



## 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.

## Direct Vent Insert Models: LHERDV20 LHERDV30 LHECDV20 LHECDV30



## Homeowner's Installation and Operating 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 THIS APPLIANCE.**

Thank you and congratulations on your purchase of a CFM Corporation fireplace insert.

**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 manufacturers' warranty.**

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# Installation & Operating Instructions

This gas appliance 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 U.S. Installations follow local codes and/or the current National Fuel Gas Code ANSI Z223.1/NFPA 54.

In the Commonwealth of Massachusetts, all gas fittings and installation of this heater shall only be done by a licensed gas fitter or licensed plumber.

FOR SAFE INSTALLATION AND OPERATION OF YOUR GAS FIREPLACE PLEASE NOTE THE FOLLOWING:

1. This appliance 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 appliance and should stay away to avoid burns or ignition of clothing.
3. **ATTENTION : En raison de la température élevée de la surface vitrée, les enfants doivent être supervisés en tout temps quand ils sont dans la pièce où se trouve le foyer.**


**WARNING**



**HOT GLASS WILL CAUSE BURNS.**

**DO NOT TOUCH GLASS UNTIL COOLED.**

**NEVER ALLOW CHILDREN TO TOUCH GLASS.**

4. Under no circumstances should this appliance be modified. Parts removed for servicing should be replaced prior to operating this appliance again.
5. Installation and any repairs to this appliance should be carried out by a qualified service person. A professional service person should be contacted to inspect this appliance annually. Make it a practice to have all of your gas appliances 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 appliance 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 unit.
7. The venting system (chimney) of this appliance should be checked at least once a year and if needed your venting system should be cleaned.
8. Keep the area around your appliance clear of combustible materials, gasoline and other flammable vapor and liquids. This appliance should not be used as a drying rack for clothing, nor should Christmas stockings or decorations be hung in the area of it.
9. Under no circumstances should any solid fuels (wood, coal, paper or cardboard etc.) be used in this appliance.
10. Whether the zero clearance kit is installed directly on carpeting, vinyl tile or any combustible material other than wood, this heater must be installed on a metal or wood panel extending the full width and depth of the heater. The insert **can not be installed directly onto or into combustibles.**

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

**LHECDV20 / LHERDV20  
LHEDV30 / LHERDV30  
Certified To**

**ANSI Z 21.88b-2008 / CSA 2.33b-2008  
Vented Gas Fireplace Heaters**

## IMPORTANT:

### PLEASE READ THE FOLLOWING CAREFULLY

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 optional fan kit has been installed, place fan in the "OFF" position during this time.

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

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

**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

## Insert Applications

Before installing the gas fireplace insert, consideration must be given to the functioning needs of the fireplace. The size of the fireplace cavity (min. 25¼"W x 17½"H x 13½" D (641 x 438 x 343 mm) for the LHECDV20 and LHERDV20, 28¾"W x 21"H x 15½"D (730 x 533 x 394 mm) for LHECDV30 and LHERDV30), the design of the chimney for effective venting should be determined. The availability of the gas supply as well as electricity for the insert fan must be confirmed.



**Your Direct Vent Insert unit is designed to be vented vertically with a minimum height of 12' (4 m).**

# 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 horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

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.

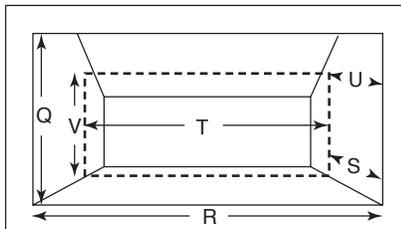
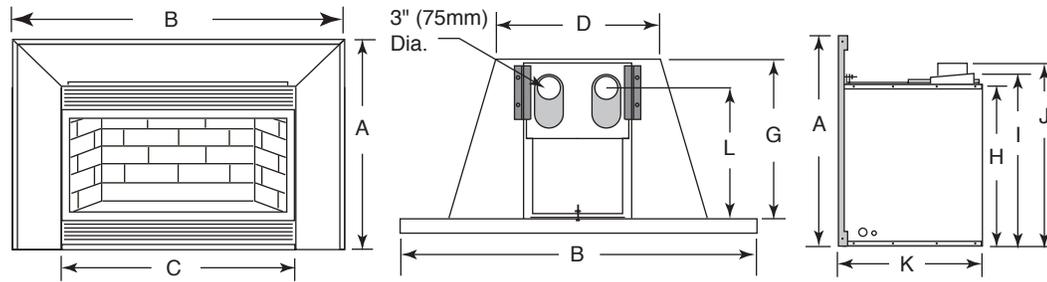
### Gas Equipment Venting System NOT Provided

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:

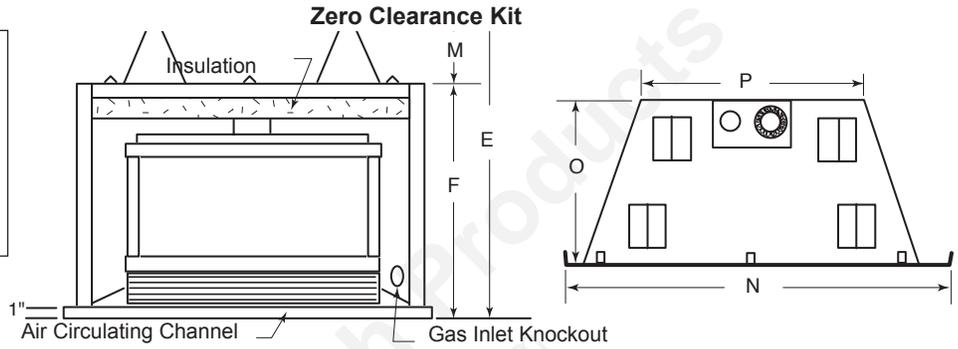
- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

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 & Trim Dimensions



Minimum Fireplace Insert Opening



1 = LHESB

2 = LHESLB/LHEABSL/LHESLGA

3 = LHECSLB/LHECSLMB/LHECSLSA

4 = LHEACNS

5 = LHETCK

Q - Fireplace opening height

R - Fireplace opening width

S - Depth of insert

T - Firebox width at insert depth(S)

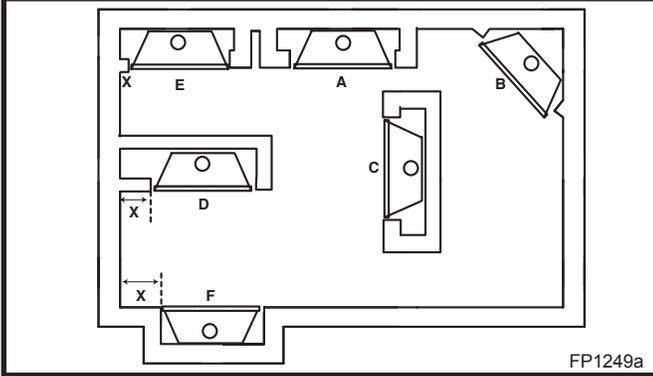
U - Firebox depth at insert back height (V)

V - Insert back height

**NOTE:** LHESLGA is only available for Model LHEC30 and LHER30

T R I M		LHECDV20	LHERDV20	LHECDV30	LHERDV30
	A-1	20 <sup>7</sup> / <sub>8</sub> " (530 mm)	20 <sup>7</sup> / <sub>8</sub> " (530 mm)	26 <sup>3</sup> / <sub>4</sub> " (680 mm)	26 <sup>3</sup> / <sub>4</sub> " (680 mm)
B-1	30 <sup>3</sup> / <sub>4</sub> " (781 mm)	30 <sup>3</sup> / <sub>4</sub> " (781 mm)	38 <sup>1</sup> / <sub>4</sub> " (972 mm)	38 <sup>1</sup> / <sub>4</sub> " (972 mm)	
A-2	24 <sup>1</sup> / <sub>4</sub> " (616 mm)	24 <sup>1</sup> / <sub>4</sub> " (616 mm)	28 <sup>3</sup> / <sub>16</sub> " (716 mm)	28 <sup>3</sup> / <sub>16</sub> " (716 mm)	
B-2	37 <sup>1</sup> / <sub>2</sub> " (952 mm)	37 <sup>1</sup> / <sub>2</sub> " (952 mm)	41" (1042 mm)	41" (1042 mm)	
A-3	24 <sup>1</sup> / <sub>4</sub> " (616 mm)	24 <sup>1</sup> / <sub>4</sub> " (616 mm)	28 <sup>1</sup> / <sub>4</sub> " (717 mm)	28 <sup>1</sup> / <sub>4</sub> " (717 mm)	
B-3	38 <sup>1</sup> / <sub>8</sub> " (968 mm)	38 <sup>1</sup> / <sub>8</sub> " (968 mm)	41 <sup>11</sup> / <sub>16</sub> " (1059 mm)	41 <sup>11</sup> / <sub>16</sub> " (1059 mm)	
A-4	20 <sup>3</sup> / <sub>4</sub> " (527 mm)	20 <sup>3</sup> / <sub>4</sub> " (527 mm)	24 <sup>3</sup> / <sub>4</sub> " (629 mm)	24 <sup>3</sup> / <sub>4</sub> " (629 mm)	
B-4	30 <sup>7</sup> / <sub>8</sub> " (784 mm)	30 <sup>7</sup> / <sub>8</sub> " (784 mm)	34 <sup>7</sup> / <sub>16</sub> " (875 mm)	34 <sup>7</sup> / <sub>16</sub> " (875 mm)	
A-5	28" (711 mm)	28" (711 mm)	32 <sup>1</sup> / <sub>4</sub> " (819 mm)	32 <sup>1</sup> / <sub>4</sub> " (819 mm)	
B-5	45" (1143 mm)	45" (1143 mm)	49" (1245 mm)	49" (1245 mm)	
F I R E P L A C E	C	25 <sup>5</sup> / <sub>8</sub> " (651 mm)	25 <sup>5</sup> / <sub>8</sub> " (651 mm)	29 <sup>9</sup> / <sub>16</sub> " (741 mm)	29 <sup>9</sup> / <sub>16</sub> " (741 mm)
	D	17" (432 mm)	17" (432 mm)	17 <sup>5</sup> / <sub>8</sub> " (448 mm)	16 <sup>3</sup> / <sub>4</sub> " (425 mm)
	E	35" (889 mm)	35" (889 mm)	35" (889 mm)	35" (889 mm)
	F	26 <sup>5</sup> / <sub>8</sub> " (676 mm)	26 <sup>5</sup> / <sub>8</sub> " (676 mm)	26 <sup>5</sup> / <sub>8</sub> " (676 mm)	26 <sup>5</sup> / <sub>8</sub> " (676 mm)
	G	13 <sup>1</sup> / <sub>2</sub> " (343 mm)	13 <sup>1</sup> / <sub>2</sub> " (343mm)	15 <sup>1</sup> / <sub>2</sub> " (394 mm)	16 <sup>1</sup> / <sub>2</sub> " (419 mm)
	H	17" (432 mm)	17" (432 mm)	20 <sup>1</sup> / <sub>2</sub> " (521 mm)	20 <sup>1</sup> / <sub>2</sub> " (521 mm)
	I	18" (457 mm)	18" (457 mm)	21 <sup>1</sup> / <sub>2</sub> " (546 mm)	21 <sup>1</sup> / <sub>2</sub> " (546 mm)
	J	19 <sup>1</sup> / <sub>8</sub> " (486 mm)	19 <sup>1</sup> / <sub>8</sub> " (486 mm)	22 <sup>5</sup> / <sub>8</sub> " (575 mm)	22 <sup>5</sup> / <sub>8</sub> " (575 mm)
	K	15" (381 mm)	15" (381 mm)	17" (432 mm)	18" (457 mm)
	L	10 <sup>3</sup> / <sub>8</sub> " (264mm)	10 <sup>3</sup> / <sub>4</sub> " (273 mm)	11 <sup>3</sup> / <sub>4</sub> " (298 mm)	12 <sup>3</sup> / <sub>4</sub> " (324 mm)
	M	8 <sup>1</sup> / <sub>2</sub> " (216 mm)	8 <sup>1</sup> / <sub>2</sub> " (216 mm)	8 <sup>1</sup> / <sub>2</sub> " (216 mm)	8 <sup>1</sup> / <sub>2</sub> " (216 mm)
	N	37 <sup>1</sup> / <sub>4</sub> " (946mm)	37 <sup>1</sup> / <sub>4</sub> " (946 mm)	37 <sup>1</sup> / <sub>4</sub> " (946 mm)	37 <sup>1</sup> / <sub>4</sub> " (946 mm)
	O	19 <sup>1</sup> / <sub>8</sub> " (486 mm)	19 <sup>1</sup> / <sub>8</sub> " (486 mm)	19 <sup>1</sup> / <sub>8</sub> " (486 mm)	19 <sup>1</sup> / <sub>8</sub> " (486 mm)
P	27 <sup>1</sup> / <sub>4</sub> " (692 mm)	27 <sup>1</sup> / <sub>4</sub> " (692 mm)	27 <sup>1</sup> / <sub>4</sub> " (692 mm)	27 <sup>1</sup> / <sub>4</sub> " (692 mm)	
M O U N T I N G	Q	17 <sup>1</sup> / <sub>2</sub> " (444 mm)	17 <sup>1</sup> / <sub>2</sub> " (444 mm)	21" (533 mm)	21" (533 mm)
	R	25 <sup>1</sup> / <sub>4</sub> " (641 mm)	25 <sup>1</sup> / <sub>4</sub> " (641 mm)	28 <sup>3</sup> / <sub>4</sub> " (730 mm)	28 <sup>3</sup> / <sub>4</sub> " (730 mm)
	S	13 <sup>1</sup> / <sub>2</sub> " (343 mm)	13 <sup>1</sup> / <sub>2</sub> " (343 mm)	15 <sup>1</sup> / <sub>2</sub> " (394 mm)	16 <sup>1</sup> / <sub>2</sub> " (419 mm)
	T	17" (432 mm)	17" (432 mm)	17 <sup>3</sup> / <sub>4</sub> " (451 mm)	17 <sup>3</sup> / <sub>4</sub> " (451 mm)
	U	13 <sup>3</sup> / <sub>4</sub> " (349 mm)	13 <sup>3</sup> / <sub>4</sub> " (349 mm)	15 <sup>3</sup> / <sub>4</sub> " (400 mm)	16 <sup>1</sup> / <sub>2</sub> " (419 mm)
V	18" (457mm)	18" (457 mm)	21 <sup>5</sup> / <sub>16</sub> " (541 mm)	21 <sup>5</sup> / <sub>16</sub> " (541 mm)	

### Locating Your Gas Fireplace Insert with Zero Clearance Kit



FP1249a

**Fig. 1** Locating unit with zero clearance kit.

- |                         |                       |
|-------------------------|-----------------------|
| A) Flat on wall         | B) Cross corner       |
| C) Island               | D) *Room divider      |
| E) *Flat on wall corner | F) Chase installation |

**NOTE:** (Fig. 1)

\* When you install your fireplace in (D) Room divider or (E) Flat on wall corner positions, a minimum of 6 (X) inches (153 mm) clearance must be maintained from the perpendicular wall and the outer edge of the trim.

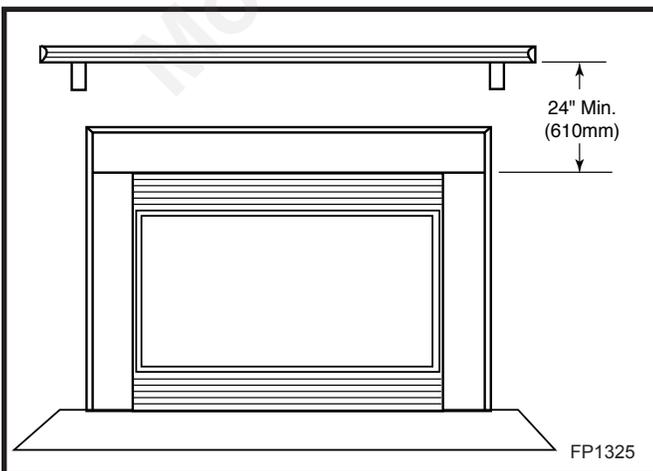
### Mantels

When the unit is installed into a woodburning fireplace, the minimum distance the mantel can be placed above the fireplace is governed by local building codes applicable to woodburning fireplaces. Consult local authorities having jurisdiction for these clearances.

For applications requiring the use of a Zero Clearance Kit, the minimum height a mantel can be installed above the fireplace is 24" (610 mm) from the top of the upper louvres. The maximum mantel depth is 8" (203 mm). (Fig. 2)



**The underside of the mantel will become warm. Use only finishes which are heat resistant and do not discolor.**



**Fig. 2** Minimum mantel height above fireplace.

### Framing & Finishing

For Zero Clearance Kit applications, it is important to determine the finished facing material before beginning to frame. This will allow for the thickness of the finishing material between the frame and the fireplace trim.

Similarly, consideration must be given to the 1" inch depth of the air inlet channel sitting on the fireplace base. Finishing material for the hearth should be flush with the top of the air inlet channel.

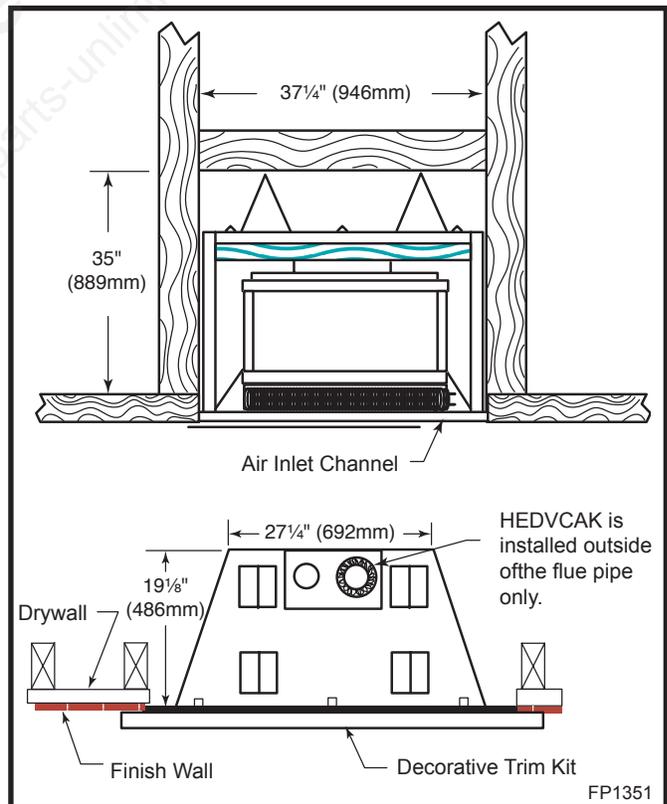
If the fireplace is installed at floor level a noncombustible hearth must extend a minimum 12" (305 mm) in front of the fireplace.

If the fireplace is recessed into the wall and at least 12" (305 mm) above floor level, no hearth is required.



**The use of wallpaper adjacent to this fireplace is not recommended as high temperatures given off by this fireplace may adversely effect the binders in the adhesive used to apply the wallpaper.**

**NOTE:** Insulating around the fireplace will result in overheating and possible malfunctioning of the circulating fan.



**Fig. 3** LHEDV insert framing dimensions.

## Zero Clearance Applications



An alternate air supply is recommended with this component.

For installation other than in existing woodburning fireplaces such as new construction or renovation projects, a Zero Clearance Kit must be used. The kit enables these inserts to be installed in combustible environments. Whenever using a Zero Clearance Kit, consideration must be given to the dimensions of the Zero Clearance Kit and the requirements of the Air Kit.

**NOTE: If a Zero Clearance Kit is required for models LHECDV20/LHERDV20/LHECDV30/LHERDV30 Direct Vent Inserts, only the CFM Corporation zero clearance kit HEZC combined with the HEDVCAK is approved to be used. Refer to Page 9, figure 10 for HEDVCAK chimney adapter kit installation. When using the HEZC with insert models LHECDV20 or LHERDV20, the Trim Closure Kit, LHE20TCK, must also be installed.**

## Gas Specifications

Model	Fuel	Gas Control	Max. Input Btu/h	Min. Input Btu/h	Air Shutter Setting	
					Front	Rear
LHECDV20RN	Natural	Millivolt Hi/Lo	20,000	14,000	Fully Open	Closed 50%
LHECDV20RP	Propane	Millivolt Hi/Lo	20,000	15,000	Fully Open	Closed 80%
LHECDV20RFN	Natural	Comfort Control	20,000	14,000	Fully Open	Closed 50%
LHECDV20RFP	Propane	Comfort Control	20,000	15,000	Fully Open	Closed 80%
LHERDV20RN	Natural	Millivolt Hi/Lo	20,000	14,000	Fully Open	Closed 50%
LHERDV20RP	Propane	Millivolt Hi/Lo	20,000	15,000	Fully Open	Closed 80%
LHECDV30RN	Natural	Millivolt Hi/Lo	30,000	21,000	Fully Open	Fully Open
LHECDV30RP	Propane	Millivolt Hi/Lo	30,000	22,500	Fully Open	Fully Open
LHECDV30RFN	Natural	Comfort Control	30,000	21,000	Fully Open	Fully Open
LHECDV30RFP	Propane	Comfort Control	30,000	22,500	Fully Open	Fully Open
LHERDV30RN	Natural	Millivolt Hi/Lo	30,000	21,000	Fully Open	Fully Open
LHERDV30RP	Propane	Millivolt Hi/Lo	30,000	22,500	Fully Open	Fully Open

## Gas Inlet & Manifold Pressures

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



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

These gas inserts are approved for installation in solid fuel burning masonry or zero clearance fireplaces.

## 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).

## Preparation

Before beginning, remove glass door and logs from unit. Also check to make sure there is no hidden damage to the unit. Take a minute and plan out the gas, venting and electrical route. It is best to start with the gas line first followed by the chimney liner. (Refer to Page 9)

## Gas Line Installation



When purging the gas line, the front glass must be removed.

If gas piping from the source to the heater location has not been accomplished, install the required pipe. Consult local plumbing code to assure proper pipe size.

The gas pipeline can be brought in through the rear or the base of the heater.

**NOTE:** The gas line connection can be made of either properly tinned 3/8" copper tubing, 1/2" rigid pipe or an approved flex connector then reduced to 3/8" to the heater. Some municipalities have additional local codes, it is always best to consult your local authority and the CSA- B149.1 installation code.

**U.S. Installations** consult the current National Fuel Gas Code, ANSI Z223.1/NFPA 54.



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 specifications for pressure details and ratings. **NOTE:** If flex connector is used, it must be kept inside of the heater.

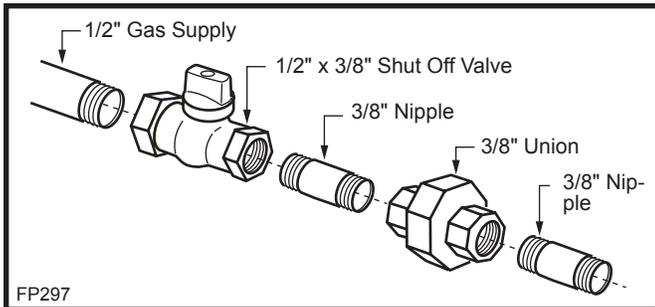


Fig. 4 Typical gas supply installation.

### Gas Supply Pressures

This heater must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure equal to or less than 1/2 psig (3.45kPa).

The heater and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.45kPa).

### Fan Kit

115 volt, 60 Hz. 56w (Model FK24)

**NOTE:** The LHERDV20 and LHERDV30 are not designed for a fan kit.

The fan kit includes the following: fan, temperature sensor, speed control and a 6 ft. cord. The following explains how to start and set the fan for automatic operation.

1. Plug in the electrical cord.
2. Start gas fire - see lighting procedures.
3. Turn on fan speed control.
4. Wait until the unit has warmed up sufficiently to activate the temperature sensor, approx. 5-10 minutes.
5. Once fan starts, adjust speed control to desired fan speed. The fan will now automatically come on every time the fireplace is in operation. Should the fan not be needed simply turn off the speed control.



**The appliance, 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.**



**U.S. Installations**, follow local codes and the National Electrical Code, ANSI/NFPA No. 70.



**Should this fan require servicing, the power supply must be disconnected. For rewiring of any replacement components refer to Figure 6.**

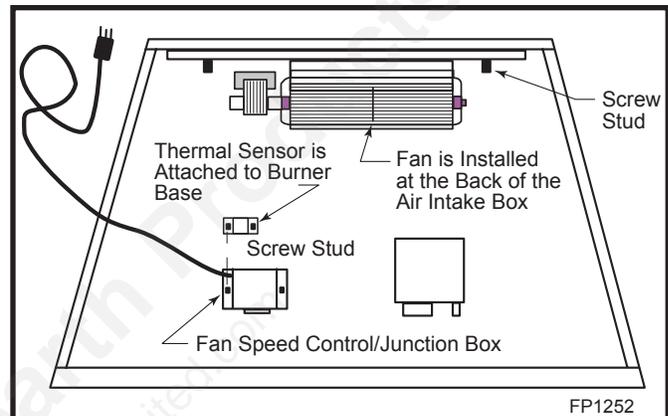


Fig. 5 Fan location.

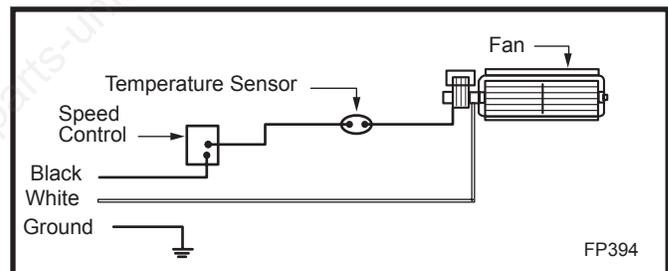


Fig. 6 Wiring diagram RN/RP. **NOTE:** For comfort valve wiring diagram refer to Page 18, Figure 27.

### Fan Removal Instructions

1. Turn off gas and electricity.
2. Remove the front glass.
3. Remove the logs.



**CAUTION: Logs may be hot!**

4. For Model LHECDV20: remove burner assembly and bracket rear log. For Model LHECDV30: remove bracket rear log and cover fan.
5. Remove the fan mounting nuts (2 nuts). (Fig. 5)
6. Slip off the electrical connector at the motor.
7. Lift out the fan.
8. To reinstall reverse procedure.

## Installation of Trim Switch for RN/RP Gas Valves

1. Thread wire through openings on the right side of fire-place. Do not cut wire or insulation on metal edges.
2. Insert ON/OFF switch with wiring assembly into the bracket switch with the pre-punched opening mounted on the right side of the trim. (Fig. 7)
3. For left side installation, relocate the bracket switch to the left side of the trim kit and repeat Step 2. (Fig. 8)
4. Connect wiring from the switch to the gas valve (Fig. 9a & b).

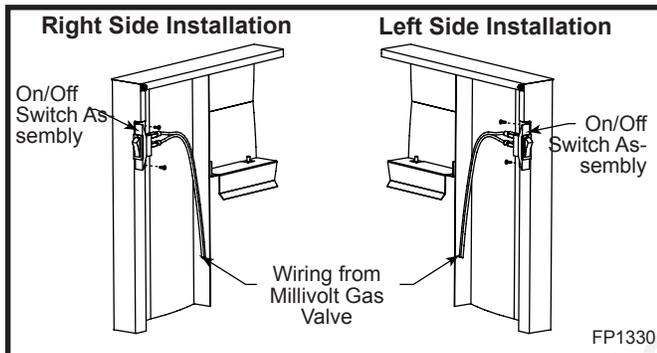


Fig. 7 Insert ON/OFF switch with wiring assembly into bracket switch.

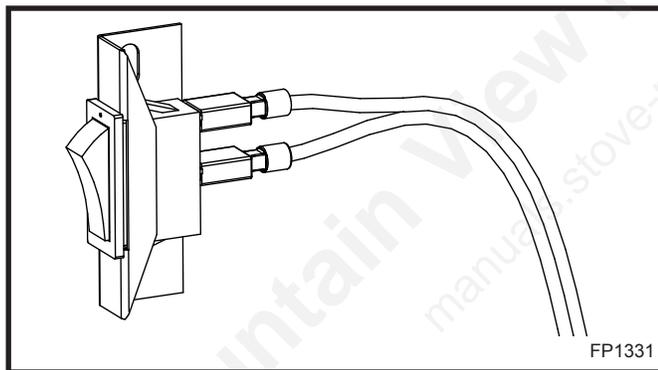


Fig. 8 For left side installation, reverse switch position in bracket.

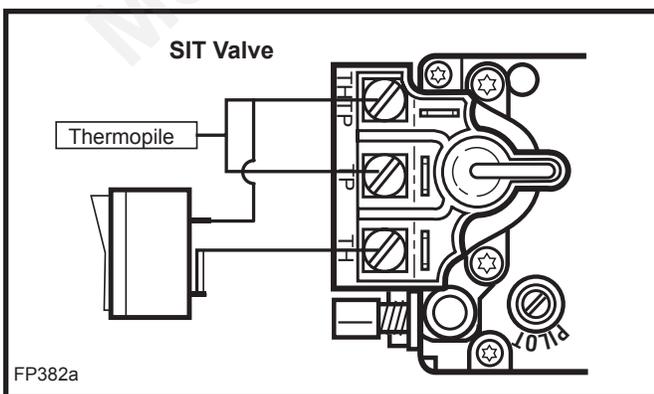


Fig. 9a On/Off switch or millivolt thermostat.

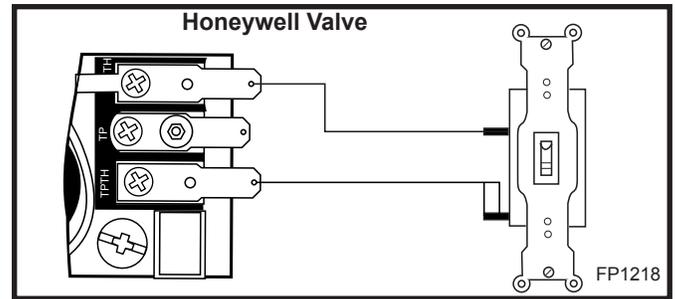


Fig. 9b On/Off switch wiring.



**CAUTION: Do not wire millivolt remote wall switch for gas fireplace to a 120v power supply.**

## Venting Installation

1. The fireplace may be installed in and vented through any solid fuel fireplace that has a minimum fireplace opening 25¼"W x 17½" H x 13½"D (641 x 438 x 343 mm) for LHECDV20 and LHERDV20 or 28¾"W x 21"H x 15½"D (730 x 533 x 394 mm) for LHECDV30 and LHERDV30 and has been installed in accordance with the National, Provincial/State and local building codes and is constructed of noncombustible materials.
2. Only HEDVRT RD vent termination kit, HEDVT (8 x 12) or HEDVT (12 x 12) termination kit and flex vent kit HEDVK25 or HEDVK35 are to be use din this installation. **Under no circumstances should B vent or C vent be used on this application.**
3. Any flue damper must be removed or blocked open.
5. The chimney must be clean and in good working order and constructed of noncombustible materials.
6. Make sure that all chimney cleanouts fit properly so air cannot leak into the chimney.
7. Install the appliance without trim frame and make all gas fittings and electrical connections.
8. Install the decorative trim frame. Please refer to the Frame Assembly instructions.



**Installer must attach red warning plate with screws supplied with the gas fireplace insert to the inside of the firebox of the fireplace into which the gas fireplace insert is installed.**



**Cutting any sheet metal parts of the fireplace, in which the gas fireplace insert is to be installed, is prohibited.**



**If the factory-built fireplace has no gas access hole(s) provided, an access hole of 1½ (38 mm) or less may be drilled through the lower sides or bottom of the firebox in a proper workmanship-like manner. This access hole must be plugged with a non-combustible insulation after the gas supply line has been installed.**

**WARNING**

Some factory-built fireplaces have air passages on face of fireplace for zero clearance capabilities. Under no circumstances should these passages be blocked.

**Liner Installation**

The collar extending down from the termination base is the air intake connector. Be sure the flex vent, which is connected to this collar, is also connected to the labelled air intake flue collar on the fireplace. Make sure the flex vent is attached on the correct collar and cap for exhaust as well.

Slide the insulation provided in the termination kit over the two (2) 3" flex liners, (to be attached to the 3" flue collar and cap of the termination). Feed one 3" flex vent from the bottom of the termination up through the 4" sleeve. Apply hi-temp sealant on the rain cap collar and slide the flex vent over the end of the rain cap collar fastening with the clamp provided. Slide the flex liner back down the 4" sleeve until 4" cap slides over the sleeve. Attach cap to the sleeve with four (4) screws supplied. Apply hi-temp sealant over the air intake collar and attach intake flex vent in the same method. Feed the two flex liners down the chimney through the damper opening. Tighten termination to the chimney using the screws provided. (Fig. 10) **NOTE: For Round Vent Terminations** - tighten termination to the chimney by pushing the four (4) straps of the vent termination against the chimney and secure with four (4) screws provided. (Fig. 12)

In case the fireplace opening is only minimum height 21" (533 mm) and access from the front is not possible, follow the instructions below.

1. Remove flue collar plate assembly. Unbolt the top fastener plate and move it to the back first before sliding the flue collar plate out from the top of the unit. (Fig. 13)
2. Apply a bead of hi-temp sealant on the end of the collar before attaching the liner to the flue collar. Fasten it with two clamps then adjust fastener plate all the way to the back before sliding flue gas plate back onto the unit. (Figs. 14 and 15)
3. After the flue collar plate is set on the cabinet top, make sure the front edge of the flue collar plate is completely in contact with the back edge of the cabinet top. (Fig. 16)
4. Put the machine screw back into the fastener plate. Bolt the plate until it is locked. (Fig. 17)



**Under no circumstances should insulation be put between the damper and the top of the unit. This may cause condensation and overheating of the unit.**

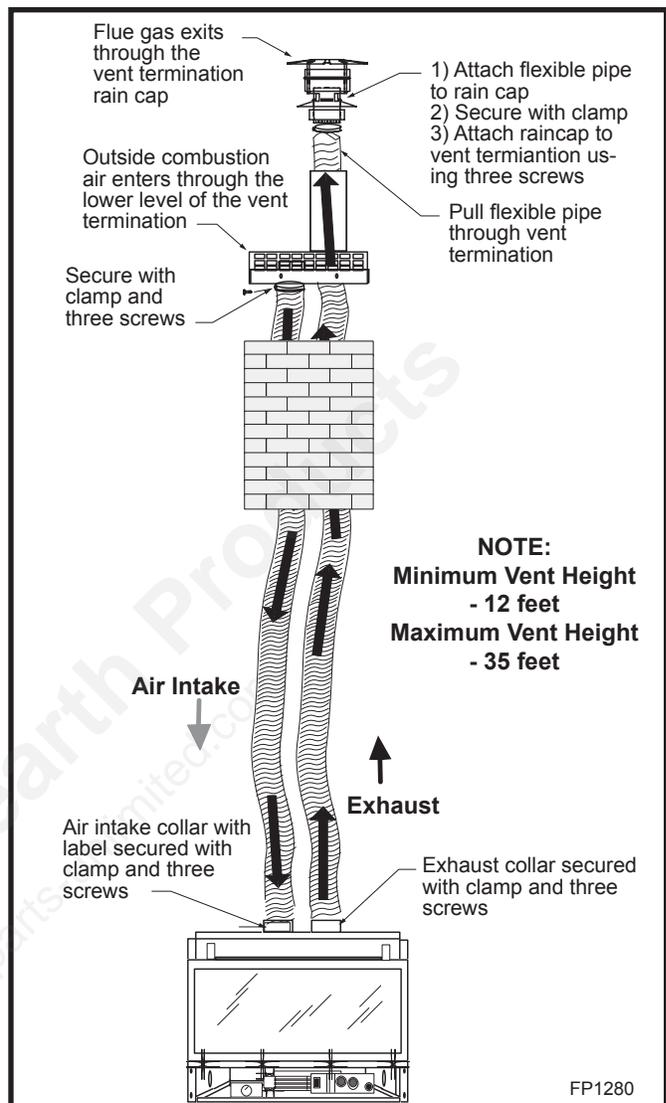


Fig. 10 Liner installation.

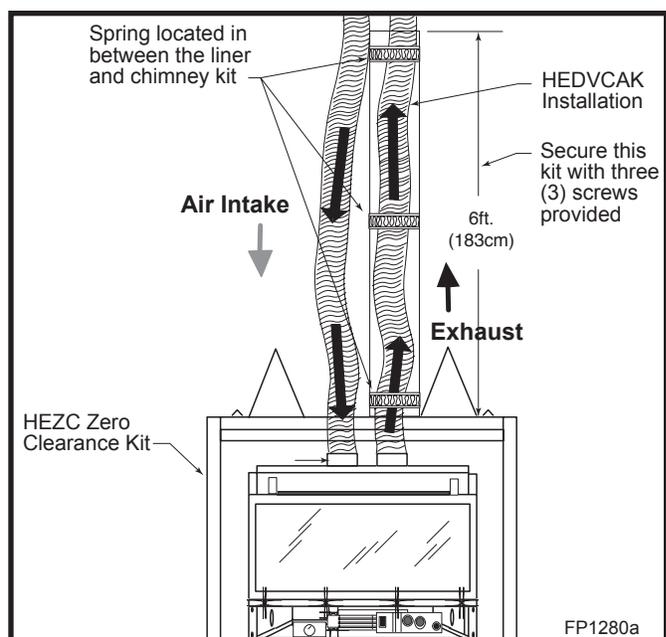


Fig. 11 Liner installation with zero clearance kit.

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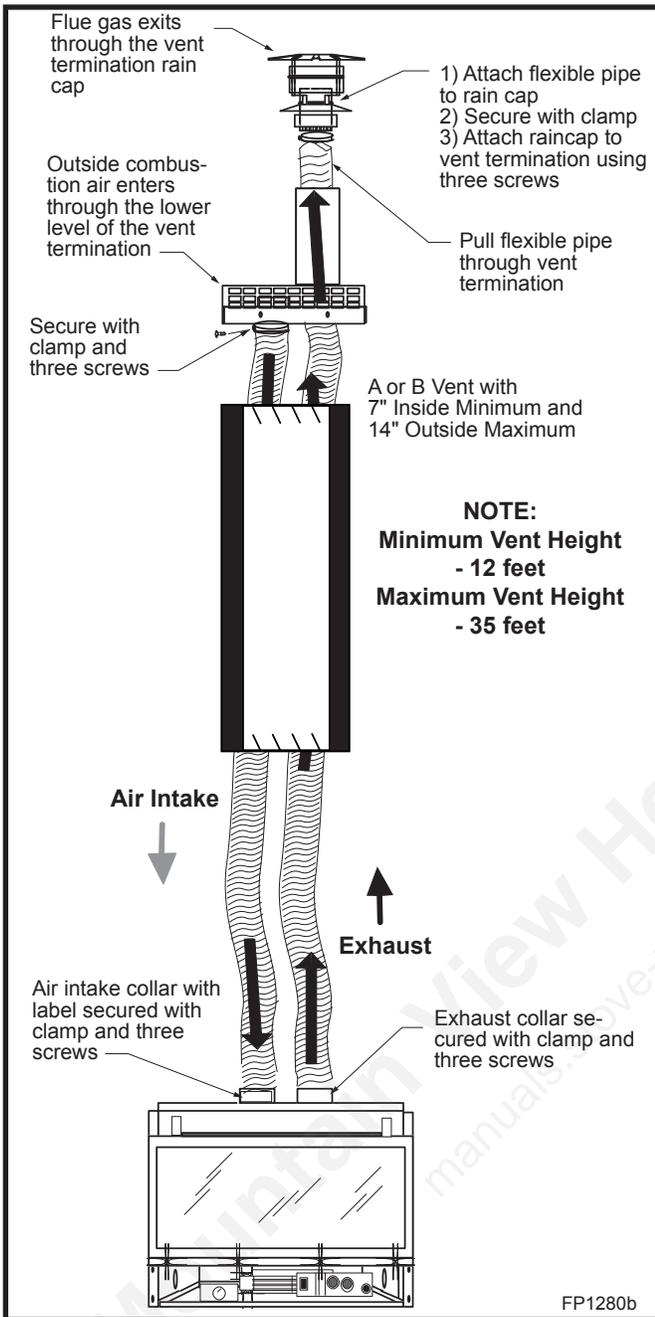


Fig. 12 Liner installatin with A or B vent.

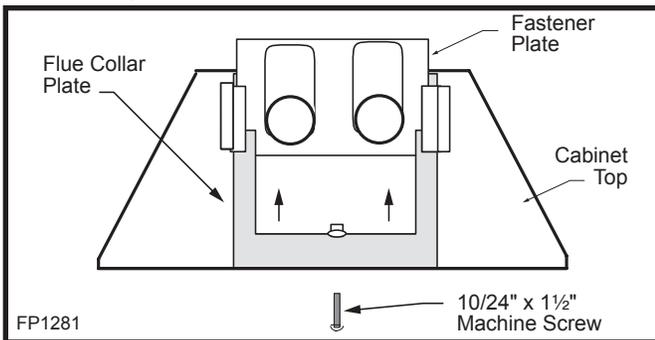


Fig. 13 Remove flue collar plate assembly.

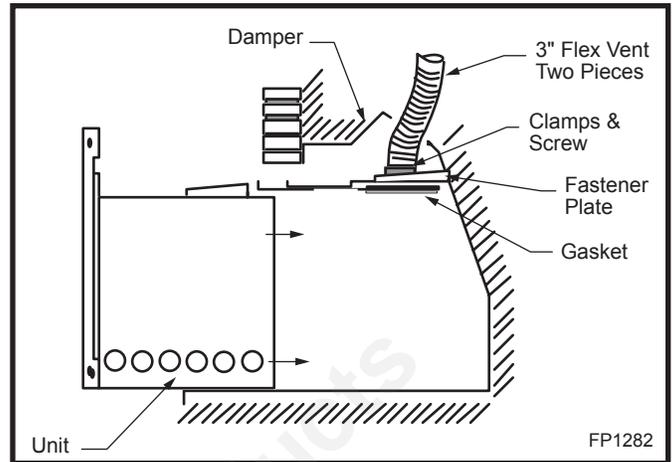


Fig. 14 Apply high temperature sealant to end of collar.

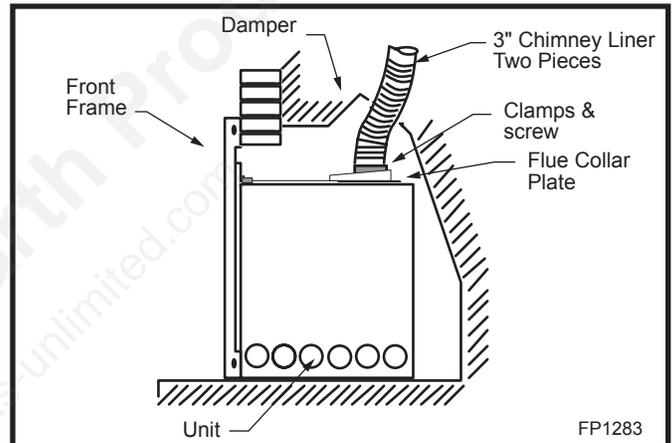


Fig. 15 Fasten with two clamps, adjust fastener plate all the way back.

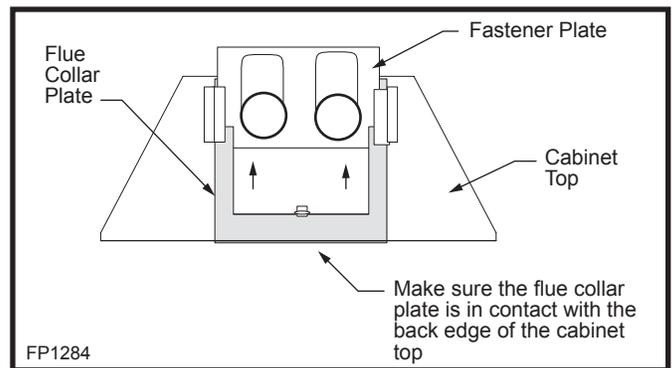


Fig. 16 The flue collar plate must be completely in contact with back edge of cabinet top.

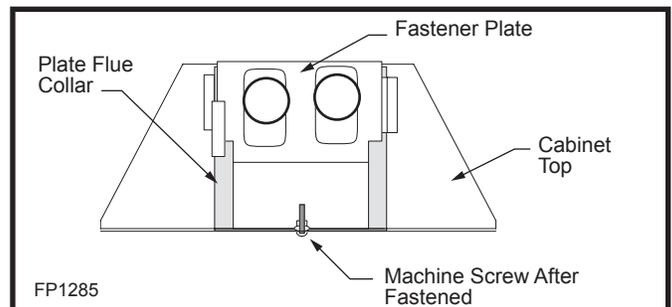


Fig. 17 Use machine screw to bolt fastener plate in place.

## Round Vent Termination Installation

Round Vent Termination Model HEDVRT is designed to be installed onto the LHECDV20, LHERDV20, LHECDV30 and LHERDV30 direct vent insert fireplaces. This round vent termination is built to be installed onto any type A-vent round chimney or B-vent round chimney. The minimum inside venting diameter must be at least 7" (178 mm) and the maximum outside diameter venting should not exceed 14" (356 mm).

- The extended cap 14" (356 mm) wide is only to be used when the outside diameter of the round chimney is more than 11" (279 mm).
- Install the extended cap 14" (356 mm) with the round vent termination by setting the vent termination on top of the extended cap, then secure it with three (3) screws (provided) through the mounting bracket holes and seal around the edges of the vent termination with the silicone provided. (Fig. 18)

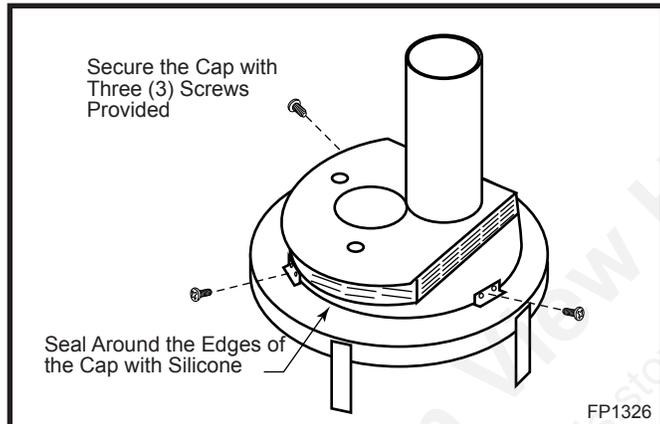


Fig. 18 Round vent termination with extended assembly.

## Ceramic Refractory Installation

1. Remove front glass.
2. Remove logs from unit.
3. Remove refractory from package.



**Refractory are fragile and must be handled with care. Where at all possible, two hands should be used when handling.**

4. Take center refractory and tilt so bottom edge seats onto the rear log bracket at the back wall of the fireplace. (Fig. 19)
5. Press center refractory to back side of fireplace and hold in place.
6. Take left or right refractory and align it so leading edge faces outward. (Place refractory in fireplace side and slide it back to support the center refractory.)
7. Repeat step 6 for remaining side refractory.
8. Fasten bracket supports against refractory top to hold side in place.



**When side refractory is installed correctly, the center refractory will be supported by the side refractory.**

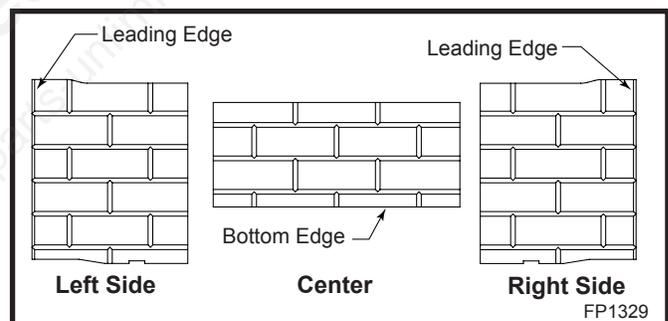
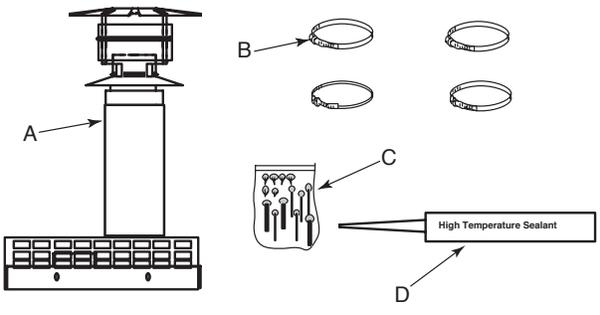
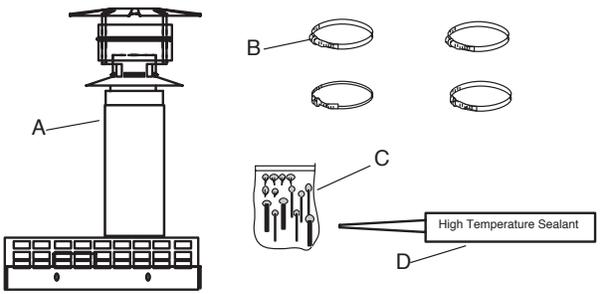
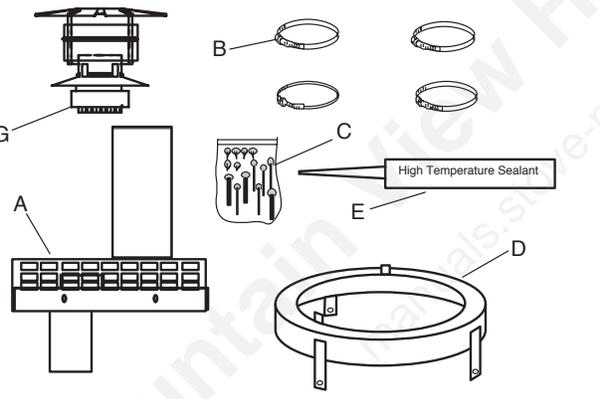
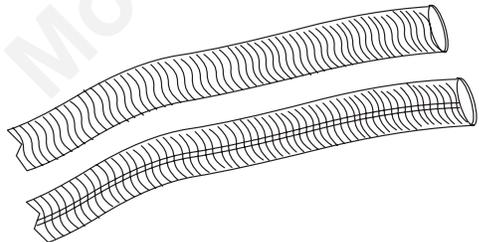
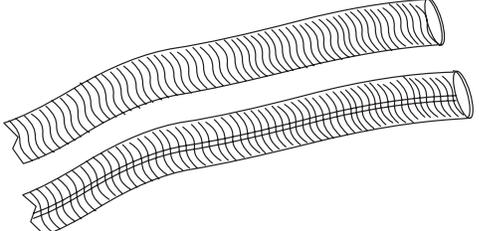


Fig. 19 Ceramic refractory.

## Venting Components

	<p>8" x 12" Vent Termination Kit                      Model: HEDVT (8" x 12" )                      (Fit typical 8" x 12" and 9" x 13" flue tile)                      Kit Includes:                      A - 8" x 12" Vent Termination (x1)                      B - Stainless Steel Clamps (x4)                      C - Hardware Package (x1)                      D - High Temperature Sealant (x1)</p>
	<p>12" x 12" Vent Termination Kit                      Model: HEDVT (12" x 12")                      (Fit typical 12"-13" x 12"-13" flue tile)                      Kit Includes:                      A - Vent Termination SL (x1)                      B - Stainless Steel Clamps 3"-3.5" (x4)                      C - Hardware Package (x1)                      D - High Temperature Sealant</p>
	<p>Round Vent Termination Kit                      Model: HEDVRT                      (Fits typical A or B Vent with minimum 7" (178 mm) inside diameter and 14" (357 mm) maximum outside diameter)                      Kit Includes:                      A - Round Vent Termination                      B - Stainless Steel Clamps 3" - 3½" (4)                      C - Hardware Package (1)                      D - Extended Cap 14" (1)                      E - High Temperature Sealant (1)                      F - Blanket Insulation (1) (not shown)                      G - Rain Cap 3" (1)</p>
	<p>Flex Vent Kit                      Model: HEDVK25                      Kit Includes:                      Two (2) 3" Dia. x 25ft. long, compressed flex vent  <b>NOTE:</b> Air intake has a <b>blue line</b> on the vent.</p>
	<p>Flex Vent Kit                      Model: HEDVK35                      Kit Includes:                      Two (2) 3" Dia. x 35ft. long, compressed flex vent  <b>NOTE:</b> Air intake has a <b>blue line</b> on the vent.</p>

# Operating Instructions

## General Glass Information



**Only ceramic glass approved by CFM Corporation may be used for replacement on this unit.**

1. The use of substitute glass will void all product warranties.
2. Care must be taken to avoid breakage of the glass.
3. Under no circumstances should this appliance be operated without glass properly installed, or with any cracked or broken glass. Replacement of any glass assembly as supplied by the manufacturer should be done 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

To remove louvre, lift louvre up and then pull out. (Fig. 20)

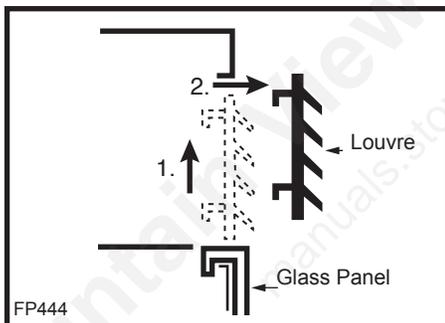


Fig. 20 Louvre removal.

## Glass Cleaning

It will be necessary to clean the glass periodically. During start-up condensation, which is normal, forms on the inside of the glass and causes lint, dust and other airborne particles 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 household cleaner and warm water (we recommend gas fireplace glass cleaner). After that the glass should be cleaned two or three times during each heating season depending on the circumstances present.



**Clean glass after first two weeks of operation.**

## Glass Frame Removal

### LHECDV20 and LHERDV20

1. Remove two (2) screws at the bottom of the frame. (Fig. 17)
2. Lift up and unhook glass frame at the top.

### LHECDV30 and LHERDV30

1. Unhook the frame window by pulling the handle of the two (2) latches at the bottom part of the window frame; pull the left side latch counterclockwise and the right side latch, clockwise. (Fig. 21)
2. Lift and unhook the glass frame at the top.

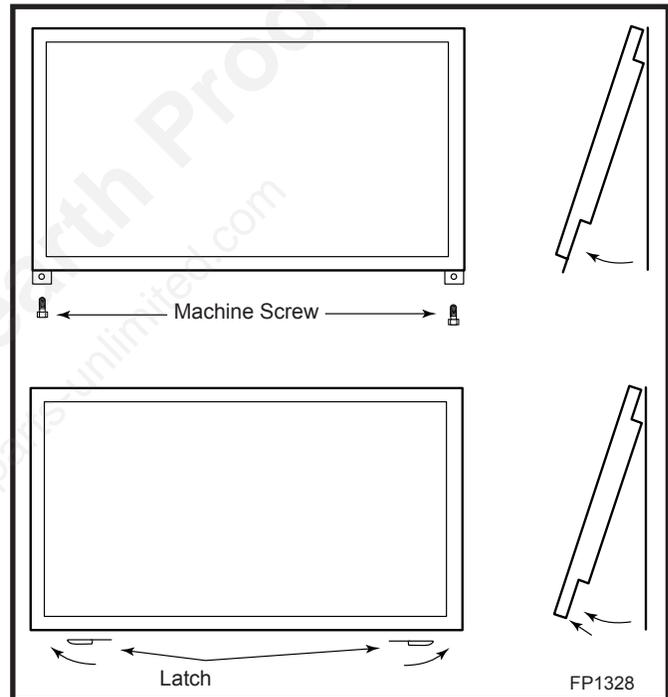


Fig. 21 Remove glass frame.

## Log Installation and Burner Lava Rock

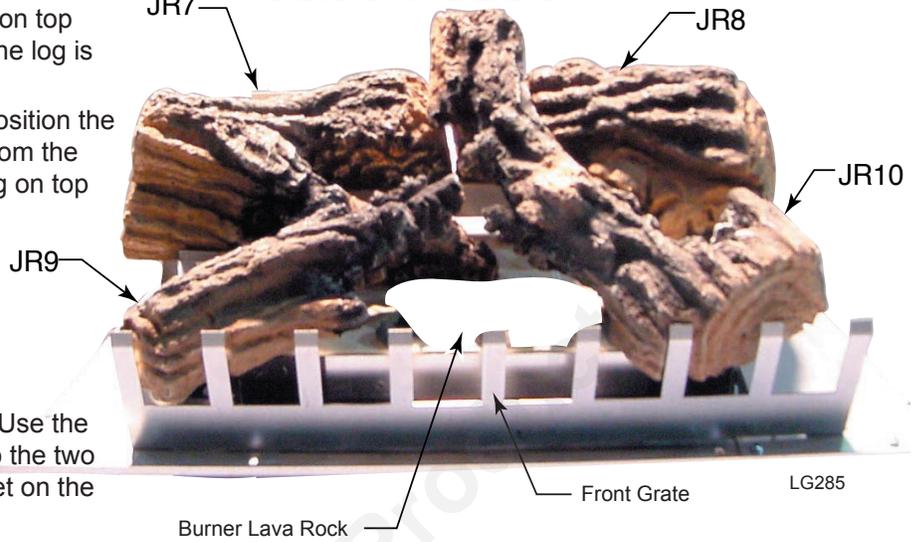
1. Remove glass frame. (See "Glass Removal" section)
2. Remove logs from packaging.
3. Place logs according to the model instructions below:

### LHECDV20, LHERDV20 (Fig. 22)

- a. Place rear left log (JR7). Use the log's bottom holes to locate it onto one pin stud of the rear log bracket on the left and the other end of the log will sit on top of the lid of the left log support.
- b. Place rear right log (JR8). Use the log's bottom holes to locate it onto the two (2) pin studs of the rear log bracket on the right.

- c. Place the front left log (JR9). Position the log notch against the second grate from the left, and the other edge of the log on top of the rear left log notch. Ensure the log is secure in place.
- d. Place the front right log (JR10). Position the log notch against the third grate from the right, and the other edge of the log on top of the rear right log notch. Ensure the log is secure in place.
- e. Place the burner lava rock on the front area of the burner housing. (Fig. 22)

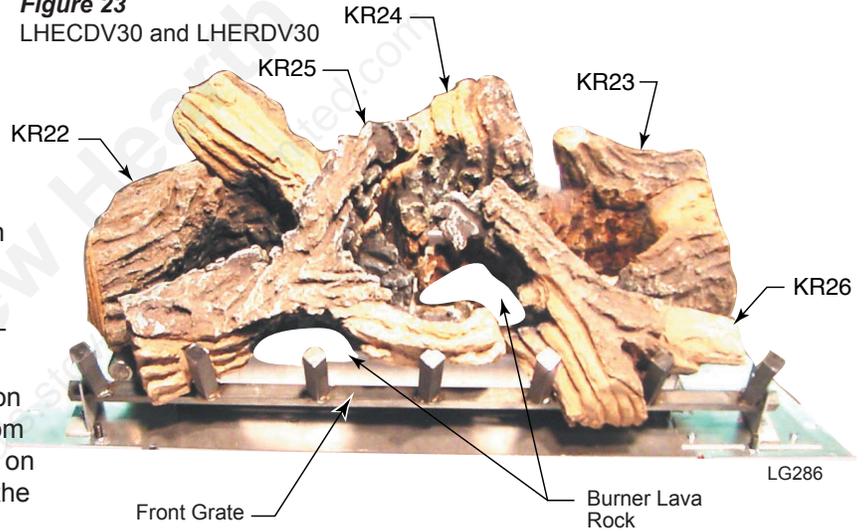
**Figure 22**  
LHECDV20 and LHERDV20



**LHECDV30, LHERDV30 (Fig. 23)**

- a. Place the rear center log (KR24). Use the log's bottom holes to locate it onto the two (2) pin studs of the rear log bracket on the center.
- b. Place rear left log (KR22). Use the log's bottom holes to locate it onto the two (2) pin studs of the rear log bracket on the left.
- c. Place rear right log (KR23). Use the log's bottom holes to locate it onto the two (2) pin studs of the rear log bracket on the right.
- d. Place the front left log (KR25). Position the log notch against the second grate from the left, and the other edge of the log on top of the rear left log notch. Ensure the log is secure in place.
- e. Place the front right log (KR26). Position the log notch against the third grate from the right, and the other edge of the log on top of the rear right log notch. Ensure the log is secure in place.
- f. Place the burner lava rock on the front area of the burner housing. (Fig. 23)

**Figure 23**  
LHECDV30 and LHERDV30



**Large Lava Rock Placement**

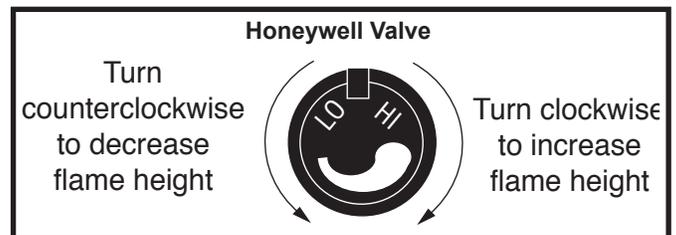
The large lava rock provided with this fireplace should be placed on the firebox base on either side of the burner assembly.



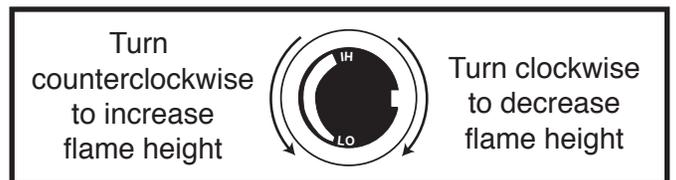
**Under no circumstances should these lava rocks be placed on top of the burner assembly.**

**Flame Adjustment (RN/RP Models)**

For fireplaces equipped with HI/LO valves, flame adjustment is accomplished by rotating the HI/LO adjustment knob located near the center of the gas control. (Figs. 24 or 25)



**Fig. 24** Flame adjustment knob for Honeywell Valve.



**Fig. 25** Flame adjustment knob for SIT valve.

### Flame Characteristics

It is important to periodically perform a visual check of the pilot and the burner flames. Compare them to the Figure 26 and Figure 27 or 28. If any of the flames appear abnormal call a service person.

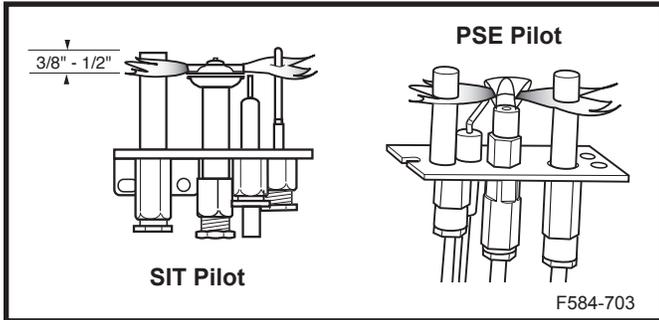


Fig. 26 Correct pilot flame appearance.

### First Firing

Upon completing the gas line connection, a small amount of air will be in the lines. When first lighting unit with pilot light, it will take a few minutes to purge themselves of this air. Once the purging is complete, the pilot and burner will light and operate as indicated in the instruction manual. Subsequent lightings of the heater will not require such purging.

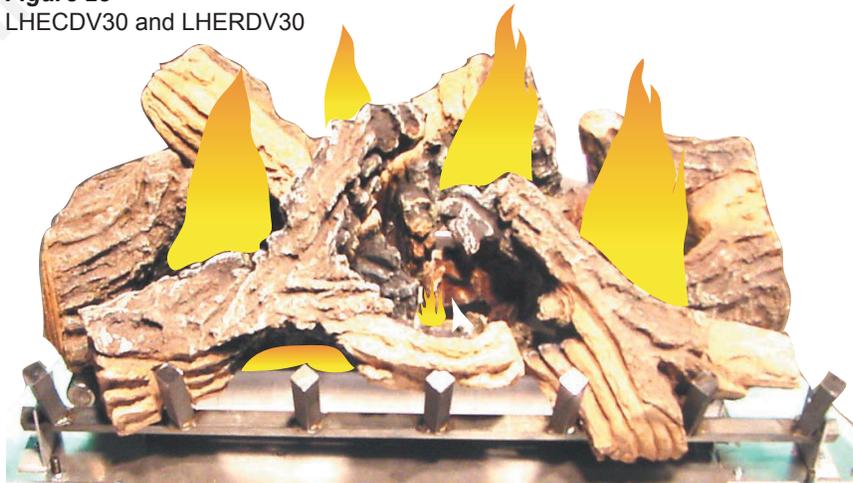
When lit for the first time, the appliance will emit a slight odor for awhile. This is due to paint and lubricants used in the manufacturing process. After each lighting, vapor may condense and fog the glass; this moisture disappears within a few minutes of burning.

Figure 27  
LHECDV20 and LHERDV20



LG287

Figure 28  
LHECDV30 and LHERDV30



LG288

# 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.

- This heater has a pilot which must be lit manually. When lighting the pilot follow these instructions exactly.
- 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.

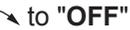
### WHAT TO DO IF YOU SMELL GAS

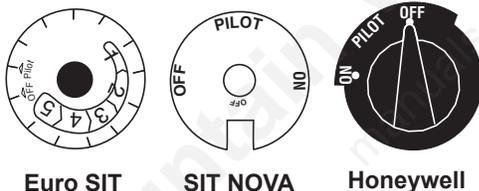
- Do not try to light any fireplace
- Do not touch any electric switch
- Do not use any phone in your building
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's

### instructions.

- If you cannot reach your gas supplier, call the Fire Department
- 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.
  - 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

- STOP!** Read the safety information above.
- 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.
- Open control access panel.
- Push in gas control knob slightly and turn clockwise  to "OFF".



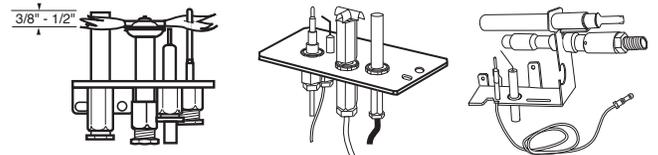
Euro SIT

SIT NOVA

Honeywell

- 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.
- Remove glass door before lighting pilot. (See Glass Frame Removal section).
- 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 " " and call your service technician or gas supplier.
- Replace glass door.
  - Turn gas control knob to "ON" position.
  - For RN/RP appliances turn the On/Off switch to "ON" position or set thermostat to desired setting.
  - Turn on all electrical power to the fireplace.

## To Turn Off Gas To Heater

- Turn the On/Off switch to "OFF" position or set the thermostat to lowest setting.
- Turn off all electric power to the fireplace if service is to be performed.
- Open control access panel.
- Push in gas control knob slightly and turn clockwise  to "OFF". Do not force.
- Close control access panel.

## Troubleshooting the Gas Control System

### SIT NOVA 820 Millivolt Valve

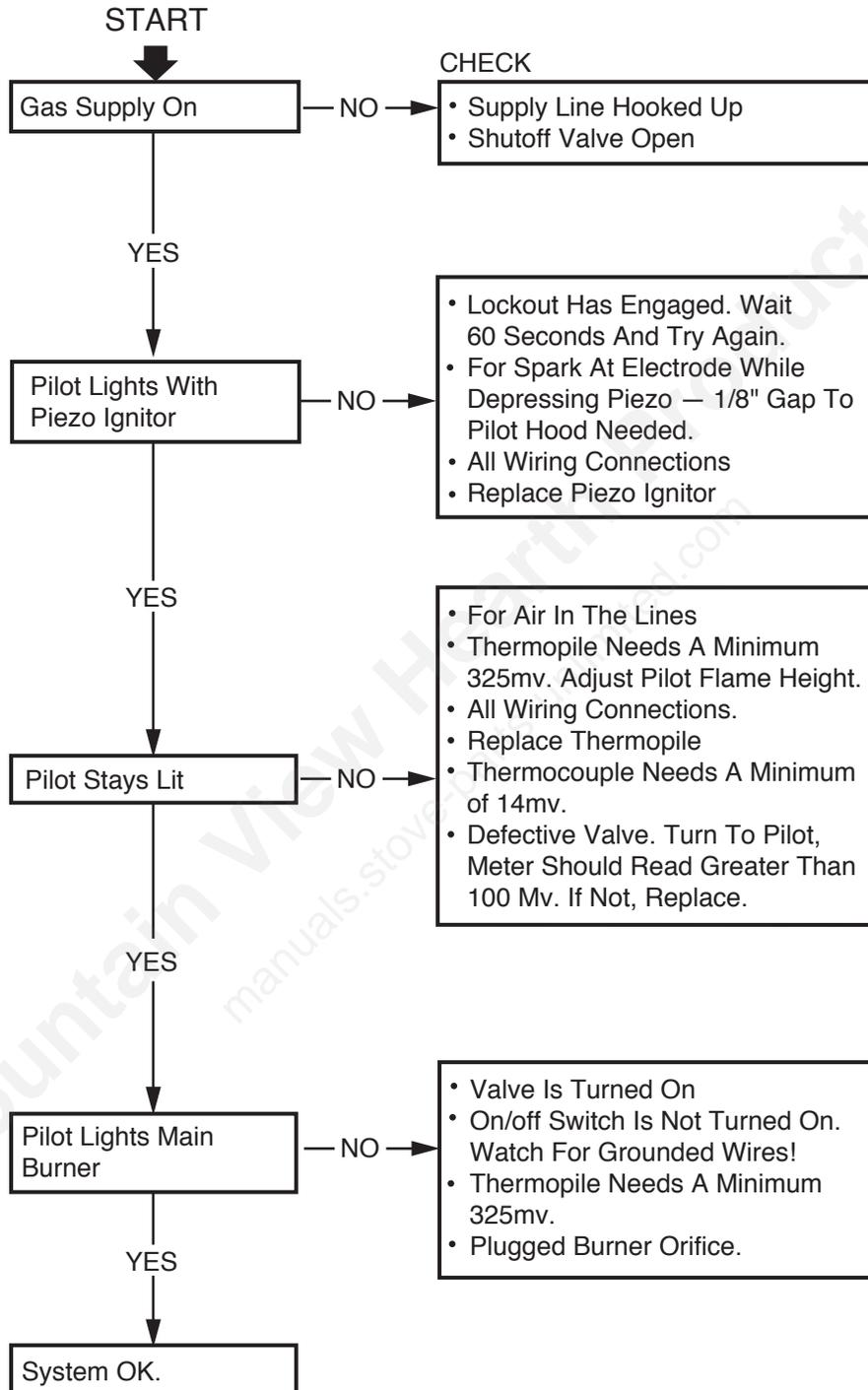
**NOTE:** Before trouble shooting the gas control system, be sure external gas shut off is in the "On" position.

**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 thermo couple/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.	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

## Honeywell Millivolt Valve



## Instructions for RF Comfort Control Valve

The Comfort Control Valve allows remote control of temperature, fan and flame appearance.

**NOTE:** The antenna should hang in free air away from grounded metal.

### Operation

1. If the manual switch is in remote position, switch it to LOCAL. (Fig. 25)
2. Turn the pilotstat knob counterclockwise from OFF to the PILOT position, push the knob down, and hold in position. The pilot valve opens and allows gas to flow to the pilot burner.
3. Push plunger on the piezo until the pilot burner is lit. When the pilot burner is lit, the LED on the control will come on after approximately 40 seconds and will be continuously red. When the light turns off which will be approximately 10 seconds after it has been continuously red, the receiver/valve is fully powered.

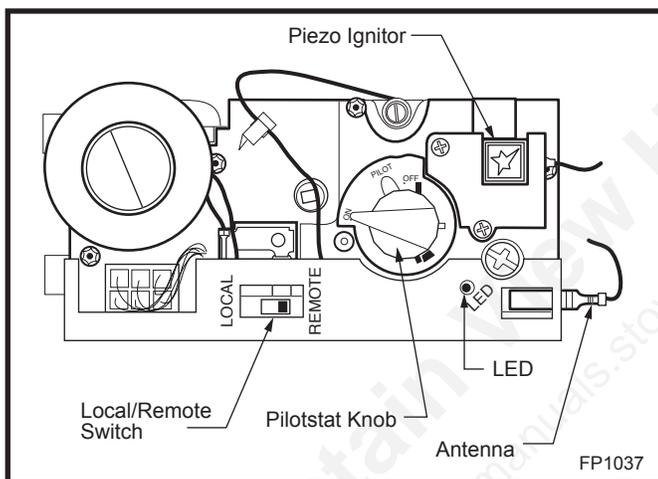


Fig. 25 Comfort control valve.

4. Release the knob. The shaft will move upward. The pilot burner should now stay burning. If the pilot burner goes out, repeat step 2.
5. Turn the knob counterclockwise to the ON position. If the manual switch is in the LOCAL position, the main burner will turn on immediately.
6. ON the initial use of a transmitter, a recognition operation is required between the receiver/valve and transmitter. Change the switch from LOCAL to REMOTE. Press the fan or flame button on the transmitter within 30 seconds. The LED will blink indicating the transmitter will now work with the receiver/valve. If the switch continues in the REMOTE position, the transmitter will now control the main valve, flame modulation level and fan control.

7. If the manual switch is in the LOCAL position, the valve will be at the highest fixed pressure setting. The transmitter will control the fan only.

### Shut Off Procedure

If the manual switch is in the REMOTE position, the transmitter can shut off the main burner and fan. However, the control is still on and a command from the transmitter can turn on the main burner or fan.

To shut off the system, turn the pilotstat knob clockwise to the OFF position. This action closes the main gas and safety valves. The transmitter cannot turn on the main burner or fan.

### Transmitter Operation

#### Off Mode

In the OFF mode, the fireplace flame and fan are off, the display will show OFF and displays the room temperature. If the receiver is in REMOTE mode, the fireplace will shut off.

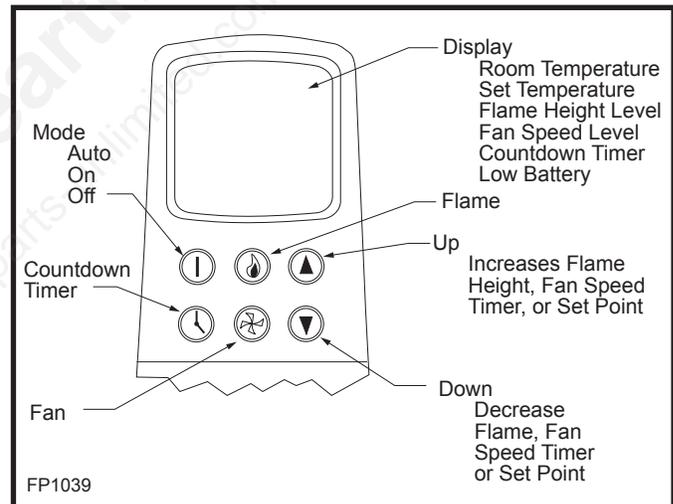


Fig. 26 Transmitter diagram.

### On (Manual) Mode

In the ON mode, the room temperature, flame and fan levels will be shown. MANUAL will appear next to both the flame and fan icons.

When the control is in the ON mode, the flame and fan levels, and delay timer are changed with the up and down buttons. To change the flame level, press the flame button followed by an arrow key. To change the fan level, press the fan key followed by an arrow key. Pushing the arrow key once will change the level by one unit.

### Delay Timer Mode

The shut off delay timer has a maximum of 2 hours and a minimum of zero minutes. To change the timer level, press the time key followed by an arrow key. Pushing the key once will change the timer by 10 minutes.

### Auto Mode

In the AUTO mode, the room temperature, set temperature, flame and fan levels will be shown. AUTO will appear next to both the flame and fan icons.

When the control is in the AUTO mode, the main burner will turn on/off or modulate based on the heat needed to maintain the set temperature. The flame level will change automatically to optimize the heat output needed to maintain the set temperature. To change the set temperature, press the up or down key. Pushing a key once will change the temperature by one degree.

In the AUTO mode, the fan speed will increase with increasing flame height or decrease with decreasing flame height. "AUTO" is displayed next to the flame and fan icons.

### Fan Override During Auto Mode

If a lower or higher fan speed is desired when operating in the AUTO mode, the fan speed can be overridden by pushing the fan button followed by the up or down key. Pushing a key once will change the fan level by one unit. In this mode "AUTO" is displayed next to the flame icon and "MANUAL" is displayed next to the fan icon.

### Change Between F/C Temperature Units

Push the up and down arrow keys simultaneously for at least 3 seconds to toggle between Fahrenheit and Celsius units.

### Disable Thermostat Function

To disable the thermostat function in the AUTO mode, push the time and down keys simultaneously for at least 3 seconds.

### To Change Batteries

1. Remove cover on the backside of the transmitter. Install 3 AAA batteries as shown and reattach cover.
2. Once steps 1-3 in OPERATION are completed, receiver/valve and transmitter are now ready. Press any button on transmitter for recognition process to occur between the receiver/valve and transmitter.
3. Use functions as described in TRANSMITTER section.

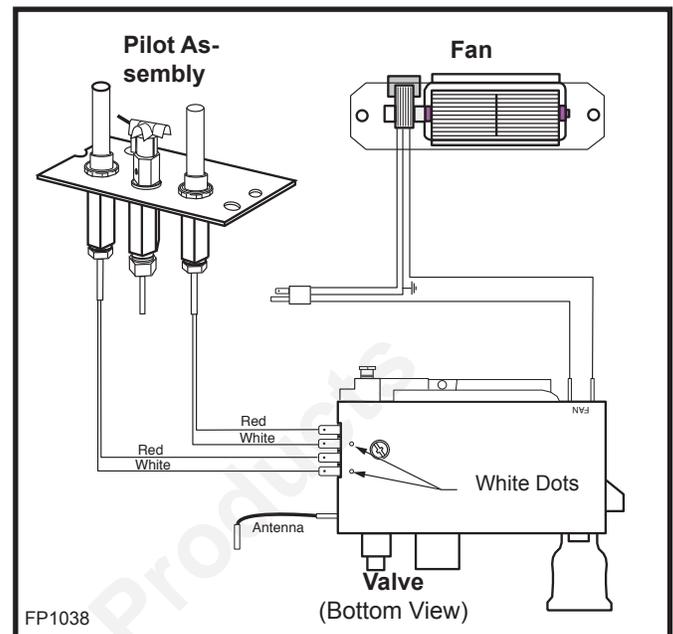


Fig. 27 Comfort Valve wiring diagram.

### Troubleshooting

1. Locate LED light on valve.
2. LED will blink after every valid command received by the transmitter; this is not an error.
3. Failure codes may occur anytime after pilot burner is lit.
4. Sequence is failure code followed by light not blinking for 30 seconds.
5. In the event of multiple failure codes, next failure code follows previous failure code by approximately 3 seconds.

**If an Error Code 3 is observed while performing the testing, complete the following:**

1. Make sure the spade connectors are pushed all the way on. If the Error Code 3 is still showing, then go to the next step.
2. Switch the front two thermopile leads with the back two. Be sure the white lead is connected to the spade with the white dot next to it. If the Error Code 3 is still showing, replace the thermopiles.

**If an Error Code 8 is observed while performing the testing, complete the following:**

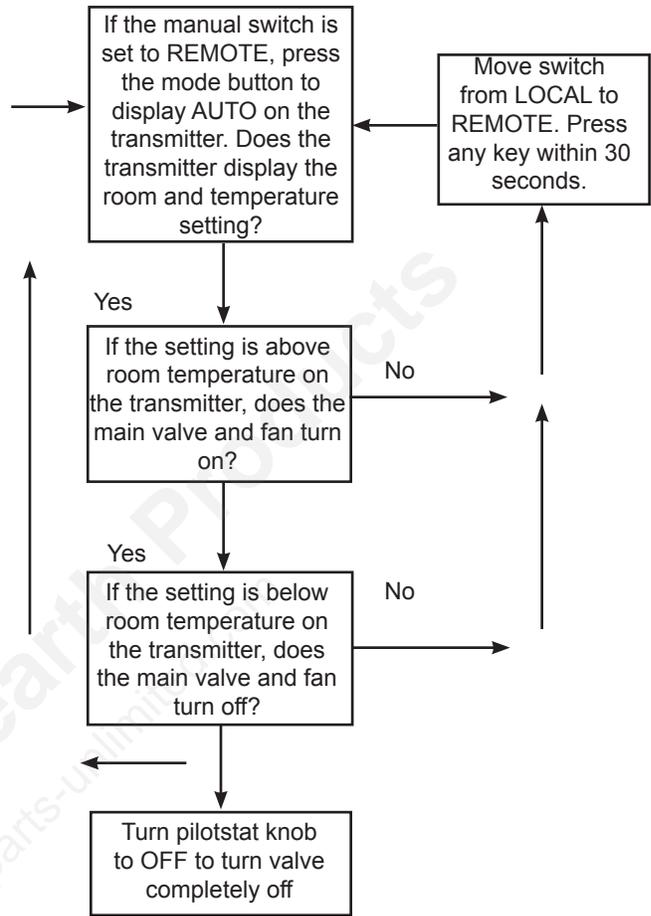
1. Confirm the valve is not in REMOTE mode.
  - If the valve is producing Error Code 8 and in REMOTE mode, the valve is defective and should be replaced.
  - If the valve is in LOCAL mode and producing Error Code 8, then go to the next step.

- Slide the Remote/Local switch to REMOTE and teach the valve a transmitter (refer to Item 6, page 1). The Error Code will clear itself after approximately 1½ minutes and return to normal operation.

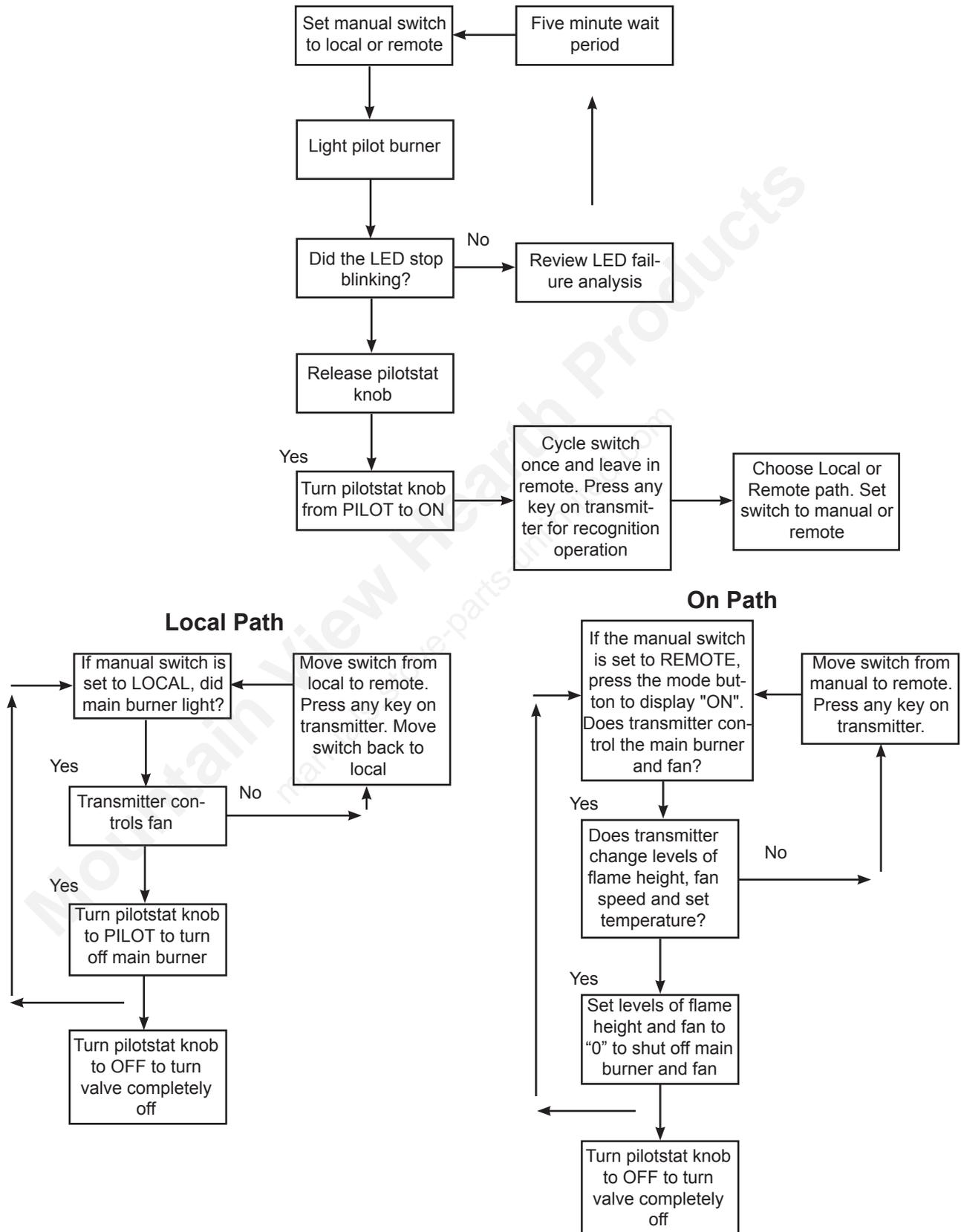
LED Count	Service Action
8	Replace valve
7	Confirm stepper motor connection exists
5	Confirm fan connection exists and works
4	Confirm gas type; jumper in place
3	Replace thermopiles
2	Turn fan ON

**NOTE:** Some keys are not active.

### Auto Path



**Comfort Valve system control sequence of operation with transmitter**



## 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 replace 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.**

### 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.

### Cleaning the Standing Pilot Control System

The burner and control system consists of:

- main burner
- pilot burner
- gas orifice
- thermopile
- combination 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.

In order to properly clean the burner and pilot assembly, turn off the gas to the unit, remove the window frame panel and logs exposing the burner and pilot assembly. Clean all foreign materials from the top of the burner. Check to make sure that burner parts are clean. Visu-

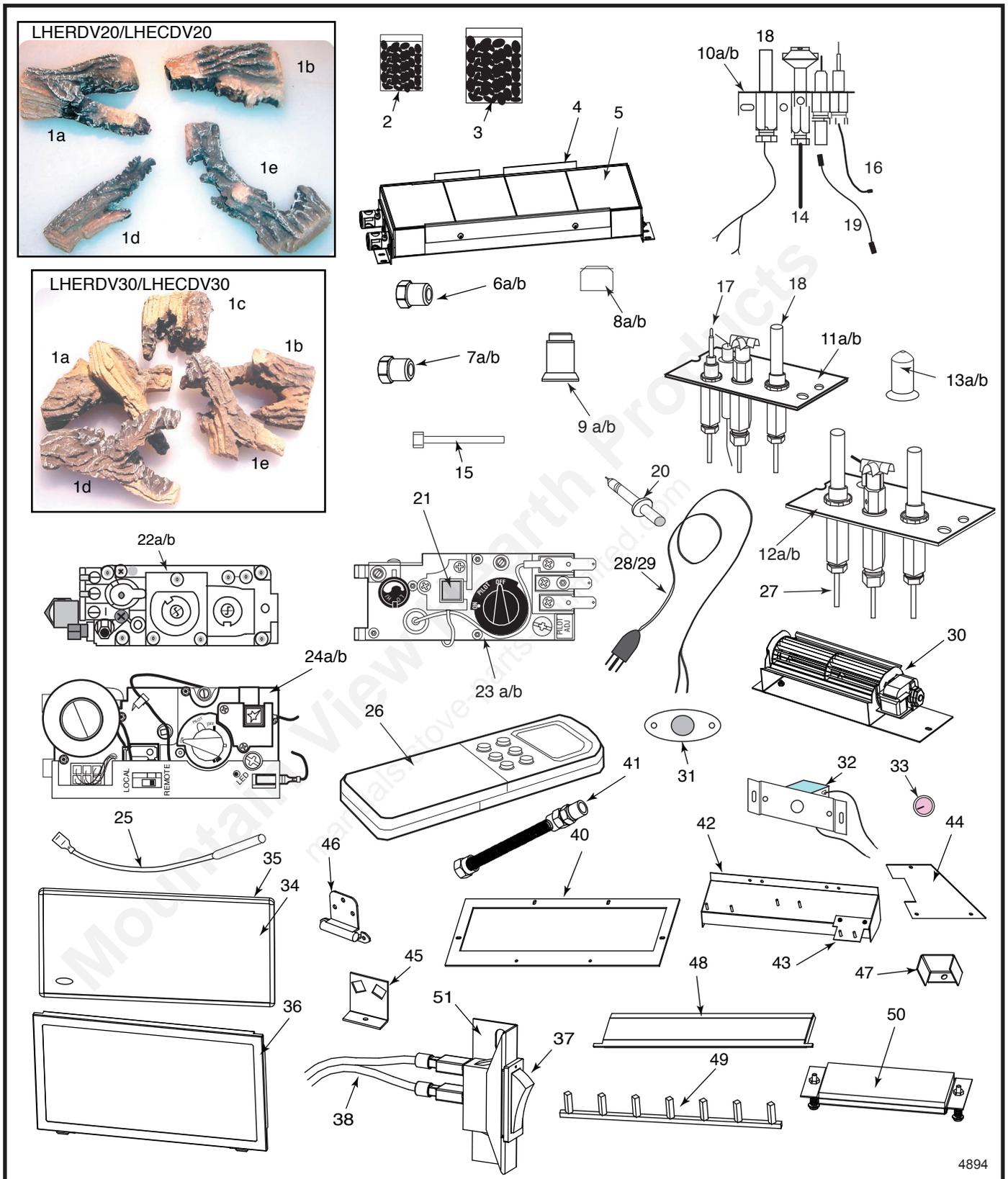
ally inspect pilot. Brush or blow away any dust or lint accumulation. If pilot orifice is plugged, disassembly may be required to remove any foreign material from the orifice or tubing.

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

Typically, the top 1/8" of the thermopile should be engulfed in the pilot flame. (Page 12, Fig. 22)

### Trim Cleaning

Clean the trim with a soft clean cloth, slightly dampened with lemon oil and buff with a soft dry cloth. Do not use brass polish or household cleaners as these products will damage the trim. Lemon oil can be obtained at supermarkets or hardware stores.



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

# LHEDV Series

Units: GIDN4B0, J23KC0, GIDN3B0, GIDN3H0, GIDL3H0, M22KC0, M22LC0, M31A30

10004894

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**LHEDV Series (continued)**

Ref.	Description	LHERDV20	LHECDV20	LHERDV30	LHECDV30
1.	Log Set Complete	10005332	10005332	10004866	10004866
1a.	Log Rear Left	10005333 (JR7)	10005333 (JR7)	10004874 (KR22)	10004874 (KR22)
1b.	Log Rear Right	10005334 (JR8)	10005334 (JR8)	10004875 (KR23)	10004875 (KR23)
1c.	Log Rear Center	-	-	10004876 (KR24)	10004876 (KR24)
1d.	Log Front Left	10005335 (JR9)	10005335 (JR9)	10004878 (KR25)	10004878 (KR25)
1e.	Log Front Right	10005336 (JR10)	10005336 (JR10)	10004879 (KR26)	10004879 (KR26)
2.	Lava Rock Burner Package	57897	57897	57897	57897
3.	Lava Rock Package	-	-	10001454	10001454
4.	Burner Housing Assembly with Tiles	10005294	10005294	10004972	10004972
5.	Ceramic Tile (Single)	57803	57803	57803	57803
6a.	Orifice Front Burner (Nat.)	See Rating Plate for Orifice Size			
6b.	Orifice Front Burner (Prop.)	See Rating Plate for Orifice Size			
7a.	Orifice Rear Burner (Nat.)	See Rating Plate for Orifice Size			
7b.	Orifice Rear Burner (Prop.)	See Rating Plate for Orifice Size			
8a.	Orifice Pilot SIT Top Convertible	10002268	10002268	10002268	10002268
8b.	Orifice Pilot SIT Top Convertible	10002269	10002269	10002269	10002269
9a.	Orifice Pilot PSE (Nat.)	10001822	10001822	10001822	10001822
9b.	Orifice Pilot PSE (Prop.)	10001823	10001823	10001823	10001823
10a.	Pilot Assembly SIT Top Convertible (Nat.)	10002264	10002264	10002264	10002264
10b.	Pilot Assembly SIT Top Convertible (Prop.)	10002265	10002265	10002265	10002265
11a.	Pilot Assembly PSE (Nat.)	10001741	10001741	10001741	10001741
11b.	Pilot Assembly PSE (Prop.)	10001742	10001742	10001742	10001742
12a.	Pilot Assembly RFN (Nat.)	-	20002266	-	20002266
12b.	Pilot Assembly RFP (Prop.)	-	20002268	-	20002268
13a.	Pilot Orifice RFN (Nat.)	-	20000908	-	20000908
13b.	Pilot Orifice RFP (Prop.)	-	20000907	-	20000907
14.	Pilot Tubing w/Fittings	10001296	10001296	10001296	10001296
15.	Manifold Tubing w/Fittings	57318	57318	57318	57318
16.	Thermocouple SIT	53373	53373	53373	53373
17.	Thermocouple PSE	10001825	10001825	10001825	10001825
18.	Thermopile	51827	51827	51827	51827
19.	Electrode Ignitor w/Cable SIT	10001297	10001297	10001297	10001297
20.	Ignitor Piezo SIT	52464	52464	52464	52464
21.	Ignitor Piezo Honeywell	20000062	20000062	20000062	20000062
22a.	Valve SIT 820 RN	52677	52677	52677	52677
22b.	Valve SIT 820 RP	52678	52678	52678	52678
23a.	Valve Honeywell RN	10001782	10001782	10001782	10001782
23b.	Valve Honeywell RP	10001759	10001759	10001759	10001759
24a.	Valve Honeywell RFN	-	20003719	-	20003719
24b.	Valve Honeywell RFP	-	20003720	-	20003720
25.	Antennae (for RFN or RFP Units)	-	20003561	-	20003561
26.	Transmitter (for RFN or RFP Units)	-	20002047	-	20002047
27.	Thermopile (for RFN or RFP Units)	-	20002400	-	20002400
28.	Cord Set (for RFN or RFP Units)	-	20002541	-	20002541
29.	Cord Set (for RN or RP Units)	51865	51865	51865	51865
30.	Fan with Bracket	-	54103	-	54103
31.	Fan Temperature Sensor (for RN or RP Units)	-	51704	-	51704
32.	Fan Speed Control Switch (for RN or RP Units)	-	51738	-	51738
33.	Speed Control Knob (for RN or RP Units)	-	51882	-	51882
34.	Glass with Gasket	10005297	10005066	10006888	10004870
35.	Gasket Glass	57317	57317	57317	57317
36.	Frame Window	10005295	10005067	10006887	10004873

**LHE Series (continued)**

Ref.	Description	LHER20	LHEC20	LHER30	LHEC30
37.	Remote Switch (for RN or RP Units)	53606	53606	53606	53606
38.	Remote Wire Harness w/Terminals (for RN or RP Units)	10002582	10002582	10002582	10002582
39.	Ceramic Fiber Brick FP (Optional)	JT1TR0	JT1TC0	KT1TR0	KT1TC0
40.	Gasket Fan Cover	-	-	-	10003486
41.	Flexible Connector (6")	10005098	10005098	10005098	10005098
42.	Bracket Rear Log Assembly	10005370	10005369	10006771	10005489
43.	Bracket Log Support Assembly	-	-	10004885	10004885
44.	Gasket Cover Gas Line Access	10004227	10004227	10004227	10004227
45.	Bracket Support Grate	-	-	10003479	10003479
46.	Hinge 2 Springs	52356	52356	52356	52356
47.	Shield Heat Pilot	10000248	10000248	10000248	10000248
48.	Plate Relief with Gasket	10002032	10002032	10002032	10002032
49.	Grate Assembly Flat Black	10004967	10004967	10003478	10003478
50.	Plate Relief w/Gasket Asembly (Burner Tray)	-	-	10004192	10004192
51.	Bracket ON/OFF Switch	10005035	10005035	10005035	10005035

## Optional Accessories

### Remote Controls

Optional remote control units are available to control different functions of the appliance.

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

**NOTE:** These remote controls are for RN/RP units only.

### Zero Clearance Kit

For installations other than in existing woodburning fireplaces such as new construction or renovation projects, a Zero Clearance Kit must be used. The HEZC enables these inserts to be installed in combustible environments. Consideration must be given to the dimensions of the Zero Clearance Kit and the requirements of the Air Kit when planning out the installation.

Follow the instructions supplied with the Zero Clearance Kit carefully for proper installation.

### Arch Door Kits

Model	Description
LHEC20DKB	Arch Door, Black
LHEC30DKB	Arch Door, Black
LHEC30DKS	Arch Door, Pewter

### Ceramic Firebox Liners

Model	Description
LHER20CR	Ceramic Fiber Brick
LHEC20CR	Ceramic Fiber Brick
LHEC30CR	Ceramic Fiber Brick
LHER30CR	Ceramic Fiber Brick

### Trim Options

#### Face Kits

**NOTE:** One is required for LHEC20 and LHEC30

Model	Description
LHEC20FB	Louvre T&B, Black
LHEC20LKB	Filigree T&B, Black
LHEC20LKS	Filigree T&B, Pewter
LHEC30FB	Louvre T&B, Black
LHEC30LKB	Filigree T&B, Black
LHEC30LKS	Filigree T&B, Pewter
LHEC30LKG	Filigree T&B, Gold
LHEC20CBTK	Cast Bay Window, Classic Black
LHER20BTK	Bay Window w/Louvres, Black
HECBTKADK	Window Adapter Kit LC30
LHEC30CBTK	Cast Bay Window, Classic Black
LHEC30BTK	Bay Window w/Filigree, Black
LHER30BTK	Steel Bay w/Filigree, Black

#### Trim Kits

**NOTE:** One is required.

Model	Description
LHE20SSB	Small Surround, Black
LHE20SLB	Large Surround, Black
LHE20TCK	Trim Closure Kit, Black, XL
LHEABSL	Adjust Bevel Steel/Cast
LHE20CSLB	Large Cast Surround, Classic Black
LHE30SSB	Small Surround, Black
LHE30SLB	Large Surround, Black
LHE30SLGA	Large Surround, w/Gold Edge
LHE30TCK	Trim Closure Kit, Black XL
MEAD3CM	Large Cast Surround, Classic Black
MEAD3EB	Large Cast Surround, Ebony
MEAD3EBS	Large Cast Surround, Biscuit
CAPCB	Adjust. Cast Cont. Surround, Classic Black
CAPEB	Adjust. Cast.Cont. Surround, Ebony

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# LIMITED LIFETIME WARRANTY

## PRODUCT COVERED BY THIS WARRANTY

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

### BASIC WARRANTY

CFM Corporation (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 Corporation 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 Corporation 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 Corporation product.
- 2) DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF.

Canada

# ENERGUIDE

**Look for the EnerGuide  
Gas Fireplace Energy  
Efficiency Rating in this brochure**

*Based on CSA P.4.1-02*

<b>Efficiency Ratings</b>				
Model	EnerGuide Ratings Fireplace Efficiency (%)	Steady State (%)		D.O.E. (AFUE%)
		Fan-OFF	Fan-ON	
LHECDV20RN	61.3	69	72	65
LHECDV20RP	61.3	70	73	65
LHECDV20RFN	61.3	69	72	65
LHECDV30RFP	61.3	70	73	65
LHERDV20RN	59.7	69	N/A	64
LHERDV20RP	59.7	70	N/A	64
LHECDV30RN	61.5	70	73	66
LHECDV30RP	61.5	71	74	66
LHECDV30RFN	61.5	70	73	66
LHECDV30RFP	61.5	71	74	66
LHERDV30RN	64.1	69	N/A	65
LHERDV30RP	64.1	70	N/A	65



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.

### CFM Corporation

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