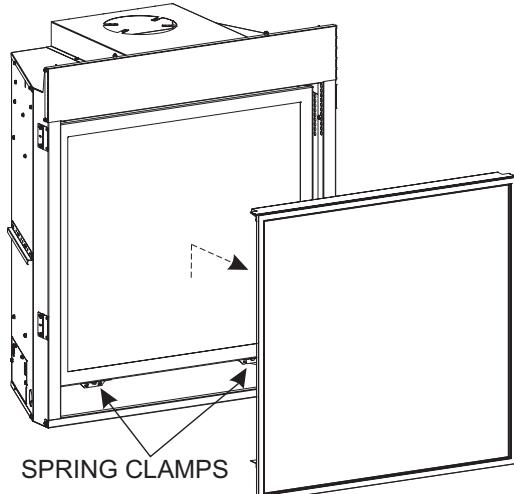


Figure 76

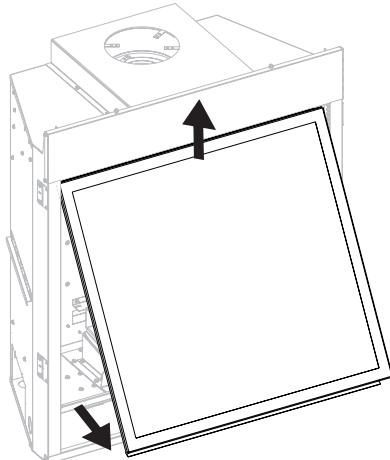


Figure 77

2. Locate the bottom two glass frame spring clamps. Pull forward and downward to release them from the Glass Door frame.
3. Remove the glass door by pulling the bottom of the door outward several inches, then lift upwards to disengage from the firebox upper flange.

### Install Glass Door and Barrier Screen

1. When installing the glass door, make sure that the door top flange is hooked over the firebox top flange as illustrated in the "Correct" view in Figure 78.

**Important: Do not allow the gasket across the top of the door to roll up on top of the firebox flange as shown in "Incorrect" view in Figure 78.**

2. To install correctly, the door should be held at an angle outward from the firebox as shown in the illustration, then carefully engage the upper flange of the door frame with the top flange of the firebox. Center the door left to right, then allow the bottom of the door to swing inward to seal against the firebox front.

3. Once the glass door is placed flat to the firebox front edges, engage the two spring latches to the bottom flange on the glass door frame to secure the door assembly.
4. Replace the barrier screen by hooking the top of the glass door and aligning the lower hook with the glass panel.

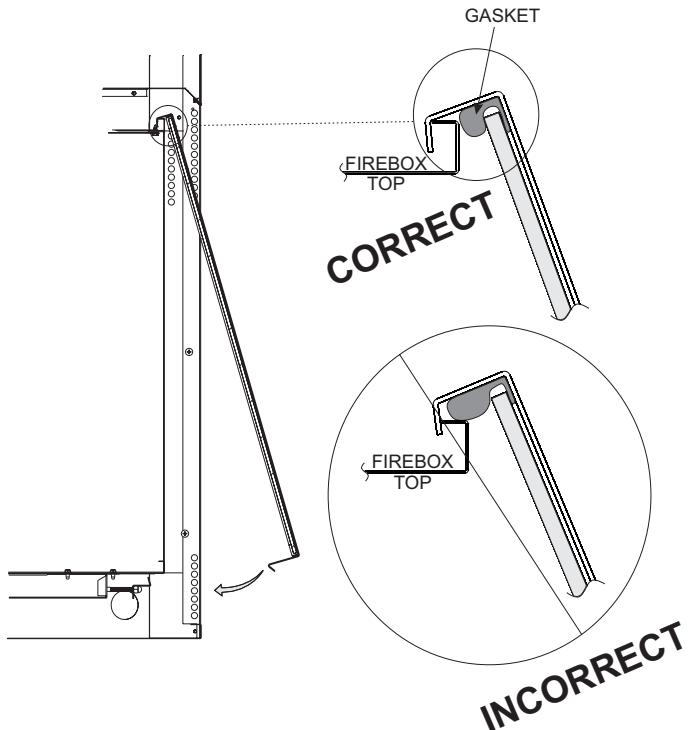


Figure 78

# MAINTENANCE AND SERVICE (CONT'D)

## FOR THE INSTALLER

### Maintenance Precautions

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 might be required due to excessive lint from carpeting, bedding material, etc.

Keep burner and control compartment clean.

Examine venting system periodically and replace damaged parts. Make a periodic visual check of pilot and burners. Clean and replace damaged parts.

### Damaged Fireplace

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.

In the event of a natural disaster (tornado, earthquake, fire, etc.) have a qualified technician inspect the fireplace for damage or potential gas leaks. Repair or replace any damaged components before operating this fireplace.

### Annual Inspection

- Have the fireplace inspected annually before use.
- More frequent inspection and cleaning may be required if the fireplace is installed in an area exposed to pet hair or dust, or to excessive lint from new carpeting or bedding materials.

### During The Annual Checkup, The Technician Will:

- Inspect the pilot (flame safety system) and burner(s) for proper operation and replace any damaged parts.
- Test and measure the flame failure response time of the flame safety system. It must de-energize the safety shut-off in no more than 30 seconds.
- Vacuum and clean any foreign debris in the firebox that is not supposed to be there.
- Inspect and ensure that the lighting of the main burner occurs within 4 seconds of the gas valve opening. Visual inspection should match the information illustrated in the manual. Inspect primary air openings for blockage.
- Check the glass and gasket for proper seal.
- Clean Glass with a suitable fireplace glass cleaner. Abrasive cleaners must not be used. Be careful not to scratch the glass when cleaning.
- Check all latches or other door retention components for proper operation, tension, and relief mechanisms are free from obstructions. **See Figure 76.**
- Check the barrier screen for fit and structural integrity. **See Figure 76.**
- Inspect the log set (if applicable) and decorative media (if applicable) for debris or damage.
- Freshen up the glowing embers if applicable.
- Replace batteries in the remote transmitter and receiver if applicable.
- Inspect the venting and vent termination cap for damage, corrosion, sooting, or obstruction and correct if present.
- Check all accessible gas-carrying tubes, connections, pipes and other components for leaks.
- *In addition, clean and inspect the fireplace following any remodeling work in your home.*

# IMPORTANT SAFETY INFORMATION

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

**DO NOT OPERATE THIS APPLIANCE WITHOUT GLASS FRONT PANEL INSTALLED**

## **WARNING**

1. "Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies."
2. "Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition."
3. "Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children, and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children, and other at-risk individuals out of the room and away from hot surfaces."
4. For appliances requiring a barrier, as determined under Clause 5.15.4: "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."
5. "If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance."
6. "Clothing or other flammable material should not be placed on or near the appliance."
7. "Any safety screen, guard, or barrier removed for servicing an appliance must be replaced prior to operating the appliance" (see Clause 4.1.6).
8. "Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning might be required due to excessive lint from carpeting, bedding material, et cetera. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean."
9. The instructions for an appliance optionally for use with glass doors (or equivalent) shall state that, "Only doors certified with the appliance shall be used."
10. The instructions for an appliance not intended for use with glass doors (or equivalent) shall emphasize that the appliance is not for use with glass doors.
11. Where applicable, provide a means by which the consumer can identify the barrier, (such as graphic representation, clear description, or reference marking).

## **WARNING**

### **CARBON MONOXIDE POISONING HAZARD**

Failure to follow the steps outlined below for each appliance connected to the venting system being placed into operation could result in carbon monoxide poisoning or death. The following steps shall be followed for each appliance connected to the venting system being placed into operation, while all other appliances connected to the venting system are not in operation:

1. Seal any unused openings in the venting system.
2. Inspect the venting system for proper size and horizontal pitch, as required in the *National Fuel Gas Code ANSI Z223.1/NFPA 54* or the *National Gas and Propane Installation Code CSA B149.1* and these instructions. Determine that there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.
3. As far as practical, close all building doors and windows and all doors between the space in which the appliance(s) connected to the venting system are located and other spaces of the building.
4. Close fireplace dampers.

5. Turn on clothes dryers and any appliance not connected to the venting system. Turn on any exhaust fans, such as range hoods and bathroom exhausts, so they are operating at maximum speed. Do not operate a summer exhaust fan.
6. Follow the lighting instructions. Place the appliance being inspected into operation. Adjust the thermostat so appliance is operating continuously.
7. Test for spillage from draft hood equipped appliances at the draft hood relief opening after 5 minutes of main burner operation. Use the flame of a match or candle.
8. If improper venting is observed during any of the above tests, the venting system must be corrected in accordance with *National Fuel Gas Code, ANSI Z223.1/NFPA* and/or *National Gas and Propane Installation Code, CSA B149.1*.
9. After it has been determined that each appliance connected to the venting system properly vents when tested as outlined above, return doors, windows, exhaust fans, fireplace dampers and any other gas-fired burning appliance to their previous conditions of use.

# REQUIREMENTS FOR THE COMMONWEALTH OF MASSACHUSETTS

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven 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 heating 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 Ventilated" 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.

# APPLIANCE SERVICE HISTORY

# APPLIANCE SERVICE HISTORY

# ANNUAL FIREPLACE INSPECTION CHECKLIST

## ANNUAL INSPECTION DATE >

Inspect pilot and burner system and replace any damaged parts									
Check glass gasket and door for proper seal									
Check barrier screen for proper fit and structural integrity									
Check latches for proper operation and tensions									
Inspect log set/decorative media for debris and damage									
Clean dust and debris from fireplace									
Clean dust and debris from valves and control									
Clean glass with fireplace glass cleaner									
Freshen glowing embers if needed									
Replace batteries in battery pack									
"Replace batteries in transmitter and receiver (if installed)"									
Inspect venting for damage or corrosion									
Inspect venting for damage or obstruction									

**SERVICE  
TECHNICIAN >  
SIGNATURE**

# MASTER PARTS DISTRIBUTOR LIST

To Order Parts Under Warranty, please contact your local Empire dealer. See the dealer locator at [www.empirecomfort.com](http://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](http://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](http://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](http://www.fwwebb.com) & [www.victormfg.com](http://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](http://www.eastcoastenergy.com)

**Parts:** Heater, Hearth and Grills

# HOW TO ORDER REPAIR PARTS

## Parts Not Under Warranty

Parts can be ordered 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. Proof of purchase is **required** for warranty parts.

All parts listed in the Parts List have a Part Number. When ordering parts, first obtain the Model Number and Serial Number from the name plate on your equipment. Then determine the Part Number (**not** the Index Number) and the Description of each part from the following illustration and part list. Be sure to give all this information . . .

Appliance Model Number \_\_\_\_\_ Part Description \_\_\_\_\_

Appliance Serial Number \_\_\_\_\_ Part Number \_\_\_\_\_

Type of Gas (Propane or Natural) \_\_\_\_\_

Do not order bolts, screws, washers or nuts. The standard hardware items can be purchased at your 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. 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 – Factory-Installed Glass**

If factory-installed glass fails because of defective workmanship or material, Empire will repair or replace it at Empire's option.

## **Limited Lifetime Parts Warranty – Combustion Chamber, Heat Exchanger**

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

## **Limited Three-Year Parts Warranty – All Other Components (Except Remote Controls, Thermostats, Lights, 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 it at Empire's option.

## **Limited One-Year Parts Warranty – Remote Controls, Thermostats, Lights, Accessories, and Replacement Parts**

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

### **Duties of the Owner**

Have the appliance installed by a qualified installer, and operate and maintain it in accordance with the furnished instructions

Provide proof of purchase (receipt) to establish the purchase date, which determines the warranty start date.

Provide ready access to the appliance for service.

### **What Is Not Covered**

Damage caused by misuse or improper installation.

Damage caused by improper maintenance or lack of maintenance.

Claims that do not involve defective workmanship or materials.

Unauthorized service or replacement parts.

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

Removal and reinstallation cost.

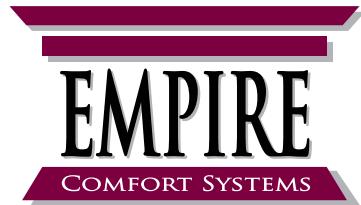
### **How to Get Service**

Provide the dealer with the model number, serial number, type of gas, and proof of purchase. 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, the service received has not been satisfactory, send an e-mail describing the issue and any actions taken to [info@empirecomfort.com](mailto: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.



SINCE 1932

**[www.empirecomfort.com](http://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](mailto:info@empirecomfort.com).

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