

INSTALLER GUIDE

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.

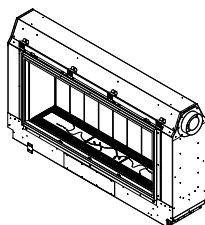
-Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

-What to do if you smell gas:

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

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

DIRECT VENT ZERO CLEARANCE
GAS FIREPLACE HEATER MODELS:
DVLXB55BP90N-1 / DVLXB55SP90N-1



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.

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

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

⚠ DANGER



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

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



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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WARNING

CARBON MONOXIDE POISONING HAZARD

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

1. Seal any unused openings in the venting system.
2. Inspect the venting system for proper size and horizontal pitch, as required in the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or the Natural Gas and Propane Installation Code, CSA B149.1 and these instructions. Determine that there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.
3. As far as practical, close all building doors and windows and all doors between the space in which the appliance(s) connected to the venting system are located and other spaces of the building.
4. Close fireplace dampers.
5. Turn on clothes dryers and any appliance not connected to the venting system. Turn on any exhaust fans, such as range hoods and bathroom exhausts, so they are operating at maximum speed. Do not operate a summer exhaust fan.
6. Follow the lighting instructions. Place the appliance being inspected into operation. Adjust the thermostat so appliance is operating continuously.
7. Test for spillage from draft hood equipped appliances at the draft hood relief opening after 5 minutes of main burner operation. Use the flame of a match or candle.
8. If improper venting is observed during any of the above tests, the venting system must be corrected in accordance with National Fuel Gas Code, ANSI Z223.1/NFPA and/or Natural Gas and Propane Installation Code, CSA B149.1.
9. After it has been determined that each appliance connected to the venting system properly vents when tested as outlined above, return doors, windows, exhaust fans, fireplace dampers and any other gas-fired burning appliance to their previous conditions of use.

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.

WARNING

Due to sharp edges, always use gloves when handling the packaging and installing the appliance.

WARNING

Keep away from small children. Packaging film may cling to nose and mouth and prevent breathing.

WARNING

Choking Hazard - Packaging contains small parts, keep away from children.

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 burners 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 burners 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 fiber tape 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 glass retention components for proper operation, tension, and ensure that relief mechanisms are free from obstructions.
- 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 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

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, 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 for 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.
- **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 the fireplace, 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 a fireplace must be replaced prior to operating the fireplace.
- A manufactured home (USA only) or mobile home OEM installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or, when such a standard is not applicable, the Standard for Manufactured Home Installations, ANSI A225.1/NFPA 501A, or Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4.

WARNING

If the glass is cracked or damaged in any way, it should be replaced only with a replacement from Empire.

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, or use your phone. Do not do anything that could ignite the gas.
- IMMEDIATELY get everyone out of the building, vehicle, trailer, or area.
- 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 are also 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 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. 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 gas-fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas-fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building, or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors

- 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.

c. 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.
- a. 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, 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.

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 be 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

☐

Comments

Fireplace is leveled and secured.....

☐

VENTING/CHIMNEY/PowerFlow™ HEAT DISTRIBUTION

☐

Venting configuration complies to vent diagrams (pgs. 15 - 17).....

☐

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

☐

Firestops installed.....

☐

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

☐

Terminations installed and sealed (pg. 16).....

☐

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

☐

ELECTRICAL (pgs. 20 and 68)

☐

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

☐

GAS (pgs. 18 - 19)

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 (pg. 11).....

☐

Granite or Clean Face finishing complies with clearance requirements.....

☐

Barrier for glass front properly installed.....

☐

FIREPLACE SETUP

☐

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

☐

Media installed correctly.....

☐

Firebox glass 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.

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

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

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

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

All correspondence should refer to complete Model Number, Serial Number and type of gas. Fill out the Homeowner Reference Section on page 9.

UNPACKING THE FIREPLACE

1. Cut binding straps and shrink wrap.
2. Remove top board and corner posts.
3. Lift fireplace from the pallet and place it near installation site.
4. Verify that the fireplace and components have not been damaged during shipping.
5. Using the list on page 12 verify that you have all components that shipped with fireplace.

Television Considerations

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

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

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

PREPARATION

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

Read all instructions before starting installation and follow these instructions carefully during installation to ensure maximum benefit and safety. Failure to follow them will void the warranty and may present a fire hazard.

This direct-vent gas fireplace is designed to operate with combustion air siphoned from 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 listed on the front page unless otherwise noted.

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

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.

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

Do not operate this appliance without the glass front installed.

- Due to high temperatures, the appliance must be located out of traffic and away from furniture and draperies.
- A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed for the protection of children and other at-risk individuals.
- If the barrier or glass front is removed during servicing or cleaning, it must be installed prior to operating the appliance.
- If the barrier becomes damaged, it must be replaced with the manufacturer's barrier for this appliance.
- Only components certified with the appliance shall be used.

BEFORE YOU START (CONT'D)

INSTALLATION CONSIDERATIONS

- Gas supply piping – See page 20.
- Electrical supply and connections 120V, 60Hz, 4 Amp, right, left or both side entrances - See page 22.
- Allowable fireplace mounting surfaces:
 1. A hard, flat, combustible or non-combustible surface
 2. A raised platform of combustible or non-combustible material.
 3. The four corners of the fireplace on non-combustible material – such as cinder blocks (where allowed by local codes) – so that contact is made on all four perimeter edges on the bottom of the fireplace.
- If the fireplace is installed directly on carpeting, tile or other combustible material other than wood flooring, install a metal or wood panel underneath extending the full width and depth of the fireplace.
- This fireplace is designed to be installed in a zero-clearance enclosure. Combustible material can come in contact with the side standoff spacers, and the fireplace can be secured to combustible framing with the framing brackets provided.

PLANNING THE INSTALLATION

1. Read the safety information on pages 3 - 5.
2. Place the sticker located in the instruction envelope onto the “Homeowner Reference Information” in Homeowner’s manual on page 0.
3. Show the homeowner where the rating plate and lighting instruction plate are located.
4. Install the venting. See page 27 to page 36.
5. Install and connect the gas lines. See page 20 and page 21.
6. Install the wiring. See page 22.
7. Remove the barrier assemblies. See page 57 to page 59.
8. Install the glass or log set, and rock wool. See their manuals.
9. Sync the remote. See page 42.
10. Adjust the rock wool for perfect burn.
11. Troubleshoot any issues. See page 51 - page 52.
12. Reinstall the barrier assembly.
13. Show the homeowner how to operate the fireplace insert.
14. Show the homeowner how do the basic maintenance.
15. Instruct the homeowner to never attempt to adjust the air shutters or damper.

ACCESSORIES

Accessories for this appliance may be installed prior to or after fitting the fireplace into the framed opening.

WARRANTY REQUIREMENTS

Any alteration of the original design, installed 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.

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

- Installation of any damaged fireplace insert or vent system component.
- Modification of the fireplace insert or direct vent system.
- Installation other than as instructed by Empire Comfort Systems, Inc.
- Improper positioning of the logs or glass front assembly.
- Installation and/or use of any component part not manufactured or approved by manufacturer.

CARTON CONTENTS AND HARDWARE PACK



①



②



③

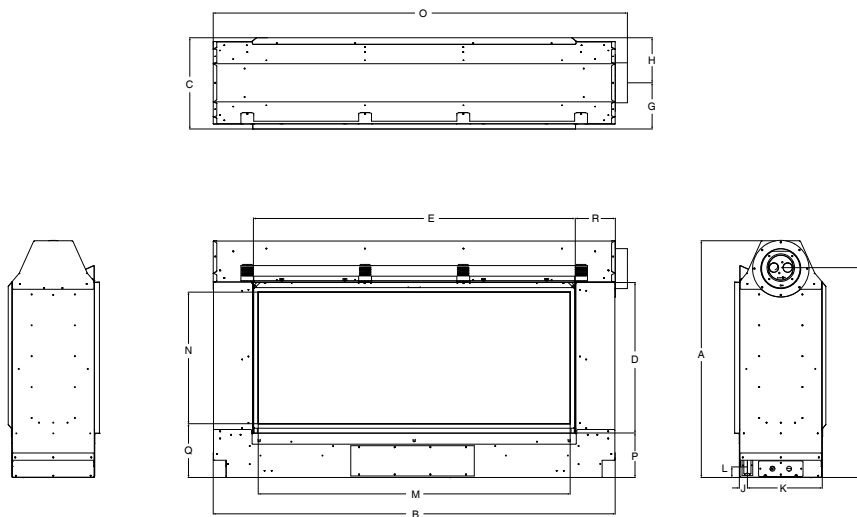
Index Number	Description	Part Number	Quantity Supplied
1	Product Registration Card		1
2	LED Remote	ESC838024	1
3	SIT Remote Transmitter	ESC838004	1

SPECIFICATIONS

	DVLXB55BP90N/DVLXB55SP90N	
	Natural	Propane
Input BTU/Hr Maximum	45,000	42,000
Input BTU/Hr Minimum	33,000	32,000
KWH (Maximum)	13.19	12.3
KWH (Minimum)	9.36	9.36
Orifice Center	2.3mm	1.2mm
Orifice Sides	1.95mm	1.05mm
Air Shutter Opening Center Burner	Fully Closed	Fully Open
Air Shutter Opening Side Burners	Fully Closed	Fully Open
Gas Inlet Shut-Off Valve (Pipe)	1/2-in BSPP female	1/2-in BSPP female
Vent Size	4 x 6	4 x 6

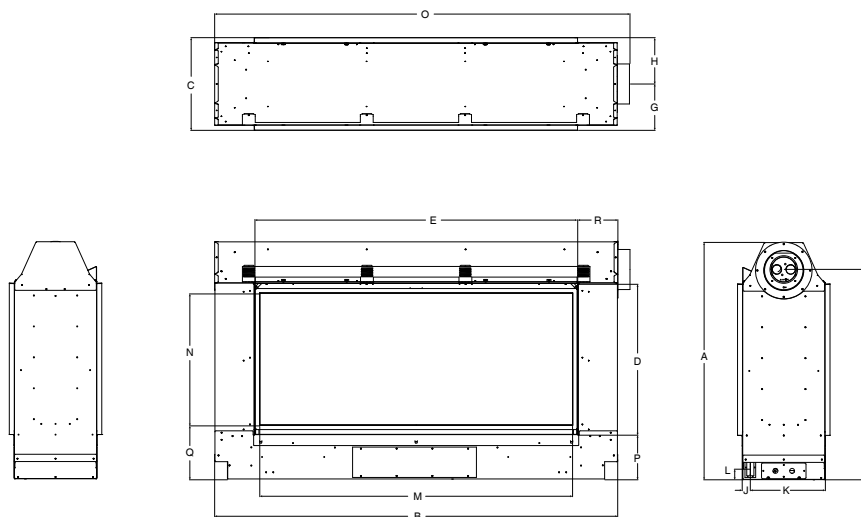
GAS SUPPLY PRESSURES			
(Dimension in inches water column - w.c.)			
Gas Type	Maximum	Minimum	Manifold
Natural	14.0	7.0	3.5
Propane	14.0	10.8	10.0

FIREPLACE DIMENSIONS DVLXB55BP90N (SINGLE SIDED)



INDEX LETTER	DIMENSION DESCRIPTION	DVLXB55BP90N
		(Dimensions in inches)
A	The maximum height of the firebox face (including standoffs)	39-1/4
B	The maximum width of the firebox face (excluding nailing flanges)	66-5/8
C	The maximum depth of the fireplace	15-1/8
D	The height of the firebox opening	24-15/16
E	The width of the firebox opening	53-5/16
F	The interior depth of the firebox (not shown)	10-23/32
G	Depth from front trim to centerline of exhaust vent	7-21/32
H	Depth from back of the box to centerline of exhaust vent	7-15/32
I	Height from bottom of the box to centerline of exhaust vent	34-25/32
J	Depth from front of the box to gas line opening	1-11/32
K	Depth from back of the box to gas line opening	12-13/32
L	Height from bottom of the box to gas line opening	1-3/4
M	Mesh width	51-23/32
N	Mesh height	31-13/16
O	Overall width from exhaust vent collar to chassis side	68-21/32
P	Distance from floor to fireplace opening	7-3/8
Q	Distance from floor to screen opening	8-29/32
R	Width from side of box to fireplace opening	6-21/32

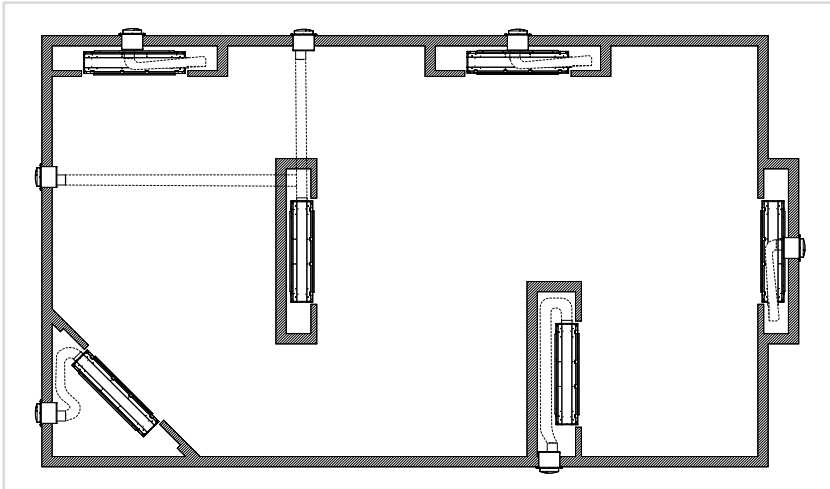
FIREPLACE DIMENSIONS DVLXB55SP90N (DOUBLE SIDED)



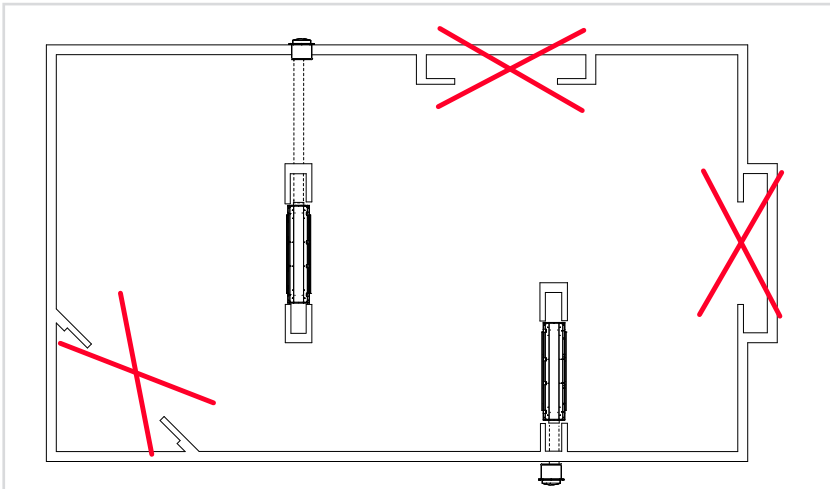
INDEX LETTER	DIMENSION DESCRIPTION	DVLXB55SP90N
		(Dimensions in inches)
A	The maximum height of the firebox face (including standoffs)	39-1/4
B	The maximum width of the firebox face (excluding nailing flanges)	66-5/8
C	The maximum depth of the fireplace	15-5/16
D	The height of the firebox opening	24-15/16
E	The width of the firebox opening	53-5/16
F	The interior depth of the firebox (not shown)	10-23/32
G	Depth from front trim to centerline of exhaust vent	7-21/32
H	Depth from back of the box to centerline of exhaust vent	7-21/32
I	Height from bottom of the box to centerline of exhaust vent	34-25/32
J	Depth from front of the box to gas line opening	1-11/32
K	Depth from back of the box to gas line opening	12-13/32
L	Height from bottom of the box to gas line opening	1-3/4
M	Mesh width	51-23/32
N	Mesh height	21-13/16
O	Overall width from exhaust vent collar to chassis side	68-21/32
P	Distance from floor to fireplace opening	7-3/8
Q	Distance from floor to screen opening	8-29/32
R	Width from side of box to fireplace opening	6-21/32

LOCATING FIREPLACE

DVLXB55B Single Sided



DVLXB55S Double Sided



NOTICE: For room divider installation, the horizontal portion of the vent system must not exceed 50 feet. See details in Venting Section.

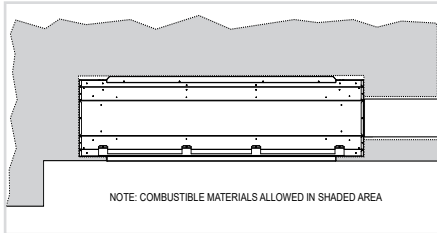
NOTICE: When installing this fireplace against an exterior wall, insulate to applicable insulation codes. (Single Sided ONLY)

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

CLEARANCES

Clearance to Combustibles

Back	ZERO
Side	ZERO
Floor	ZERO
Top Stand-Off Bracket	ZERO
Top Framing Edge	ZERO

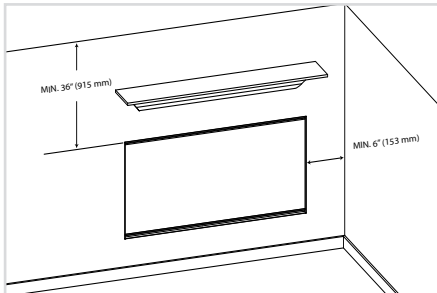


Vent Pipe Clearance

NOTICE: Horizontal vent, maintain a minimum 1-inch clearance to the bottom and sides of the vent, and 1-inch minimum clearance to combustibles above the vent pipe.

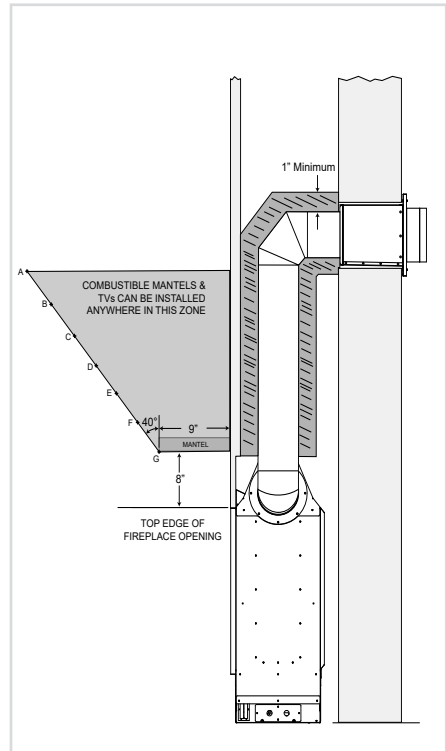
Side Wall and Ceiling

The minimum clearance from the floor to the ceiling is 36 inches. The minimum clearance from the side of the fireplace opening to an adjacent sidewall is 6 inches.



Mantel and TV Clearances

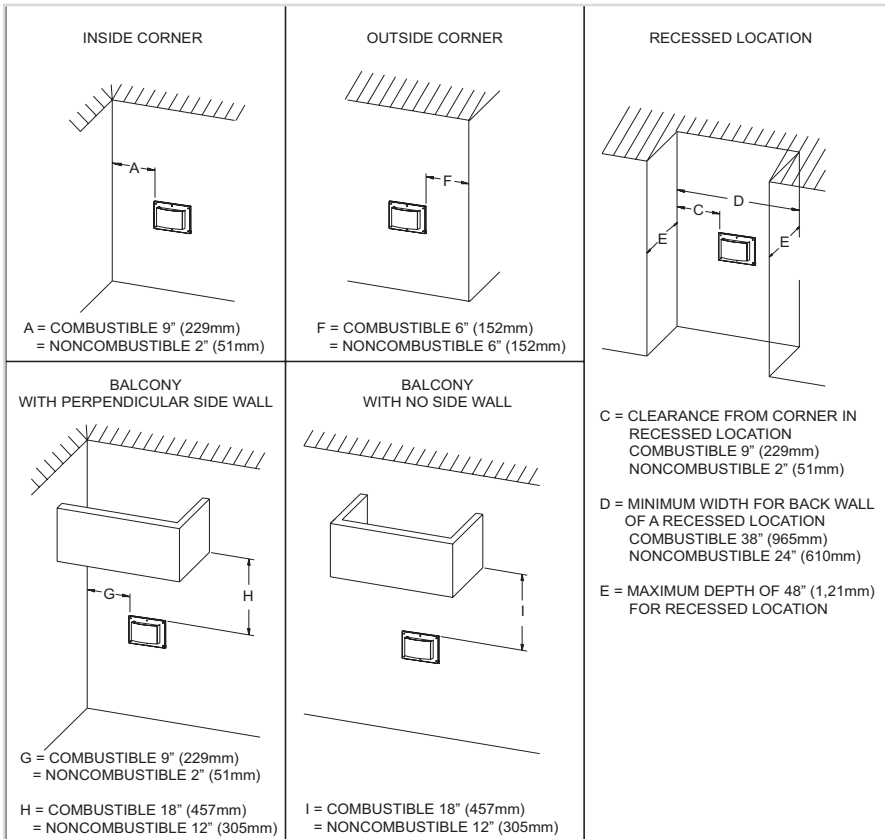
The minimum mantel and TV clearances are shown in the diagrams below.



	Depth	Height
A	11 3/4"	14"
B	10 3/4"	13"
C	10"	12"
D	9 1/4"	11"
E	8 1/2"	10"
F	7 1/2"	9"
G	7"	8"

VENT TERMINATION CLEARANCES

Termination clearances for buildings with combustible and non-combustible exteriors.



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.

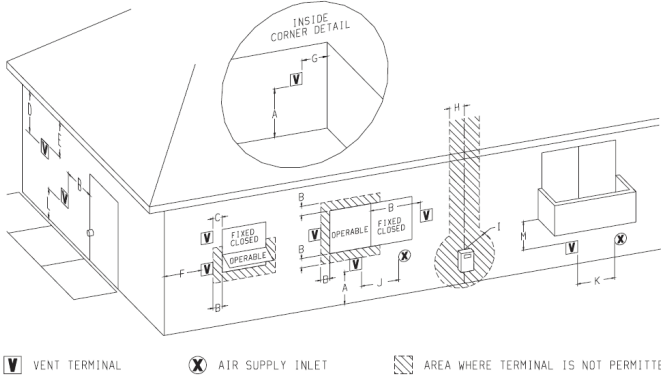
Venting termination shall not be recessed into wall or siding.

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)



	Canadian Installations (1)	US Installations (2)	J= Clearance to non-mechanical 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)
A= Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm)	12 in (30cm)	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
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)	L= Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m) †	7 ft (2.13 m) †
C= Clearance to permanently closed window	12 in (30 cm)	12 in (30 cm)	M= Clearance under veranda, porch deck, or balcony	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)	1 In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code		
E= Clearance to unventilated soffit	12 in (30 cm)	12 in (30 cm)	2 In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code		
F= Clearance to outside corner	6 in (15 cm)	6 in (15 cm)	† A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings		
G= Clearance inside corner	9 in (23 cm)	9 in (23 cm)	‡ Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.		
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)	* For clearances not specified in ANSI Z223.1/NFPA 54 or CSA B149.1, one of the following shall be indicated		
I= Clearance to service regulator vent outlet	3 ft (91 cm)	6 ft	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.

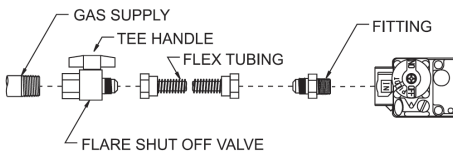
NOTICE: Since some municipalities have additional local codes, it is always best to consult your local authority and installation code.

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

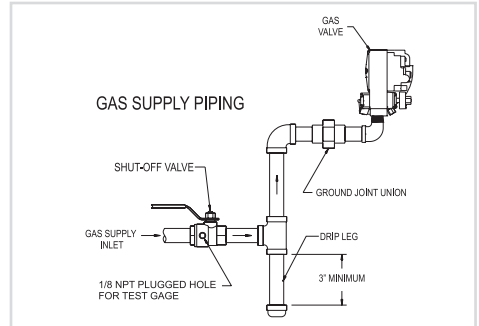


	Gas Supply Pressure (inches w.c.)		
	Minimum	Normal	Maximum
Natural Gas	4.5	7.0	14.0
Propane Gas	10.8	11.0	14.0
	Manifold Pressure (inches w.c.)		
	Normal (HI)		
Natural Gas	3.5		
Propane Gas	10.0		

⚠ WARNING

This step is to be carried out first before further installation has taken place, failure to do so will result in the appliance having to be partly dismantled before the fireplace can be commissioned for use.

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. This should consist of a vertical length of pipe tee connected into the gas line that is capped on the bottom in which condensation and foreign particles may collect.



Installing a New Main Gas 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.

⚠ WARNING

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

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

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 (14in w.c.) (3.5 kPa) on the fireplace gas valve, it will result in a hazardous condition.

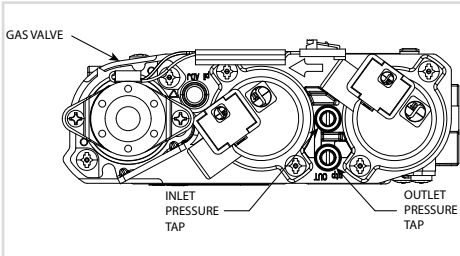
GAS SUPPLY (CONT'D)

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

⚠ CAUTION

If 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.



Test For Leaks On Exposed Connections

⚠ DANGER

Never use an exposed flame to check for leaks.

Turn off the fireplace. Compounds used on threaded joints of gas piping must be resistant to the action of liquefied petroleum gases. Check all gas connections for leaks with a leak test solution or soap solution. Rinse off all of the solution after testing. **DO NOT** get solution on electronic controls.



Test For Leaks On Unexposed Connections

Perform a pressure test on all unexposed connections. Never pressure test with fireplace connected; control valve will sustain damage. Disconnect the fireplace from piping at the control valve inlet and cap the pipe before pressure testing.

NOTICE: The IP valve is equipped with a captured screw type pressure test port, therefore it is not necessary to provide a test point upstream.

Disconnect the appliance and its individual shut-off valve from the gas supply piping system before any pressure testing of that system at test pressures in excess of 1/2 psig (3.5kPa). Isolate the appliance from the gas supply piping system by closing its manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5kPa).

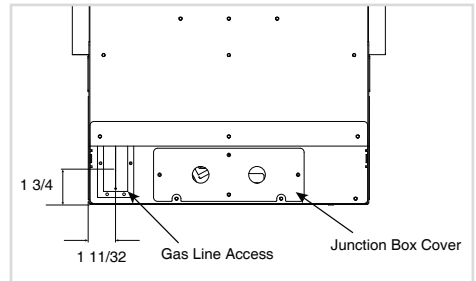
⚠ WARNING

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.

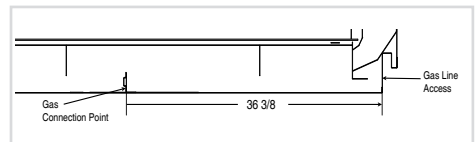
Gas Line Connection

Remove the access panel from the right side of the fireplace 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 previous page for details on the installation requirements for the gas supply line.



The images below show the gas connection point in the fireplace.

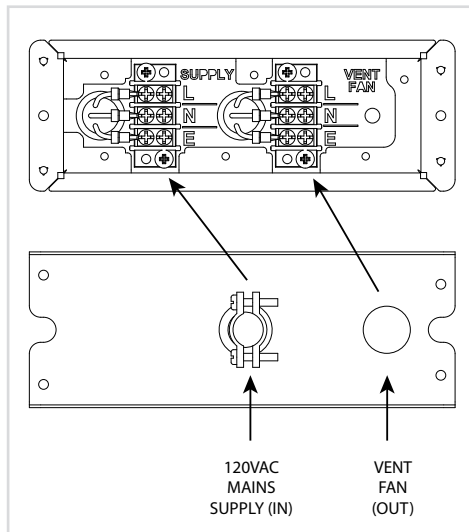


ELECTRICAL CONNECTIONS

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).

When creating the cavity for the fireplace, consideration must be given to the location of an appropriate power supply. A grounded 110/120 volt mains power connection must be available within 2.5 feet (1 meter) of the bottom right of the fireplace.



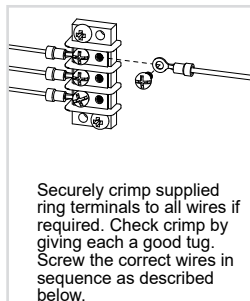
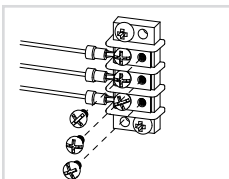
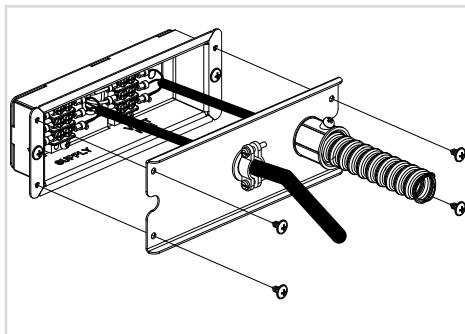
A mains isolation switch which is accessible from outside the cavity can also be used to disconnect the power.

Regardless of the method used, it MUST ALWAYS be possible to safely isolate the electrical supply to the appliance after it has been fully installed.

This appliance must not be located immediately below a socket outlet. No additional power supply is required for the power flue.

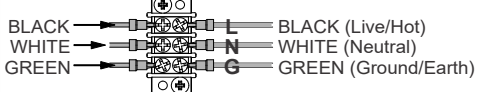
JUNCTION BOX CONNECTIONS

The electrical connection plate can be accessed on the side of the appliance.



Supply and Vent Fan

Straight color for color matching.



INSTALLATION

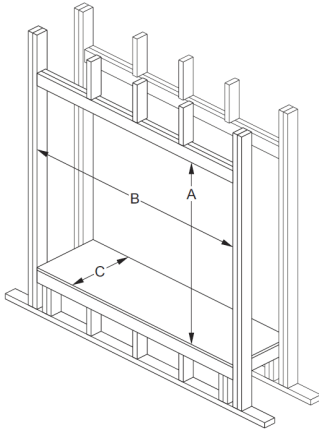
Framing

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 the figure below for minimum framing dimensions.

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

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



Construction of a Fireplace Chase

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

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

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

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

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

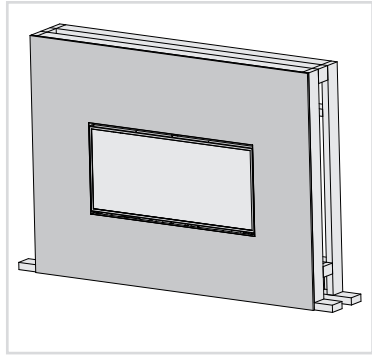
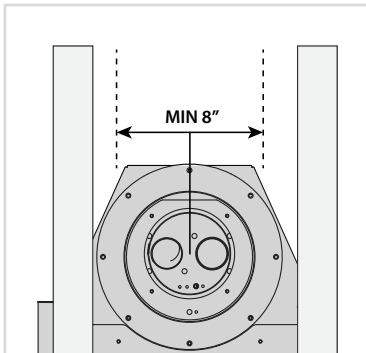
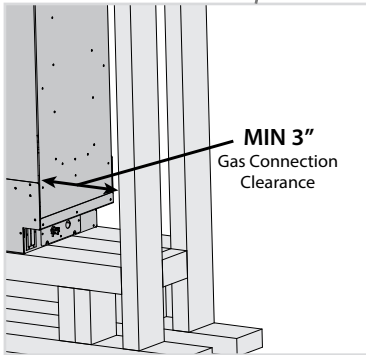
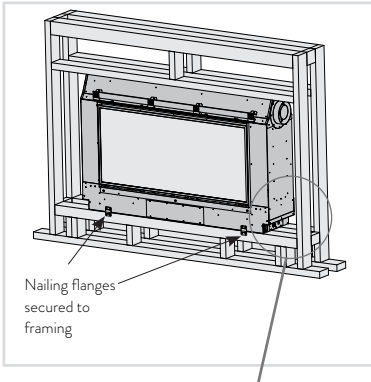
	Single Sided	Double Sided
	(Dimensions in inches)	
A	40	40
B	73	73
C	14 1/2	14 1/2

NOTE: Dimension C for both models differs to pg. 13-14 to allow for fitting of finishing material.

INSTALLATION (CONT'D)

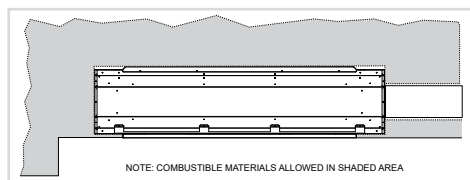
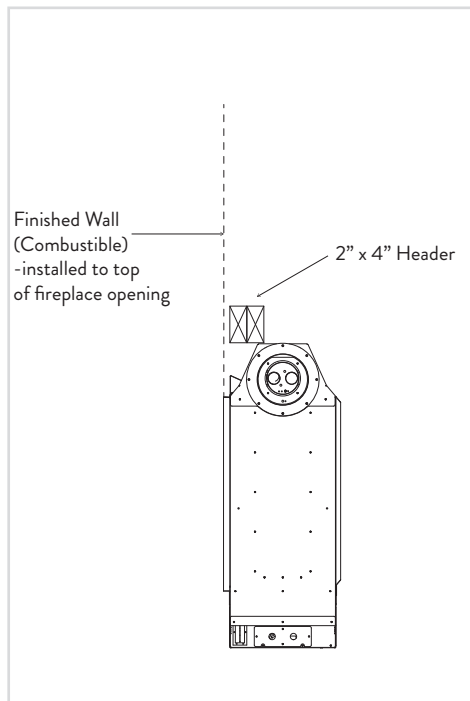
Framing and Finishing

1. Choose fireplace location. See page “Locating Fireplace” on page 16.
 2. Frame in fireplace with a header across the top. It is important to allow for finished face when setting the depth of the fireplace.
- NOTE: MIN Clearances for gas connection and exhaust venting.**
3. Install nailing flanges onto fireplace.
 4. Move fireplace into position.
 5. Secure fireplace to framing with nailing flanges. Set the depth to suit facing material (flush, 1/2 inch, or 3/4 inch set back depths).



INSTALLATION (CONT'D)

Finishing Methods

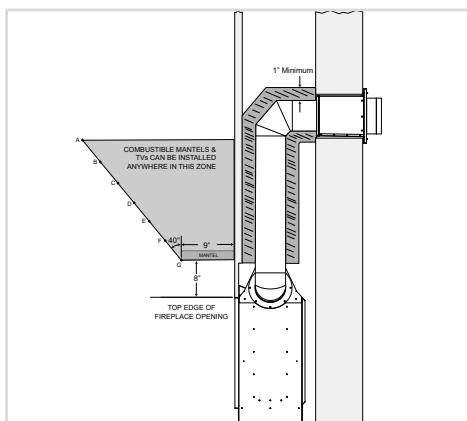
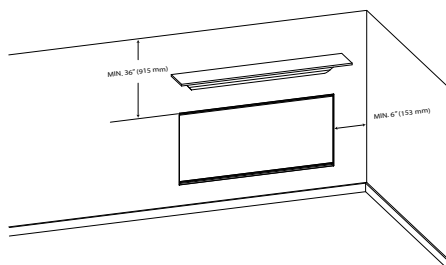


- Combustible or non-combustible board installed over the fireplace face (framing bracket flush).
- Combustible or non-combustible board installed flush to face
- The figure above shows finishing options.
- Use combustible or non-combustible materials where indicated for the fireplace installation. Adhesives must be rated for high temperatures.

Any mechanical fasteners used to install material can be combustible or non-combustible, including wall anchors and tile spacers.

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.



Finishing

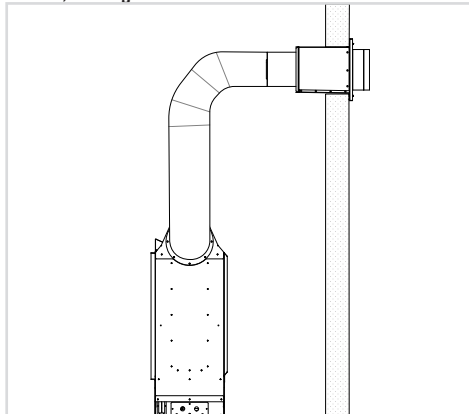
Finish the walls with the material of your choice. The figure under "Mantel and TV Clearances" on page 17 shows the minimum vertical and corresponding maximum horizontal dimensions of mantels or other combustible projections above the top front edge of the fireplace.

WARNING

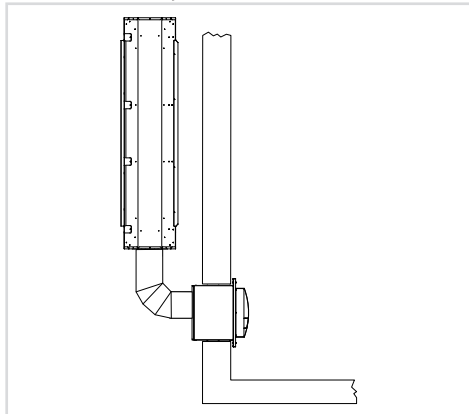
When finishing the fireplace never obstruct or modify the air inlet/outlet louvers in any manner. Provide adequate clearances around air openings into the combustion chamber.

INSTALLATION (CONT'D)

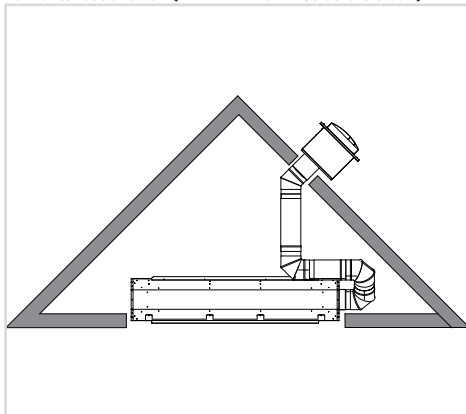
Vertical, 90- degree elbow with horizontal termination



Vertical, 90 degree elbow to horizontal out the wall (12 in minimum rise before elbow)

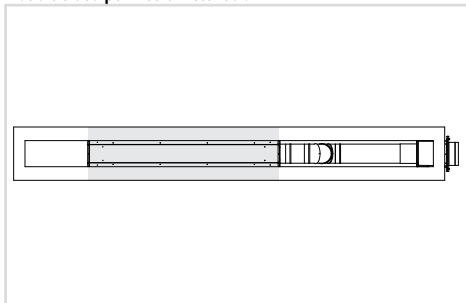


Corner Installation - Vertical, 90 degree elbow to 45 degree horizontal out the wall (12 in minimum rise before elbow)

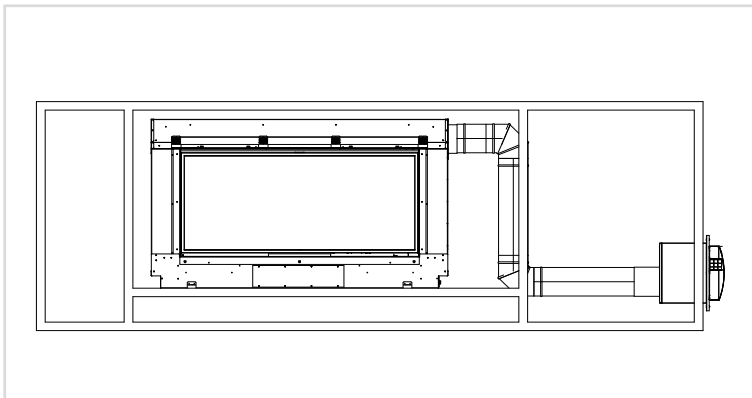


NOTICE: Corner installation will require more vertical vent pipe depending on wall thickness and horizontal dimension.

Double sided peninsula installation



NOTICE: Ensure to follow venting instructions both exhaust and ducting.

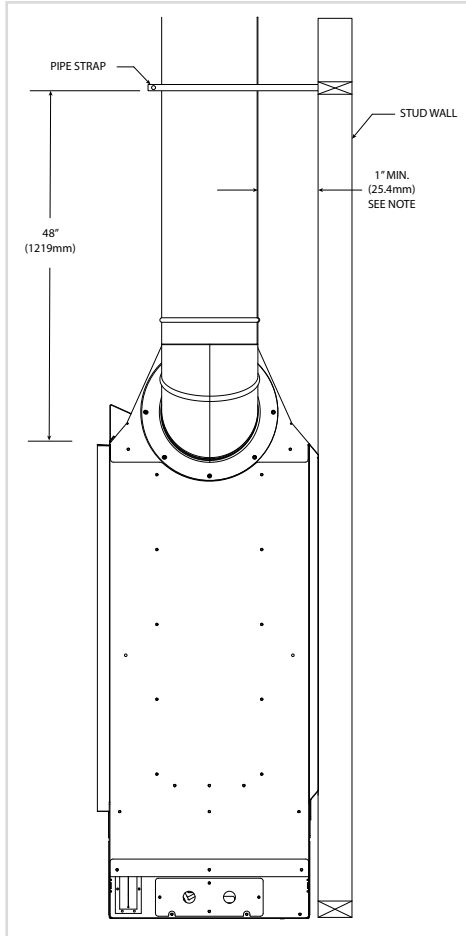


VENT FRAMING AND FINISHING

Installing Support Brackets

Install a horizontal pipe support for each 3 feet of horizontal run to framing members. Allow a 1 inch clearance to combustibles above the 6-inch diameter pipe and elbows and 1 inch clearance to both sides and bottom.

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



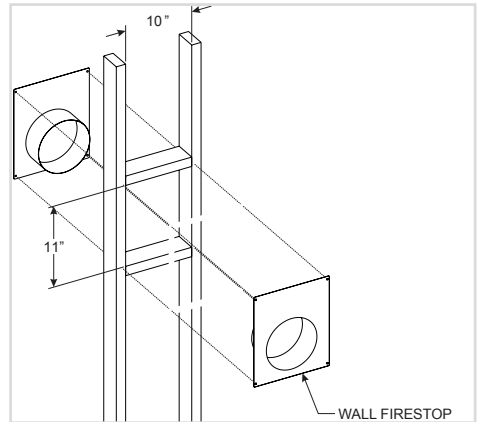
Installing Firestops

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 Firestops

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

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



VENT FRAMING AND FINISHING

Vertical Firestops

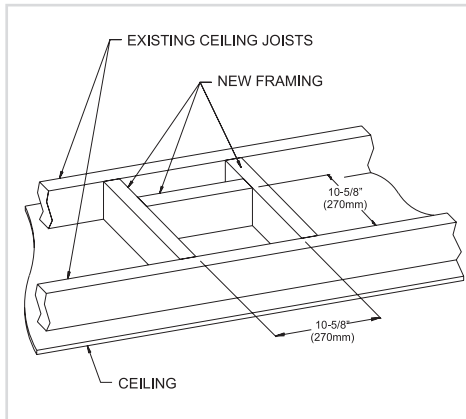
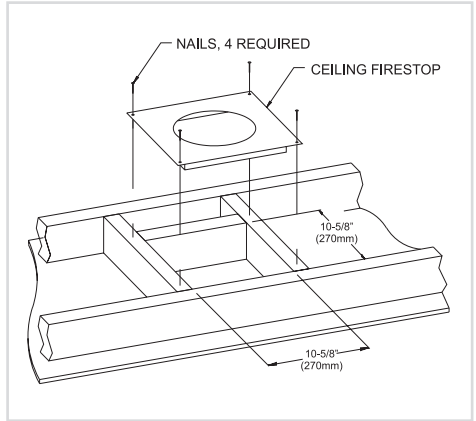
Vertical runs of this system which pass through ceilings require the use of ONE ceiling firestop at the hole in each ceiling through which the vent passes.

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 10-5/8 inch x 10-5/8 inch hole through the ceiling, using the center point previously marked. Frame the hole with framing lumber the same size as the ceiling joists. 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.

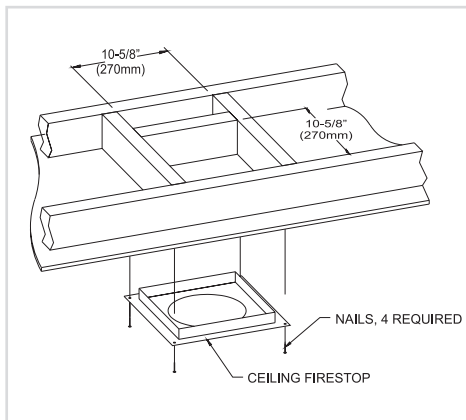
If the area above the ceiling is an attic, position and secure the firestop on top of the previously framed hole.

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



WARNING

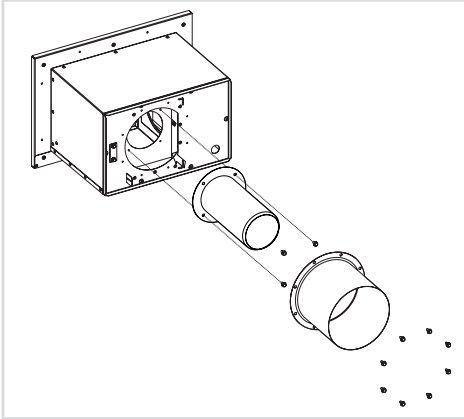
When finishing the fireplace never obstruct or modify the air inlet/outlet louvers in any manner. Provide adequate clearances around air openings into the combustion chamber.



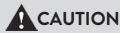
VENT FRAMING AND FINISHING

Installing the Power Vent

1. Attach the Dura-Vent adapter with the 4 #10 x 1/2 inch screws.
2. Use the remaining 8 #10 x 1/2 inch screws to attach the larger Dura-Vent adapter pipe.

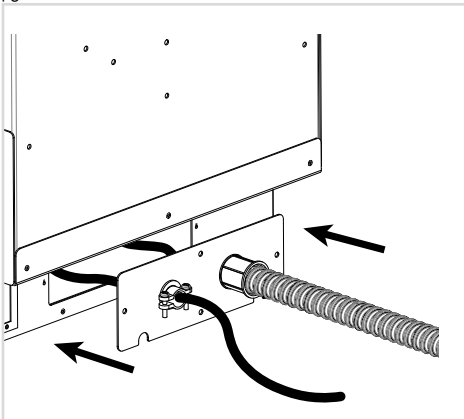


ELECTRICAL CONNECTIONS ON FIREPLACE



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).

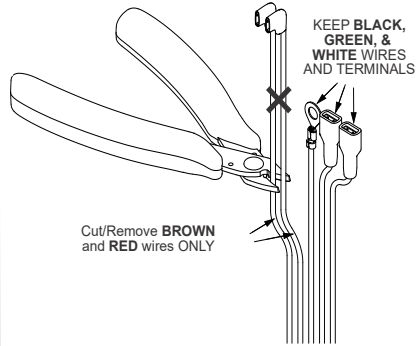
Locate the factory installed electrical junction box located on the right side of the fireplace shown in the image below. Before inserting the vent fan cable, unscrew the outer cover, feed the cable through the cover, and attach the vent fan cable to the appropriate location on the electrical connection plate. (see pg.23)



The supplied conduit and wires are common across other Empire models. The pressure switch wires are not required for this model.

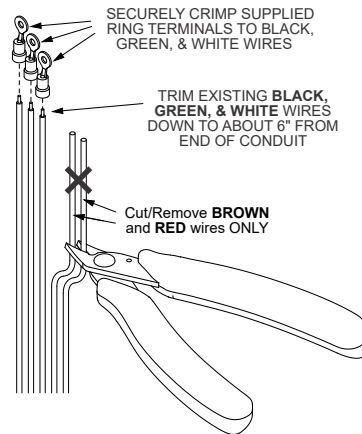
On the Vent Fan end these pressure switch wires can be coiled up and tucked out of the way or cut back.

Vent Fan End



At the fireplace end there is a large excess of wire length. The white and black will have bare ends, the green a ring terminal, and the red & brown will each have a wire connector attached. Extend out the full length of the conduit so that as much of the wiring is inside. Then cut all the wires back to about 6" out from the end of the conduit. Terminate the Black, White, and Green wires with the supplied ring terminals and cut the Red and Brown wires right back to the conduit entry (or remove them completely) as they are not required.

Fireplace End



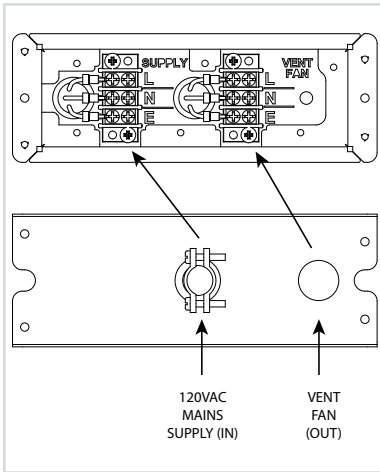
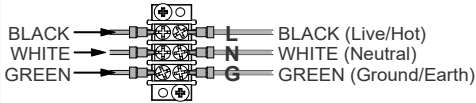
VENT FRAMING AND FINISHING

ELECTRICAL CONNECTIONS ON FIREPLACE

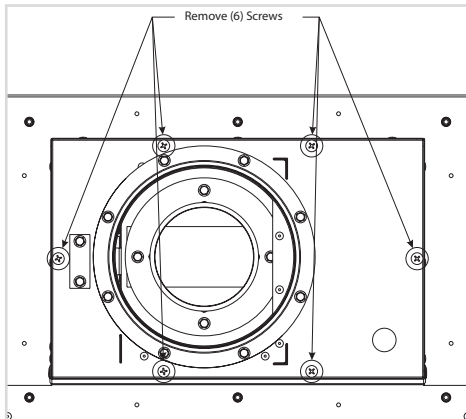
When connecting to the fireplace See illustrations below and also on pg22 for clarity.

Supply and Vent Fan

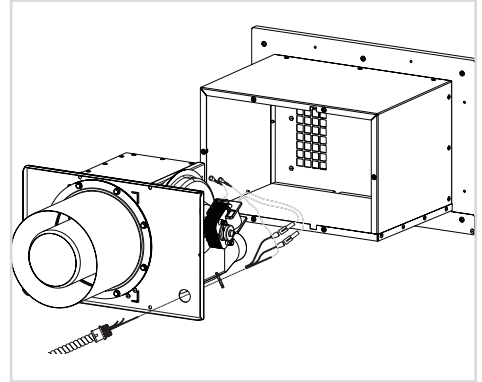
Straight color for color matching.



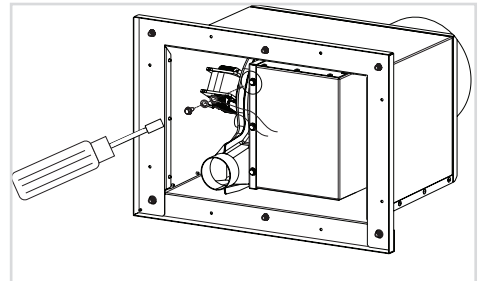
Remove the rear panel and flue box of the Power-Vent by removing the six #10-24 X 3/8 inch screws shown in the figure below.



Insert the straight side of the main harness through the 7/8 inch hole in the rear panel of the Power-Vent and secure with nut. Connect the black and white wire to the terminals on the inducer motor as shown in the figure below.



Remove the top #10 X 1/2 inch screw on the front of the flue box and attach the green wire from the main harness and the green/yellow wire from the inducer motor with the screw as shown in the figure that follows.



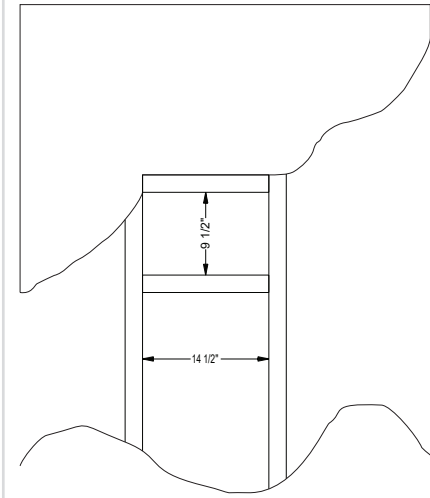
Re-attach the rear panel and flue box to the Power-Vent outer box with six #10 X 3/8 inch screws.

VENT FRAMING AND FINISHING

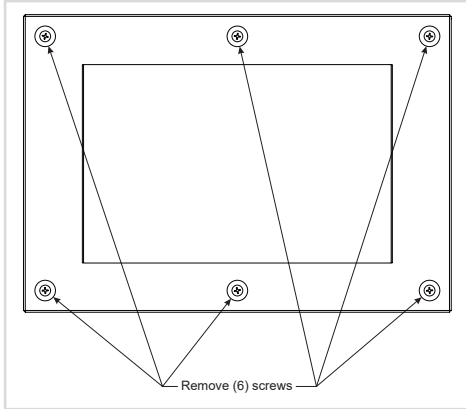
INSTALLATION

Framing

1. Once termination location has been determined build a frame with material that has the same dimensions as the current wall, as shown in the figure below.

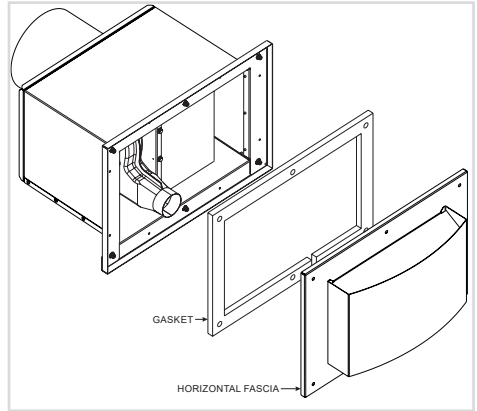


2. Cut a 9-1/2 inches tall by 14-1/2 inches wide hole into the wall, be sure to stay inside the new framing.



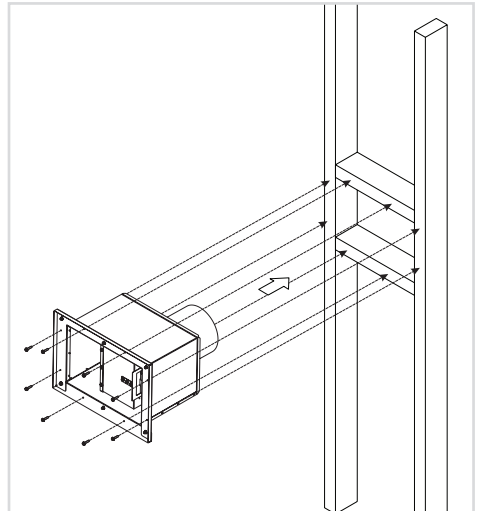
3. Remove the front fascia by removing the 6 #10-24 X 3/8 inch screws shown above. Set the front fascia and foam gasket aside.

4. Set the Power-Vent on its face and apply a bead of silicone sealant to the rear surface of the flange to create a weather tight seal between the mounting flange and the wall.



NOTE: Sealant must be rated for 300° F continuous exposure at minimum.

5. Place the Power-vent into the hole with the inducer outlet toward the bottom and secure with 8 #10X 1 inch screws as shown below.



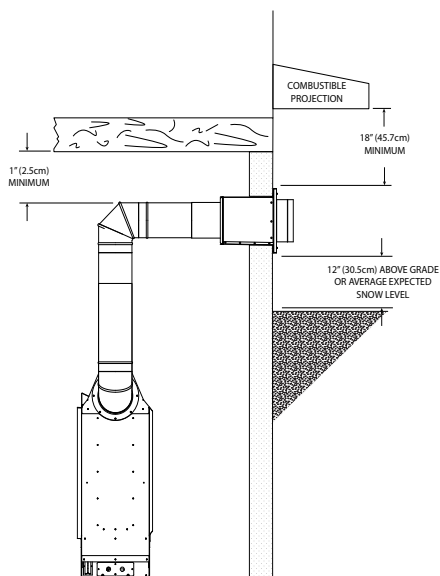
6. Apply a bead of silicone sealant to create a watertight seal between finishing material and the Power-Vent flange.

NOTE: Sealant must be rated for 300° F continuous exposure at minimum.

7. Reinstall foam gasket with the cutout on the bottom and front fascia with 6 #10-24 X 3/8 inch screws.

VENTING FIREPLACE

TYPICAL BASEMENT INSTALLATION



VENT INFORMATION

Begin the vent system installation by identifying the path the vent will take from the fireplace to the power-vent. Verify clearances are met throughout the entire path of the venting system.

Determine how the vent system will be terminated, (vertically or horizontally). Verify clearances for the termination.

NOTICE: If terminated vertically, DVKCV (Vertical Conversion Kit) is required.

NOTICE: This Power-Vent cannot be vented out the rear of the fireplace.

NOTICE: This Power-Vent can only be used with DuraVent Direct Vent Pro® 4 X 6-5/8 inch piping.

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

This power vent can be routed in any path as long as it meets the following requirements:

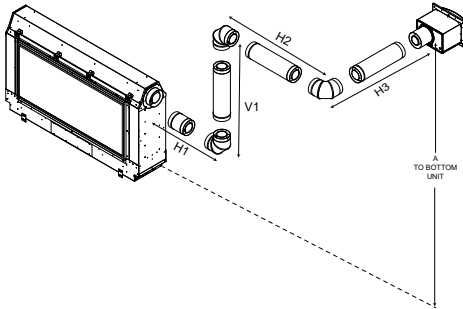
- Maximum vertical distance above fireplace floor=50 ft
- Maximum effective length = **50 ft** (effective length calculations shown in **Equation 1** on next page).
- Minimum effective length = 2 ft *
- Maximum 6-90° elbows or 12-45° elbows
- Maximum 5 ft below the base of the fireplace
- Maximum drop of 12 ft from highest point in run.
- If vent pipe runs downward it cannot turn back upward.

VENTING FIREPLACE

EFFECTIVE LENGTH IS CALCULATED FOLLOWING BY THE EQUATION:

Equation 1

Effective length=Vertical Run Up + (2 × Vertical Run Down) + Horizontal Run + (3 × # of 90° elbows) +(1.5 × # of 45° elbows)



EXAMPLE 1

Fireplace Height	V1	H1	H2	H3	Elbows	Total Effective Length
3ft 5in	5ft	4ft	5ft	10ft	3	36ft 5in

Vertical Run Up = (Fireplace Height + V1) = 3 ft. 5in + 5 ft. = 8 ft. 5in.

Vertical Run Down = 0 ft.

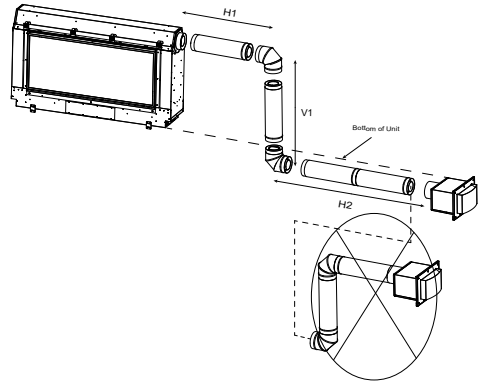
Horizontal Run = (H1 + H2 + H3) = (4 ft. + 5 ft. + 10 ft.) = 19 ft.

Number of Elbows = 3

Effective Length = Vertical Run Up + (2 × Vertical Run Down) + Horizontal Run + (3 × # of 90° Elbows) + (1.5 × # of 45° Elbows)

Effective Length = 8 ft. 5in + (2 × 0 ft.) + 19 ft. + (3 × 3 Elbows) + (1.5 × 0 Elbows)

Effective Length = 36 ft. 5in



EXAMPLE 2

Fireplace Height	V1	H1	H2	Elbows	Total Effective Length
3ft 5in	5ft	10ft	20ft	2	36ft 5in

Vertical Run Up = (Fireplace Height) = 3 ft. 5in

Vertical Run Down = 5 ft.

Horizontal Run = (H1 + H2) = (10ft. + 20ft.) = 30 ft.

Number of Elbows = 2

Effective Length = Vertical Run Up + (2 × Vertical Run Down) + Horizontal Run + (3 × # of 90° Elbows) + (1.5 × # of 45° Elbows)

Effective Length = 3ft. 5in + (2 × 5 ft.) + 30 ft. + (3 × 2 Elbows) + (1.5 × 0 Elbows)

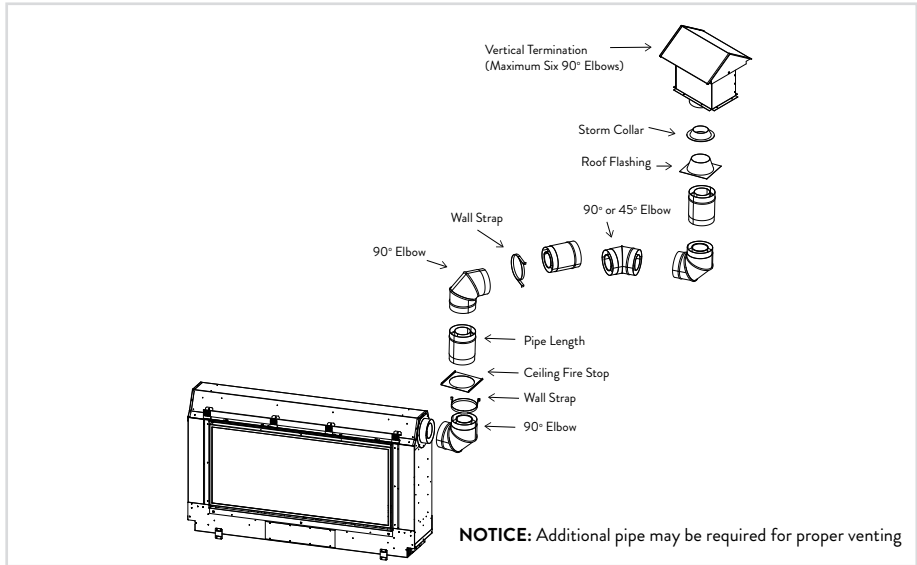
Effective Length = 49 ft. 5in

NOTICE: Once vent runs in downward direction it cannot turn back upward.

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.

VENT SYSTEM IDENTIFICATION - VERTICAL

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.

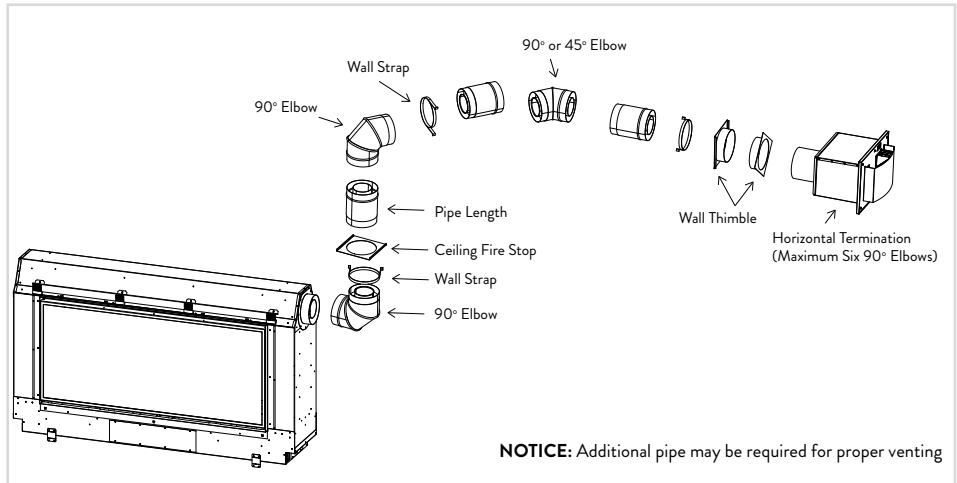
When selecting a vent system for use with the fireplace, refer to the see Empire Comfort Systems Retail Price List for Simpson Duravent part numbers and pricing. Check all clearances and venting components. Identify if any problems exist in the vent system.

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.

VENT SYSTEM IDENTIFICATION - HORIZONTAL

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 see Empire Comfort Systems Retail Price List for Simpson Duravent part numbers and pricing. Check all clearances and venting components. Identify if any problems exist in the vent system.

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.

VERTICAL TERMINATION

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

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

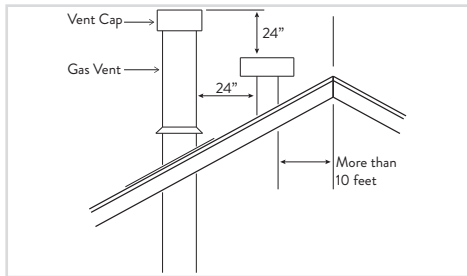
To keep out debris, cover the opening of the vent pipe before you cut and frame the roof opening. Use lumber the same size as the roof rafters to frame the opening. Securely attach the flashing to frame to withstand high winds. Place the storm collar over this joint to make a water-tight seal. Seal the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

Determining Minimum Vent Height Above the Roof.



WARNING

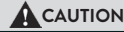
Major U.S. building codes specify minimum chimney and vent height above the roof top. These minimum heights ensure safe operation of the fireplace.



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

Installing the Vent System in a Chase

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

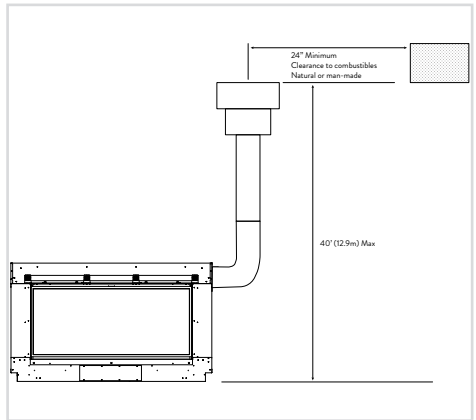


CAUTION

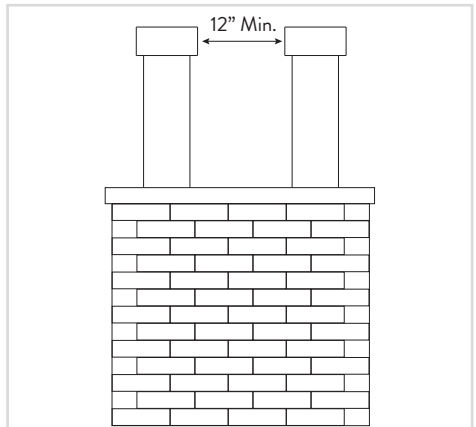
Treatment of firestop spacers and construction of the chase may vary with the type of building. Check local building codes to determine the requirements for these steps.

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

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



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. 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.

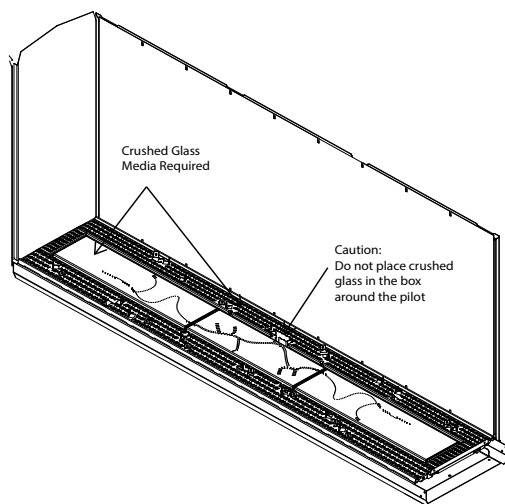


DECORATIVE CRUSHED GLASS PLACEMENT

With the fireplace fully assembled, spread the crushed glass in a single layer along the entire bottom of the firebox. Use just enough crushed glass to mask the burner and infill; excessive glass can cause sooting.

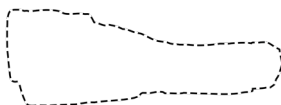
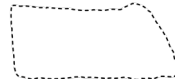
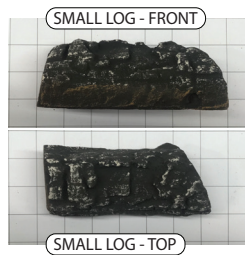
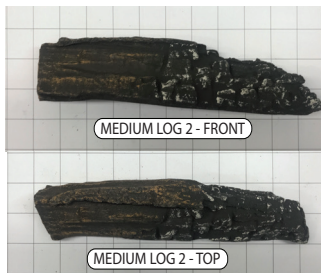
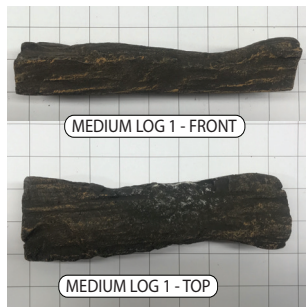
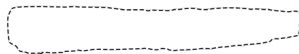
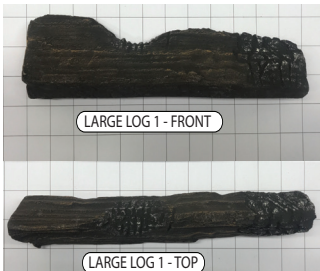
Ensure that the glass covers the entire infill and all the burners.

Notice: Do not place crushed glass in the recessed pilot area.



LOG PLACEMENT

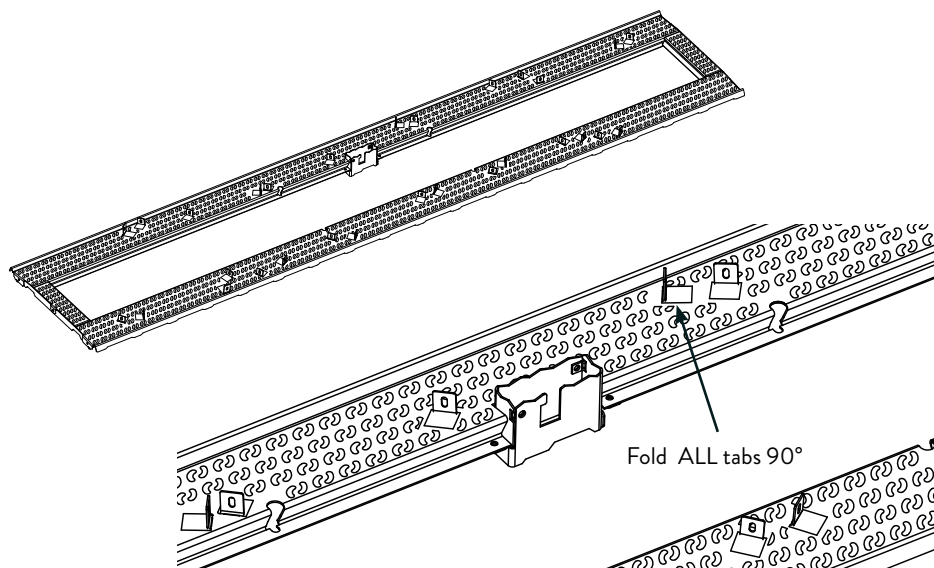
Log Identification



LOG PLACEMENT (CONT'D)

Before placing the logs and embers, remove the infill by unscrewing the 4 screws that secure it.

Fold all the log locating tabs up 90° as seen in the images below.



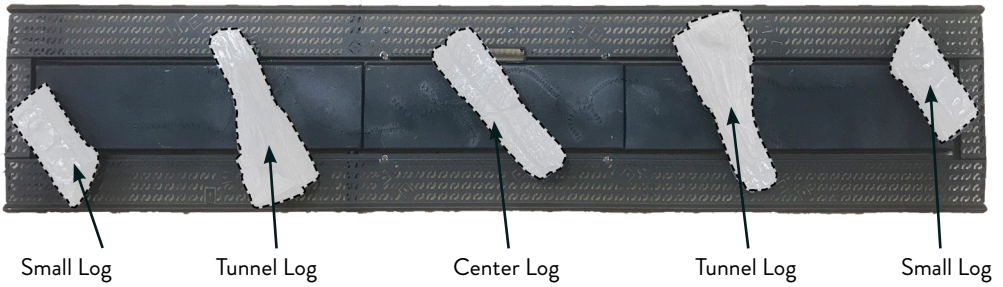
Place all logs as shown in the three steps on the next page. Place the embers around the logs in a single layer.

Ensure that the embers cover the entire infill and all the burners.

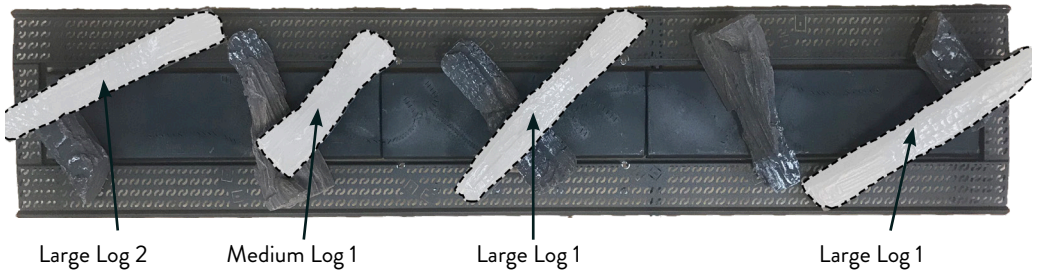
Notice: Do not place embers in the recessed pilot area.

LOG PLACEMENT (CONT'D)

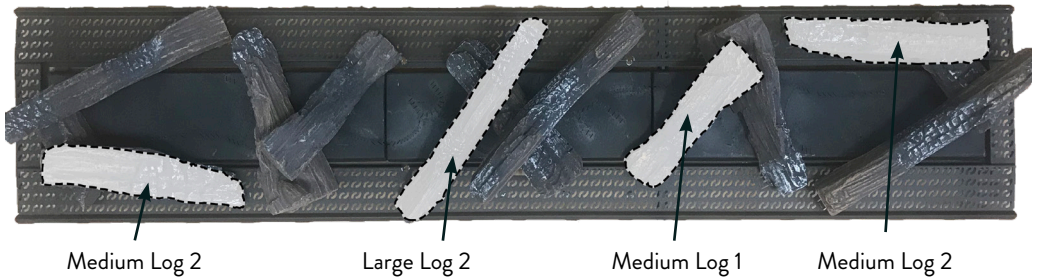
Step 1 -



Step 2 -



Step 3 -



Completed Log Set with Bed of Embers



LIGHTING INSTRUCTIONS

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING

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

A. This appliance must be lighted with the remote control. When lighting the pilot, follow these instructions exactly.

B. BEFORE LIGHTING, smell around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

What to do if you smell gas:

Do not try to light any appliance.

Do not touch any electrical switch.

Do not use any phone in your building.

Immediately call your gas supplier from a neighbors phone.

Follow the gas supplier's instructions.

If you can not reach your gas supplier, call the fire department.

C. Use only the remote control to operate the valve. Never use tools. If the valve does not operate, don't try to repair it; call a qualified service technician. Force or attempted repair may result in fire or explosion.

D. Do not use this appliance if any part has been underwater. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been underwater.

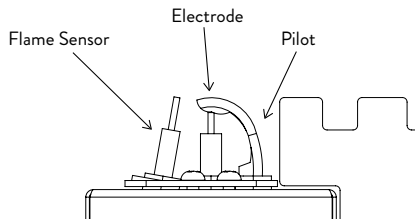
LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above.
2. Turn OFF electric power to the appliance.
3. Turn the gas shut-off valve counterclockwise to the "ON" position.
4. Wait ten minutes. 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.
5. Turn ON electric power to the appliance.
6. Use the remote to turn your fireplace on. If the pilot does not light within 60 seconds, stop and go back to step 5.
7. Refer to remote control instructions for detailed information,

control features, and operation. NOTE: Refer to Multifunction Remote operating instructions for operating instructions pertaining to intermittent pilot mode. If the pilot or burner does not stay lit, stop and immediately call a qualified service technician or gas supplier.

8. If the burner or pilot does not operate properly after several tries, turn the gas shut-off valve clockwise to the "OFF" position and call your service technician or gas supplier.

9. Operation of the fireplace is controlled by a manual on/off switch or a hand held remote control. Refer to remote instructions for detailed operation information.



SHUT-OFF VALVE



OFF

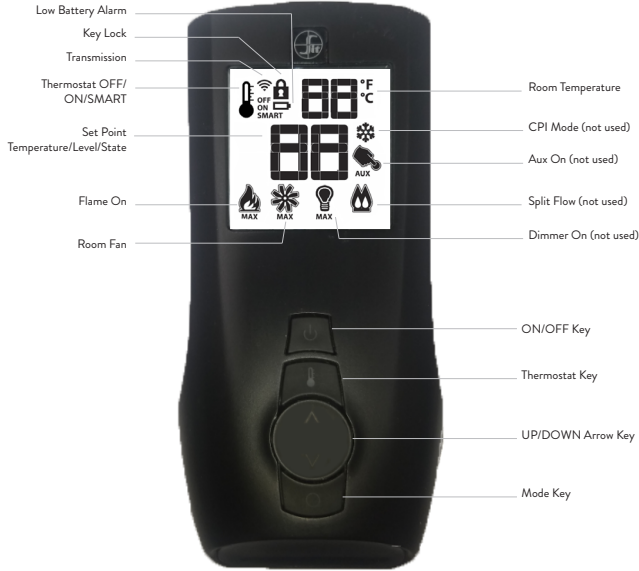


ON

TO TURN OFF GAS TO FIREPLACE

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

MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS



TECHNICAL DATA

Remote Control

Supply Voltage	4.5 V (three 1.5 V AAA batteries)
Ambient Temperature Ratings	0-50°C (32 - 122°F)
Radio Frequency	315MHz

⚠ WARNING

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

⚠ WARNING

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

⚠ WARNING

FIRE HAZARD.

Can cause severe injury or death. The receiver causes ignition of the fireplace. The fireplace can turn on suddenly. Keep away from the fireplace burner when operating the remote system or activating manual bypass of the remote system.

⚠ CAUTION

PROPERTY DAMAGE HAZARD.

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

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

NOTICE: The accent light and/or blower features will not operate during a power outage.

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

⚠ WARNING

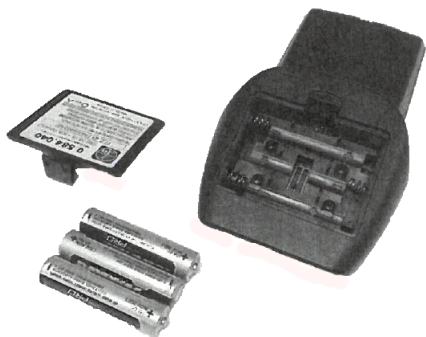
FIRE OR EXPLOSION HAZARD.

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

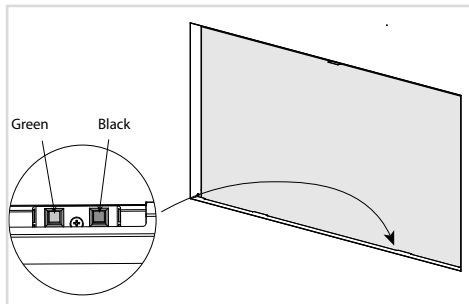
MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Initializing the System for the First Time

1. Ensure that the fireplace has power.
2. Install three AAA batteries into the battery bay located on the base of the transmitter.



3. Press the BLACK pairing button located at the very bottom of the fireplace in the opening in front of the glass. The SIT controller inside the fireplace will beep three times to indicate that it is ready to synchronize with the transmitter.



4. Push the 'ON' button on the transmitter within 10 seconds. The SIT controller will beep four times to indicate that the transmitter's command is accepted. The system is now initialized. Should the SIT controller be replaced with a brand new controller then it may be necessary to hold down the GREEN button throughout the whole pairing procedure above.

Temperature Indication Display °C or °F

With the system in the OFF position, press the thermostat button and the mode button at the same time. Look at the LCD screen on the transmitter to verify that a °C or °F is visible to the right of the room temperature display.



MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Turn On the Fireplace

With the system OFF, press the ON/OFF Button on the transmitter. The transmitter display will show some other active icons on the screen. At the same time the receiver will activate the fireplace. A single beep from the receiver will confirm reception of the command.

Turn OFF the Fireplace

With the system ON, press the ON/OFF Button on the transmitter. The transmitter LCD display will only show the room temperature. At the same time the receiver will turn off the fireplace. A single beep from the receiver confirms reception of the command.

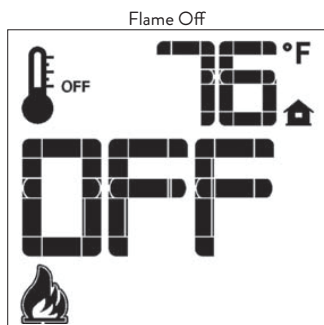


Remote Flame Control

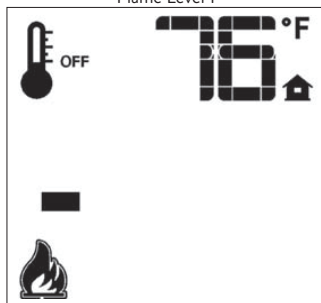
The fireplace has six flame levels. With the system on, and the flame level at the maximum in the fireplace, pressing the down arrow button once will reduce the flame height by one step until the flame is turned off.

The up arrow button will increase the flame height each time it is pressed. If the up arrow button is pressed while the system is on but the flame is off, the flame will come on in the high position. A single beep will confirm reception of the command.

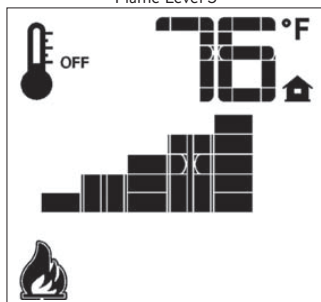
The fan will adjust automatically with the flame height.



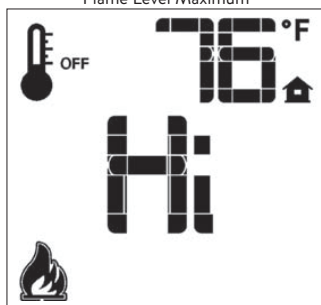
Flame Level 1



Flame Level 5



Flame Level Maximum



MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

The Thermostat Feature may be disabled if desired.

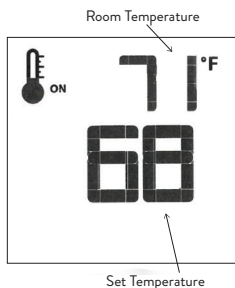
With all the (3) AAA type batteries installed:

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

Room Thermostat (Transmitter Operation)

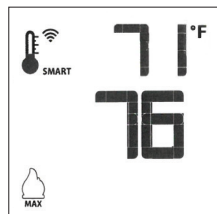
The remote control can operate as a room thermostat. The thermostat can be set to a desired temperature to control the comfort level in a room. To activate this function, press the thermostat button.

The LCD display on the transmitter will change to show that the room thermostat is ON and the set temperature is now displayed. To adjust the set temperature, press the up or down arrow buttons until the desired set temperature is displayed on the LCD screen of the transmitter.



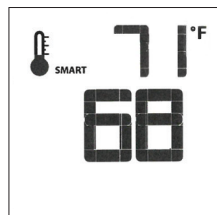
Smart Thermostat (Transmitter Operation)

The Smart Thermostat function adjusts the flame height in accordance to the difference between the set point temperature and the actual room temperatures. As the room temperature gets closer to the set point the Smart Function will modulate the flame down. To activate this function, press the Thermostat Button until the word SMART appears to the right of the temperature bulb graphic.



To adjust the set temperature, press the up or down arrow buttons until the desired set temperature is displayed on the LCD screen of the Transmitter.

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

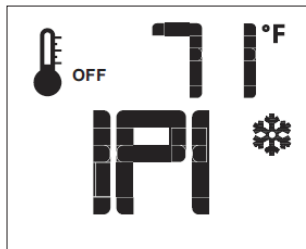


MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Continuous Pilot/Intermittent Pilot (CPI/IPI) Selection

With the system in OFF position press the Mode Button to index to the IPI mode icon. Pressing the down arrow button will return to IPI if CPI is selected. A single beep will confirm the reception of the command.

Ensure that the fireplace is set to IPI mode.



WARNING

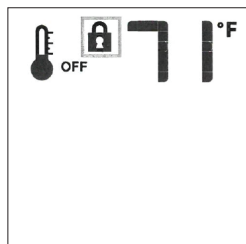
This appliance will only function on the IPI setting. Ensure IPI is selected before operation of the fireplace will not operate.

Button Lock

This function will lock the Buttons to avoid unsupervised operation.

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

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

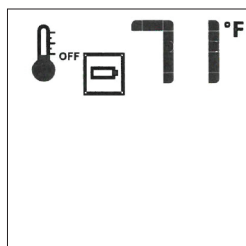


Low Battery Power Detection - Transmitter

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

- Quality of the batteries
- How frequently the fireplace cycles on and off

When the transmitter batteries are low, an Icon will appear on the LCD display of the transmitter, as shown below. When the batteries are replaced this icon will disappear.



MULTIFUNCTION REMOTE OPERATING INSTRUCTIONS

Lockout State Definition

A lockout state is reached when an ignition error occurs. The lockout state will remain set in memory as long as the power supplies are applied.

This could mean both an anomalous flame detection and/or too many unsuccessful ignition tries.

This state is a safe condition for the fireplace and is entered automatically by the IFC board.

When the IFC board gets into lockout state:

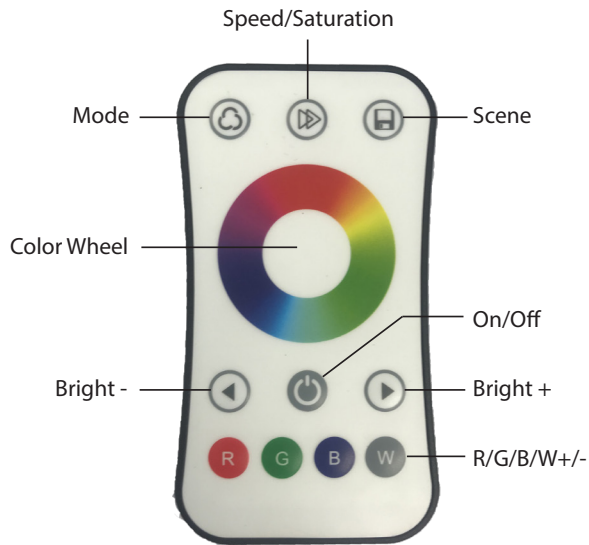
1. Both the pilot and the main burner solenoids in the gas valve are de-energized;
2. A diagnostic code is sent through the diagnostic red LED; and
3. The IFC board will ignore any burner ignition command and remain in the OFF state unless the unlock command sequence is met.

The causes of lockout must be investigated under safe conditions by the user and/or the service personnel.

To reset the IFC from a lockout state, perform the following procedure:

Turning the system power supplies (to the wall control or remote control) OFF for two or three seconds and then restoring a power supply back on. The return of the system to normal operation must be checked under safe conditions by the user and/or service personnel.

LED REMOTE OPERATING INSTRUCTIONS



Pairing a New Remote

Plug the LEDs in.

1. Ensure a battery (CR2032) is installed in the remote. The LED on the remote will illuminate when any button is touched.
2. On the LED receiver (shown below) touch the remote pairing button.
3. On the remote, touch the On/Off key until the LEDs turn on and off. The new remote is now paired.

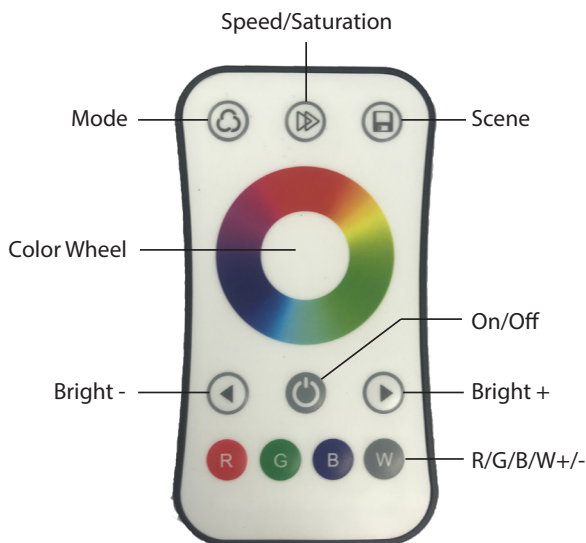
Turning the LEDs on

Press the On/Off button to turn the LEDs on.

Note: If the remote is left inactive for more than 1 minute, the remote will turn off but the LEDs will remain on. Push any button to turn the remote on.



LED REMOTE OPERATING INSTRUCTIONS



- **On/Off** : Turn On/Off
- **Dynamic Mode** : Turn on using Mode button.
- **Static Mode**: Turn on using Color wheel or R/G/B buttons.
- **Color Wheel** : Touch to change and set static RGB color.
- **Mode** : Short press run the next dynamic mode, long press 2s reset mode cycle.
- **Speed/Saturation** : For dynamic mode, adjust speed, short press 10 levels, long press 2s to reset back to default speed. For static color mode, adjust saturation, namely change current static RGB color to mixed white slowly, short press 11 levels, long press 1 - 5s for continuous 256 levels of adjustment to white and back to chosen static color.
- **Bright +/-** : Adjust brightness, short press 10 levels, long press 1 - 5s for continuous 256 levels of brightness adjustment.
- **R/G/B** : Short press get red, green or blue color directly, long press 1 - 5s adjust R/G/B brightness continuously to achieve millions of colors.
- **W +/-** : Short press turn on/off white (RGB mix), long press 1 - 5s adjust saturation continuously, namely change current static RGB color to mixed white slowly.
- **Scene** : Short press recall the scene, long press 2s save the current color into the scene.

* When LEDs are on, touch the color wheel, the indicator will display red.

* To extend battery life, after a few seconds of no interaction, the remote will enter sleep state, to wake the remote press any key.

INTERMITTENT CONTROL SYSTEM TROUBLESHOOTING

Brief Description of the Components

The controls are designed to be used with either Propane or Natural Gas and can be converted by use of an OEM supplied conversion kit.

The Intermittent Fireplace Control (IFC) is an automatic gas ignition system based on a single micro-controller core. This control manages all functions related to ignition, flame sensing and supervision for atmospheric applications.

The IFC in this fireplace is set to be an intermittent ignition control and flame monitoring with safety shutdown in case of failure.

The IFC is set up as a stand alone AC-powered system, with no battery backup. See Wiring Diagram on page 58 and Lighting Instructions on page 45.

Troubleshooting

Before proceeding with the troubleshooting table, verify that the 120VAC power supply is present.

Make sure all the connections between the wire harnesses and system components are proper and positive.

Verify that the static inlet pressure meets the manufacturer's recommended inlet pressure. If necessary adjust the line pressure regulator.

If the recommended actions for the following troubleshooting chart do not help to address the problem consider replacing wiring harnesses.



WARNING

Any actions performed on the gas valve, IFC, or other system components must be performed in accordance with this instruction manual and individual component instructions. Replace components in accordance with this instruction manual.

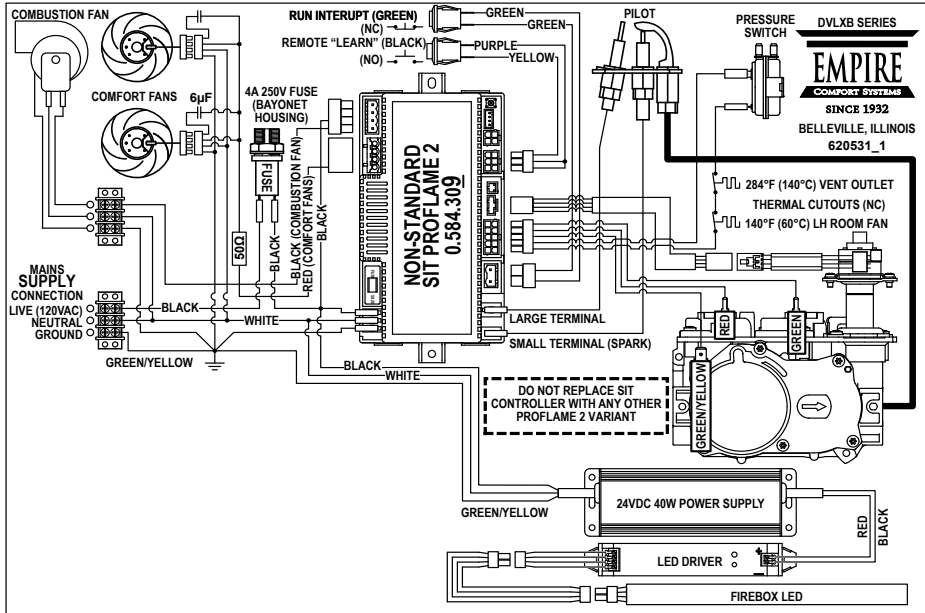
CONTROL SYSTEM TROUBLESHOOTING

Problem Observed	Possible Cause	Corrective Measure
Gas odor during setup	Gas leak	WHAT TO DO IF YOU SMELL GAS Do not try to light any appliance. Do not touch any electrical switch; do not use any phone in your building. Leave the building immediately and call your gas supplier from a neighbor's phone or a cell phone well away from the building. Follow the gas supplier's instructions. If you cannot reach your gas supplier, call the fire department.
Gas odor before first ignition	Gas leak	
Fireplace is 'on' but no flame and pilot is not trying to light	Gas line valve turned 'off'	Turn shutoff valve to 'open' position
	Control module in 'lockout'	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
	Pilot igniter/sensor is dirty	Clean pilot
	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
	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
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
	Room temperature higher than the thermostat setting.	Move remote away from fireplace or set a higher temperature on the remote/thermostat
	Remote control batteries failing	Replace batteries in remote transmitter

CONTROL SYSTEM TROUBLESHOOTING (CONT'D)

Problem Observed	Possible Cause	Corrective Measure
Burner and 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 the room
	Clogged or dirty burner ports	Clean burner ports
	Room temperature is higher than thermostat setting	Move remote away from the fireplace
		Set higher temperature on remote/thermostat
	Remote control batteries failing	Replace batteries in remote transmitter and receiver
Incorrect burner flame	Faulty pilot or thermocouple	Replace pilot
	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
Backfire of burner	High altitude	Adjust orifice size for altitude
	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 the fireplace
	Initial burn off of manufacturing chemicals	Ventilate room until odor stops
Whistle noise from fireplace	Check gas pressure	Adjust gas pressure to recommended settings
	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

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.

⚠ CAUTION

Do not operate the appliance with liner panel(s) removed, or damaged. Replacement of the liner panel(s) should be done by a licensed or qualified service person.

⚠ WARNING

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

⚠ CAUTION

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

ACCESSORIES

Gas Conversion Kits			
Kit Number	Conversion Type	Used on	Valve Type
CKZ01	Natural to Propane, MF	DVLXG55B/DVLXG55S DVLXB55B/DVLXB55S	SIT Proflame II
CKZ02	Propane to Natural, MF	DVLXG55B/DVLXG55S DVLXB55B/DVLXB55S	SIT Proflame II

Venting Kits	Description
DVKPMP	Horizontal Power Vent Termination for use on 90 Series DV Fireplaces (Req. Wire Harness and SD58DVAX46 Vent Adaptor)
DVKCVP	Vertical Conversion Kit (fits Power Vent Module DVKPMP)

Log Sets	Description
LS55LTF	Log Set, Ceramic Fiber, Traditional Charred
LS55CD	Log Set, Driftwood Log Set Burncrete

Glass Media	Description
DG1CLF	Crushed Glass, Clear Frost, approx 1 sq. ft.
DG1BCR	Crushed Glass, Copper Reflective, approx 1 sq. ft.
DG1BZR	Crushed Glass, Bronze Reflective, approx 1 sq. ft.
DG1BKP	Crushed Glass, Black Polished, approx 1 sq. ft.
DG1BUC	Crushed Glass, Blue Clear, approx 1 sq. ft.

PARTS LIST

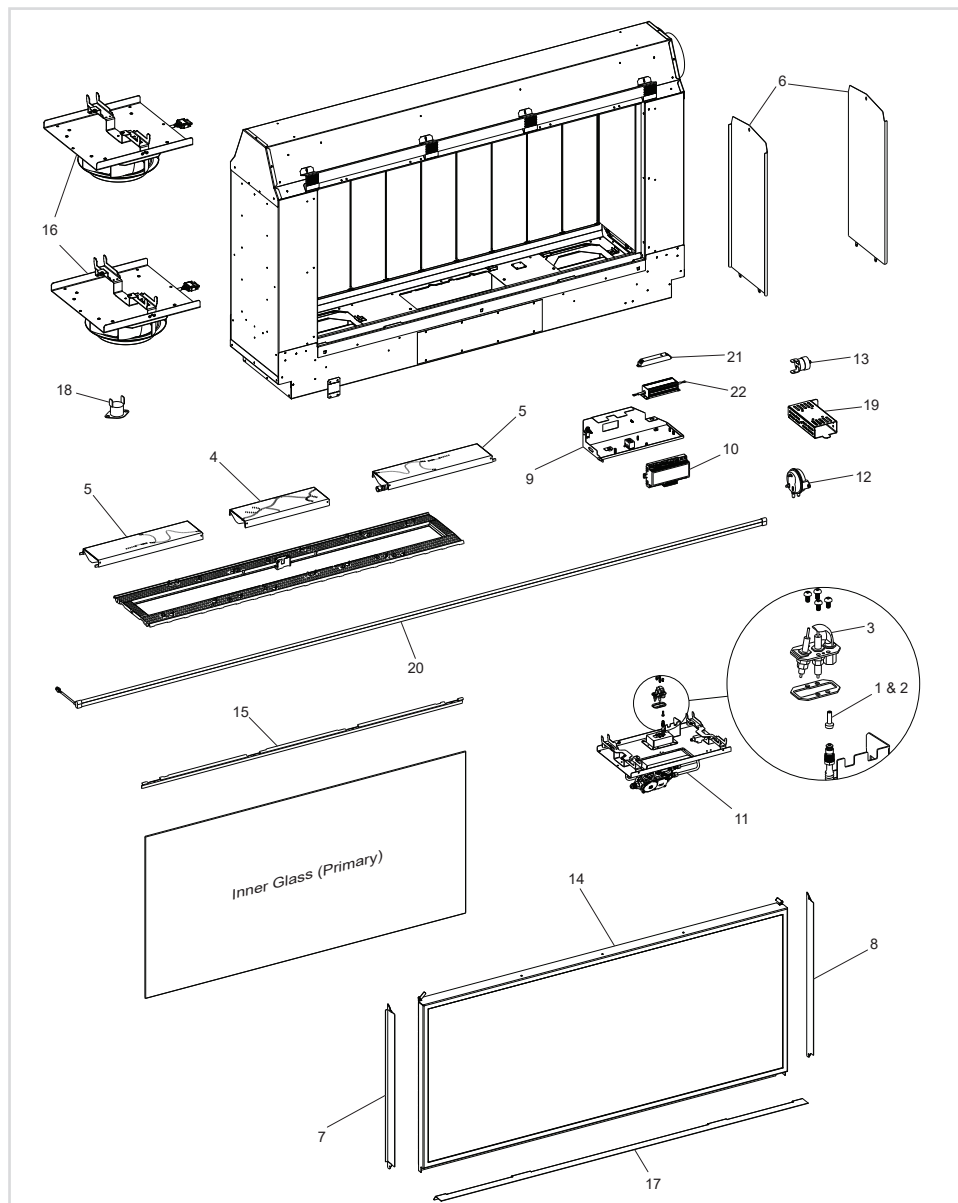
INDEX NO.	DVLXB55BP90N & DVLXB55SP90N	DESCRIPTION
1	ESC804104	Pilot Orifice #27 (Propane)
2	ESC806046	Pilot Orifice #37 (NG)
3	ESC806053	Pilot Assembly
4	ESC838002	Middle Burner
5	ESC838003	Side Burner
6	ESC838005	DVLX Series Reflective Side Panels
7	ESC838033	LH SideTrim
8	ESC838034	RH Side Trim
9	ESC838010	DVLX Electronics Tray Assembly
10	ESC838011	SIT Proflame 2 IFC Controller (Non-Standard — 0.584.309)
11	ESC838012	DVLX Series Gas Tray Assembly Complete
12	ESC838013	Air Pressure Switch Kit
13	ESC838035	Replacement Exhaust Thermal Cut-Out (TBC)
14	ESC838038	Barrier Screen Assembly
15	ESC838036	Primary Glass Retainer
16	ESC838008	Room Fan Assembly + Capacitor
17	ESC838017	Bottom Trim
18	ESC808021	Replacment Fan Thermal Cut-Out (60°C - 140°F)
19	ESC838009	Resistor Assembly
20	ESC838026	LED Light Strip Large (Firebox)
21	ESC838024	LED Reciever + Remote
22	ESC838025	LED Power Supply
NS	ESC838001	DVLX Series Universal Gas Conversion Kit
NS	ESC838004	SIT Remote Transmitter
NS	ESC838015	Fibre Tape Replacement Kit

NS = Not Shown

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.

PARTS VIEW



WARNING

Failure to use parts specifically approved for this appliance may result in property damage or personal injury

MAINTENANCE AND SERVICE

Important:

- This appliance should be serviced every 12 months, preferably at the start of each heating season. More frequent inspection 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.
- Any service operation should be carried out only by a suitably qualified and trained person.
- This manual should be left with the appliance for future reference.
- DO NOT MODIFY THIS APPLIANCE.

NOTICE: It is normal for steel appliances to make expansion/contraction noises as they heat up or cool down. Similar noises are found with your furnace or car engine.

It is normal for your gas fireplace to give off some odor the first time it is burned. This is due to the curing of the paint and any oil from the manufacturing process. If odor becomes offensive, open windows.

Burn the fireplace for at least six hours the first time you use it. Keep the fan in the "OFF" mode during this time.

NOTICE: Turn off the gas before servicing appliance.

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 the barrier screen for fit and structural integrity.
- Check all latches or other door retention components for proper operation, tension, and relief mechanisms are free from obstructions.
- 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.
- In addition, clean and inspect the fireplace following any remodeling work in your home.

Annual Service Procedure:

Have a qualified service person perform the following (inspections) at the beginning of each heating season:

- **Check Vent System**
Inspect the fireplace and venting system before initial use and at least annually. Inspect the external vent cap on a regular basis to make sure no debris is interfering with the air flow.
- **Clean Burner and Control Compartment**
Keep the control compartment, logs, and burner areas surrounding the logs clean by vacuuming or brushing at least twice a year.

Cleaning Procedure

1. Turn off pilot flame using your remote. Allow the fireplace to cool completely.
2. Remove outer barrier screen and inner glass.
3. Remove all logs and coals. Place them in a safe location.
4. Vacuum burner compartment.
5. Replace glowing embers, logs, and coals.
6. Clean the glass periodically.
7. Clean any dust off the barrier screen periodically.
8. Re-install inner glass and outer barrier screen.
9. Ignite pilot.
10. Operate the pilot burner. If it appears abnormal contact your dealer for service.

MAINTENANCE AND SERVICE

Cleaning the Fuelbed and the Glass

Clean the glass periodically. We recommend gas fireplace glass cleaner.

During start-up, condensation forms on the inside of the glass causing lint, dust and other airborne particles to cling to the glass. Also initial paint curing may deposit a film on the glass. Allow the fireplace to cool and then clean the glass two or three times with gas fireplace glass cleaner or a non-abrasive household cleaner and warm water. After that, clean the glass two or three times during each heating season or more often if necessary.

WARNING

Clean glass with cleaner designed for fireplaces.

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

WARNING

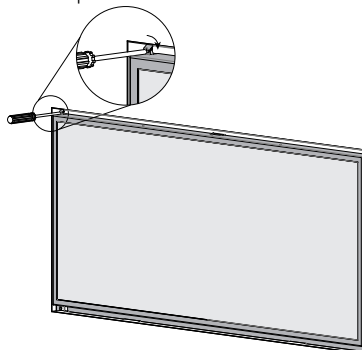
1. Avoid breaking the glass.
2. Do not operate this appliance without the glass or with broken glass. Have a qualified service person replace damaged glass and gasket using materials specified by Empire Comfort Systems.
3. Do not abuse or strike the glass.
4. The use of substitute glass will void all product warranties.

WARNING

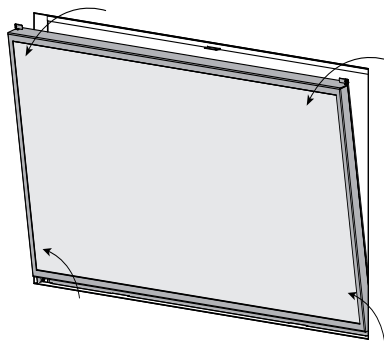
Do not operate the appliance with the glass removed, cracked, or broken.

To remove the glass for cleaning, follow the instructions shown here.

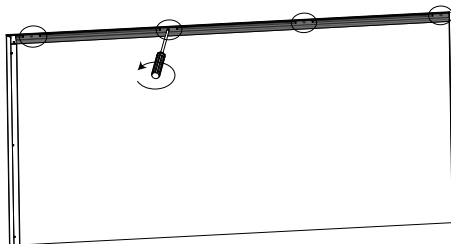
1. Use a screw driver to unlock barrier screen.
2. Loosen the two (2) locks in the top corners by folding tabs towards top of barrier screen frame.



3. Tilt the barrier screen out from the top and lift the bottom out of the fireplace.



4. Remove the barrier screen from the fireplace and set to the side. Be aware that if lint/dust is present on the mesh it may stain carpet or furnishings.
5. Put the suction cups on the inner glass.
6. Loosen the four (4) 1/4 turn fasteners and remove the glass retainer.

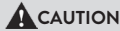


7. Tilt the glass towards yourself and lift it out. Be aware that if any soot is present on the glass, it may stain carpet or furnishings. Set the glass aside and use a fireplace glass cleaner to clean the glass.

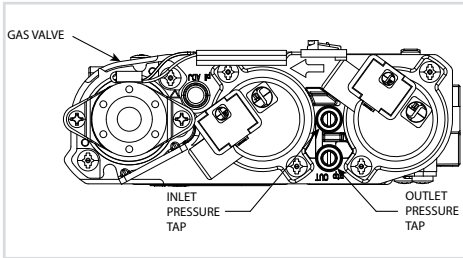
MAINTENANCE AND SERVICE

Checking Manifold Pressures

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



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.



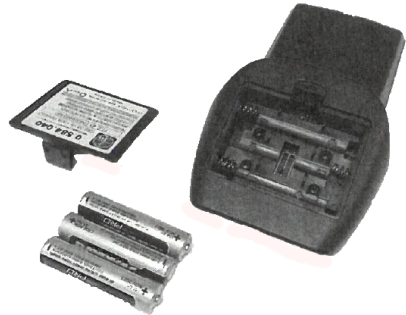
Replacing a Remote Control

If the wireless control becomes lost or damaged, a new one can be ordered from any Empire Comfort Systems Dealer. When you have the new remote, the following procedure needs to be followed to pair the remote with the fireplace.

1. Press remote sync button on the fireplace.
2. Press the ON button on remote transmitter. An audible four beeps will be heard.



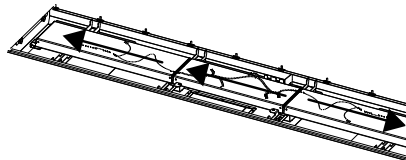
3. Remove the cover and replace existing batteries with three AAA batteries.
4. Replace cover.



Replacing the Burners

Remove the primary and secondary glass using the previous section. Remove all components of the fuelbed, taking care not to damage any fuelbed media.

Remove the infill by unscrewing the four screws, lift it from the firebox by lifting one end up into the top corner and then out towards you. Take care not to scratch the firebox paint.



Lift out the burners and replace as necessary.

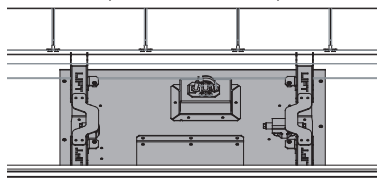
MAINTENANCE AND SERVICE

Serial Number

The serial number is located on the date plate beneath the engine of the fireplace.

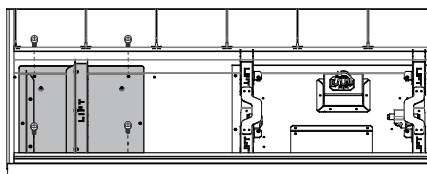
Removing the Control Tray

With the glass, infill, and burners removed, remove the eight screws from the control tray, shaded gray below. Lift the control tray partway out of the fireplace and rest it on the base. Then disconnect the gas and electrical connections to allow the control tray to be removed entirely.



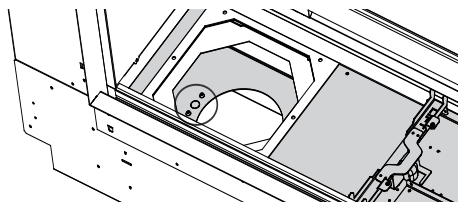
Removing the Fan Trays

With the glass, infill, and burners removed, remove the six screws from the fan tray, shaded gray below. Lift the fan tray partway out of the fireplace and rest it on the base. Then disconnect the electrical connections to allow the fan tray to be removed entirely.



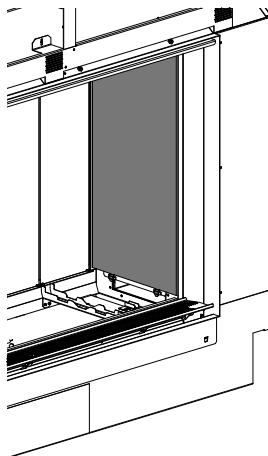
Replacing the Fan Thermal Cut Out (TCO 60°C/140°F)

With the glass, infill, burners and left hand fan removed, remove the two screws holding the TCO in place. Disconnect the electrical connections to allow the part to be removed.

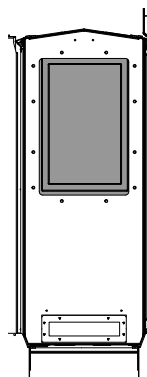


Replacing the Pressure Switch or Exhaust Thermal Cut Out (TCO 140°C/284°F)

With the glass, infill, and burners removed, remove the three screws from the panel shown in the diagram below. Carefully remove the panel from the firebox.



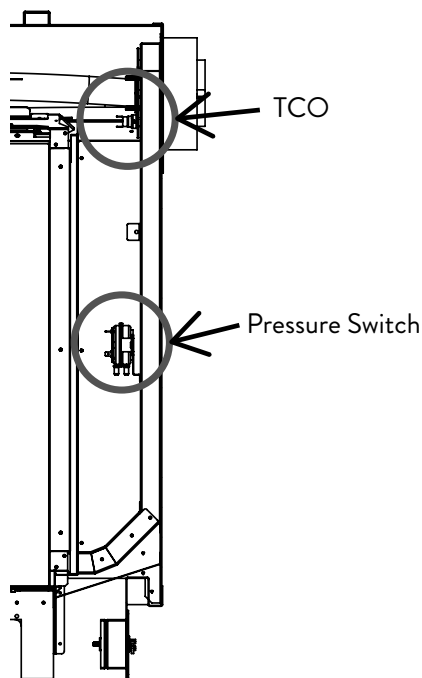
Remove the 12 screws from the access hatch shown below and carefully remove it from the firebox.



Reach in through the access hatch to access both the pressure switch and the Exhaust TCO (140°C/284°F), as shown below.

Wiring

If any of the original wire supplied with this unit must be replaced, order from an Empire dealer.



For the Pressure Switch:

Remove the two silicone tubes from the pressure switch (making note of which tube goes on each spigot).

Disconnect the two wires from the pressure switch and remove the two screws on either side of the pressure switch to remove it from the bracket. Replace the pressure switch and reattach the screws and silicone tubes. The black hose should be connected to the low pressure port and the translucent to the high pressure port.

For the Exhaust TCO:

Reach into the access hatch and locate the TCO. The TCO has two wires connected to the main body of the fireplace. Remove these and unscrew the TCO by hand. Remove the TCO from the fireplace, replace it, and re-attach the wires.

HOW TO ORDER REPAIR PARTS

Parts Not Under Warranty

Order parts through your service person, or dealer. For best results, the service person or dealer should order parts through the distributor. Parts can be shipped directly to the service person/dealer.

Warranty Parts

Warranty parts will need a proof of purchase and can be ordered by your service person or dealer.

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

Fireplace Model Number _____ Part Description _____

Fireplace Serial Number _____ Part Number _____

Type of Gas (Propane or Natural) _____

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

WARRANTY

Empire Comfort Systems Inc. warrants 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, canceled check, or payment record should be kept to verify purchase date and establish warranty period. Ready access to the appliance for service.

What Is Not Covered

- Damages that might result from the use, misuse, or improper installation of this appliance.
- Travel, diagnostic costs and freight charges on warranted parts to and from the factory.
- Claims that do not involve defective workmanship or materials.
- Unauthorized service or parts replacements.
- Removal and reinstallation cost.
- Inoperable due to improper or lack of maintenance.

How To Get Service

To make a claim under this warranty, please have your receipt available and contact your installing dealer. Provide the dealer with the model number, serial number, type of gas, and purchase verification. The installing dealer is responsible for providing service and will contact the factory to initiate any warranted parts replacements.

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

Your Rights Under State Law

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

APPLIANCE SERVICE HISTORY

Date	Dealer Name	Service Technician Name	Service Performed/Notes



Empire Comfort Systems Inc.

Belleville, IL

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

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

www.empirecomfort.com