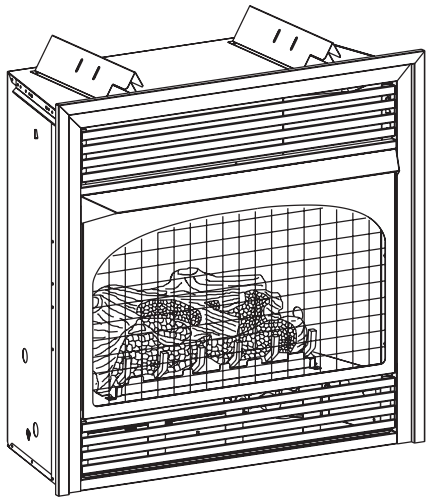
INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL

The *Vail* Vent-Free Gas Fireplaces



UNVENTED GAS FIREPLACE
MODELS

VFHD-32(T, TV)-1
VFHD-32(R, RV)-1

VFHD-36(T, TV)-1
VFHD-36(R, RV)-1

EFFECTIVE DATE
FEBRUARY 2004

Installer: Please leave these instructions with the consumer.

Consumer: Please retain these instructions for future use.

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

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

— **WHAT TO DO IF YOU SMELL GAS**

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

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

This appliance may be installed in an aftermarket, permanently located, manufactured (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.

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to page 7.

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

WATER VAPOR: A BY-PRODUCT OF UNVENTED ROOM HEATERS
Water vapor is a by-product of gas combustion. An unvented room heater produces approximately one (1) ounce (30ml) of water for every 1,000 BTU's (.3KW's) of gas input per hour. Refer to page 7.

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IMPORTANT SAFETY INFORMATION

- **An unvented room heater having an input rating of more than 6,000 Btu per hour shall not be installed in a bathroom**
- **An unvented room heater having an input rating of more than 10,000 Btu per hour shall not be installed in a bedroom or bathroom.**
- **Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**
- **Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.**
- **Young children should be carefully supervised when they are in the same room with the appliance.**
- **Do not place clothing or other flammable material on or near the appliance.**
- **Installation and repair should be done by a QUALIFIED SERVICE PERSON. This appliance should be inspected before use and at least annually by a professional 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 appliance be kept clean.**
- **DO NOT use this room heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.**
- **You must operate heater with fireplace screen closed in place. Do not close glass doors while operating heater.**
- **Do not place trash, logs or other articles on the log set during operation.**
- **During manufacturing, fabricating and shipping, various components of this appliance are treated with certain oils, films or bonding agents. These bonding agents are not harmful but may produce annoying smoke and smells as they are burned off during initial operation of the appliance. This is a normal temporary occurrence. A window should be opened during the initial bake out period.**
- **Correct installation of the ceramic fiber logs, proper location of the heater and annual cleaning are necessary to avoid potential problems with sooting. Sooting, resulting from improper installation or operation, can settle on surfaces outside the fireplace. See instructions for proper installation.**
- **WARNING: Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.**
- **WARNING: Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.**
- **WARNING! This fireplace needs fresh air for ventilation to run properly. This fireplace has an ODS (oxygen depletion sensor) which will shut down the heater if adequate fresh air is not available. See troubleshooting section in the instructions.**
- **Keep appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.**
- **WARNING: Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.**

WARNING

When used without adequate combustion and ventilation air, heater may give off CARBON MONOXIDE, an odorless, poisonous gas.

Do not install heater until all necessary provisions are made for combustion and ventilation air. Consult the written instructions provided with the heater for information concerning combustion and ventilation air. In the absence of instructions, refer to the National Fuel Gas Code, ANSI Z223.1, Section 5.3 or applicable local codes.

This heater is equipped with a PILOT LIGHT SAFETY SYSTEM designed to turn off the heater if not enough fresh air is available.

DO NOT TAMPER WITH PILOT LIGHT SAFETY SYSTEM!

If heater shuts off, do not relight until you provide fresh air.

If heater keeps shutting off, have it serviced. Keep burner and control compartment clean.

CARBON MONOXIDE POISONING MAY LEAD TO DEATH.

Early signs of carbon monoxide poisoning resemble the flu, with headache, dizziness and/or nausea. If you have these signs, heater may not be working properly. Get fresh air at once! Have heater serviced.

Some people — pregnant women, persons with heart or lung disease, anemia, those under the influence of alcohol , those at high altitudes — are more affected by carbon monoxide than others.

The pilot light safety system senses the depletion of oxygen at its location. If this heater is installed in a structure having a high vertical dimension, the possibility exists that the oxygen supply at the higher levels will be less than that at the heater. In this type of application, a fan to circulate the structure air will minimize this effect. The use of this fan will also improve the comfort level in the structure. When a fan is used to circulate air, it should be located so that the air flow is not directed at the burner.

SAFETY INFORMATION FOR USERS OF LP-GAS

Propane (LP-Gas) 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.

LP-GAS WARNING ODOR

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

- Do not operate electric switches, light matches, use your phone. Do not do anything that could ignite the gas.
- Get everyone out of the building, vehicle, trailer, or area. Do that IMMEDIATELY.
- Close all gas tank or cylinder supply valves.
- LP-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 LP-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 LP-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 LP-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 LP-Gas also are subject to oxidation. This fading can occur if there is rust inside the storage tank or in iron gas pipes.

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

LP-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 LP-gas.** Your local LP-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 LP-Gas has a weak or abnormal odor, call your LP-Gas Dealer.
- If you are not qualified, do not light pilot lights, perform service, or make adjustments to appliances on the LP-Gas system. If you are qualified, consciously think about the odor of LP-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 LP-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 LP-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 LP-gas dealer. A periodic sniff test of the LP-gas is a good safety measure under any condition.**
- If, at any time, you do not smell the LP-Gas odorant and you think you should, assume you have a leak. Then take the same immediate action recommended above for the occasion when you do detect the odorized LP-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.

INTRODUCTION

Instructions to Installer

1. Installer must leave instruction manual with owner after installation.
2. Installer must have owner fill out and mail warranty card supplied with unvented room heater.
3. Installer should show owner how to start and operate unvented room heater.

Always consult your local Building Department regarding regulations, codes or ordinances which apply to the installation of an unvented room heater.

This appliance may be installed in an aftermarket* manufactured (mobile) home, where not prohibited by state or local codes.

*Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.

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.

WARNING: ANY CHANGE TO THIS HEATER OR ITS CONTROLS CAN BE DANGEROUS.
Improper installation or use of the heater can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.

This series is design certified in accordance with American National Standard Z21.11.2 by the Canadian Standards Association Laboratories as an Unvented Room Heater and should be installed according to these instructions.

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.

VFHD-32/36(R, RV) Only
750 Millivolt System

When you ignite the pilot, the thermocouple produces millivolts (electrical current) which energizes the magnet in the gas valve. After 30 seconds to 1 minute time period you can release the gas control knob and the pilot will stay ON. Allow your pilot flame to operate an additional one (1) to two (2) minutes before you turn the gas control knob from the PILOT position to the ON position. This time period allows the millivolts (electrical current) to build-up to a sufficient level allowing the gas control to operate properly.

Important

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

Attention: During initial use of ceramic log you will detect an odor as the ceramic log is cured. Also, during the curing process the ceramic log will burn with a yellow flame.

Notice: During initial firing of this unit, its paint will bake out, and smoke will occur. To prevent triggering of smoke alarms, ventilate the room in which the unit is installed.

Installation on Rugs and Tile

If this appliance is installed directly on carpeting, tile or other combustible material other than wood flooring the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

The base referred to above does not mean the fire-proof base as used on wood stoves. The protection is for rugs that are extremely thick and light colored tile.

Solid-fuels shall not be burned in a masonry or *UL 127* factory-built fireplace in which an unvented room heater is installed**.**

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.

The installation must conform with local codes or, in the absence of local codes, with the *National Fuel Gas Code, ANSI Z223.1*.*
**Available from the American National Standards Institute, Inc. 1430 Broadway, New York, N.Y. 10018.*

High Altitudes

For altitudes/elevations above 2,000 feet (610m), ratings should be reduced at the rate of 4 percent for each 1,000 feet (305m) above sea level. Contact the manufacturer or your gas company before changing spud/orifice size.

Well Head Gas Installations

Some natural gas utilities use "well head" gas. This may affect the Btu output of the unit. Contact the gas company for the heating value. Contact the manufacturer or your gas company before changing spud/orifice size.

WARNING: This appliance is equipped for (natural gas or propane) gas. Field conversion is not permitted.

SPECIFICATIONS

Model	VFHD-32	VFHD-36
Input Max.	30,000	36,000
Min.	21,000	25,000
Minimum Firebox Opening		
Height without standoff	34"	36"
Width	35"	39"
Depth	16 1/2"	16 1/2"
Gas Inlet	3/8"	3/8"

Accessories	
EK-1	Embers Kit
FBB2A	Single Speed Automatic Blower
*FBB3A	Variable Speed Automatic Blower
VPP2A-32SSA	VFHD-32 — Ceramic Aged Brick Liner
VPP2A-36SSA	VFHD-36 — Ceramic Aged Brick Liner
Accessories For VFHD-32/36(R, RV) Only	
FRBC	Battery Operated Remote Control
FRBTC	Battery Operated Remote Control w/Thermostat
FREC	Electric Remote Control
FWS	Wall Switch
GWSG-T	Wall Thermostat, Millivolt
TMV	Wall Thermostat, Millivolt - Reed Switch

*FBB3A is standard (installed) on VFHD-32/36-TV and VFHD-32/36RV

WATER VAPOR: A BY-PRODUCT OF UNVENTED ROOM HEATERS

Water vapor is a by-product of gas combustion. An unvented room heater produces approximately one (1) ounce (30ml) of water for every 1,000 BTU's (.3KW's) of gas input per hour.

Unvented room heaters are recommended as supplemental heat (a room) rather than a primary heat source (an entire house). In most supplemental heat applications, the water vapor does not create a problem. In most applications, the water vapor enhances the low humidity atmosphere experienced during cold weather.

The following steps will help insure that water vapor does not become a problem.

1. Be sure the heater is sized properly for the application, including ample combustion air and circulation air.
2. If high humidity is experienced, a dehumidifier may be used to help lower the water vapor content of the air.
3. Do not use an unvented room heater as the primary heat source.

PROVISIONS FOR ADEQUATE COMBUSTION & VENTILATION AIR

This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air.

The *National Fuel Gas Code, ANSI Z223.1* defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu per hour (4.8m^3 per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 Btu per hour (4.8m^3 per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

Unusually tight construction is defined as construction where:

a. Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm or less with openings gasketed or sealed, and
b. Weatherstripping has been added on openable windows and doors, and
c. Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See "**Ventilation Air From Outdoors**," page 8.

Determining if You Have a Confined or Unconfined Space

Use this worksheet to determine if you have a confined or unconfined space.

Space: Includes the room in which you will install heater plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1. Determine the volume of the space (length x width x height).
   Length x Width x Height = _____ cu. ft. (volume of space)

   Example: Space size 16 ft. (length) x 10 ft. (width) x 8 ft. (ceiling height) = 1,280 cu. ft. (volume of space)

   If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.
2. Divide the space volume by 50 cubic feet to determine the maximum BTU/Hr the space can support.

   _____ (volume of space) ÷ 50 cu. ft. = (maximum BTU/Hr the space can support)

   Example: 1,280 cu. ft. (volume of space) ÷ 50 cu. ft. = 25.6 or 25,600 (maximum BTU/Hr the space can support)
3. Add the BTU/Hr of all fuel burning appliances in the space.

Vent-free heater		_____ BTU/Hr
Gas water heater		_____ BTU/Hr
Gas furnace		_____ BTU/Hr
Vented gas heater		_____ BTU/Hr
Gas fireplace logs		_____ BTU/Hr
Other gas appliances*	+	_____ BTU/Hr
Total	=	_____ BTU/Hr

Example: Vented gas heater		20,000	BTU/Hr
Vent-free heater	+	18,000	BTU/Hr
Total	=	38,000	BTU/Hr

*Do not include direct-vent gas appliances. Direct vent draws combustion air from the outdoors and vents to the outdoors.

4. Compare the maximum BTU/Hr the space can support with the actual amount of BTU/Hr used.

   _____ BTU/Hr (maximum the space can support)
   _____ BTU/Hr (actual amount of BTU/Hr used)

   Example:
   25,600 BTU/Hr (maximum the space can support)
   38,000 BTU/Hr (actual amount of BTU/Hr used)

Warning: If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the *National Fuel Gas Code, ANSI Z223.1,* Section 5.3 or applicable local codes.

The space in the above example is a confined space because the actual BTU/Hr used is more than the maximum BTU/HR the space can support. You must provide additional fresh air. Your options are as follows:

A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See **Ventilation Air From Inside Building.**
B. Vent room directly to the outdoors. See **Ventilation Air From Outdoors**.
C. Install a lower BTU/Hr heater, if lower BTU/Hr size makes room unconfined.

If the actual BTU/Hr used is less than the maximum BTU/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

WARNING: You must provide additional ventilation air in a confined space.

Ventilation Air

Ventilation Air From Inside Building (Figure 1)

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 1). You can also remove door into adjoining room (see option 3, Figure 1). Each ventilation grill or opening shall have a minimum free area of one square inch per 1,000 BTUH of the total input rating of the gas equipment in the confined space.

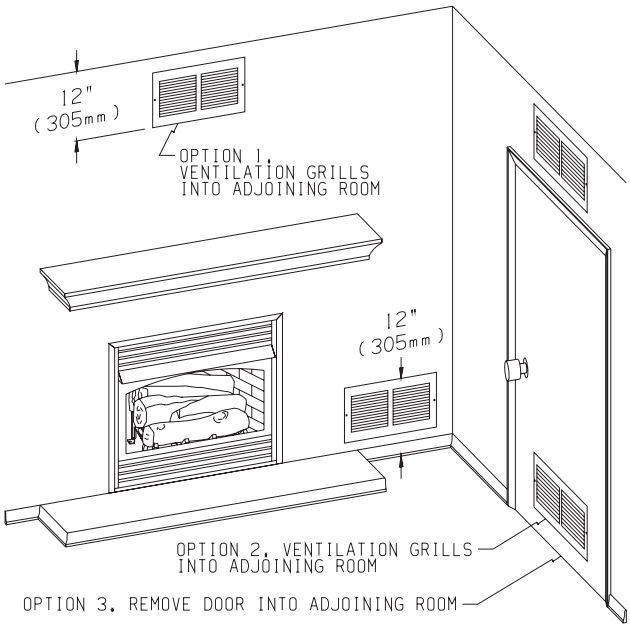


Figure 1

WARNING: Rework worksheet, adding the space of the adjoining unconfined space. The combined spaces must have enough fresh air to supply all appliances in both spaces.

Ventilation Air From Outdoors (Figure 2)

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one with 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. In most cases for direct communication with the outdoors or direct communication through a vertical duct a free area opening of one square inch per 4,000 BTUH of heater input rating for each grill. If a horizontal duct is used, a grill free area or duct opening shall have a free area opening of one square inch per 2,000 BTUH for each grill. Follow the *National Fuel Code NFPA 54/ANSI Z223.1, Section 5.3 Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

IMPORTANT: Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent.

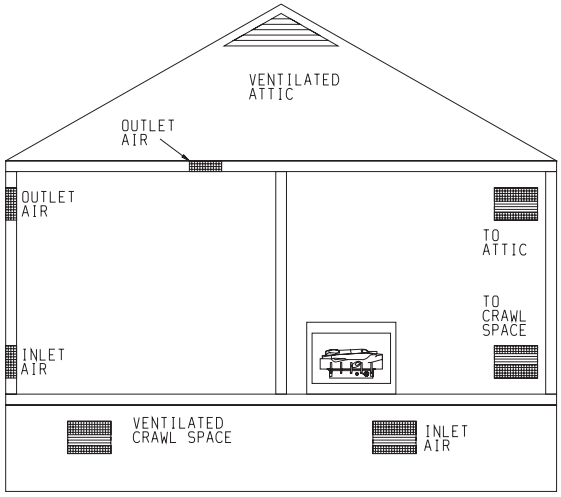


Figure 2

GAS SUPPLY

Check all local codes for requirements, especially for the size and type of gas supply line required.

Recommended Gas Pipe Diameter

Pipe Length (Feet)	Schedule 40 Pipe Inside Diameter		Tubing, Type L Outside Diameter	
	Nat.	L.P.	Nat.	L.P.
0-10	1/2"	3/8"	1/2"	3/8"
	1.3 cm	1.0 cm	1.3 cm	1.0 cm
10-40	1/2"	1/2"	5/8"	1/2"
	1.3 cm	1.3 cm	1.6 cm	1.3 cm
40-100	1/2"	1/2"	3/4"	1/2"
	1.3 cm	1.3 cm	1.9 cm	1.3 cm
100-150	3/4"	1/2"	7/8"	3/4"
	1.9 cm	1.3 cm	2.2 cm	1.9 cm

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

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

Installing a New Main Gas Cock

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

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

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

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 line 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.

The use of the following gas connectors is recommended:

— ANS Z21.24 Appliance Connectors of Corrugated Metal Tubing and Fittings

— ANS 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.

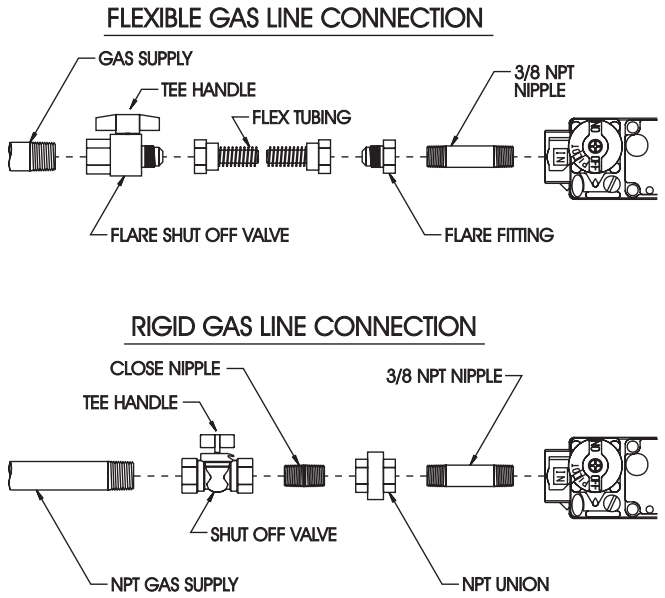


Figure 3

Pressure Testing of the Gas Supply System

1. To check the inlet pressure to the gas valve, a 1/8" (3mm) N.P.T. plugged tapping, accessible for test gauge connection, must be placed immediately upstream of the gas supply connection to the appliance.
2. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).
3. The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff 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 above procedures results in pressures in excess of 1/2 psig (14" w.c.) (3.5 kPa) on the appliance gas valve, it will result in a hazardous condition.

GAS SUPPLY (continued)

pressures equal to or less than 1/2 psig (3.5 kPa).

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

Checking Manifold Pressure

VFHD-32/36(R, RV) Natural gas will have a manifold pressure of approximately 3.5" w.c. (.871kPa) for maximum input or 1.7" w.c. (.423kPa) for minimum input at the pressure regulator outlet with the inlet pressure to the pressure regulator from a minimum of 4.5" w.c. (1.120kPa) for the purpose of input adjustment to a maximum of 10.5" w.c. (2.614kPa). **VFHD-32/36(T, TV)** Natural gas will have a manifold pressure of approximately 6.0" w.c. (1.49kPa) at the pressure regulator outlet with the inlet pressure to the pressure regulator from a minimum of 7.0" w.c. (1.74kPa) for the purpose of input adjustment to a maximum of 10.5" w.c. (2.615kPa). **VFHD-32/36(R, RV)** Propane gas will have a manifold pressure approximately 10.0"w.c. (2.49kPa) for maximum input or 4.9"w.c. (1.220kPa) for minimum input at the pressure regulator outlet with the inlet pressure to the pressure regulator from a minimum of 11.0"w.c. (2.739kPa) for the purpose of input adjustment to a maximum of 13.0"w.c. (3.237kPa). **VFHD-32/36(T, TV)** Propane gas will have a manifold pressure approximately 10.0"w.c. (2.49kPa) at the pressure regulator outlet with the inlet pressure to the pressure regulator from a minimum of 11.0"w.c. (2.739kPa) for the purpose of input adjustment to a maximum of 13.0"w.c. (3.237kPa).

A test gage connection is located downstream of the gas appliance pressure regulator for measuring gas pressure. The connection is a 1/8 inch (3mm) N.P.T. plugged tapping.

VFHD-32/36(R, RV) Millivolt Control

The valve regulator controls the burner pressure which should be checked at the pressure test point. Turn captured screw counter

CLEARANCES

Minimum Wall and Ceiling Clearances (Figure 4)

Sidewall Clearances: The clearance from the inside of the fireplace to any combustible wall should not be less than 2".

Fireplace Side and Back Clearances: The fireplace outer casing sides and back have zero clearance to combustibles.

Ceiling Clearances: The ceiling height should not be less than 36" from the top of the fireplace opening.

Mantel Clearances: Vent free fireplace models must use the hood supplied with the fireplace. If a combustible mantel is installed, it must meet the clearance requirements detailed above.

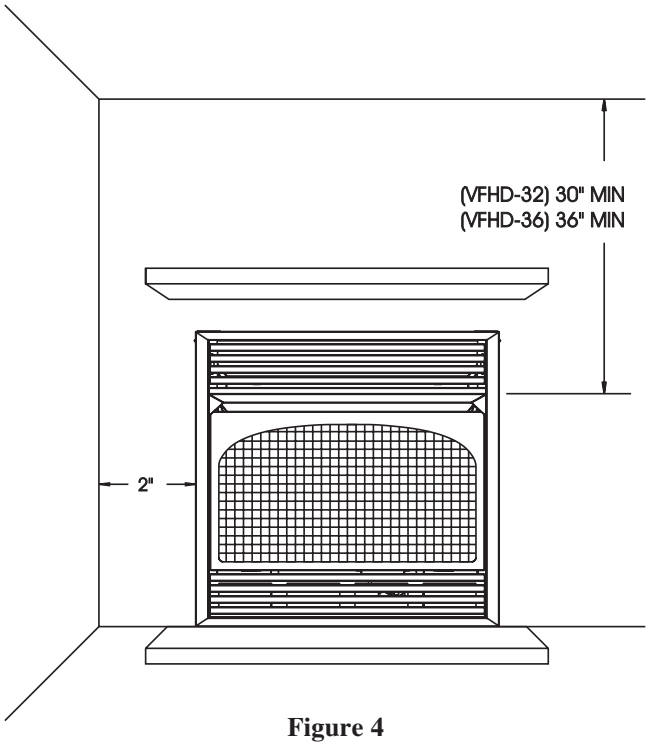


Figure 4

firmly to re-seal. Do not over torque. Check for gas leaks.

Mantel Clearances (Figure 5)

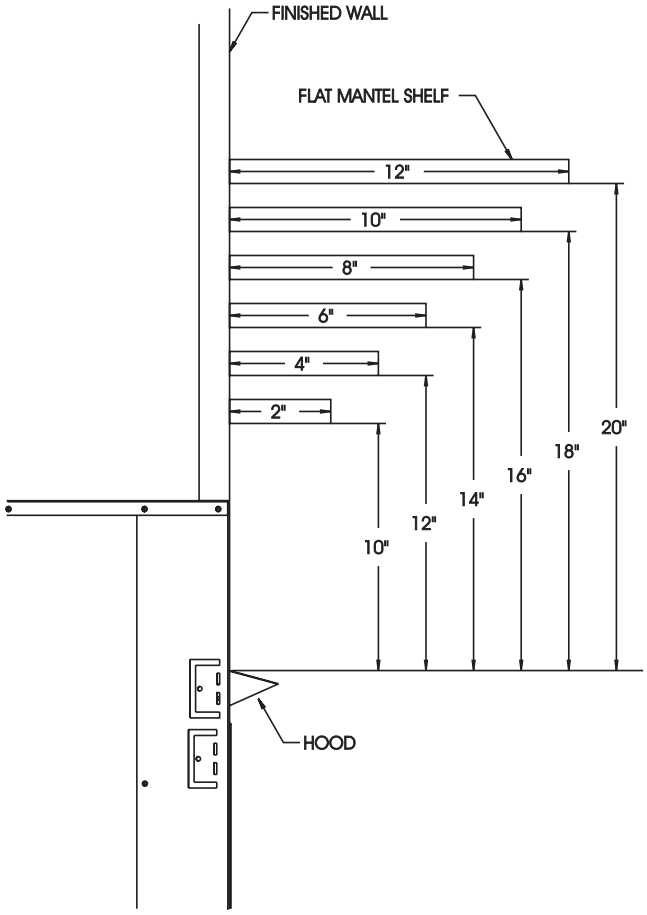


Figure 5

COMBUSTIBLE MATERIALS

Do not attach combustible material to the mantel of your fireplace. This is a fire hazard.

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

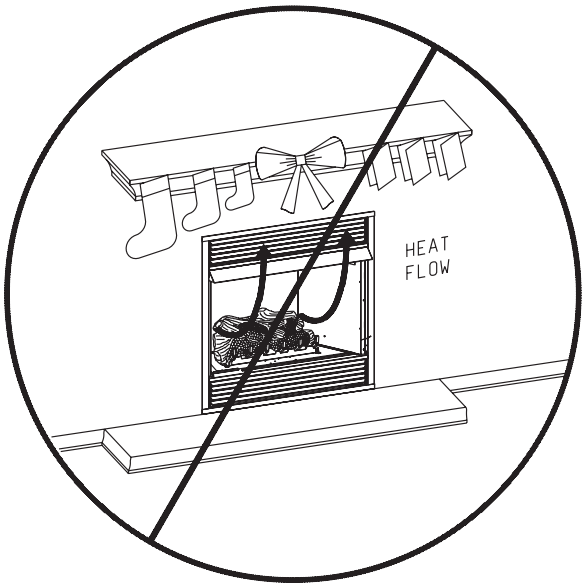


Figure 6

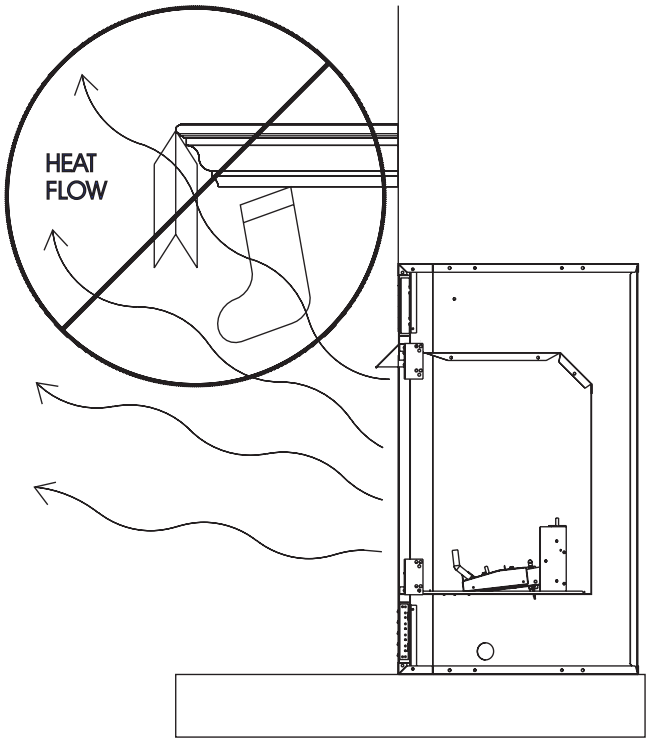
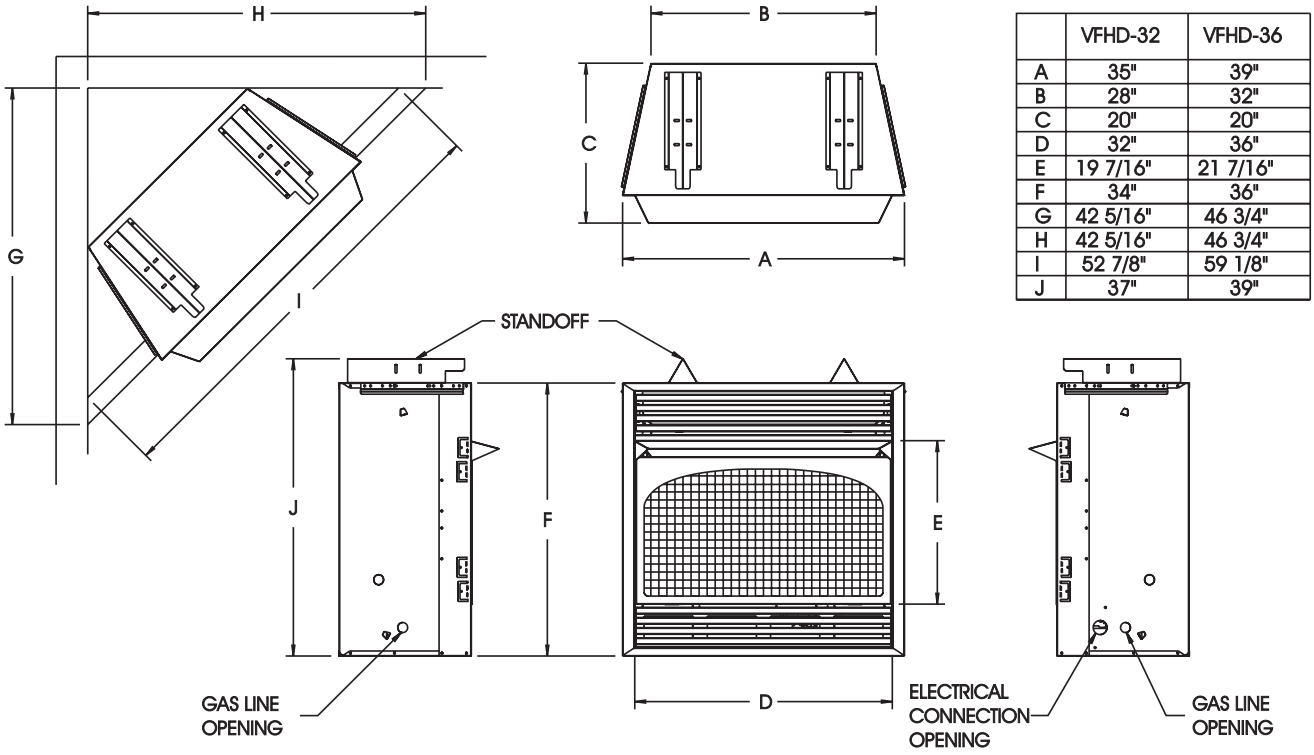


Figure 7

FIREPLACE DIMENSIONS



	VFHD-32	VFHD-36
A	35"	39"
B	28"	32"
C	20"	20"
D	32"	36"
E	19 7/16"	21 7/16"
F	34"	36"
G	42 5/16"	46 3/4"
H	42 5/16"	46 3/4"
I	52 7/8"	59 1/8"
J	37"	39"

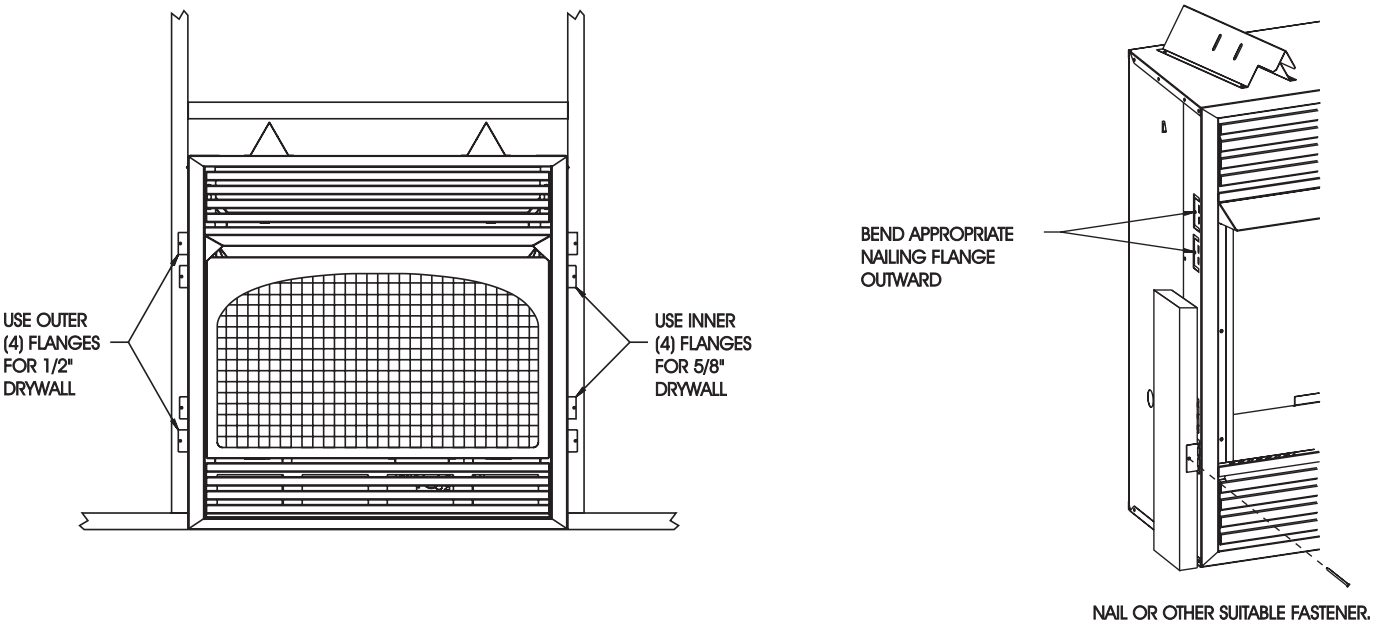


Figure 8

INSTALLING HOOD AND TRIM KIT

A black hood and trim kit is furnished with each model VFHD-32/36 fireplace and MUST be installed before the fireplace is used. Failure to do so may create a possible fire hazard. **Attention:** The hood is located behind bottom louver during shipment of fireplace. Open bottom louver for access to hood.

The trim kit is used to finish the fireplace. The trim kit is used in place of brick, marble or other finishing material.

1. To remove top louver grasp louver and pull forward.
2. Open bottom louver.
3. Insert trim side left and trim side right into the fireplace. At this time, attach (2) Phillips screws through bottom clearance hole on trim side left and trim side right and into fireplace (1 per trim side).
4. Insert flange on fireplace hood into top of firebox.
5. Attach fireplace hood, trim side left and trim side right to fireplace with (3) Phillips screws.
6. Insert the trim top into the top, interior of the fireplace. Position the (3) clearance holes in the trim top downward. Align the (3) clearance holes with the (3) screw holes in the top, interior of the fireplace. When the trim top contacts the wall surface secure the trim top to the fireplace with (3) Phillips screws.
7. Close bottom louver.
8. Replace top louver

Extended Hoods

If your facing material over 1" in thickness is used to finish this fireplace, you must purchase a different hood that will extend out 2" farther into the room.

Finishing

All joints (top, bottom and sides), where the wall or decorative facing material meets the fireplace surround must be completely sealed with a non-combustible material.

Hearth extensions are recommended, not a requirement for these gas fireplaces.

Do not cover the louvers at any time with finishing materials. This could cause this product to overheat and cause a fire.

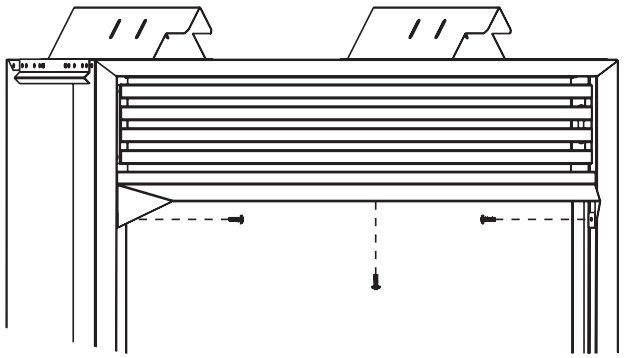


Figure 9

PLANNING INSTALLATION

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

The fireplace can be mounted on any of these surfaces:

1. A flat hard combustible or non-combustible surface.
2. A raised platform of combustible or non-combustible material.
3. Four (4) corners of the fireplace so contact is made on all four perimeter edges on the bottom of the unit.
   (Example: Four (4) concrete masonry blocks.)

If the fireplace is installed directly on carpeting, tile or other combustible material other than wood flooring, it should be installed on a metal or wood panel extending the full width and depth of the unit.

At this point, you should have decided what components to include in your installation, and where the fireplace is to be located. If this has not been done, stop and consult your dealer for assistance with this planning.

FIREPLACE FRAMING AND INSTALLATION

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 or heavier.

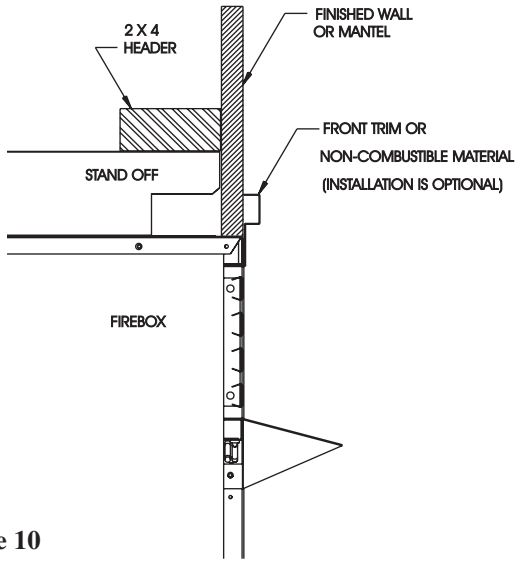


Figure 10

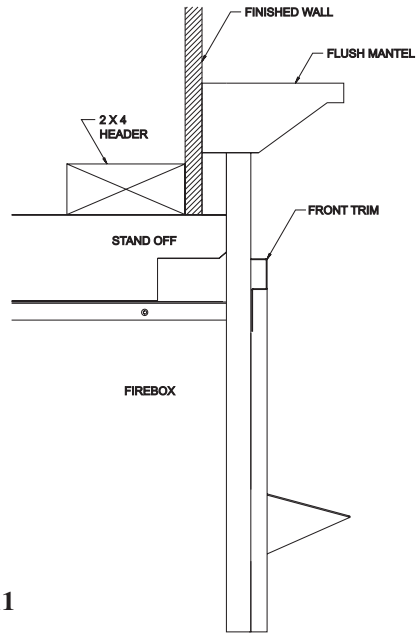
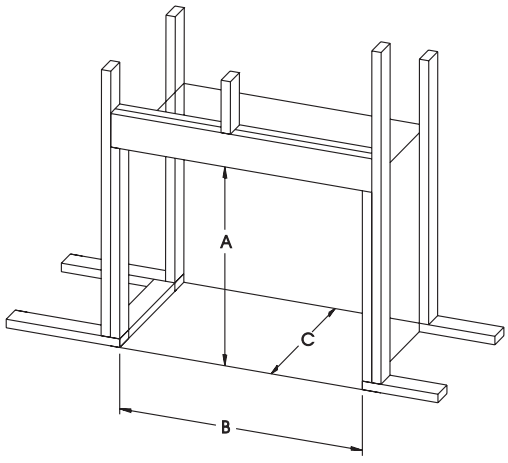


Figure 11

1. Place fireplace in framing opening.
2. Using the four (4) nailing tabs provided on the fireplace, attach two (2) tabs on each side. Attach tabs through prepunched holes. Additional hole locations will be used for different finishing material with thicknesses of 1/2", 5/8" and 3/4". Attach these materials with screws provided, two (2) per nailing tab.
3. Nailing tabs should fit directly against framing material. Use at least one (1) nail per tab to secure in place.

Framing Flush Mantel Installation

1. Remove two (2) center screws (that are two inches apart) from each side of firebox for attachment of flush mantel brackets.
2. Attach flush mantel brackets to firebox sides with screws removed in Step 1.
   Attention: The clearance hole in flush mantel bracket must face forward for attachment of framing material.
3. Attach framing material around firebox.
   Attention: A 1-1/2" exposure on each side of firebox must be maintained for flush mantel installation.



	VFHD-32	VFHD-36
"A"	37"	39"
"B"	35 3/8"	39 3/8"
"C"	16 11/16"	16 11/16"

Attention: Add 3 3/4" to "A" Dimensions when using flush mantel base.

Figure 12

FIREPLACE INSTALLATION IN MANTEL

Conventional installation of this fireplace involves installing fireplace along with the corner mantel accessory or cabinet mantel with hearth base accessories against a wall in your home. Follow the instructions below to install the fireplace in this manner.

Warning: For conventional installation, it is recommended you use the cabinet mantel, corner mantel, or hearth base specified in this manual. Surface clearances may not be sufficient with other cabinet mantels and hearth bases. This may create a fire hazard. See accessories, page 6 for correct cabinet mantel and hearth base.

Note: The instructions below show installation using the cabinet mantel and the hearth base accessories. The hearth base is optional for these installations. You can install the fireplace, face mantel and corner mantel directly on the floor.

1. Assemble cabinet mantel, hearth base and trim accessories. Assembly instructions are included with each accessory. If the blower assembly package FBB2A or FBB3A will be installed try to position the hearth cabinet near a wall receptacle for blower plug in attachment.
2. Install gas piping to fireplace location. This installation includes an approved flexible gas line (if allowed by local codes) after the manual shutoff valve. The flexible gas line must be the last item installed on the gas piping. See **"Gas Supply"** page 9.
3. Place hearth base accessory against wall at installation location. Cut an access hole in hearth base top and laminate trim if used to run flexible gas line to fireplace (see Figure 13). Make sure to locate access hole so cabinet mantel will cover it when installed. *Note:* You can secure base to floor using wood screws. Countersink screw heads and putty over.

Placing Hearth Base Accessory Against Wall (Figure 13)

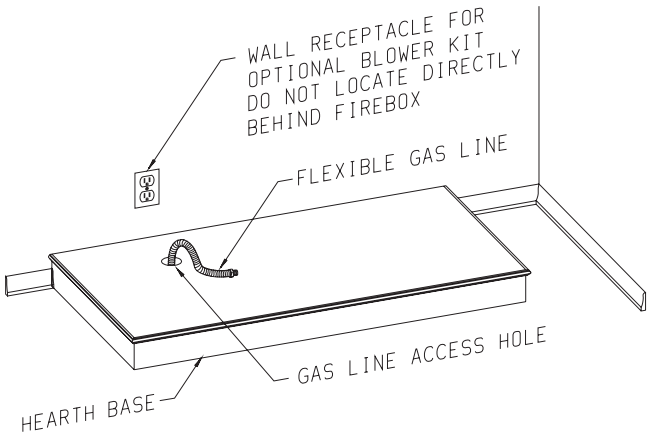


Figure 13

4. Route flexible gas line through access hole in hearth base.
5. Remove either left or right knockout in inner bottom to route gas line.
6. Carefully set fireplace on hearth base. Be careful not to scratch or damage hearth base or laminate trim.
7. Attach flexible gas line to fireplace gas regulator. See **"Gas Supply,"** page 9.
8. See mantel instruction for installation of mantel.
9. If optional laminate trim is to be used, install now.
10. Position flange on inside mounting flange facing the front of the heater with the notches on the inside mounting flange facing the rear of the heater. You can now adjust inside mounting flange on outer casing top to back side of mantel. Install (4) screws when correctly located.
11. Center cabinet mantel on hearth base (see Figure 14). Make sure mantel is flush against wall.

Installing Cabinet in Mantel (Figure 14)

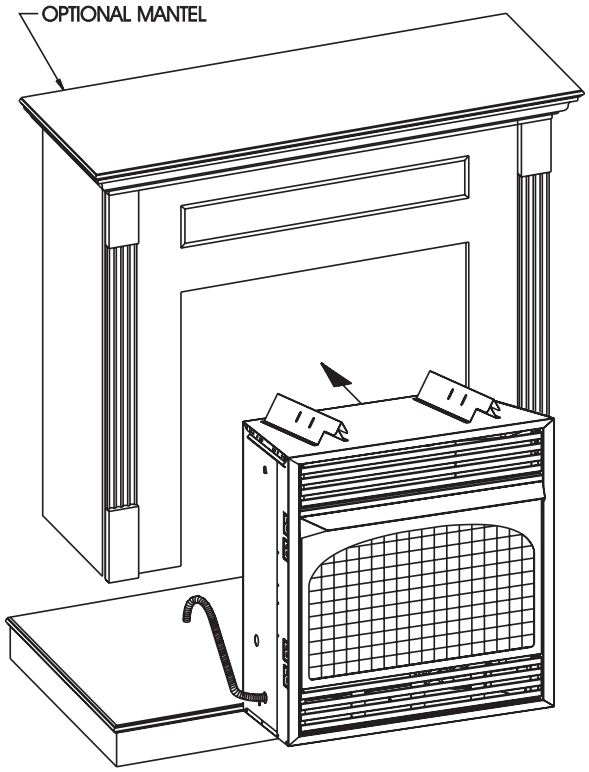


Figure 14

12. Secure fireplace to hearth or floor. Open lower louver. Locate screw holes in bottom of base. Tighten wood screws through these holes and into hearth or floor.
13. Check all gas connections for leaks. See **"Gas Supply."**

LOG PLACEMENT

Before you begin: This unit is supplied with a set of five ceramic fiber logs. Do not, handle these logs with your bare hands! Always wear gloves to prevent skin irritation from ceramic fibers. After handling logs, wash your hands gently with soap and water to remove any traces of fibers.

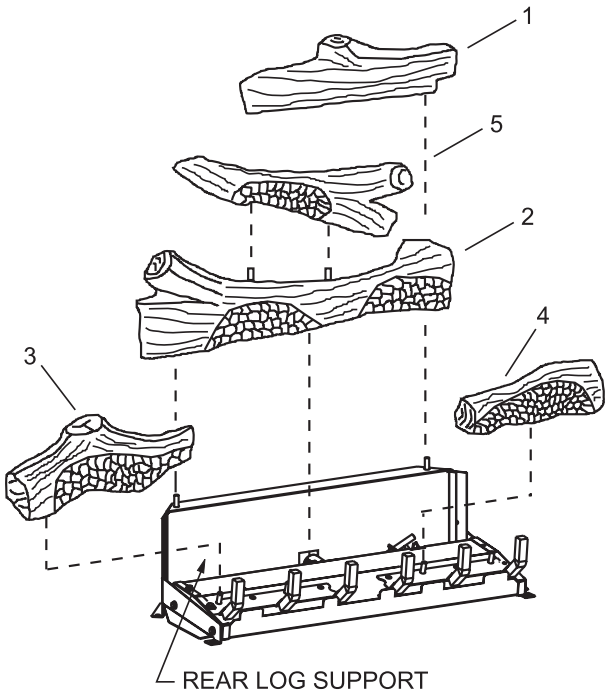
The positioning of the logs is critical to the safe and clean operation of this heater. Sooting and other problems may result if the logs are not properly and firmly positioned in the appliance.

Refer to Figure 15 for the following warning.

> **Warning:** Failure to position the parts in accordance with this diagram or failure to use only parts specifically approved with this appliance may result in property damage or personal injury..

1. Place rear (#1) log onto right, rear pin on rear log support.
2. Place middle (#2) log between rear log support and burner pan.
3. Place left, front (#3) log onto two (2) left, front pins on burner pan.
4. Place right, front (#4) log onto two (2) right, front pins on burner pan.
5. Place branch (#5) onto two (2) pins on middle (#2) log.

Attention: Do not use Figure 15 to order replacement logs. Refer to Page 23, Parts List and Page 24, Parts View to order logs.



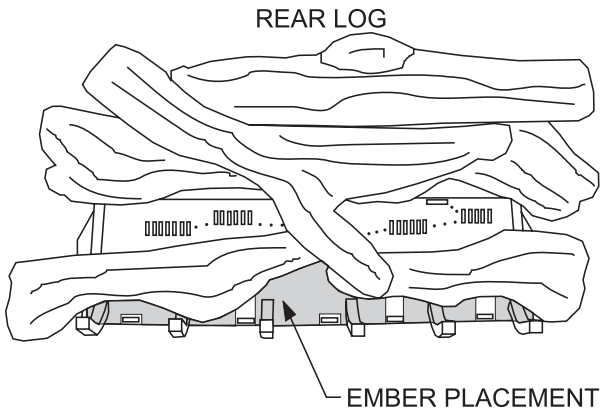
Log Placement

Figure 15

PLACEMENT OF GLOWING EMBERS AND LAVA ROCK

Provided with the log set is a small bag of glowing embers (rock wool) to be placed between logs on the flat metal surface of the burner.

TOP VIEW OF LOG SET



Placement of Glowing Embers (rock wool)
Figure 16

Placement of the glowing embers (rock wool) is very individual and light coverage of the areas indicated will provide your best effects. We recommend separation of the rock wool by hand and make your coverage as light and fluffy as possible.

Place just enough embers on the burner to obtain the glow and a gold yellow flame.

Do not place embers (rock wool) over large ports in rear portion of burner.

A thin layer of glowing embers (rock wool) should be placed under open space between the right and left middle logs.

Rock wool should **not** be placed in the area of the pilot assembly.

Replacement of loose material (glowing embers) must be purchased from Empire Comfort Systems, Inc. Application of excess loose material (glowing embers) may adversely affect performance of the heater. WARNING: All previously applied loose material must be removed prior to reapplication.

Refer to Parts List, Page 23 to order loose material (rock wool).

Placing Lava Rock in Front of Burner on Fireplace Floor
Spread lava rocks on fireplace floor in front of the burner pan. The lava rocks are for decorative effect and are not required for fireplace operation.

> **ATTENTION:** DO NOT PLACE LAVA ROCKS ON BURNER, LOGS OR ROCK WOOL. THE LAVA ROCKS SHOULD ONLY BE PLACED ON THE FIREPLACE FLOOR.

OPERATION INSTRUCTIONS/FLAME APPEARANCE

Flames from the pilot (rear right back side of the pan burner) as well as the main flame should be visually checked as the log set is installed.

In normal operation at full rate after 10 to 15 minutes, the flame appearance should be sets of yellow flames.

NOTE: all flames will be random by design, flame height will go up and down.

Glowing embers (rock wool) can cover the pan burner in between the front and middle logs, but very little is necessary to cover this area. Excess ember material causes the yellow flame to become orange and stringy. Apply just enough to obtain slow glow and a gold yellow flame.

Avoid any drafts that alter burner flame patterns. Do not allow fans to blow directly into fireplace. Do not place a blower inside the burner area of the firebox. Ceiling fans may create drafts that alter flame patterns. Sooting and improper burning will result.

During manufacturing, fabricating and shipping, various components of this appliance are treated with certain oils, films or bonding agents. These chemicals are not harmful, but may produce annoying smoke and smells as they are burned off during the initial operation of the appliance, possibly causing headaches or eye or lung irritation. This is a normal and temporary occurrence.

The initial break-in operation should last 2-3 hours with the burner at the highest setting. Provide maximum ventilation by opening windows or doors to allow odors to dissipate. Any odors remaining after this initial break-in will be slight and will disappear with continued use.

PERIODIC CLEANING – Refer to parts diagram for location of items discussed below.

- Do not use cleaning fluid to clean logs or any part of heater.
- Logs - brush with soft bristle brush or vacuum with brush attachment.
- Remove loose particles and dust from the burner areas, controls, piezo covers and grate. Don't remove ceramic media from inside burner box.
- Inspect and clean burner air intake hole. Remove lint or particles with brush. Failure to keep air intake hole clean will result in sooting and poor combustion.

ANNUAL CLEANING/INSPECTION – Refer to parts diagram for location of items discussed below.

- Inspect and clean burner air intake hole. Remove lint or particles with vacuum or brush. Failure to keep air intake hole clean will result in sooting and poor combustion.
- Inspect and clean all burner ports.
- Inspect ODS pilot for operation and accumulation of lint at air intake holes.
- Verify flame pattern and log placement for proper operation.
- Verify smooth and responsive ignition of main burner.
- Check level of ceramic media in burner. Burner should be full, up to the level of openings in burner top.

VFHD-32/36(R, RV) LIGHTING INSTRUCTIONS

FOR YOUR SAFETY READ BEFORE LIGHTING

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

A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

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

WHAT TO DO IF YOU SMELL GAS

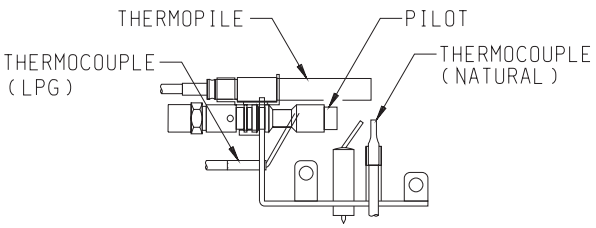
- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it; call a qualified service technician. Force or attempted repair may result in a fire or explosion.

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

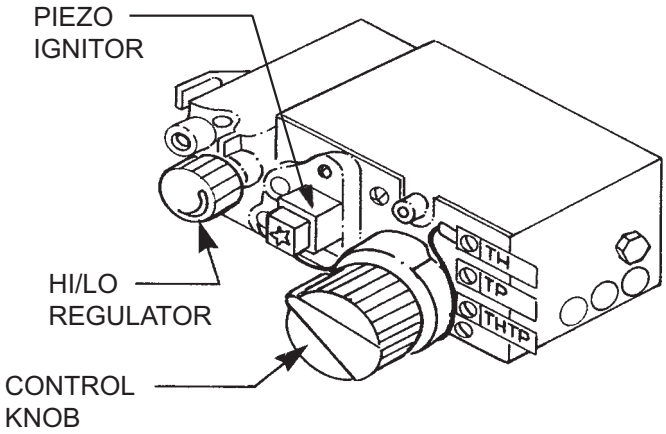
LIGHTING INSTRUCTIONS

1. STOP! Read the safety information label.
2. Make sure the manual shutoff valve is fully open.
3. This gas log set is equipped with an ignition device (piezo) which lights the pilot. If piezo ignitor does not light the pilot, refer to Step 7.
4. Turn gas control knob clockwise ↷ to the "OFF" position, set the thermostat to the lowest setting and turn ON/OFF switch to OFF position.
5. Wait ten (10) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas STOP! Follow "B" in the safety information label. If you do not smell gas, go to the next step.
6. From OFF position, turn the gas control knob counterclockwise ↶ to "Pilot" position. Push in and hold control knob for 5 seconds.



7. With the control knob pushed in, repeatedly push the piezo ignitor button until pilot is lit (or use a match to light pilot).
8. Continue pushing the control knob in for a further 60 seconds to prevent the flame detector from shutting off the gas while the probe is warming up. Release the control knob.
9. Turn gas control knob counterclockwise ↶ to the "ON" position.
10. After the pilot has been lit for one minute, the burner can be turned on. Turn the ON/OFF switch to "ON" position or adjust thermostat to desired setting.
11. If the gas logs will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

Wait 30 seconds before readjusting the heater when the control knob has been turned down to a lower setting.



TO TURN OFF GAS TO APPLIANCE

1. Turn control knob clockwise ↷ to OFF position to completely shut off the heater.
2. If applicable: Turn ON/OFF switch to OFF position and/or set thermostat (if present) to lowest setting. If applicable: Turn off all electric power to the heater.

VFHD-32/36(T, TV) LIGHTING INSTRUCTIONS

FOR YOUR SAFETY READ BEFORE LIGHTING

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

A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

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

WHAT TO DO IF YOU SMELL GAS

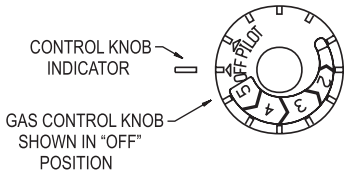
- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it; call a qualified service technician. Force or attempted repair may result in a fire or explosion.

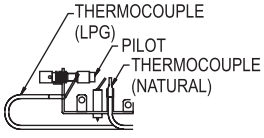
D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

1. **STOP! Read the safety information above.**
2. **Set thermostat (gas control knob) to lowest setting.**
3. **Turn off all electric power to the appliance (if applicable).**
4. **Push in gas control knob slightly and turn clockwise to "OFF". Do not force.**



5. **Wait ten (10) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you don't smell gas, go to the next step.**
6. **Find pilot - the pilot is attached at the bottom of the burner assembly .**



7. **Turn gas control knob counterclockwise to "PILOT."**
8. **Push in gas control knob all the way and hold in. Repeatedly push the piezo ignitor button until pilot is lit (or use a match to light pilot). Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 4 through 8.**
   - **If knob does not pop up when released, stop and immediately call your service technician or gas supplier.**
   - **If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.**
9. **Attention! Gas control has an INTERLOCK latching device. When the pilot is initially lit and the safety magnet is energized (pilot stays "ON") the INTERLOCK latching device becomes operative. If the gas control is turned to the "OFF" position or gas flow to the appliance is shut off, the pilot cannot be relighted until the safety magnet is de-energized (approximately 60 seconds). There will be an audible "click" when the safety magnet in the gas control is de-energized. Pilot can now be relighted. Repeat steps 4 through 8.**
10. **Turn gas control knob counterclockwise to "HI".**
11. **Turn on all electric power to appliance (if applicable).**
12. **Set thermostat (gas control knob) to desired setting from "HI" to "LO".**

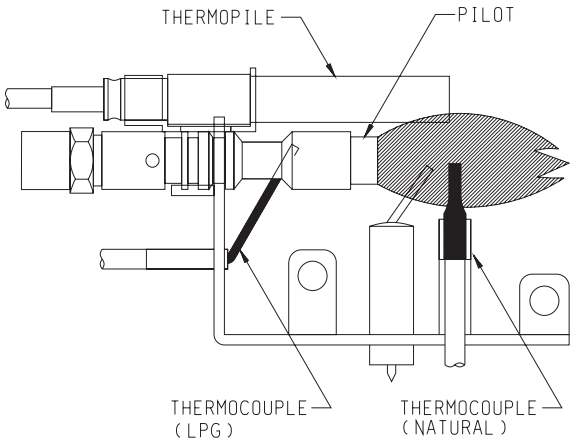
TO TURN OFF GAS TO APPLIANCE

1. **Set thermostat (gas control knob) to lowest setting.**
2. **Turn off all electric power to appliance if service is to be performed (if applicable).**
3. **Push in gas control knob slightly and turn clockwise to "OFF". Do not force.**

PILOT FLAME CHARACTERISTICS

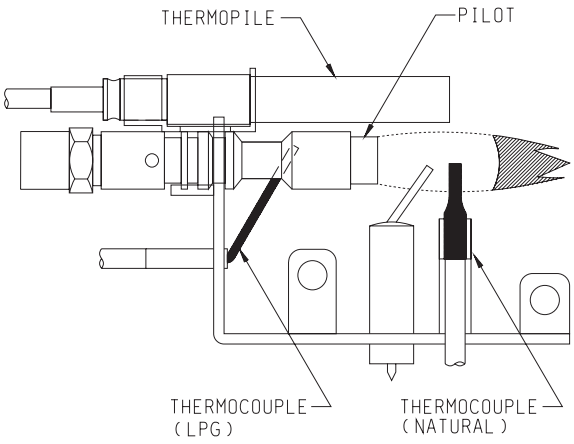
Figures 17 and 20 show a correct pilot flame pattern. The correct flame will be blue and will extend beyond the thermocouple. The flame will surround the thermocouple just below the tip. A slight yellow flame may occur where the pilot flame and main burner flame meet. Figures 18 and 21 show an incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool. When the thermocouple cools, the heater will shut down.

VFHD-32/36(R, RV) PILOT



Correct appearance of pilot flame.

Figure 17



Incorrect appearance of pilot flame.

Figure 18

If pilot flame pattern is incorrect, as shown in Figure 18

- See Troubleshooting, page 22.

Cleaning and Maintenance/Pilot

Oxygen Depletion Sensor Pilot (Figure 19)

When the pilot has a large yellow tip flame, clean the Oxygen Depletion Sensor as follows:

1. Clean the ODS pilot by loosening nut B from the pilot tubing. When this procedure is required, grasp nut A with an open end wrench.
2. Blow air pressure through the holes indicated by the arrows. This will blow out foreign materials such as dust, lint and spider webs. Tighten nut B also by grasping nut A.

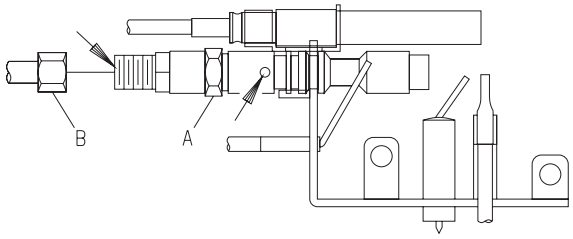
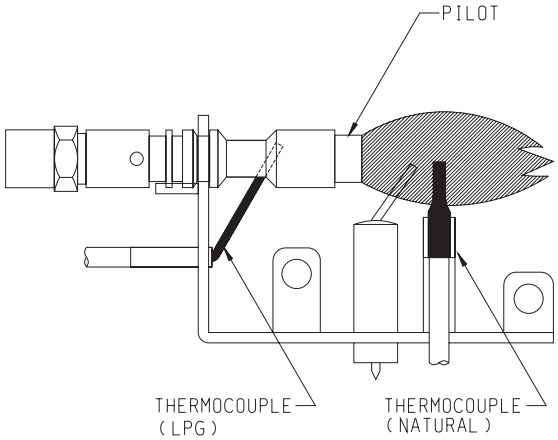


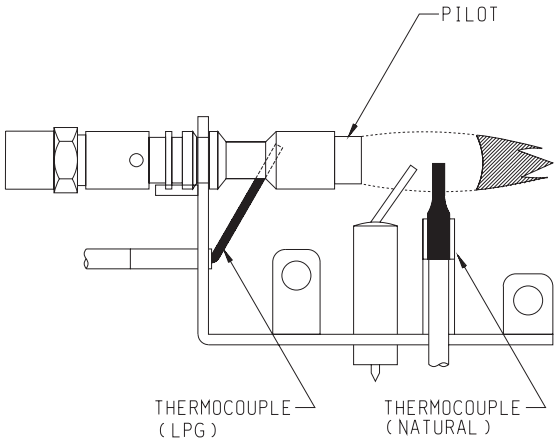
Figure 19

VFHD-32/36(T, TV) PILOT



Correct Pilot Flame Pattern

Figure 20



Incorrect Pilot Flame Pattern

Figure 21

If pilot flame pattern is incorrect, as shown in Figure 21

- See Troubleshooting, page 22.

Cleaning and Maintenance/Pilot

Oxygen Depletion Sensor Pilot (Figure 22)

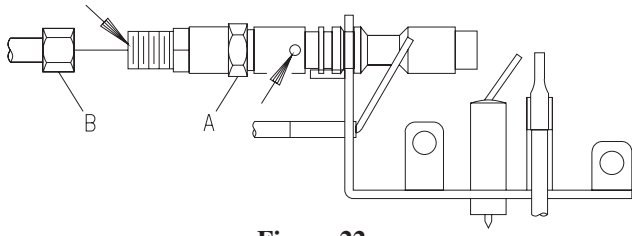


Figure 22

When the pilot has a large yellow tip flame, clean the Oxygen Depletion Sensor as follows:

1. Clean the ODS pilot by loosening nut B from the pilot tubing. When this procedure is required, grasp nut A with an open end wrench.
2. Blow air pressure through the holes indicated by the arrows. This will blow out foreign materials such as dust, lint and spider webs. Tighten nut B also by grasping nut A.

Warning:
Never use needles, wires, or similar cylindrical objects to clean the pilot to avoid damaging the calibrated ruby that controls the gas flow.

WIRING

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

Millivolt thermopile is self powered, gas valve does not require 110 volts. Maximum length of 20 feet of 16 AWG to conductor wires is to be used with all optional switches.

Use the two leads (Brown and Black/Red) to attach optional components.

Check 750 Millivolt System Operation

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

Remote Receiver

Use the following steps to place the **remote receiver** adjacent to the gas valve.

Attention: The remote receiver bracket is not used in this installation.

1. The remote receiver **can not** be placed behind the gas valve and burner assembly.
2. When facing the appliance, the remote receiver must be placed to the **right** of the gas valve and burner assembly.

Note: Do not let remote control receiver come in contact with burner assembly.

On circulating vent-free firebox, install remote control receiver behind bottom louver.

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

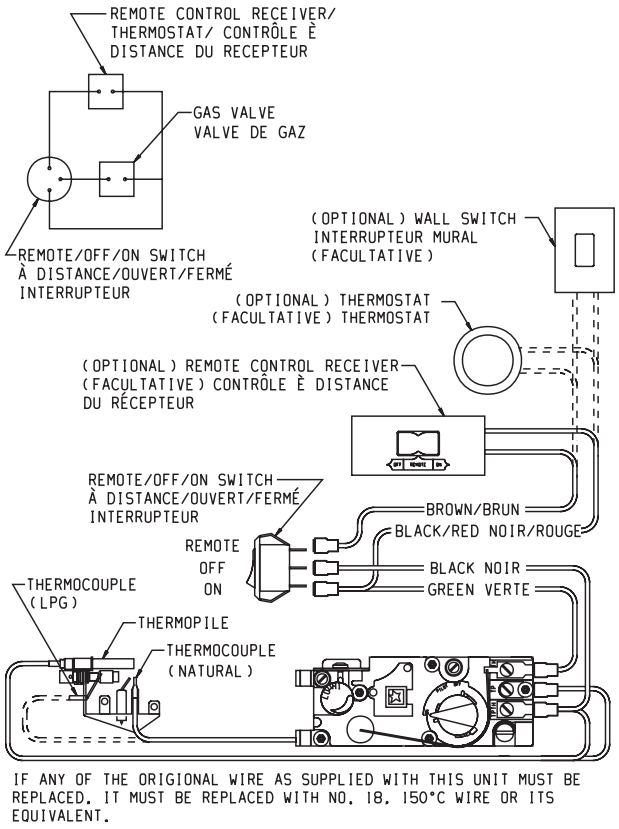


Figure 23

MAINTENANCE

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

THE LOGS CAN GET VERY HOT – HANDLE ONLY WHEN COOL.

Always turn off gas to the pilot before cleaning. For relighting, refer to lighting instructions located on the rating plate of the log set.

Never obstruct the flow of the combustion and ventilation air. Keep the front of the fireplace clear of all obstacles and materials.

Leave at least 36" clearance from the front of the fireplace.

Screens should be closed during operation.

TROUBLESHOOTING
SYMPTOMS - POSSIBLE CAUSES AND CORRECTIONS

Turn appliance OFF and allow to cool before servicing. Only a qualified service person should service and repair the heater.

1. **When ignitor button is pressed, there is no spark at ODS/pilot.**
   a. Ignitor electrode positioned wrong - Replace pilot.
   b. Ignitor electrode is broken - Replace pilot.
   c. Ignitor electrode not connected to ignitor cable - Reconnect ignitor cable.
   d. Ignitor cable pinched or wet. Keep ignitor cable dry - Free ignitor cable if pinched by any metal or tubing.
   e. Broken ignitor cable - Replace ignitor cable.
   f. Bad piezo ignitor - Replace piezo ignitor.
2. **Appliance produces unwanted odors.**
   a. Appliance burning vapors from paint, hair spray, glues, etc. - Ventilate room. Stop using odor causing products while heater is running.
   b. Gas leak - Locate and correct all leaks.
3. **Appliance shuts off during use. (Pilot and main burner are off.)**
   a. Not enough fresh air is available for ODS/pilot to operate - Open window and/or door for ventilation.
   b. Low line pressure - Contact local gas company.
   c. ODS/pilot is partially clogged - Clean ODS/pilot.
   d. Defective thermocouple - Replace pilot.
4. **Appliance shuts off during use. (Pilot stays on.)**
   a. Low line pressure - Check line pressure to the valve.
   b. Defective thermopile - Check pilot flame, check wire connections, output should be a minimum of 325 millivolts across. TH/TP and TP terminals with ON/OFF switch off.
5. **Gas odor even when control knob is in OFF position.**
   a. Gas leak - Locate and correct all leaks.
   b. Control valve defective - Replace control valve.
6. **When ignitor button is pressed, there is spark at ODS/pilot, but no ignition.**
   a. Gas supply turned off or manual shutoff valve closed - Turn on gas supply or open manual shutoff valve.
   b. Control knob not in PILOT position - Turn control knob to PILOT position.
   c. Control knob not pressed in while in PILOT position - Press in control knob while in PILOT position.
   d. Air in gas lines when installed - Continue holding down control knob. Repeat igniting operation until air is removed.
   e. ODS/pilot is clogged - Replace ODS/pilot assembly or get it serviced.
   g. Gas regulator setting is not correct - Replace gas regulator.
7. **ODS/pilot lights but flame goes out when control knob is released.**
   a. Control knob not fully pressed in - Press in control knob fully.
   b. Control knob not pressed in long enough - After ODS/pilot lights, keep control knob pressed in 30 seconds.
   c. Manual Shutoff valve not fully open - Fully open manual shutoff valve.
   d. Thermocouple connection loose at control valve - Hand tighten until snug, then tighten 1/4 turn more.
   e. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by either low gas pressure or dirty or partially clogged ODS/pilot - Contact local gas company.
   f. Thermocouple damaged - Replace thermocouple.
   h. Control valve damaged - Replace control valve.
8. **Burner does not light after ODS/pilot is lit.**
   a. Burner orifice clogged - Clean burner or replace main burner orifice.
   b. Burner orifice diameter is too small - Replace burner orifice.
   c. Inlet gas pressure is too low - Contact qualified service person.
9. **If burning at main burner orifice occurs (a loud, roaring blow torch noise).**
   a. You must turn off burner assembly and contact a qualified service person.
   b. Manifold pressure is too low - Contact local gas company.
   c. Burner orifice clogged - Clean burner or replace burner orifice.
10. **Logs appear to smoke after initial operation.**
    a. Vapors from paint or curing process of logs - Problem will stop after a few hours of operation. Run the heater with the damper open if you have one, or open a window for the first few hours.
    Log heater is intended to be smokeless. Turn OFF heater and call qualified service person.
11. **Heater produces a whistling noise when main burner is lit.**
    a. Turning control knob to HIGH position when main burner is cold - Turn control knob to LOW position and let warm up for a minute.
    b. Air in gas line - Operate burner until air is removed from line. Have gas line checked by local gas company.
    c. Dirty or partially clogged burner orifice - Clean burner or replace burner orifice.
12. **No gas to pilot.**
    a. LP-regulator shut down due to inlet pressure too high - Verify LP tank regulator is installed and set at 11" to 13" w.c. Replace regulator on heater.

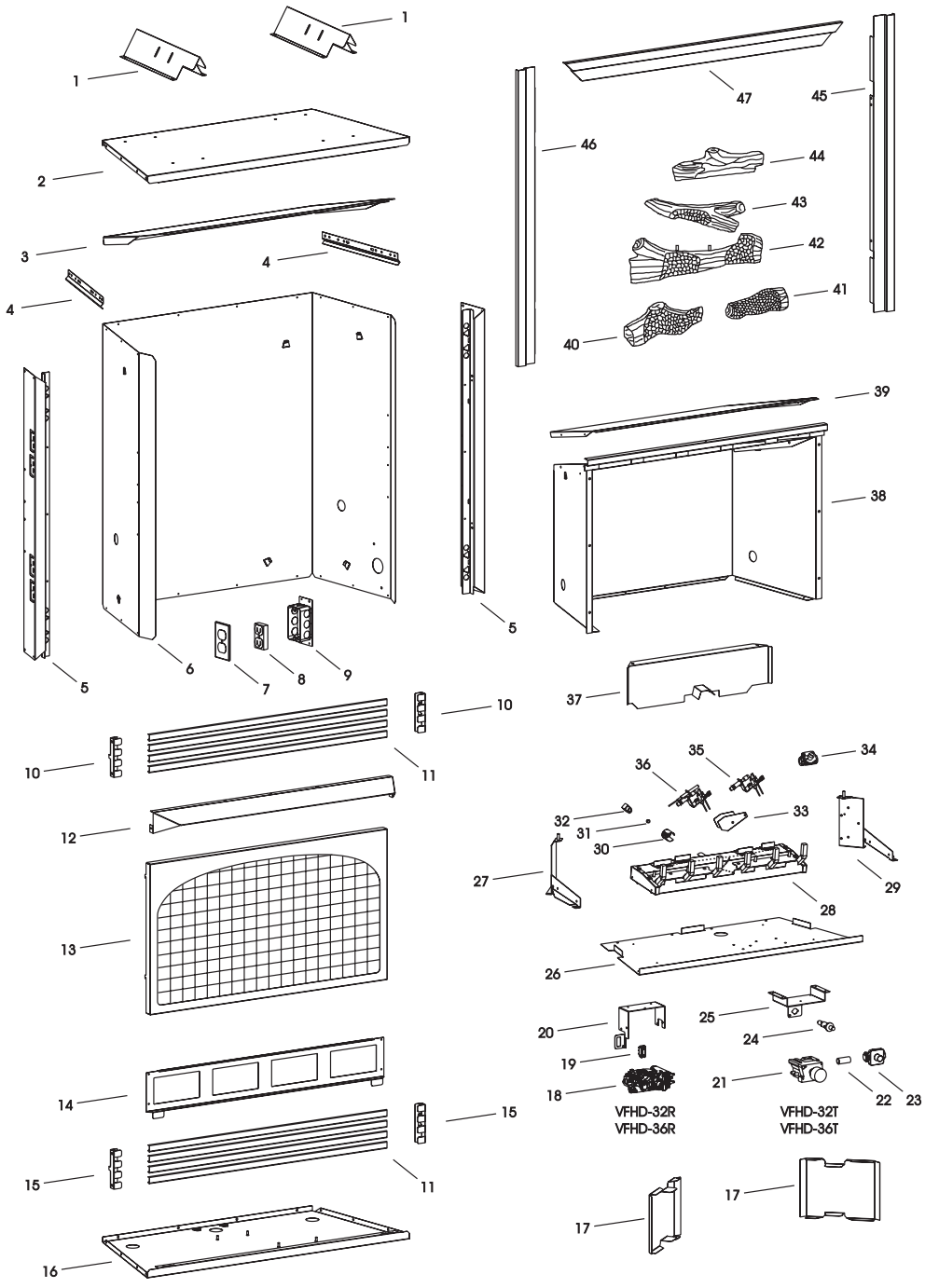
If the gas quality is bad, your pilot may not stay lit, the burners may produce soot and the heater may backfire when lit. If the gas quality or pressure is low, contact your local gas supplier immediately.

PARTS LIST

ATTENTION: When ordering parts, it is very important that **part number** and **description** of part coincide.

INDEX NUMBER	PART DESCRIPTION	VFHD-32R	VFHD-32T	VFHD-36R	VFHD-36T
1	TOP STANDOFF	11520	11520	11520	11520
2	OUTER WRAPPER TOP	13948	13948	13973	13973
3	TOP HEAT SHIELD	13950	13950	13975	13975
4	STANDOFF BRACKET	14124	14124	14124	14124
5	OUTER WRAPPER FRONT POST	16292	16292	16293	16293
6	OUTER WRAPPER SIDES & BACK	13947	13947	13972	13972
7	JUNCTION BOX COVER	R-3491	R-3491	R-3491	R-3491
8	RECEPTICAL	R-3492	R-3492	R-3492	R-3492
9	JUNCTION BOX ASSEMBLY	10054	10054	10054	10054
10	LOUVER BRACKET ASSEMBLY WITH CLIP	14169	14169	14169	14169
11	LOUVERS	14019	14019	13981	13981
12	HOOD	13956	13956	13980	13980
13	FRONT FRAME ASSEMBLY	14048	14048	14049	14049
14	LOUVER BRACKET - HINGE	14029	14029	14030	14030
15	LOUVER BRACKET	13957	13957	13957	13957
16	OUTER WRAPPER BOTTOM ASSEMBLY	14043	14043	14047	14047
17	FIREBOX SUPPORT	13951	13951	13951	13951
18	GAS VALVE - LPG	R-5701	N/A	R-5701	N/A
18	GAS VALVE - NAT	R-5700	N/A	R-5700	N/A
19	REMOTE/OFF/ON SWITCH	R-3436	N/A	R-3436	N/A
20	VALVE BRACKET	14007	N/A	14007	N/A
21	GAS VALVE ASSEMBLY - LPG	N/A	11924	N/A	11924
21	GAS VALVE ASSEMBLY - NAT	N/A	11923	N/A	11923
22	3/8" X 1 1/2" NIPPLE	N/A	R-6426	N/A	R-6426
23	INLET REGULATOR - LPG	N/A	R-6428	N/A	R-6428
23	INLET REGULATOR - NAT	N/A	R-6427	N/A	R-6427
24	PIEZO IGNITOR	N/A	R-2313	N/A	R-2313
25	VALVE BRACKET	N/A	13960	N/A	13960
26	FIREBOX BOTTOM	13959	13959	13979	13979
27	BURNER SUPPORT LEFT ASSEMBLY	11376	11376	11376	11376
28	BURNER ASSEMBLY	14035	14035	14037	14037
29	BURNER SUPPORT RIGHT ASSEMBLY	11481	11481	11481	11481
30	AIR SHUTTER - NAT	R-5676	R-5676	R-5676	R-5676
30	AIR SHUTTER - LPG	R-5675	R-5675	R-5675	R-5675
31	ORIFICE - NAT	P-243	P-252	P-244	P-213
31	ORIFICE - LPG	P-185	P-185	P-245	P-245
32	ORIFICE FITTING	P-253	P-253	P-253	P-253
33	PILOT SHIELD - NAT ONLY	11833	11833	11833	11833
34	PILOT REGULATOR - NAT ONLY	R-7063	N/A	R-7063	N/A
35	PILOT - LPG	N/A	R-5170	N/A	R-5170
35	PILOT - NAT	N/A	R-5171	N/A	R-5171
36	PILOT - LPG	R-3623	N/A	R-3623	N/A
36	PILOT - NAT	R-3624	N/A	R-3624	N/A
37	REAR LOG SUPPORT	11540	11540	11541	11541
38	INNER FIREBOX ASSEMBLY	14168	14168	14224	14224
39	FIREBOX TOP	13952	13952	13976	13976
40	LOG - LEFT FRONT	R-6391	R-6391	R-5736	R-5736
41	LOG - RIGHT FRONT	R-5731	R-5731	R-5737	R-5737
42	LOG - MIDDLE	R-5732	R-5732	R-5738	R-5738
43	LOG - BRANCH	R-5734	R-5734	R-5740	R-5740
44	LOG - REAR	R-6392	R-6392	R-7139	R-7139
45	RIGHT TRIM	14052	14052	14085	14085
46	LEFT TRIM	14051	14051	14084	14084
47	TOP TRIM	14060	14060	14083	14083
NS	TUBING - VALVE TO BURNER	11893	11895	11893	11895
NS	TUBING - VALVE TO PILOT	11892(LP)	11894	11892(LP)	11894
NS	TUBING - VALVE TO PILOT REGULATOR (NAT ONLY)	14125	N/A	14125	N/A
NS	TUBING - PILOT REGULATOR TO PILOT (NAT ONLY)	14123	N/A	14123	N/A
NS	BULB CLIP	N/A	R-2882	N/A	R-2882
NS	IGNITOR WIRE	R-5781	R-5781	R-5781	R-5781
NS	DECORATIVE ROCK	11788 (1)	11788 (1)	11788 (2)	11788 (2)
NS	ROCK WOOL	15970	15970	15970	15970
NS	SWITCH WIRE HARNESS	R-3435A	N/A	R-3435A	N/A

PARTS VIEW



HOW TO ORDER REPAIR PARTS

Parts can be ordered **only** 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**.

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

Fireplace Model Number _____ Part Description _____

Fireplace Serial Number _____ Part Number _____

Type of Gas (Propane or Natural) _____

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

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

OPTIONAL VARIABLE SPEED BLOWER INSTALLATION INSTRUCTIONS

FBB3A Blower Installation

1. If applicable, turn OFF electric supply to fireplace.
2. Lower bottom louver and lift upward to remove bottom louver.
3. Refer to page 28, Junction Box Wiring Installation Instructions to complete wiring of junction box.
4. Centered in the rear are two (2) weld studs which protrude upward into the bottom of fireplace for attachment of fan.
5. Insert fan into interior, bottom of fireplace. The clearance holes on fan mounting bracket must be facing toward the front of fireplace. Do not damage gas inlet supply line when fan is inserted into fireplace.
6. Align and place front set of clearance holes on fan mounting bracket onto two (2) weld studs**.**
7. Use two (2) wing nuts to attach blower to weld studs.
8. Located in the right, front are two (2) weld studs which protrude upward into the bottom of fireplace for attachment of speed control.
9. Insert speed control into interior, bottom of fireplace. Align and place two (2) clearance holes on speed control onto two (2) weld studs.
10. Use two (2) wing nuts to attach speed control to weld studs.
11. To remove top louver grasp louver and pull forward.
12. Refer to Figure 24 for mounting hole location on right side of firebox top. Measure from front edge of firebox top to determine mounting hole location. Remove appropriate screw from firebox top.
13. Refer to Figure 25 for fan control bracket location. Align clearance hole on fan control bracket with screw hole on firebox top. Attach fan control bracket to firebox top with one (1) screw from Step 12.
14. Route fan control wires between the inner casing and outer casing.
15. Connect fan control wires to speed control wires.
16. Plug speed control electric cord into junction box on the right side of fireplace.
17. Replace top louver.
18. Replace bottom louver.
19. Installation of FBB3A blower is completed.

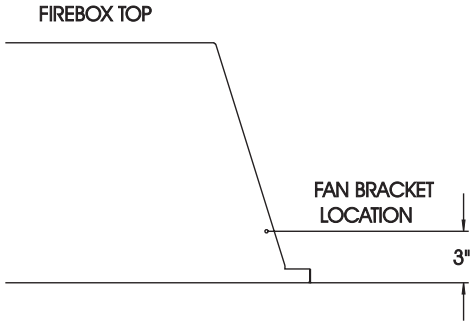


Figure 24

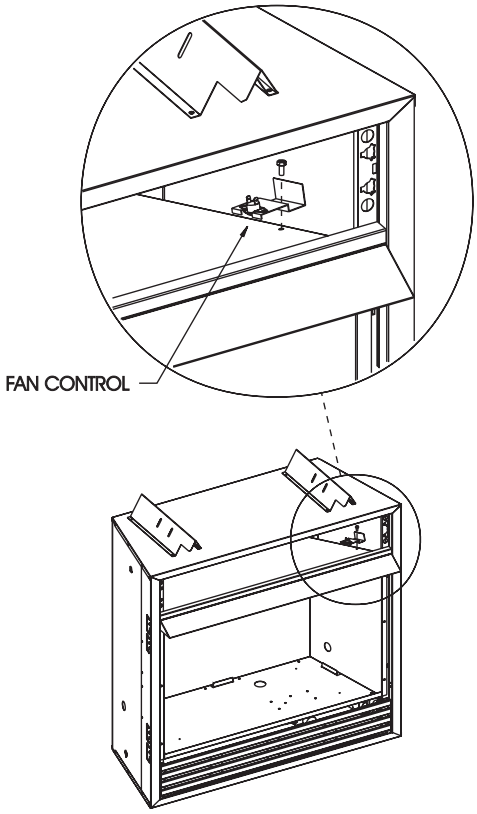


Figure 25

Wiring

The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*, if an external electrical source is utilized. **This appliance is equipped with a three-prong [grounding] plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.** For an ungrounded receptacle, an adapter, which has two prongs and a wire for grounding, can be purchased, plugged into the ungrounded receptacle and its wire connected to the receptacle mounting screw. With this wire completing the ground, the appliance cord plug can be plugged into the adapter and be electrically grounded.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

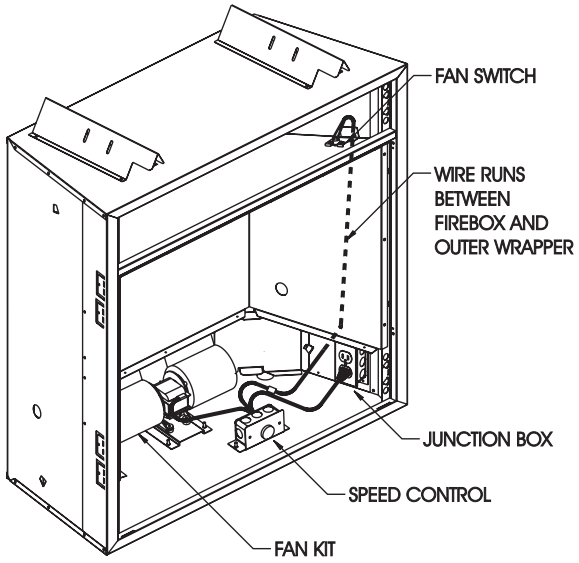


Figure 26

INDEX NO.	PART NO.	DESCRIPTION
1	R-4190	BLOWERASSEMBLY
2	14050	FANCONTROLBRACKET
3	R-2503	FANCONTROL
4	R-5101	WIREHARNESS
5	R-5298	WIREASSEMBLY
6	R-3490	JUNCTIONBOX
7	10088	RHEOSTATBOXBRACKET
8	R-4192	RHEOSTATKNOB
9	R-4186	RHEOSTAT
10	R-4193	CORDSET
11	10849	BLOWERSUPPORT
NS	10146	BLOWERGASKET(2REQUIRED)
NS	R-1410	STRAINRELIEFBUSHING
NS	R-1720	CABLECLIP

Blower Motor

The blower motor does not have oiling holes. Do not attempt to oil the blower motor.

Blower Wheels

The blower wheels will collect lint and could require periodic cleaning. If the air output decreases or the noise level increases, it indicates a dirty blower wheel. Remove blower and clean blower wheels.

WARNING:
Unplugging of blower accessory will not stop the heater from cycling. To turn off gas to the unvented heater: Push in gas control knob slightly and turn clockwise to "OFF." Do not force.

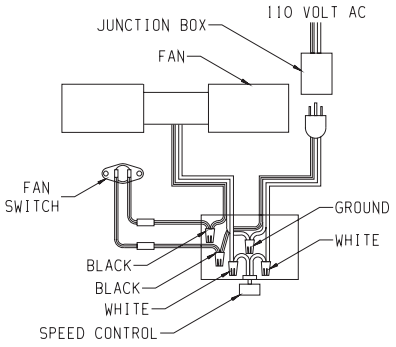


Figure 27

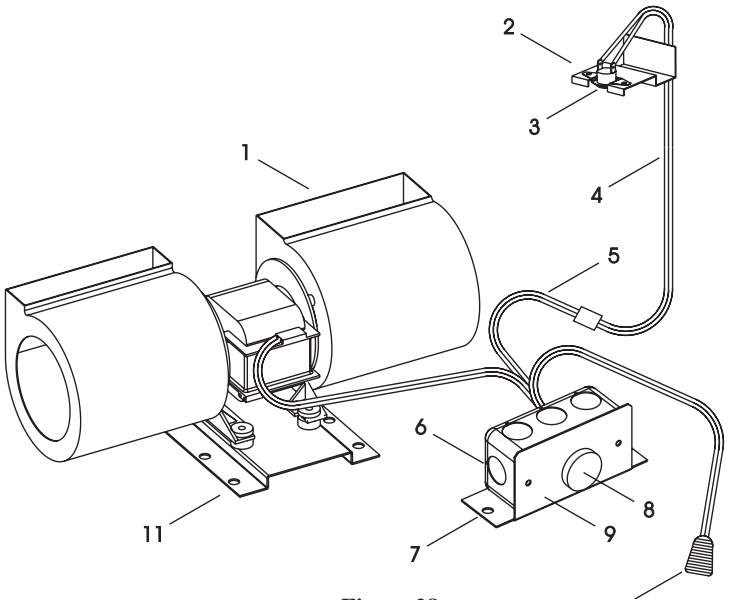


Figure 28

OPTIONAL SINGLE SPEED BLOWER INSTALLATION INSTRUCTIONS

FBB2A Blower Installation

1. If applicable, turn OFF electric supply to fireplace.
2. Lower bottom louver and lift upward to remove bottom louver.
3. Refer to page 28, Junction Box Wiring Installation Instructions to complete wiring of junction box.
4. Install a wall switch to turn blower ON or OFF. Route wires to junction box.
5. Place blower assembly into bottom of fireplace.
6. Insert blower support into mounting tabs and onto weld studs on fireplace bottom. Attach two (2) wing nuts onto weld studs.
7. Attach cord set wires to blower assembly wires.
8. Plug cord set into junction box.
9. Replace bottom louver.
10. Installation of FBB2A blower is completed.

INDEX NO.	PART NO.	DESCRIPTION
1	11935	BLOWERDIVERTOR
2	R-6458	CORDSET
3	11932	BLOWERSUPPORT
4	R-6440	BLOWERASSEMBLY
NS	10146	BLOWERGASKET(2REQUIRED)
NS	R-1720	CABLECLIP
NS	R-1499	GROMMETS(3REQUIRED)
NS	R-1454	BUSHING(3REQUIRED)

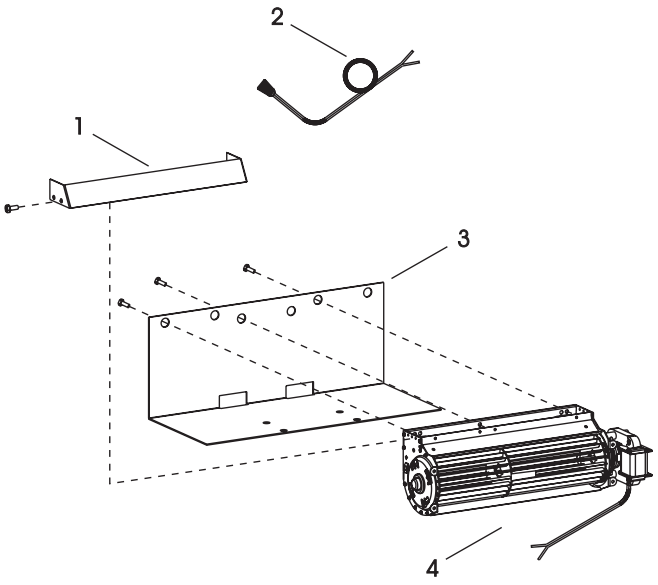


Figure 29

Wiring

The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code ANSI/NFPA No. 70*, if an external electrical source is utilized. **This appliance is equipped with a three-prong [grounding] plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.** For an ungrounded receptacle, an adapter, which has two prongs and a wire for grounding, can be purchased, plugged into the ungrounded receptacle and its wire connected to the receptacle mounting screw. With this wire completing the ground, the appliance cord plug can be plugged into the adapter and be electrically grounded.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

Blower Motor

The blower motor does not have oiling holes. Do not attempt to oil the blower motor.

Blower Wheels

The blower wheels will collect lint and could require periodic cleaning. If the air output decreases or the noise level increases, it indicates a dirty blower wheel. Remove blower and clean blower wheels.

WARNING:
Unplugging of blower accessory will not stop the heater from cycling. To turn off gas to the unvented heater: Push in gas control knob slightly and turn clockwise to "OFF." Do not force.

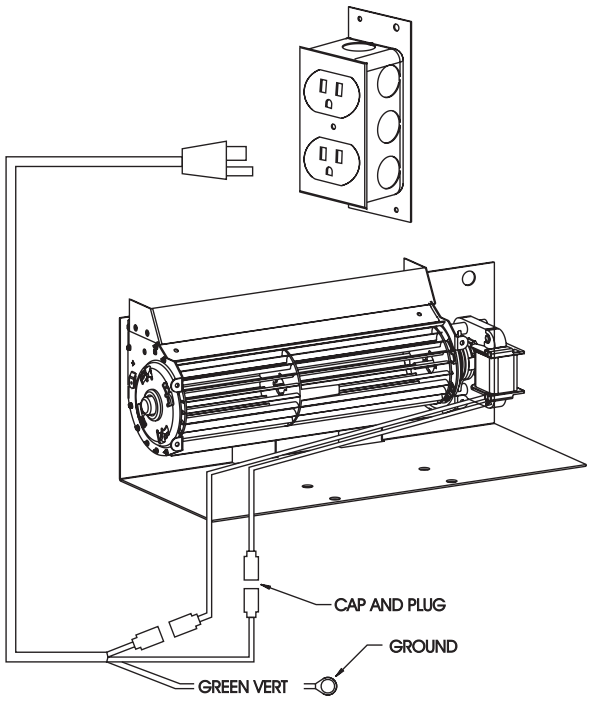


Figure 30

JUNCTION BOX WIRING INSTALLATION INSTRUCTIONS

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 MAIN POWER SUPPLY IS DISCONNECTED. THE APPLIANCE, WHEN INSTALLED, MUST BE ELECTRICALLY GROUNDED IN ACCORDANCE WITH LOCAL CODES OR, IN THE ABSENCE OF LOCAL CODES, WITH THE NATIONAL ELECTRICAL CODE ANSI/NFPA 70 (LATEST EDITION).

A factory installed junction box is located on the lower right hand side of the fireplace. Wiring must be fed to the junction box and attached to the receptacle that is provided. Remove the knockout in the installed junction box to accept wiring into the junction box. Install a UL listed cable clamp (not supplied) in the knockout hole. Leave approximately 6" of wire in the junction box for connection.

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

Install the receptacle into the junction box. Attach cover plate.

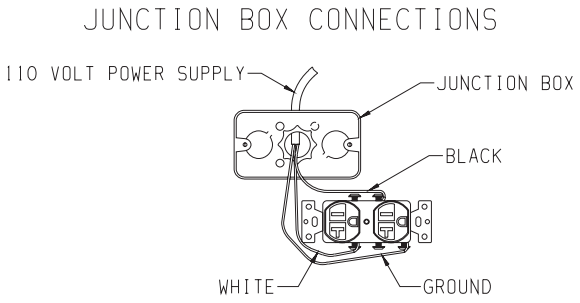


Figure 31

OPTIONAL BRICK LINER INSTALLATION INSTRUCTIONS

Brick Liner VFP2A-32SSA and VFP2A-36SSA

1. Remove screen from fireplace.
2. Remove branch log and rear log from burner assembly.
3. Insert back panel into firebox.
4. Insert one (1) side panel into firebox.
5. Use one (1) brick panel bracket to secure side panel. Align clearance hole on brick panel bracket with screw hole in the left or right interior, top of firebox. Use one (1) 10 x 1/2" Phillips screw to attach brick panel bracket to interior, top of firebox.
6. Repeat steps 4 and 5 to install second side panel.
7. Replace rear log and branch log onto burner assembly.
8. Replace screen onto fireplace.
9. Installation of optional brick liner is completed.

PARTNAME	VFP2A-32SSA PARTNO.	VFP2A-36SSA PARTNO.
BRICKPANELSIDE-LEFT	R-7082	R-7085
BRICKPANELSIDE-RIGHT	R-7083	R-7086
BRICKPANELBACK	R-7084	R-7087
BRICKPANELBRACKET(2REQ'D)	13958	13958

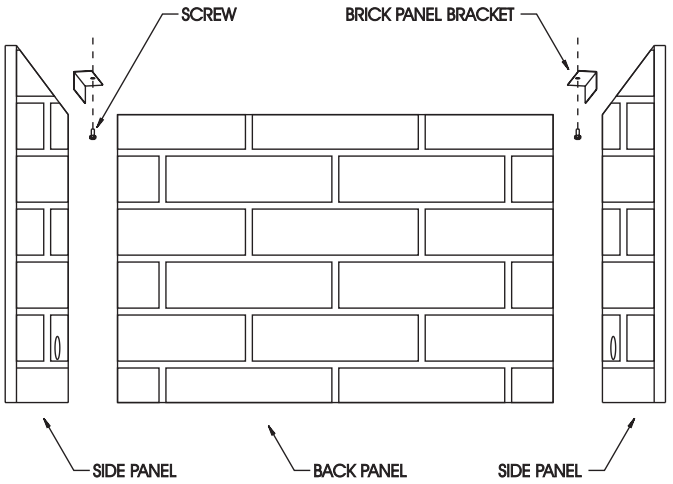


Figure 32

ECS

Empire Comfort Systems, Inc.
Nine Eighteen Freeburg Ave.
Belleville, Illinois 62220-2623

PH: 1-618-233-7420
PH: 1-800-851-3153
FAX: 1-618-233-7097
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