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 EXPLO-SION MAY RESULT CAUSING PROPERTY DAMAGE, PER-SONAL INJURY OR LOSS OF LIFE.

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

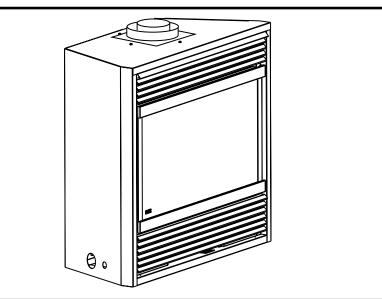
WHAT TO DO IF YOU SMELL GAS:

- 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.



Builder Top Vent Direct Vent Models: 33BDVT, 36BDVT 39BDVT, 43BDVT



Installation Instructions and Homeowner's Manual





CFM Specialty Home Products

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INSTALLER: DO NOT DISCARD THIS MANUAL - LEAVE FOR HOMEOWNER

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PLEASE READ THE INSTALLATION & OPERATING INSTRUCTIONS BEFORE USING THIS APPLIANCE. Thank you and congratulations on your purchase of a CFM Specialty Home Products fireplace. IMPORTANT: Read all instructions and warnings carefully before starting installation. Failure to follow these instructions 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 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 the 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 the fireplace 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 that 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 vapour and liquids. This fireplace should not be used as a dry-ing 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 the fireplace is installed directly on carpeting, vinyl tile or any combustible material other than wood, this 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 control valve be left in the OFF position.
- 15. These units have been approved for bedroom use.

Proposition 65 Warning: Fuels used in gas, woodburning 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

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 BDVT has been approved for mobile home installations.

IMPORTANT:

PLEASE REVIEW THE FOLLOWING CAREFULLY

Remove any plastic from from 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 ventilatedopen 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.

Locating Your Fireplace

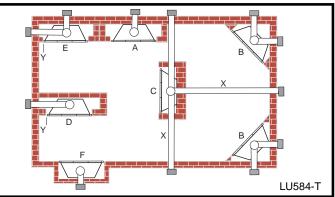


Fig. 1 Locate gas fireplace.

C - **Island

B - Cross corner D - *Room divider E - *Flat on wall corner F - Chase installation Y - 6" minimum

Note (Fig. 1):

A - Flat on wall

** Island (C) and Room Divider (D) installation is possible as long as the horizontal portion of the vent system (X) does not exceed 20' (6m). See details in manual Venting Section.

* When you install your fireplace in(D) Room divider or (E) Flat on wall corner positions (Y), a minimum of 6" (152mm) clearance must be maintained from the perpendicular wall and the front side edge of the fireplace. See (Y) in Fig. 1.

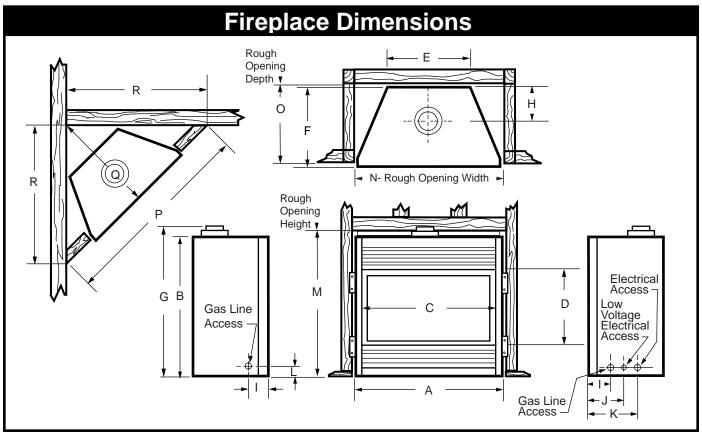


Fig. 2 Fireplace specifications and framing dimensions.

Ref.	33B	DVT	36BDVT	39BDVT	43BDVT
А	33"	(838mm)	36" (914mm)	39" (991mm)	43" (1092mm)
В	287⁄8"	(733mm)	34¼" (870mm)	34¼" (870mm)	37" (940mm)
С	31"	(787mm)	33" (838mm)	36" (914mm)	40" (1016mm)
D	16¾"	(416mm)	21" (533mm)	21" (533mm)	23½" (570mm)
E	22"	(559mm)	24" (610mm)	24" (610mm)	31" (787mm)
F	14"	(356mm)	16" (406mm)	16" (406mm)	16" (406mm)
G	317⁄8"	(810mm)	37¼" (946mm)	37¼" (946mm)	40" (1016mm)
Н	6"	(152mm)	71⁄8" (181mm)	7½" (190mm)	7" (178mm)
I	51/8"	(149mm)	6¾" (171mm)	6¼" (159mm)	5½" (140mm)
J	71⁄8"	(200mm)	10" (254mm)	8¾" (213mm)	8¼" (210mm)
К	11"	(297mm)	13½" (343mm)	12½" (318mm)	12½" (318mm)
L	11/8"	(18mm)	17⁄8" (18mm)	17⁄8" (18mm)	17⁄8" (18mm)
			Framing Dimens	sions	
М	29"	(737mm)	35" (889mm)	35" (889mm)	37¾" (959mm)
Ν	33½"	(851mm)	36½" (927mm)	39½" (1003mm)	43½" (1105mm)
0	14½"	(368mm)	16½" (419mm)	16½" (419mm)	16½" (419mm)
Р	49¾"	(1264mm)	55¼" (1403mm)	56" (1422mm)	62¾" (1584mm)
Q	247⁄8"	(632mm)	281/8" (714mm)	28¼" (718mm)	31¾" (793mm)
R	35%"	(894mm)	39¾" (1010mm)	40" (1016mm)	441⁄%" (1121mm)

Clearance to Combustibles

Appliance 0 (0mm)

тор	υ	(Umm)
Bottom	0"	(0mm)
Side	0"	(0mm)
Back	0"	(0mm)
4 tu u		` '

Ventina

Concentric sections of DV Vent

Top, bottom & sides 1" (25mm)

Mantels

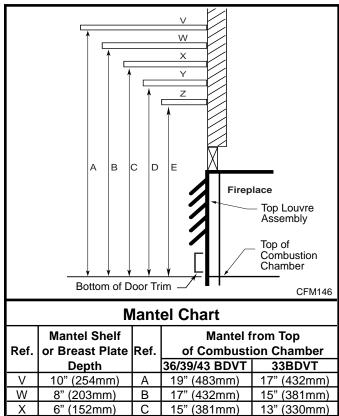
The height that a combustible mantel is fitted above the fireplace is dependent on the depth of the mantel. This also applies to the distance between the mantel leg (if fitted) and the fireplace.

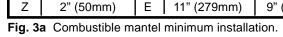
For the correct mounting height and widths refer to Figures 3a and 3b.

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.





D

13" (330mm)

11" (279mm)

11" (279mm)

9" (229mm)

4" (101mm)

2" (50mm)

Y

Ζ

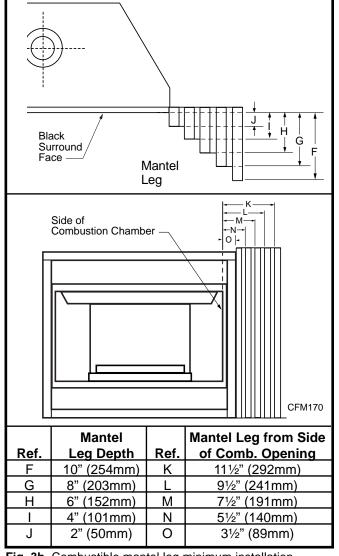


Fig. 3b Combustible mantel leg minimum installation.

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 noninsulated exterior wall or chase, it is mandatory that the outer walls be insulated to conform to applicable insulation codes.

Framing and Finishing

- 1. Choose the unit location.
- Place the unit into position and secure it to the floor with 1½" (38mm) screws, or nails. The holes to secure the unit to the floor are located just behind the access door grille on the left and right side of the unit.
- 3. Frame in the fireplace with a header across the top. It is important to allow for the finished wall face when setting the depth of the frame.
- Attach the fireplace to the frame using the adjustable frame drywall strips (located behind the access door for shipping). Preset the depth to suit the facing material of the wall. The strips are adjustable to 1/2" (13mm), 5/8" (16mm) or 3/4" (19mm). (Fig. 4)
- 5. Screw through the slotted holes in the drywall strip and into the pre-drilled holes in the fireplace side. Measure from the face of the fireplace to the face of the drywall strip to confirm the final depth.

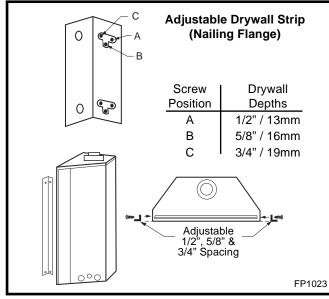


Fig. 4 Nailing flanges.

Final Finishing

Noncombustible materials such as brick or tile may be extended over the edges of the face of the appliance. **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 appliance.

33BDVT / 36BDVT / 39BDVT / 43BDVT Certified To

ANSI Z21.88-2002 / CSA 2.33-2002 Vented Gas Fireplace Heaters

Gas Specifications

			Max. Input	Min. Input
Model	Fuel	Gas Control	BTU/h	BTU/h
33BDVTRN	Nat	Millivolt	15,000	10,500
33BDVTRP	Prop	Millivolt	15,000	11,250
33BDVTEN	Nat	24V Hi/Lo	15,000	10,500
33BDVTEP	Prop	24V Hi/Lo	15,000	11,250
36BDVTRN	Nat	Millivolt	18,000	12,600
36BDVTRP	Prop	Millivolt	18,000	13,500
36BDVTEN	Nat	24V Hi/Lo	18,000	12,600
36BDVTEP	Prop	24V Hi/Lo	18,000	13,500
39BDVTRN	Nat	Millivolt	22,000	15,400
39BDVTRP	Prop	Millivolt	22,000	16,500
39BDVTEN	Nat	24V Hi/Lo	22,000	15,400
39BDVTEP	Prop	24V Hi/Lo	22,000	16,500
43BDVTRN	Nat	Millivolt	25,000	17,500
43BDVTRP	Prop	Millivolt	25,000	18,750
43BDVTEN	Nat	24V Hi/Lo	25,000	17,500
43BDVTEP	Prop	24V Hi/Lo	25,000	18,750

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 gas line, the front window frame assembly must be removed.

The gas pipeline can be brought in through the rear of the fireplace 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 codes.

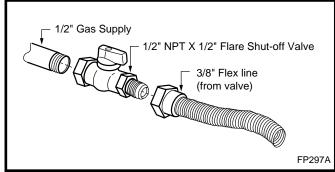


Fig. 5 Typical gas supply installation.



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.

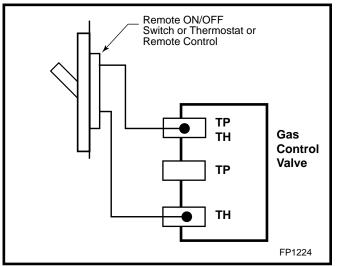
When using copper or flex connector use only approved fittings. Always provide a union when using black iron pipe so that the gas line can be easily disconnected for burner or fan servicing . See gas specifications for pressure details and ratings.

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

Remote ON/OFF Switch

Installation:

- 1. Thread the wiring through holes on the end panels of appliance. Take care not to cut 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)





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)

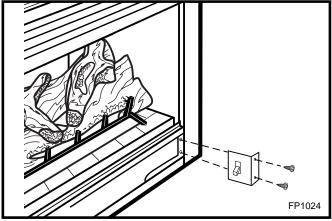


Fig. 7 Alternate switch location.



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.

- Unscrew retaining screw from EB-1 base plate (Fig. 8) and remove the EB-1 assembly from the appliance.
- 2. Remove the front cover of the EB 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.

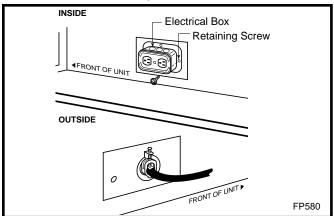


Fig. 8 EB-1 receptacle.

Electronic Gas Control Valve

This appliance may be fitted with a Honeywell ignition module.

Installation of the remote on/off switch 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 to the black wire from the transformer, using an approved wire nut. Connect the black wire from the wall switch to the black wire running from the #6 position of the ignition module, also using an approved wire nut.

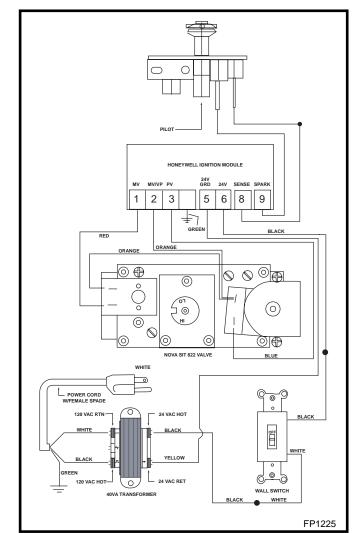


Fig. 9 Honeywell Ignition Module.

General Venting

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

- Only 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 must be installed on a level plane without any incline or decline.

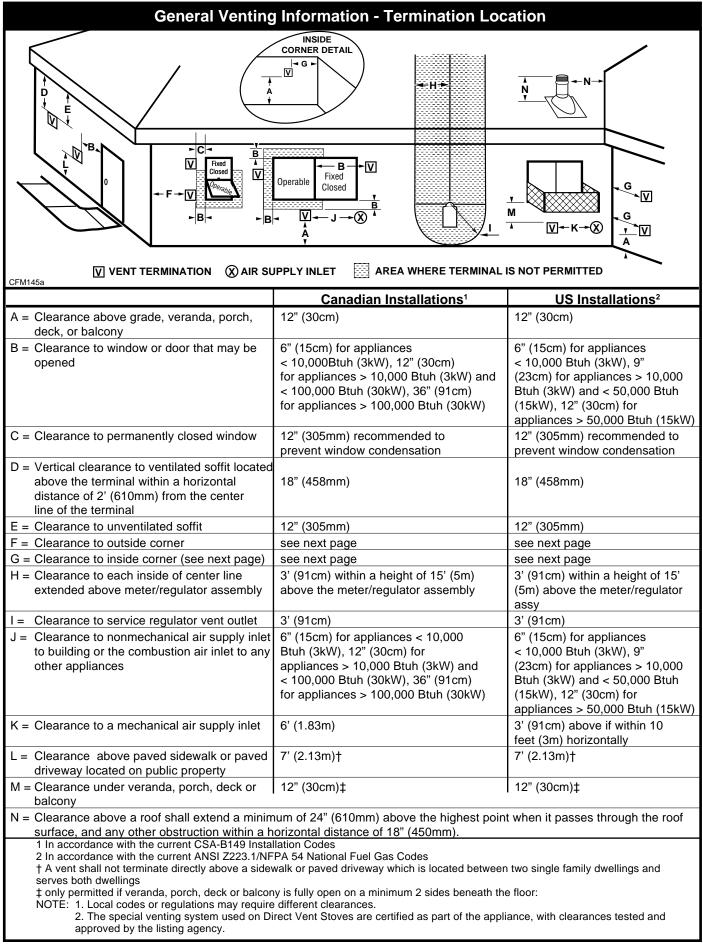
There must not be any obstruction such as bushes, garden sheds, fences, decks or utility buildings within 24" (610mm) from the front of the termination hood.

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 CSA-B149.1 Installation Codes (1991) for Canada or follow the current National Fuel Gas Code, ANSI Z223.1/NFPA 54 for installations in the USA.



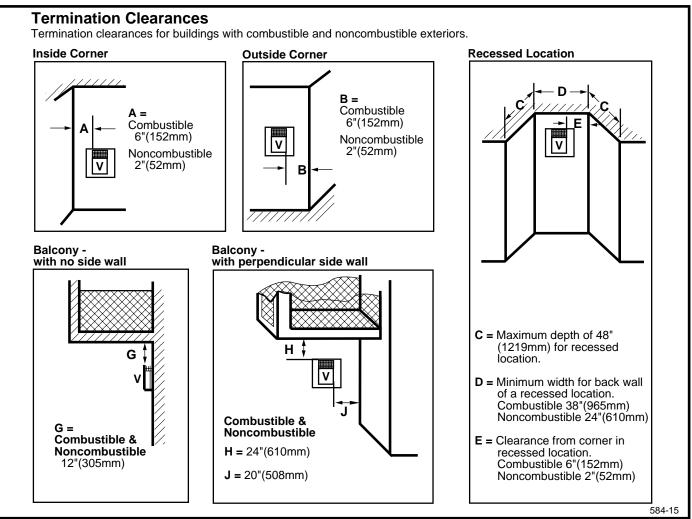


Fig. 10 Termination clearances.

General Information on Assembling Vent Pipes

Canadian Installations:

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

USA Installations:

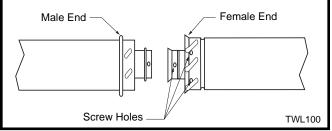
The venting system must conform with local codes and/ or the current National Fuel Gas code ANSI Z223.1/ NFPA 54.

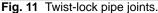
Only venting components manufactured by CFM Corporation can be used in Direct Vent systems.

Twist Lock Pipes

When using CFM Corporation 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 collars on the fireplace and termination, and the sliding joint 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 ends 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.





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.

- 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. 12), locate the point intersecting with the 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' (3.4m) the horizontal run to the face of the outer wall must not exceed 14' (4.3m).

Example B:

If the vertical dimension from the floor of the unit is 7' (2.14m), the horizontal run to the face of the outer wall must not exceed $8\frac{1}{2}$ ' (2.6m).

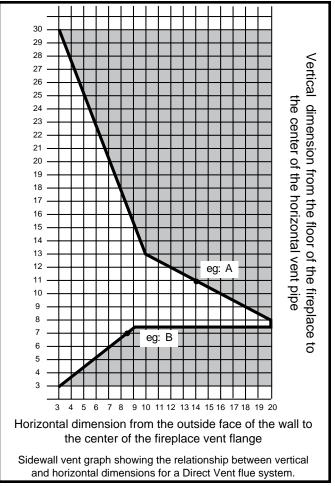


Fig. 12 Sidewall venting graph. (Dimensions in feet)

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



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

When the vent termination exits through foundations less than 20" (508mm) 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 of vent pipe from the flue collar of the fireplace to the face of the outer wall.

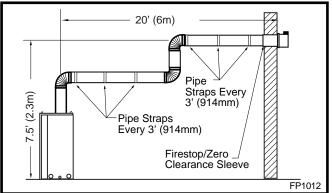
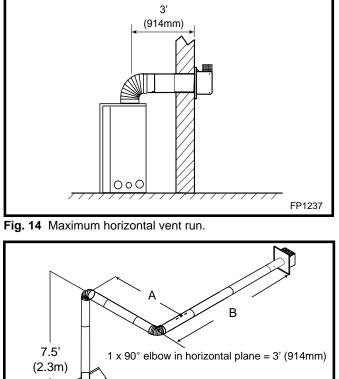


Fig. 13 Support straps for horizontal runs.

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

- The maximum number of 90° elbows per side wall installations is three (3).
- If a 90° elbow is fitted directly onto the fireplace flange the maximum horizontal vent run before the termination or a vertical rise is 36" (914mm).
- If a 90° elbow is used in the horizontal vent run (level height maintained) the maximum horizontal vent length is reduced by 36" (914mm). This does not apply if the 90° elbows are used to increase or redirect a vertical rise.

Example: According to the chart the maximum horizontal vent length in a system with a 7.5' (2.3m) vertical rise is 20' (6m) and if a 90° is required in the horizontal vent it must be reduced to 17' (5.2m). In Figure 15, Dimension A plus B must not be greater than 17' (5.2m).



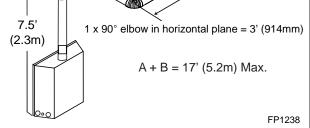


Fig. 15 Maximum vent run with elbows.

- The maximum number of 45° elbows permitted per side wall installation is two (2). 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" (457mm). This does not apply if the 45° elbows are installed on the vertical part of the vent system.
- The maximum number of elbow degrees in a system is 270°. (Fig. 16)

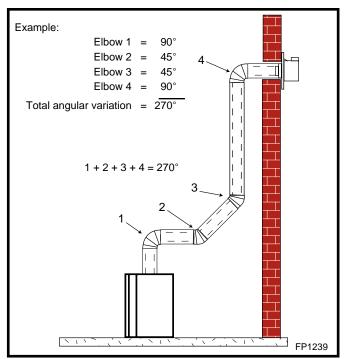


Fig. 16 Maximum number of elbow degrees.

Vertical Sidewall Installations

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. 17)

For combustible walls first frame in opening.

Combustible Walls: (Fig. 17) Cut a 9%"H x 9%"W (240 x 240mm) hole through the exterior wall and frame as shown.

Noncombustible Walls: (Fig. 17) Hole opening must be $7\frac{1}{2}$ " (190mm) in diameter.

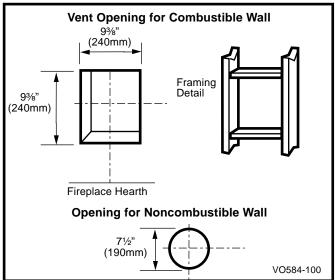


Fig. 17 Locate vent opening on wall.

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). Install firestop assembly. (Fig. 18)



Zero clearance sleeve is only required for combustible walls.

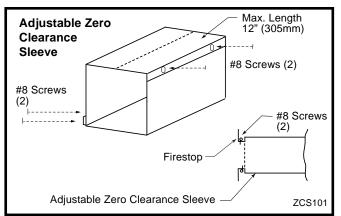


Fig. 18 Adjustable zero clearance sleeve.

STEP 3

Place fireplace into position. (Fig. 19) Measure the vertical height (X) required from the base of the flue collars to the center of the wall opening.

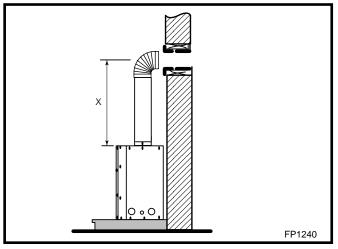


Fig. 19 Vertical height requirement.

STEP 4

Apply a bead of high temperature sealant to the inner and outer flue collars of the fireplace and using appropriate venting component(s) attach to fireplace with three (3) screws. (Fig. 20) Follow with the installation of the inner and outer elbow. Again secure joints with three (3) sheet metal screws. Wipe off any excess high temperature sealant.

STEP 5

Measure the horizontal length requirement including a 2" (51mm) overlap, ie from the elbow to the outside wall face plus 2" (51mm) (or the distance required if installing a second 90° elbow). (Fig. 20)



Always install horizontal venting on a level plane.

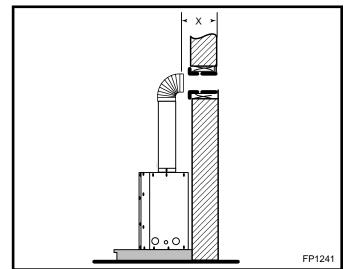


Fig. 20 Horizontal length requirement. STEP 6

Use appropriate length of pipe sections - telescopic or fixed - and install the horizontal vent sections. The sections which go through the wall are packaged with the starter kit, and can be cut to suit if necessary. (Fig. 21)



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

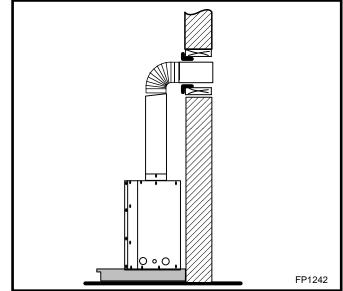


Fig. 21 Through the wall.

STEP 7

Apply high temperature sealant to 4" (102mm) and 7" (179mm) collars or the termination one inch away from crimped end. Guide the vent terminations 4" and 7" collars into their respective vent pipes. Double check that the vent pipes overlap the collars by 2" (51mm). Secure the termination to the wall with screws provided and caulk around the wall plate to weatherproof. (Fig. 22) As an alternative to screwing the termination directly to the wall you may also use expanding plugs or an approved exterior construction adhesive. You may also attach the termination with screws through the inner body into the 4" (102mm) vent pipe however for this method you must extend the 4" (102mm) pipe approximately 6" (152mm) beyond the outer face of the wall.

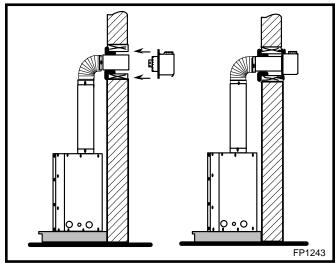


Fig. 22 Apply high temperature sealant to collars or terminations.

Support horizontal pipes every 3' (914mm) with metal pipe straps. Make sure the horizontal vent pipe is installed on a level horizontal plane.

Below Grade Installations

When it is not possible to meet the required vent terminal clearances of 12" (305mm) above grade level a snorkel vent kit is recommended. It allows installation depth of down to 7" (178mm) 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.

If installing a snorkel a minimum 24" (610mm) vertical rise is necessary. The maximum horizontal run with the 24" (610mm) vertical pipe is 36" (914mm). This

measurement is taken from the collar of the fireplace (or transition elbow) to the face of the exterior wall. Refer to the Sidewall Vent Graph for extended horizontal run if the vertical rise exceeds 24" (610mm).

- 1. Establish vent hole through the wall. (Fig. 17)
- Remove soil to a depth of approximately 16"

 (406mm) below base of snorkel. Install drain pipe.
 Install window well (not supplied). Refill hole with 12"
 (305mm) of coarse gravel leaving a clearance of approximately 4" (102mm) below snorkel. (Fig. 23)
- 3. Install vent system.
- 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 the snorkel into the vent pipes and secure to the wall.
- Level the soil to maintain a 4" (102mm) clearance below snorkel. (Fig. 23)



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

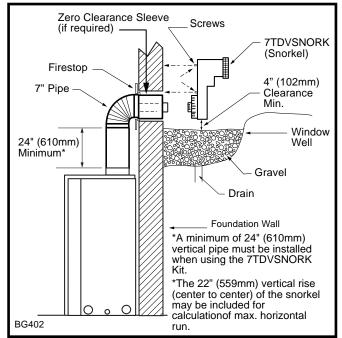
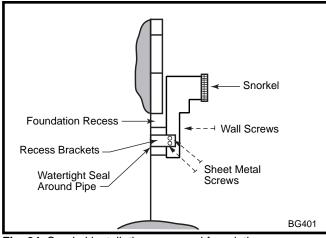
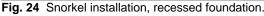


Fig. 23 Below grade installation.

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 $\#8 \times 1/2$ sheet metal screws. It will be necessary to extend vent pipes out as far as protruding wall face. (Fig. 24)





Vertical Through-the-Roof Applications

This Gas Fireplace has been approved for:

 Vertical installations up to 40' (12m) in height. Up to a 10' (3m) horizontal vent run can be installed within the vent system using a maximum of two 90° elbows. (Fig. 25)

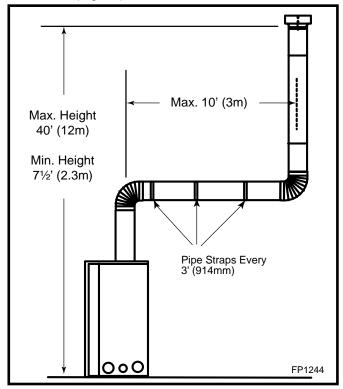


Fig. 25 Support straps for horizontal runs.

 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" (457mm). Example: Maximum horizontal length

- 0 x 45° elbows = 10' 93m0
- 1 x 45° elbows = 81/2' (2.6m)
- $2 \times 45^{\circ}$ elbows = 7' (2.1m)
- A minimum of an 8' (2.4m) vertical rise.
- Two sets of 45° elbows offsets within these vertical installations. From 0 to a maximum of 8' (2.4m) of vent pipe can be used between elbows. (Fig. 26)
- 7DVCS must be used to support offsets. (Fig. 31) This application will require that you first determine the roof pitch and use the appropriate starter kit. (Refer to Venting Components List)
- The minimum height of the vent above the highest point of penetration through the roof is 2' (610mm). (Fig. 33)

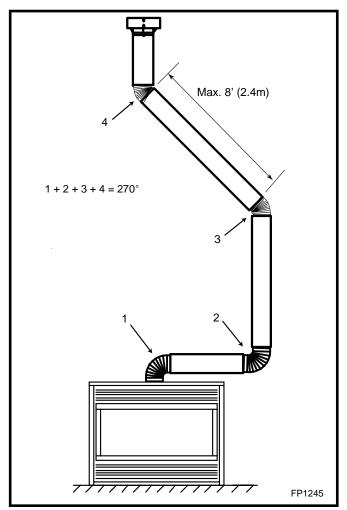


Fig. 26 Typical offset application.

Vertical Restrictor Plate (33BDVT only)

When installing the 33BDVT with a Vertical Throughthe-Roof configured flue system the restrictor plate, (#10002495) supplied with the appliance **MUST BE FITTED TO THE APPLIANCE** at installation.

Fitting The Restrictor Plate

- 1. Remove the window frame assembly.
- 2. Locate the firebox baffle assembly in the top rear area of the firebox. (Fig. 27)
- 3. Remove the four (4) nuts along the front edge, and the three (3) screws along the rear edge of the baffle assembly. Remove the baffle assembly from the firebox.
- 4. Remove the two (2) screws from the top face of the baffle assembly. (Fig. 28) Place the restrictor plate as shown in Figure 29 and secure by refitting the screws.

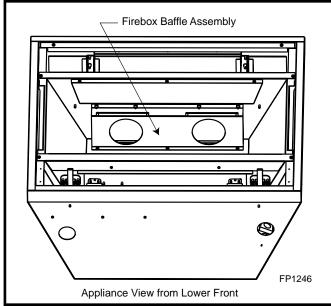


Fig. 27 Firebox baffle assembly.

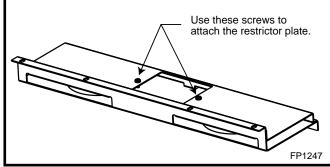


Fig. 28 Remove two (2) top screws, then place restrictor plate.

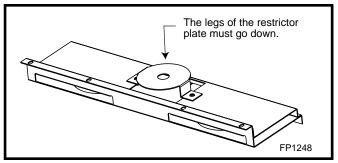


Fig. 29 Place restrictor with legs pointing down.

- 5. Refit the baffle assembly to the firebox, replacing the three (3) screws and four (4) nuts.
- 6. Refit window frame assembly as per the appropriate sections of this manual.

Vertical Through-the-Roof Installation

- 1. Locate your fireplace.
- 2. Plumb to center of the (4" (102mm) flue collar from ceiling above and mark position.
- 3. Cut opening equal to 9%" x 9%" (240 x 240mm).
- 4. Proceed to plumb for additional openings through the roof. In all cases, the opening must provide a minimum of 1" (25mm) clearance to the vent pipe, i.e., the hole must be at least 9%" x 9%" (240 x 240mm).
- 5. Place fireplace into position.
- Place firestop(s) #7DVFS or Attic Insulation Shield #7DVAIS into position and secure. (Fig. 30)

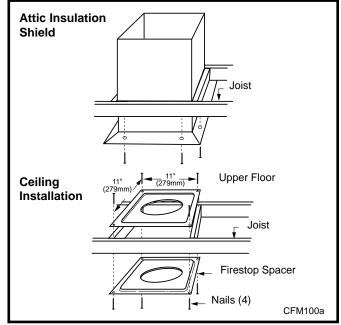


Fig. 30 Place firestop spacer(s) and secure.

- 7. Install roof support (Fig. 31) and roof flashing making sure upper flange of flashing is below the shingles. (Fig. 32)
- 8. Install appropriate pipe sections until the venting is above the flashing. (Fig. 32)
- 9. Install storm collar and seal around the pipe.
- Add additional vent lengths for proper height. (Fig. 33)
- 11. Apply high temperature sealant to 4" and 7" collars.

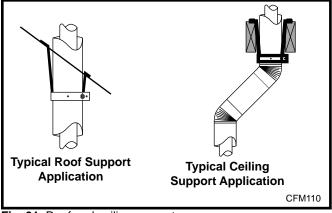


Fig. 31 Roof and ceiling supports.

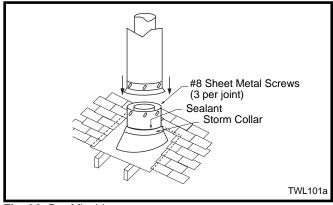


Fig. 32 Roof flashing.

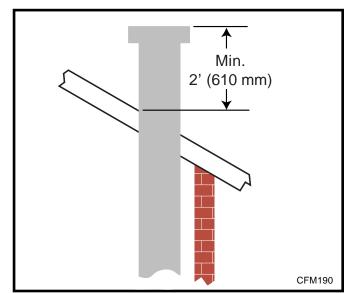


Fig. 33 Minimum termination to roof clearance.



If there is a 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.

The enlarged ends of the vent section always face downward. (Fig. 32)

Twist Lock Venting Components				
	7TDVRVT-Through the wall Rear Vent Termination			
The second secon	Starter Kit-Model7TDVSK-Sidewall Venting 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 Starter Kit-Model 7TDVSKS-Snorkel Kit Snorkel Termination - 7TDVSNORK for Below Grade Installation			
	45° Elbow 7TDV45 for Vertical/Horizontal Offset			
	90° Transition Elbow 7TDVRT90 for Rear Vent to Vertical Vent 90° Elbow 7TDV90 for Vertical/Horizontal Offset			
	Telescopic vent sections 7TDVP1218 -12" to 18" adjustable length 7TDVP3564 -35" to 64" adjustable length			
	Pipe sections for vertical or horizontal venting Model 7TDVP8" 4 per box Model 7TDVP12" 4 per box Model 7TDVP24" 4 per box Model 7TDVP36" Model 7TDVP38"			
	Firestop Spacer Model 7DVFS			
	Attic Insulation Shield Model 7DVAIS			
	Vertical/Horizontal Combination Offset Support Model 7DVCS			

Operating Instructions

Glass Information



Only glass approved by CFM Specialty Home Products 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 gasket) is available through your CFM Specialty Home Products dealer and should only be installed by a licensed qualified service person.

Louvre Removal

The top louvre panel is removed by lifting the panel vertically and pulling it away from the appliance. (Fig. 34) The lower access door is hinged along the bottom edge and is folded down to allow access.

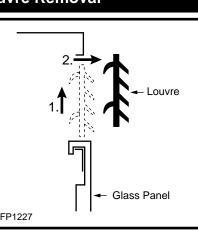
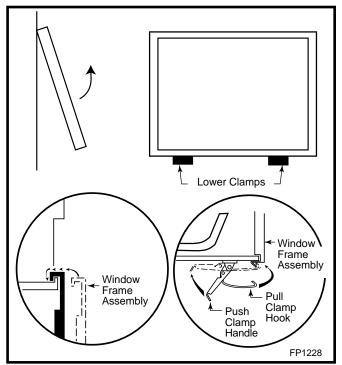


Fig. 34 Remove top louvre assembly.

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 frame by pulling down on the handles. (Fig. 35)
- 6. Tilt the glass frame out slightly at the bottom, lift the frame up and away from the fireplace.
- 7. To replace the glass frame reverse the procedure.





Glass Cleaning

It is necessary to periodically clean the 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 the glass surface.

Also initial paint curing may deposit a slight film on the glass. It is therefore recommended that 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 the glass after the first two weeks of operation.

Do not clean glass when hot. Do not use abrasive cleaners. Do not strike or slam glass.

Installation of Logs, Lava Rock & Ember Material

Unpack the logs from packaging and remove each log from its wrapping materials.



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 identified by numbers cast on the underside of each log.

Log Identification Chart					
Location	33BDVT	36BDVT	39BDVT	43BDVT	
Front Left		BB11	BC11	BD12	
Front Right	BA9	BB12		BD14	
Rear		BB13		BD11	
Top Right			BC12		
Rear Left	BA7	1	BC10		
Rear Fr Rt	BA8	-	BC13		
Top Center				BD13	

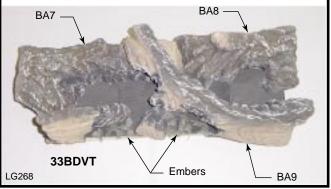
33BDVT

Refer to Figure 36.

- 1. Remove the top louvre assembly.
- 2. Remove the window frame assembly.
- 3. Fit the rear front right log (BA8) onto the rear log support. Ensure the right rear end of the log is located against the bracket bending up on the right side of the support.
- 4. Fit the rear left log (BA7) onto the rear log support. Ensure the rear right end of the log is located against the bracket bending up on the right side of the support.
- 5. Place the front right log (BA9) in position by resting the hole under the center of this log located over the knob on the branch of the rear front right log, and the front end of this log will also set against the back wall of the deflector. (Fig. 36)
- 6. Scatter the ember material over the front area of the burner housing assembly. (Fig. 36) Do not pack this material tightly, separate it when unpacked and keep it in a loose condition.
- 7. Scatter the lava rock material around the firebox base.



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





36BDVT

Refer to Figure 37.

- 1. Remove the top louvre assembly.
- 2. Remove the window frame assembly.
- 3. Fit the rear log (BB13) onto the rear log support. Ensure the log's bottom holes are located on the two pins of the support.
- 4. Fit the front left log (BB11) onto the left cut out of the rear log while the front of this log will set against the back wall of the front deflector.
- 5. Place the front right log (BB12) in position by resting the hole under the center of this log located over the knob on the center rear log, and the front end of this log will also set against the back wall of the deflector.
- 6. Scatter the ember material over the front area of the burner housing assembly. (Fig. 37) Do not pack this material tightly, separate it when unpacked and keep it in a loose condition.
- 7. Scatter the lava rock material around the firebox base.



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

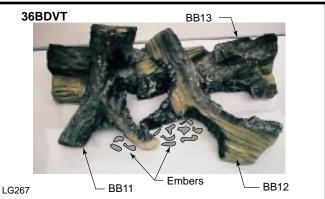


Fig. 37 36BDVT log placement.

39BDVT

Refer to Figure 38.

- 1. Remove the top louvre assembly.
- 2. Remove the window frame assembly.
- 3. Fit the rear left log (BC10) onto the left side of the rear log support. Ensure the log's bottom holes are located on the two studs of the support.
- 4. Fit the rear front and right log (BC13) onto the right side of the rear log support. Ensure the log's bottom holes are located on the two studs of the support and the front end of this log will be set onto the right side of the burner housing assembly.
- 5. Fit front left log (BC11) onto the left support bracket over the burner housing assembly. Ensure the log's bottom holes are located on the two studs of the bracket.
- Place the top right log (BC12) on top of the rear and front right log by resting the pre-cut rectangular hole under the end of this log located over the rectangular knob on the rear and front right log. (Fig. 38)
- 7. Scatter the ember material over the front area of the burner housing assembly. (Fig. 38) Do not pack this material tightly, separate it when unpacked and keep it in a loose condition.
- 8. Scatter the lava rock material around the firebox base.



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

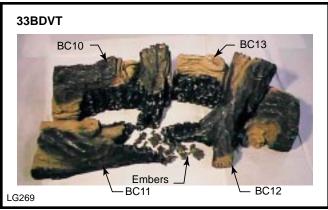


Fig. 38 39BDVT log placement.

43BDVT

Refer to Figure 39.

- 1. Remove the top louvre assembly.
- 2. Remove the window frame assembly.
- Fit the rear left log (BD11) onto the rear log support. Ensure the back of the log is flat against the rear wall of the support.
- 4. Fit the front left log (BD12) onto the left support bracket over the burner housing assembly. Ensure the log's bottom holes are located onto the two studs of the bracket.
- 5. Place the top center log (BD13) in place with the front part of the log sitting against the back wall of the deflector. Make sure the right front end of the log is touching against the bend back of the deflector. Also the back end of this log will be reclined onto the rear log.
- 6. Place the front right log (BD14) in place with the front part of the log sitting against the back wall of the deflector. Make sure the right front end of the log is touching against the bend back of the deflector. Also the back end of this log will be reclined onto the rear log.
- 7. Scatter the ember material over the front area of the burner housing assembly. (Fig. 39) Do not pack this material tightly, separate it when unpacked and keep it in a loose condition.
- 8. Scatter the lava rock material around the firebox base.



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

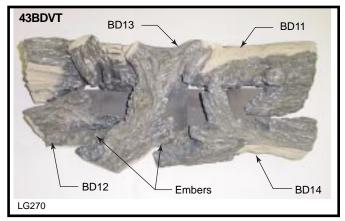


Fig. 39 43BDVT log placement.

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' adjustments knob located near the center of the gas control valve. (Fig. 40 & 41)



Fig. 40 Flame adjustment knob for Honeywell valve.

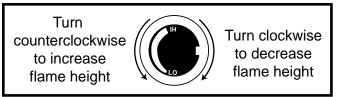


Fig. 41 Flame adjustment knob for SIT valve.

Flame Characteristics

It is important to periodically perform a visual check of the pilot and burner flames. Compare them to the pictorials illustrated below (Fig. 42-46).

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

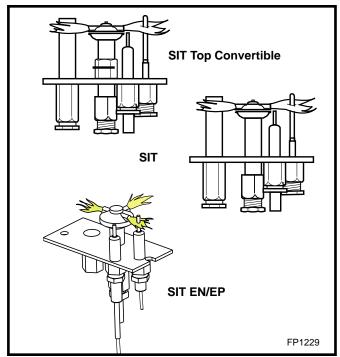


Fig. 42 Correct pilot flame appearance.



Fig. 43 Correct burner flame appearance for 33BDVT.

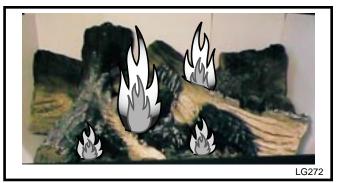


Fig. 44 Correct burner flame appearance for 36BDVT.

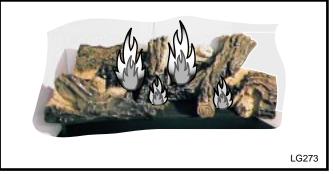


Fig. 45 Correct burner flame appearance for 39BDVT.



Fig. 46 Correct burner flame appearance for 43BDVT.

Lighting and Operating Instructions FOR YOUR SAFETY READ BEFORE LIGHTING

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

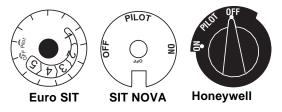
- A. This heater has a pilot which must be lit manually. When lighting the pilot follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the heater area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- WHAT TO DO IF YOU 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.
- For MN/MP/TN/TP appliances ONLY, go on to Step 4. For RN/RP appliances turn the ON/OFF switch to "OFF" position or set thermostat to lowest level.
- 4. Open control access panel.
- 5. Push in gas control knob slightly and turn clockwise _____ to "OFF".



- 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.
- Turn knob on gas control counterclockwise to "PILOT".

 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. For RN/RP appliances 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 or set the thermostat to lowest setting.
- 2. Turn off all electric power to the fireplace if service is to be performed.
- 3. Open control access panel.
- 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

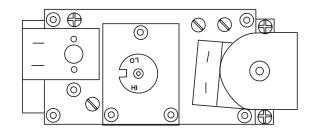
- Do not try to light any appliance
- Do not operate any electrical switch.
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone.

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

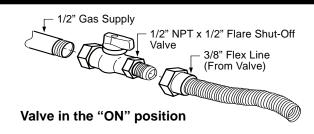
- **1. STOP!** Read the safety information above before continuing.
- 2. Turn off all electrical power to the appliance.
- 3. This appliance is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.
- 4. Access the gas control by lowering the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



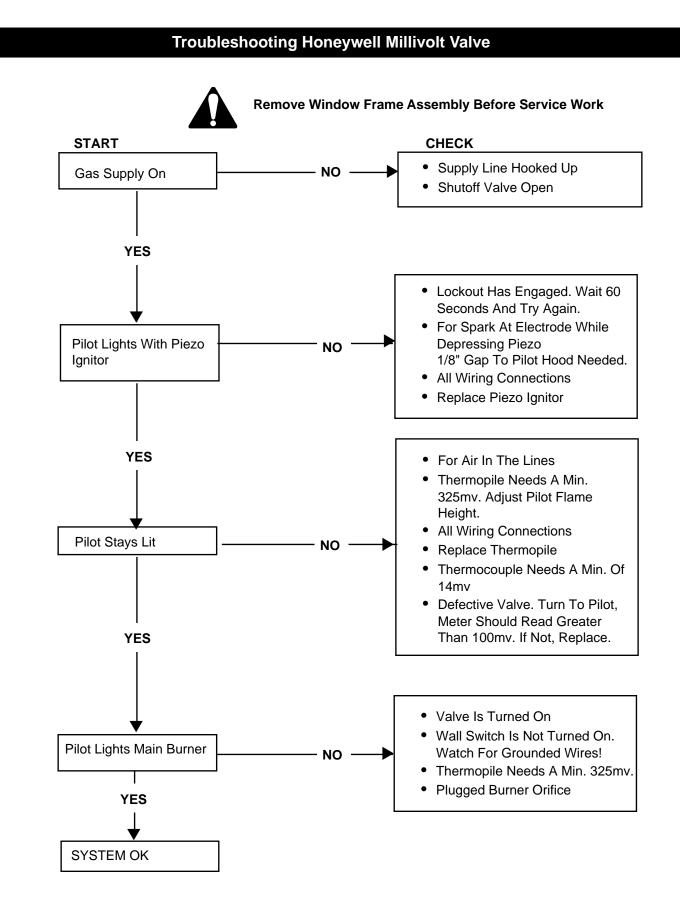
- 5. Turn the remote switch, if used, OFF. Turn the wireless remote, if used, OFF.
- 6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas STOP. Follow instructions B in the safety warnings above. If you do not smell gas go onto the next step.
- 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.



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Troubleshooting the Gas Control System

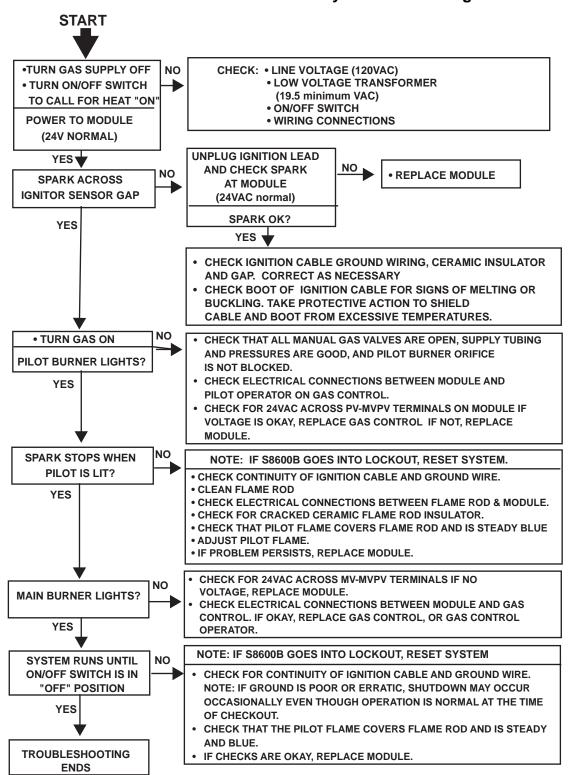
SIT NOVA 820 MILLIVOLT VALVE

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 elec trode wire is properly connected, replace ignitor.
 Pilot will not stay lit after carefully following lighting instructions. 	 A. Defective pilot generator (thermocouple), remote wall switch. 	Check pilot flame. Must impinge on thermo couple/thermopile. Note: this pilot burner assem bly 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; milivolt 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 connec tions. Jumper wire accross 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.	 Be sure wire connections from thermopile at gas valve terminals are tight and thermopile is fully inserted into pilot bracket. 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. 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 a Honeywell Electronic Ignitor

BDVT Series Direct Vent GaS Fireplace

CONVERTING THE APPLIANCE FROM LP TO NATURAL GAS OR NATURAL GAS TO LP

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

- 1. Disconnect power to unit and shut off gas supply.
- 2. Remove window frame assembly.
- 3. Carefully remove the logs & lava rock material.
- 4. Remove the screws that are holding the burner housing assembly 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. Remove the main burner orifice and replace it with the orifice supplied in the conversion kit.

7. 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.

8. 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.

SIT 820 NOVA Gas Control Valve (Fig. 47) a. Using a Torx T20 or slotted screwdriver, remove and save the three pressure regulator

mounting screws (A), pressure regulator tower (B) and diaphram (C).

b.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)

c. Install the enclosed identification label (F) to the valve body where it can be easily seen.

Honeywell Gas Control Valve (Fig. 48)

The Honeywell valve fitted to this unit is suitable for use with LP or Natural Gas. It is converted to the required gas application by the installation of a color coded "conversion screw".

a) Using a suitable small screwdriver lift out the central regulator cap from the "Hi - Lo" knob on the valve.

- b) Unscrew the exposed conversion screw.
- c) Insert the new color coded conversion screw.

Do not over-tighten the screw, it must be finger tight.

d) Refit the regulator cap.

e) Mount the conversion label supplied with conversion screw to the valve in a visible position.

- 10. 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.
- 11. 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 manifold and supply pressures against appliance specifications.

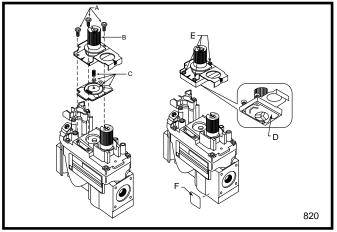


Fig. 47 Nova SIT 820 gas valve.

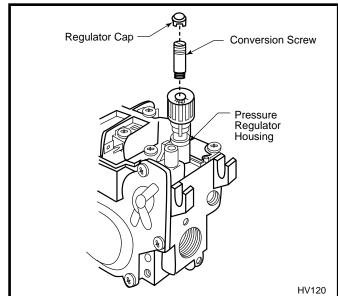


Fig. 48 Honeywell gas valve.



The procedure for converting from one gas to another is the same regadless 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.

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 louvre 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 tube
 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.

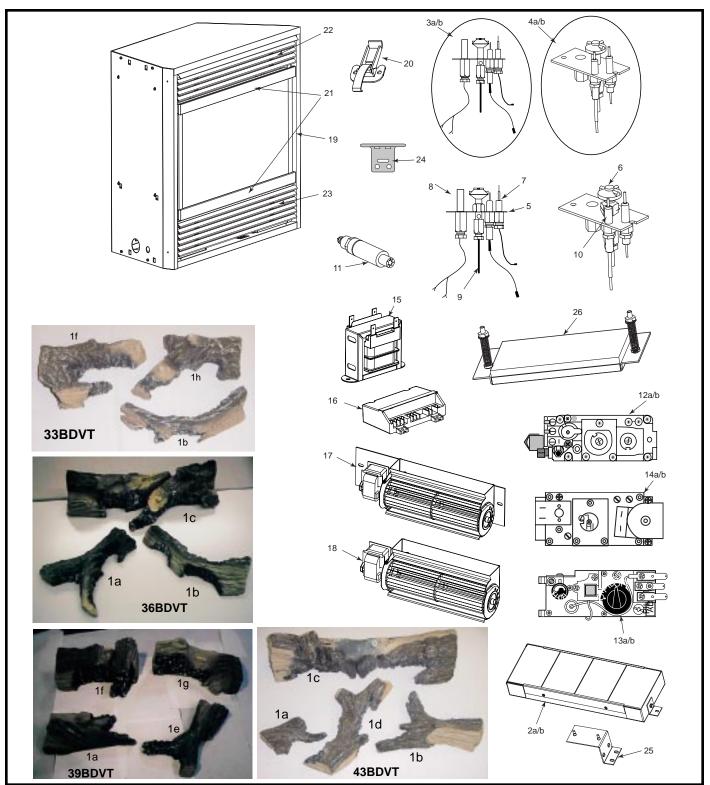
To obtain proper operation, it is imperative that the pilot and burner's flame characteristics are steady, not lifting or floating.

Typically, the top 3/8" to 1/2" of the thermopile should be engulfed in the pilot flame. (Refer to Page 23, Figure 42)

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.



CFM Specialty Home Products reserves the right to make changes in design, materials, specifications, prices and discontinue colors and products at any time, with out notice.

33/36/39/43BDVT

Ref.	Description	33BDVT	36BDVT	39BDVT	43BDVT
1.	Log Set (complete)	10003685	10003353	100003354	10003696
1a.	Log - Front left		BB11	BC11	BD12
1b.	Log - Front right	BA9	BB12		BD14
1c.	Log - Rear		BB13		BD11
1d.	Log - Top center				BD13
1e.	Log - Top right			BC12	
1f.	Log - Rear left	BA7		BC10	
1g.	Log - Rear and front right			BC13	
1h.	Log - Right Rear	BA8			
*	Lava rock package	10001454	10001454	10001454	10001454
*	Ember material	51915	51915	51915	51915
2a.	Burner housing assembly, Nat.	10003653	10003346	10003382	10003649
2b.	Burner housing assembly, Prop.	10003653	10003346	10003382	10003649
*	Ceramic tile, single	57803	57803	57803	57803
*	Orifice, burner, Nat and Prop.	See the	rating plate for	orifice specificati	ions
3a.	Pilot assembly, SIT Top Convertible RN	10002264	10002264	10002264	10002264
3b.	Pilot assembly, SIT Top Convertible RP	10002265	10002265	10002265	10002265
4a.	Pilot assembly, SIT Top Convertible EN	10002387	10002387	10002387	10002387
4b.	Pilot assembly, SIT Top Convertible EP	10002388	10002388	10002388	10002388
5.	Pilot, Top Convertible SIT	10002266	10002266	10002266	10002266
*	Pilot orifice, SIT Top Convertible Nat	10002268	10002268	10002268	10002268
*	Pilot orifice, SIT Top convertible Prop	10002269	10002269	10002269	10002269
6.	Pilot hood, SIT Top convertible	10002385	10002385	10002385	10002385
7.	Thermocouple, RN & RP	53373	53373	53373	53373
8.	Thermopile, RN & RP	51827	51827	51827	51827
9.	Pilot tube (with fittings) SIT	10001296	10001296	10001296	10001296
*	Manifold tube (with fittings)	57318	57318	57318	57318
*	Flexible gas line with ON/OFF valve	20002500	20002500	20002500	20002500
10.	Electrode igniter SIT (with cable), RN&RP	10001297	10001297	10001297	10001297
*	Cable igniter, EN & EP	10000696	10000696	10000696	10000696
11a.	Piezo igniter, SIT 820 Valve		52464	52464	52464
11b.	Piezo igniter, Honeywell Valve	20000062			
12a.	Gas Valve SIT820 RN		52677	52677	52677
12b.	Gas Valve SIT820 RP		52678	52678	52678
13a.	Gas Valve Honeywell RN	10001782			
13b.	Gas Valve, Honeywell RP	10001759			
14a.	Gas Valve, SIT822 EN	57884	57884	57884	57884
14b.	Gas Valve, SIT822 EP	57883	57883	57883	57883
15.	Transformer, EN & EP	7522409	7522409	7522409	7522409
16.	Ignition Module, Honeywell, EN & EP	20000005	20000005	20000005	20000005
*	Wire harness, Honeywell, EN & EP	10001979	10001979	10001979	10001979
	Fan assembly (with bracket) (FK24 option)	54103	54103	54103	54103
17			0 1 1 0 0	0-100	
17. *	Electrical cord, (FK24 option).	51865	51865	51865	51865

BDVT (continued) (Items marked "*" are not shown.)

Ref.	Description	33BDVT	36BDVT	39BDVT	43BDVT
*	Fan speed control, (FK24 option)	51738	51738	51738	51738
*	Knob, fan speed control, (FK24 option)	51882	51882	51882	51882
18.	Fan assembly, with bracket (FK12 option)	ZA1110	ZA1110	ZA1110	ZA1110
19.	Window frame assembly	10001803	20005936	10002478	10001805
*	Door Frame Assembly	20006769	20006740	20006742	
*	Window glass (with gasket)	10000481	55686	57437	57438
*	Gasket (window glass)	57317	57317	57317	57317
20.	Clamp, window frame assembly	54174	54174	54174	54174
21.	Window trim, polished brass (w/ magnets)	55005	57480	57483	57485
22.	Top louvre assembly	10000292	10000037	10000039	10000041
23.	Bottom Louvre assembly	10000293	10000038	10000040	10000042
24.	Hinge (bottom louvre assembly)	52356	52356	52356	52356
*	Restrictor plate	10002495			
*	Remote ON/OF F switch	51842	51842	51842	51842
*	Remote switch kit (switch, wire & bracket)	53875	53875	53875	53875
25.	Support center log w/stub assembly			10003383	10003383
26.	Relief plate with gasket assy burner tray	10004192	10004192	10004192	10004192
*	Deflector Top		54512		56153

BDVT (continued) (Items marked "*" are not shown.)

Optional Accessories

Fan Kits

FK24 Fan Assembly

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

- Open the lower louvre assembly. Maneuver 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 10 mm studs and secure it with nuts.
- Locate the fan speed control unit. This can be fitted behind the lower louvre assembly as in Figure 49 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 Electrical Junction Box see the earlier chapter in the Installation section of this manual.

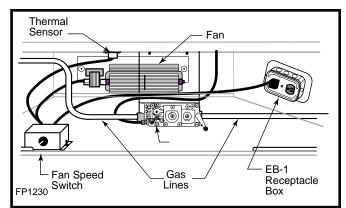


Fig. 49 FK24 fan placement.

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.

- Open the lower Louvre assembly. Maneuver 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 selfadhesive '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 connector 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 50.



Any electrical re-wiring of this fan must be done by a licensed electrician.

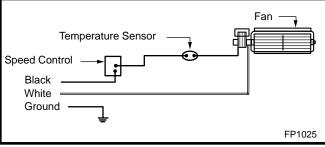


Fig. 50 FK24 fan wiring.

Ceramic Refractory Kits

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

Appliance Model	Kit Name
33BDVT	AT1TBT
33BDVR	AT1CBB
36BDVT	BT2CBB
39BDVT	CT2CBB
43BDVT	DT2CBB



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

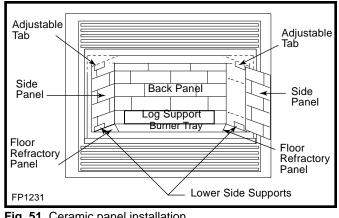
Installation, refer to Figures 51 & 52

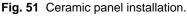
- 1. Remove the front window frame assembly.
- 2. Remove the logs.
- 3. Place the lower supports for the side refractory panels on the base of the firebox. Place each support so that the slotted hole fits over the forward screw head along the edge of the base.
- 4. Lay the angular base panels in place on the floor of the firebox on either side of the burner housing assembly.
- 5. Loosely attach the top adjustable tabs to the studs located in the top of the firebox toward the front corners.

- 6. 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.
- 7. Slide the side refractory panels into place to hold the rear panel secure. Adjust the top adjustable tabs to hold the side panel against the firebox wall and secure the tab. Repeat the procedure on the other side.
- 8. Replace the logs and window frame assembly.



For esthetic purposes we recommend lining up the horizontal mortar lines.





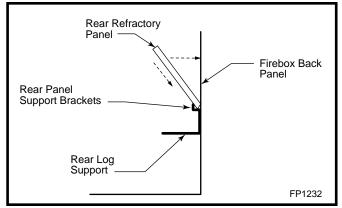


Fig. 52 Rear refractory panel installation.

Front Window Screen

An optional front window screen is available for the 36BDV, 39BDV and 43BDV.

Appliance Model	Kit Name
36BDVT/36BDVR	BTISOB
39BDVT/39BDVR	CTISOB
43BDVT/43BDVR	DTISOB

Installation, refer Figure 53.



DO NOT ATTEMPT to install or remove the screen while the appliance is hot.

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Either remove the top and bottom brass window trims or take care not to scratch them during the installation of the screen kit.

- 1. Slide the tabs on the top edge of the window screen assembly up into the slots in the underside of the top rail of the window frame assembly.
- 2. With the tabs in the slots, place the screen down against the glass.
- 3. Slide the screen down the glass until the bottom edge of the screen sits in the gap between the bottom rail of the window frame and the window doors.

To remove the screen for glass cleaning reverse the installation procedures.

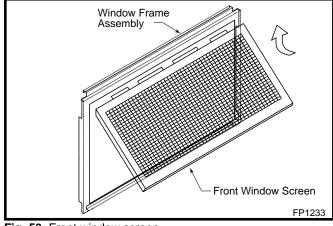


Fig. 53 Front window screen.

Decorative Bay Windows

Bay window kits are available for the 33BDVT/33BDVR, 36BDVT/36BDVR & 39BDVT/39BDVR model appliances.



When fitting the Bay Window Kits the original window frame assembly must remain in place. The Bay Window kit will fit over the existing window frame assembly.

Installation

- 1. Remove the upper and lower brass window trims.
- 2. Remove the existing bottom louvre assembly complete with the hinges.
- 3. Remove the top louvre assembly.
- 4. Assemble the Bay Window Kit according to the instructions supplied with the kit.
- 5. Place the 2 pieces of ceramic refractory along the base of the bay window. (Fig. 54)
- 6. Hang the Bay Window Assembly over the existing window frame assembly.
- 7. Re-install the upper louvre assembly.



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Do not remove the existing window frame assembly.

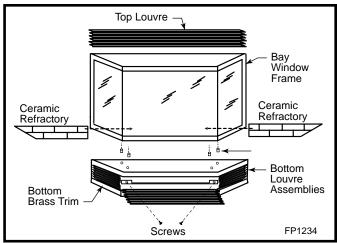


Fig. 54 Bay window installation.

Bay Window Screen

Bay Window Screen Kits are available for the 33BDVT, 36BDVT, 39BDVT & 43BDVT model appliances.



Do not remove existing window frame assembly! Remove all plastic from brass trims.

- 1. Let the fireplace cool down if it has been operating.
- 2. Remove existing top louvre from fireplace by lifting up and pulling out.
- 3. Hang Bay Window Screen Frame Assembly over top of existing window frame assembly.

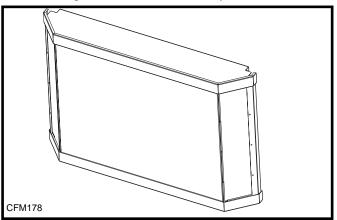


Fig. 55 Bay window screen assembly.

Remote Controls

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

Model	Function/s Controlled
MRCI	ON/OFF
MRC2	ON/OFF and Temperature
MRC3	ON/OFF and Temperature control
	with a digital display and
	programmable 24 hour clock.
IMT	Wall mounted thermostat control

LIMITED LIFETIME WARRANTY

PRODUCT COVERED BY THIS WARRANTY

All Vermont Castings gas stoves, gas inserts, and gas fireplaces, and all Majestic or Northern Flame brand gas fireplaces equipped with an Insta-Flame Ceramic Burner, or standard steel tube burner.

BASIC WARRANTY

CFM Specialty Home Products (hereinafter referred to collectively as the Company) warrants that your new Vermont Castings or Majestic Gas Fireplace/Stove is free from manufacturing and material defects for a period of one year from the date of purchase, subject to the following conditions and limitations.

EXTENDED LIFETIME WARRANTY

The heat exchanger, where applicable, and combustion chamber of every Vermont Castings *or* Majestic gas product is warranted for life against through wall perforation. All appliances equipped with an Insta-Flame Ceramic Burner have limited lifetime coverage on the ceramic burner plaque. Warrantees are made to the original owner subject to proof of purchase and the conditions and limitations listed on this Warranty Document

COMPONENT WARRANTY

CAST IRON: All external and internal cast iron parts are warranted for a period of three years.

Note: On porcelain enamel finished external parts and accessories The Company offers no Warranty on chipping of enamel surfaces. Inspect all product prior to accepting it for any damage to the enamel.

The salt air environment of coastal areas or a high humidity environment can be corrosive to the porcelain enamel finish. These conditions can cause rusting of the cast iron beneath the porcelain enamel finish, which will cause the finish to flake off.

Dye lot variations with replacement parts and/or accessories can occur and are not covered by warranty.

GLASS DOORS: Glass doors are covered for a period of one year. Glass doors are not warranted for breakage due to misuse or accident. Glass doors are not covered for discoloration or burned in stains due to environmental issues, or improper cleaning and maintenance.

BRASS PLATED PARTS AND ACCESSORIES: Brass parts should be cleaned with Lemon oil only. Brass cleaners cannot be used. Mortar mix and masonry cleaners may corrode the brass finish. The Company will not be responsible for, nor will it warrant any brass parts which are damaged by external chemicals or down draft conditions.

GAS VALVES: Gas valves are covered for a period of one year

ELECTRONIC AND MECHANICAL COMPONENTS: Electronic and mechanical components of the burner assembly are covered for one year. All steel tube burners are warranted for one year.

ACCESSORIES: Unless otherwise noted all components and CFM Specialty Home Products company supplied accessories are covered for a period of one year.

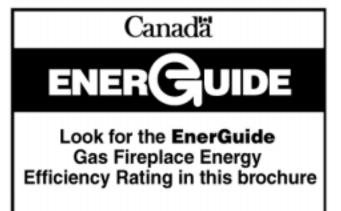
CONDITIONS AND LIMITATIONS

- This new Vermont Castings or Majestic product must be installed by a competent, authorized, service contractor. A licensed technician, as prescribed by the local jurisdiction must perform any installation/ service work. It must be installed and operated at all times in accordance with the Installation and Operating instructions furnished with the product. Any alteration, willful abuse, accident, or misuse of the product shall nullify this warranty.
- This warranty is non-transferable, and is made to the original owner, provided that the purchase was made through an authorized supplier of the Company.
- The customer must pay for any Authorized Dealer in-home travel fees or service charges for in-home repair work. It is the dealers option whether the repair work will be done in the customer's home or in the dealer's shop.
- If upon inspection, the damage is found to be the fault of the manufacturer, repairs will be authorized at no charge to the customer parts and/or labor.

- Any part and/or component replaced under the provisions of this warranty is covered for six months or the remainder of the original warranty, whichever is longest.
- This warranty is limited to the repair of or replacement of part(s) found to be defective in material or workmanship, provided that such part(s) have been subjected to normal conditions of use and service, after said defect is confirmed by the Company's inspection.
- The company may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of the defective part(s)
- Any installation, labor, construction, transportation, or other related costs/expenses arising from defective part(s), repair, replacement, or otherwise of same, will not be covered by this warranty, nor shall the Company assume responsibility for same. Further, the Company will not be responsible for any incidental, indirect, or consequential damages except as provided by law.
- SOME STATES DO NOT ALLOW FOR THE EXCLUSION OR LIMITATIONS OF INCIDENTAL AND CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOUR CIRCUMSTANCES. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
- All other warranties-expressed or implied- with respect to the product, its components and accessories, or any obligations/liabilities on the part of the Company are hereby expressly excluded.
- The Company neither assumes, nor authorizes any third party to assume on its behalf, any other liabilities with respect to the sale of this Vermont Castings or Majestic product
- The warranties as outlined within this document do not apply to chimney components or other non CFM Specialty Home Products accessories used in conjunction with the installation of this product.
- Damage to the unit while in transit is not covered by this warranty but is subject to claim against the common carrier. Contact the dealer from whom you purchased your fireplace/stove (do not operate the appliance as this might negate the ability to process the claim with the carrier).
- The Company will not be responsible for:
 - a) Down drafts or spillage caused by environmental conditions such as near-by trees, buildings, roof tops, hills, or mountains.
 - b) Inadequate ventilation or negative air pressure caused by mechanical systems such as furnaces, fans, clothes dryers, etc.
 - This warranty is void if:
 - a) The fireplace has been operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals.
 - b) The fireplace has been subjected to prolonged periods of dampness or condensation
 - c) Any damages to the fireplace, combustion chamber, heat exchanger or other components due to water, or weather damage, which is the result of but not limited to, improper chimney/venting installation.
 - d) Any alteration, willful abuse, accident, or misuse of the product has occurred.

IF WARRANTY SERVICE IS NEEDED...

- 1) Contact your supplier. Make sure you have your warranty, your sales receipt, and the model/serial number of your CFM Specialty Home Products product.
- 2) DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF.



Based on CSA P.4.1-02

Efficiency Ratings					
Model	EnerGuide Ratings Fireplace Efficiency (%)	Steady State (%) Fan-OFF Fan-ON		D.O.E. (AFUE%)	
33BDVTRN	54.2	76	78	57	
33BDVTRP	54.2	77	79	57	
33BDVTEN	54.2	76	78	57	
33BDVTEP	54.2	77	79	57	
36BDVTRN	48.9	76	80	58	
36BDVTRP	48.9	77	80	58	
36BDVTEN	48.9	76	80	58	
36BDVTEP	48.9	77	80	58	
39BDVTRN	61.8	77	78	63	
39BDVTRP	61.8	78	79	63	
39BDVTEN	61.8	77	78	63	
39BDVTEP	61.8	78	79	63	
43BDVTRN	61.8	77	78	63	
43BDVTRP	61.8	78	79	63	
43BDVTEN	61.8	77	78	63	
43BDVTEP	61.8	78	79	63	

CFM Specialty Home Products

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