

# 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  
GAS FIREPLACE  
HEATER MODEL  
SERIES:****MV CONTROL**

DVL(36,46)BP30(N,P)-1

**IP CONTROL**

DVL(36,46)BP70(N,P)-1

**⚠ WARNING**

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

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

This appliance is only for use with the type of gas indicated on the rating plate.

This appliance is not convertible for use with other gases, unless a certified kit is used.



## DANGER



HOT GLASS WILL  
CAUSE BURNS.

**DO NOT TOUCH GLASS  
UNTIL COOLED.  
NEVER ALLOW CHILDREN  
TO TOUCH GLASS.**

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

NATIONAL  
FIREPLACE  
INSTITUTE



[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.

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# IMPORTANT SAFETY INFORMATION

## 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. It is imperative that control compartments, burners and circulating air passageways of the fireplace be kept clean. 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.

## FOR INSTALLER

### 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. Do not use cleaners containing ammonia.
- Check all latches or other door retention components for proper operation, tension, and relief mechanisms are free from obstructions. **See Figures 69 and 70.**
- Check the barrier screen for fit and structural integrity.
- 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 (CONT'D)

### ⚠ WARNING

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

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

### ⚠ WARNING

Do not operate this fireplace without glass front panel installed.

- If this fireplace is installed directly on carpeting, tile or other combustible material other than wood flooring the fireplace shall be installed on a metal or wood panel extending the full width and depth of the fireplace.  
The base referred to above does not mean the fireproof base as used on wood stoves. The protection is for rugs that are extremely thick and light colored tile.
- Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.
- Young children should be carefully supervised when they are in the same room as the fireplace.
- Clothing or other flammable material should not be placed on or near the fireplace.
- Adequate accessibility clearances for servicing and proper operation.
- This fireplace must not share or be connected to a flue serving a separate solid-fuel burning fireplace.
- Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapor and liquids.
- **Under no circumstances** should any solid fuels (wood, coal, paper or cardboard etc.) be used in this fireplace.
- The flow of combustion and ventilation air must not be obstructed in any way.
- Due to high temperatures, the fireplace should be located out of traffic and away from furniture and draperies.
- The glass front or any part removed for servicing the fireplace must be replaced prior to operating the fireplace. Work should be done by a qualified service person.
- Any safety screen or guard removed for servicing the fireplace must be replaced prior to operating the fireplace.
- Keep burner and control compartment clean.
- Vent cap is **hot** while fireplace is in operation and some time afterward.
- Installation and repair should be done by a **QUALIFIED SERVICE PERSON**. The fireplace should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is imperative that control compartments, burners and circulating air passageways of the fireplace be kept clean.

### ⚠ CAUTION

If the glass is cracked or damaged in any way, it should be replaced only with a complete glass frame assembly from Empire. See parts list on Page 57 for ordering.

- **DO NOT** put anything around the fireplace that will obstruct the flow of ventilation air.
- **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.
- DO keep the fireplace area clear and free from combustible material, gasoline and other flammable vapors and liquids.
- DO examine venting system periodically and replace damaged parts.
- DO make a periodic visual check of pilot and burners. Clean and replace damaged parts.
- Young children should be carefully supervised when they are in the same room as the fireplace. 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.
- A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this fireplace and shall be installed for the protection of children and other at-risk individuals.
- If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this fireplace.
- Any safety screen, guard, or barrier removed for servicing an fireplace must be replaced prior to operating the fireplace.

### COMBUSTIBLE MATERIAL

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

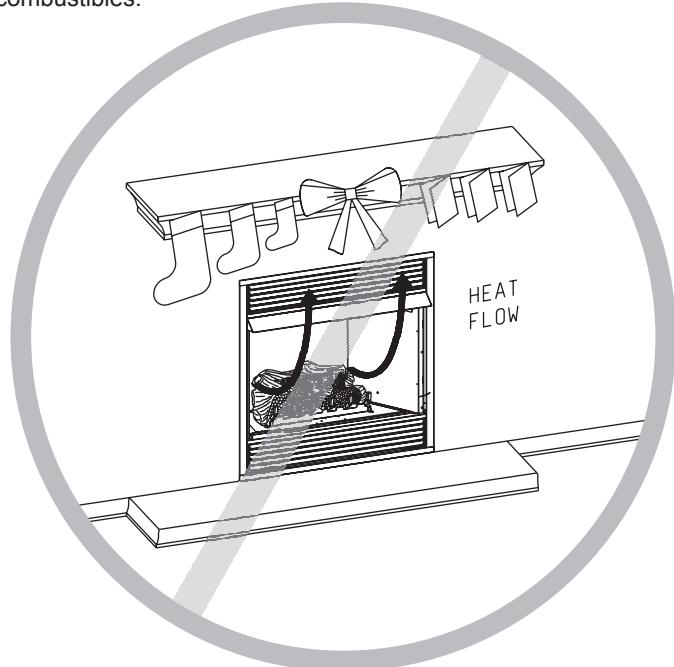


Figure 1

# SAFETY INFORMATION FOR USERS OF PROPANE GAS

Propane is a flammable gas which 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, use 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 man 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 well. 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. Since 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.
- Odor fade, due to oxidation by rust or adsorption on walls of new cylinders and tanks, is possible. 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.

# REQUIREMENTS FOR MASSACHUSETTS

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

1. **INSTALLATION OF CARBON MONOXIDE DETECTORS.**

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

- a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.
  - b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty days to comply with the above requirements; provided, however, that during said thirty day period, a battery operated carbon monoxide detector with an alarm shall be installed.
2. **APPROVED CARBON MONOXIDE DETECTORS.** Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.
3. **SIGNAGE.** A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight feet above grade directly in line with the exhaust vent termination for the horizontally vented gas fueled appliance or equipment. The sign shall read, in print size no less than 1/2 inch in size, "**GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS**".

4. **INSPECTION.** The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a) 1 through 4.
  - (b) **EXEMPTIONS:** The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:
    1. The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
    2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.
  - (d) **MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED.** When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:
    1. The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
    2. The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instruction.
  - (e) A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

# INTRODUCTION

## INSTRUCTIONS TO INSTALLER

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

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

## APPLIANCE CERTIFICATION

### ⚠ WARNING

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

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

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

## BUILDING CODES

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

- 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.
- The fireplace insert, 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.

### ⚠ WARNING

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

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

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

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

## HIGH ALTITUDE

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

## CANADIAN HIGH ALTITUDE

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

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

# 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 (pgs. 19 and 20).....  
 \_\_\_\_\_

Fireplace is leveled and secured.....  
 \_\_\_\_\_

### VENTING/CHIMNEY/PowerFlow™ HEAT DISTRIBUTION

Venting configuration complies to vent diagrams (pgs. 33 - 37).....  
 \_\_\_\_\_

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

Firestops installed.....  
 \_\_\_\_\_

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

Terminations installed and sealed.....  
 \_\_\_\_\_

Light unit and test venting before enclosing the fireplace .....

### COMMENTS

.....  
 \_\_\_\_\_

ELECTRICAL (pgs. 25 and 26)

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

\_\_\_\_\_

GAS (pgs. 23 and 24)

Proper appliance for fuel type.....  
 \_\_\_\_\_

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

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

FINISHING

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

Mantels and wall projections meet requirements (pgs. 19 and 21) .....

\_\_\_\_\_

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 checked for gas leaks .....

\_\_\_\_\_

Manual envelope and all contents removed from the fireplace and given to homeowner....  
 \_\_\_\_\_

### 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 any issues, who is responsible (Installer/Builder/Other, etc) and corrective action needed:

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

# BEFORE YOU START

## SAMPLE WARNINGS AND DEFINITIONS:

### DANGER

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

### WARNING

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

### CAUTION

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

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

1. Read the safety information on pages 3 - 5.
2. If located in the Commonwealth of Massachusetts, please note the special requirements on page 6.
3. Where are you going to install the fireplace? See page 18.
4. Frame the opening. See pages 19, 27 and 28.
5. Install the gas lines. See pages 23 - 24.
6. Install the wiring. See pages 25, 26, 60 and 61.
7. Install the venting. See pages 32 - 47.
8. Install the fireplace. See pages 18, and 27 - 31.
9. Light the fireplace and troubleshoot. See pages 49 - 53.
10. Show the homeowner how to operate the fireplace.
11. Show the homeowner how to do the basic maintenance.

## UNPACKING THE FIREPLACE

1. Cut binding straps and shrink wrap.
2. Lift fireplace off of the pallet.
3. Remove cartoning material.
4. Verify that the fireplace and components have not been damaged during shipping.
5. Set fireplace in a location near to its final installation location.

## INSTALLATION CONSIDERATIONS - FIREPLACE INSTALLATION GUIDELINES

When planning a fireplace installation, it's necessary to determine:

- Gas supply piping (right side entrance).
- Electrical supply requirements (120V, 60Hz, 1 Amp) (right side entrance)
- These models do not include the Accent Light assembly. However, the Accent Light Kit may be purchased and installed prior to fireplace installation. Instructions are supplied with the Accent Light Kit and in this manual.
- Proper opening size of framing required for installation of the fireplace. Refer to the framing information on pages 19, 27 and 28.

In planning the installation for the fireplace, determine where the fireplace is to be installed and whether optional accessories are desired. Gas supply piping should also be planned at this time.

## THE FIREPLACE CAN BE MOUNTED ON ANY OF THESE SURFACES:

1. A flat hard combustible or non-combustible surface.
2. A raised platform of combustible or non-combustible material.

This fireplace must be supported by a rectangular frame of metal or wood 2 x 4's. This frame should be attached to a metal or wood panel extending the full width and depth of the fireplace. See page 27.

The fireplace is designed to be installed in a zero-clearance enclosure. This means that combustible materials must be located at clearances specified or provided by standoffs or spacers attached to the fireplace.

Combustible materials can come in contact with the nailing flanges provided.

## HOMEOWNER REFERENCE INFORMATION

Record the following information about your fireplace.

Model: \_\_\_\_\_

Date Purchased/Installed: \_\_\_\_\_

Serial Number: \_\_\_\_\_

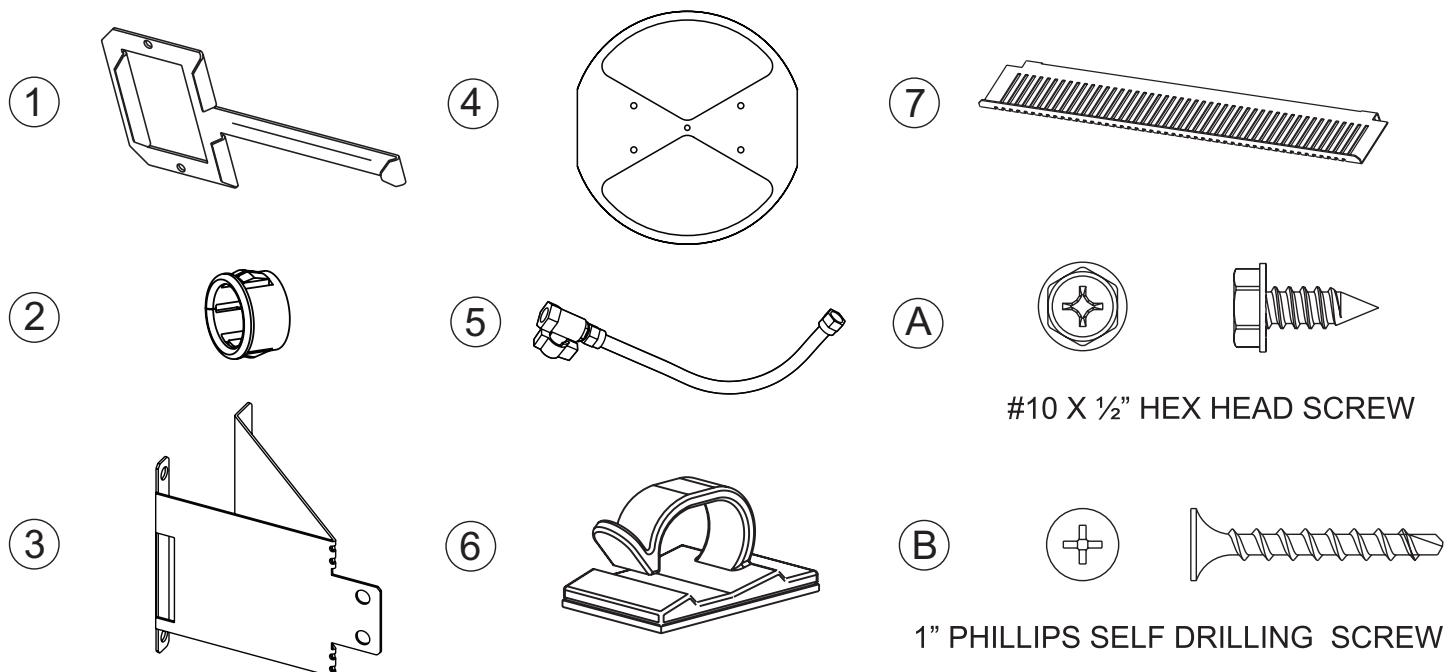
Location on Fireplace: \_\_\_\_\_

Dealership: \_\_\_\_\_

Dealer Phone: \_\_\_\_\_

Notes: \_\_\_\_\_

# CARTON CONTENTS AND HARDWARE PACK - MV

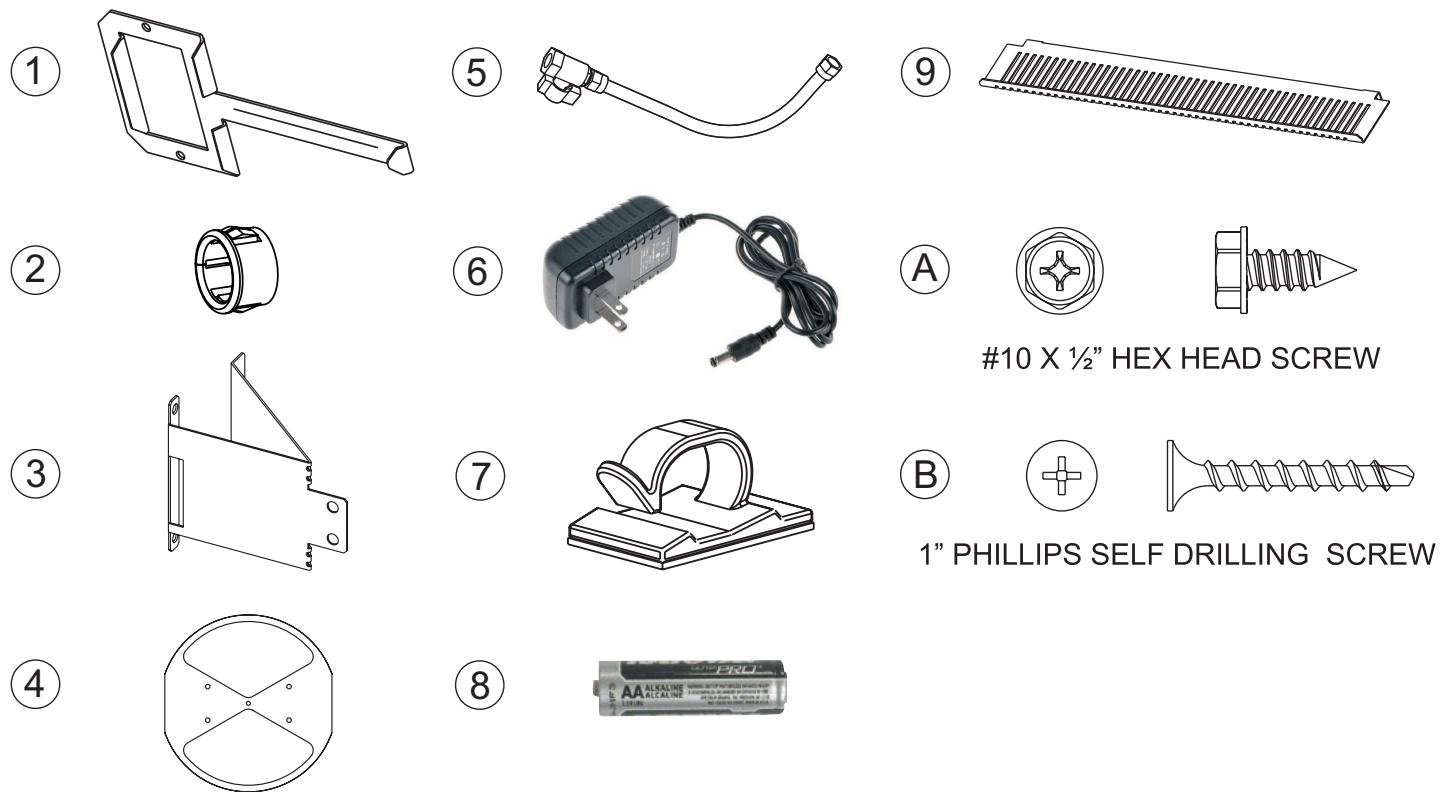


INDEX NUMBER	DESCRIPTION	PART NUMBER	QUANTITY SUPPLIED
1	Door Removal Tool (attached to fireplace)	42000	1
2	Grommet 5/8 DIA	R1536	1
3	Nailing Flange	28450	4
4	Flue Restrictor Assembly	32730	1
5	Flex Line	R12461	1
6	Wire Clip	R1720	2
7	Valve Access Cover	41769	1
8*	Switch, Wall	R3540	1
9*	Cover, Wall Switch	R3590	1
10*	Wire Harness, Wall Switch Extension	R12144	1
A	#10 x 1/2 Screw	N/A	18
B	#8 x 1 Self-Drilling Screw*	N/A	8

\*Not Shown

See Part List above 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.

# CARTON CONTENTS AND HARDWARE PACK - IP



Items not shown to scale.

INDEX NUMBER	DESCRIPTION	PART NUMBER	QUANTITY SUPPLIED
1	Door Removal Tool (attached to fireplace)	42000	1
2	Grommet 5/8 DIA	R1536	3
3	Nailing Flange	28450	4
4	Flue Restrictor Assembly	32720	1
5	Flex Line	R12461	1
6	AC Adaptor	R11128	1
7	Wire Clip	R1720	6
8	AA Battery	N/A	4
9	Valve Acess Cover	41769	1
10*	Switch, Wall	R3540	1
11*	Cover, Wall Switch	R3590	1
12*	Wire Harness, Wall Switch Extension	R12144	1
A	#10 x 1/2 Screw	N/A	18
B	#8 X 1 Self-Drilling Screw*	N/A	8

\*Not Shown

See Part List above 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.

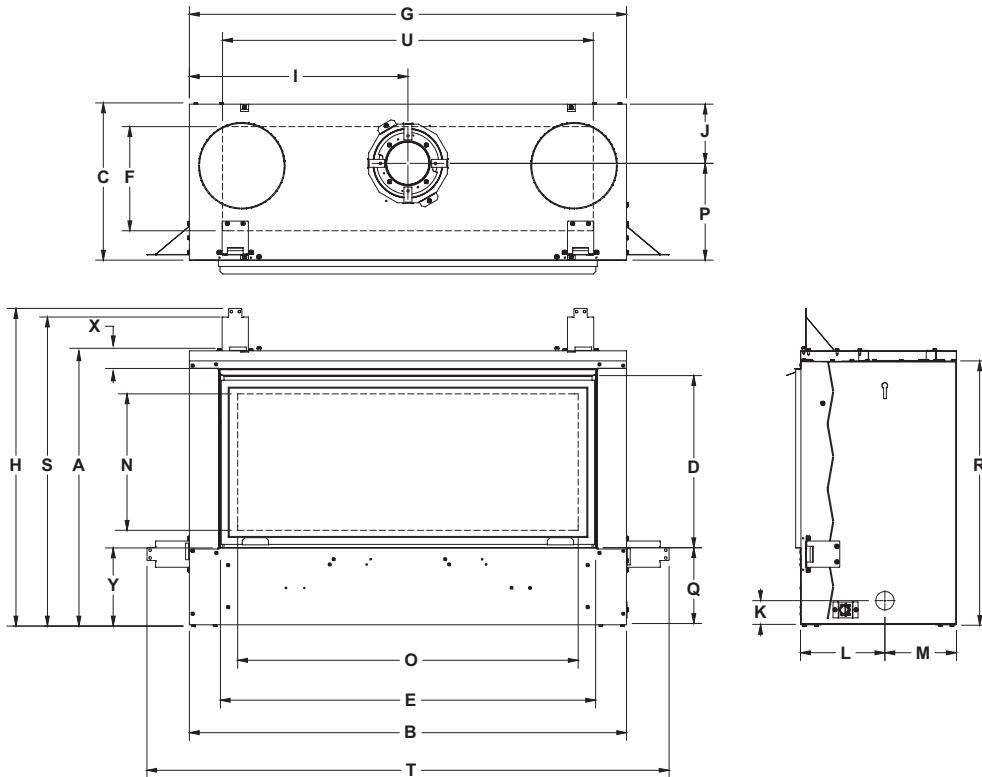
# SPECIFICATIONS

	DVL36BP		DVL46BP	
	Natural	Propane	Natural	Propane
Input BTU/Hr Maximum	25,000	25,000	30,000	31,000
Input BTU/Hr Minimum	18,000	20,000	22,000	25,000
KWH (Maximum)	7.33	7.33	8.79	9.09
KWH (Minimum)	5.28	5.86	6.45	7.33
Orifice	2.35mm (P294)	#53 (P214)	#37 (P213)	1.65mm (P250)
Air Shutter Opening	1/16"	Fully Open	1/16"	Fully Open
Gas Inlet Shut-Off Valve (Pipe)	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Vent Size	4 x 6-5/8	4 x 6-5/8	4 x 6-5/8	4 x 6-5/8

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

GAS SUPPLY PRESSURES (Dimensions In Inches Water Column - W.C.)			
Gas Type	Maximum	Minimum	Manifold
Natural	14	4.5	3.5
Propane	14	11	10

# FIREPLACE DIMENSIONS



INDEX LETTER	DIMENSION DESCRIPTION	DVL36	DVL46
		(Dimensions In Inches)	
A	The maximum height of firebox face (excluding standoffs)	27-3/4	26-5/8
B	The maximum width of the firebox face (excluding nailing flanges)	41-3/4	51-3/4
C	The maximum depth of the firebox	15	15
D	The height of the firebox opening	16-1/2	16-1/2
E	The width of the firebox opening	35-3/4	45-3/4
F	The interior depth of the firebox (not shown)	10	10
G	The rear exterior width of the firebox	41-3/4	51-3/4
H	The height to the firebox standoffs	31-7/16	30-5/16
I	Width from the left side of the box to the centerline of vent	20-7/8	20-7/8
J	Depth from back of box to centerline of top vent	5-3/4	5-3/4
K	Height from the bottom of the box to the gas line opening	1-1/2	1-1/2
L	Depth from the front of the box to gas line opening	8-1/16	8-1/16
M	Depth from rear of box to gas line opening	7	7
N	Glass height	13	13
O	Glass width	32-7/16	42-7/16
P	Depth from front of box to centerline of vent	9-1/4	9-1/4
Q	Distance from floor to fireplace opening	7-1/2	7-1/2
R	Height from floor to vent collar	25-1/4	25-1/4
S	Overall height to header	30-3/4	29-5/8
T	Distance between framing bracket ends	49-3/4	59-3/4
U	Interior rear width of firebox (not shown)	35-5/16	45-5/16
X	Top Panel Height	2-7/8	1-3/4
Y	Bottom Panel Height	7-1/2	7-1/2

## INSTALLING FLEX LINE

**NOTE:** Installing the flex line to the burner inlet fitting will be made easier by laying the fireplace on its back.

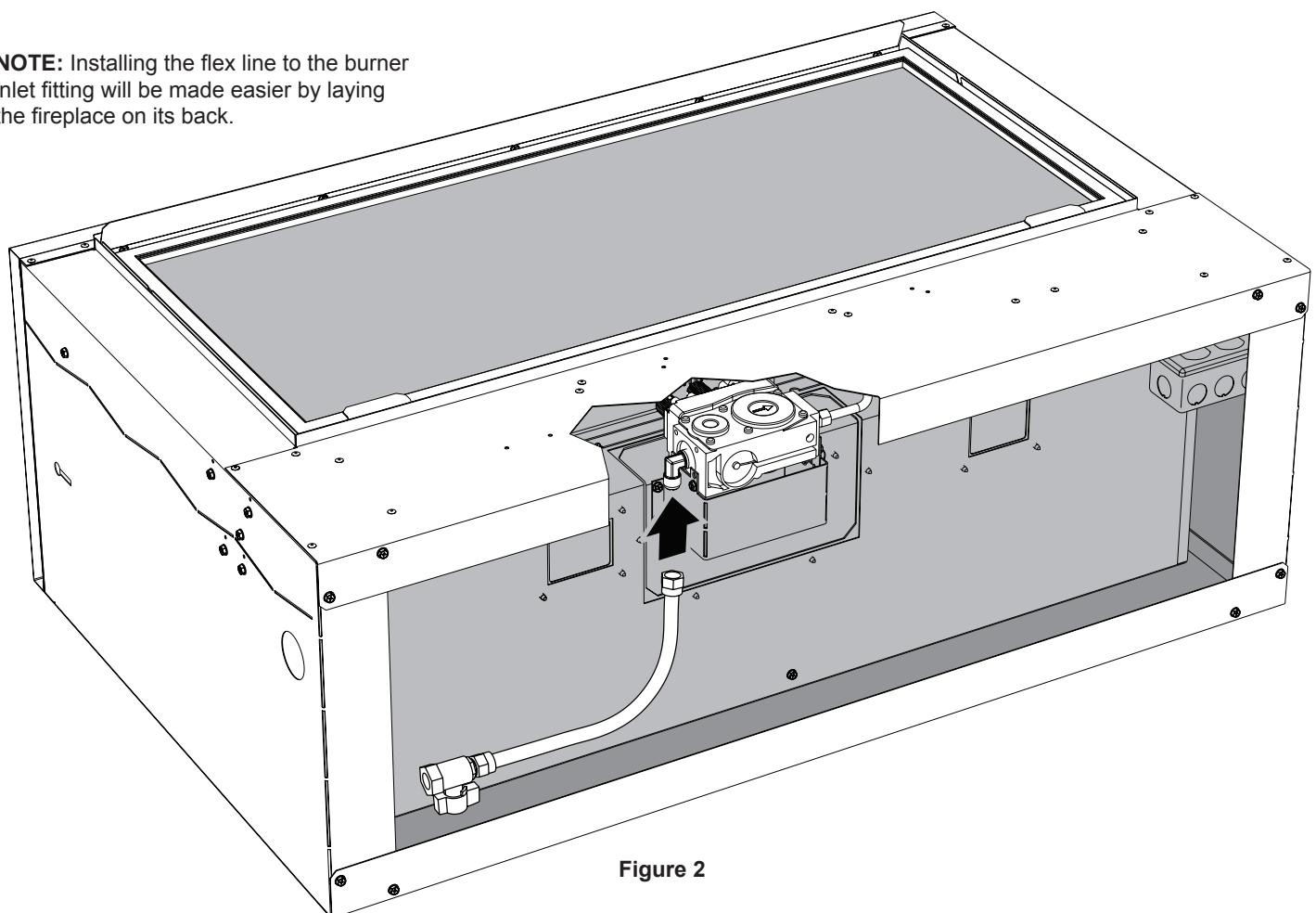
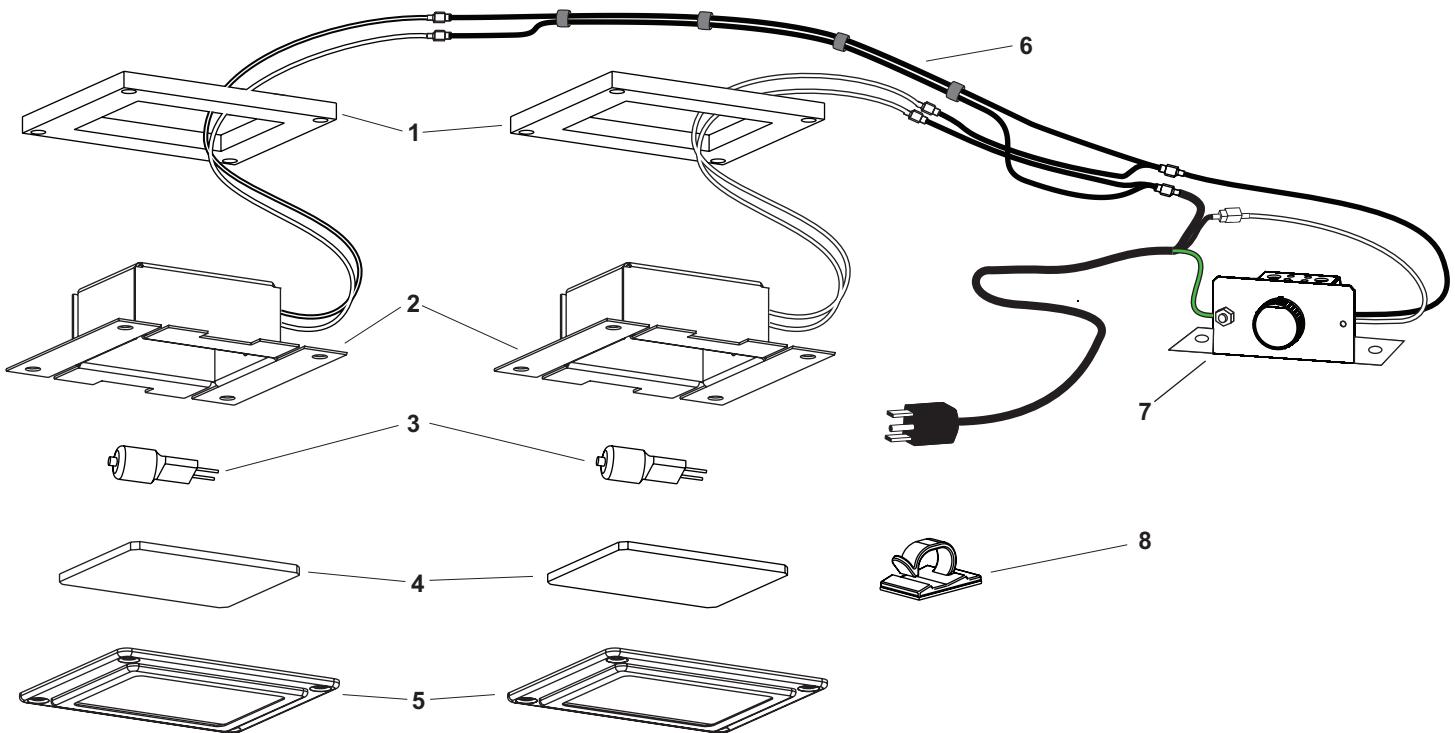


Figure 2

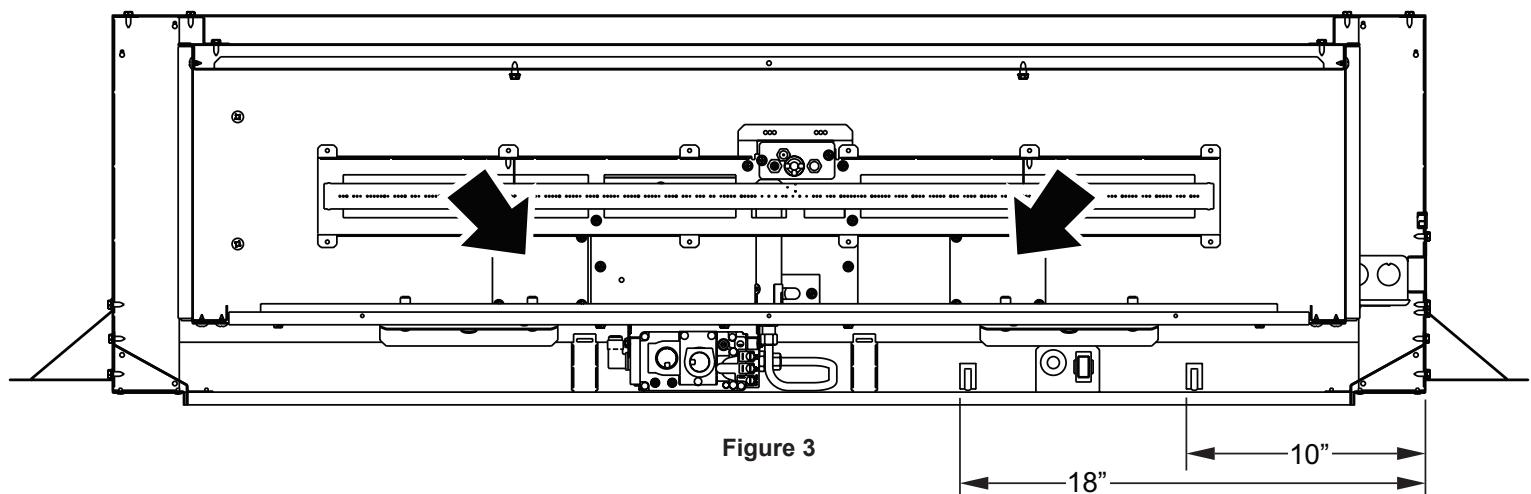
# LIGHT KIT INSTALLATION



**PARTS LIST**

Index Number	Description	Part Number	Quantity
1	Gasket, Accent Lamp	R11751	2
2	Accent Light Assembly	42256	2
3	Light Bulb, 35W	R10928	2
4	Glass, Accent Lamp	R9341	2
5	Bezel, Accent Lamp	R9342	2
6	Wire Assembly	R12170	1
7	Rheostat Assembly	42255	1
8	Wire Clip	R1720	4

## LIGHT KIT INSTALLATION (CONT'D)



### INSTALLATION

1. Remove the Barrier Screen, Glass Frame, Valve Access Cover, and Burner Surround. See Maintenance and Service Section, pages 62, 63 and 64.
2. Remove cover plates from firebox floor. **See Figure 3.**
3. Place two self-adhesive Wire Clips approximately where shown. **See Figure 3.**
4. Install the two Accent Light Assemblies as shown in **Figures 4 and 5**. The left assembly's wires should be left, and the right assembly's wires should point right.

**NOTE:** **Figure 6** shows the general arrangement of wire routing in the bottom of the fireplace.

5. Plug the power cord into the Junction Box, and route it through the Wire Clips installed in step 3. **See Figure 6.**
6. Connect the Wire Assembly to the power cord and Rheostat Leads, as well as to the Accent Light Assembly Leads. **See Figure 6.** An additional Wire Clip can be placed on the left.
7. Attach the Rheostat Bracket to the front-right corner of the fireplace bottom surround as shown in **Figure 6.**

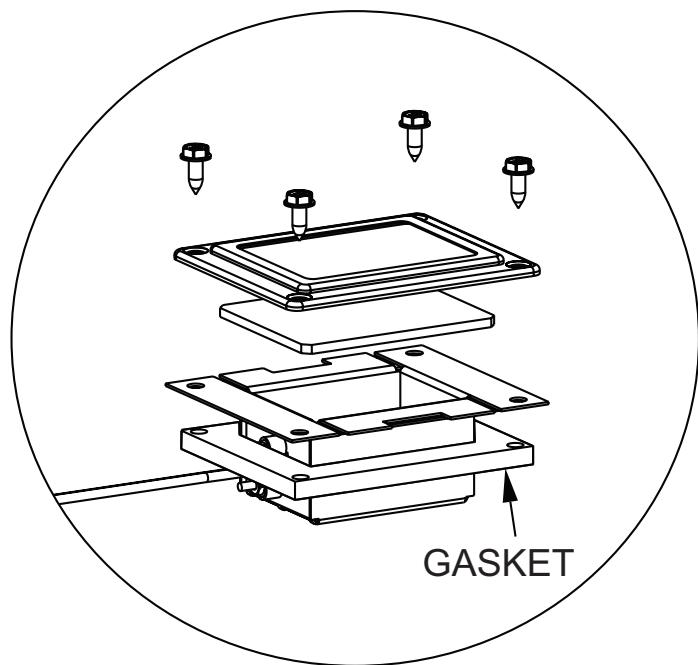


Figure 4

TOP SECTION VIEW

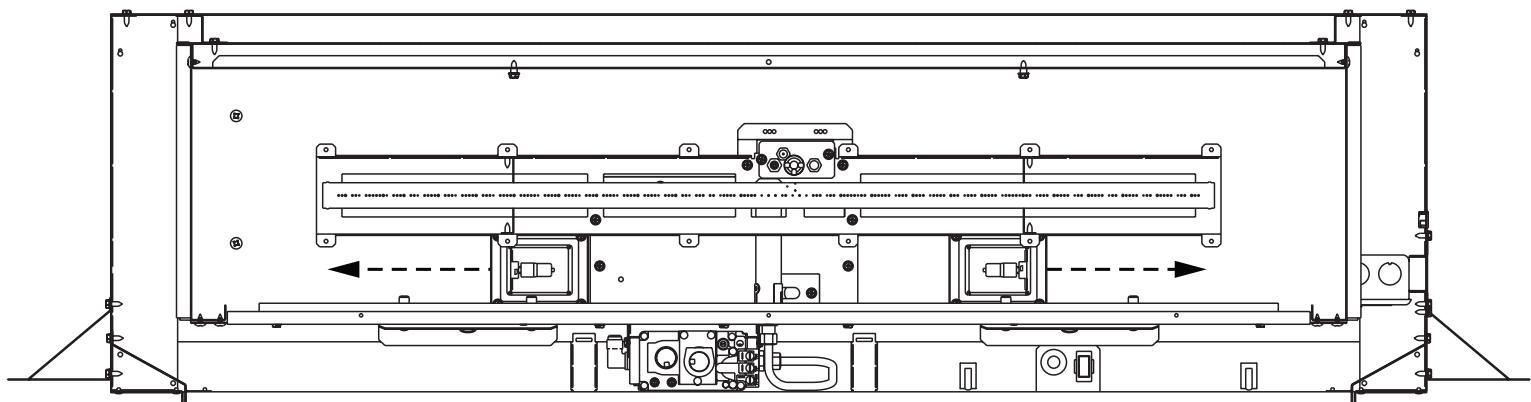


Figure 5

## LIGHT KIT INSTALLATION (CONT'D)

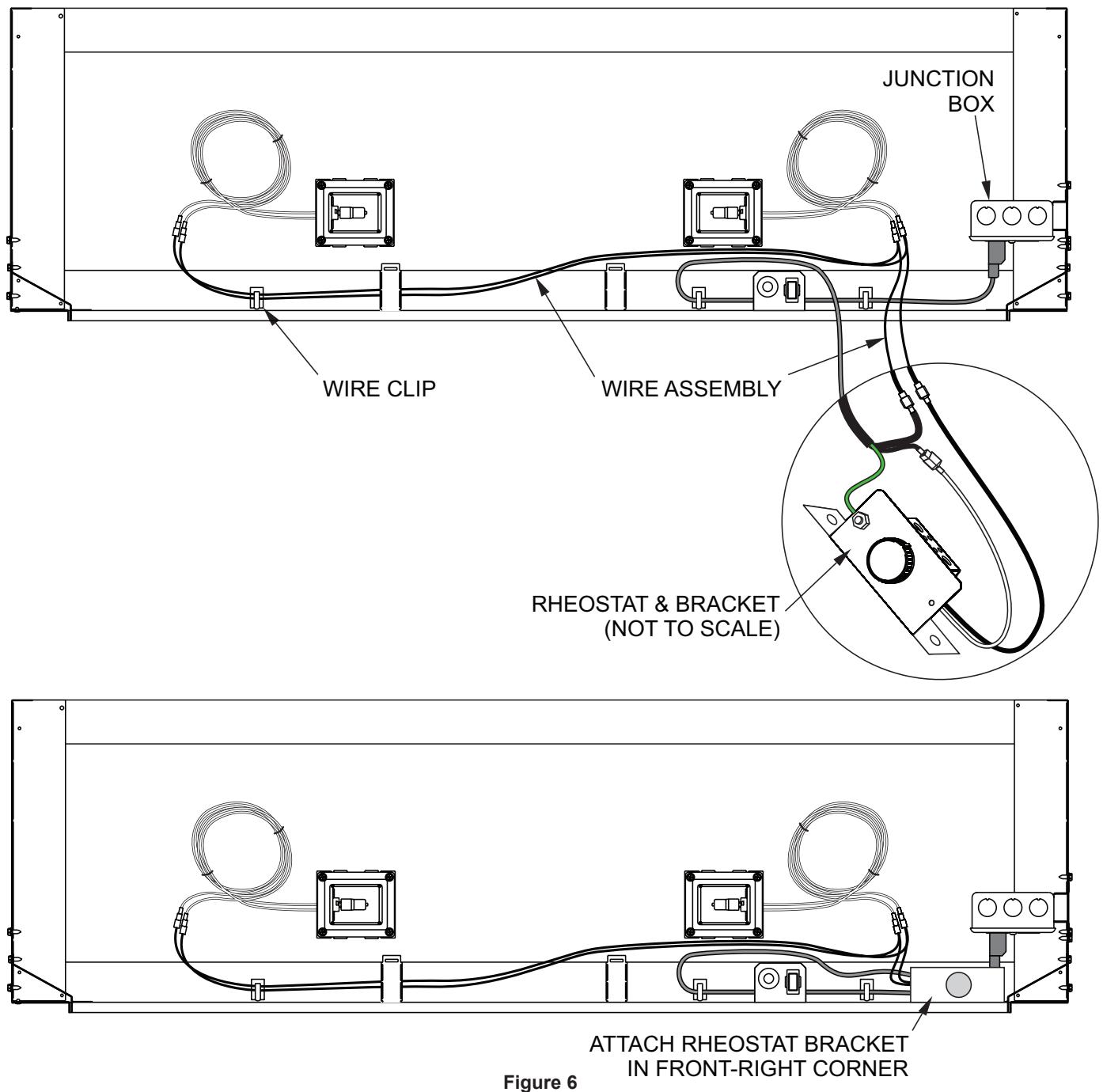
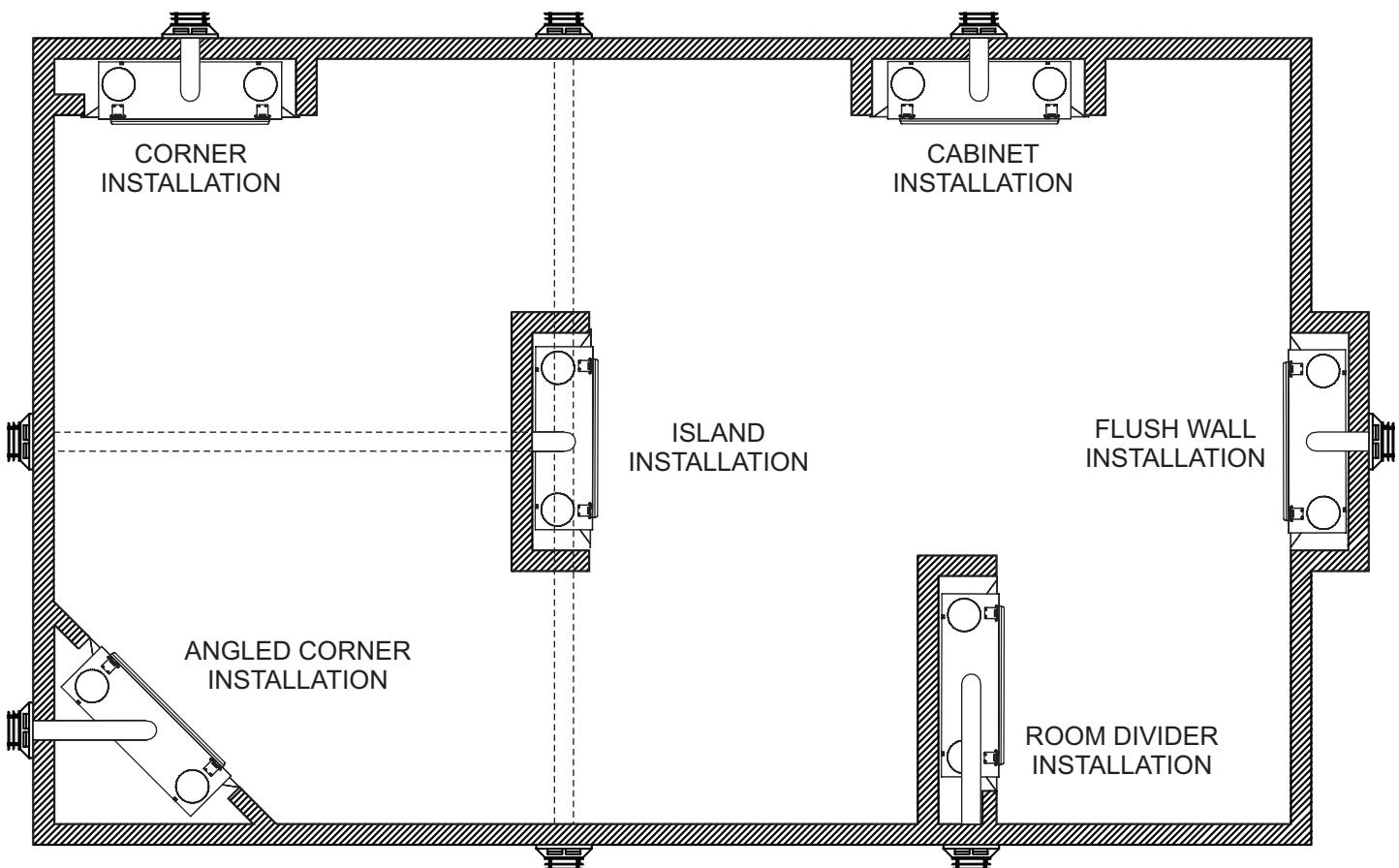


Figure 6

# LOCATING FIREPLACE



**NOTE:** 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.

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

When you install your Direct Vent Fireplace in Room divider or Flat on wall corner positions, a minimum of 10 inches clearance must be maintained from the perpendicular wall and the front opening of the fireplace.

Figure 7

# CLEARANCES

CLEARANCE TO COMBUSTIBLES	
Back	See Figure 9
Side	3 inch
Floor	0 inch
Top Stand-off Bracket	0 inch
Top Framing Edge	2 inch

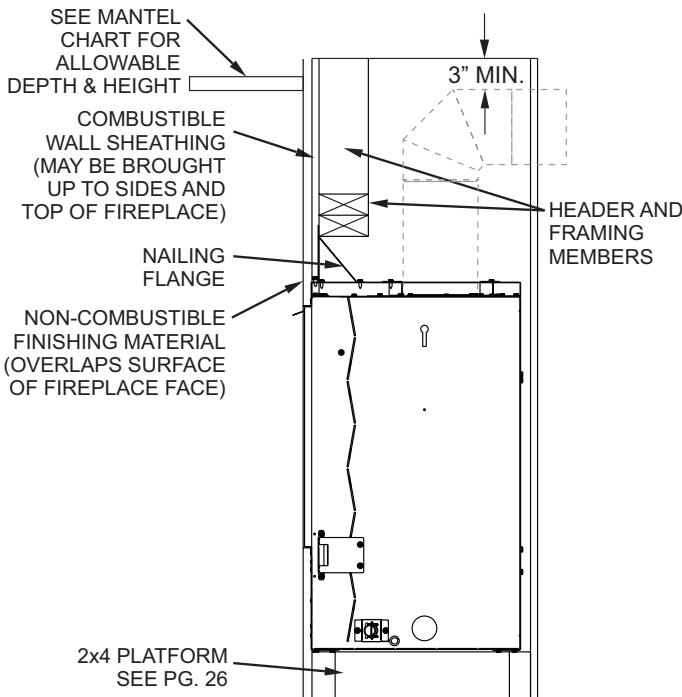


Figure 8

The minimum clearance from top of the fireplace opening to ceiling is 47 inches.

The minimum clearance from side of the fireplace opening to adjacent sidewall is 9 inches.

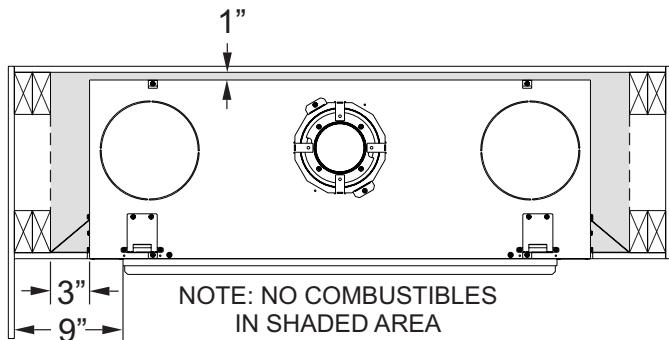
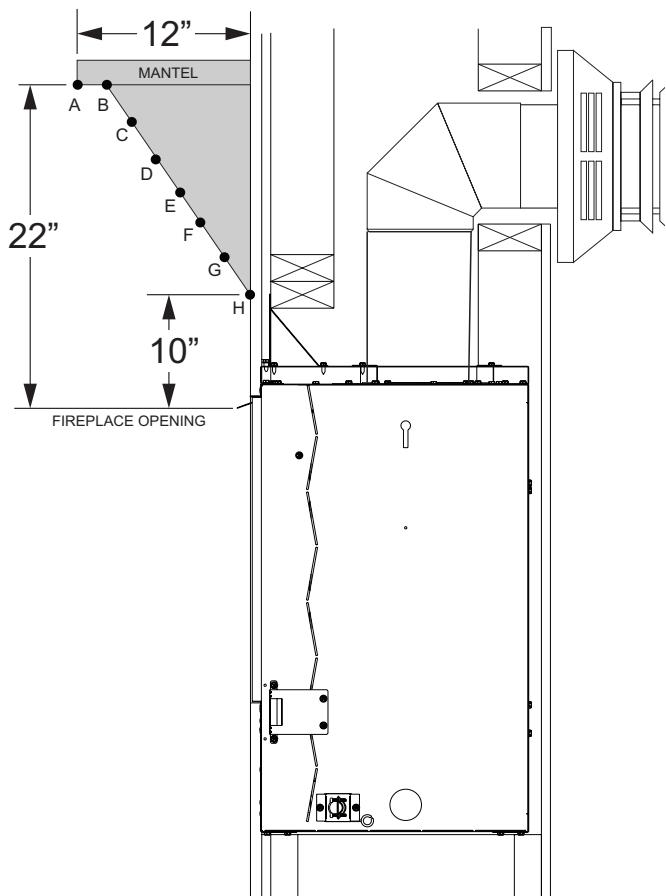


Figure 9

## MANTEL CHART



INDEX LETTER	DISTANCE FROM FIREPLACE OPENING	DISTANCE FROM FINISHED WALL
	(Dimensions In Inches)	
A	22	12
B	22	10
C	20	8-3/8
D	18	6-5/8
E	16	5
F	14	3-3/8
G	12	1-3/4
H	10	0

Figure 10

## TELEVISION CONSIDERATIONS

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

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

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

## CLEARANCES (CONT'D)

### VENT PIPE CLEARANCE

**NOTICE:** Maintain one inch of clearance around vertical vent pipe. See Figure 11.

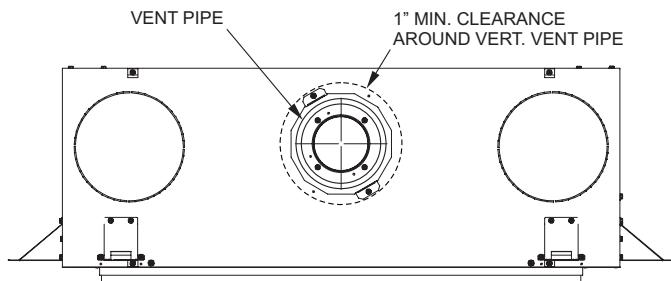


Figure 11

**NOTICE:** For horizontal vent, maintain a minimum 1-inch clearance to the bottom and sides of the vent and 3-inch clearance to combustibles above the vent pipe. See Figure 12.

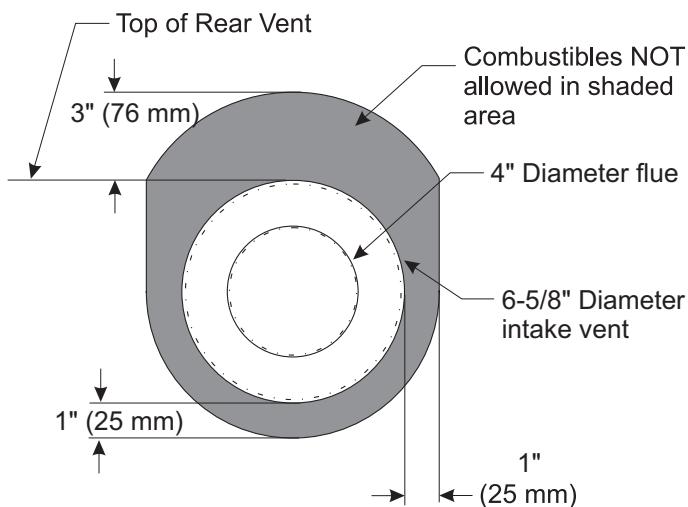


Figure 12

# VENT TERMINATION CLEARANCES

Termination clearance for buildings with combustible and noncombustible exteriors.

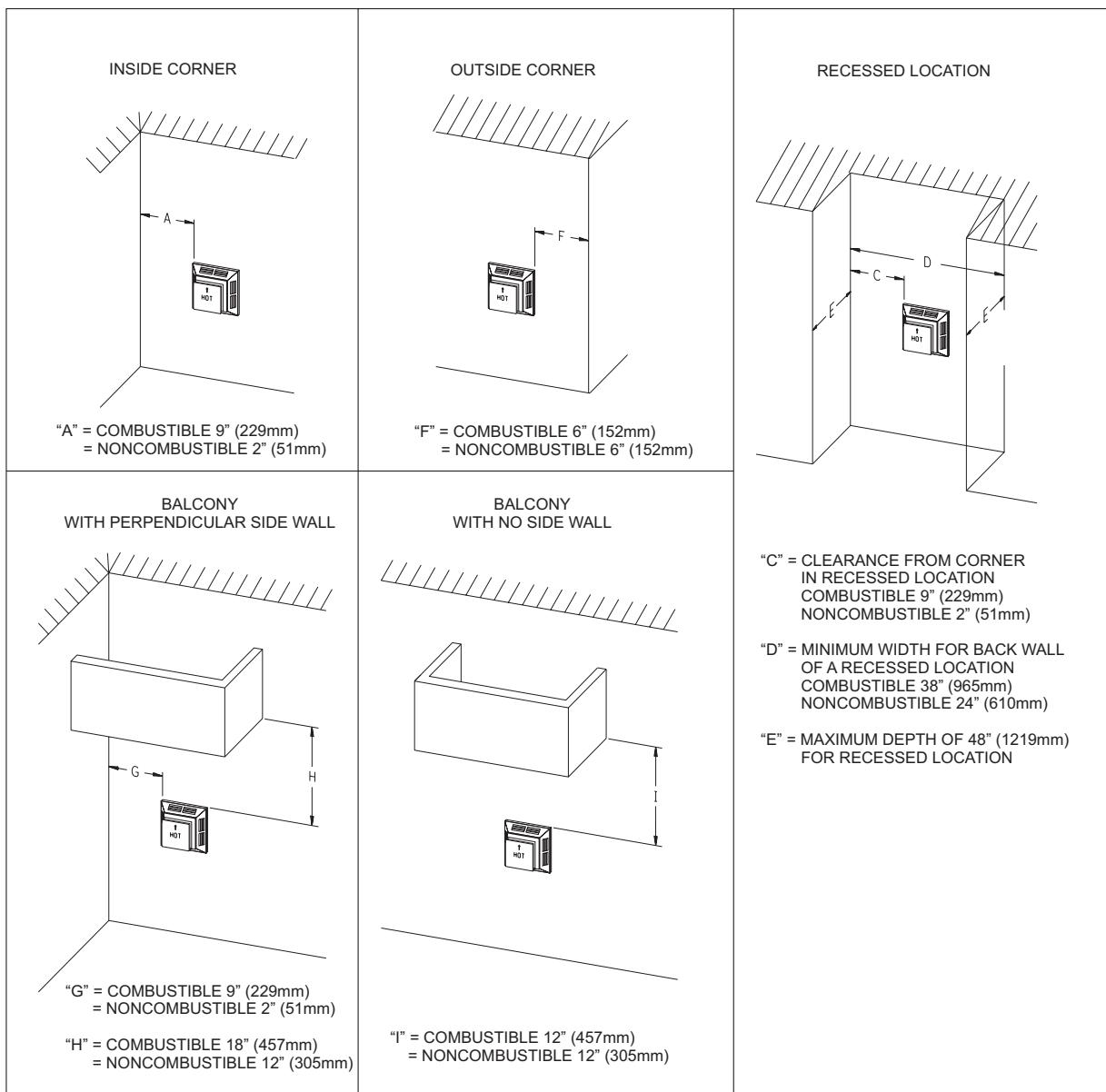


Figure 13

## VERTICAL SIDEWALL INSTALLATIONS

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

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

## Information on Various Venting Routes and Components

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

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

The graph showing the relationship between vertical and horizontal side wall venting will help to determine the various vent lengths allowable.

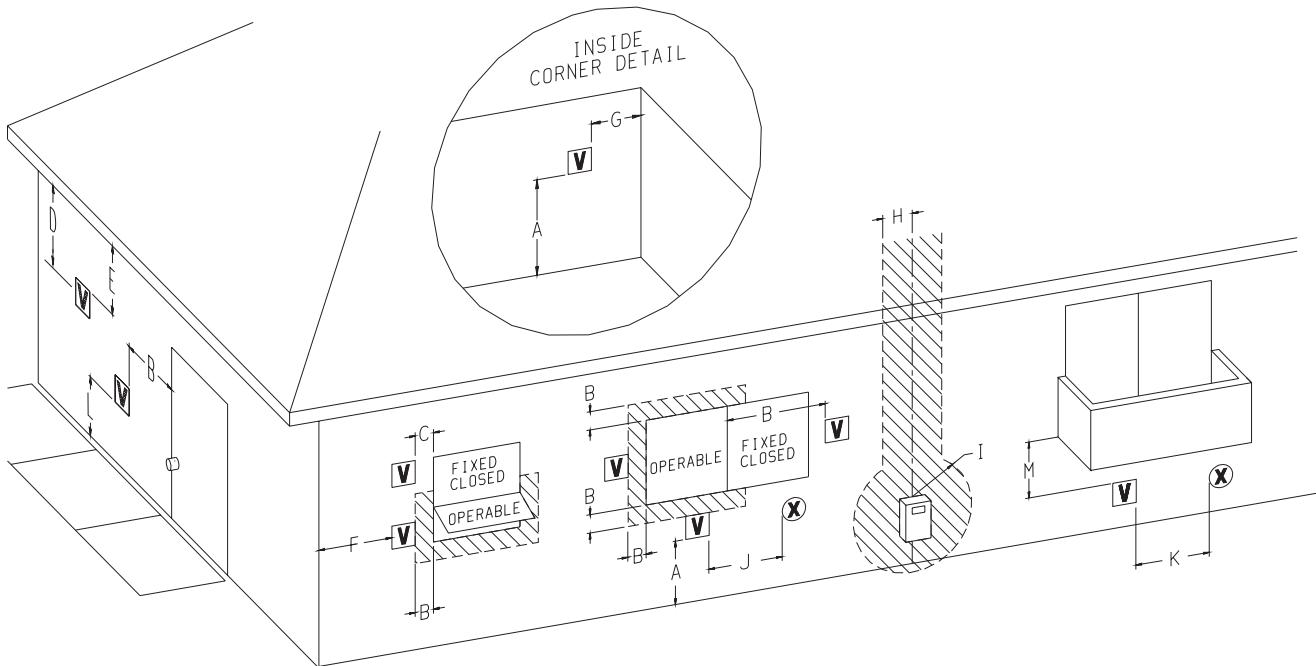
The horizontal vent run refers to the total length of vent pipe from the flue collar of the fireplace to the face of the outer wall.

Venting termination shall not be recessed into wall or siding.

## ATTENTION: Vinyl Soffit, Vinyl Ceiling, Vinyl Overhang Disclaimer

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

# VENT TERMINATION CLEARANCES (CONT'D)



**V** VENT TERMINAL

**X** AIR SUPPLY INLET

**W** AREA WHERE TERMINAL IS NOT PERMITTED

	Canadian Installations1	US Installations2
A= Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm)	12 in (30cm)
B= Clearance to window or door that may be open	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 12 in (30 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 100,000 Btuh (30 kW), 36 in (91 cm) for appliances > 100,000 Btuh (30 kW)	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 9 in (23 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 50,000 Btuh (15 kW), 12 in (30 cm) for appliances > 50,000 Btuh (15 kW)
C= Clearance to permanently closed window	12 in (30 cm)	12 in (30 cm)
D= Vertical clearance ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	24 in (61 cm)	24 in (61 cm)
E= Clearance to unventilated soffit	12 in (30 cm)	12 in (30 cm)
F= Clearance to outside corner	6 in (15 cm)	6 in (15 cm)
G= Clearance inside corner	9 in (23 cm)	9 in (23 cm)
H= Clearance to each side of center line extended above meter/regulator assembly	3 ft (91 cm) within a height 15 ft (4.5 m) above the meter/regulator assembly	3 ft (91 cm)

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

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.

**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.

# GAS SUPPLY

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

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

**NOTICE:** Since some municipalities have additional local codes, it is always best to 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.

## FLEXIBLE GAS LINE CONNECTION

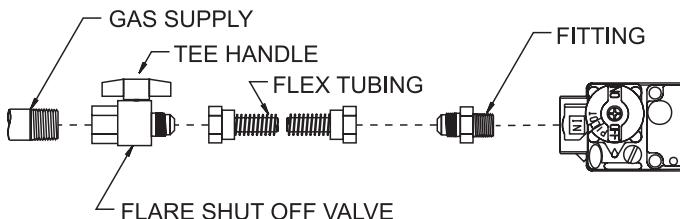


Figure 14

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

## GAS SUPPLY PIPING

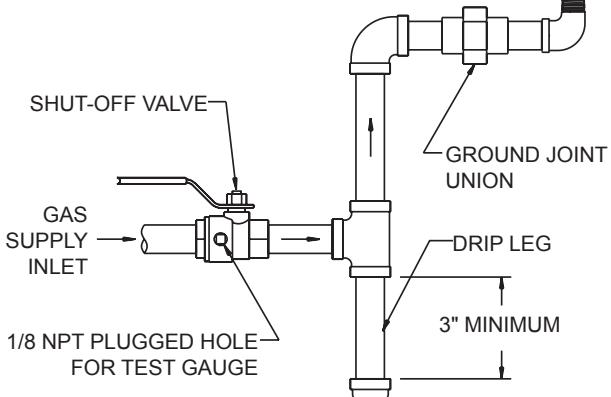


Figure 15

RECOMMENDED GAS PIPE DIAMETER				
Pipe Length	Schedule 40 Pipe Inside Diameter		Tubing, Type L Outside Diameter	
	Natural	Propane	Natural	Propane
(Dimensions In Inches)				
0-10ft	1/2	3/8	1/2	3/8
11-40ft	1/2	1/2	5/8	1/2
41-100ft	1/2	1/2	3/4	1/2
101-150ft	3/4	1/2	7/8	3/4

## INSTALLING A NEW MAIN GAS SHUT-OFF VALVE (CHECK LOCAL CODE)

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

Compounds used on threaded joints of gas piping shall be resistant to the action of liquefied petroleum gases. The gas lines must be checked for leaks by the installer. This should be done with a soap solution watching for bubbles on all exposed connections, and if unexposed, a pressure test should be made.

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

**NOTICE:** The gas control is equipped with a captured screw type pressure test point, therefore it is not necessary to provide a 1/8 inch test point up stream of the control. **See Figures 16 and 17.** 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 (3.5 kPa).

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 (3.5 kPa).

**ATTENTION!** If one of the procedures results in pressures in excess of 1/2 psig (14-in w.c.) (3.5 kPa) on the fireplace gas valve, it will result in a hazardous condition.

# GAS SUPPLY (CONT'D)

## CHECKING MANIFOLD PRESSURES

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

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

**ATTENTION:** Pressures in excess of 1/2 psig (14-in w.c.) (3.5 kPa) on the fireplace gas valve will result in a hazardous condition.

	GAS SUPPLY PRESSURE (Inches w.c.)		
	Minimum	Normal	Maximum
Natural Gas	4.5	7.0	14.0
Propane Gas	10.8	11.0	14.0
MANIFOLD PRESSURE (Inches w.c.)			
Normal (HI)			
Natural Gas	3.5		
Propane Gas	10.0		

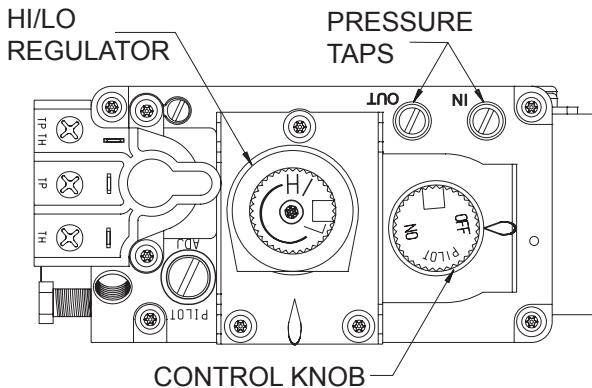


Figure 16 - Millivolt Valve

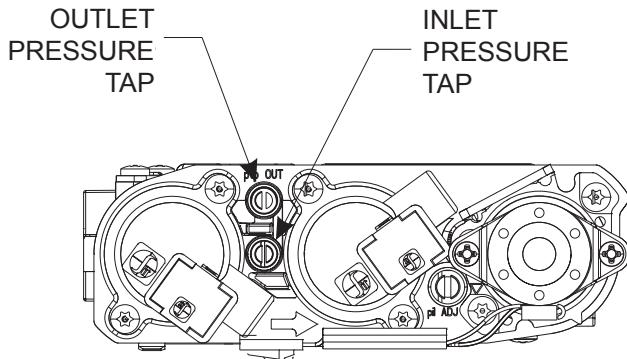


Figure 17 - Intermittent Pilot Valve

## WARNING

If one of the procedures results in pressures in excess of 1/2 psig (14-in w.c.) (3.5 kPa) on the fireplace gas valve, it will result in a hazardous condition.

## GAS LINE CONNECTION

Remove the access panel from the right side of the fireplace shown in **Figure 18** to access the gas valve, gas flex line, junction box, and system wiring.

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

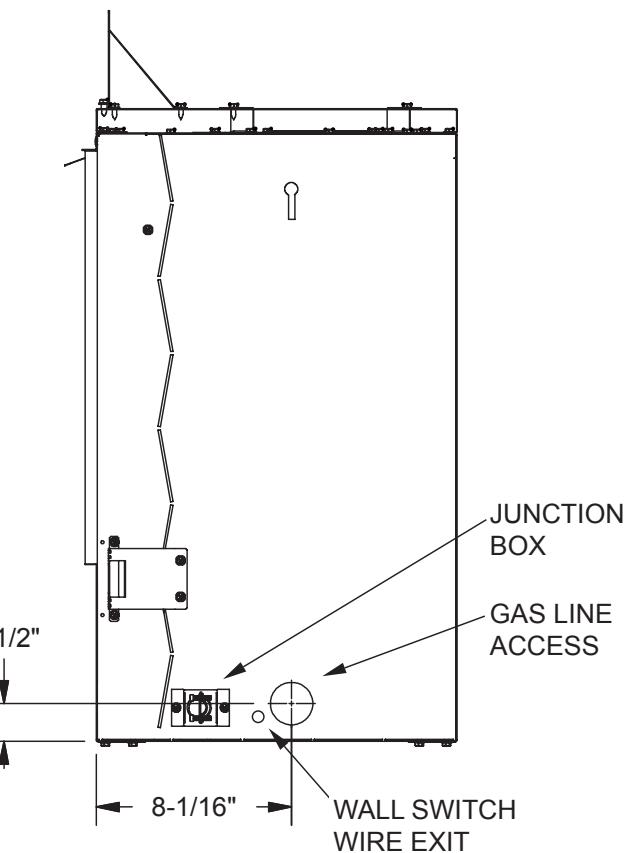


Figure 18

# ELECTRICAL CONNECTIONS

## ⚠ CAUTION

All wiring should be done by a qualified electrician and shall be in compliance with all local, city and state building codes. Before making the electrical connection, make sure that the main power supply is disconnected. The fireplace, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code ANSI/NFPA 70 (Latest Edition).

The junction box is installed on the right side of the fireplace. Wiring must be fed to the junction box and attached to the receptacle that is provided. Leave approximately 6 inches of wire in the junction box for connection. Attach black wire to one side of the receptacle and white wire to opposite side of receptacle. The ground wire should be attached to the green (ground) screw. **See Figure 19.**

## JUNCTION BOX CONNECTIONS

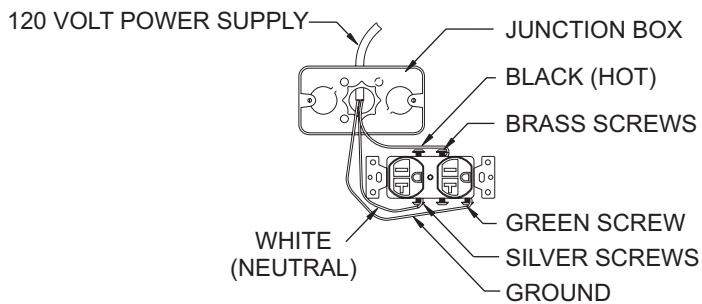


Figure 19

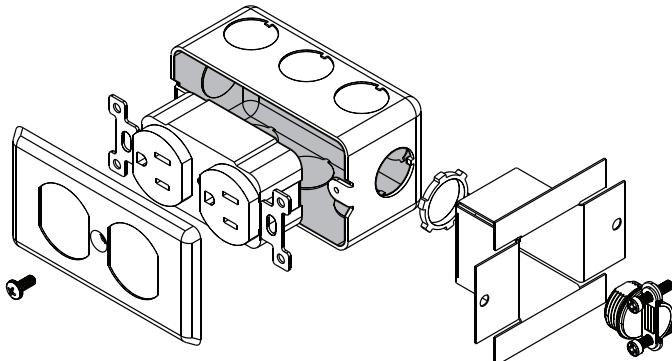


Figure 20

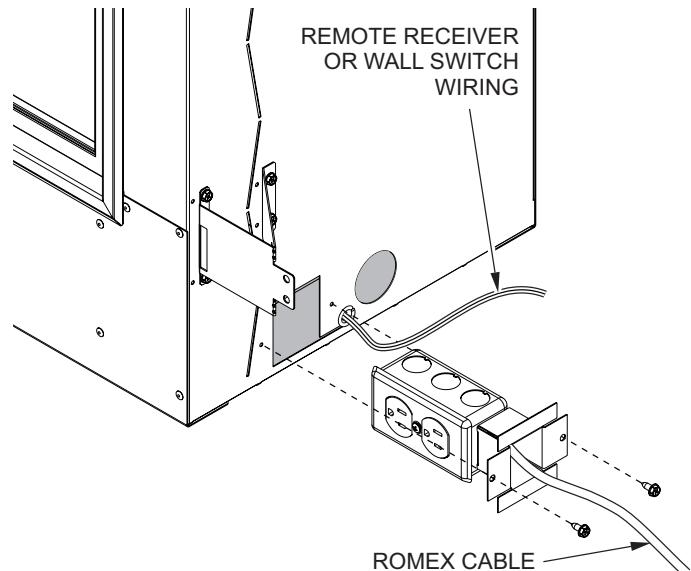


Figure 21

If a remote receiver or wall switch is being used, feed wiring through the bushing (included in hardware pack) and snap into hole between junction box opening and gas-line opening. **See Figure 21.**

Install the receptacle into the junction box. Attach cover plate and bracket. After the wiring is completed to the junction box and receptacle, install the junction box to the lower right side of the fireplace as shown in **Figure 21.**

# ELECTRICAL CONNECTIONS (CONT'D)

## CONTROL MODULE POSITIONING (IP ONLY)

The IP Control Module is attached to the inside of the bottom face with Velcro during shipping. Prior to operating the fireplace, the Control Module must be unfastened from the Velcro and relocated to the open space beneath the fireplace. **See Figures 22 and 23.** Set the Control Module as far to the right as the pilot and valve connections will allow, and toward the front.

Route the AC adapter wire along the inside of the bottom face. Use the self-adhesive wire clips included in the hardware pack to keep the wire away from the firebox. **See Figure 23.** These clips may also be used to manage the Accent Light Kit electrical cord (See Light Kit installation section).

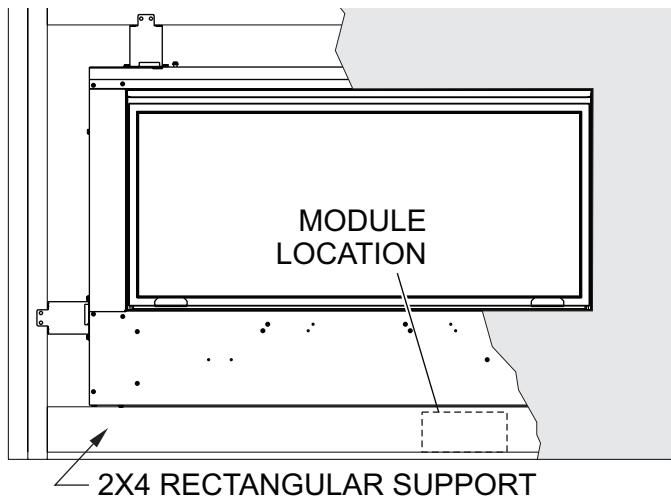


Figure 22

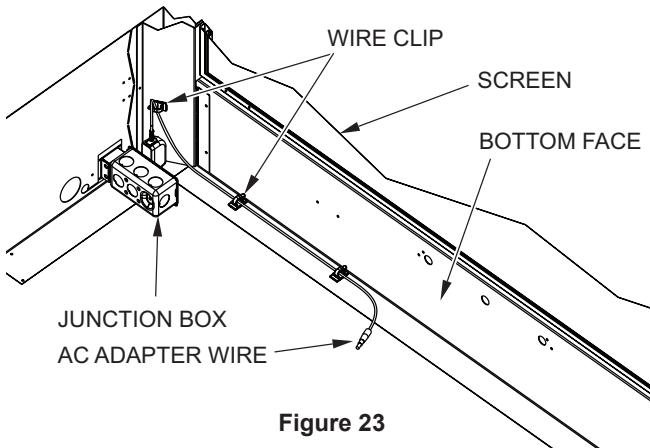


Figure 23

## BATTERY HOLDER POSITIONING

Place the Battery Holder for the battery backup in the front right corner of the open space beneath the fireplace. **See Figures 24.**

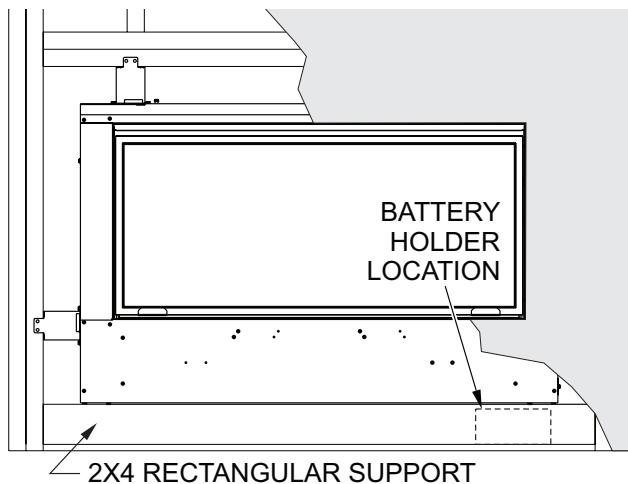


Figure 24

# INSTALLATION

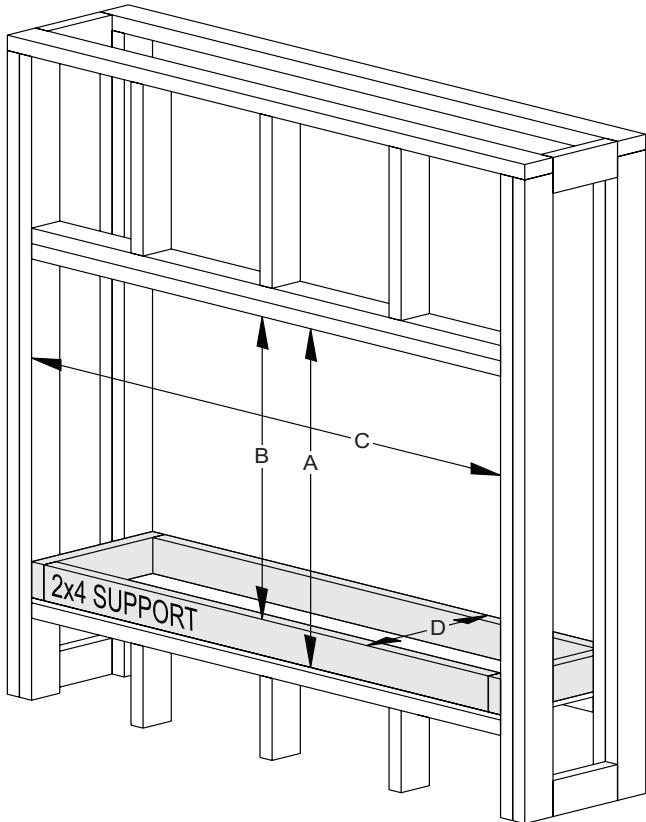
## FRAMING

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

Fireplace framing can be built before or after the fireplace is set in place. Framing should be positioned to accommodate wall covering and fireplace facing material. The fireplace framing should be constructed of 2 x 4 lumber. Refer to **Figure 25** for minimum framing dimensions.

### CAUTION

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



INDEX NO.	DVL36	DVL46
(Dimensions In Inches)		
*A	34-1/8	33
B	30-5/8	29-1/2
C	48-1/4	58-1/4
D	15-1/2	15-1/2

\*Framing Height Dimension A - does not include the rectangular 2x4 frame on which the fireplace will sit.

Figure 25

## CONSTRUCTION OF A FIREPLACE CHASE

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

**NOTICE:** Treatment of ceiling firestops and wall shield firestops and construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Therefore, you MUST check local building codes to determine the requirements to these steps.

A chase should be constructed in the manner of all outside walls of the home to prevent cold air drafting problems. The chase should not break the outside building envelope in any manner. Walls, ceiling, base plate and cantilever floor of the chase should be insulated. Vapor and air infiltration barriers should be installed in the chase as per regional codes for the rest of the home.

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

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

## FRAMING AND FINISHING

1. Choose fireplace location. See page 18.
2. Frame in fireplace with a header across the top.
3. Retrieve the four framing brackets from hardware pack and hand bend them into a V shape as shown in **Figure 26**.
4. Attach framing brackets to the fireplace with included #10 X 1 1/2-inch screws. Brackets can be either flush to the fireplace or set back 1/2-inch, according to the desired finishing method. **See Figures 26, 31 and 32.**
5. Secure fireplace to framing with nailing flanges. **See Figure 27.**

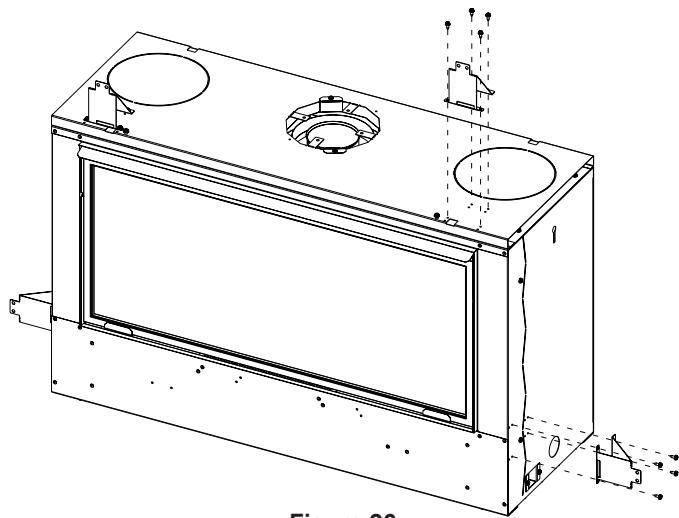


Figure 26

# INSTALLATION (CONT'D)

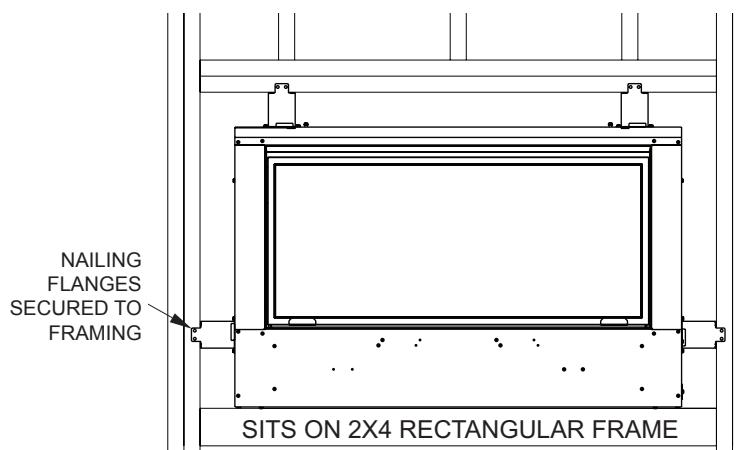


Figure 27

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

## VENT RUNS

In planning the installation for the fireplace, it is necessary to install certain components before the fireplace is completely positioned and installed. These include the direct vent system, gas piping and electrical wiring.

## VERTICAL, 90-DEGREE ELBOW WITH HORIZONTAL TERMINATION

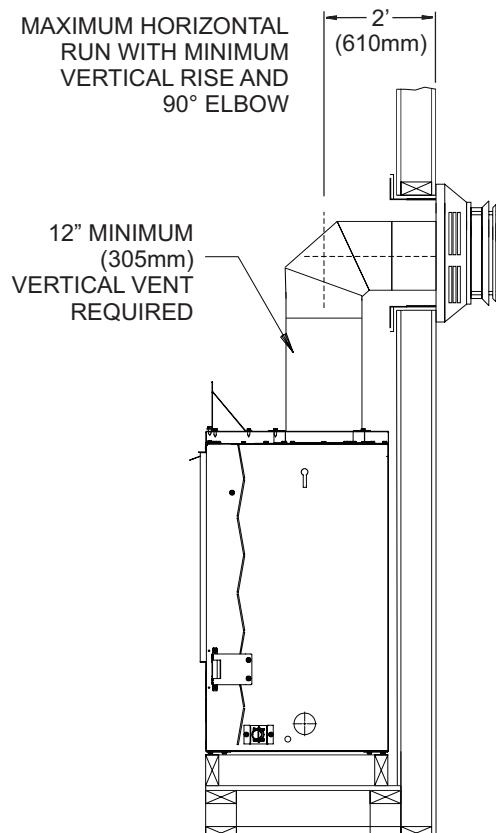
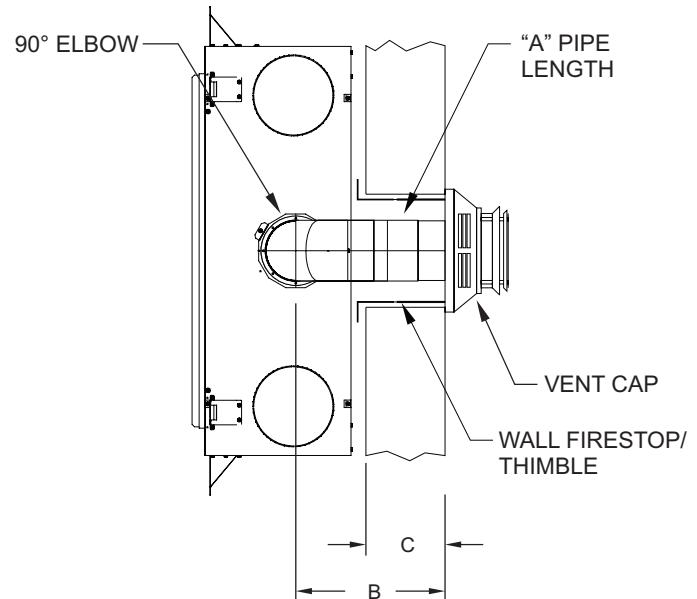


Figure 28

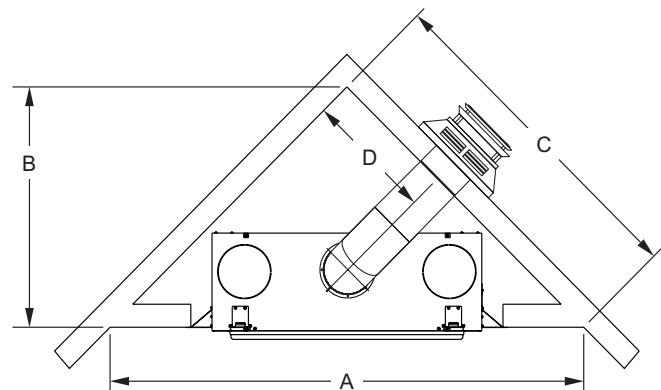
**VERTICAL, 90-DEGREE ELBOW TO HORIZONTAL OUT THE WALL  
(12 inch minimum rise before elbow)**



A	B	C
(Dimensions In Inches)		
6	14	7" Maximum
9	15-1/2 - 18	8-1/2 - 11
12	18 - 20-1/2	11 - 13-1/2

Figure 29

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



MODEL	A	B	C	D
(Dimensions In Inches)				
DVL36BP	73-1/8	36-5/16	51-3/4	19-3/4
DVL46BP	83-1/8	41-5/16	58-3/4	23-1/4

Figure 30

**NOTE:** Corner installation will require more vertical vent pipe than just the minimum required depending on wall thickness and horizontal dimension. Refer to Figure 30.

# FINISHING METHODS

## FINISHING METHOD 1:

- Combustible wall sheathing (e.g. drywall) may be brought up against the sides and top of the fireplace.
- Framing brackets installed in 1/2-inch set-back position.

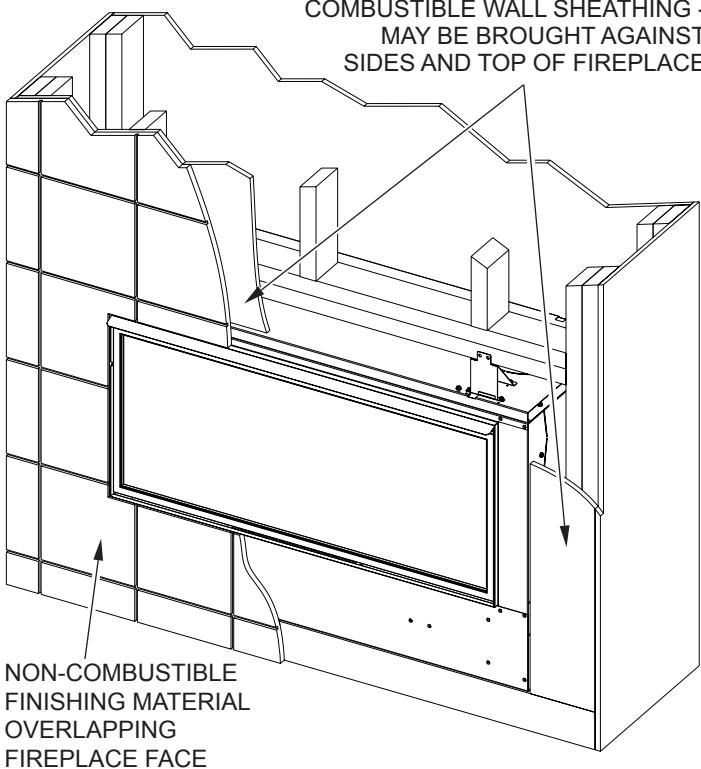


Figure 31

## FINISHING METHOD 2:

- Non-combustible wall sheathing overlaps the fireplace face.
- Framing brackets installed in forward flush-with-face position.

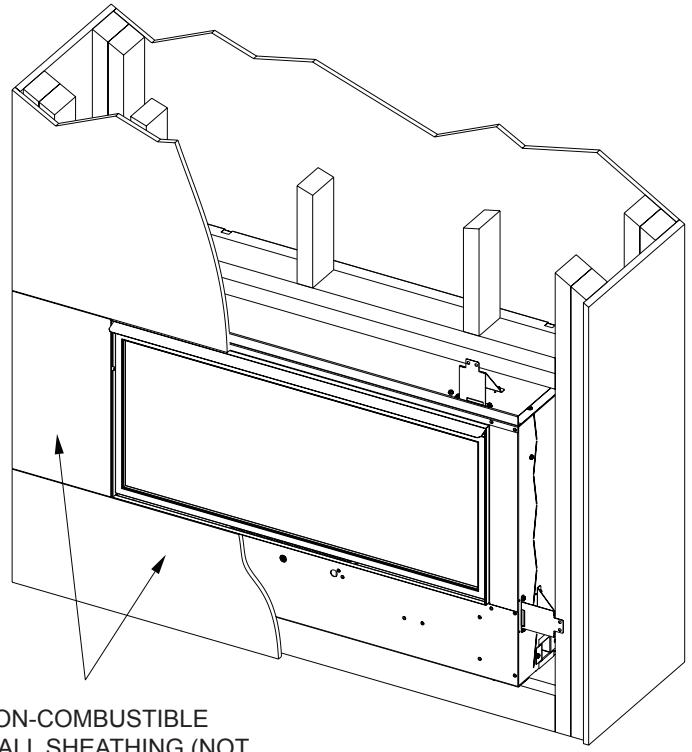


Figure 32

Use Non-Combustible materials where indicated for the fireplace installation. Non-combustible materials do not ignite or burn as a result of using the fireplace. These include metal, brick, ceramic, concrete, slate, glass and plaster. Adhesives must be rated for high temperatures. Any mechanical fasteners used to install material must also be non-combustible, including wall anchors and tile spacers. Materials that pass the ASTM E 136 test (Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750C) are considered non-combustible.

# FRAMING AND FINISHING

## INSTALLING SUPPORT BRACKETS

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

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

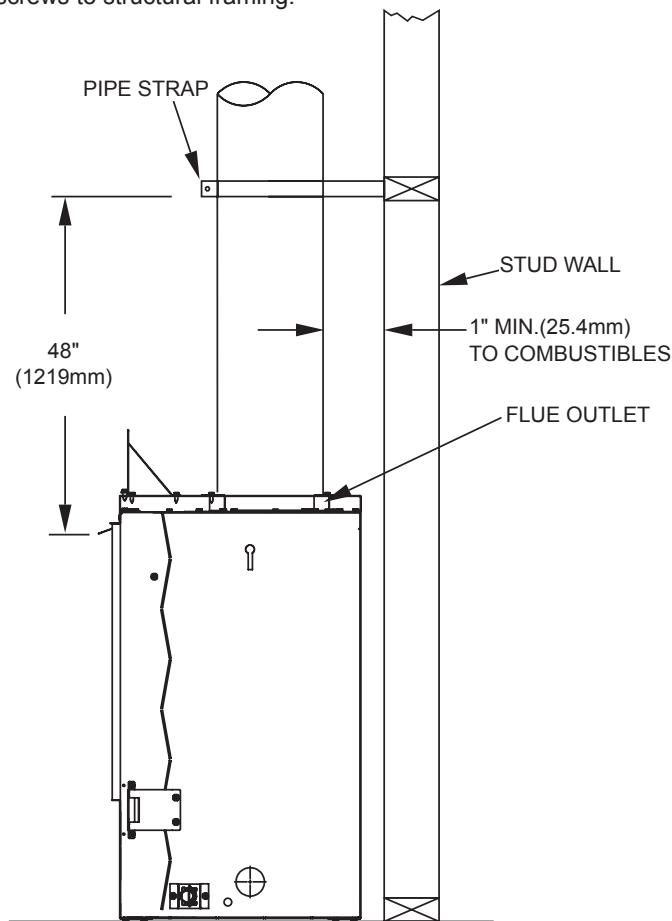


Figure 33

## INSTALLING FIRESTOP

Firestops are required for safety whenever the vent system passes through an interior wall, an exterior wall, or a ceiling. These firestops act as a firebreak heat shield and as a means to insure that minimum clearances are maintained to the vent system.

### HORIZONTAL FIRESTOP

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 34**. Secure firestop with nails or screws. Continue the vent run through the firestops.

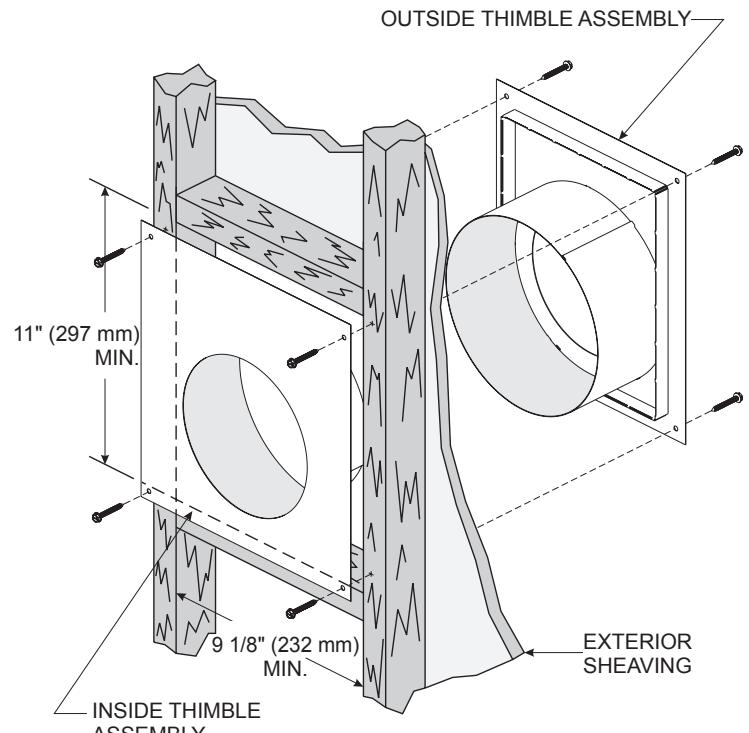


Figure 34

## FRAMING AND FINISHING (CONT'D)

### VERTICAL FIRESTOP

Vertical runs of this system which pass through ceilings require the use of 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 fireplace and vent system, if necessary, to accommodate ceiling joists and/or obstructions.

Cut a 9-1/2 inch x 9-1/2 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 35.** 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 36.**

If the area above the ceiling is an attic, position and secure the firestop on top of the previously framed hole. **See Figure 37.**

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

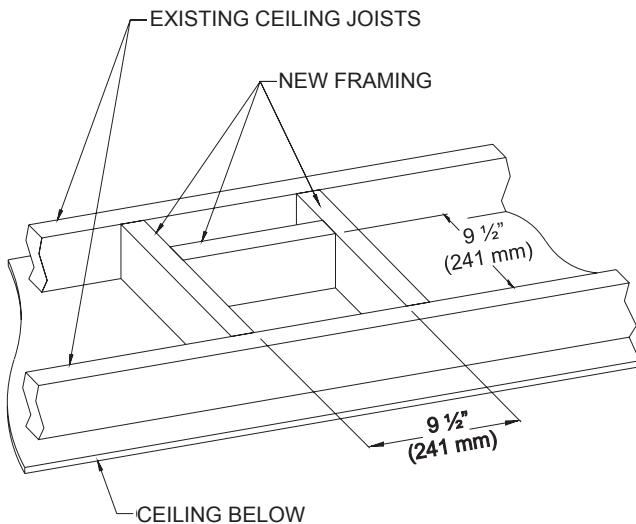


Figure 35

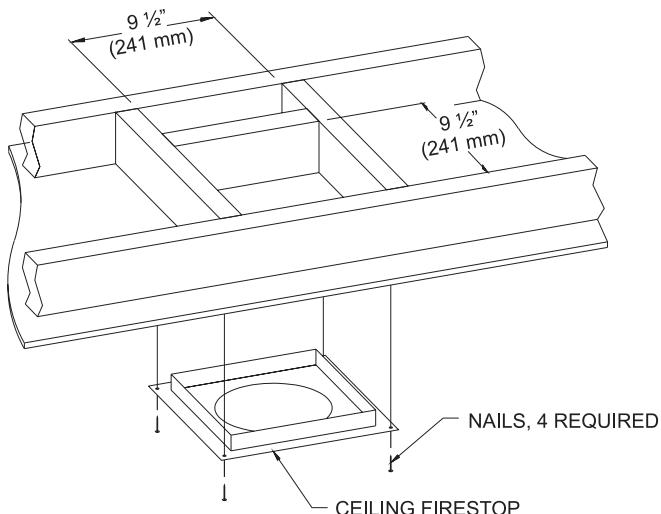


Figure 36

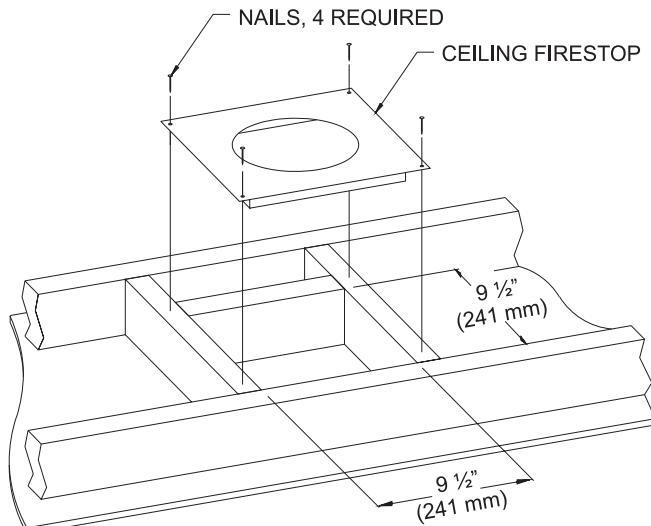


Figure 37

### FINISHING

Finish the walls with the material of your choice. **Figure 10** on Page 19 shows the minimum vertical and corresponding maximum horizontal dimensions of mantels or other combustible projections above the top front edge of the fireplace.

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

#### ⚠ WARNING

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

#### ⚠ CAUTION

If the joints between the finished wall and the fireplace surround (top and sides) are sealed, a 300 Degree F minimum sealant material must be used. These joints are not required to be sealed. Only non-combustible material (using 300 Degree F minimum adhesive if needed), can be applied as facing to the fireplace surround.

# VENT SYSTEM IDENTIFICATION

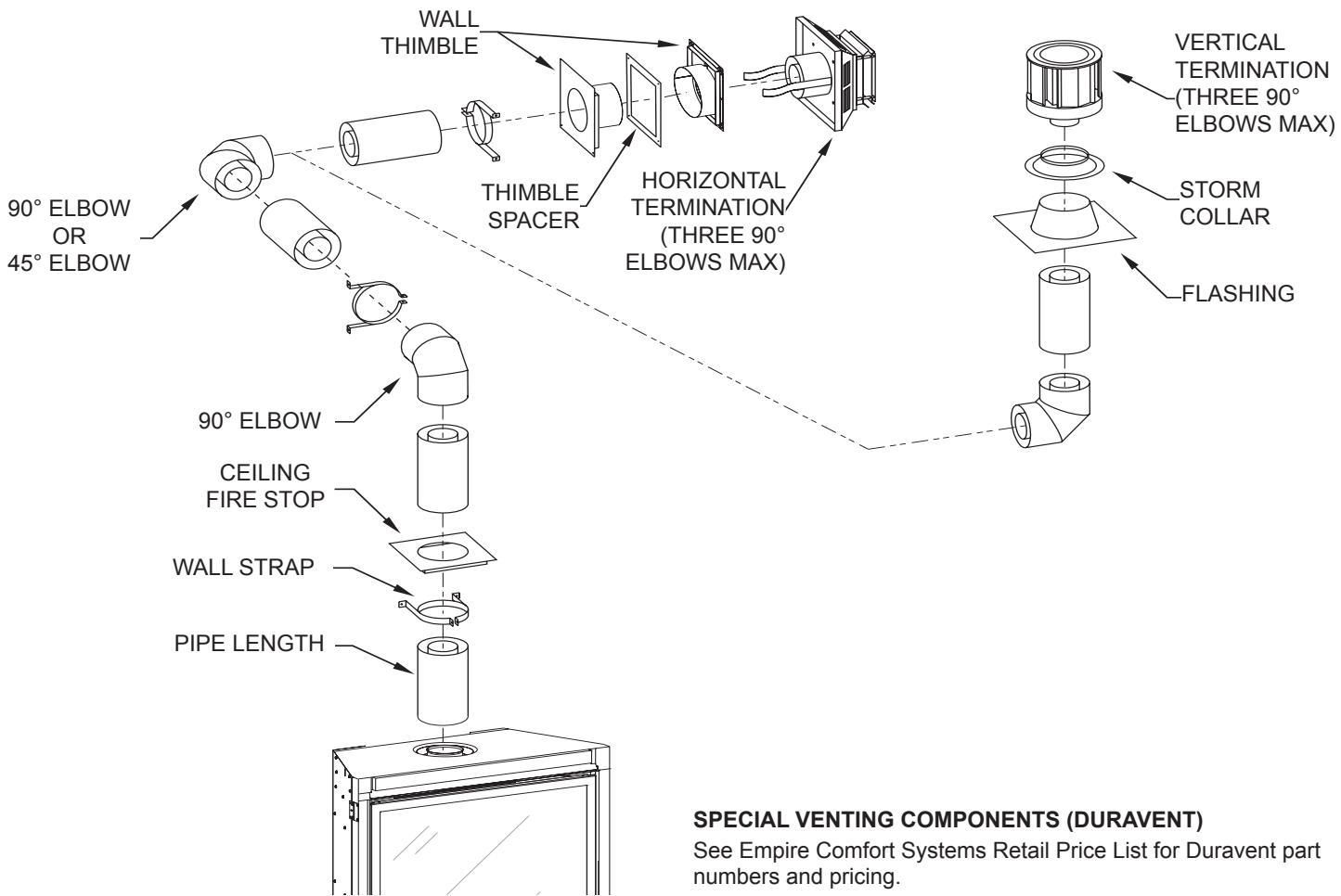


Figure 38

Begin the vent system installation by selecting the type of venting to be installed and the path it will take. Verify clearances are met throughout the path of the venting system.

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

When selecting a vent system for use with the fireplace, refer to the "Special Vent Systems" section in this manual to determine what systems are acceptable.

Check all clearances and venting components. Identify if any problems exist in the vent system. Use **Figure 39** on page 33 for top venting to eliminate issues after installation. Check pipe diameter on vent system and fireplace to verify the size is the same.

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

## SPECIAL VENTING COMPONENTS (DURAVENT)

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

SPECIAL DV VENT KITS Available from Empire Comfort Systems, Inc. Dealers"	
<b>DVVK-4VP</b> (DVVK-4V)	Direct-Vent Fireplace Vent Kit - Vertical, includes 46DVA-VCH, 46DVA-F6 and 46DVA-SC
<b>DVVK-4TP</b> (DVVK-4T)	Direct-Vent Fireplace Vent Kit - For top vent, thru-the-wall, 8 to 11 inch wall thickness, includes 46DVA-HC, 46DVA-E90, 46DVA-09, 46DVA-08A and 46DVA-WT
<b>DVVK-4TSP</b> (DVVK-RTS)	Direct-Vent Fireplace Vent Kit - For top vent, thru-the-wall, 5 to 7 inch wall thickness, includes 46DVA-HC, 46DVA-E90, 46DVA-06 and 46DVA-WT
<b>DVVK-4FV</b>	Vertical Flex Vent Kit - 4 inch x 7 inch - Requires the use of SD46DVAFCFX7.
<b>VIB6A</b>	Vertical Inlet Baffle Kit - For 6-5/8 inch Diameter.
<b>VIB7A</b>	Vertical Inlet Baffle Kit - For 7 inch Diameter.

## VENT SYSTEMS

The following vent systems are acceptable for use with the DVL36BP and DVL46BP series fireplaces:

- Simpson Duravent® GS 4" - 6 $\frac{5}{8}$ "
- Selkirk Direct-Temp® 4" - 6 $\frac{5}{8}$ "
- ICC Excel Direct® 4" - 6 $\frac{5}{8}$ "
- Empire Flexvent Kit DVVK-4F Vertical Flex Vent Kit
- Empire Flexvent Kit DVVK-4F Vertical Flex Vent Kit

# VENTING FIREPLACE

## 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 fireplace in accordance with same.

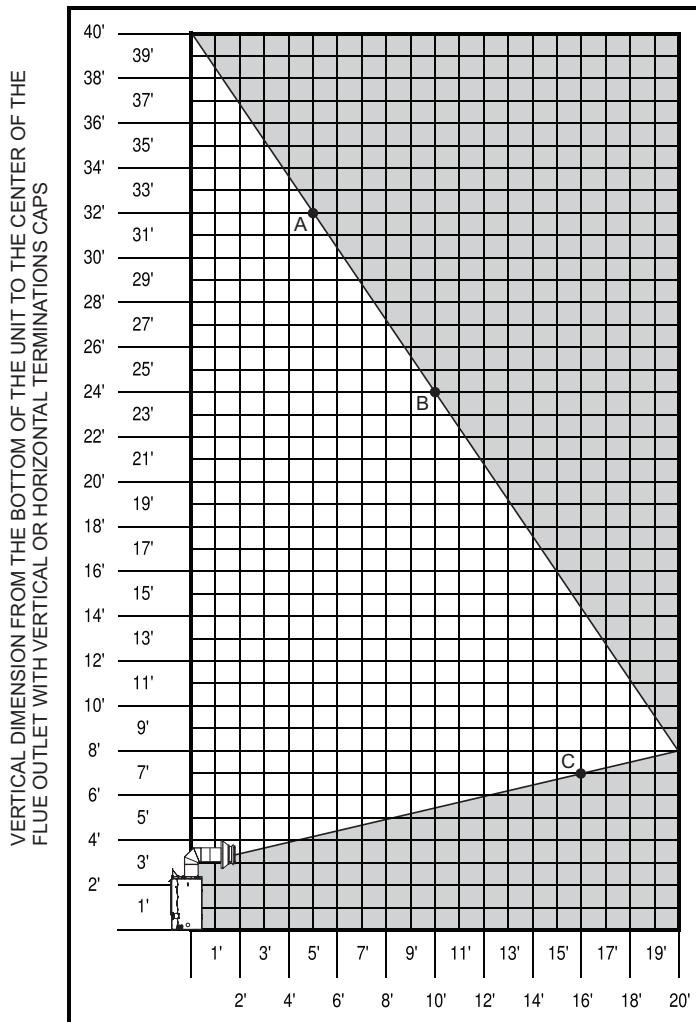
## EXAMPLE A:

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

## EXAMPLE B:

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

**VENTING GRAPH (Dimensions in Feet)**



**Figure 39**

## EXAMPLE C:

If the horizontal run to the outer wall flange is 16 feet, the vertical dimension from the floor of the fireplace to the center of the termination must not be less than 7 feet.

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

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

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

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

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

# VENTING FIREPLACE - TOP

## ⚠ WARNING

Use Restrictor for vertically terminated fireplace systems that are a minimum of 10 feet vertical, and do not include offsets or horizontal vent runs. Do not use with horizontally terminated fireplaces.

Figures 40 to 42 show the location and recommended opening for the flue restrictor.

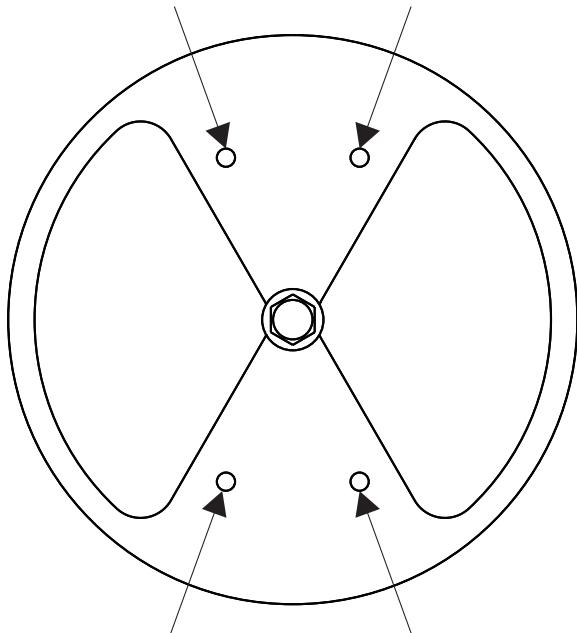


Figure 40

Installation of restrictor before venting is attached. See Figure 40.

The flue restrictor may also be installed after the venting is attached by inserting it into the flue from inside the firebox.

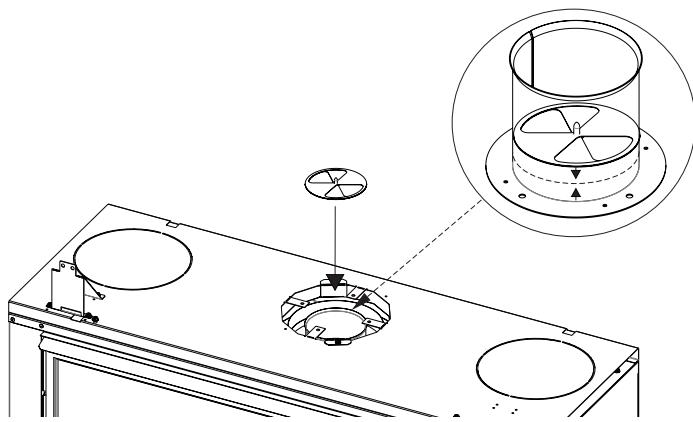
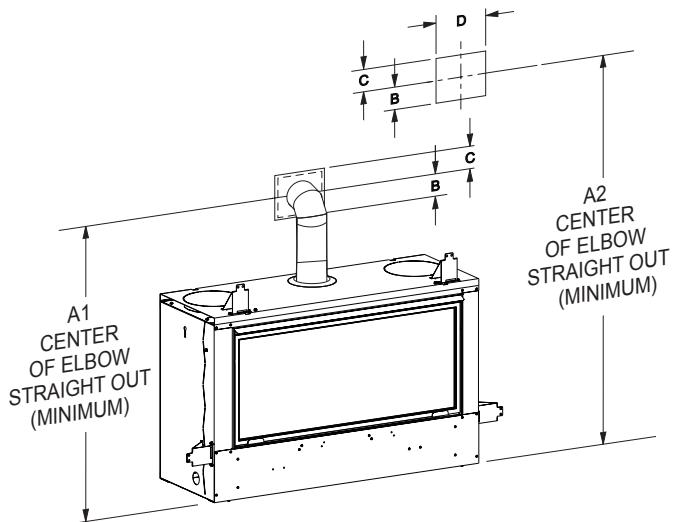


Figure 41

**NOTICE:** When installing the restrictor, install with the screw pointing downward.



Fireplace Series	HARD ELBOW DIMENSIONS (Dimensions In Inches)			
	A1	B	C	D
DVL(36,46)	52-3/8	4-1/2	6-1/2	9-1/8

Fireplace Series	FLEX PIPE 90 DEGREE BEND (Dimensions In Inches)			
	A2	B	C	D
DVL(36,46)	54	5-1/4	7-1/4	9-1/2

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

SEE FIGURE 39 ON PAGE 33 FOR PERMISSIBLE HORIZONTAL AND VERTICAL RUN DIMENSIONS.

Figure 42

# VENTING FIREPLACE - TOP (CONT'D)

## POSITIONING THE FIREPLACE

Determine the exact position of the fireplace so the direct-vent termination will be centered (if possible) between two studs. This will avoid any extra framing. All vent kit pipes should be assembled on the fireplace after the fireplace is moved into the final position.

## CUTTING THE HOLE

After the fireplace has been positioned in its permanent location, the hole through the exterior wall can be cut. This hole must be 11 inch high x 9-1/8 inch wide with its center line determined by the amount of vertical rise and horizontal run of the termination. See **Figures 39 and 42**. When locating the hole it must be noted that the bottom of the cap must be minimum of 12 inch (305mm) above the ground level, and top of the cap must be no less than 18 inch (457mm) below a combustible projection, and no closer than 9 inch (229mm) to any wall running parallel to vent termination.

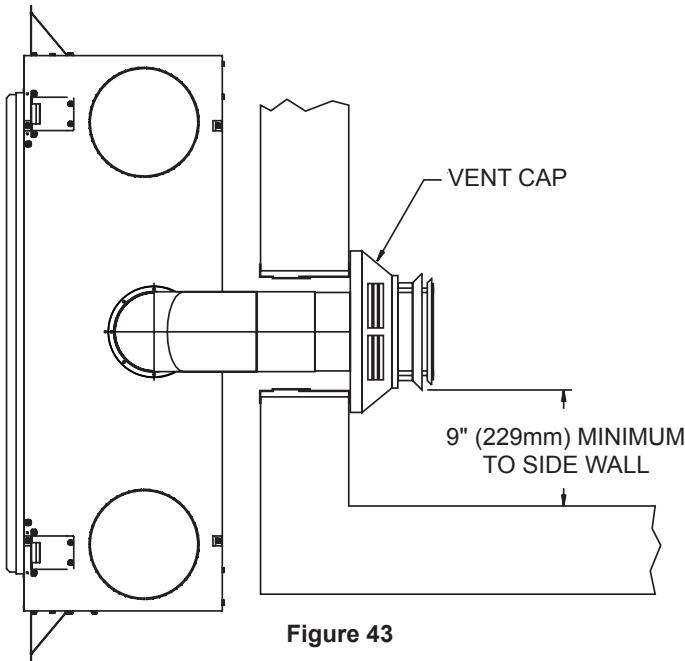


Figure 43

## BELOW GRADE INSTALLATION

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

**Ensure the sidewall venting clearances are observed. If venting system is installed below ground, we recommend a window well with adequate and proper drainage to be installed around the termination area.**

## TYPICAL BASEMENT INSTALLATION

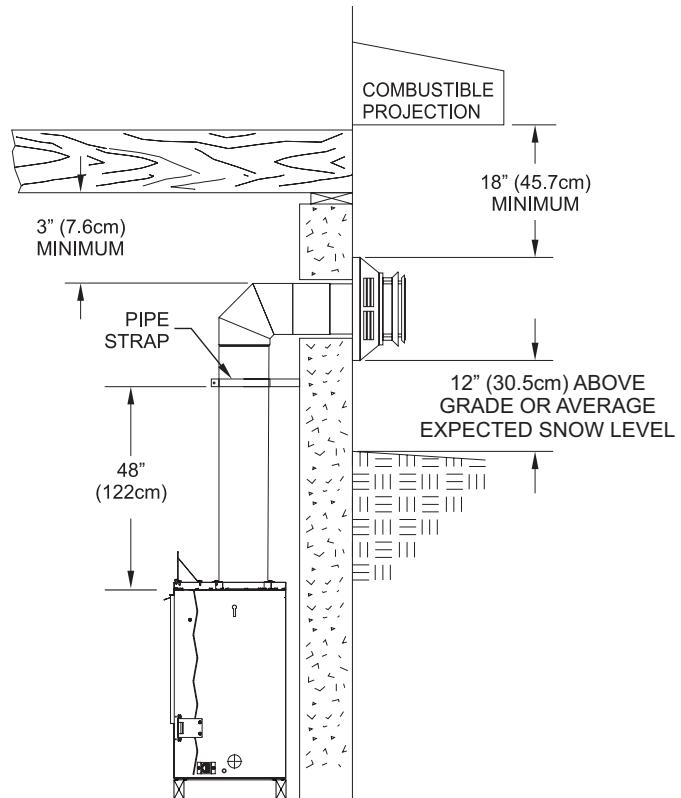


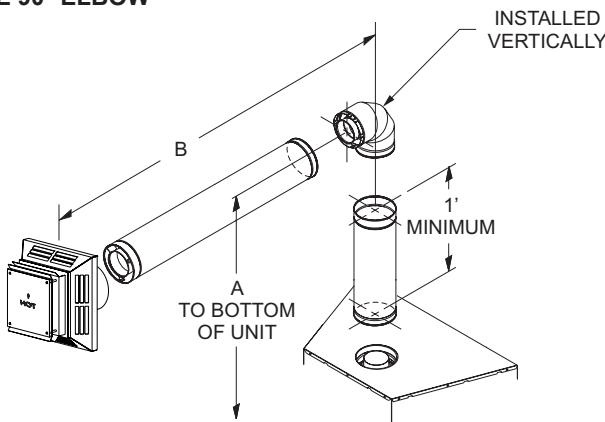
Figure 44

**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.

# VENTING FIREPLACE - HORIZONTAL TERMINATION

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

## ONE 90° ELBOW



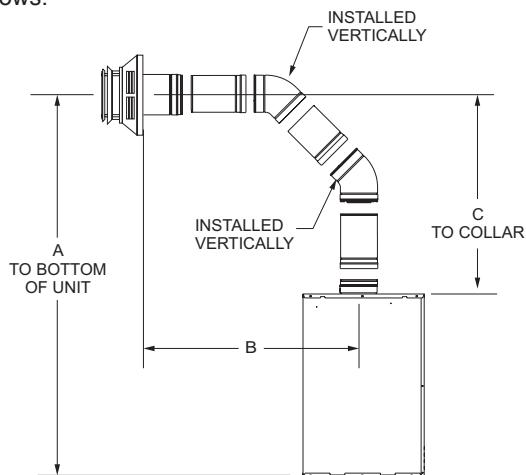
EXAMPLE VENT RUNS

Initial Pipe Length	A (Vertical)	B (Horizontal) Maximum
<b>(Dimensions In Inches)</b>		
12	40-1/2	15
24	52-1/2	60 (5ft)
36	64-1/2	108 (9ft)
48	76-1/2	156 (14ft)

Figure 45

## TWO 45° ELBOWS

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



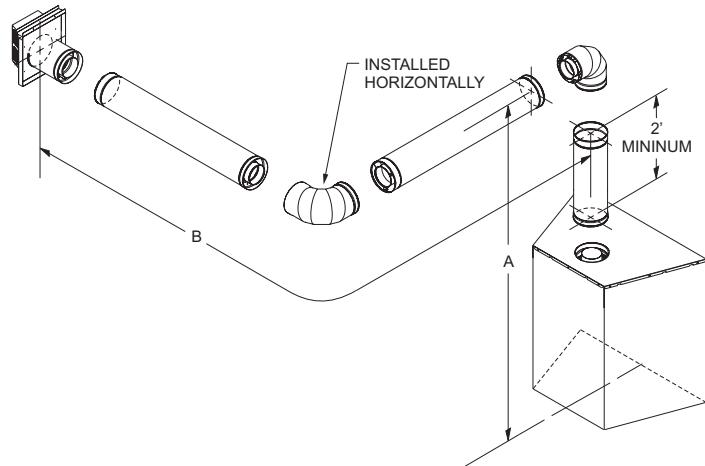
EXAMPLE VENT RUNS

C	A (Vertical)	B (Horizontal) Maximum
<b>(Dimensions In Inches)</b>		
27-1/4 (Min.)	52-1/2	60 (5ft)
39-1/4	64-1/2	108 (9ft)
51-1/4	76-1/2	156 (13ft)

Figure 46

## TWO 90° ELBOWS

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

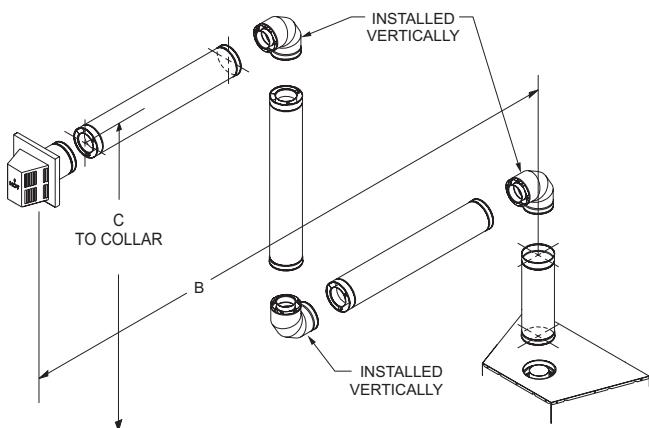


EXAMPLE VENT RUNS

Initial Pipe Length	A (Vertical)	B (Horizontal) Maximum
<b>(Dimensions In Inches)</b>		
24	52-1/2	24 (2ft)
36	64-1/2	72 (6ft)
48	76-1/2	120 (10ft)

Figure 47

## THREE 90° ELBOWS



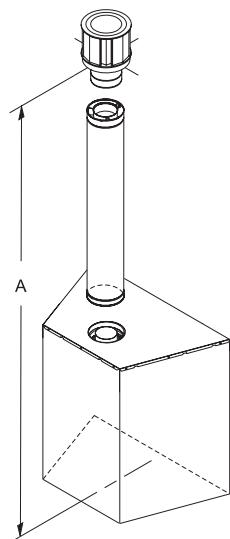
EXAMPLE VENT RUNS

Initial Pipe Length	A (Vertical)	B (Horizontal) Maximum
<b>(Dimensions In Inches)</b>		
27-1/4 (Min.)	52-1/2	60 (5ft)
39-1/4	64-1/2	108 (9ft)
51-1/4	76-1/2	156 (13ft)

Figure 48

# TOP VENT - VERTICAL TERMINATION

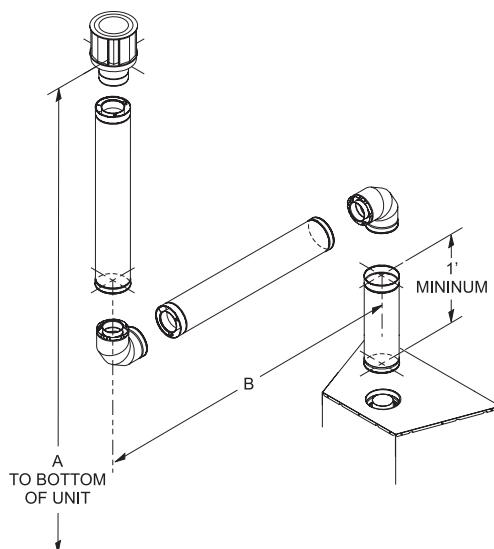
## NO ELBOWS



Minimum	Maximum
(Dimensions In Inches)	
120 (10ft)	480 (40ft)

Figure 49

## TWO 90° ELBOWS



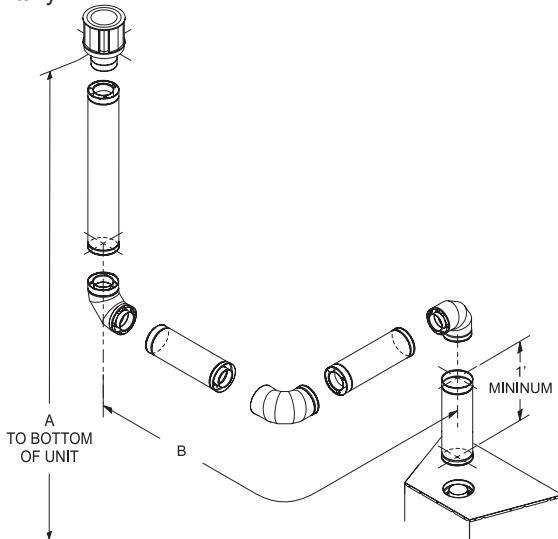
EXAMPLE VENT RUNS		
Initial Pipe Length	A (Vertical) Minimum	B (Horizontal) Maximum
(Dimensions In Inches)		
12	120 (10ft)	222 (18ft, 6in)
24	120 (10ft)	222 (18ft, 6in)
36	120 (10ft)	222 (18ft, 6in)
48	120 (10ft)	222 (18ft, 6in)

\*Maximum horizontal run is 100% of vertical, but cannot exceed 20 feet.

Figure 50

## THREE 90° ELBOWS

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



EXAMPLE VENT RUNS		
Initial Pipe Length	A (Vertical) Minimum	B (Horizontal) Maximum
(Dimensions In Inches)		
12	120 (10ft)	186 (15ft, 6in)
24	120 (10ft)	186 (15ft, 6in)
36	120 (10ft)	186 (15ft, 6in)
48	120 (10ft)	186 (15ft, 6in)

\*Maximum horizontal run is 100% of vertical, but cannot exceed 17 feet.

Figure 51

# 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. There must be a 1 inch (25 mm) 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 in the interest of safety. These specifications are summarized in Figure 52.

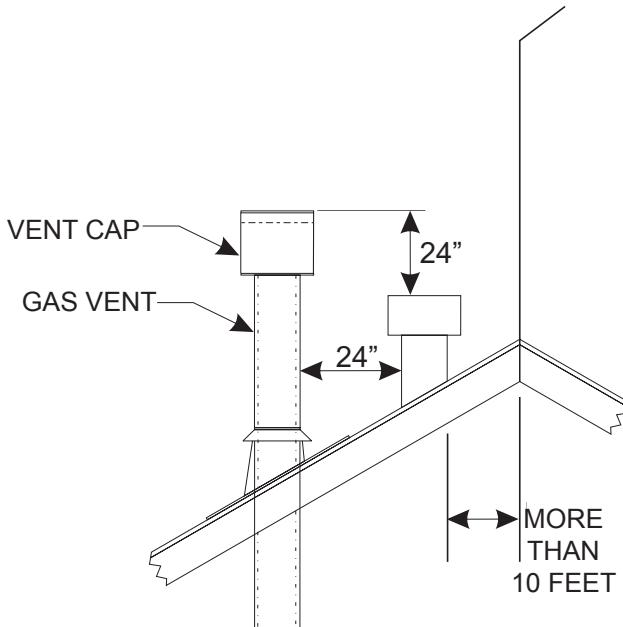


Figure 52

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.

## INSTALLING THE VENT SYSTEM IN A CHASE

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

### ⚠ CAUTION

Treatment of firestop spacers and construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Check local building codes to determine the requirements for these steps.

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

The vertical termination cap for this fireplace must not be any closer than 24-in. to combustible materials. See Figure 53.

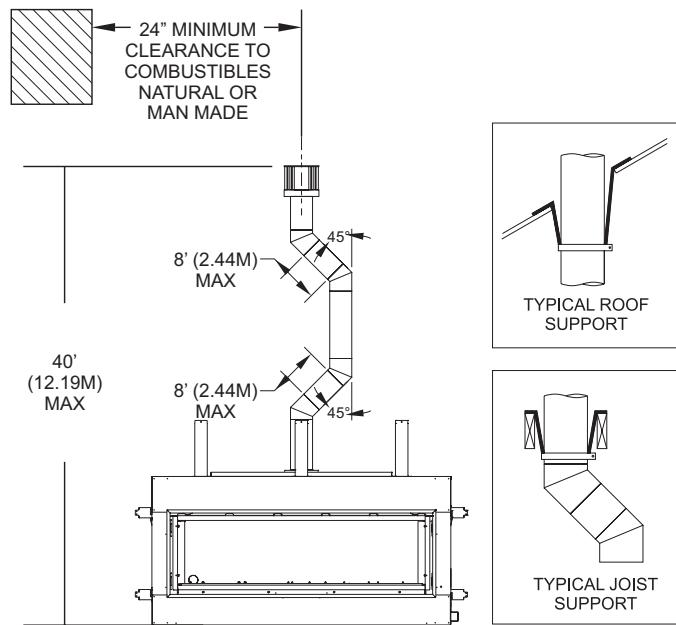


Figure 53

If two vertical terminations are run near each other, they may be placed a minimum of 12 inches between them if they are at the same height. See Figure 54. If two vent terminations are not at the same height, they must be positioned at least 24 inches apart to minimize draft issues between them.

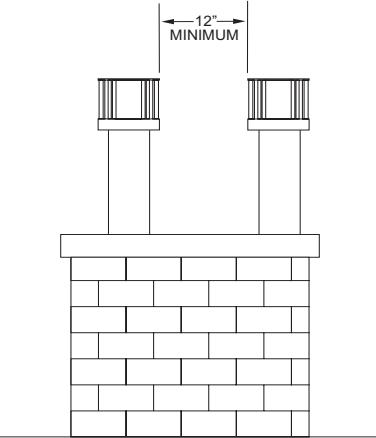


Figure 54

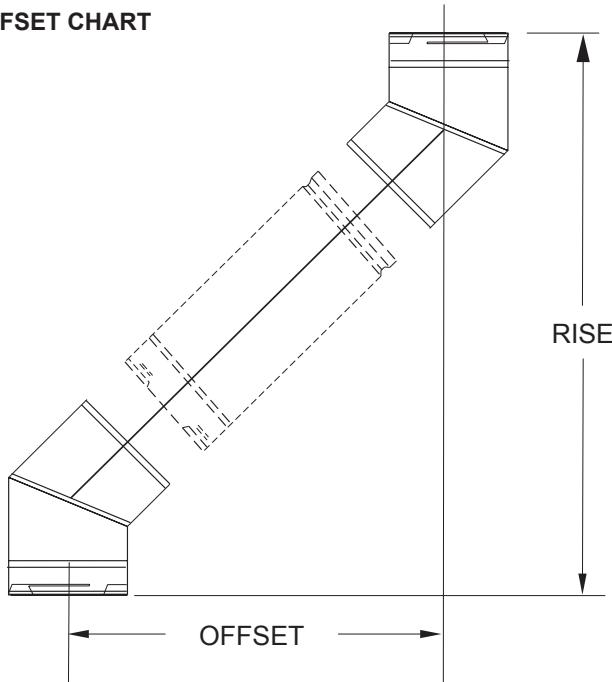
# VERTICAL TERMINATION (CONT'D)

## VERTICAL THROUGH-THE-ROOF APPLICATIONS

Your Gas Fireplace has been approved for:

- a) Vertical installations up to 40 feet in height.
- b) 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.
- c) 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



SIZE		4 in X 6-5/8 in	
Elbow Degrees	Chimney Section	Offset Inches	Rise Inches
(Dimensions In Inches)			
45°	0	5-5/8	15-3/8
45°	6	8-7/8	18-3/8
45°	9	10-7/8	20-5/8
45°	12	13	22-5/8
45°	24	21-3/8	31-1/8
45°	36	29-7/8	39-3/8
45°	36	28-7/8	39-3/8
45°	48	38-1/4	47-7/8

Figure 55

## 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 56.

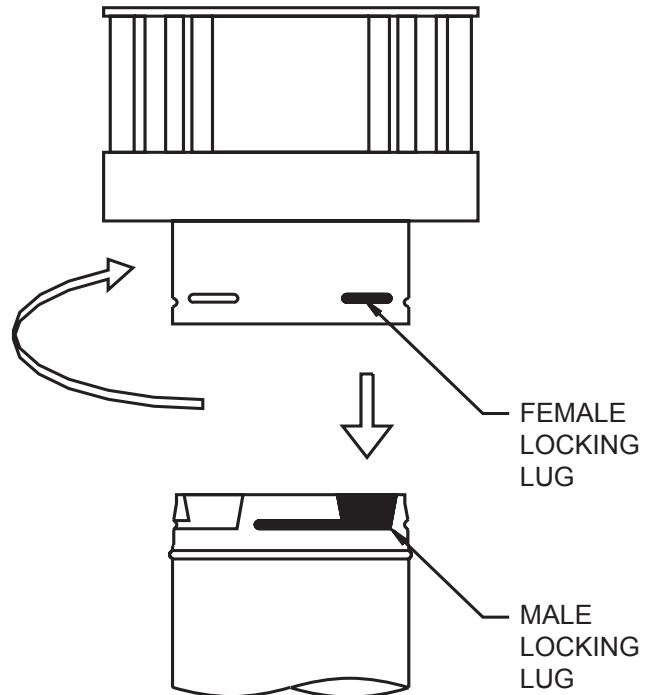


Figure 56

# DVVK-4F FLEX VENT INSTRUCTIONS

The DVVK-4F FLEX VENT KIT includes the following components:

- Horizontal Termination Cap
- 4 feet section of Flex vent with spacers (4 inch flue/7 inch outer pipe)
- 4 inch diameter Flue adapter collar
- 7 inch diameter Outer Vent adapter collar
- Wall Firestop/Thimble Assembly
- Hardware pack that includes band clamps and screws

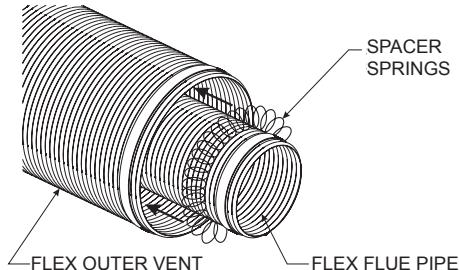
Flex venting can be installed either vertically or horizontally off of the fireplace. When installing a horizontal vent run from top connections, maintain at least 1/2 inch rise for every 12 inches of vent run. When venting horizontal off the rear vent connections, allow a minimum rise of 2 inch. Refer to Page 14 when mounting termination near vinyl siding.

## CAUTION

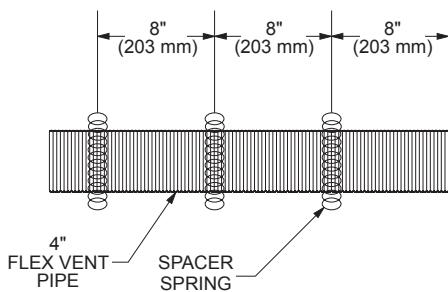
- Always stretch and secure venting with wire or metal strapping to ensure that the horizontal runs do not sag.
- If space permits, it is generally easier to attach venting in the top vent configuration.
- Because of sharp edges, always use gloves when handling the flex vent components.
- Vent connections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

## STEP-BY-STEP INSTALLATION

1. Unpack vent components and check that all items are included.
2. Check to see that the vent spacer springs are located around the flue vent at 8 inch and 12 inch intervals along its length. See Figure A. If not, stretch the spacer springs to about 15 inches long and wrap them around the flue, then interlock the ends of each spring about 2 inches. See Figure B. Maintain equal distance between spring spacers.



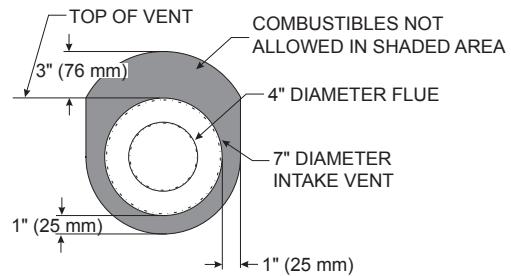
**Figure A**



**Figure B**

3. Remove the 6-5/8 inch diameter Vent collar from the fireplace. Replace this collar with the 7 inch diameter Flex Vent adapter collar provided with the vent kit.

4. Slide the Flex Vent flue pipe into the Outer Flex Vent pipe.
5. Install the Wall Firestop/Thimble assembly 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 opening should be 9 inch wide by 11 inch high. The minimum combustible clearance from the horizontal vent is 1 inch from sides and bottom, and 3 inch above the vent pipe. See Figure C.



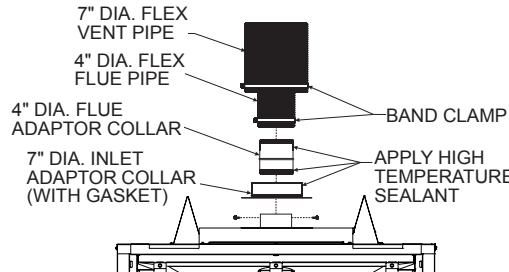
**Figure C**

6. In most cases, after determining the length of the vent that is needed, it may be easier to install the flue and outer vent pipes to the Termination Cap first, then from the outside, feed the venting through the wall to the fireplace.
7. If the venting is to long, trim off any excess vent before attaching the vent end connectors.

## CAUTION

Do not use force when installing the Horizontal Vent Termination into the flex venting. Always stretch venting out first, then cut off excessive vent material prior to sliding the vent termination into the flue and inlet venting. 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.

8. Attach the Termination Cap to the outside of the house.
9. Prior to making the vent connections, apply high temperature sealant (600 degree F min.) to the vent connections before securing with the band clamps provided. **NOTICE:** the flue pipe end **without the adapter** is to be installed to the Termination Cap.
10. Apply sealant to the outside of the flue pipe adapter and connect to the flex flue pipe. Then insert the adapter into the fireplace flue. Secure flue adapter to the fireplace flue with a minimum of two screws provided. See Figure D.



**Figure D**

11. Attach the Outer Vent pipe to the 7 inch diameter Collar on the fireplace with a large band clamp provided. Sealant may also be used on the outer vent connections.
12. Check all vent connections for tightness. Make sure horizontal venting has the proper rise and combustible clearances required. Refer to venting charts in fireplace instruction manual.

# DVVK-4FV DIRECT VENT TERMINATION KIT

This termination kit can only be used with Empire Comfort Systems direct vent fireplaces listed for use with DVVK-4FV Vertical Flex Vent Kit. Please review the instructions packaged with your fireplace and verify the fireplace model number. Check that this flex vent system is listed for use with your fireplace model prior to starting the installation.

**This vent kit may be installed as an OEM installation in a manufactured home (USA only) or mobile home and must be installed in accordance with the manufacturer's instructions and the manufactured home construction and safety standard, Title 24 CFR, Part 3280 or Standard for Installation in Mobile Homes, CAN/CSA Z240 MH.**

## **⚠ CAUTION**

**All Fireplaces listed for use with the DVVK-4FV will operate safely when installed in accordance with this instruction manual. Read all instructions before starting installation, then follow these instructions carefully to maximize fireplace performance and safety. Report damaged parts to your dealer.**

## **⚠ WARNING**

**Any common venting of the gas appliance using the DV vent kit with other gas appliances is not allowed. Do not connect this appliance to a chimney flue servicing a separate solid fuel-burning appliance.**

## **⚠ WARNING**

**Failure to follow these instructions may create a possible fire hazard and will void the warranty.**

## **⚠ WARNING**

**Always maintain minimum clearances around vent systems. The minimum clearance to combustibles for horizontal runs of vent pipe is 3 inches from the top, and 1 inch from the sides and bottom of the vent system. Do not pack the open air spaces around the fireplace or flue with insulation or other materials. Any horizontal run must have a 1/4 inch rise for every one foot of run towards the vent termination. The vent above the roof must terminate vertically.**

## **⚠ WARNING**

**Contact your Local Building and Fire Officials about restrictions and installation inspections in your area.**

## **IMPORTANT SAFETY INFORMATION**

- The vertical termination cap MUST be vented directly to the outside. The termination kit MUST NEVER be connected to a chimney flue(s) servicing a separate solid-fuel burning appliance or any other appliances.
- Vertical termination cap MUST NOT be mounted horizontally.
- The flexible vent pipe cannot be intermingled with any of the rigid vent pipe section(s). DO NOT connect two sections of flexible vent pipe together to achieve a longer length without the use of approved connectors.
- The installation must conform with local codes or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 (in the United States) or with the current installation code CAN/CGA B149 (in Canada).
- Only Direct Vent fireplaces approved for use with Empire Comfort Systems, Inc. DVVK-4FV termination kit shall be used. See PARTS LIST/ILLUSTRATIONS section for vent component identification.
- Horizontal vent runs must be supported every 2 feet using wall straps. Vertical runs must be supported every 3 feet using wall straps. Slip wall straps loosely on to pipe. Attach installer provided straps to framing members using nails or screws.
- The fireplace and venting system should be inspected before initial use and at least annually by a qualified field service person. Inspect the external vent cap on a regular basis to make sure that no debris is interfering with the airflow. Inspect entire venting system to ensure proper function.
- Please refer to the fireplace instructions for information on Termination Cap clearances.

# DVK-4FV DIRECT VENT TERMINATION KIT (CONT'D)

## PRE-INSTALLATION INFORMATION

### Items Required For Installation:

Tools	Building Supplies
<ul style="list-style-type: none"><li>• Phillips Screwdriver</li><li>• Hammer</li><li>• Saw and/or Saber Saw</li><li>• Level</li><li>• Measuring Tape</li><li>• Electric Drill and Bits</li><li>• Pliers</li><li>• Square</li><li>• Tin Snips</li></ul>	<ul style="list-style-type: none"><li>• Framing Materials</li><li>• Wall Finishing Materials</li><li>• Caulking Material (Noncombustible)</li><li>• Support Strap Supplies</li></ul>

### BEFORE YOU START:

Plan your installation. Read these instructions and the fireplace installation manual before installing unit and vent system. Set unit in place and survey how best to vent the unit. After the vent configuration has been decided, stretch the flex pipe components out, then trim off what will not be needed.

Refer to the fireplace installation manual for information on vertical venting requirements. The maximum length of vent when using flex venting is 35 feet total. Contact your dealer or distributor for information on flex vent extension kits that may be added to the DVVK-4FV kit, in order to terminate up to 35 feet. Available extension kits include the DVEK-10 (10' Flex) or the DVEK-25 (25' Flex) extension kits. The extension kits include connection hardware.

## INSTALLATION OF THE VERTICAL FLEX TERMINATION KIT

### ⚠ WARNING

Ensure that the venting system exits the structure through the roof and does not terminate less than 12 inches (305 mm) above the roof.

### ⚠ WARNING

Refer to your fireplace homeowner's manual for the minimum and maximum venting requirement of your fireplace prior to installation. Failure to do so may cause a fire hazard.

### ⚠ WARNING

This flexible pipe termination kit is ONLY for vertical terminations.

### ⚠ WARNING

Any horizontal run section must have a 1/4 inch rise for every one foot of run towards the vent termination. Never allow the vent pipe to run downward. This could cause high temperatures and may present a fire hazard. This vertical kit may incorporate two 90 degree bends, but must terminate vertically.

### ⚠ CAUTION

This flex vent kit can only be installed vertically off of the unit and must terminate vertically.

### ⚠ WARNING

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

### ⚠ CAUTION

Vent connections should overlap a minimum of 1 inch for proper sealing.

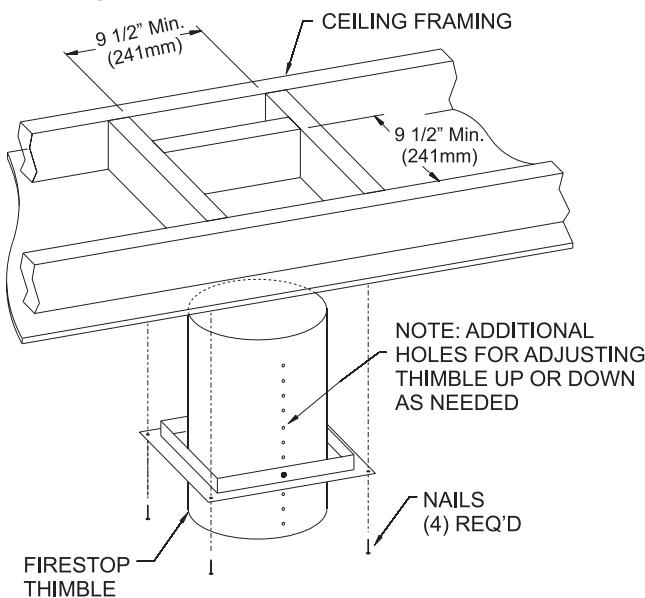
### ⚠ CAUTION

Always stretch and secure venting with metal strapping secured with nails (nails and strapping not supplied) to ensure that the flex vent runs remain true.

# DVVK-4FV DIRECT VENT TERMINATION KIT (CONT'D)

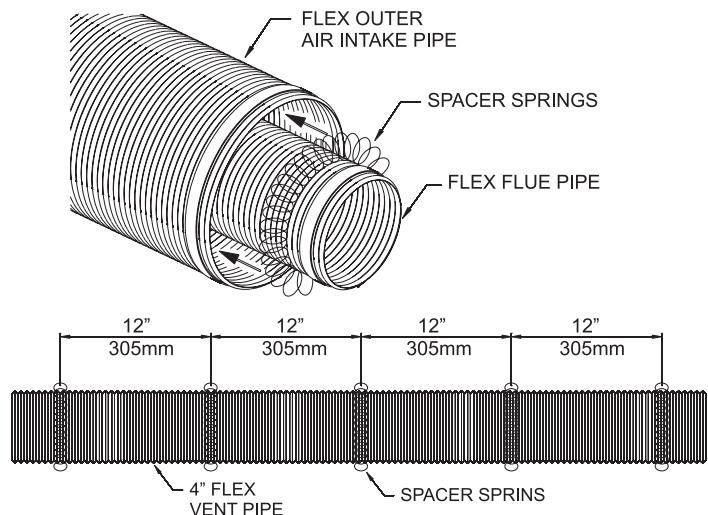
## STEP-BY-STEP INSTALLATION

1. Unpack vent components and check all items for shipping damage.
2. For this venting system 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. As per the fireplace manufacturer's instructions, replace the existing 6-5/8 inch diameter fireplace vent adapter with the 7 inch diameter flex vent fireplace adapter included in the vent kit. Install the adapter collar with the screws removed from the standard fireplace collar. Refer to the fireplace manual for additional information on the vent collar removal and installation.
4. Once the fireplace location has been determined, mark the ceiling where the flex vent will pass through. Cut an opening for installation of the firestop thimble assembly. The opening must measure a minimum of 9-1/2 inch x 9-1/2 inch square. **See Figure 57.**



**Figure 57**

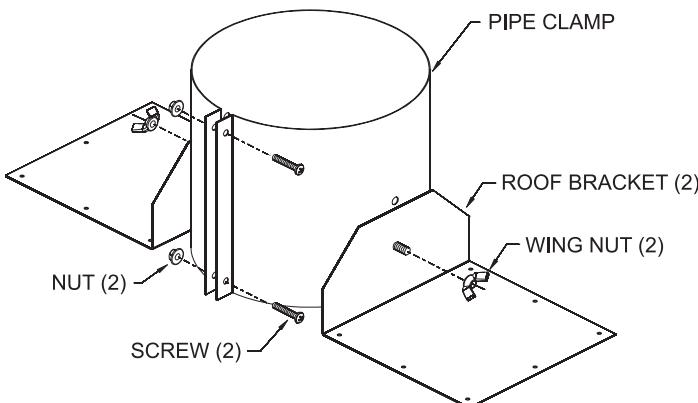
5. Next, determine the location for the cutout in the roof opening. This opening must be large enough to provide a minimum 1 inch air space clearance from the vertical vent pipe to any combustible framing.
  6. Install the Firestop/Thimble assembly to the framed opening in the ceiling using common nails or screws.
- NOTICE:** The thimble assembly is adjustable up or down as needed within the firestop. It is also designed with a pivoting firestop for use with 0 - 3/12 pitch cathedral ceilings.
7. To begin vent system assembly, first layout all the vent components on the floor in the order in which they will be assembled.
  8. Stretch the 4 inch diameter inner flex flue and 7 inch diameter outer flex vent to the maximum length of 6 feet.
  9. Install the spring spacers provided around the 4 inch diameter flex flue at 1 foot intervals, then slide the flue pipe with spacers into the 7 inch diameter outer flex vent pipe. Make sure the springs are spaced evenly starting at 12 inches from the fireplace collar. **See Figure 58.**



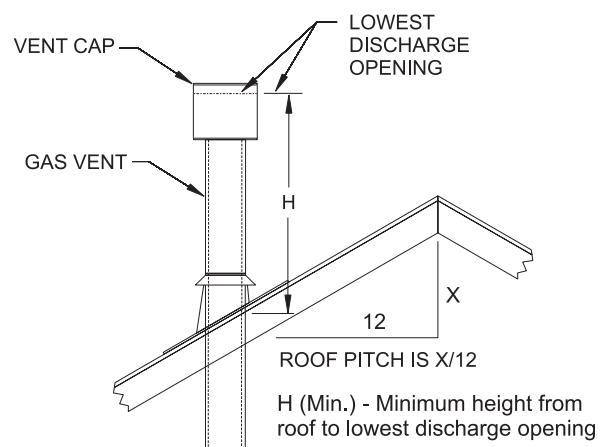
**Figure 58**

## DVVK-4FV DIRECT VENT TERMINATION KIT (CONT'D)

10. With the flex vent assembly and the 48 inch long hard pipe components laid out on the floor, begin securing these parts together. First, apply a generous bead of silicone sealant to the inside of the 4 inch diameter flex flue (not the end with the pre-installed connector), then slide the flex flue over the 4 inch diameter hard pipe flue. Be sure to overlap at least 1-1/4 inch. Secure this connection with a 4 inch diameter band clamp provided. Be careful not to damage or tear the flex flue when tightening clamp.
11. Repeat the connection process for the outer 7 inch diameter flex vent to hard pipe connection. Use silicone sealant at this joint also, overlap at least 1-1/4 inch, then secure the joint with the 7 inch diameter band clamp provided. Be careful not to damage or tear the flex vent pipe when tightening the clamp.
12. While the venting is still on the floor, assemble the roof jack components as shown in **Figure 59** and pre-install the roof jack assembly to the hard pipe approximately 18 inches from the top end of the hard pipe.
13. Now the pre-assembled vent system may be carried to the roof, then lowered through the roof cutout opening (see step 5). Feed the flex vent end down through the roof opening and firestop/thimble assembly installed in steps 4 through 6.
14. Secure the roof support assembly to the roof sheathing with at least four nails/screws through each support bracket. Check that the combustible clearances through the roof framing will maintain at least a 1" clearance from the vent pipe.
15. Determine how high the vent terminal should be located above the roof line based on the roof pitch information shown in **Figure 60**. Adjust the vent system height by loosening the pre-installed roof support pipe clamp and sliding the vent pipe up or down as pre-determined, then re-tighten the pipe clamp. Install a couple of sheet metal screws through the pipe clamp into the outer hard vent pipe to lock in place.
16. Check to make sure that the bottom end of the flex vent is long enough to reach the fireplace adapter collars. If too long, trim off the extra flex vent not needed.



**Figure 59**

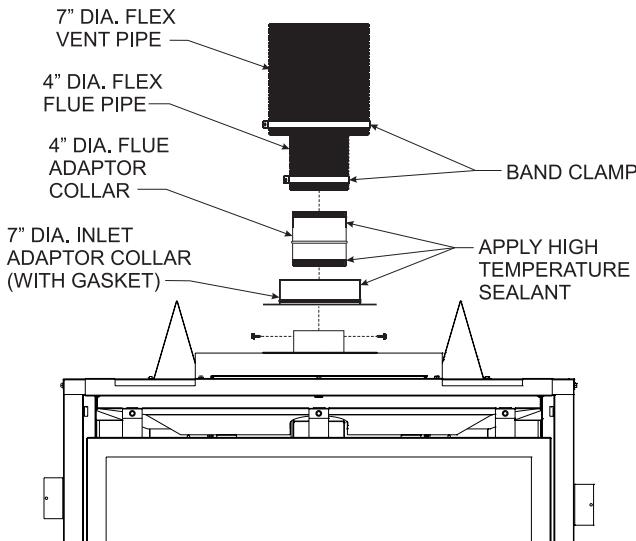


ROOF PITCH	H (Min.)
Flat to 6/12	12" (305 mm)
6/12 to 7/12	15" (381 mm)
Over 7/12 to 8/12	18" (457 mm)
Over 8/12 to 16/12	24" (610 mm)
Over 16/12 to 21/12	36" (914 mm)

**Figure 60**

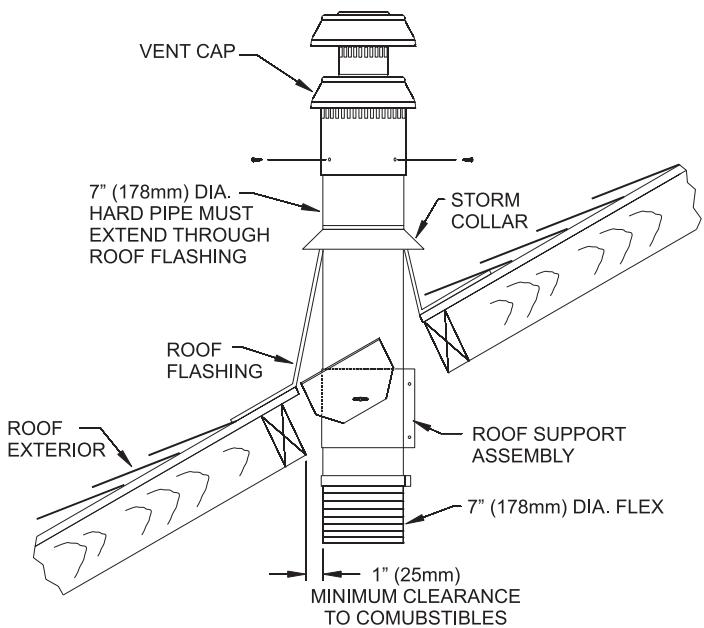
## DVVK-4FV DIRECT VENT TERMINATION KIT (CONT'D)

17. To attach the vent connections at the fireplace, be sure the 7 inch diameter adapter collar has been installed per step 3. Apply a bead of silicone sealant to the 4 inch diameter flex connector, then slide the flex pipe adapter collar into the fireplace flue collar and secure by installing a minimum of two screws through the flue collar and into the adapter. **See Figure 61.**
18. Apply sealant to the 7 inch diameter adapter collar, slide outer flex vent over the collar, then secure with a 7 inch diameter band clamp. **See Figure 61.**



**Figure 61**

19. Once the lower connections are made and the flex pipe is secured with support bands as required (3 feet minimum between supports) then the roof flashing can be installed. **See Figure 62.**



**Figure 62**

20. Install the roof flashing, and seal using common construction practices.
21. An additional storm collar band is provided in kit that may be used as an attic insulation shield. The collar can be installed around the flex pipe (or hard pipe) just above the firestop thimble. This collar will act as a shield to prevent blown insulation from entering the thimble.
22. To complete the vent installation, install the vent termination cap to the top of the hard vent pipe assembly. Mate up the flue and outer telescopes with the hard pipe assembly, then secure by installing a minimum of two sheet metal screws into the overlapped flanges of the cap and pipe.
23. **Figure 62** shows a completed installation with components identified and other installation information such as heights and clearance to combustibles.

## DVVK-4FV DIRECT VENT TERMINATION KIT (CONT'D)

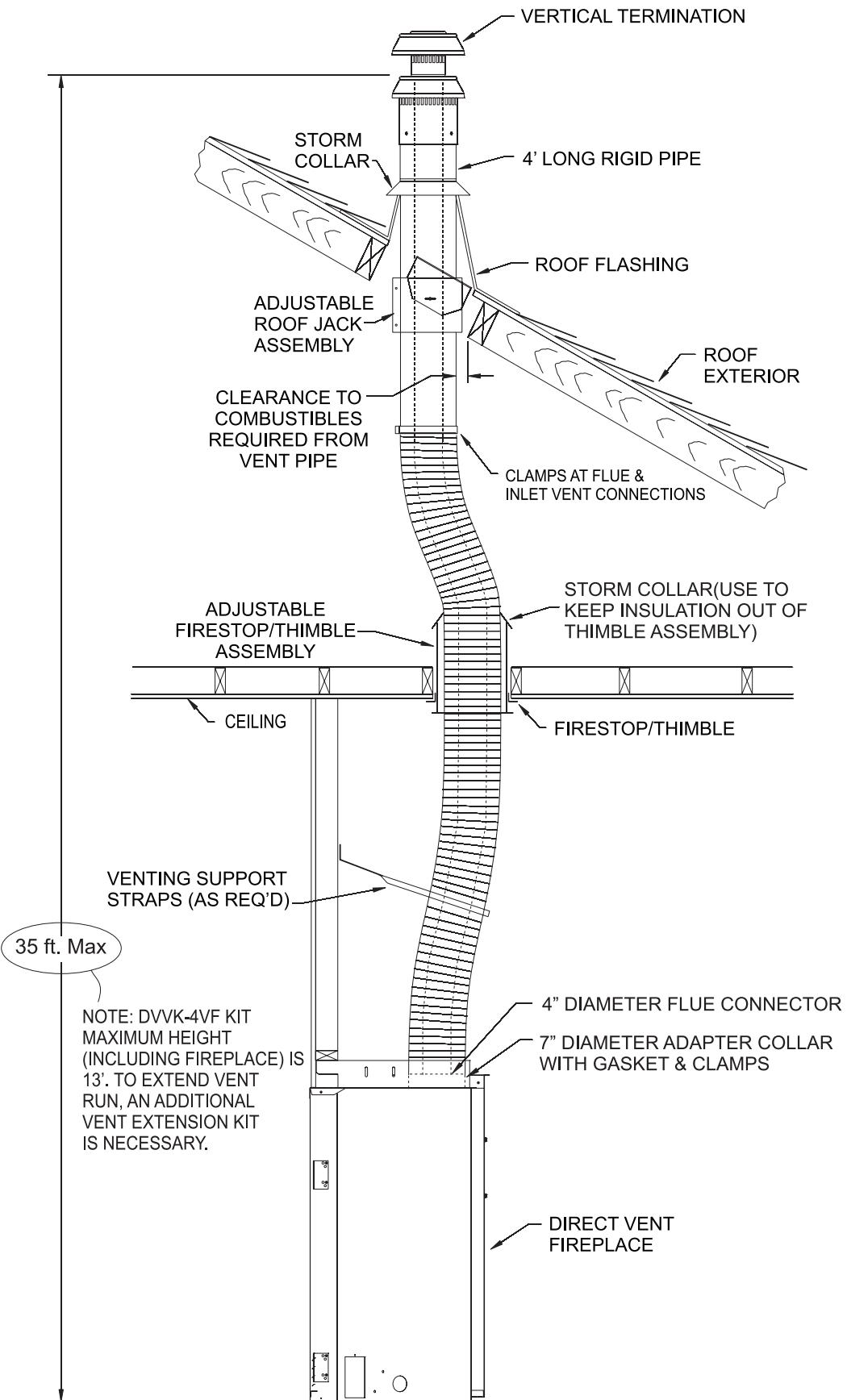
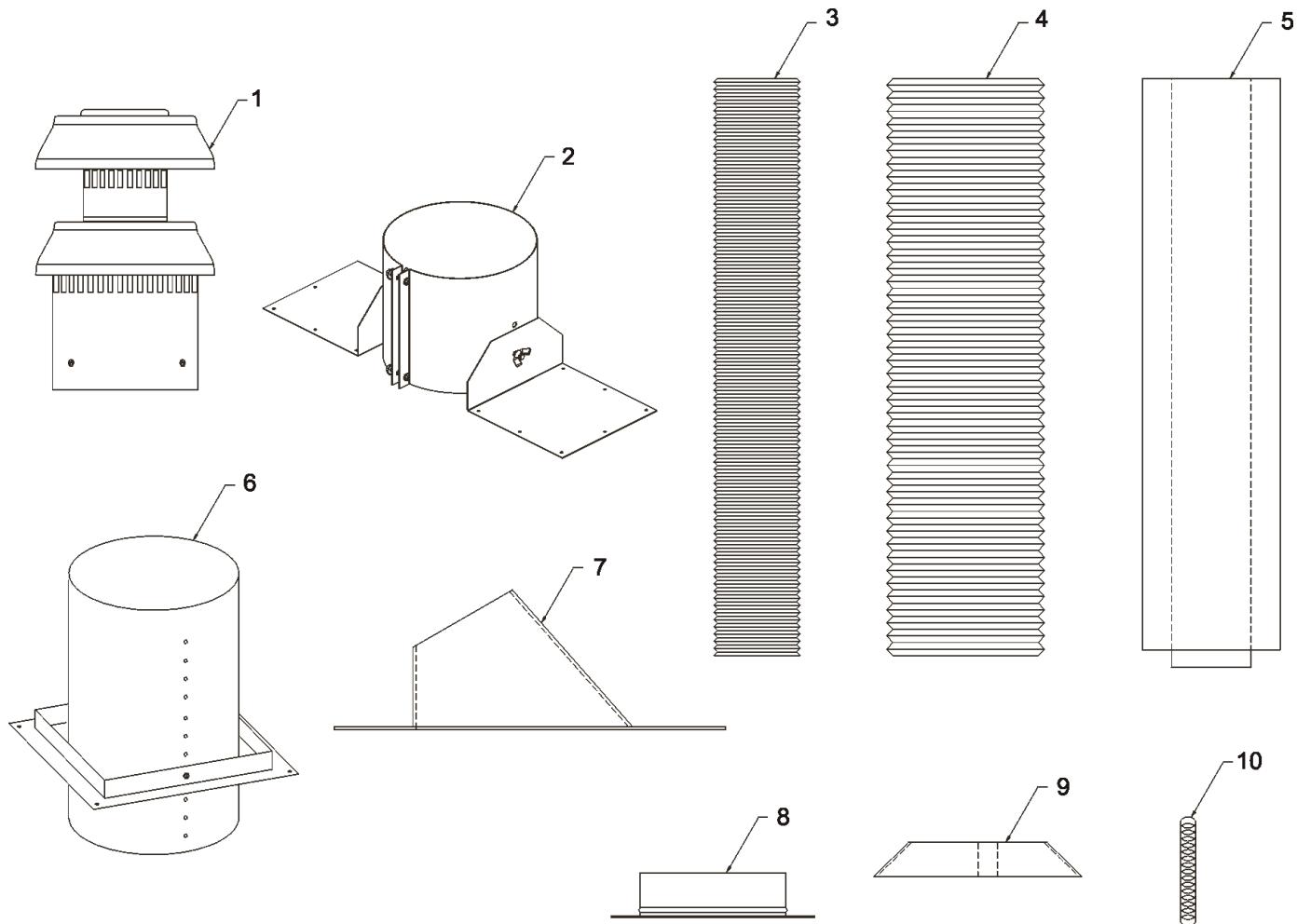


Figure 63

# DVVK-4FV DIRECT VENT TERMINATION KIT (CONT'D)

## VERTICAL FLEX TERMINATION KIT



ITEM NUMBER	ITEM DESCRIPTION	REPAIR PART NUMBER	QUANTITY SUPPLIED
1	4" / 7" Vertical Termination Cap	MF100038	1
2	Roof Support Kit	MF100503	1
3	2 Ply Alum Flex 4" Diameter by 6 ft.	MF04ALA2F006	1
4	2 Ply Alum Flex 7" Diameter by 6 ft.	MF07ALA2F006	1
5	4" / 7" x 48" Rigid Pipe Assembly	MF100554	1
6	Firestop Thimble Assembly	MF100124	1
7	Roof Flashing (0/12 to 6/12)	MF100091	1
8	7" Flex Adapter Collar with Gasket	MF100524	1
9	7" Storm Collar	MF100147	2
10	Spring Spacers	MF100548	5
N/S	Clamp 4" Diameter	MF100330	2
N/S	Clamp 7" Diameter	MF100534	2
N/S	#8 x 1/2" Self Drilling Screws	N/A	20
N/S	HT Silicone	N/A	1
N/S	#8 x 5/8" Self Drilling Screws	N/A	10

# GLASS PLACEMENT

## SEQUENCE OF ACCESSORY INSTALLATION PRIOR TO THE PLACING OF CRUSHED GLASS MEDIA:

- Accent Light Kit - LK10
- Porcelain Liner Kit - LND(36,46)LKR
- Log And Rock Kit - LS60THF

### ⚠ CAUTION

Turn off all power to the fireplace prior to changing bulbs or servicing the controls.

## CRUSHED GLASS PLACEMENT

1. Add the decorative crushed glass media at this time. Completely cover over the burner screen.
2. Place crushed glass media over the burner screen in a single layer. Use ONLY enough crushed glass media to mask the burner screen. **See Figure 64.**

**NOTICE:** 1/4-inch crushed glass media is required on the burner screen for proper operation.

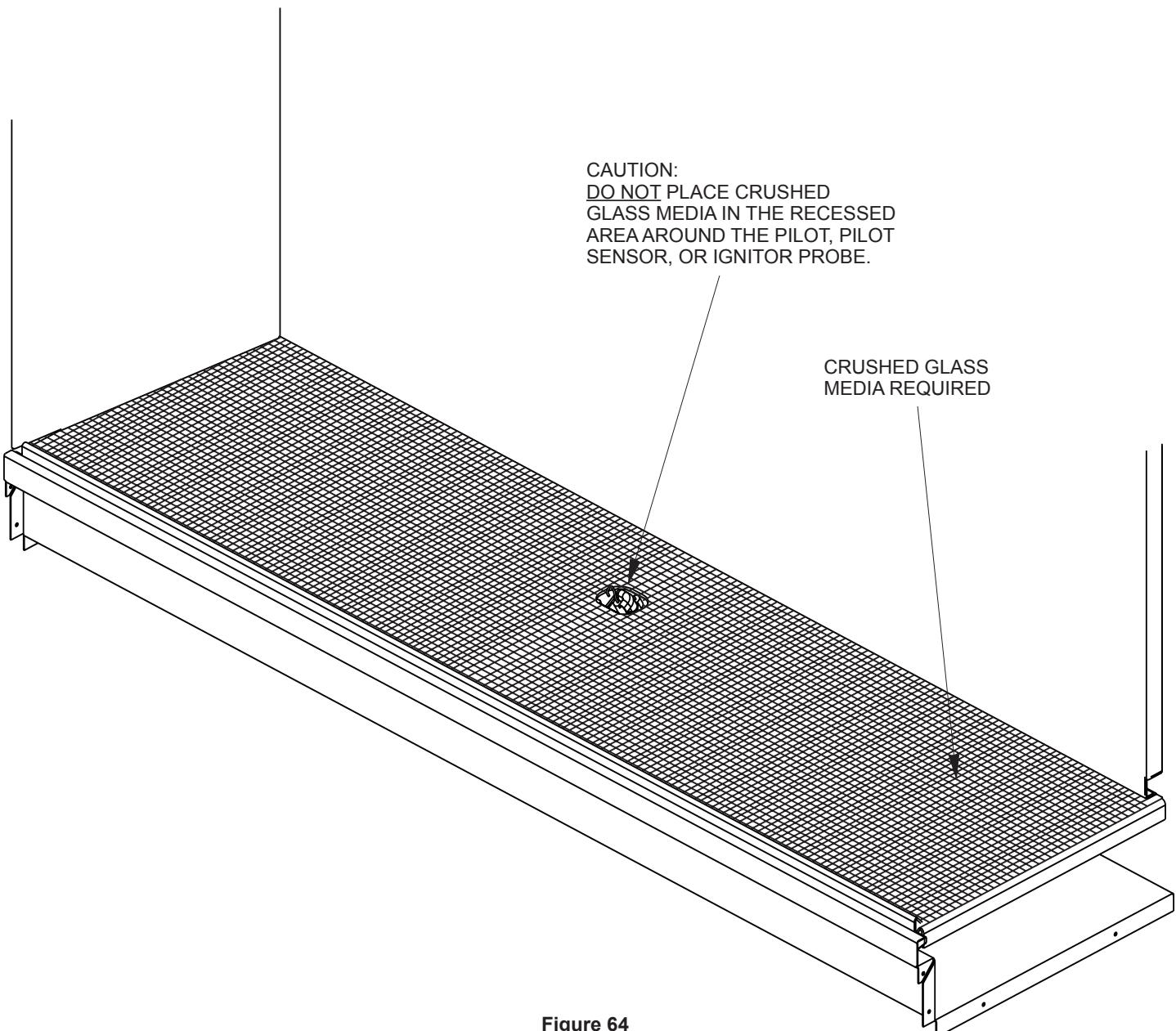


Figure 64

# INTERMITTENT PILOT LIGHTING INSTRUCTIONS

## FOR YOUR SAFETY READ BEFORE LIGHTING

### ⚠ WARNING

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

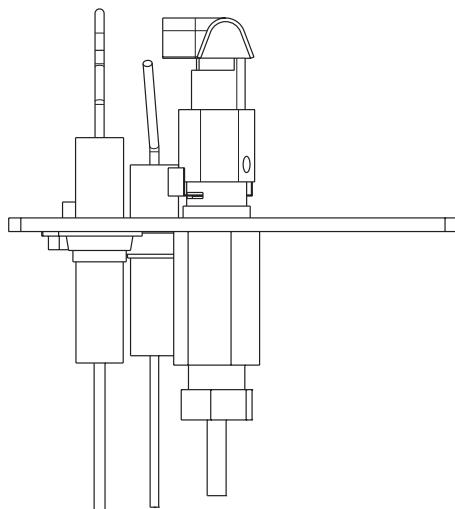
- A. This appliance has a pilot which can be lit with the manual on/off switch, a remote control, or by switching the remote receiver switch to the "ON" position. When lighting the pilot, follow these instructions exactly.
- B. Before lighting smell all around the appliance area for gas. Be sure to smell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

#### 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.

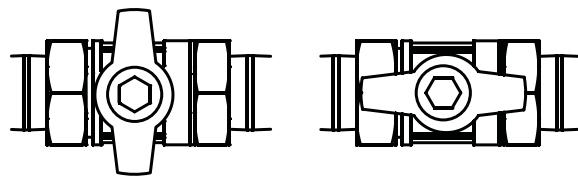
## LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above.
2. Turn OFF electric power to the appliance.
3. Push in bottom of screen and lift valve cover to access valve.
4. Turn gas shut-off valve 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. Visually locate pilot in center of firebox floor.
8. Turn main flame to on. If the pilot does not light within 60 seconds, stop and go to Step 5.
9. If the burner or pilot does not operate properly after several tries, turn the gas shut-off valve clockwise ↘ to "OFF" and call your service technician or gas supplier.
10. Replace the front surround assembly or close bottom louver assembly (if applicable).
11. 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



OFF                    ON

## TO TURN OFF GAS TO FIREPLACE

1. Turn off all electric power to the appliance if service is to be performed (if applicable).
2. Turn gas shut-off valve to "OFF" position.

# IP - CONTROL SYSTEM TROUBLESHOOTING

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Gas odor during setup	Gas Leak	<b>WHAT TO DO IF YOU SMELL GAS</b> 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. <b>If you cannot reach your gas supplier, call the fire department.</b>
Gas odor before first ignition	Gas Leak	<b>WHAT TO DO IF YOU SMELL GAS</b> 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. <b>If you cannot reach your gas supplier, call the fire department.</b>
Fireplace is "on" but no flame and pilot is not trying to light	Gas Line Valve turned "off" Control module in "lockout"	Turn shut-off valve to "open" position Turn fireplace "off" and then back "on"
Pilot continues to spark when pilot is lit.	Not enough gas to pilot	Wait for pilot flame to strengthen
	Low Gas Pressure	Check pressures. See page 12.
	Pilot igniter/sensor is dirty	Clean pilot. See maintenance page 79.
	Pilot not grounded well	Check ground connections
	Draft in firebox	Vent restrictor not installed
	Pilot sensor has been bent	Replace pilot
Pilot will not ignite, or will not stay lit	Pilot igniter/sensor is dirty	Clean flame sensor and pilot igniter. See maintenance page 79.
	Pilot not grounded well	Check ground connections
	Sensor Wire loose	Check sensor wire terminals
	Gas pressure incorrect	Adjust gas pressure
	Pilot Gas Line bent or kinked	Replace pilot tube
	Faulty pilot, Sensor bent	Replace Pilot
	Faulty valve	Replace Valve
Burner takes too long to fully light	Low gas pressure	Check gas supply pressure
	Clogged or dirty carryover/burner ports	Clean ports
	Blocked orifice	Check orifice opening
	Faulty valve	Replace valve
	Too much crushed glass media	Remove excessive glass media
Burner does not light but pilot remains on	Low gas pressure	Check gas supply pressure
	Clogged or dirty burner ports	Clean burner ports
	Blocked orifice	Check orifice opening
	Loose wire connections	Check valve/control module connections
	Faulty pilot	Replace pilot
	Faulty valve	Replace valve
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
	(Optional) Remote control batteries failing	Replace batteries in remote transmitter and receiver

## IP - CONTROL SYSTEM TROUBLESHOOTING (CONT'D)

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

# MILLIVOLT PILOT LIGHTING INSTRUCTIONS

## FOR YOUR SAFETY READ BEFORE LIGHTING

### ⚠ WARNING

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

- A. This appliance has a pilot which can be lit with the manual on/off switch, a remote control, or by switching the remote 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

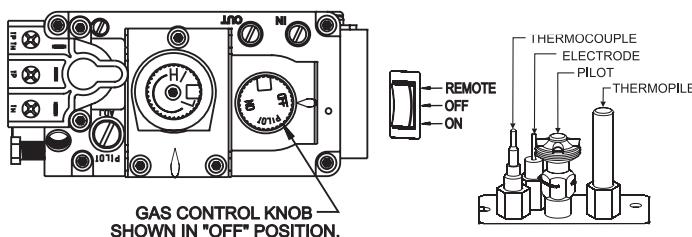
- Do not try to light any appliance.
- Do not touch any electrical switch;
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

- 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. Set REMOTE/OFF/ON switch to OFF.
3. Turn off all electric power to the appliance (if applicable).
4. Push in barrier screen at bottom and lift valve cover to access valve.
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 in center of firebox floor.
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. Set REMOTE/OFF/ON switch to OFF.
2. Turn off all electric power to the appliance if service is to be performed (if applicable).
3. Remove the barrier assembly to gain access to the control compartment.
4. Push in gas control knob slightly and turn clockwise  to "OFF." Do not force.
5. Replace barrier screen.

## MV - CONTROL SYSTEM TROUBLESHOOTING

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Spark ignitor will not light pilot after repeated triggering of piezo ignitor button.	Defective ignitor (no spark electrode)	Check for spark at electrode and pilot; if no spark and electrode wire is properly connected, replace ignitor.
	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.
	No Propane in tank.	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.
Pilot will not stay lit after carefully following lighting instructions.	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.
	Defective valve.	If thermocouple is producing more than 15 millivolts, replace faulty valve.
Pilot burning, no gas to burner, valve knob "ON", REMOTE/OFF/ON switch "ON."	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.
		If the pilot flame is not close enough physically to the thermopile, adjust the pilot flame.
	Thermopile may not be generating sufficient millivolts.	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.

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.

## MV - CONTROL SYSTEM TROUBLESHOOTING (CONT'D)

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Frequent pilot outage problem.	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.
The pilot and main burner extinguish while in operation.	No Propane in tank. Vent pipe leaking exhaust gasses back into system. Glass to loose, gasket leaks in corners after usage. Bad thermopile or thermocouple. Improper vent cap installation.	Check Propane tank. Refill fuel tank. Check for leaks. Be certain glass assembly is installed correctly. Replace if necessary. Check for proper installation and freedom from debris or blockage.
Glass soots, and/or soot deposits collected on logs.	Flame impingement on logs incorrect. Debris around throat of main burner. Glass door is not properly sealed. Verify that the seal is seated to the firebox face. The seal must be even and the door centered. Both spring clamps must be properly latched. Check air shutter setting. See Specifications, page 5.	Check and adjust log position. Contact Empire Comfort Systems, Inc. Inspect the opening at the base of the main burner. It is imperative that <u>NO</u> material be placed in this opening.
Flame burns blue and lifts off main burner.	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.
Flame is faint or "ghosting"	Too much crushed glass media or too many logs/rocks on burner surround	Remove excessive media. Reduce number of logs/rocks

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.

# ACCESSORIES

The following accessory parts can be obtained from your Empire Comfort Systems dealer. Contact your Empire Dealer for more accessory options. If you need additional information beyond what your dealer can furnish, contact Empire Comfort Systems Inc., 918 Freeburg Ave., Belleville, Illinois 62220-2623.

ACCESSORIES			
Description	Accessory Models		Color
Fireplace Models	DVL36BP	DVL46BP	
Porcelain Liner	LND36LKR	LND48LKR	Gloss Black
Trim Kit - Beveled	DF361LBL	DF481LBL	Black
Rustic Contemporary Logs & Stones	LS60THF		N/A
Rustic Contemporary Logs & Stones	LSM1THF		N/A
Accent Light Kit	LK10		N/A
Decorative Crushed Glass - Blue Clear	DG1BUC		Blue Clear
Decorative Crushed Glass - Black Polished	DG1BKP		Black Polished
Decorative Crushed Glass - Clear Frosted	DG1CLF		Clear Frosted
Decorative Crushed Glass - Bronze Reflective	DG1BZR		Bronze Reflective
Decorative Crushed Glass - Copper Reflective	DG1BCR		Copper Reflective

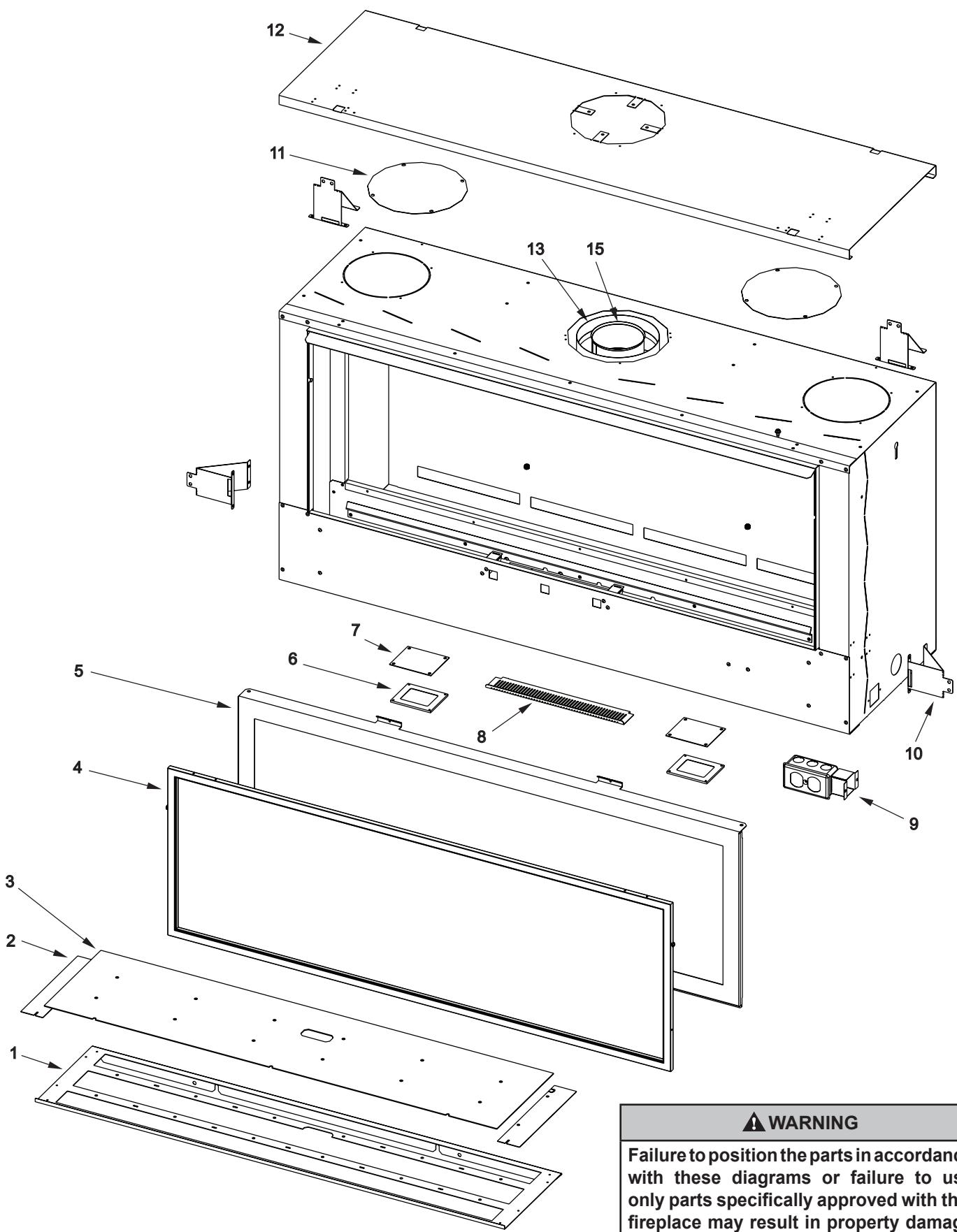
CONVERSION KITS			
	DVL36BP3	DVL46BP7	
Conversion Kit - Natural to Propane	40512	40510	N/A
Conversion Kit - Propane to Natural	40513	40511	N/A
Conversion Kit - Natural to Propane	42048	42052	N/A
Conversion Kit - Propane to Natural	42049	42053	N/A
Conversion Kit - Natural to Propane	42050	42054	N/A
Conversion Kit - Propane to Natural	42051	42055	N/A

**NOTICE:** Crushed glass is required on the burner screen for proper operation. For application and the amount of crushed glass to use, refer to the "Glass Placement" section on page 48.

**NOTICE:** The following sequence of accessory installation must be observed: Accent Light Kit; Porcelain Liner; Logs and Stones; Crushed Glass Media; Trim Kit.

Remote Control Options And Accessories	Description	Models Used On
FRBC	Millivolt Battery Remote ON/OFF	DVL(36,46)BP3
FRBTC	Millivolt Battery Remote Thermostat	DVL(36,46)BP3
TMV	Millivolt Wireless Wall Thermostat	DVL(36,46)BP3
TRW	Millivolt Reed Switch Wall Thermostat	DVL(36,46)BP3
FWS-1	Direct Ignition/Millivolt Wall Switch	DVL(36,46)BP3
FRBTP	Battery Operated Remote Control With Programmable Thermostat	DVL(36,46)BP3
RVKN-1	Remote Kit, Natural (Stepper Motor)	DVL(36,46)BP7
RVKP-1	Remote Kit, Propane (Stepper Motor)	DVL(36,46)BP7

## FIREBOX PARTS VIEW



### ⚠️ WARNING

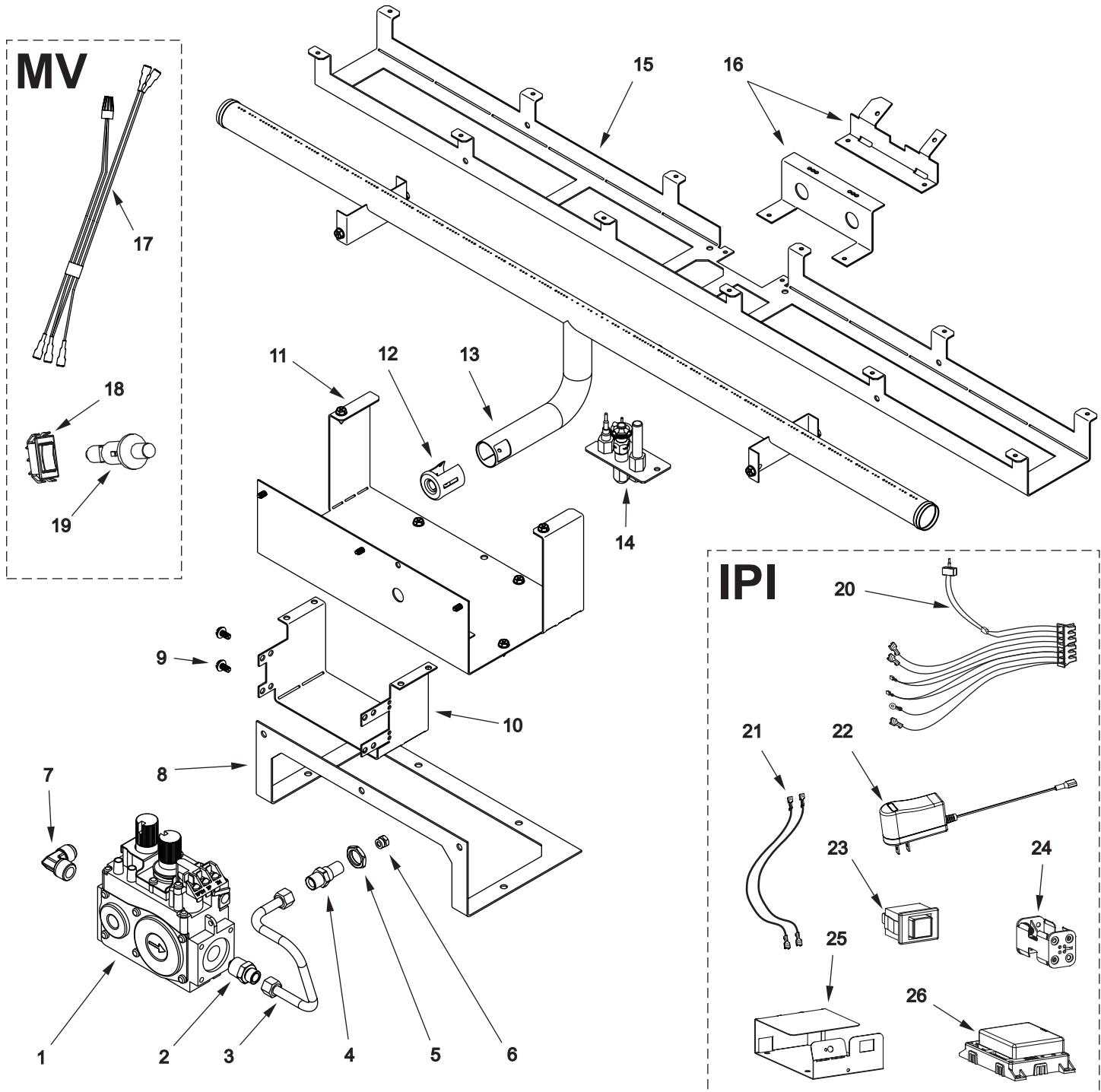
Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this fireplace may result in property damage or personal injury.

# FIREBOX PARTS LIST

INDEX NO.	DESCRIPTION	MODELS	
		DVL36BP	DVL46BP
		PART NUMBER	
1	Burner Surround	41019	41020
2	Burner Surround Extension	41043	41043
3	Burner Screen	41404	41405
4	Screen Assembly	Q0062	Q0072
5	Glass Frame Assembly	41989	41990
6	Light Kit Gasket	R11751	R11751
7	Light Kit Plate	29141	29141
8	Valve Door	41769	41769
9	J-Box Assembly	17162	17162
10	Framing Bracket	28450	28450
11	Heat Transfer Cover	41891	41891
12	Top Shield	41035	41036
13	Inlet Collar	R7566	R7566
14*	Inlet Gasket	R7573	R7573
15	Flue Collar	17155	17155
16*	Flue Gasket	M163	M163

\*NOT SHOWN

# BURNER PARTS VIEW



## WARNING

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

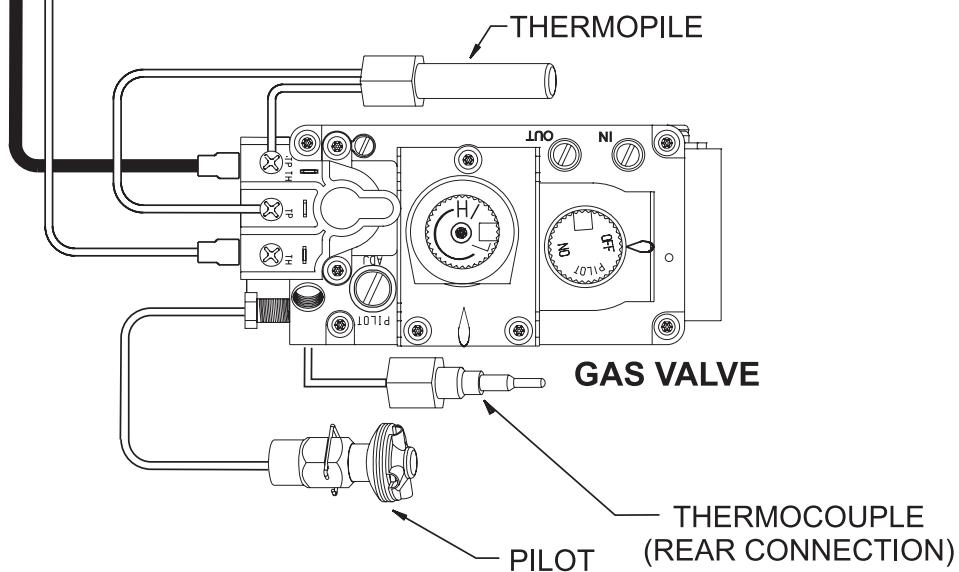
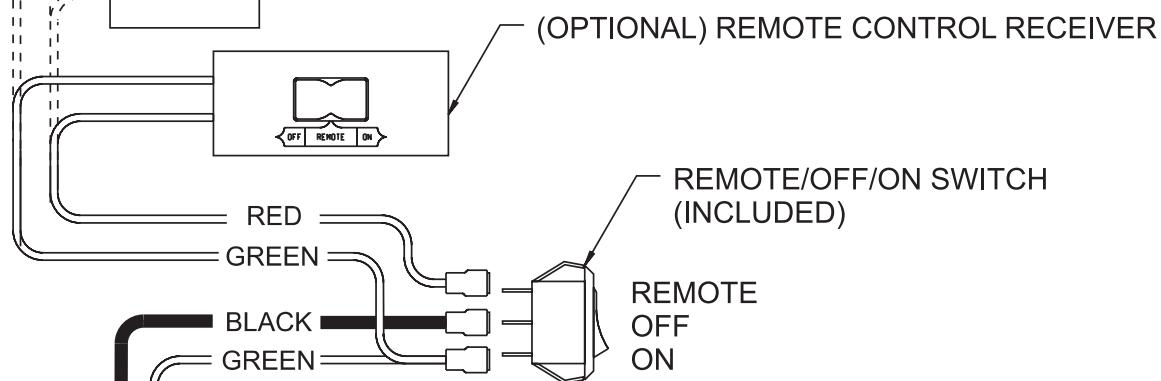
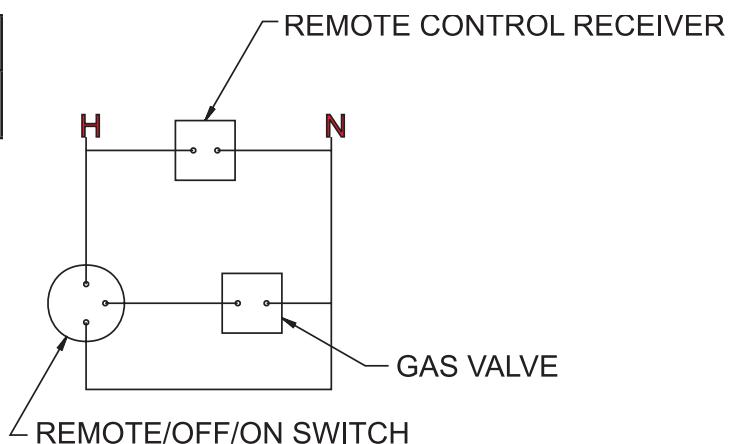
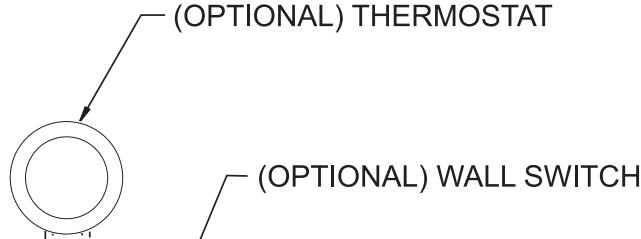
# BURNER PARTS LIST

INDEX NO.	DESCRIPTION	MODEL			
		DVL36BP30	DVL36BP70	DVL46BP30	DVL46BP70
		PART NUMBER			
1	Valve, MV, Natural Gas	R7577	—	R7577	—
1	Valve, MV, Propane Gas	R7578	—	R7578	—
1	Valve, IPI, Natural Gas	—	R11125	—	R11125
1	Valve, IPI, Propane Gas	—	R11126	—	R11126
2	Connector, 5/16 Compression	R2423	R2423	R2423	R2423
3	Gas Supply Tube	41278	41278	41278	41278
4	Orifice Holder	R11675	R11675	R11675	R11675
5	Jamb Nut	R7572	R7572	R7572	R7572
6	Orifice, Natural Gas	P294 (2.35mm)	P294 (2.35mm)	P213 (#37)	P213 (#37)
6	Orifice, Propane gas	P214 (#53)	P214 (#53)	P250 (1.65mm)	P250 (1.65mm)
7	Elbow, 90 Degree Brass 3/8 NPT X 3/8 Flare	R10882	R10882	R10882	R10882
8	Burner Base Gasket	R12900	R12900	R12900	R12900
9	10-32 X .375" Machine Screw	X	—	X	—
9	Screw, 8-32 X 3/8 HWH SL ZINC TY F	—	X	—	X
10	Valve Bracket	41280	41280	41280	41280
11	Burner Base	41047	41047	41047	41047
12	Air Shutter	R7624	R7624	R7624	R7624
13	Tube Burner	R12924	R12924	R12925	R12925
14	Pilot, Natural gas	R7612	R10423	R7612	R10423
14	Pilot, Propane Gas	R7611	R10424	R7611	R10424
15	Pilot And Burner Bracket	41045	41045	41275	41275
16	Pilot Shield	41273	—	41273	—
16	Pilot Bracket	—	42463		42463
17	Wire Assembly, MV	R10947	—	R10947	—
18	Switch, Remote OFF/ON	R3436	—	R3436	—
19	Ignitor, Piezo W/RED	R9760	—	R9760	—
20	Wire Assembly, IPI	—	R11123	—	R11123
21	Wire	—	R2566	—	R2566
22	Power Adaptor 7.0 VDC	—	R11128	—	R11128
23	Switch, IPI	—	R2522	—	R2522
24	AA Battery Back Up Battery Pack	—	R11122	—	R11122
25	Module Tray	—	29382	—	29382
26	Receiver Module	—	R11127	—	R11127

# MILLIVOLT STANDING PILOT WIRING DIAGRAM (BP3 SERIES)

## WIRING

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

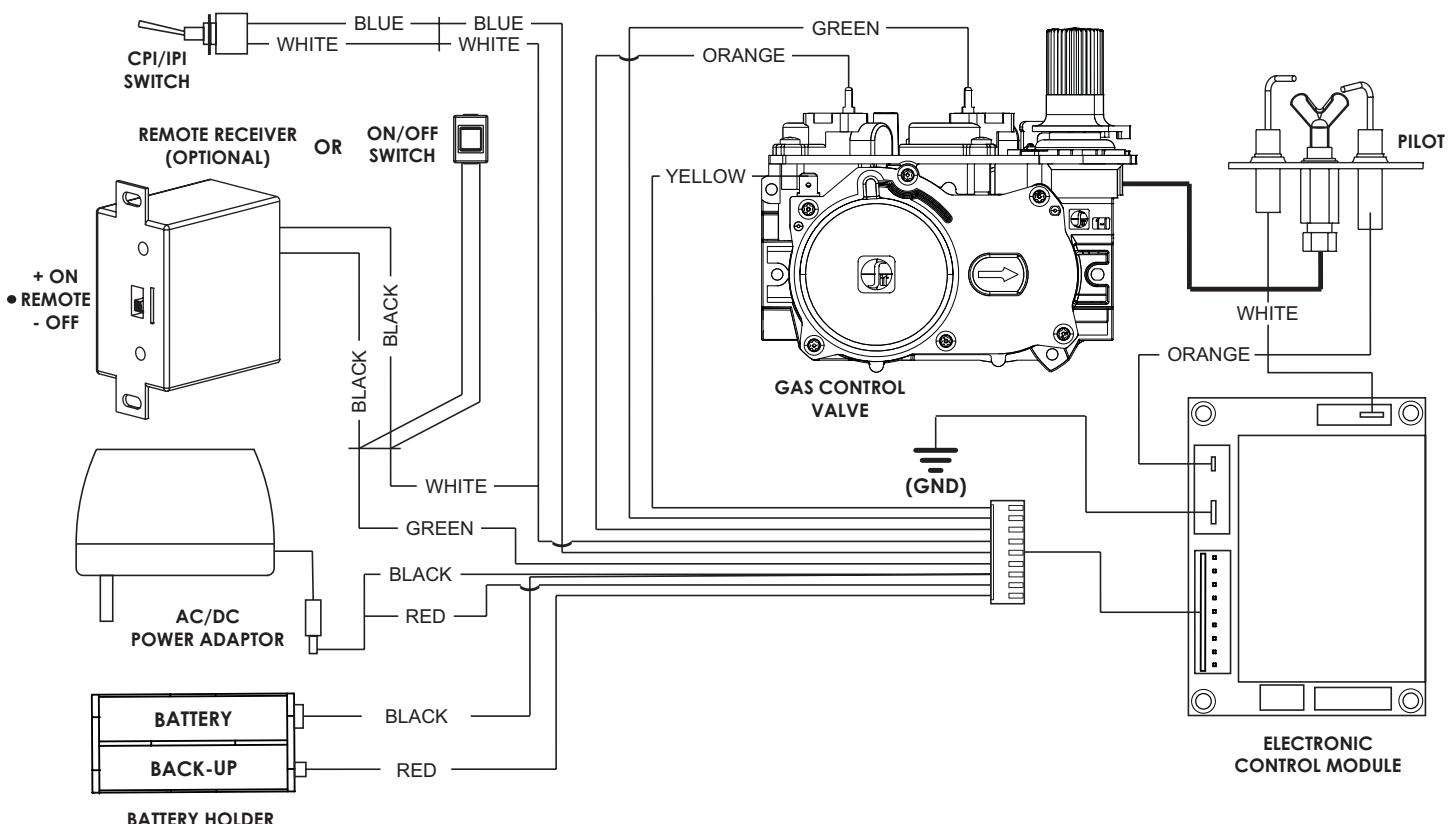


## CAUTION

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

This appliance is only for use with the type of gas indicated on the rating plate and may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes. This appliance is not convertible for use with other gases, unless a certified kit is used.

# IPI ELECTRONIC SYSTEM WIRING DIAGRAM



If any of the original wire as supplied with this unit must be replaced, it must be replaced with equivalent gauge and temperature rated wire.

This appliance is only for use with the type of gas indicated on the rating plate and may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes. This appliance is not convertible for use with other gases, unless a certified kit is used.

## ⚠ 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.

## ⚠ WARNING

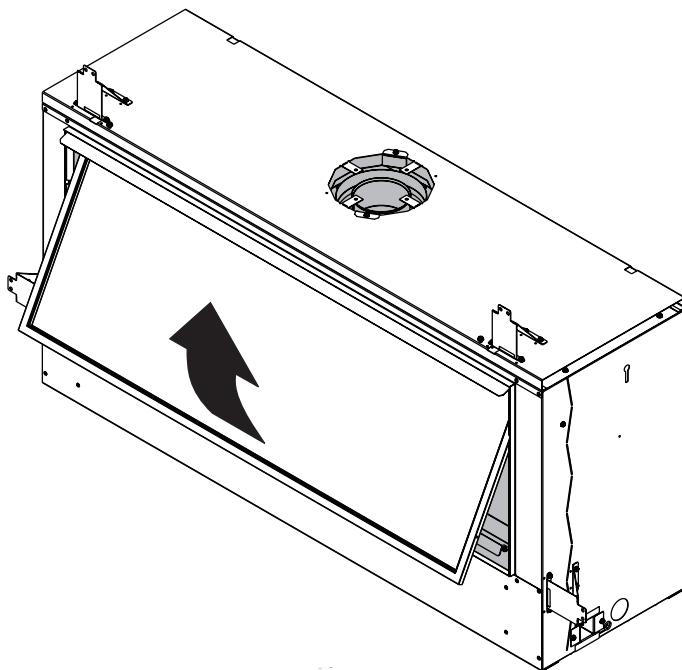
### Electrical Grounding Instructions

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug. The AC/DC adapter, if used, has a 2-prong plug which does not require an additional ground.

## ⚠ CAUTION

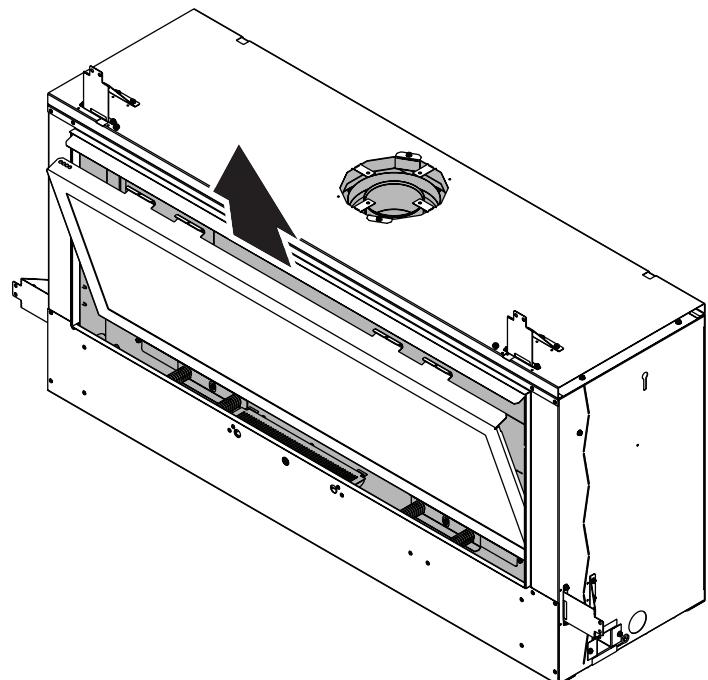
Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

## MAINTENANCE AND SERVICE



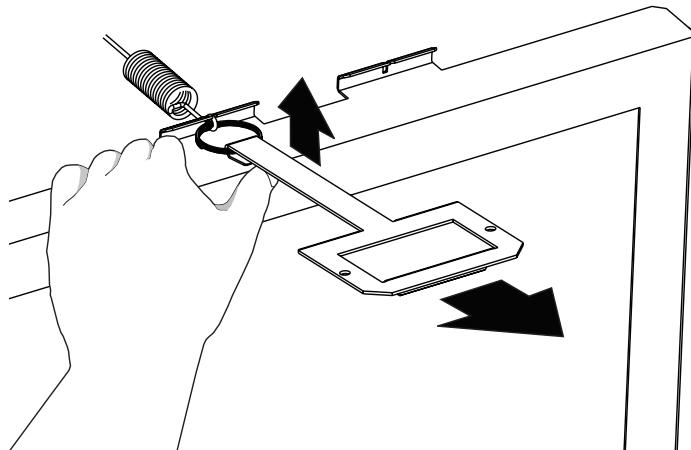
Tilt up on screen until top edge hits against Glass Frame. Continue to pull up until screen pops loose from firebox opening flanges.

**Figure 67**



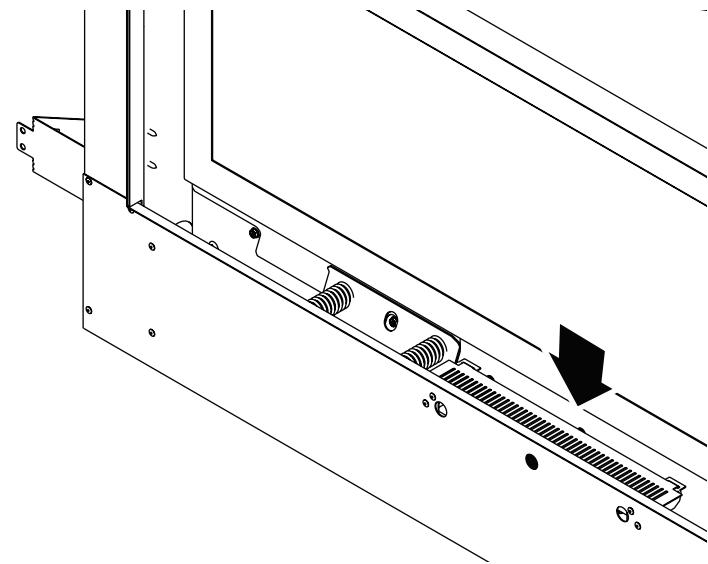
Tilt Glass Frame away from unit, enough to clear top lip, and pull forwards to remove.

**Figure 69**



Pull Spring-Latch Ring away from the Glass Frame with right hand using Spring-Latch Tool (approx. 1/2" - 3/4"), and push up with left thumb to release the Spring-Latch from the Glass Frame Clip.

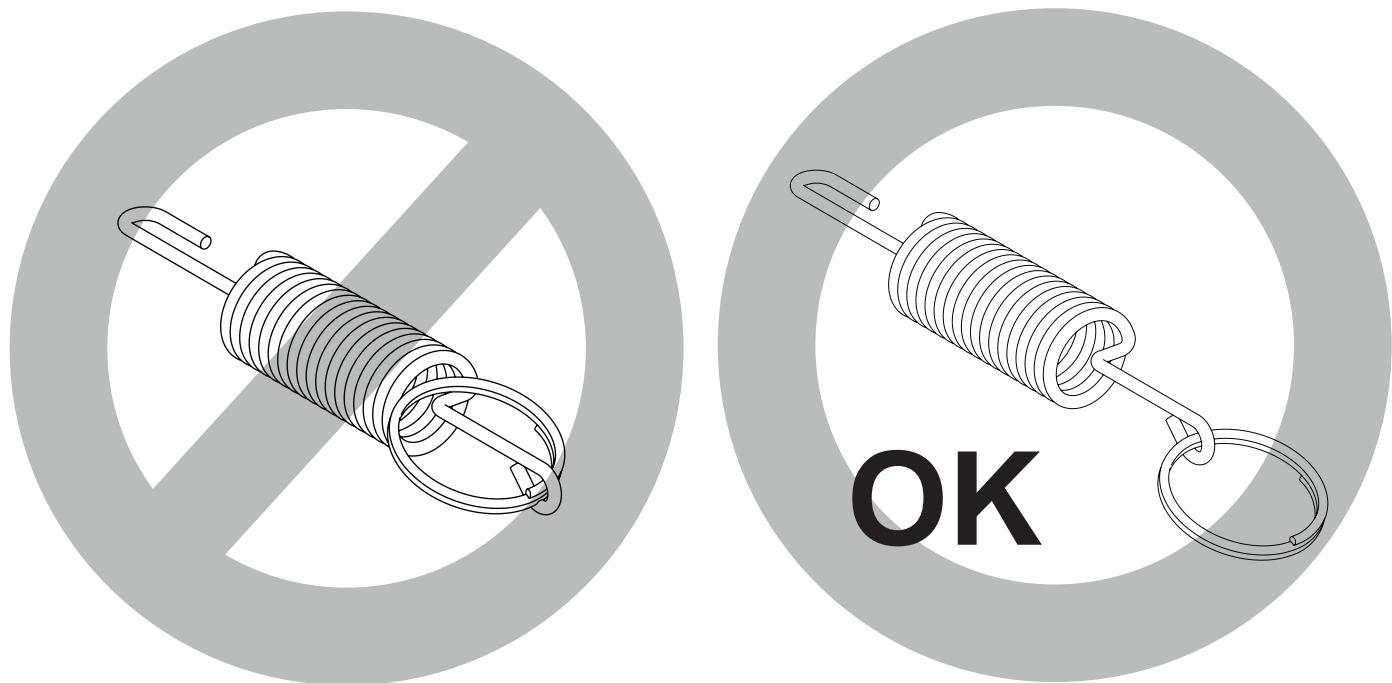
**Figure 68**



Set Valve Cover in place.

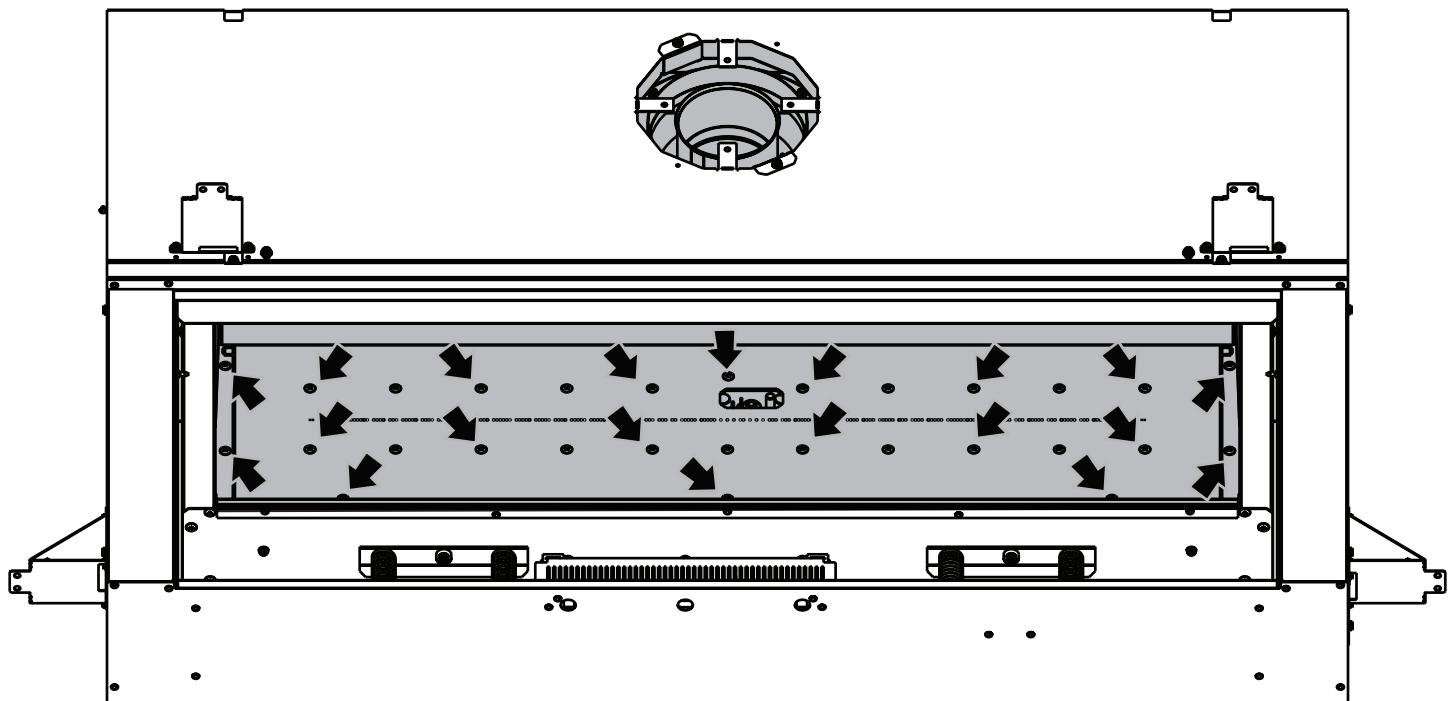
**Figure 70**

## MAINTENANCE AND SERVICE (CONT'D)



When installing the Glass Frame, do not pull on the Spring-Latch Ring if the ring is flipped backwards as shown above. Flip the ring forwards with your fingers or the Spring-Latch Tool before pulling on the Spring-Latch.

Figure 65



To access the burner, only the screws pointed out above need to be removed. The other burner surround screws may be left in place.

Figure 66

# MAINTENANCE AND SERVICE (CONT'D)

## FOR THE HOMEOWNER

### 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.
- Check the glass and gasket for proper seal.
- Vacuum and clean any foreign debris in the firebox that is not supposed to be there.
- 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 Figures 69 and 70.**
- Check the barrier screen for fit and structural integrity. **See Figure 67.**
- Inspect the log set (if applicable) and decorative media (if applicable) for debris or damage.
- 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.
- *In addition, clean and inspect the fireplace following any remodeling work in your home.*

## FOR THE INSTALLER

### 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 Figures 69 and 70.**
- Check the barrier screen for fit and structural integrity.
- Inspect the log set (if applicable) and decorative media (if applicable) for debris or damage.
- 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.*

# APPLIANCE SERVICE HISTORY

# APPLIANCE SERVICE HISTORY

# 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 . . .

Fireplace Model Number \_\_\_\_\_ Part Description \_\_\_\_\_

Fireplace Serial Number \_\_\_\_\_ Part Number \_\_\_\_\_

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

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

Shipments contingent upon strikes, fires and all causes beyond our control.

# WARRANTY

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

## **Limited Lifetime Parts Warranty – Combustion Chamber, Heat Exchanger, and Factory-Installed Glass**

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

## **Limited Three-Year Parts Warranty – All Other Components**

### **(Except Remote Controls, Thermostats, Accessories and Replacement Parts)**

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

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

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

### **Duties of the Owner**

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

### **What Is Not Covered**

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

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

Claims that do not involve defective workmanship or materials.

Unauthorized service or parts replacements.

Removal and reinstallation cost.

Inoperable due to improper or lack of maintenance.

### **How To Get Service**

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

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

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