



Builder Rear Vent Direct Vent

Models: 33LDVR, 36LDVR,
39LDVR, 43LDVR

INSTALLER/CONSUMER SAFETY INFORMATION

**PLEASE READ THIS MANUAL
BEFORE INSTALLING AND USING
APPLIANCE**

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.**

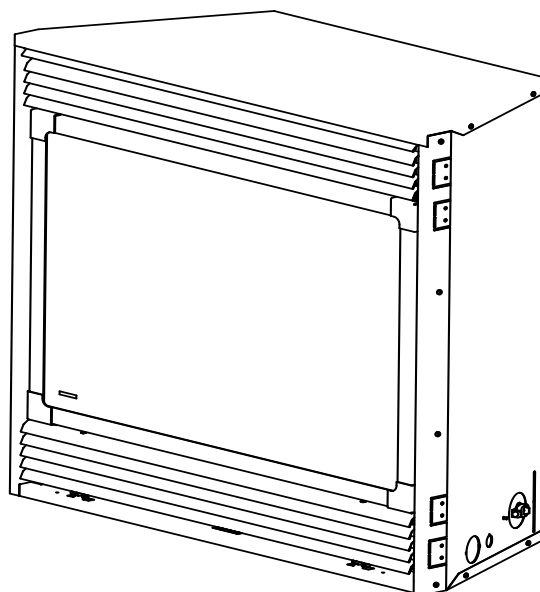
FOR YOUR SAFETY

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

WHAT TO DO IF YOU SMELL GAS:

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

**DO NOT STORE OR USE
GASOLINE OR OTHER
FLAMMABLE VAPORS AND
LIQUIDS IN THE VICINITY OF THIS
OR ANY OTHER APPLIANCE.**



Installation Instructions and Homeowner's Manual



**INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.**

Table of Contents

PLEASE READ THE INSTALLATION & OPERATING INSTRUCTIONS BEFORE USING APPLIANCE.

Thank you and congratulations on your purchase of an Vermont Castings Group fireplace.

IMPORTANT: Read all instructions and warnings carefully before starting installation.

Failure to follow these instructions fully may result in a possible fire hazard and will void the warranty.

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Installation & Operating Instructions

This gas fireplace should be installed by a qualified installer, preferably NFI or WETT (Canada) certified, in accordance with local building codes and with current CSA-B149.1 Installation codes for Gas Burning Appliances and Equipment. For USA Installations follow local codes and/or the current National Fuel Gas Code. ANSI Z223.1/NFPA 54.

FOR SAFE INSTALLATION AND OPERATION PLEASE NOTE THE FOLLOWING:

1. This fireplace gives off high temperatures and should be located out of high traffic areas and away from furniture and draperies.
2. Children and adults should be alerted to the hazards of high surface temperatures of this fireplace and should stay away to avoid burns or ignition of clothing.
3. **CAUTION: Due to high glass surface temperature children should be carefully supervised when in the same room as fireplace.**



4. Under no circumstances should this fireplace be modified. Parts removed for servicing should be replaced prior to operating this fireplace again.
5. Installation and any repairs to this fireplace must be performed by a qualified installer, service agency or gas supplier. A professional service person should be contacted to inspect this fireplace annually. Make it a practice to have all of your gas fireplaces checked annually. More frequent cleaning may be required due to excess lint and dust from carpeting, bedding material, etc.
6. Control compartments, burners and air passages in this fireplace should be kept clean and free of dust and lint. Make sure the gas valve and pilot light are turned off before you attempt to clean this fireplace.
7. The venting system (chimney) of this fireplace should be checked at least once a year and if needed your venting system should be cleaned.
8. Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapor and liquids. This fireplace should not be used as a drying rack for clothing, nor should Christmas stockings or decorations be hung on or around the fireplace.
9. Under no circumstances should any solid fuels (wood, coal, paper or cardboard etc.) be used in this fireplace.
10. The flow of combustion and ventilation air must not be obstructed in any way.
11. When fireplace is installed directly on carpeting, vinyl tile or any combustible material other than wood, the fireplace must be installed on a metal or wood panel extending the full width and depth of the fireplace.

12. This fireplace requires adequate ventilation and combustion air to operate properly.
13. This fireplace must not be connected to a chimney flue serving a separate solid fuel burning fireplace.
14. When the fireplace is not in use it is recommended that the gas valve be left in the **OFF** position.
15. These units have been approved for bedroom use.

WARNING: Check with your electronics manufacturer before installing a television or other electronic device above this fireplace.

**33LDVR / 36LDVR / 39LDVR / 43LDVR
Certified To**

**ANSI Z21.88-2009 / CSA 2.33-2009
Vented Gas Fireplace Heaters**

IMPORTANT:

PLEASE REVIEW THE FOLLOWING CAREFULLY
Remove any plastic from trim parts before turning the fireplace ON.

It is normal for fireplaces fabricated of steel to give off some expansion and/or contraction noises during the start up or cool down cycle. Similar noises are found with your furnace heat exchanger or car engine. It is not unusual for your gas fireplace to give off some odor the first time it is burned. This is due to the curing of the paint and any undetected oil from the manufacturing process.

Please ensure that your room is well ventilated - open all windows.

It is recommended that you burn your fireplace for at least ten (10) hours the first time you use it. If the optional fan kit has been installed, place the fan switch in the "OFF" position during this time.

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

The LDVR has been approved for mobile home installations.

Proposition 65 Warning: Fuels used in gas, wood-burning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

California Health & Safety Code Sec. 25249.6

Installation & Operating Instructions

Requirements for the Commonwealth of Massachusetts

All gas fitting and installation of this heater shall only be done by a licensed gas fitter or licensed plumber.

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 (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

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 is installed on each additional level of the dwelling, building or structure served by the side wall horizontally 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.

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.

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 (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

Approved Carbon Monoxide Detectors

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and ANSI/UL 2034 listed and IAS certified.

Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, "**GAS VENT DIRECTLY BELOW, KEEP CLEAR OF ALL OBSTRUCTIONS**".

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.

Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- 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
- 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.

MANUFACTURER REQUIREMENTS

Gas Equipment Venting System Provided

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

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:

- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- 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 instructions.

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.

Fireplace Dimensions

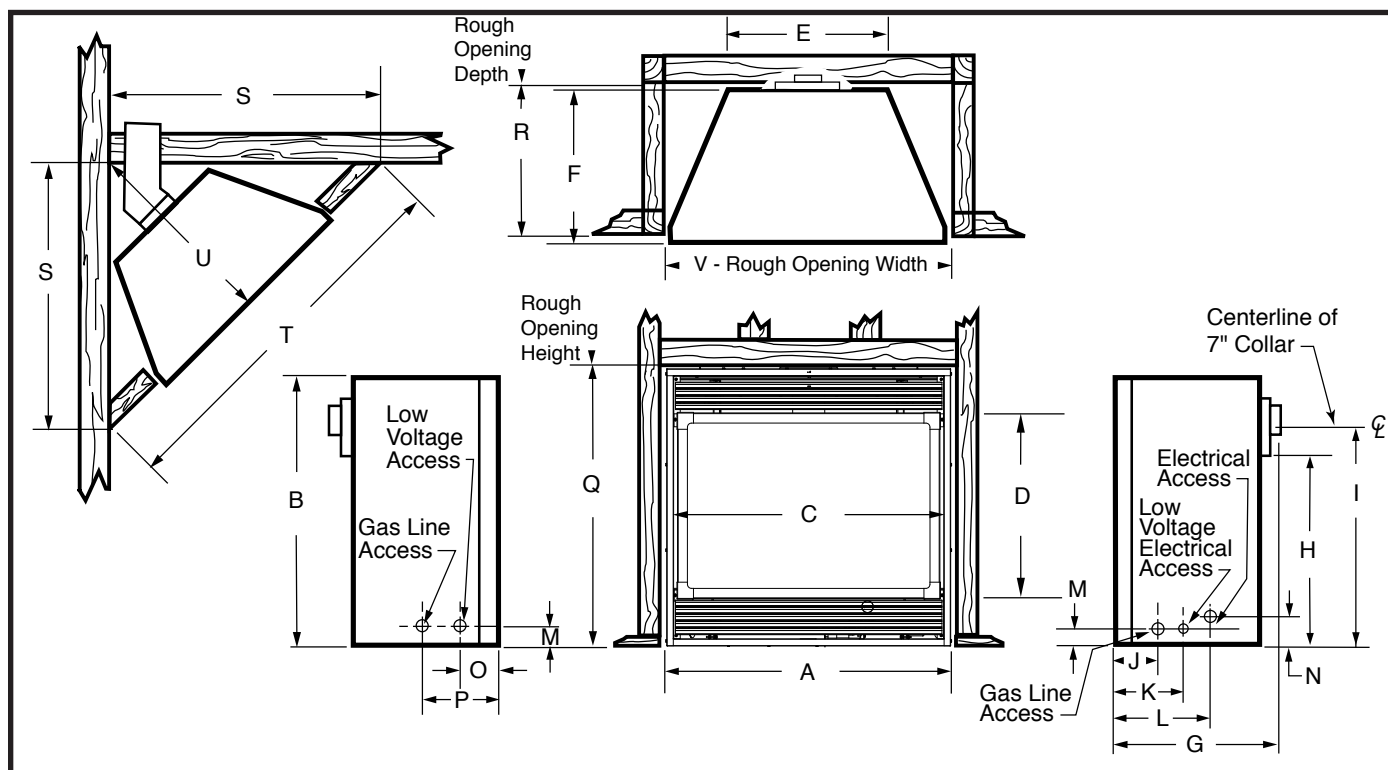


Fig. 1 Fireplace specifications and framing dimensions.

Ref.	33LDVR	36LDVR	39LDVR	43LDVR
A	33" (838 mm)	36" (914 mm)	39" (991 mm)	43" (1092 mm)
B	28 ⁷ / ₈ " (733 mm)	34 ¹ / ₄ " (870 mm)	34 ¹ / ₄ " (870 mm)	37" (940 mm)
C	31 ¹ / ₄ " (794 mm)	34 ¹ / ₄ " (870 mm)	37 ¹ / ₄ " (946 mm)	41 ¹ / ₄ " (1048 mm)
D	18 ³ / ₈ " (466 mm)	23" (584 mm)	23" (584 mm)	25 ³ / ₄ " (654 mm)
E	24 ⁷ / ₈ " (632 mm)	24" (610 mm)	27" (686 mm)	31" (788 mm)
F	11 ¹ / ₂ " (292 mm)	16" (406 mm)	16" (406 mm)	16" (406 mm)
G	14 ¹ / ₄ " (362 mm)	18 ³ / ₄ " (476 mm)	18 ³ / ₄ " (476 mm)	18 ³ / ₄ " (476 mm)
H	19 ³ / ₄ " (501 mm)	24 ¹ / ₄ " (616 mm)	24 ¹ / ₄ " (616 mm)	27" (686 mm)
I	23 ¹ / ₄ " (590 mm)	27 ³ / ₄ " (705 mm)	27 ³ / ₄ " (705 mm)	30 ¹ / ₂ " (775 mm)
J	4 ³ / ₄ " (121 mm)	5 ⁵ / ₈ " (143 mm)	5 ⁵ / ₈ " (143 mm)	5 ⁵ / ₈ " (143 mm)
K	6 ⁵ / ₁₆ " (160 mm)	8" (203 mm)	8" (203 mm)	8" (203 mm)
L	8 ⁷ / ₈ " (225 mm)	11 ⁷ / ₈ " (302 mm)	11 ⁷ / ₈ " (302 mm)	11 ⁷ / ₈ " (302 mm)
M	2" (51 mm)	2" (51 mm)	2" (51 mm)	2" (51 mm)
N	3 ³ / ₈ " (86 mm)	3 ¹ / ₄ " (83 mm)	3 ¹ / ₄ " (83 mm)	3 ¹ / ₄ " (83 mm)
O	4 ³ / ₄ " (121 mm)	6 ³ / ₄ " (172 mm)	6 ³ / ₄ " (172 mm)	6 ³ / ₄ " (172 mm)
P	6 ⁵ / ₁₆ " (160 mm)	9 ¹ / ₄ " (235 mm)	9 ¹ / ₄ " (235 mm)	9 ¹ / ₄ " (235 mm)
Framing Dimensions				
Q	29 ⁵ / ₈ " (753 mm)	35" (889 mm)	35" (889 mm)	37 ³ / ₄ " (959 mm)
R	12" (305 mm)	16 ¹ / ₂ " (419 mm)	16 ¹ / ₂ " (419 mm)	16 ¹ / ₂ " (419 mm)
S	36" (914 mm)	41 ⁵ / ₈ " (1057 mm)	44" (1118 mm)	44 ¹ / ₈ " (1121 mm)
T	51" (1295 mm)	58 ⁷ / ₈ " (1495 mm)	62 ¹ / ₄ " (1581 mm)	62 ³ / ₈ " (1584 mm)
U	25 ¹ / ₂ " (648 mm)	29 ⁷ / ₈ " (748 mm)	31 ¹ / ₈ " (790 mm)	31 ¹ / ₄ " (794 mm)
V	33 ¹ / ₂ " (851 mm)	36 ¹ / ₂ " (927 mm)	39 ¹ / ₂ " (1003 mm)	43 ¹ / ₂ " (1105 mm)

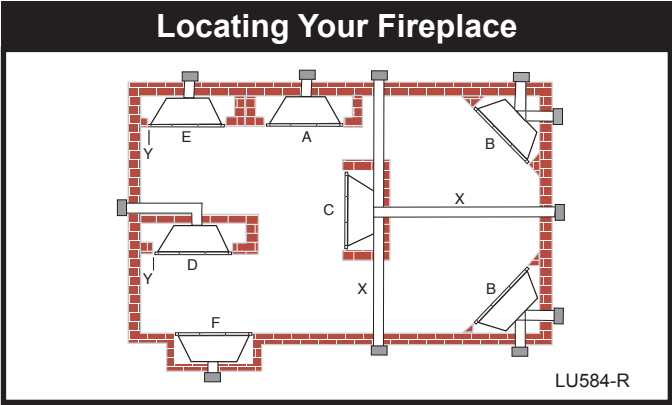


Fig. 2 Locate gas fireplace.
A) Flat on wall B) Cross corner C) **Island
D) *Room divider E) *Flat on wall corner F) Chase installation
Y) 6" minimum

NOTE: (Fig. 2)
** Island (C) and Room Divider (D) installation is possible as long as the horizontal portion of the vent system (X) does not exceed 20' (610cm). See details in Venting Section.
* When you install your fireplace in(D) Room divider or (E) Flat on wall corner positions (Y), a minimum of 6" (153mm) clearance must be maintained from the perpendicular wall and the front side edge of the fireplace. Refer to (Y) in Figure 2.

Clearance to Combustibles

- Top of Unit to Ceiling 36" (914 mm)
- Appliance**
- Top 0" (0 mm)
 - Bottom..... 0" (0 mm)
 - Side..... 0" (0 mm)
 - Back..... 0" (0 mm)
- Venting**
- Concentric sections of DV Vent
- Top, bottom & sides 1" (25 mm)
- Rear Vent Applications:
- Top 2" (50 mm)
 - Sides and Bottom..... 1" (25 mm)
 - Flex Vent 7/8" (22 mm)

Mantels

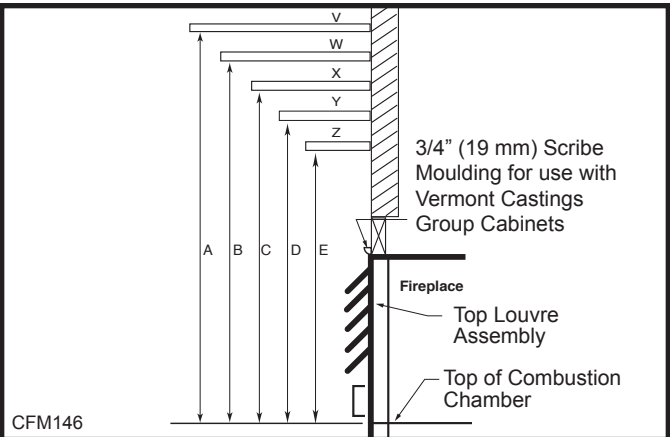
The height that a combustible mantel is fitted above the fireplace is dependent on the depth of the mantel. This also applies to the distance between the mantel leg (if fitted) and the fireplace.

For the correct mounting height and widths refer to Figs. 3a and 3b, and the following Mantel Charts.

The fitting of a bay window trim kit does not effect the distances and reference points referred to in the diagram and chart.

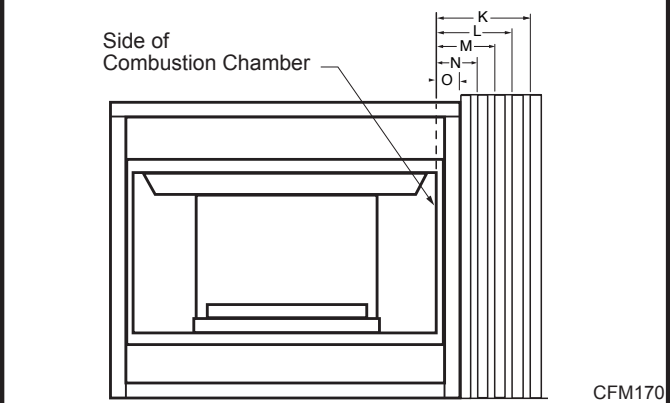
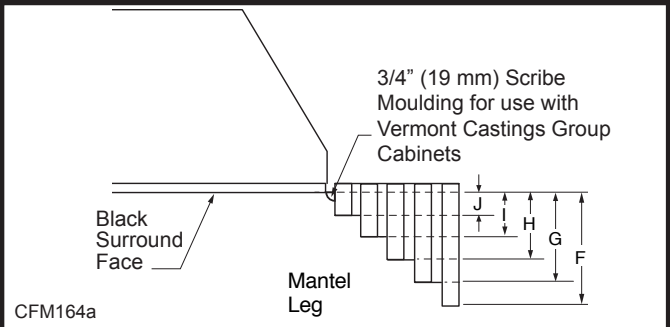
Noncombustible mantels and legs may be installed at any height and width around the appliance.

When using paint or lacquer to finish the mantel, such paint or lacquer must be heat resistant to prevent discoloration.



Mantel Chart					
Ref.	Mantel Shelf or Breast Plate Depth	Ref.	Mantel from Top of Combustion Chamber		
			36/39/43 LDVR	33LDVR	
V	10" (254 mm)	A	17" (432 mm)	16½" (419 mm)	
W	8" (203 mm)	B	15" (381 mm)	14½" (368 mm)	
X	6" (152 mm)	C	13" (330 mm)	12½" (318 mm)	
Y	4" (102 mm)	D	11" (279 mm)	10½" (267 mm)	
Z	2" (51 mm)	E	9" (229 mm)	8½" (216 mm)	

Fig. 3a Combustible mantel minimum installation.



Ref.	Mantel Leg Depth	Ref.	Mantel Leg From Side of Comb. Opening		
			K	L	
F	10" (254 mm)	K	11½" (292 mm)		
G	8" (203 mm)	L	9½" (241 mm)		
H	6" (152 mm)	M	7½" (191 mm)		
I	4" (102 mm)	N	5½" (140 mm)		
J	2" (51 mm)	O	3½" (89 mm)		

Fig. 3b Combustible mantel leg minimum installation.

Hearth

A hearth is not mandatory but is recommended for aesthetic purposes. We recommend a noncombustible hearth which projects out 12" (305mm) or more from the front of the fireplace.

Cold climate installation recommendation:



When installing this unit against a non-insulated exterior wall or chase, it is mandatory that the outer walls be insulated to conform to applicable insulation codes.

Framing and Finishing



Check fireplace to make sure it is levelled and properly positioned.

To mount the appliance:

1. Choose the location.
2. This unit comes with four (4) flanges pre-mounted on both sides of the fireplace to allow two different drywall thicknesses to be used. Flange "A" is for 1/2" drywall while flange "B" is for 5/8" drywall.
3. Bend the desired flanges out 90° on both sides of the fireplace. Slide the fireplace into the framed opening until the flanges contact the front surfaces of the framing. Level the unit and secure it firmly in place.

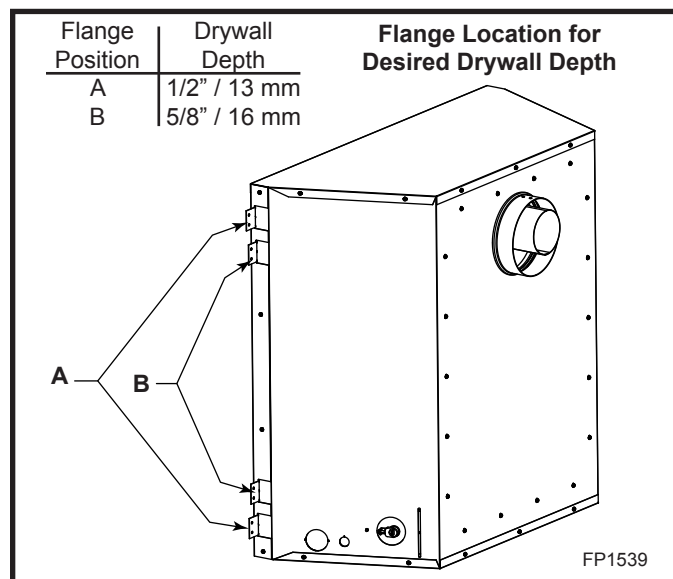


Fig. 4 Nailing flanges.

Final Finishing

Noncombustible materials such as brick or tile may be extended over the edges of the face of the fireplace. **DO NOT** cover any vent or grille panels.

If a Trim Kit is going to be installed on the fireplace, the brick or tile will have to be installed flush with the edges of the fireplace.

Gas Specifications

Model	Fuel	Gas Control	Max. Input BTU/h	Min. Input BTU/h
33LDVRRN	Nat	Millivolt	16,000	11,200
33LDVRRP	Prop	Millivolt	16,000	12,000
33LDVREN	Nat	24V Hi/Lo	16,000	11,200
33LDVREP	Prop*	24V Hi/Lo	16,000	12,000
33LDVRIN	Nat.	6V DC Hi/Lo	16,000	11,200
33LDVRIP*	Prop.*	6V DC Hi/Lo	16,000	12,000
36LDVRRN	Nat	Millivolt	19,500	13,650
36LDVRRP	Prop	Millivolt	19,500	14,625
36LDVREN	Nat	24V Hi/Lo	19,500	13,650
36LDVREP	Prop*	24V Hi/Lo	19,500	14,625
36LDVRIN	Nat.	6V DC Hi/Lo	19,500	13,650
36LDVRIP*	Prop.*	6V DC Hi/Lo	19,500	14,625
39LDVRRN	Nat	Millivolt	23,000	16,100
39LDVRRP	Prop*	Millivolt	22,500	16,875
39LDVREN	Nat	24V Hi/Lo	23,000	16,100
39LDVREP	Prop*	24V Hi/Lo	22,500	16,875
39LDVRIN	Nat.	6V DC Hi/Lo	23,000	16,100
39LDVRIP*	Prop.*	6V DC Hi/Lo	23,000	16,875
43LDVRRN	Nat	Millivolt	26,000	18,200
43LDVRRP	Prop*	Millivolt	24,000	18,000
43LDVREN	Nat	24V Hi/Lo	26,000	18,200
43LDVREP	Prop*	24V Hi/Lo	24,000	18,000

*Using conversion kit

Air Shutter Adjustment

Model	Gas Type	Air Shutter Opening
33LDV	Natural	3/16" Open
36/39/43LDV	Natural	Top & Bottom Hole Half Closed
33/36/39/43LDV	Propane	Fully Open

Gas Inlet and Manifold Pressures

	Natural	LP (Propane)
Inlet Minimum	5.5" w.c.	11.0" w.c.
Inlet Maximum	14.0" w.c.	14.0" w.c.
Manifold Pressure	3.5" w.c.	10.0" w.c.

High Elevations

Input ratings are shown in BTU per hour and are certified without deration for elevations up to 4,500 feet (1,370m) above sea level.

For elevations above 4,500 feet (1,370m) in USA, installations must be in accordance with the current ANSI Z223.1/NFPA 54 and/or local codes having jurisdiction.

In Canada, please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4,500 feet (1,370m).

Gas Line Installation



When purging the gas lines, the front window frame assembly must be removed.

The gas pipeline can be brought in through the rear of the appliance as well as the bottom. Knockouts are provided on the bottom behind the valve to allow for the gas pipe installation and testing of any gas connection. It is most convenient to bring the gas line in from the rear right side of the valve as this allows fan installation or removal without disconnecting the gas line.

The gas line connection can be made with properly tinned 3/8" copper tubing, 3/8" rigid pipe or an approved flex connector. Since some municipalities have additional local codes, it is always best to consult your local authority and the National Fuel Gas Code, ANSI Z223.1/NFPA 54 in the USA or the CSA-B149.1 installation code.

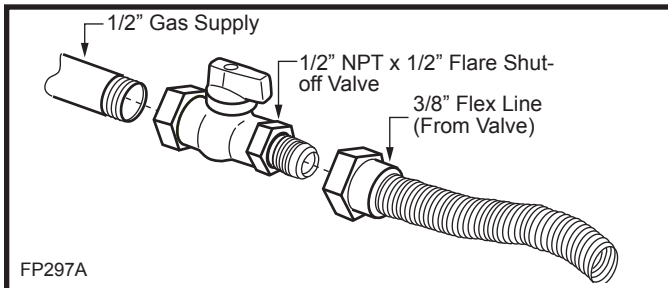


Fig. 5 Typical gas supply installation.



Always check for gas leaks with a mild soap and water solution. Do not use an open flame for leak testing.

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

When using copper or flex connector use only approved fittings. Always provide a union when using black iron pipe so the gas line can be easily disconnected for burner or fan servicing. See gas specification for pressure details and ratings.

The fireplace valve must not be subjected to any test pressures exceeding 1/2 psi. Isolate or disconnect this and any other gas appliance control from the gas line when pressure testing.

Remote ON/OFF Switch

Installation

1. Thread the wiring through the holes on the end panels of the fireplace. Take care not to cut the wire or insulation on metal edges. Route the wire to a conveniently located receptacle box.
2. Attach the wire to the ON/OFF switch and install the switch into the receptacle box.
3. Connect the other ends of the wire to the gas control valve. (Fig. 6)

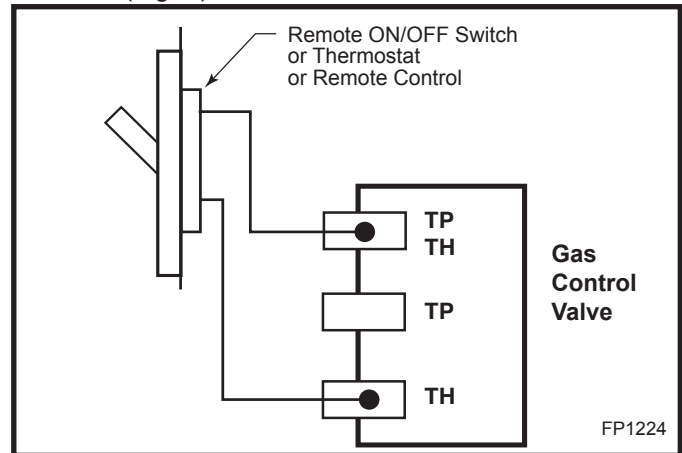


Fig. 6 Remote switch wiring diagram.

Alternate Switch Location

The remote switch can be installed on the front/side of the access door. Simply mount the switch to the bracket provided and screw the bracket to either side of the frame, lining up the screws with the pre-punched holes. (Fig. 7)

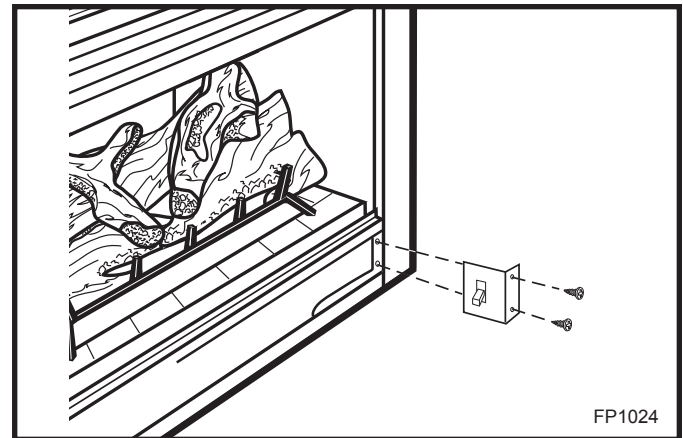


Fig. 7 Alternate switch location.



Do not wire the remote ON/OFF wall switch for the gas fireplace to the 120 volt power supply.

EB-1 Electrical Box



The fireplace, when installed, must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current CSA C22.1 Canadian Electrical Code.



For USA installations follow local codes and the national electrical code ANSI/NFPA No. 70.



It is strongly suggested that the wiring of the EB-1 Electrical Junction Box be carried out by a licensed electrician.



Ensure that the power to the supply line has been disconnected before commencing this procedure.

The EB-1 Electrical junction box has been fitted standard on this model to allow for the easy connection of an optional fan kit.

To connect the EB-1 box to the house electrical supply follow the steps below.

1. Unscrew the retaining screw from the EB-1 base plate and remove the EB-1 assembly from the appliance. (Fig. 8)
2. Remove the front cover of the EB-1 box.
3. Remove the plug socket assembly from the EB-1 box.
4. Feed the supply line in through the EB-1 opening in the side of the appliance and then through the back of the EB-1 assembly. (Fig. 8)
5. Connect the black wire of the power supply line to the brass screw (polarized) of the socket assembly.
6. Connect the white wire of the power line to the chrome screw of the socket assembly.
7. Connect the ground wire of the supply line to the green screw of the socket assembly.
8. Refit the socket assembly back into the electrical box and replace the cover plate. Secure the cable with the clamp on the outside of the EB-1 base plate and refit the EB-1 assembly to the unit with the screw removed in step 1.

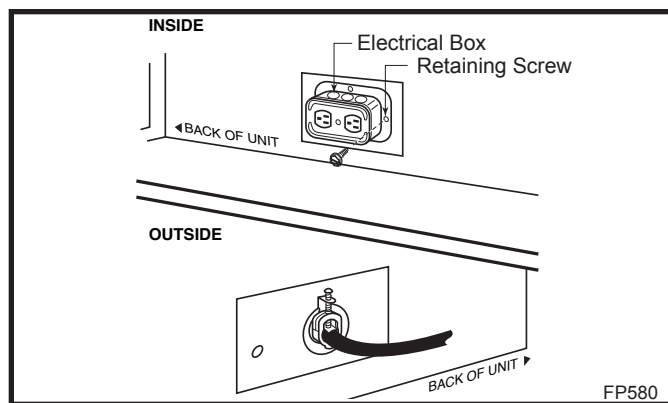


Fig. 8 EB-1 receptacle.

Electronic Gas Control Valve

This appliance may be fitted with a Synetek ignition module.

Installation of the remote on/off starter switch or wall thermostat on electronic ignition units.

1. Thread the wiring through the holes on the side panels of the appliance. Take care not to cut the wire or insulation on metal edges. Route the wire to a conveniently located receptacle box.
2. Attach the wire to the ON/OFF switch and install the switch into the receptacle box.
3. Connect the white wire from the wall switch or wall thermostat to the white wire terminal from the electronic module. Connect the black wire from the wall switch or the red wire from the wall thermostat, to the red wire terminal from the electronic module.

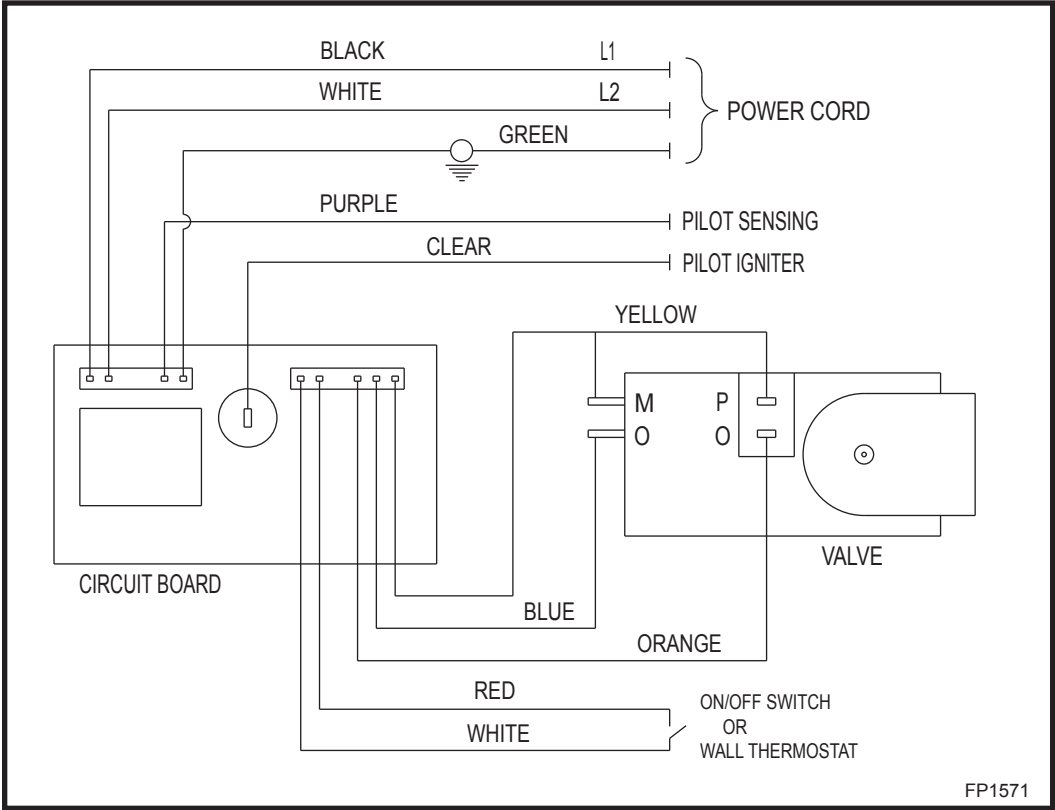


Fig. 9 SIT822 Valve with Synetek electronic control wiring diagram.

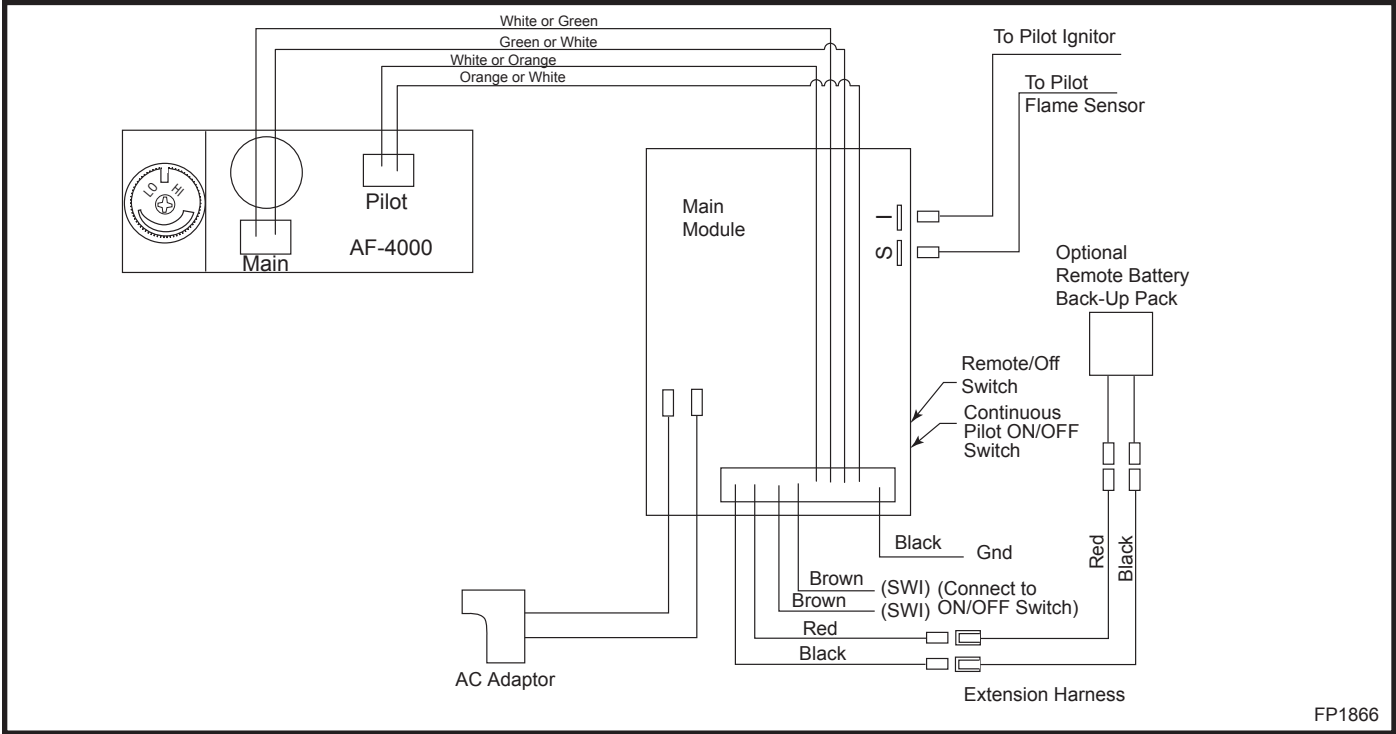


Fig. 10 American Flame Valve AF-4010 wiring diagram.

General Venting

Your fireplace is approved to be vented either through the side wall, or vertically through the roof.

- Only Vermont Castings Group venting components specifically approved and labelled for this fireplace may be used.
- Vent terminations shall not be recessed into a wall or siding.
- Horizontal venting which incorporates the twist lock pipe must be installed on a level plane without an inclining or declining slope.
- Horizontal venting which incorporates the use of flex venting shall have an inclining slope from the unit of 1" (25 mm) per 24" (610 mm).

There must not be any obstruction such as bushes, garden sheds, fences, decks or utility buildings within 24" (610 mm) from the front of the termination hood.

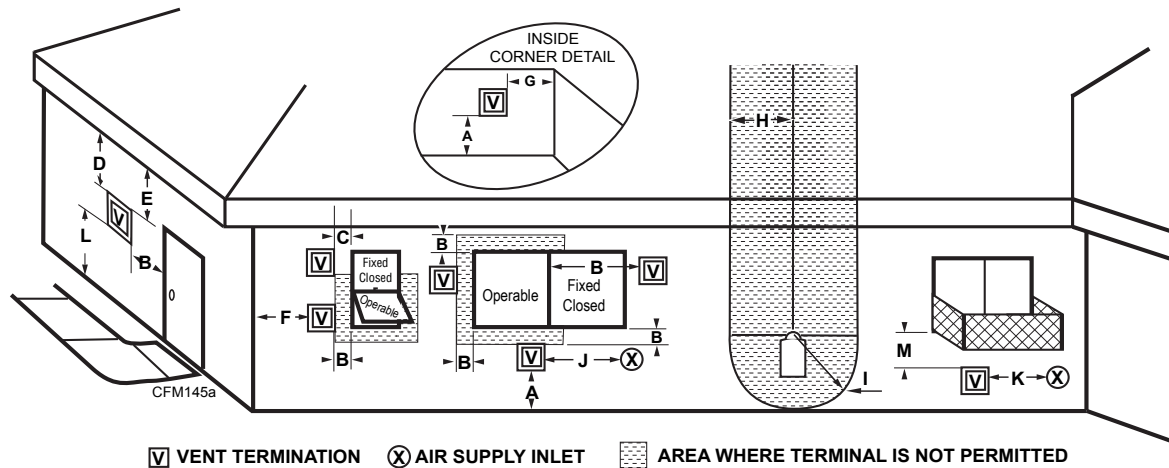
Do not locate termination hood where excessive snow or ice build up may occur. Be sure to check vent termination area after snow falls, and clear to prevent accidental blockage of venting system. When using snow blowers, make sure snow is not directed towards vent termination area.

Location of Vent Termination

It is imperative the vent termination be located observing the minimum clearances as shown on the next page.

*Check with local codes or in absence of same with CSAB149.1 Installation Codes (1991) for Canada or follow the current National Fuel Gas Code, ANSI Z223.1/NFPA 54 for installations in the USA.

General Venting Information - Termination Location



	Canadian Installations ¹	US Installations ²
A = Clearance above grade, veranda, porch, deck, or balcony	12" (30cm)	12" (30cm)
B = Clearance to window or door that may be opened	6" (15cm) for appliances < 10,000 Btuh (3kW), 12" (30cm) for appliances > 10,000 Btuh (3kW) and < 100,000 Btuh (30kW), 36" (91cm) for appliances > 100,000 Btuh (30kW)	6" (15cm) for appliances < 10,000 Btuh (3kW), 9" (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12" (30cm) for appliances > 50,000 Btuh (15kW)
C = Clearance to permanently closed window	12" (305mm) recommended to prevent window condensation	12" (305mm) recommended to prevent window condensation
D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2' (610mm) from the center line of the terminal	18" (458mm)	18" (458mm)
E = Clearance to unventilated soffit	12" (305mm)	12" (305mm)
F = Clearance to outside corner	see next page	see next page
G = Clearance to inside corner (see next page)	see next page	see next page
H = Clearance to each inside of center line extended above meter/regulator assembly	3' (91cm) within a height of 15' (5m) above the meter/regulator assembly	3' (91cm) within a height of 15' (5m) above the meter/regulator assembly
I = Clearance to service regulator vent outlet	3' (91cm)	3' (91cm)
J = Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliances	6" (15cm) for appliances < 10,000 Btuh (3kW), 12" (30cm) for appliances > 10,000 Btuh (3kW) and < 100,000 Btuh (30kW), 36" (91cm) for appliances > 100,000 Btuh (30kW)	6" (15cm) for appliances < 10,000 Btuh (3kW), 9" (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12" (30cm) for appliances > 50,000 Btuh (15kW)
K = Clearance to a mechanical air supply inlet	6' (1.83m)	3' (91cm) above if within 10 feet (3m) horizontally
L = Clearance above paved sidewalk or paved driveway located on public property	7' (2.13m)†	7' (2.13m)†
M = Clearance under veranda, porch, deck or balcony	12" (30cm)‡	12" (30cm)‡

N = Clearance above a roof shall extend a minimum of 24" (610mm) above the highest point when it passes through the roof surface, and any other obstruction within a horizontal distance of 18" (450mm).

1 In accordance with the current CSA-B149 Installation Codes

2 In accordance with the current ANSI Z223.1/NFPA 54 National Fuel Gas Codes

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

‡ only permitted if veranda, porch, deck or balcony is fully open on a minimum 2 sides beneath the floor:

NOTE: 1. Local codes or regulations may require different clearances.

2. The special venting system used on Direct Vent Fireplaces are certified as part of the appliance, with clearances tested and approved by the listing agency.

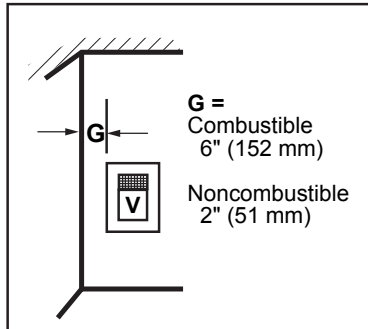
3. Vermont Castings Group assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

Fig. 11 Vent termination locations.

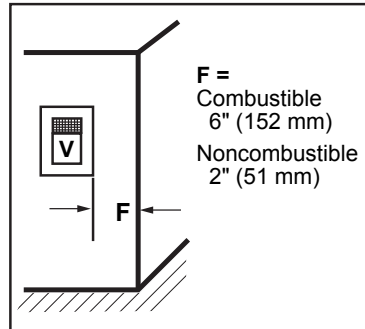
Termination Clearances

Termination clearances for buildings with combustible and noncombustible exteriors.

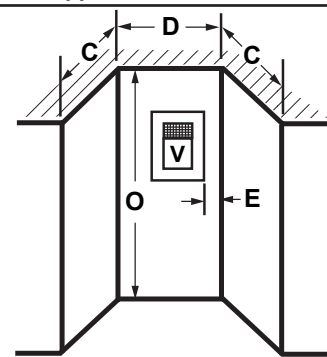
Inside Corner



Outside Corner

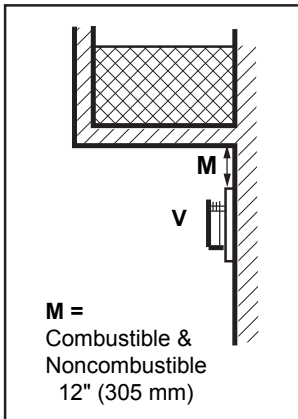


Alcove Applications*

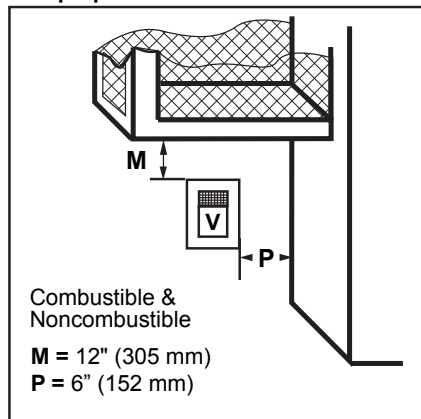


E = Min. 2" (51 mm) for non-vinyl sidewalls
Min. 12" (305 mm) for vinyl sidewalls
O = 8' (2.4 m) Min.

Balcony - with no side wall



Balcony - with perpendicular side wall



No. of Caps	D _{Min.}	C _{Max.}
1	3' (914 mm)	2 x D _{Actual}
2	6' (1.8 m)	1 x D _{Actual}
3	9' (2.7 m)	2/3 x D _{Actual}
4	12' (3.7 m)	1/2 x D _{Actual}

D_{Min.} = # of Termination caps x 3
C_{Max.} = (2 / # termination caps) x D_{Actual}

584-15

***NOTE:** Termination in an alcove space (spaces open only on one side and with an overhang) is permitted with the dimensions specified for vinyl or non-vinyl siding and soffits. 1. There must be a 3' (914 mm) minimum between termination caps. 2. All mechanical air intakes within 10' (1 m) of a termination cap must be a minimum of 3' (914 mm) below the termination cap. 3. All gravity air intakes within 3' (914 mm) of a termination cap must be a minimum of 1' (305 mm) below the termination cap.

Fig. 12 Termination clearances.

General Information Assembling Vent Pipes

Canadian Installations:

Venting system must be installed in accordance with the current CSA-B149.1 installation code.

USA Installations:

The venting system must conform with local codes and/or the current National Fuel Gas code ANSI Z223.1/NFPA 54.

Only venting components manufactured by Vermont Castings Group can be used in Direct Vent systems.

Flex Vent Pipes

Before joining the flex vent pipe to the unit, apply a bead of high temperature sealant* (provided) to the 4" pipe exiting the fireplace. Secure flex vent pipe in place with a hose clamp (provided).

*Be sure the flex pipe overlaps at least 1" (25mm) onto the collars of the fireplace and termination. If the termination has an internal bead, be sure to overlap and secure 1" (25mm) past the bead.

* Be sure the vent is actually crushed before proceeding. Apply a tug to be sure the vent will not slip off the collars.

Repeat process with 7" flex vent pipe. The same procedure must be performed on the vent side.

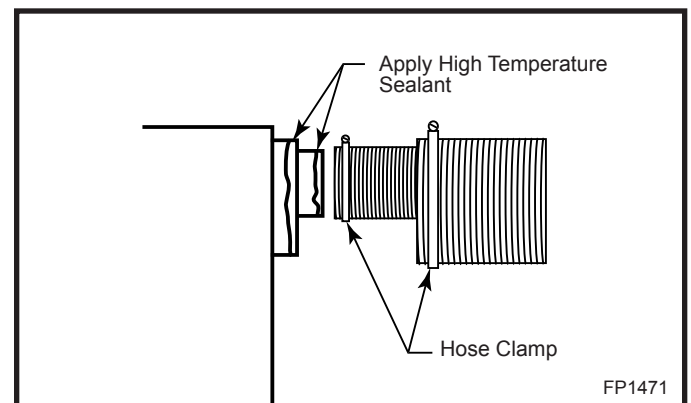


Fig. 13 Apply high temperature sealant to 4" and 7" pipes.

Twist Lock Pipes

When using Vermont Castings Group twist-lock pipe it is not necessary to use sealant on the joints. The only areas of the venting system that need to be sealed with high temperature silicone sealant are the sliding joints of any telescopic vent section used in the system.

To join the twist lock pipes together, simply align the beads of the male end with the grooves of the female end, then while bringing the pipe together, twist the pipe until the flange on the female end contacts the external flange on the male end. It is recommended that you secure the joints with three (3) sheet metal screws, however this is not mandatory with twist lock pipe.

To make it easier to assemble the joints we suggest putting a lubricant (Vaseline or similar) on the male end of the twist lock pipe prior to assembly.

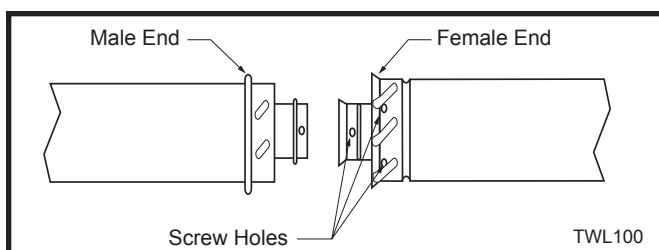


Fig. 14 Twist-lock pipe joints.

How to Use the Vent Graph

The vent chart should be read in conjunction with the following vent installation instructions to determine the relationship of the vertical and horizontal dimensions of the vent system.

1. Determine the height of the center of the horizontal vent pipe exiting through the outer wall. Using this dimension on the Sidewall Vent Graph (Fig. 15) locate the point intersecting with slanted graph line.
2. From the point of this intersection, draw a vertical line to the bottom of the graph.
3. Select the indicated dimension, and position the fireplace in accordance with same.

Example A:

If the vertical dimension from the floor of the fireplace is 11' (3.4 m) the horizontal run to the face of the outer wall must not exceed 14' (4.3 m).

Example B:

If the vertical dimension from the floor of the unit is 7' (2.14 m), the horizontal run to the face of the outer wall must not exceed 8½' (2.6 m).

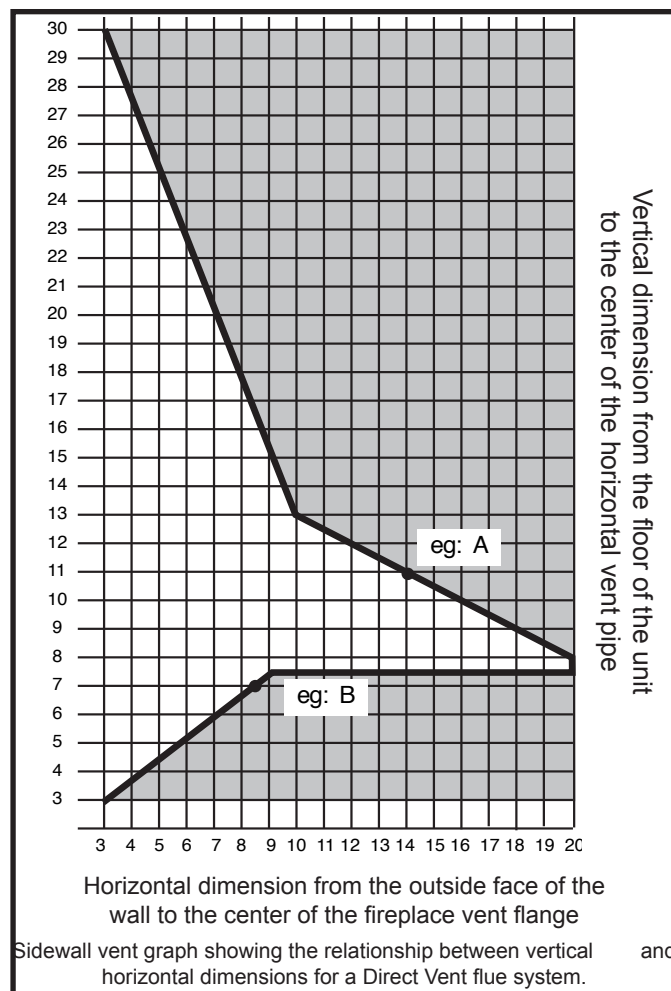


Fig. 15 Sidewall venting graph. (Dimensions in feet)

Rear Wall Venting Applications

When installed as a rear vent unit this appliance may be vented directly to a termination located on the rear wall behind the appliance.

- Only Vermont Castings Group venting components are approved to be used in these applications. (Refer to "Venting Components" listed for different installation requirements)
- The maximum horizontal distance between the rear of the appliance (or end of the transition elbow in a corner application) and the outside face of the rear wall is 20" (508mm). (Fig. 16)
- Only one 45° elbow is allowed in these installations.
- Minimum clearances between vent pipe and combustible materials are as follows:

Top - 2" (51 mm)
Sides - 1" (25 mm)
Bottom - 1" (25 mm)

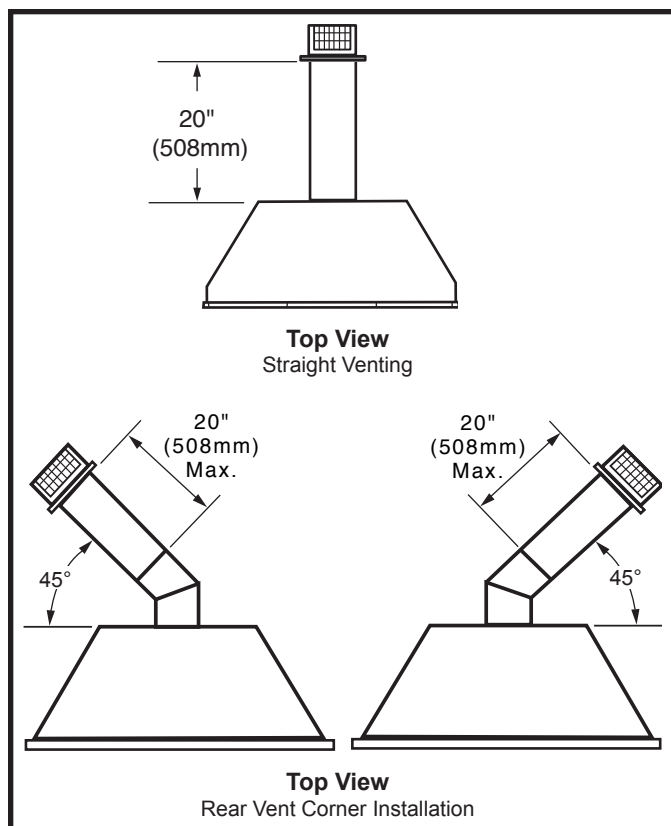


Fig. 16 Rear vent applications, one 45° elbow.

Rear Wall Installation Twist Lock Pipe

STEP 1

Locate vent opening on the wall. To locate hole center consult with appropriate fireplace dimensions, Page 4. Frame as shown below.

NOTE: When using flex vent, the opening will have to be measured according to the 1/2" (13 mm) rise in 12" (305 mm) vertical run.

Combustible Walls (Fig. 17): Cut a 10³/₈" H x 9³/₈" W (264 x 240 mm) hole through the exterior wall and frame as shown.

Noncombustible Walls (Fig. 17): Hole opening must be 7¹/₂" (190 mm) in diameter.

STEP 2

Measure wall thickness and cut zero clearance sleeve parts to proper length (MAXIMUM 12"/305 mm). Assemble sleeve and attach to firestop with #8 sheet metal screws (supplied). (Fig. 18)

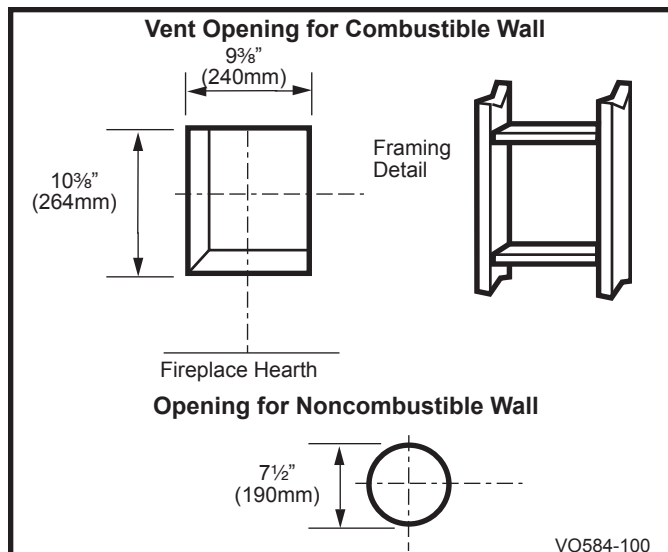


Fig. 17 Locate vent opening on wall.

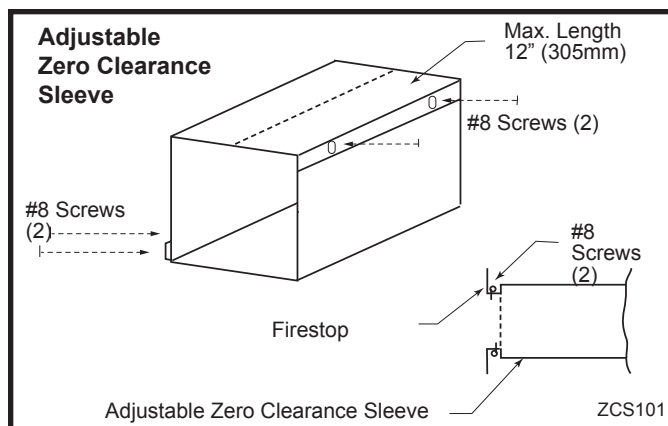


Fig. 18 Adjustable zero clearance sleeve.

STEP 3

Measure from the fireplace collar or elbow face to face of outside wall (add 2" for vent pipe overlap). Mark pipes and cut to length. It is very important that the two pipes are flush with the outside wall once the fireplace is in its final location. (Fig. 19)

STEP 4

Slip 4" and 7" pipes onto respective flue collars. Make sure to fix to the fireplace collar the 4" pipe with three (3) screws before fixing the 7" pipe on the 7" collar. Both pipes must be on a level plane. (Fig. 20)

STEP 5

Guide the vent termination 4" collar into the 4" pipe then the 7" collar into the 7" pipe. Do not force the venting into position. If the pipes do not line up with the termination collars, disassemble pipes and reattach to the fireplace collar. (Fig. 21)

STEP 6

Secure fireplace to floor through floor holes and adjustable frame drywall strip (nailing flange) to frame. (Refer to Framing & Finishing Section).

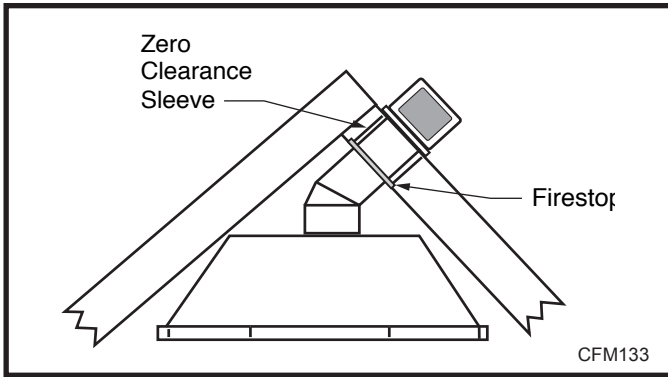


Fig. 19 Firestop and zero clearance sleeve in place.

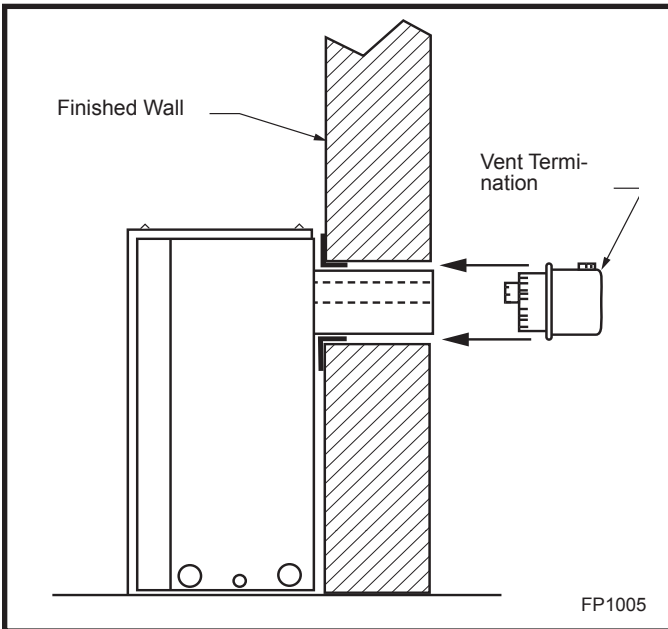


Fig. 20 Side view of final unit location.

Rear Wall Vent Installations - Flex Vent Pipe

Follow Steps 1 and 2 on Page 15.

Step 3

Install the 4" (102 mm) flex vent pipe to the appliance collars described in "General Information Assembling Vent Pipes", Page 11. If the installation requires a 45° angle, grasp the vent pipe close to the appliance collar and bend to 45°. DO NOT exceed 45°. (Fig. 21)

Install the 7" vent pipe in the same manner as Step 2.

NOTE: There must be a 1" (25 mm) rise in a 24" (610mm) length of flex vent.

Step 4

Assemble the flex vent to the collars on the termination as you did on the appliance.

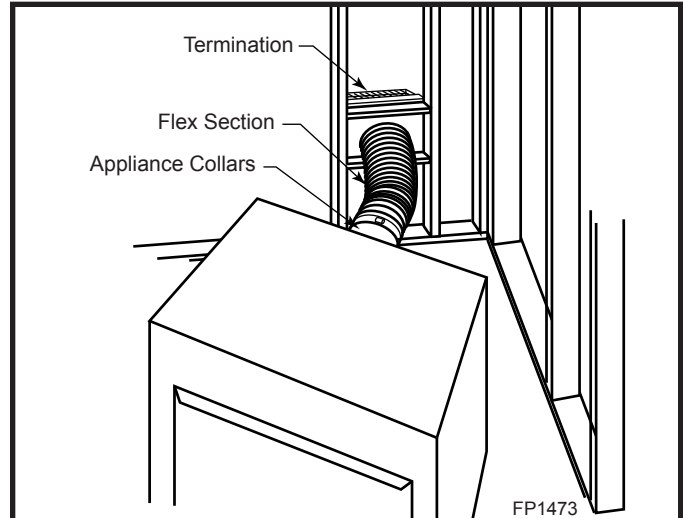


Fig. 21 Grasp the vent pipe close to the collar and bend to 45° angle. Do not exceed 45°.

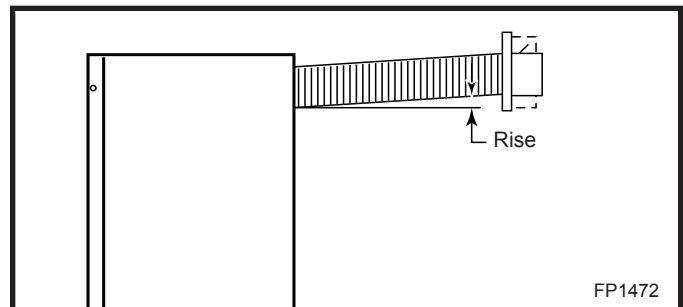


Fig. 22 There must be a 1/2" rise per foot length.

Vertical Sidewall Applications



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 Vent Graph shows the relationship between vertical and horizontal side wall venting and will help to determine the various dimensions allowable.

Minimum clearance between vent pipes and combustible materials is 1" (25 mm) on top, bottom and sides unless otherwise noted.



When vent termination exits through foundations less than 20" below siding outcrop, the vent pipe must flush up with the siding. It is always best to locate the fireplace in such a way that minimizes the number of offsets and horizontal vent length.

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.

Horizontal plane means no vertical rise exists on this portion of the vent assembly.

- The maximum horizontal vent run is 20 ft. (6.1 m) when the vertical vent rise is 7½ ft. (2.3 m). (Fig. 23)
- The maximum number of 90° elbows per side wall installation is three (3).

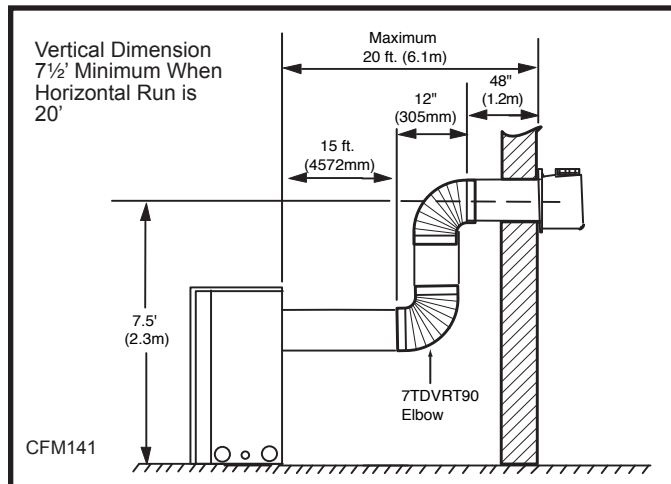


Fig. 23 Maximum number of 90° elbows is three (3).

- If a 90° elbow is used in the horizontal vent run (level height maintained) the maximum horizontal vent length is reduced by 36" (914 mm). (Fig. 24) This does not apply if the 90° elbows are used to increase or redirect a vertical rise. (Fig. 25)

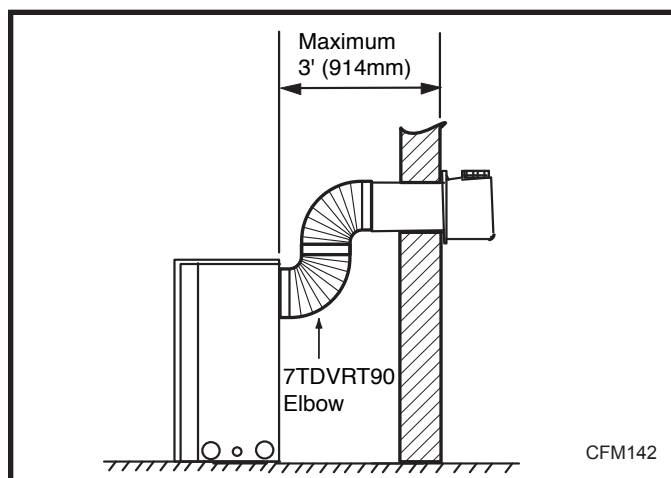


Fig. 24 Maximum horizontal vent run.

Example: According to the chart the maximum horizontal vent length in a system with a 7.5' (2.3 m) vertical rise is 20' (6 m) and if a 90° elbow is required in the horizontal vent it must be reduced to 17' (5.2 m). In Figure 25 Dimension A plus B must not be greater than 17' (5.2 m).

- The maximum number of 45° elbows permitted per side wall installation is six (6). These elbows can be installed in either the vertical or horizontal run.
- For each 45° elbow installed in the horizontal run, the length of the horizontal run MUST be reduced by 18" (45cm). This does not apply if the 45° elbows are installed on the vertical part of the vent system.

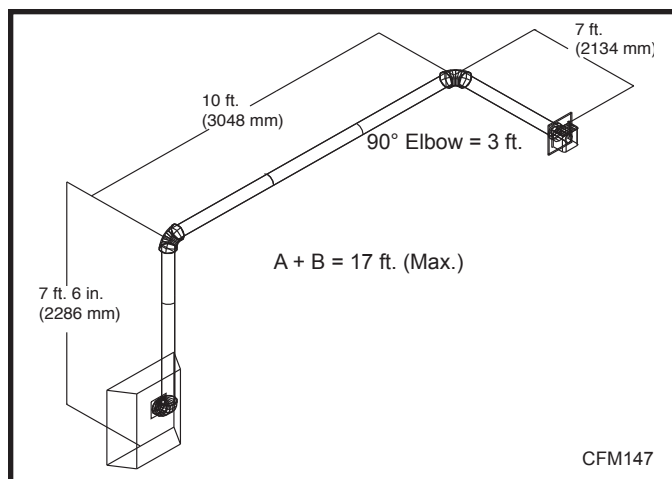


Fig. 25 Maximum vent run with elbows.

- The maximum number of elbow degrees in a system is 270°. (Fig. 26)

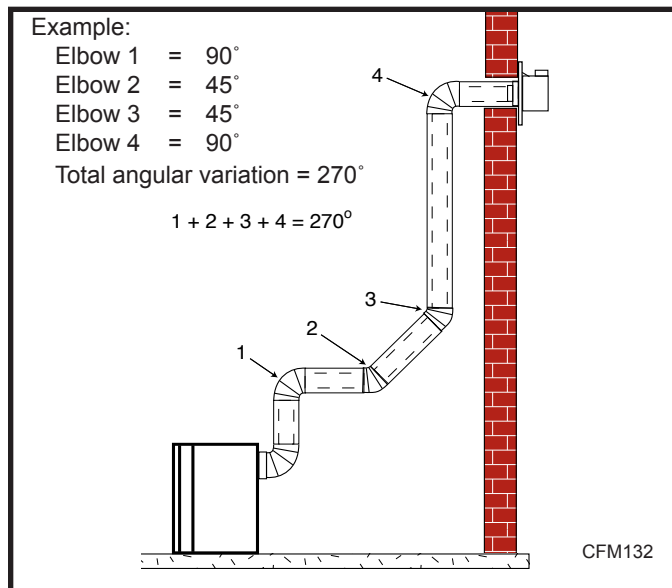


Fig. 26 Maximum number of elbows.



•IMPORTANT• Minimum clearance between vent pipes and combustible materials is one (1") inch (25 mm) on bottom, sides and top.

Twist Lock Vent Starter Kit 7TDVSK, plus Transition Elbow 7TDVRT90 must be used in Vertical Sidewall installations. The 4" pipe must be centered inside the 7" pipe coming off the transition elbow.

Canadian & USA Installations:

The venting system must conform with local codes, or in the absence of local codes, with National Fuel Gas Code, ANSI Z223.1/NFPA 54 - latest edition, or CSA B149.1 Installation Code.

Only Vermont Castings Group venting components specifically approved and labelled for this fireplace may be used.

Vertical Sidewall Installation

STEP 1

Locate vent opening on the wall. It may be necessary to first position the fireplace and measure to obtain hole location. Depending on whether the wall is combustible or noncombustible, cut opening to size. (Fig. 27)

For combustible walls first frame in opening.

Combustible Walls (Fig. 27): Cut a 9 $\frac{3}{8}$ " H x 9 $\frac{3}{8}$ " W (240 x 240 mm) hole through the exterior wall and frame.

Noncombustible Walls (Fig. 27): Hole opening must be 7.5" (190 mm) in diameter.

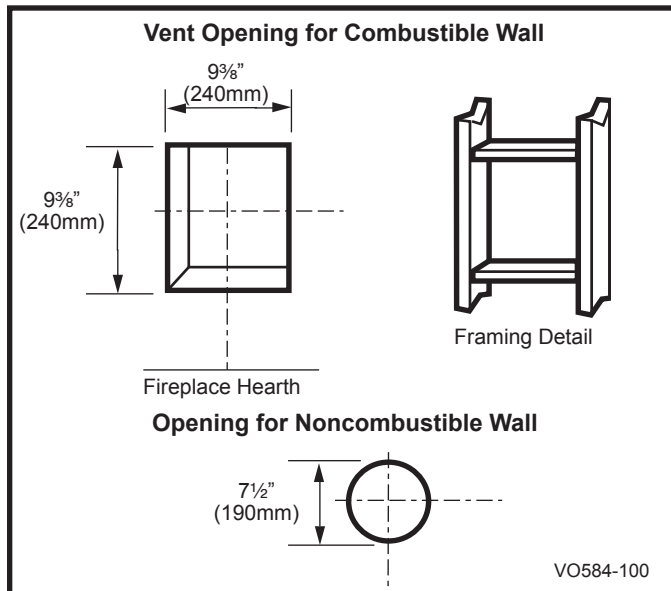


Fig. 27 Locate vent opening on wall.

STEP 2

Measure wall thickness and cut adjustable zero clearance sleeve parts to proper length (MAXIMUM 12"/305 mm). (Fig. 28) Adjust sleeve to minimum (9 $\frac{3}{8}$ " x 9 $\frac{3}{8}$ ") and attach to firestop with #8 sheet metal screws (supplied). Assemble sleeve and attach to firestop with #8 sheet metal screws (supplied). Install firestop assembly.



Zero clearance sleeve is only required for combustible walls.

STEP 3

Attach the appropriate venting component(s) to the inner and outer flue collars of the fireplace using three (3) screws. (Fig. 29) Follow with the installation of the inner and outer elbow. Again secure joints with three (3) sheet metal screws.

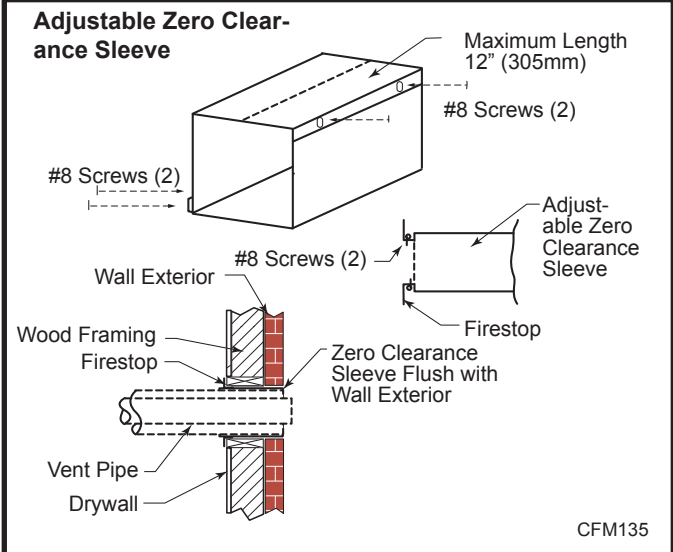


Fig. 28 Locate vent opening on wall.

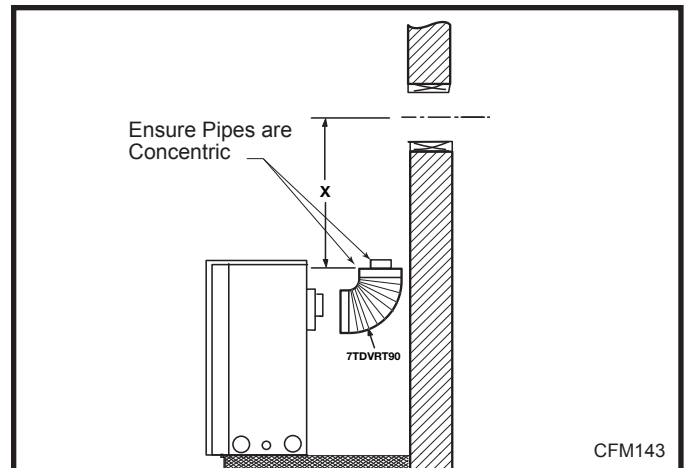


Fig. 29 Apply sealant to inner and outer pipe.

STEP 4

Measure the horizontal length requirement including a 2" (51 mm) overlap, i.e. from the elbow to the outside wall finish plus 2", or the distance required if installing a second 90° elbow. (Fig. 30)

STEP 5

Use appropriate length of pipe section - telescopic or fixed - and install the horizontal vent sections. The 20" (508 mm) section of pipe which goes through the wall is packaged with the 7TDVSK starter kit, and can be cut to suit if necessary. (Fig. 31)



Sealing vent pipe and firestop gaps with high temperature sealant will restrict cold air being drawn in around fireplace.

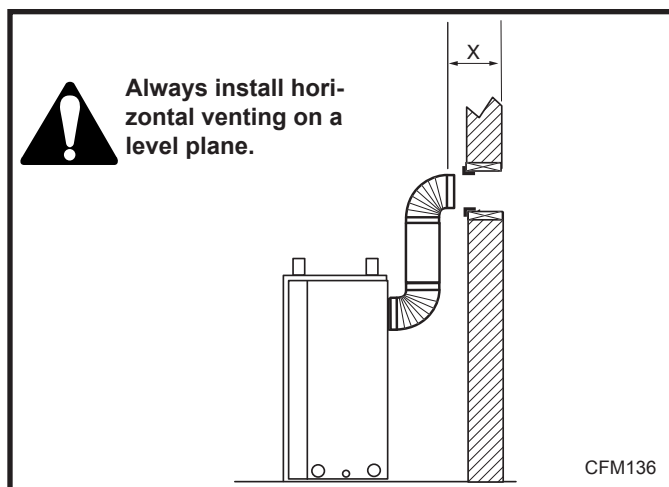


Fig. 30 Measure horizontal length including 2" overlap.

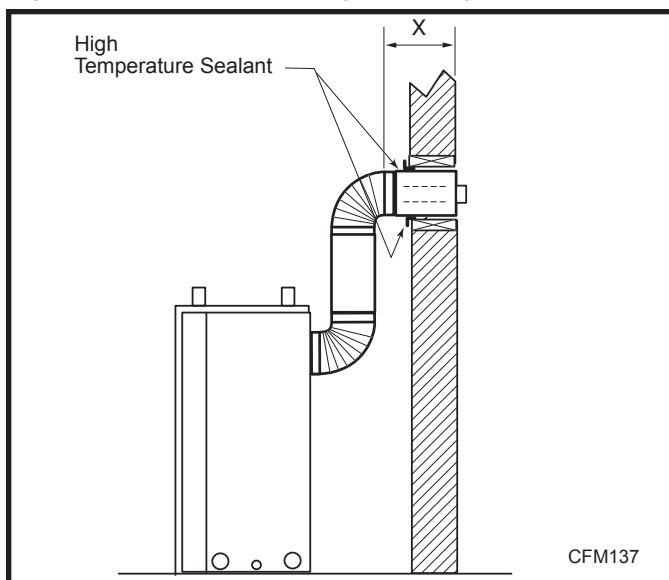


Fig. 31 Apply high temperature sealant.

STEP 6

Guide the vent termination's 4" (102 mm) and 7" (178 mm) collars into their respective vent pipes. Double check that the vent pipes overlap the collars by 2" (51 mm). Secure the termination to the wall with screws provided and caulk around the wall plate to weatherproof. (Fig. 32)

STEP 7

Support the horizontal pipes every 36" (914 mm) with metal pipe straps. Make sure that the horizontal vent pipe is installed on a level horizontal plane.

STEP 8

Re-check the fireplace to make sure that it is levelled, properly positioned, and nailed or screwed to the floor. If applied, the fireplaces adjustable frame drywall strips (nailing flanges) should be fastened. Refer to "Framing & Finishing".

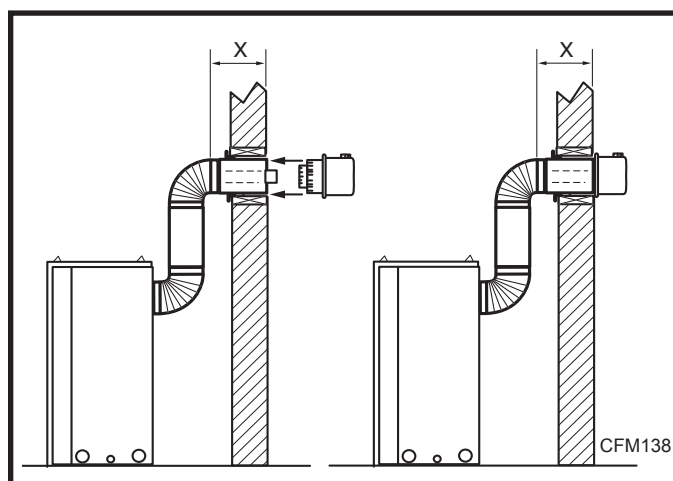


Fig. 32 Horizontal length requirement.

Below Grade Installations

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



If venting system is installed below ground, we recommend a window well with adequate and proper drainage.

Ensure sidewall venting clearances are observed.



The maximum horizontal run with 24" vertical rise is 36" (914 mm) from the back of the fireplace to the face of the exterior wall. See vent graph (Page 14) for extended horizontal run if the vertical rise exceeds 24" (610 mm).

1. Establish vent hole through the wall. (Fig. 27)
2. Remove soil to a depth of approximately 16" (406mm) below base of snorkel. Install window well (not supplied). Refill hole with 12" (305 mm) of coarse gravel leaving a clearance of approximately 4" (102 mm) below snorkel. (Fig. 33)
3. Install vent system. See Page 15, Steps 2 through 5.
4. Ensure a watertight seal is made around the vent pipe coming through the wall.
5. Apply high temperature sealant caulking (supplied) around the 4" and 7" snorkel collars.
6. Slide into the vent pipe and secure to the wall.
7. Level the soil to maintain a 4" (102 mm) clearance below snorkel. (Fig. 33)

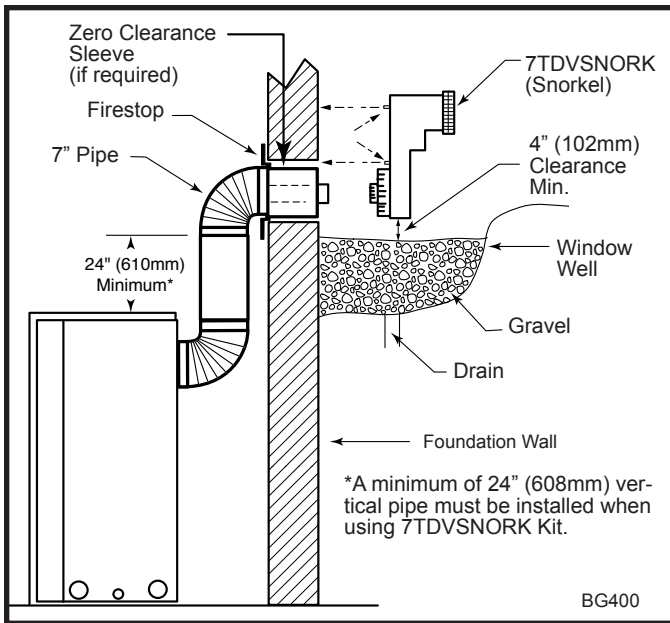


Fig. 33 Below grade installation.



Do not back fill around snorkel. A clearance of at least 4" (102mm) must be maintained between the snorkel and the soil.

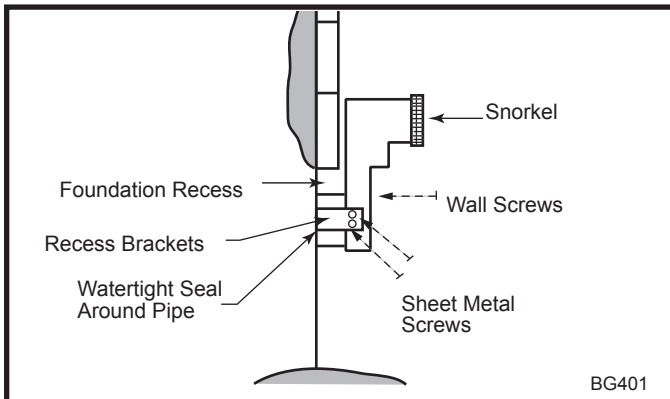


Fig. 34 Snorkel installation, recessed foundation.

If the foundation is recessed, use recess brackets (not supplied) for securing lower portion of the snorkel. Fasten brackets to wall first, then secure to snorkel with self drilling #8 x 1/2 sheet metal screws. It will be necessary to extend vent pipes out as far as protruding wall face. (Fig. 34)

Vertical Through-the-Roof Applications

This Gas Fireplace has been approved for:

1. Vertical installations up to 40' (12 m) in height. Up to 10' (3 m) horizontal vent run can be installed within the vent system using a maximum of three 90° elbows.

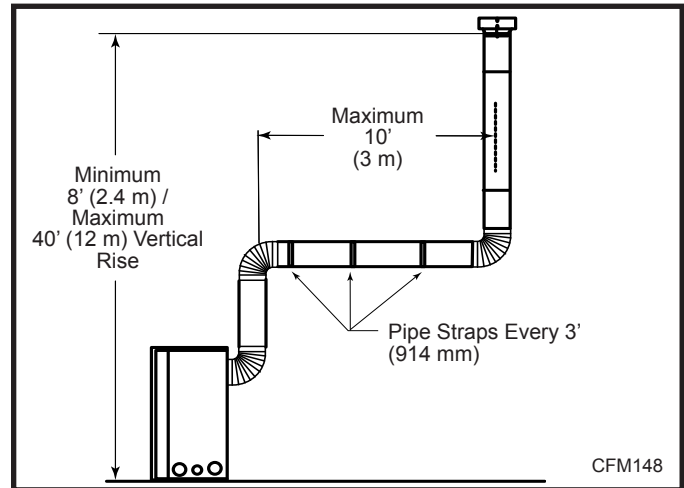


Fig. 35 Support straps for horizontal runs.

This Gas Fireplace has been approved for:

1. Vertical installations up to 40' (12 m) in height. Up to 10' (3 m) horizontal vent run can be installed within the vent system using a maximum of three 90° elbows.
2. Up to two 45° elbows may be used within the horizontal run. For each 45° elbow used on the horizontal level the maximum horizontal length must be reduced by 18" (457 mm).

Example: Maximum horizontal length

- 0 x 45° elbows = 10' (3 m)
- 1 x 45° elbows = 8½' (2.6 m)
- 2 x 45° elbows = 7' (2.1 m)

3. A minimum of an 8' vertical rise.
4. Two sets of 45° elbows offsets within these vertical installations. From 0 to a maximum of 8' (2.4 m) of vent pipe can be used between elbows. (Fig. 36)
5. 7DVCS must be used to support offsets. (Fig. 36) This application will require that you first determine the roof pitch and use the appropriate 7DVSKV (A, B or F). (Refer to Venting Components List, Page 23)

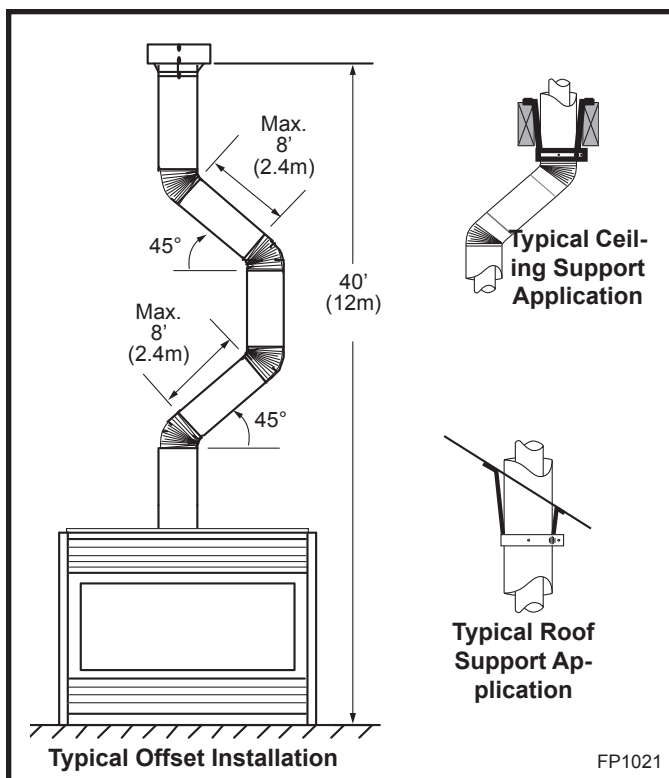


Fig. 36 Typical vertical roof applications.

Vertical Through-the-Roof Installation

1. Locate your fireplace.
2. Plumb to center of the (4") flue collar from ceiling above and mark position.
3. Cut opening equal to $9\frac{3}{8}" \times 9\frac{3}{8}"$ (240 x 240mm).
4. Proceed to plumb for additional openings through the roof. In all cases, the opening must provide a minimum of 1 inch clearance to the vent pipe, i.e., the hole must be at least $9\frac{3}{8}" \times 9\frac{3}{8}"$ (240 x 240 mm).
5. Place fireplace into position.
6. Place firestop(s) #7DVFS or Attic Insulation Shield #7DVAIS into position and secure. (Fig. 37)
7. Install roof support (Fig. 38 & 39) and roof flashing making sure upper flange is below the shingles. (Fig. 38)
8. Install appropriate pipe sections until the venting is above the flashing. (Fig. 38)
9. Install storm collar and seal around the pipe.
10. Add additional vent lengths for proper height. (Fig. 40)
11. Install vertical vent termination.

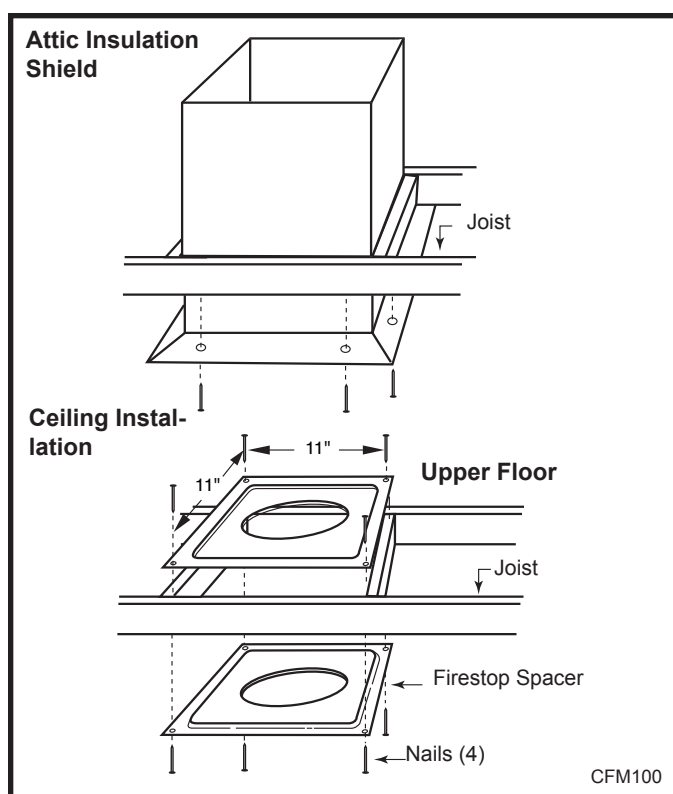


Fig. 37 Place firestop spacer(s) and secure.



If there is room above ceiling level, firestop spacer must be installed on both the bottom and the top side of the ceiling joists. If an attic is above ceiling level a 7DVAIS (Attic Insulation Shield) must be installed. (Fig. 37)



The enlarged ends of the vent section always face downward. (Fig. 38)

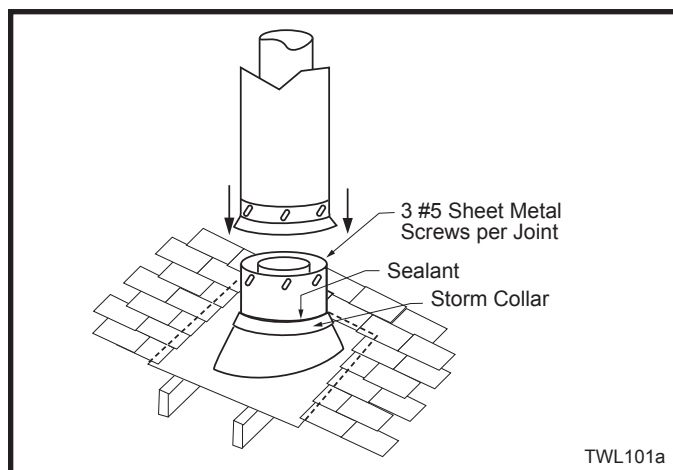


Fig. 38 Roof flashing.

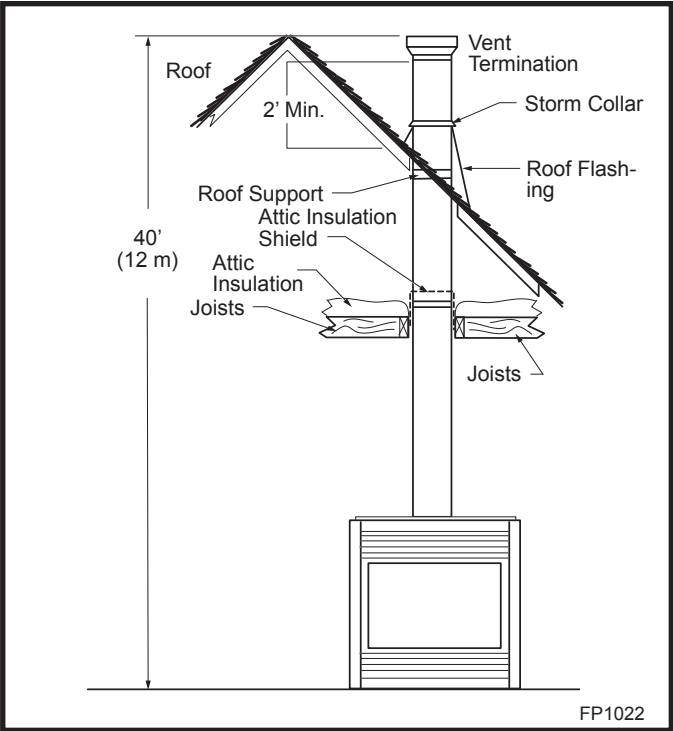


Fig. 39 Typical straight-up installation.

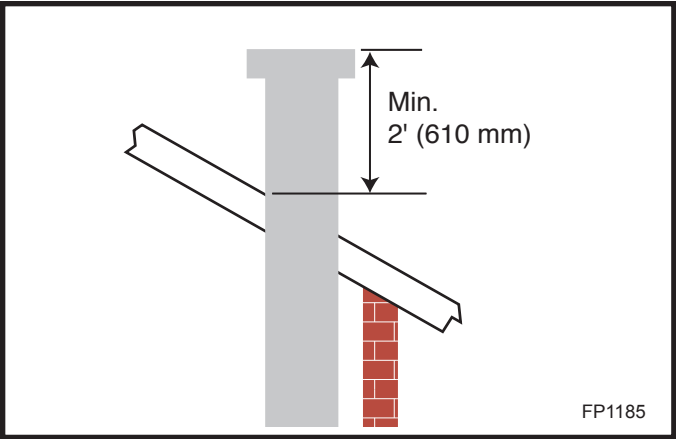
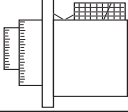
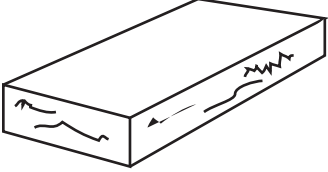
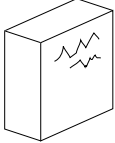


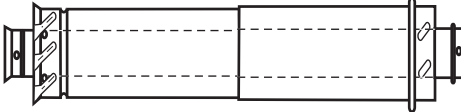
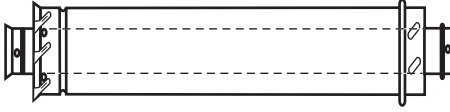
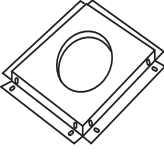
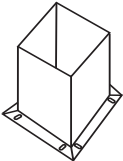



Fig. 40 Minimum termination to roof clearance.

Venting Components	
	7TDVRVT - Through the wall Rear Vent Termination
	<p>Starter Kit -</p> <p>Model 7TDVSK - Sidewall Venting (Twist Lock Pipe)</p> <p>Model 7FDVSK - Sidewall Venting (Flex Vent Pipe)</p> <p>Models 7TDVTK/TV - Hot Touch Termination Kits</p> <p>Model 7TDVTVTK/TV - Cool Touch Termination Kit</p> <p>Starter Kit - Model 7TDVSKV - Vertical Venting for 7TDVSKV-A order 1/12 to 6/12 roof pitch for 7TDVSKV-B order 7/12 to 12/12 roof pitch for 7TDVSKV-F order flat roof</p> <p>Starter Kit for Below Grade Installation</p> <p>Model 7TDVSKS -Snorkel Kit (Twist Lock Pipe)</p> <p>Model 7FDVSKS -Snorkel Kit (Flex Vent Pipe)</p>
	<p>Starter Pipe</p> <p>Model 7TDVP 20/8 - 24" Starter Pipe Bulk</p> <p>Model 7FDVP 30/8 - 30" Flex Pipe Bulk</p>
	<p>45° Elbow</p> <p>7TDV45 for Rear Vent to Vertical Vent or Vertical/Horizontal Offsets</p>
	<p>90° Transition Elbow</p> <p>7TDVRT90 for Rear Vent to Vertical Vent</p> <p>90° Elbow</p> <p>7TDV90 Vertical/Horizontal Offset</p>
	<p>Telescopic vent sections</p> <p>7TDVP1117 -11" to 17" adjustable length</p> <p>7TDVP3567 -35" to 67" adjustable length</p>
	<p>Pipe sections for vertical or horizontal venting</p> <p>Model 7TDVP8" - 4 per box</p> <p>Model 7TDVP12" - 4 per box</p> <p>Model 7TDVP24" - 4 per box</p> <p>Model 7TDVP36"</p> <p>Model 7TDVP48"</p>
	<p>Firestop Spacer</p> <p>Model 7DVFS</p>
	<p>Attic Insulation Shield</p> <p>Model 7DVAIS</p>
	<p>Vertical/Horizontal Combination Offset Support</p> <p>Model 7DVCS</p>

Operating Instructions

Glass Information



Only glass approved by Vermont Castings Group should be used on this fireplace.

- The use of any non-approved replacement glass will void all product warranties.
- Care must be taken to avoid breakage of the glass.
- **Do not operate appliance with glass front removed, cracked or broken.**
- **Replacement glass (complete with frame window) is available through your Vermont Castings Group dealer and should only be installed by a licensed qualified service person.**

! WARNING



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

Louvre Removal

The top louvre panel is removed by lifting the panel vertically and pulling it away from the appliance. (Fig. 41) The lower access door is hinged along the bottom edge and is folded down to allow access.

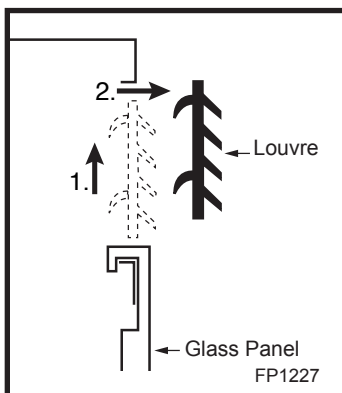


Fig. 41 Remove top louvre assembly.

Window Frame Assembly Removal

1. Turn the fireplace OFF (including the pilot)
2. If the unit has been operating allow time for the components to cool.
3. Remove the top louvre assembly.
4. Open the lower louvre panel.
5. Release the two clamps securing the lower edge of the window frame assembly by pulling down on the handles. (Fig. 42)

6. Tilt the window frame assembly out slightly at the bottom, lift the window frame assembly up and away from the fireplace.
7. To replace the window frame assembly reverse the procedure.

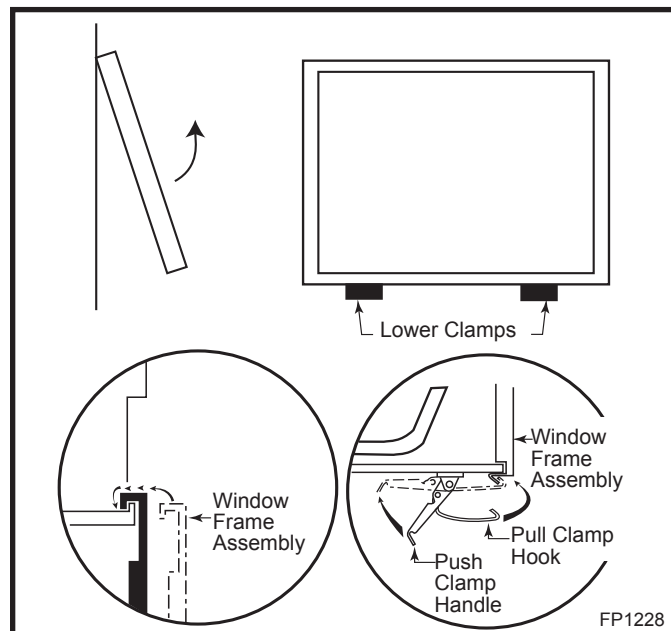


Fig. 42 Window frame assembly removal.

Glass Cleaning

It is necessary to periodically clean glass. During start-up condensation, which is normal, forms on the inside of the glass. This condensation causes lint, dust and other airborne particles to cling to glass surface.

Also initial paint curing may deposit a slight film on the glass. It is therefore recommended the glass be cleaned two or three times with a non-ammonia based household cleaner and warm water (We recommend gas fireplace glass cleaner) within the first few weeks of operation.

After the initial cleaning process the glass should be cleaned two or three times during each operating season depending on the environment in the house.



Clean glass after first two weeks of operation.

Do not clean glass when hot.

Do not use abrasive cleaners.

Do not strike or slam the glass.

Installation of Logs, Lava Rock & Ember Material



The logs are fragile and should be handled with care. Keep the packaging material out of the reach of children and dispose of the material in a safe manner.



The individual logs can be easily identified by the numbers cast on the underside of each log.

Log Identification Chart

Location	33LDVR	36LDVR	39LDVR	43LDVR
Front Left	A43	B160	BC15	BD16
Front Right	--	B159	BC16	BD17
Front Center	--	B161	B138	B138
Rear	--	B158	BC14	BD15
Rear Left	A41	--	--	--
Rear Right	A42	--	--	--
Top Center	A44	--	--	BD18

Log Installation

1. Remove the top louvre assembly.
2. Open the bottom louvre.
3. Remove the window frame assembly.
4. Remove log box from inside firebox.
5. Unpack the logs from packaging and remove each log from its wrapping material. Set aside the ember and the lava rock bags.



As with all plastic bags - these are not toys and should be kept away from children and infants.

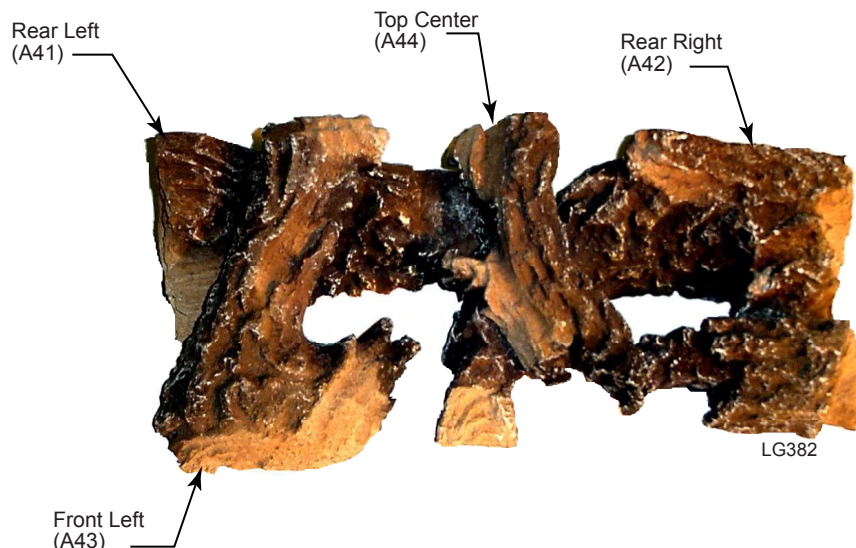
33LDVR

1. Place rear log left (A41) on rear bracket (ensure the notch on the left end locates against the bend up on the left side of rear bracket.)
2. Place rear log right (A42) on rear bracket (ensure the notch on the right end locates against the bend up on the right side of rear bracket) and just rest the cut out from front log onto the front support.
3. Place front log left (A43). Use the log's bottom hole to locate it onto rear log left (A41) and just rest bottom cut out log onto the front support.
4. Place top log center (A44). Use the log's bottom hole to locate it onto the knob on the rear log right (A42) and the top log center rest onto rear log left.
5. Place ember material on top of burner. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 50) Do not pack the ember material. Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.
6. Scatter the lava rock material around the firebox base.



Do not place any of the lava rock material on the burner housing assembly.

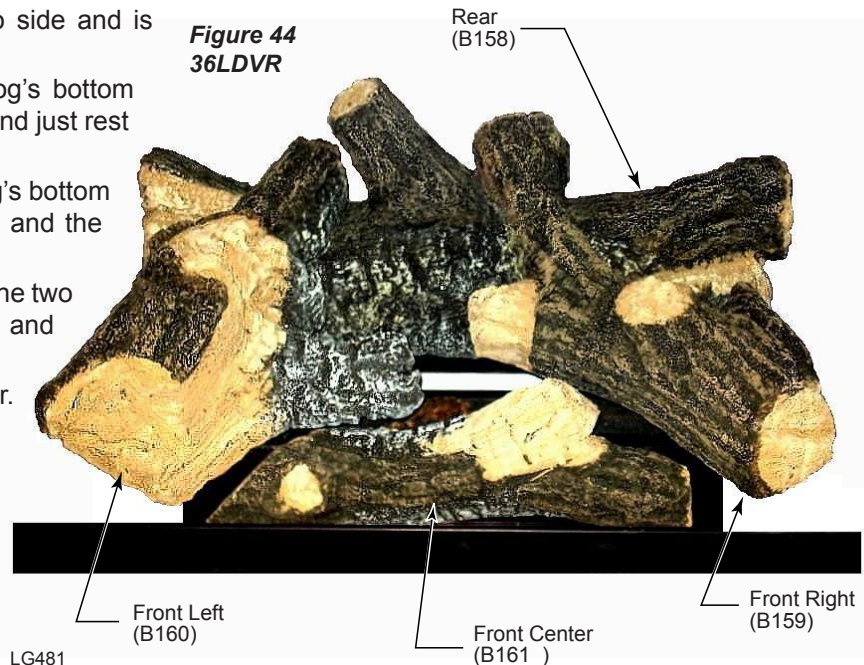
Figure 43
33LDVR



36LDVR

1. Place rear log (B158) on rear bracket (ensure log is seated properly to the bracket and located to the two pins), so it will not move from side to side and is firmly positioned on the bracket.
2. Place front left log (B160). Use the log's bottom hole to locate it onto the front support and just rest on top of the rear log.
3. Place front right log (B159). Use the log's bottom hole to locate it onto the front support and the top hole to the knob onto the rear log.
4. Place front center log (B161) on top of the two small shelves at the front log support and between the left and right logs.
5. Place ember material on top of burner. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 50) Do not pack the ember material. Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.
6. Scatter the lava rock material around the firebox base.

Figure 44
36LDVR



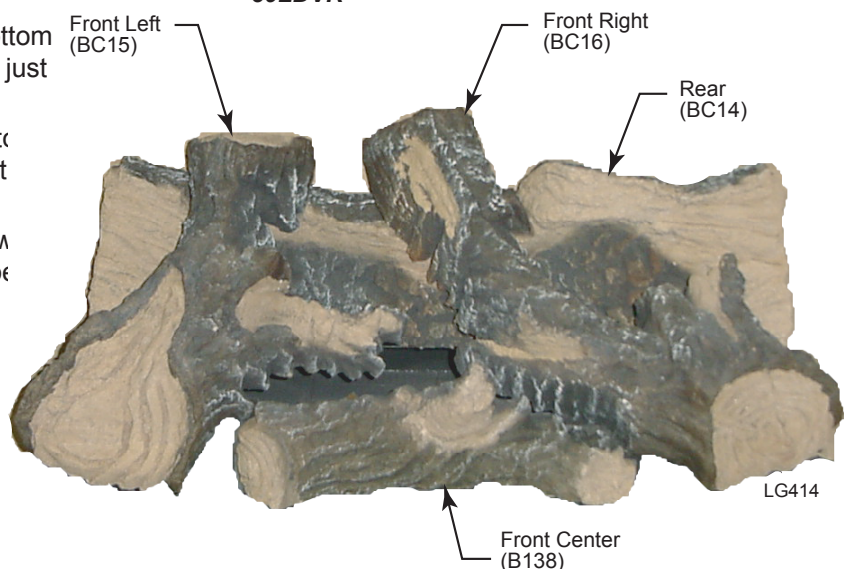
Do not place any of the lava rock material on the burner housing assembly.



39LDVR

1. Place rear log (BC14) on rear bracket (ensure log is centered and seated properly to the log support).
2. Place front left log (BC15). Use log's bottom hole to locate it onto the front support and just rest on top of the rear log.
3. Place front right log (BC16). Use log's bottom hole to locate it onto the front support and the top hole to the knob on the rear log.
4. Place front center log (B138) on top of the two small shelves at the front log support, and between the left and right logs.
5. Place ember material on top of burner. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 50) Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.

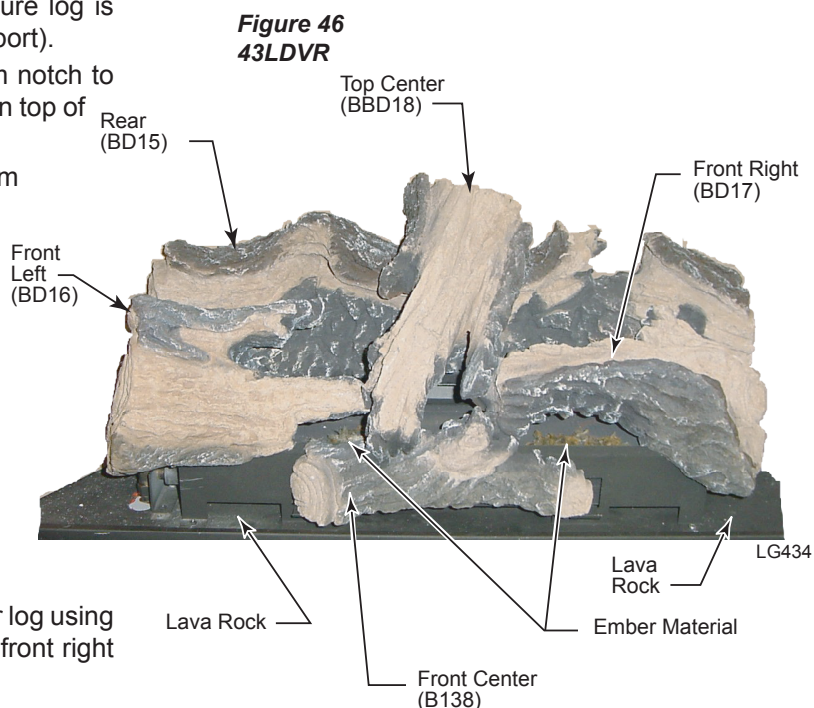
Figure 45
39LDVR



Do not place any of the lava rock material on the burner housing assembly.

43LDVR

1. Place rear log (BD15) on rear bracket (ensure log is centered and seated properly to the log support).
2. Place front left log (BD16). Use log's bottom notch to locate it onto the front support and just rest on top of the burner housing tile.
3. Place front right log (BD17). Use log's bottom notch to locate it onto the front support and just rest on top of the burner housing.
4. Place ember material on top of burner.
5. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 46) Do not pack the ember material. Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.
6. Place front center log (B138) on top of the two small shelves at the front log support, and between the left and right logs.
7. Place top center log (BD18) on top of the rear log using the hole locator under the log and on top of front right log.
8. Scatter lava rock material round the firebox base.



Do not place any of the lava rock material on the burner housing assembly.

Flame & Temperature Adjustment

RN/RP & EN/EP Models

For units equipped with "HI/LO" valves the flame adjustment is accomplished by rotating the "HI/LO" adjustment knob located near the center of the gas control valve. (Fig. 47)

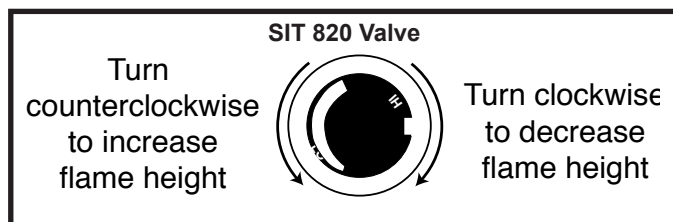


Fig. 47 Flame adjustment knob for SIT valve.

Flame Characteristics

It is important to periodically perform a visual check of the pilot and burner flames. Compare them to the illustrations. (Figs. 48 & 49)

If the flame patterns appear abnormal contact a qualified service provider for service and adjustment.

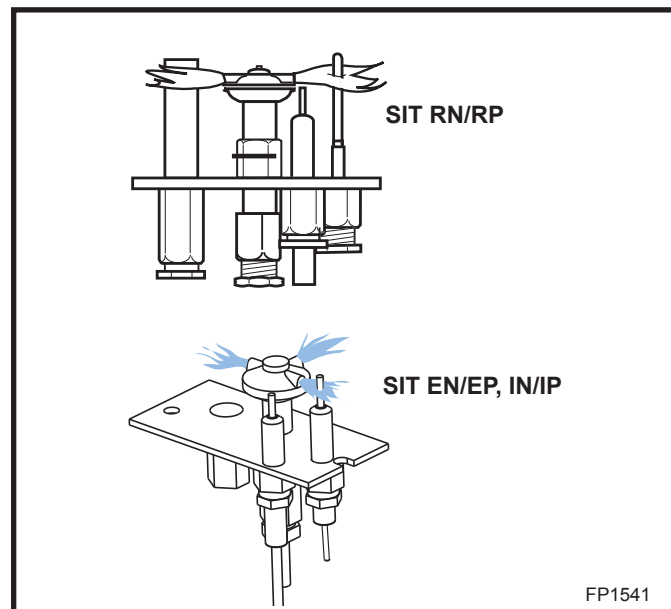


Fig. 48 Correct pilot flame appearance.

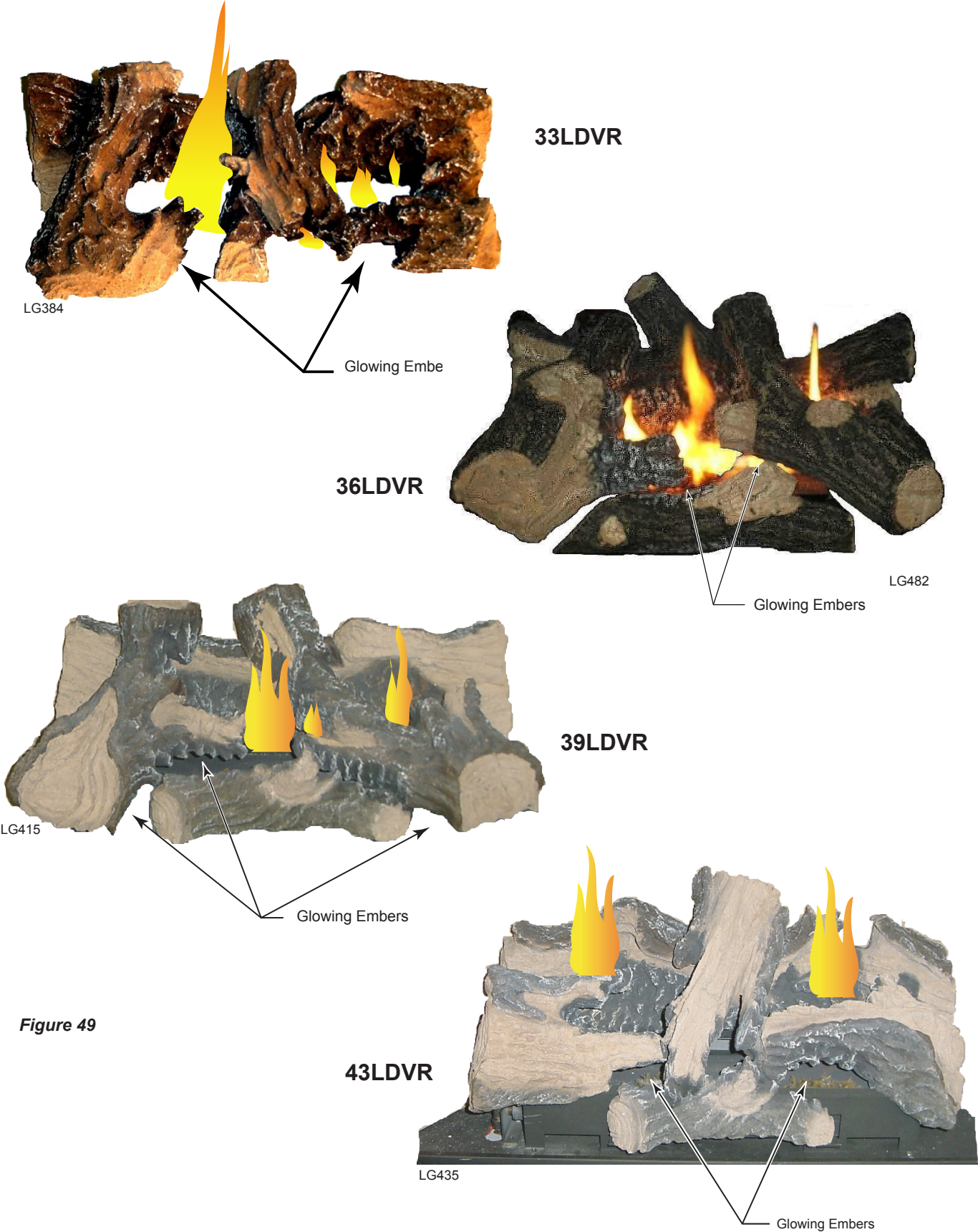


Figure 49

Lighting and Operating Instructions

For Fireplaces Equipped with the SIT820 Valve 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 heater has a pilot which must be lit manually. When lighting the pilot follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the heater 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

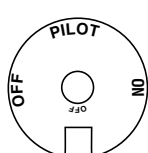
- Do not try to light any fireplace
- Do not touch any electric switch
- Do not use any phone in your building
- Immediately call your gas supplier from a neighbor's phone.

Follow the gas supplier's instructions.

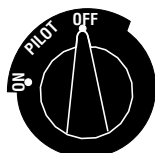
- If you cannot reach your gas supplier, call the Fire Department
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to repair it, call a qualified service technician. Applying force or any attempted repair may result in a fire or explosion.
 - D. Do not use this fireplace if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.

Lighting Instructions


1. **STOP!** Read the safety information above.
2. Turn off all electrical power to the fireplace.
3. Turn the ON/OFF switch to "OFF" position.
4. Open control access panel.
5. Push in gas control knob slightly and turn clockwise  to "OFF".



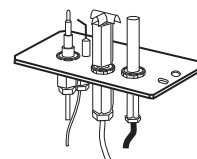
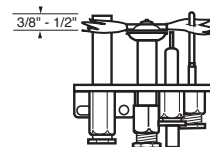
SIT NOVA



Honeywell


6. Wait five (5) 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 do not smell gas, go to the next step.
7. Remove glass door before lighting pilot. (See Glass Frame Removal section).
8. Visibly locate pilot by the main burner.
9. Turn knob on gas control counterclockwise  to "PILOT".

10. Push the control knob all the way in and hold. Immediately light the pilot by repeatedly depressing the piezo spark ignitor until a flame appears. 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 5 through 8.



- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
 - If after several tries, the pilot will not stay lit, turn the gas control knob to "OFF" and call your service technician or gas supplier.
11. Replace glass door.
 12. Turn gas control knob to "ON" position.
 13. Turn the ON/OFF switch to "ON" position or set thermostat to desired setting.
 14. Turn on all electrical power to the fireplace.

To Turn Off Gas To Heater

1. Turn the ON/OFF switch to Off position.
2. Turn off all electric power to the fireplace if service is to be performed.
3. Open control access panel.
4. Push in gas control knob slightly and turn clockwise  to "OFF". Do not force.
5. Close control access panel.

Lighting and Operating Instructions

For Fireplaces equipped with SIT822 Gas Valve (EN or EP)

WARNING

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

FOR YOUR SAFETY READ THE FOLLOWING WARNINGS BEFORE LIGHTING THE APPLIANCE

A. This fireplace is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.

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

What to do if you smell gas

- Do not try to light any appliance
- Do not operate any electrical switch.
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone.

Follow the gas suppliers instructions.

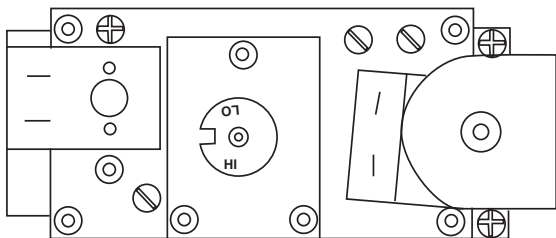
- If you cannot contact your gas supplier call the Fire Department

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 do not try to repair it, call a qualified service technician. Force or attempting 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 replace any part of the control system and any gas control that has been under water.

Lighting Instructions

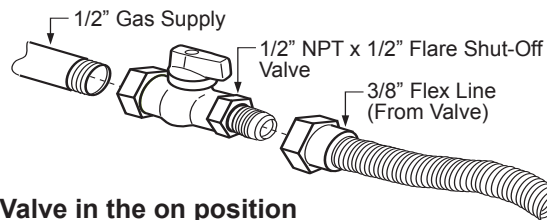
1. **STOP!** Read the safety information above before continuing.
2. Turn off all electrical power to the appliance.
3. This appliance is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.
4. Access the gas control by lowering the lower access door (louvre assembly).



5. Turn the remote switch, if used, OFF. Turn the wireless remote, if used, OFF.
6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas STOP. Follow instructions B in the safety warnings above. If you do not smell gas go onto the next step.
7. Close the access door.
8. Turn ON all electrical power to the appliance.
9. Turn remote switch or wireless remote to "ON".
10. If the appliance will not operate, follow the instructions **TURNING OFF THE GAS TO THE APPLIANCE** and call your service technician or gas supplier.

Turning Off the Gas to the Appliance

1. Turn the remote switch to the "OFF" position.
2. Turn OFF all electrical power to the fireplace if service is required.
3. Open the lower access panel.
4. Turn the shut-off valve on the flexible gas line to the "OFF" position.



Valve in the on position

Lighting & Operating Instructions

For Fireplaces equipped with AF4000 Gas Valve

WARNING

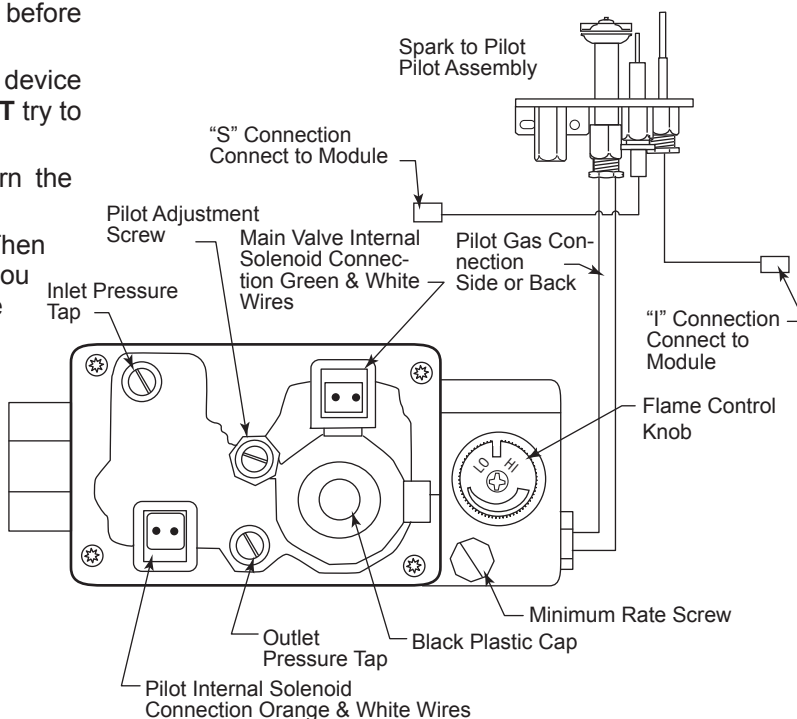
If you do not follow these instructions exactly, a fire or explosion may result, causing property damage, personal injury and loss of life.

For Your Safety, Read the Following Warnings before Lighting the Appliance

- A. This fireplace is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.
- B. **BEFORE OPERATING**, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than the air and will settle on the floor.
- What to do if you smell gas**
 - **Do not try to light any appliance.**
 - **Do not operate any electrical switch.**
- **Do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions.**
- **If you cannot contact your gas supplier call the Fire Department**
- C. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control that has been under water.

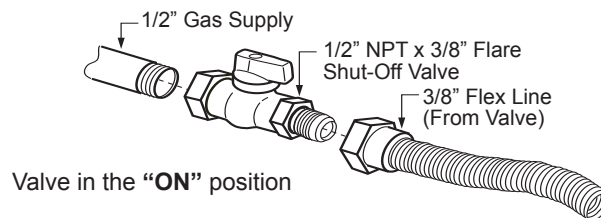
Lighting Instructions

1. **STOP!** Read the safety information above before continuing.
2. This appliance is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.
3. Turn the remote switch, if used, OFF. Turn the wireless remote, if used, OFF.
4. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP. Follow instruction B in the safety warnings above. If you do not smell gas, go on to the next step.
5. Turn on electrical power to the appliance.
6. Turn remote switch or wireless remote to ON.
7. If the appliance will not operate, follow the instructions **TURNING OFF THE GAS TO THE APPLIANCE**, and call your service technician or gas supplier.



Turning Off the Gas to the Appliance

1. Turn the remote switch to the OFF position.
2. Turn OFF all electrical power to the fireplace if service is required.
3. Open the lower access panel.
4. Turn the shut-off valve on the flexible gas line to the OFF position.



Troubleshooting the Gas Control System

SIT NOVA 820 Millivolt Valve

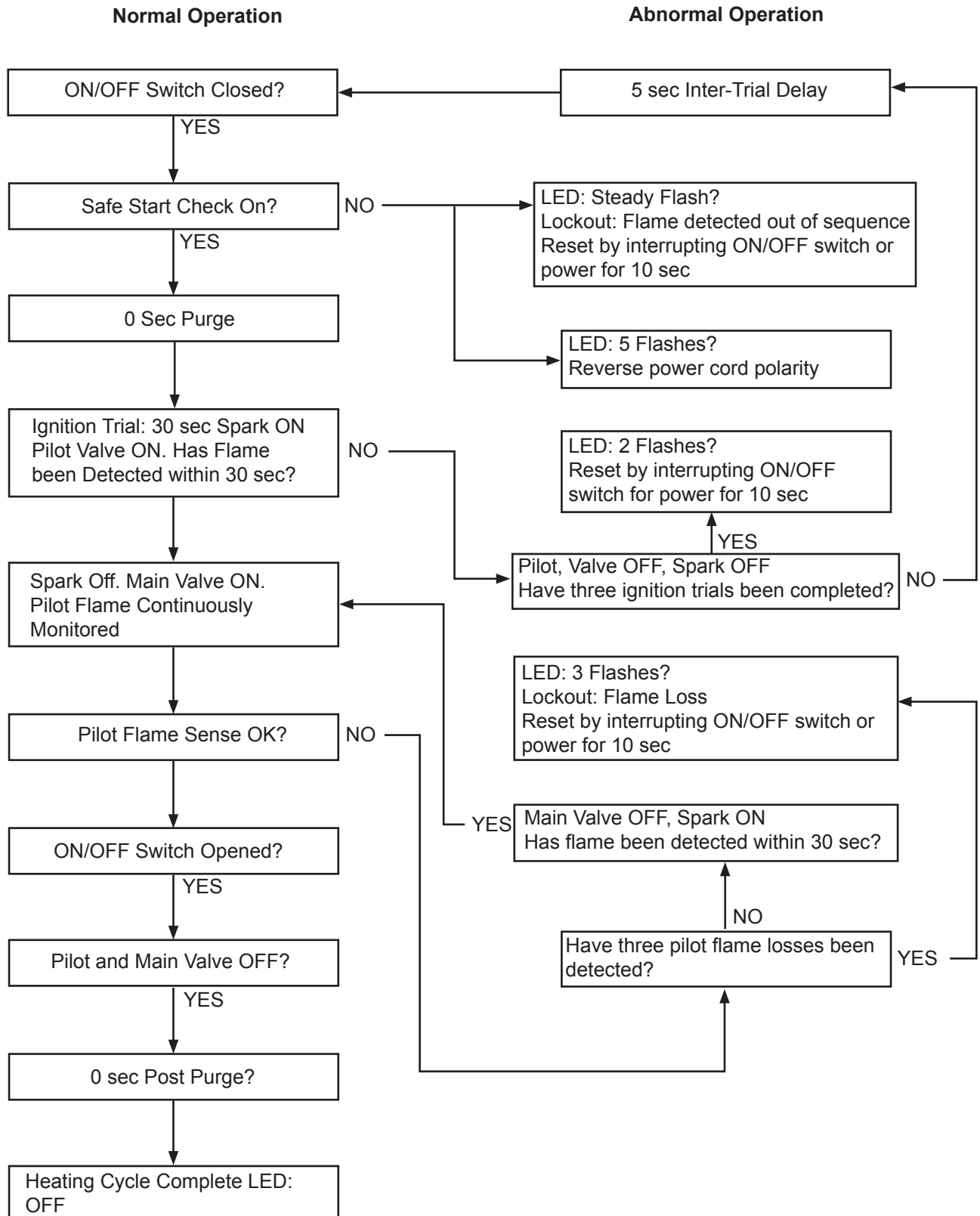
NOTE: Before trouble shooting the gas control system, be sure external gas shut off is in the “On” position.

WARNING: Before doing any gas control service work, remove glass front.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
1. Spark ignitor will not light	A. Defective or misaligned electrode at pilot.	Using a match, light pilot. If pilot lights, turn off pilot and push the red button again. If pilot will not light - check gap at electrode and pilot-should be 1/8” to have a strong spark.
	B. Defective ignitor (Push button)	Push Piezo Ignitor Button. Check for spark at electrode and pilot. If no spark to pilot, and electrode wire is properly connected, replace ignitor.
2. Pilot will not stay lit after carefully following lighting instructions.	A. Defective pilot generator (thermocouple), remote wall switch	Check pilot flame. Must impinge on thermocouple/thermopile. Note: this pilot burner assembly utilizes both-a thermocouple and a thermopile. The thermocouple operates the main valve operation (On and Off). Clean and or adjust pilot for maximum flame impingement on thermopile and thermocouple.
	B. Defective automatic valve	Turn valve knob to “Pilot”. Maintain flow to pilot; millivolt meter should read greater than 10 mV. If the reading is okay and the pilot does not stay on, replace the gas valve. Note: An interrupter block (not supplied) must be used to conduct this test.
3. Pilot burning, no gas to main burner	A. Wall switch or wires defective	Check wall switch and wires for proper connections. Jumper wire across terminals at wall switch, if burner comes on, replace defective wall switch. If okay, jumper wires across wall switch wires at valve, if burner comes on, wires are faulty or connections are bad.
	B. Thermopile may not be generating sufficient millivoltage	<ol style="list-style-type: none"> 1. Be sure wire connections from thermopile at gas valve terminals are tight and thermopile is fully inserted into pilot bracket. 2. One of the wall switch wires may be grounded. Remove wall switch wires from valve terminals if pilot now stays lit, trace wall switch wiring for ground. May be grounded to fireplace or gas supply. 3. Check thermopile with millivolt meter. Take reading at thermopile terminals of gas valve. Should read 250-300 millivolts (minimum 150) while holding valve knob depressed in pilot position and wall switch “Off”. Replace faulty thermopile if reading is below specified minimum.
	C. Plugged burner orifice.	Check burner orifices for debris and remove.
	D. Defective automatic valve operator.	Turn valve knob to “On”, place wall switch to “On” millivolt meter should read greater than 100 mV. If the reading is okay and the burner does not come on, replace the gas valve.
4. Frequent pilot outage problem.	A. Pilot flame may be too low or blowing (high) causing the pilot safety to drop out.	Clean and/or adjust pilot flame for maximum flame impingement on thermopile and thermocouple.
	B. Possible blockage of the vent terminal.	Check the vent terminal for blockage (recycling the flue gases)

Troubleshooting the Gas Control System

SIT 822 Valve with Synetek Electronic Control
Operating Diagram



Troubleshooting

American Flame Gas Control System

If erratic system behavior is observed that cannot be resolved by the methods outlined below, ensure that there is not a transmitter with batteries installed that may be interfering. If a transmitter is packed with batteries installed, its buttons may be depressed sending a constant signal which can interfere with the transmission of desired signals. A transmitter with new batteries can have a range of over 100' (30.4 m). (Page 10, Fig. 10)

Fireplace will not light	<ul style="list-style-type: none"> • Ensure the REMOTE/OFF switch on the side of the module (Fig. 50) is set to OFF. • Make sure the leads from the AC power adapter are securely connected to the POWER terminals on the control module and 120V AC power is available. (Fig. 51) • Make sure the remote wall switch is wired correctly.
Pilot will not light/stay lit	<ul style="list-style-type: none"> • Verify the gas supply is turned on. • Ensure the orange lead from the pilot assembly igniter is securely connected to the terminal labeled "I" and the white lead from the flame rectification sensor is securely connected to the terminal labeled "S" on the control module. (Fig. 50) • Make sure the orange and white leads from the module are securely connected to the terminals labeled "PILOT" on the valve body. (Fig. 52) • Ensure the black GROUND wire is securely connected to an appropriate metal portion of the valve or pilot assembly. A proper ground is essential to spark igniter operation. • Make certain the pilot flame is in contact with the flame rectification sensor on the pilot assembly. This valve is equipped with a pilot flame adjustment screw. (Fig. 52) If the pilot flame is too small it will not contact the flame rectification sensor and will not complete the safety circuit. • Check continuity of pilot coil on valve. Remove wire connector. If there is no continuity on pin terminals, replace valve.
Pilot flame is always on/ will not extinguish	<ul style="list-style-type: none"> • Ensure the CONTINUOUS PILOT switch on the control module (Fig. 50) is set to OFF.
Main flame will not light	<ul style="list-style-type: none"> • Verify the gas supply is turned on. • Ensure the pilot flame will ignite. If not, see pilot flame troubleshooting above. • Make sure the green and white leads from the module are securely connected to the terminals labeled "MAIN" on the valve body. (Fig. 52) • Make certain the pilot flame is in contact with the flame rectification sensor on the pilot assembly. This valve is equipped with a pilot flame adjustment screw. (Fig. 52) If the pilot flame is too small it will not contact the flame rectification sensor and will not complete the safety circuit. • Ensure the pilot flame is properly located to ignite the main flame. • Check continuity of main burner coil in gas valve. Remove wire connector. If there is no continuity, replace valve.

Troubleshooting American Flame Gas Control System (continued)

Figure 50: AF4000 MOD Module Right Side

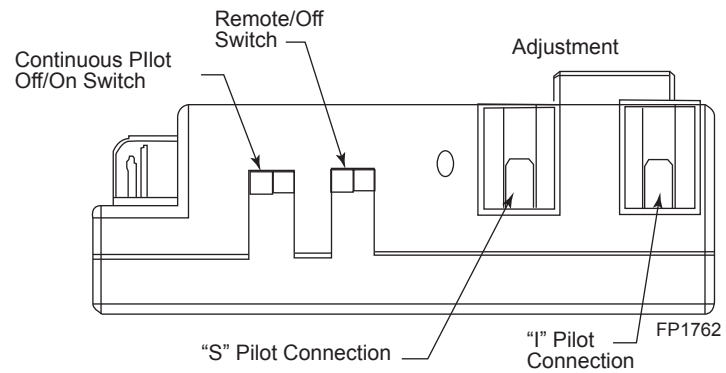


Figure 51: AF4000 MOD Module End

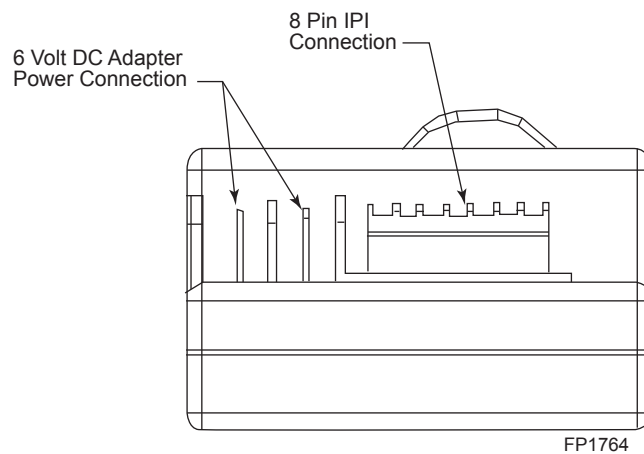
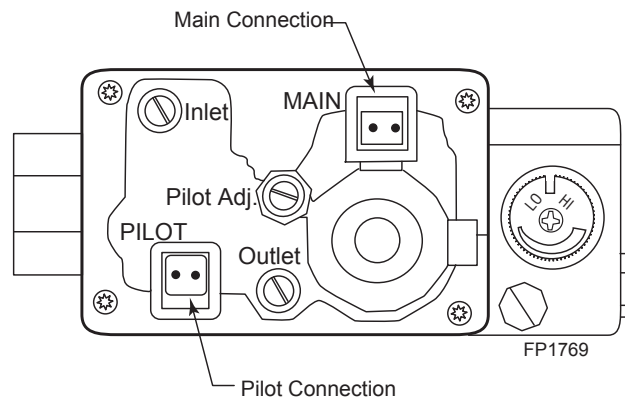


Figure 52: AF4000 Valve Face



American Flame Gas Control System Error Codes

Ignition Safety: Protection for Ignition System

Error Code: One beep every one second

Description of Fault: Warn users if the pilot is not successfully ignited in 60 seconds.

How to Clear: Switch OFF then ON to re-attempt ignition.

What to Check:

- Ensure gas supply is turned on.
- Ensure orange/white leads from module are plugged into the "PILOT" connection on the valve body.
- Verify the lead from igniter on pilot assembly is connected to the "I" terminal on the module.
- Verify lead from flame sensor on pilot assembly is connected to the "S" terminal on the module.
- Verify that the black ground lead from the module is connected to a proper ground on the fireplace.
- Ensure there is no blockage in the pilot line.

Sensor Safety: Protection for Flame Sensor

Error Code: 4 beeps every one second

Description of Fault: Warn users the pilot flame sensor detects a pilot flame already present when ignition sequence is initiated. This fault will also occur if pilot flame sensor is shorted to ground.

How to Clear: Switch OFF then ON to re-attempt normal ignition.

What to Check:

- Check if pilot flame is actually present when valve is turned OFF (valve replacement necessary if yes).
- Replace pilot assembly.
- Replace module.

Thermal Safety: Overheat Protection

Error Code: 4 beeps every two seconds.

Description of Fault: Warn users that the module's internal temperature has exceeded 170° F (77° C).

How to Clear: Turn off fireplace. The module's internal temperature must cool to below 160° F (71° C). Then switch to ON.

What to Check:

- Is module located in unapproved location, too close to burner?
- Move to cooler location.

Fuel Conversion Instructions



The conversion of this appliance from one gas to another must be carried out by an authorized service provider.



The procedure for converting from one gas to another is the same regardless of the initial gas used. The only variation is in the orifice sizes and component part numbers. Your authorized service provider will ensure the correct parts are used.

1. Disconnect power to the unit and shut off the gas supply.
2. Remove window frame assembly.
3. Carefully remove the logs & lava rock material.
4. Remove the screws holding the burner housing in place.
5. Remove the burner housing assembly. Depending on the model of the appliance you may have to loosen the pilot bracket retaining screw/nut to allow the pilot and bracket assembly to tilt and give enough clearance to remove the burner housing assembly.
6. **For Model 36LDVR ONLY:** Remove the rear log support and relocate the two (2) screws that locate the rear log as shown in Figure 53.

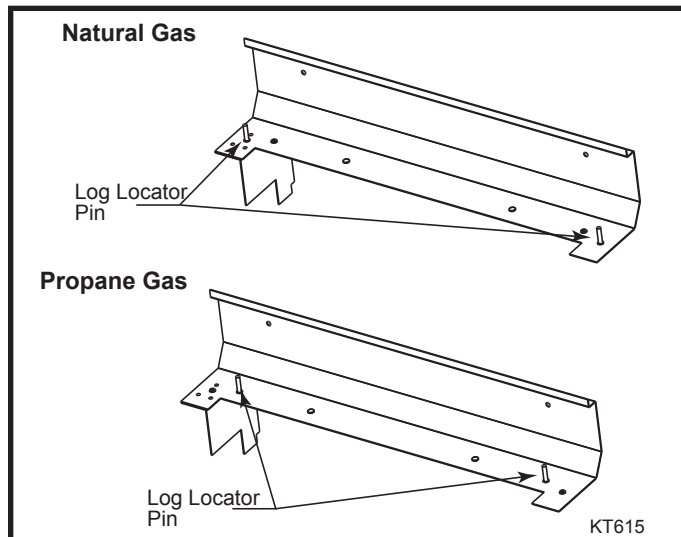


Fig. 53 Move log locator pins to new locations on rear log support.

7. Remove the main burner orifice and replace it with the orifice supplied in the conversion kit.

Pilot Orifice Conversion

SIT Top Convertible Pilot

Gently lift off the pilot hood from the pilot. (Do not remove the spring clip holding the hood in place). Using a 5/32" Allen key, unscrew the exposed orifice. Insert the new orifice supplied in the kit, do not over tighten the orifice. Replace the pilot hood ensuring the index tab aligns with the notch on the hood.

PSE Pilot

Using a suitable wrench on the hexagonal body unscrew the pilot hood assembly from the pilot, do not twist the hood itself. Remove the orifice and replace it with the new orifice supplied in the kit. Refit the pilot hood assembly. Do not over-tighten the pilot hood. The hood must return to its original alignment. Take care not to damage the thermocouple, thermopile or igniter.

Valve Conversion

SIT 820 NOVA Gas Control Valve (Fig. 54)

1. Using a Torx T20 or slotted screwdriver, remove and save the three pressure regulator mounting screws (A), pressure regulator tower (B) and diaphragm (C).

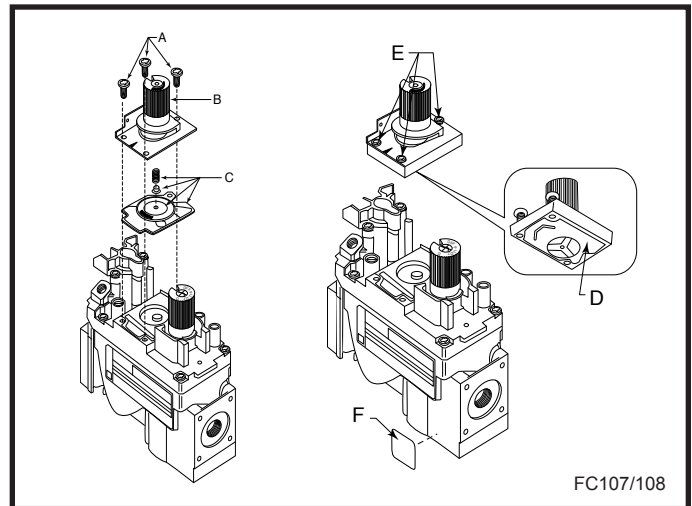


Fig. 54 Nova SIT820 Gas Valve.

2. Ensure the rubber gasket (D) is properly positioned and install the new HI/LO pressure regulator to the valve using the new screws (E) supplied with the kit. Tighten screws securely. (Reference torque - 25 in.LB)
3. Install the enclosed identification label (F) to the valve body where it can be easily seen.

AF4000 Gas Control Valve

The AF4000 electronic control valve is convertible from natural gas to propane gas by changing the minimum rate screw in the valve and by rotating a plastic knob located under a black cap on the top face of the valve.

1. Remove the black cap by pulling the cap straight off. Note the position of the marker on the top of the rotary knob. This marker will point to NAT or LP. (Fig. 55)
2. To convert the valve from NG to LP, push in the knob and rotate 90° (1/4 turn). **NOTE:** The shaft should point to LP and the shaft will remain pushed in.
3. Remove the minimum rate screw, using a small screwdriver, located in the valve next to the motor drive. (Fig. 55)
4. Replace the minimum rate screw with the new minimum rate screw supplied in the conversion kit. Ensure the screw is fully installed. Replace plug.

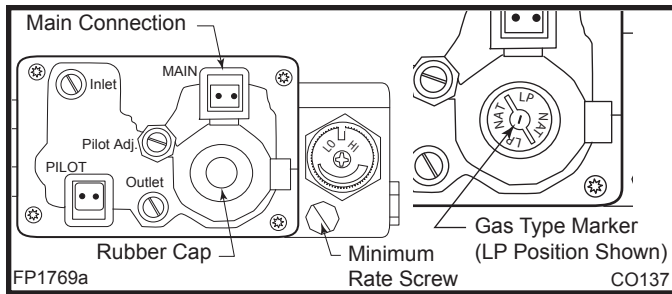


Fig. 55 Remove rubber cap and adjust gas type marker.

5. Turn on gas supply and check that plugs are tight and leak free.
6. Install the enclosed identification label to the valve body where it can easily be seen.

Conversion is complete.

1. Reassemble the fireplace in the reverse order, except for the window frame assembly. Leave this off until after the unit has been checked for leaks and the gas supply has been bled.
2. After bleeding the gas line and checking for leaks with a soap solution, replace the window frame assembly. Fire up the unit, check for flame impingement on the logs, adjusting them if necessary. Check the manifold and supply pressures against the appliance specifications.

Maintenance

Burner and Burner Compartment

It is important to keep the burner and the burner compartment clean. At least once per year the logs and lava rock/ember material should be removed and the burner compartment vacuumed and wiped out. Remove and refit the logs as per the instructions in this manual.



Always handle the logs with care as they are fragile and may also be hot if the fireplace has been in use.

FK24/FK12 Fan Assembly

The fan unit requires periodic cleaning. At least once per month in the operating season open the lower louver panels and wipe or vacuum the area around the fan to remove any build up of dust or lint.

Brass Trim

Clean the brass trim pieces using a soft cloth lightly dampened with lemon oil. Do not use water or household cleaners on any brass components.

Cleaning the Standing Pilot Control System

The burner and control system consist of:

- burner
- gas orifice
- pilot assembly
- thermopile
- millivolt gas valve

Most of these components may require only an occasional checkup and cleaning and some may require adjustment. **If repair is necessary, it should be performed by a qualified technician.**

1. Turn off pilot light at gas valve.
2. Allow fireplace to cool if it has been operating.
3. Remove window frame assembly. (Refer to Window Frame Assembly Removal section.)
4. Remove logs.
5. Vacuum burner compartment especially around orifice primary air openings.
6. Visually inspect pilot. Brush or blow away any dust or lint accumulation.
7. Reinstall logs.
8. Ignite pilot - Refer to Lighting Instructions.
9. Reinstall window frame assembly.

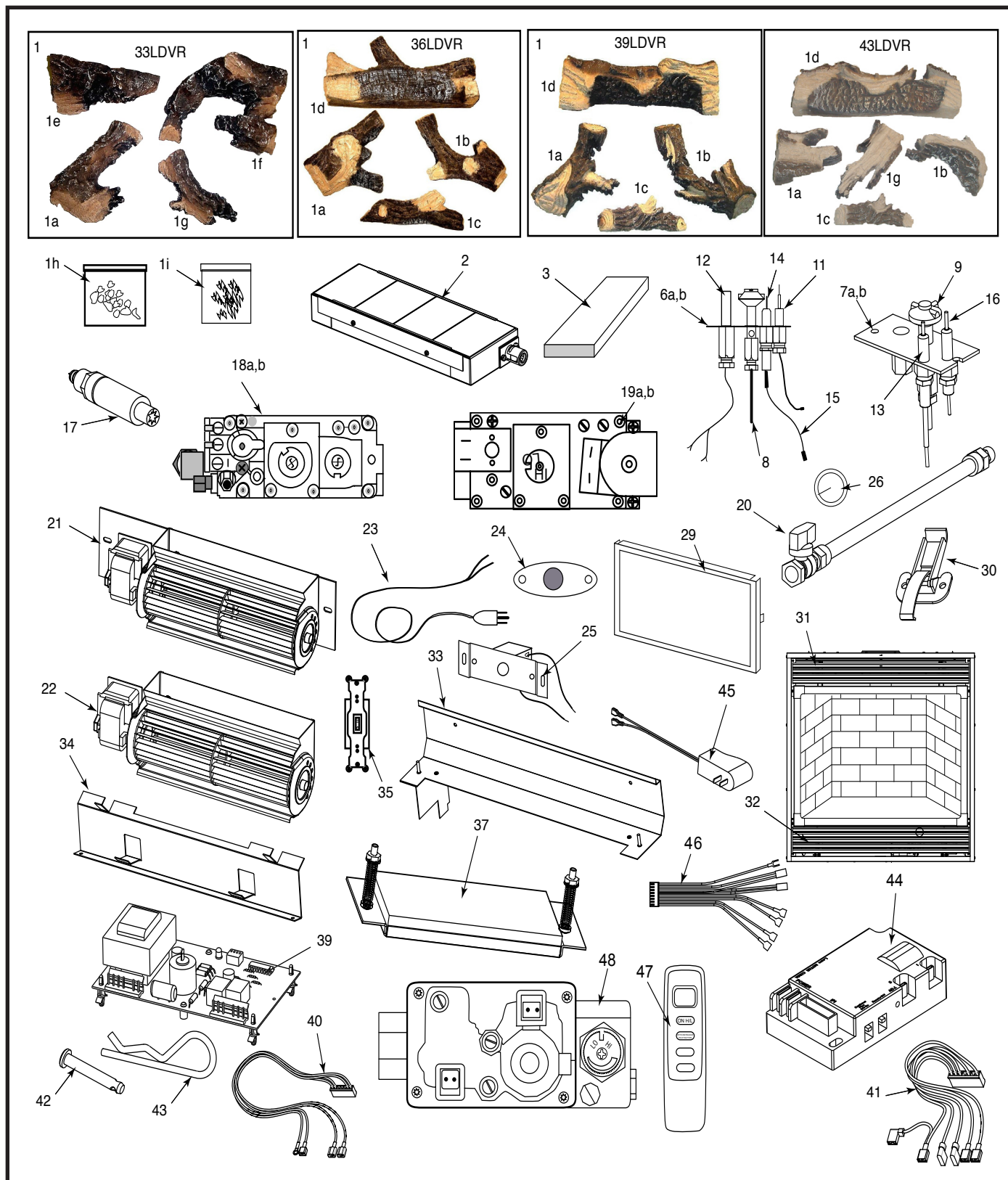
To obtain proper operation, it is imperative that the pilot and burner's flame characteristics are steady, not lifting or floating.

Typically, the top 3/8" to 1/2" of the thermopile should be engulfed in the pilot flame. (Refer to Page 27, Figure 48)

To adjust pilot burner: (by qualified service technician)

1. Remove pilot adjustment cap
2. Adjust pilot screw to provide properly sized flame.
3. Replace pilot adjustment cap.

The primary air shutter is set at factory and should only be adjusted, if necessary, by a qualified service technician.



Vermont Castings Group reserves the right to make changes in design, materials, specifications, prices and discontinue colors and products at any time, without notice.

33/36/39/43LDVR

LDVR (continued)

Ref.	Description	33LDVR	36LDVR	39LDVR	43LDVR
1.	Log Set (complete)	10007567	10010113	10008214	10008314
1a.	Front Left Log	A43	B160	BC15	BD16
1b.	Front Right Log	--	B159	BC16	BD17
1c.	Front Center Log	--	B161	B138	B138
1d.	Rear Log	--	B158	BC14	BD15
1e.	Rear Left Log	A41	--	--	--
1f.	Rear Right Log	A42	--	--	--
1g.	Top Center Log	A44	--	--	BD18
1h.	Lava Rock Package	10001454	10001454	10001454	10001454
1i.	Ember (Package)	51915	51915	51915	51915
2a.	Burner Housing Assy - Natural	10007558	10007127	10008218	10008464
2b.	Burner Housing Assy - LP	10007558	10008042	10008586	10008587
3.	Ceramic Tile (Single)	57803	57803	57803	57803
4a.	Orifice Burner - Natural	Refer to Rating Plate for Orifice Size			
4b.	Orifice Burner - Propane	Refer to Rating Plate for Orifice Size			
5a.	Orifice Pilot - Natural	10002268	10002268	10002268	10002268
5b.	Orifice Pilot - Propane	10002269	10002269	10002269	10002269
6a.	Pilot Assy SIT - RN	10002264	10002264	10002264	10002264
6b.	Pilot Assy SIT - RP	10002265	10002265	10002265	10002265
7a.	Pilot Assy SIT - EN	10002387	10002387	10002387	10002387
7b.	Pilot Assy SIT - EP	10002388	10002388	10002388	10002388
8.	Pilot Tubing w/Fittings SIT	10001296	10001296	10001296	10001296
9.	Pilot Hood	10002385	10002385	10002385	10002385
10.	Manifold Tubing w/Fittings	57318	57318	57318	57318
11.	Thermocouple - RN/RP	53373	53373	53373	53373
12.	Thermopile - RN/RP	51827	51827	51827	51827
13.	Electrode Ignitor w/Cable - RN/RP	10001297	10001297	10001297	10001297
14.	Electrode Ignitor - EN/EP	52465	52465	52465	52465
15.	Cable Ignitor - EN/EP	10000696	10000696	10000696	10000696
16.	Sensing Electrode - EN/EP	57885	57885	57885	57885
17.	Ignitor Piezo SIT820 Valve	52464	52464	52464	52464
18a.	Valve SIT 820 - RN	52677	52677	52677	52677
18b.	Valve SIT 820 - RP	52678	52678	52678	52678
19a.	Valve SIT 822 - EN	57884	57884	57884	57884
19b.	Valve SIT 822 - EP	57883	57883	57883	57883
20.	Flexible Gas Line w/ON/OFF Shut-Off Valve	20002500	20002500	20002500	20002500
21.	Fan Assy w/Bracket (FK24 Option)	ZA1100	ZA1100	ZA1100	ZA1100
22.	Fan Assy (FK12 Option)	ZA1110	ZA1110	ZA1110	ZA1110
23.	Electrical Cord (6ft)	51865	51865	51865	51865
24.	Fan Temperature Sensor (FK24)	51704	51704	51704	51704
25.	Speed Control (FK24)	51738	51738	51738	51738
26.	Speed Control Knob (FK24)	51882	51882	51882	51882
29.	Frame Window w/Glass	10009693	10009694	10009695	10008535
30.	Clamp Frame Window	54174	54174	54174	54174
31.	Top Louvre Assy	10007400	10007090	10007984	10008311
32.	Bottom Louvre Assy	10007397	10007092	10007986	10008307
33a.	Support Rear Log	10007561	10007162	10008211	10008480
33b.	Support Rear Log - LP	10007561	10008045	10008211	10008480

LDVR (continued)

Ref.	Description	33LDVR	36LDVR	39LDVR	43LDVR
34.	Support Front Log	10007562	10007112	10008416	10008469
35.	ON/OFF Switch	51842	51842	51842	51842
37.	Relief Plate Assy (Burner Base)	10004192	10004192	10004192	10004192
38.	Remote Switch Kit (Not shown)	53875	53875	53875	53875
39.	Ignition Control from Synetek (EN)	10007939	10007939	10007939	10007939
40.	Wire Harness (EN) Synetek (low voltage)	10008139	10008139	10008139	10008139
41.	Wire Harness (EN) Synetek (high voltage)	10008140	10008140	10008140	10008140
42.	Clevis Pin	10008615	10008615	10008615	10008615
43.	Clip Pin Hitch	10008616	10008616	10008616	10008616
44.	Main Module (IN)	20011895	20011895	20011895	n/a
45.	AC Adaptor (IN)	20011900	20011900	20011900	n/a
46.	24" Wire Harness (IN)	20012258	20012258	20012258	n/a
47.	Remote Control (IN)	20011904	20011904	20011904	n/a
48.	American Flame Valve AF-4010-IN Assy	20013151	20013151	20013151	n/a

Fuel Conversion Kits

Conversion Kit, NG to LP

33LDVRRN/EN	Kit # 10008233
33LDVRIN	Kit # 20014312
36LDVRRN/EN	Kit # 10008235
36LDVRIN	Kit # 20014313
39LDVRRN/EN	Kit # 10008237
39LDVRIN	Kit # 20014314
43LDVRRN/EN	Kit # 10008239

Conversion Kit, LP to NG

33LDVRRP/EP	Kit # 10008234
33LDVRIP	Kit # 20014315
36LDVRRP/EP	Kit # 10008236
36LDVRIP	Kit # 20014316
39LDVRRP/EP	Kit # 10008238
39LDVRIP	Kit # 20014317
43LDVRRP/EP	Kit # 10008240

Optional Accessories Available

Fan Kits

FK24 Fan Assembly

This auxiliary fan system increases the efficiency of the circulation of the heated air.

The FK24 fan kit allows variable speed control of the circulation fan and also incorporates a heat sensor in the circuit.

Specifications

115 Volt / 60Hz / 56 Watts

Maintenance

The fan itself does not require regular maintenance, however periodic cleaning of the fan and the surrounding area is required.

Check the area under the control door (lower louvre assembly) and in front of the fan and wipe or vacuum this area at least once a month during the operating season.

Installation

The fan assembly and other components are supplied fully wired, eliminating the need for a licensed electrician to carry out the installation.

If hard wiring the fan using Method B (following) we strongly recommend the use of a licensed electrician.

1. Open the lower louvre assembly. Move the fan & bracket assembly around the gas valve and lines to locate the unit onto the screw studs on the back of the fireplace.
2. Install the thermal sensor under the bottom of the of the firebox, locating it over the two 10mm studs and secure it with nuts.
3. Locate the fan speed control unit. This can be fitted behind the lower louvre assembly as in Figure 56 or located remotely in a conveniently located wall mounted electrical box. Remote location of the speed control will require suitable extension of the component wiring.
4. The power supply may be connected in two ways:

Method A

Route the 6' lead fitted to the unit to a conveniently located wall socket.

Method B (Using EB-1 Receptacle Box)

The EB-1 receptacle box (Pt. # ZA1200) may be hard wired into the house supply. The fan lead is then plugged into the EB-1 box. For instruction on wiring the EB-1 receptacle box see the earlier chapter in the Installation section of this manual.

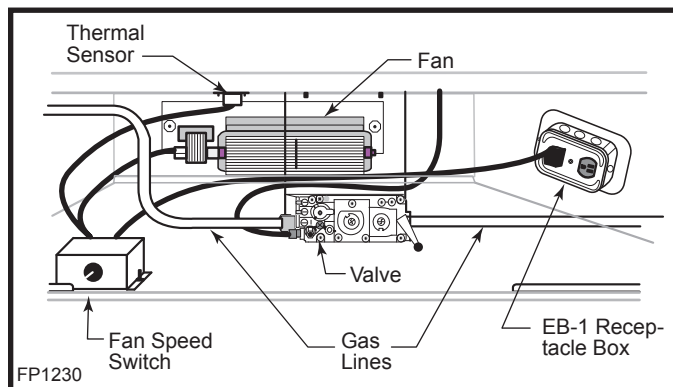


Fig. 56 FK24 fan placement.

FK12

This auxiliary fan system increases the efficiency of the circulation of the heating air.

The FK12 Fan Assembly is a fixed speed fan system and does not allow for variable speed control. It does not use the speed control unit or the heat sensor used in the FK24 Kit.

Specifications

115 Volts / 60 Hz / 56 Watts.

Maintenance

The fan itself does not require regular maintenance, however periodic cleaning of the fan and the surrounding area is required.

Check the area under the control door (lower louvre assembly) and in front of the fan and wipe or vacuum this area at least once a month during the operating season.

Installation

The fan assembly is supplied fully wired eliminating the need for a licensed electrician to carry out the installation.

1. Open the lower Louvre assembly. Move the fan & bracket assembly around the gas valve and lines to locate the unit against the back wall of the appliance, resting on the base.
2. With the protective cover removed from the self-adhesive 'Velcro' strips apply mild pressure to the fan & bracket unit to secure the strips to the metal panels. No further securing is required.
3. Power to the fan can be supplied by plugging the supplied lead into a conveniently located wall socket or by using a hard-wired EB-1 receptacle box.

Wiring Instructions



The fireplace, when installed, must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current CSA C22.1 Canadian Electric Code.



For USA installations follow the local codes and the national electrical code ANSI/NFPA No. 70.



Should this fan require servicing or repair the power supply must be disconnected. For rewiring of any replacement parts refer to Figure 57.



Any electrical rewiring of this fan must be done by a licensed electrician.

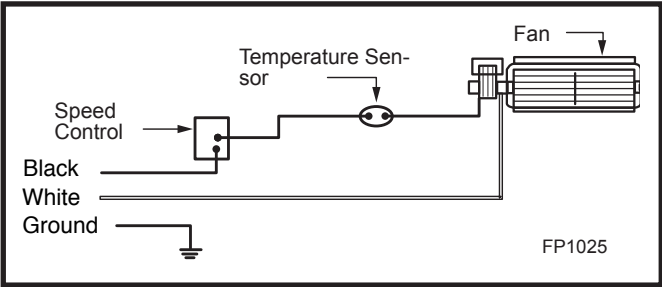


Fig. 57 FK24 fan wiring.

Ceramic Refractory Panels

Ceramic refractory panels are available in kit form for the LDV series appliances

Kit Model and Finish				
Unit	Sandstone	Red	Black	Grey
33LDVR	33LDVR CR			
36LDVR	GAHC3J0	GAFC3J0	GABC3J0	GAGC3J0
39LDVR	39LDVCR			
43LDVR	43LDVCR			



Take care when handling the refractory panels as they are fragile until held in place and supported.

Installation Refer to Figures 58 & 59

1. Remove the front window frame assembly.
2. Remove the logs.
3. Place the rear refractory panel in place. Locate the lower edge of the panel in the ledge formed by the top of the rear log support bracket.
4. Slide the side refractory panels into place to hold the rear panel secure. Repeat the procedure on the other side.
5. Replace the logs and window frame assembly.

For aesthetic purposes we recommend aligning the horizontal mortar lines.

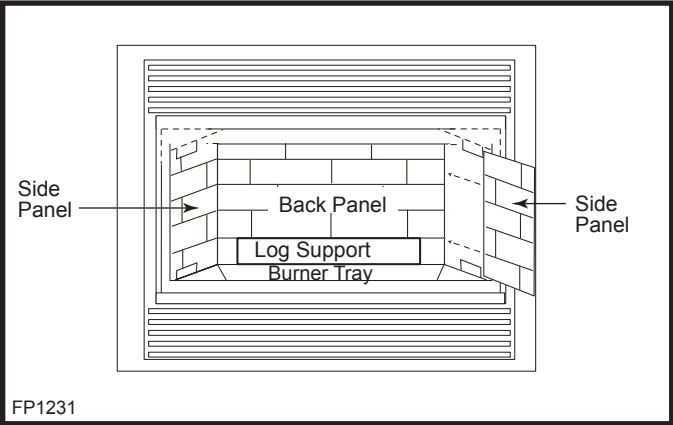


Fig. 58 Ceramic panel installation.

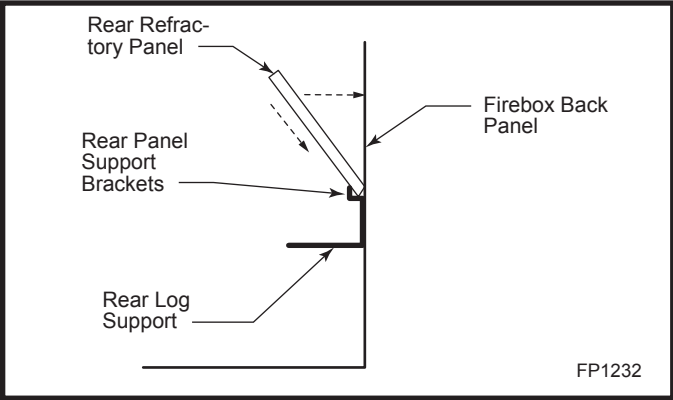


Fig. 59 Rear refractory panel installation.

Remote Controls

Optional remote control units are available to control different functions of the appliances

Model	Function/s Controlled
RC1	ON/OFF
RC2	ON/OFF and Temperature
IMTFK	Wall mounted thermostat control

(must be used in bedroom installations)

Optional Trim Kits

Louvre Accent Trim

Appliance Model	Main Louvre Kit	Additional Louvre
Polished Brass		
36LDVR	36DVLMP	36DVLAP
39LDVR	39DVLMP	39DVLAP
Rustic Bronze		
33LDVR	33DVLMP	33DVLAP
36LDVR	36DVLMP	36DVLAP
Pewter		
33LDVR	33DVLMS	33DVLAS
36LDVR	36DVLMS	36DVLAS
39LDVR	39DVLMS	39DVLAS
43LDVR	43DVLMS	43DVLAS

Regular Trim Kit

Appliance Model	Trim Kit	
33LDVR	33DVRRKs	Pewter
33LDVR	33DVRTKR	Rustic Bronze

Adjustable Regular Trim Kit

Appliance Model	Trim Kit	
36LDVR	ADVRRKS	Pewter
36LDVR	ADVRTKR	Rustic Bronze
39LDVR	ADVRRKS	Pewter
39LDVR	ADVRTKR	Rustic Bronze

Medium Trim Kit

Appliance Model	Trim Kit	
33LDVR	33DVMTKS	Pewter
33LDVR	33DVMTKB	Black

Adjustable Medium Trim Kit

Appliance Model	Trim Kit	
36LDVR	ADVMTKP	Polished Brass
36LDVR	ADVMTKS	Pewter
36LDVR	ADVMTKB	Black
39LDVR	ADVMTKP	Polished Brass
39LDVR	ADVMTKS	Pewter
39LDVR	ADVMTKB	Black

Screen Door Kit

Appliance Model	Kit Model	
33LDVR	33DVSDKS	Pewter
36LDVR	36DVSDKS	Pewter
33LDVR	33DVSDKB	Black
36LDVR	36DVSDKB	Black
39LDVR	39DVSDKB	Black
36LDVR	36DVSDKR	Rustic Bronze

Filigree Louvre Kit

Appliance Model	Kit Model	
33LDVR	33DVFKB	Black
36LDVR	36DVFKB	Black
36LDVR	36DVFKS	Pewter
36LDVR	36DVFKR	Rustic Bronze

Arch/Square Face Kit

for the 36LDVR

Romanesque - Arch		
36DVARFKB	Black	
36DVARFKR	Rustic Bronze	
36DVARFKS	Pewter	
Romanesque - Square		
36DVSRFKB	Black	
36DVSRFKR	Rustic Bronze	
36DVSRFKS	Pewter	
Marquette - Arch		
36DVAMTKB	Black	
36DVAMTKR	Rustic Bronze	
36DVAMTKS	Pewter	
Marquette - Square		
36DVSMTKB	Black	
36DVSMTKR	Rustic Bronze	
36DVSMTKS	Pewter	

LIMITED LIFETIME WARRANTY

Lifetime Warranty

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, Heat Exchanger, Grate and Stainless Steel Burners.

Five Year Warranty

The following components are warranted for five (5) years to the original owner, subject to proof of purchase: Ceramic Fiber Logs.

Basic Warranty

Vermont Castings Group warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of two (2) years from date of installation. After installation, if any of the components manufactured by Vermont Castings Group in the appliance are found to be defective in materials or workmanship, Vermont Castings Group will, at its option, replace or repair the defective components at no charge to the original owner. Vermont Castings Group will also pay for reasonable labor costs incurred in replacing or repairing such components for a period of two (2) years from date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

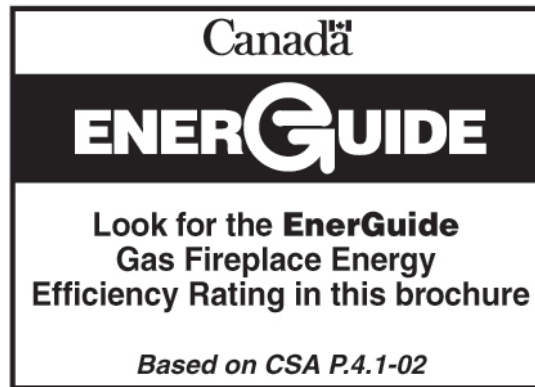
This Limited Lifetime Warranty will be void if the appliance is not installed by a qualified installer in accordance with the installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damage by accident, neglect, misuse, abuse, alterations, negligence of others, including the installation thereof by unqualified installer, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability of fitness for purpose and of all other obligations or liabilities. Vermont Castings Group does not assume for it any other obligations or liabilities in connection with sale or use of the appliance. In states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damage, those limitations of exclusions may not apply to you. You may also have additional rights not covered in the Limited Lifetime Warranty.

Vermont Castings Group reserves the right to investigate any and all claims against the Limited Lifetime Warranty and decide upon method of settlement.

For information about this warranty, contact:

Technical Services
Vermont Castings Group
149 Cleveland Drive
Paris, KY 40361



Efficiency Ratings				
Model	EnerGuide Ratings Fireplace Efficiency (%)	Steady State (%)		D.O.E. (AFUE%)
		Fan-OFF	Fan-ON	
33LDVRRN	62.6	81	82	59
33LDVRRP	62.6	82	83	59
33LDVREN	72.7	81	82	59
33LDVREP	72.7	82	83	59
33LDVRIN	72.7	81	82	59
33LDVRIP	72.7	82	83	59
36LDVRRN	57.5	81	82	58
36LDVRRP	57.5	82	83	58
36LDVREN	63.6	81	82	58
36LDVREP	63.6	82	83	58
36LDVRIN	63.6	81	82	58
36LDVRIP	63.6	82	83	58
39LDVRRN	50.2	76	79	63
39LDVRRP	50.2	79	80	63
39LDVREN	54.2	78	79	63
39LDVREP	54.2	79	80	63
39LDVRIN	54.2	78	79	63
39LDVRIP	54.2	79	80	63
43LDVRRN	54.3	77	78	63
43LDVRRP	54.3	78	79	63
43LDVREN	58.3	77	78	63
43LDVREP	58.3	78	79	63

**NATIONAL
FIREPLACE
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We recommend 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.

Vermont Castings Group
149 Cleveland Drive • Paris, Kentucky 40361
www.vermontcastingsgroup.com