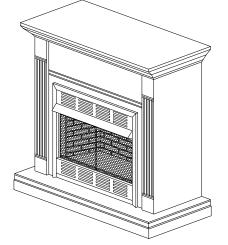


# **United States Stove Company**

Vent-Free Zero-Clearance Gas Fireplace Models VFZC32N, VFZC32L





Shown with optional cabinet mantel, hearth base, and brass trim.

#### OWNER'S OPERATION AND INSTALLATION MANUAL

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

\* Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer (i.e. Installation of this product is permitted after the manufactured (mobile) home is sited).

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to "Adequate Combustion And Ventilation Air" on pages 6-10 of this manual.

#### **WARNING:**

Do not use a blower insert, heat exchanger insert or other accessories not approved for use with this heater.

Save this manual for future reference.

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

- ~Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- ~WHAT TO DO IF YOU SMELL GAS
  - \* Do not try to light any appliance
  - \* Do not touch any electrical switch; do not use any phone in your building
  - \* Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
  - \* If you cannot reach your gas supplier, call the fire department
- ~Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

# TABLE OF CONTENTS

SECTION	PAGE
LOCAL CODES	2
WARNINGS/SAFETY INFORMATION	2-4
VFZC32 SPECIFICATIONS	4-5
PRODUCT FEATURES	6
LOCATING THE FIREPLACE	6
AIR FOR COMBUSTION AND VENTILATION	6-10
INSTALLATION	10-13
GAS CONNECTION	
GAS PRESSURE CHECK	15
MANTEL INSTALLATION	
BUILT-IN INSTALLATION	
LOG ASSEMBLY	
OPERATING INSTRUCTIONS	
CLEANING/SERVICING	23-24
FLAME APPEARANCE	
PARTS DIAGRAM & LIST	25
GENERATOR ASSEMBLY PARTS DIAGRAM	
GENERATOR ASSEMBLY PARTS LIST	
VF32B BLOWER KIT WIRING DIAGRAM	28
OPTIONAL ACCESSORIES	29-30
HOW TO ORDER REPAIR PARTS	31

# LOCAL CODES

Install and use fireplace with care. Follow all local codes. In the absence of local codes, use the latest edition of The National Fuel Gas Code ANSI Z223.1, also known as NFPA 54\*. Firebox must be electrically grounded in accordance with the National Electric Code, ANSI/NFPA 70 (latest edition).

\*Available from:

American National Standards Institute, Inc. 1430 Broadway New York, NY 10018

National Fire Protection Association, Inc. Batterymarch Park Quincy, MA 02269

# WARNINGS/SAFETY INFORMATION

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this fireplace. Improper use of this fireplace can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon poisoning.

# WARNINGS/SAFETY INFORMATION CONTINUED

**WARNING:** Any change to this heater or its controls can be dangerous.

- 1. This heater shall not be installed in a bedroom or bathroom.
- 2. Never install the fireplace
  - \* in a recreational vehicle
  - \* where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or side of the fireplace
  - \* in high traffic areas
  - \* in windy or drafty areas
- 3. Do not add extra logs or ornaments such as pine cones, vermiculite, or rock wool. Using these added items can cause sooting.
- 4. You must operate this fireplace with the fireplace screen and hood in place. Make sure these parts are in place before running.
- 5. Do not allow fans to blow directly into the firebox. Avoid any drafts that alter burner flame patterns. Ceiling fans can create drafts that alter burner flame patterns. Altered burner patterns can cause sooting.
- 6. To prevent malfunction and/or sooting, an unvented gas heater should be cleaned at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, etc. It is imperative that control compartments, burners and circulating air passageways be kept clean.
- 7. Correct placement of the ceramic fiber logs is necessary to avoid problems with sooting. Sooting can settle on surfaces outside the heater and cause discoloration. See the appropriate section of this manual for instructions.
- 8. This Vent-free gas log heater requires fresh air ventilation to run properly. See *Air for Combustion and Ventilation* instructions in this owner's manual.
- 9. Do not run fireplace
  - \* where flammable liquids or vapors are used or stored
  - \* under dusty conditions
- 10. Do not use this fireplace to cook food or burn paper or other objects.
- 11. Never place any objects in the firebox or on logs.
- 12. Fireplace front and screen becomes very hot when running. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Firebox will remain hot for a time after shutdown. Allow surfaces to cool before touching.
- 13. Carefully supervise young children when they are in the room with fireplace.
- 14. Turn fireplace off and let cool before servicing. Only a qualified service person should service and repair fireplace.
- 15. Operating vent-free gas log heaters in a fireplace above elevations of 4,500 feet could cause pilot outage.
- 16. IMPORTANT: The fireplace hood must not be replaced with a hood/canopy which may be provided with the decorative type unvented room heater.

# WARNINGS/SAFETY INFORMATION CONTINUED

- 17. CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the heater serviced as it may not be operating properly.
- 18. This vent-free gas fireplace is intended to be smokeless. If logs appear to smoke, turn off the heater and call a qualified service person. Initial burn off may cause slight smoke and odor during the first four hours of operation.
- 19. Input ratings are shown in BTU per hour and are for elevations up to 2,000 feet. For elevations above 2,000 feet, input ratings should be reduced 4 percent for each 1,000 feet above see level. Refer to the National Fuel Gas Code.
- 20. The fireplace 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 (3.5 kPa).
- 21. The fireplace must be isolated from the gas supply piping system be closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).
- 22. Do not use this gas fireplace if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.

# **VFZC32 SPECIFICATIONS**

#### Natural Gas Propane/LPG

Manifold Pressure Setting:4" w.c.Manifold Pressure Setting:10" w.c.Gas Inlet Pressure:Maximum<br/>Minimum10-1/2" w.c.Gas Inlet Pressure:Maximum<br/>Minimum13" w.c.5" w.c.Minimum11" w.c.

		Gas	Number	
Model Number	Type	Max BTU/Hr	Min BTU/Hr	of Burners
VFZC32N	Manual	30,000	8,000	2
VFZC32L	Manual	30,000	8,000	2

#### Controls - Main control has 4 positions:

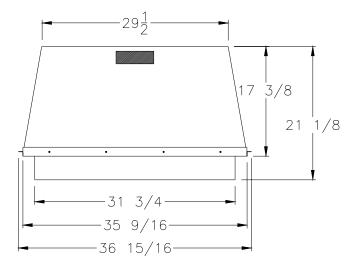
- 1. OFF All gas to the gas logs is shut off at the control
- 2. IGN Piezo ignitor allows ignition of the pilot without the use of matches or batteries
- 3. PILOT Valve position to light/maintain a standing pilot
- 4. ON Gas flow to complete system, front burner ignition

**Front Burner Control Knob** - infinite control, rotate clockwise to minimum rate and counterclockwise to maximum rate.

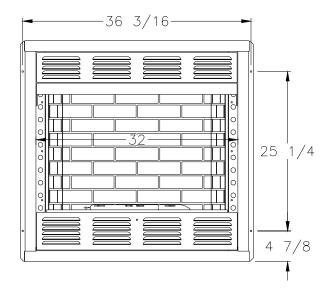
#### Rear Burner Control Knob - Has 3 positions:

- 1. OFF Gas to rear burner is shutoff at control
- 2. ON/MAX Maximum gas flow to rear burner
- 3. MIN Minimum gas flow rate to rear burner

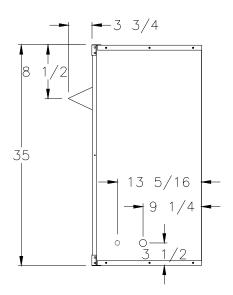
# VFZC32 SPECIFICATIONS, CONTINUED...



FIREBOX TOP VIEW



FIREBOX FRONT VIEW



FIREBOX SIDE VIEW

# PRODUCT FEATURES

#### **Operation**

This Vent-free Gas Fireplace requires no outside venting or chimney making installation easy and inexpensive. When used without the optional blower (model VF32B), the firebox requires no electricity making it ideal for emergency backup heat.

#### **Blower Accessory**

The VFZC32 Vent-free Gas Fireplace will accept the VF32B Blower Kit accessory. The kit comes with the variable blower. The variable blower allows you to select the fan speed you desire. The blower circulates heated air from the firebox into the room. Use of the blower is optional.

# LOCATING FIREPLACE

#### **Planning**

Plan where you will install the fireplace. This will save time and money later when you install the fireplace. Before installation, consider the following:

- 1. Where the fireplace will be located. Allow for wall and ceiling clearances (see *Installation Clearances*, pages 10 & 11).
- 2. Everything needed to complete installation.
- 3. These models CANNOT be installed in a bedroom or bathroom.
- 4. Proper air for combustion and ventilation (see below).

# AIR FOR COMBUSTION AND VENTILATION

# **WARNING**

This fireplace shall not be installed in a confined space unless provisions are provided for adequate combustion and ventilation air. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

Today's homes are built more energy efficient than ever. New materials, increased insulation, and new construction methods help reduce heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

While it is good to make your home energy efficient, your home needs to breathe. Fresh air must enter your home. All fuel-burning appliances need fresh air for proper combustion and ventilation.

Exhaust fans, fireboxes, clothes dryers, and fuel-burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will insure proper venting of vented fuel-burning appliances.

#### **Providing adequate ventilation**

The following is excerpts from *National Fuel Gas Code*. *NFPA 54/ANSI Z*223.1, Section 5.3, Air for Combustion and Ventilation.

All spaces in homes fall into one of the three following ventilation classifications:

1. Unusually Tight Construction; 2. Unconfined Space; 3. Confined Space.

The information on pages 6 through 10 will help you classify your space and provide adequate ventilation.

#### **Unusually Tight Construction**

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

Unusually tight construction is defined as construction where:

- a. Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm (6x10<sup>-11</sup> per pa-sec-m<sup>2</sup>) or less with openings gasketed or sealed <u>and</u>
- b. Weather stripping has been added on openable windows and doors and
- c. Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See *Ventilation Air From Outdoors*, page 10.

If your home does not meet all of the three criteria above, proceed to page 8.

#### **Confined Space and Unconfined Space**

The National Fuel Gas Code (ANSI Z223.1, 1992 Section 5.3) defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 BTU per hour (4.8m³ per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 BTU per hour (4.8m³ per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed\*, through openings not furnished with doors, are considered a part of the unconfined space.

\* Adjoining rooms are communicating only if there are doorless passageways or ventilation grills between them.

#### **Determining if You Have a Confined or Unconfined Space**

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

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

1.	Determine the volume of the space (length x width x height).  Length x Width x Height = cu. Ft. (volume of space)  Example: Space size				
	If additional ventilation to adjoining room is			ng add the	
	volume of these rooms to the total volume of			igs, add the	
2.	Divide the space volume by 50 cubic feet to can support.		•	U/Hr the space	
	(volume of space) 50 cu. Ft. =	(Max	imum BTU/Hr the spa	ce can support)	
	Example: 3168 cu. Ft. (volume of space)	•	-		
	BTU/Hr the space can support)			•	
3.	Add the BTU/Hr of all fuel-burning appliance	es in t	he space.		
	Vent-free Firebox	-			
	Gas water heater*	-		_ BTU/Hr	
	Gas furnace				
	Vented gas heater			_ BTU/Hr	
	Gas firebox logs			_ BTU/Hr	
	Other gas appliances*	+		_ BTU/Hr	
	Total	= .		_ BTU/Hr	
	Example: Gas water Heater		40,000	BTU/Hr	
	Vent-free firebox with log heater	+	39,000	BTU/Hr	
	Total	=	79,000	BTU/Hr	
	* Do not include direct-vent gas appliances.	Dire	ct-vent draws combus	tion air from	
	the outdoors and vents to the outdoors.				
4.	Compare the maximum BTU/Hr the space of	an su	pport with the actual a	amount of	
	BTU/ Hr used.				
	BTU/Hr (maximum the	space	can support)		
	BTU/Hr (actual amount	of BT	U/Hr used)		
	Example: 63,300 BTU/Hr (maximum the	space	can support)		
	79,000 BTU/Hr (actual amount	•	• • •		
The	space in the above example is a confined		,	BTU/Hr used is	

Your options are as follows:

A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See *Ventilation Air From Inside Building*, page 9.

more than the maximum BTU/Hr the space can support. You must provide additional fresh

air.

- B. Vent room directly to the outdoors. See *Ventilation Air from Outdoors*, page 10.
- C. Install a lower BTU/Hr firebox, if lower BTU/Hr size makes room unconfined.

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

#### **WARNING**

If the area in which the firebox and gas log heater may be operated is smaller than that defined as an unconfined space, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1, 1992. Section 5.3.

#### **VENTILATION AIR**

#### **Ventilation Air From Inside Building**

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor into adjoining room ( see options in Figure 1). Follow the National Fuel Gas Code NFPA 54/ ANSI Z223.1, Section 5.3, Air for Combustion and Ventilation for required size of ventilation grills or ducts.

#### **WARNING**

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

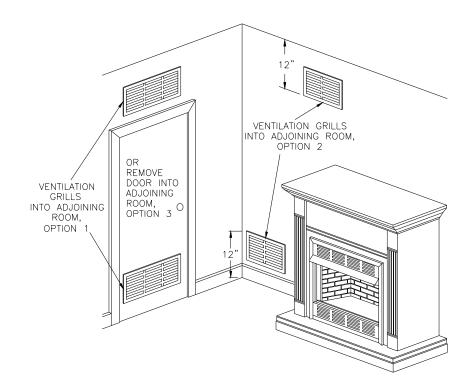


Figure 1 - Ventilation Air from Inside Building

#### **Ventilation Air From Outdoors**

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. (See Figure 2)

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

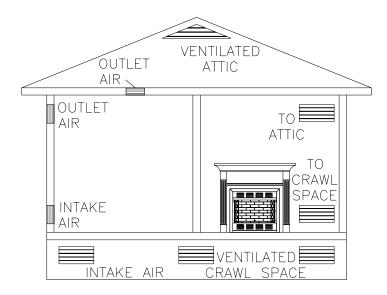


Figure 2 - Ventilation Air from Outdoors

# **INSTALLATION**

#### INSTALLATION CLEARANCES

# **WARNING**

Maintain the minimum clearances. If you can, provide greater clearances from floor, ceiling, and adjoining wall.

Carefully follow the instructions below. This will ensure safe installation.

# Minimum Wall and Ceiling Clearances (see Figure 3)

- A. Clearances from the side of the firebox opening to any combustible wall should not be less than 6 inches. (This applies to built-in installation or using an (optional) cabinet mantel kit.)
- B. Clearances from the top of the firebox opening to the ceiling should not be less than 42 inches.

#### **Mantel Clearances for Conventional Installation**

# **INSTALLATION** CONTINUED

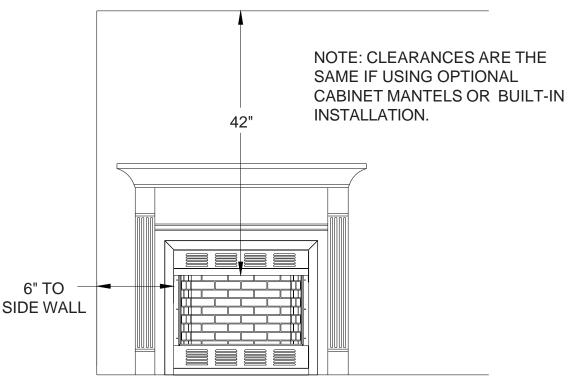
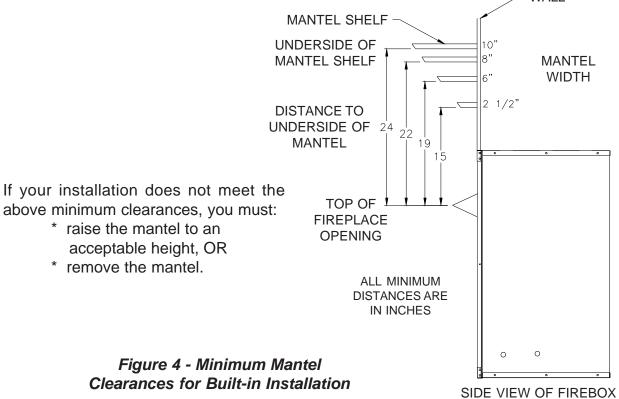


Figure 3 - Minimum Clearance to Wall and Ceiling

#### **Mantel Clearances for Built-in Installation**

If placing custom mantel above built-in fireplace, you must meet minimum clearance between mantel shelf and top of fireplace opening.



# **INSTALLATION** CONTINUED

#### **Installing the Fireplace Screen.**

- 1. Insert each rod through the rings located at the top of the screen. NOTE: Before placing the last ring over the rod, slide the tinnerman clip (included in the parts bag) onto the rod and then slide the last ring over the rod. (See Figure 5)
- 2. Insert the right screen and rod into the hole in the side trim and line up rod with the back hole in the firebox top and fasten with one of the 5/16" head screws included.
- 3. Now insert the left screen and rod as above. (Figure 5)

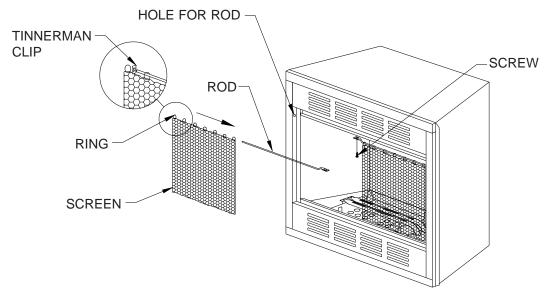


Figure 5 - Installing Fireplace Screen

# Installing the Fireplace Hood.

 Slide the Hood over the shoulder screws and gentle press down until secure. NOTE: There are (2) shoulder screws on each side of the firebox opening directly below the top plate. These shoulder screws should line up with the notches on the sides of the Fireplace Hood. (See Figure 6)

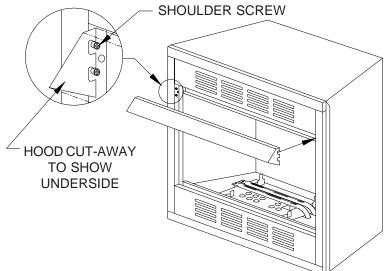


Figure 6 - Installing the Fireplace Hood.

# **INSTALLATION** CONTINUED

#### Installing the Firebrick Panels into the firebox.

- 1. Before installing the firebrick panels you must first remove the brick brackets. A 5/16" nut driver will be required. (See Figure 7a & b, below for location)
- 2. Carefully remove the firebrick panels from their box.
- 3. Decide which side of the firebox you want the gas line to enter and knock out the appropriate holes in the cabinet, firebox, and the firebrick panel.
- 4. Place the back firebrick panel in the firebox, as shown in Figure 7a.
- 5. Place the side firebrick panels in the firebox, as shown in Figure 7b.
- 6. You can now replace the brick brackets using a 5/16" nut driver.

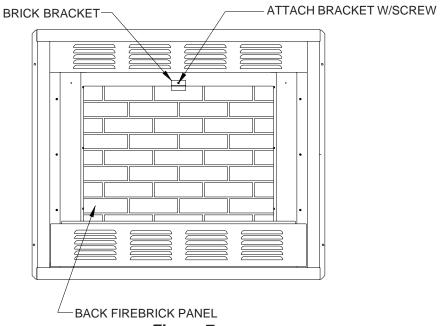


Figure 7a

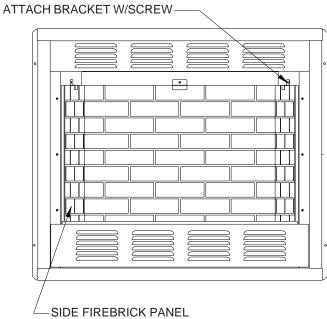


Figure 7b

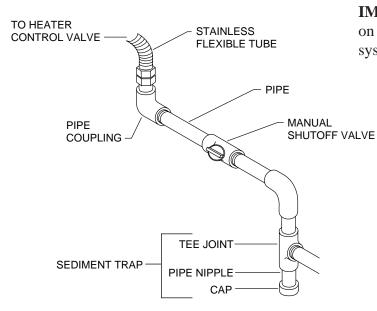
Firebox shown with some parts missing for clarity.

A qualified gas appliance installer must connect the fireplace to the gas supply. Consult all local codes.

Use new black iron or steel pipe only. Internally tinned copper tubing can be used in some areas when permitted by local codes. Only use pipe of 1/2" or greater diameter to allow full gas volume to heater. Excessive pressure loss will occur if the pipe is too small.

A manual shutoff valve, union and plugged 1/8" NPT pressure tapping point must be installed upstream of the heater (FIGURE 8).

A sediment trap must be installed upstream of the heater to prevent moisture and contaminants from passing through the pipe to the heater controls and burners. Failure to do so could prevent the heater from operating reliably (FIGURE 8).



**IMPORTANT:** Loosen the pipe adapter on the flex tube before installing to the system piping.

FIGURE 8. Gas Connection

**CHECK GAS TYPE:** The gas supply must be the same as stated on heater's rating plate. If the gas supply is different, DO NOT INSTALL the heater. Contact your dealer for the correct model.

WARNING

Connecting directly to an unregulated propane/LPG tank can cause an explosion.

# GAS CONNECTION, CONTINUED ...

The gas inlet connection is 3/8" NPT, made at the rear of the main control. This unit comes with an 18" gas flex pipe attached to the control valve at the factory. Run gas line into firebox from either side and attach to gas flex pipe.

Test all gas joints from the gas meter to the heater for leaks using soap and water solution after completing connection. DO NOT USE AN OPEN FLAME.

Note: Gas Flex pipe can be ran to either side of the fireplace for ease of gas connection.

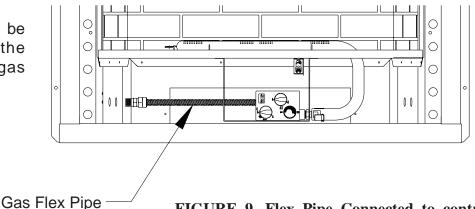


FIGURE 9. Flex Pipe Connected to control

# GAS PRESSURE CHECK

The heater regulator controls the burner pressure which should be checked at the pressure test point located on the right side of the main control and is accessible from the side of the gas log assembly (see FIGURE 10).

The pressure should be checked with the heater burning and the control set to high (HI).

The pressure regulator is preset and locked to avoid tampering. If the pressure is not as specified in Product Specifications (Page 2), contact your dealer and replace the regulator.

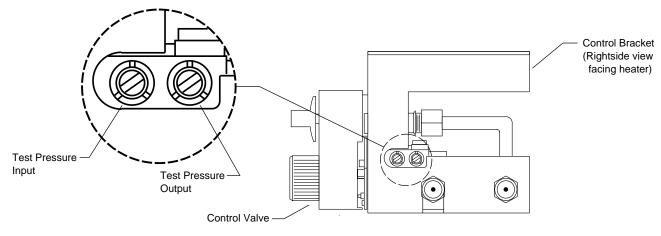


FIGURE 10 - Pressure Test Point Location

# MANTEL INSTALLATION

#### **Fireplace Installation Using Optional Mantel.**

This fireplace may be installed using the cabinet mantel with hearth base accessory against a wall in your home. You must use one of the Satin Black or Polished BrassTrim Kits available when installing your fireplace with the optional mantel kit. (See Accessories on page 28 & 29). **NOTE:** The Trim Kits provide a finished appearance covering rough and/or unfinished mantel edges.

**NOTE:** The instructions below show installation using the VFGO32M/VFUF32M series cabinet mantels and the VFGO32B/VFUF32B series hearth base accessories. The hearth base accessory shown is optional for this installation. You can install the fireplace and mantel directly on the floor. The VFUN32FM face mantel accessories cannot be installed with the VFGO32B/VFUN32B series hearth base. You must install the face mantels directly on the floor.

**NOTE:** If using the VFUF32FM series face mantel accessory, a wall recess opening will be needed. See installation instructions for VFUF32FM series face mantel accessory.

- 1. Assemble cabinet mantel, hearth base (optional), and trim accessories. Assembly instructions are included with each accessory.
- 2. If using an optional VF32B blower, install a properly grounded, 120 volt three-prong electrical outlet at firebox location if an outlet is not there. If possible, locate outlet so cabinet mantel will cover it when installed (see Figure 11, below).
- Install gas piping to fireplace location. For this installation you will need an approved flexible gas line (if allowed by local codes) and a manual shutoff valve. The flexible gas line must be the last item installed on the gas piping. See Connecting to Gas Supply on pages 14 & 15.

# **NOTICE**

A qualified service person must connect fireplace to gas supply. Follow all local codes.

4. Place (optional) hearth base accessory against wall at installation location. Cut an access hole in hearth top to run flexible gas line to fireplace (see Figure 11). Make sure to locate access hole so cabinet mantel will cover it when installed. Note: you can secure base to floor using wood screws. Countersink screw heads and putty over.

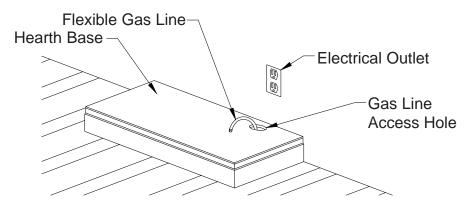


Figure 11 - Placing (optional) Hearth Base against wall

# MANTEL INSTALLATION CONTINUED

5. Center the unit on the Hearth Base. Run the Gas Line into the firebox. You can access beneath the firebox, to connect gas supply to control valve, from the left or right of the unit. Knock out the appropriate holes and run the flexible gas line into the fireplace and connect to the flexible gas line supplied with the fireplace.

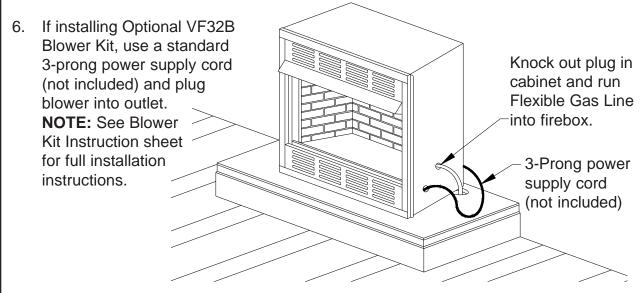
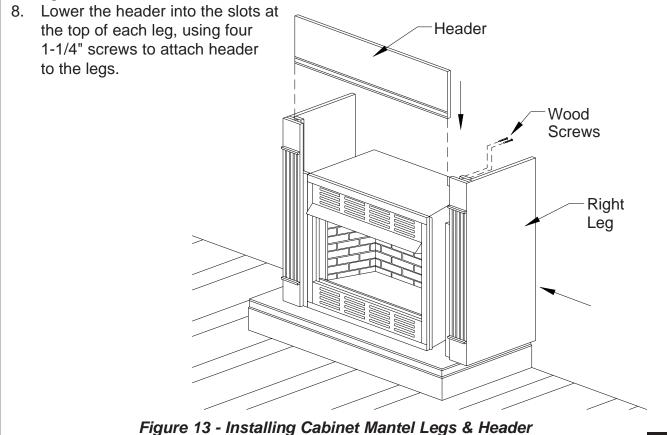


Figure 12 - Installing Firebox on Hearth Base

7. Place the Cabinet Mantel Legs on Hearth Base and slide each side firmly up against the unit (See Figure 13). NOTE: The Cabinet Mantel Legs and Hearth Base should be against the wall.



# MANTEL INSTALLATION CONTINUED

9. Lower Mantel top onto legs and header to complete installation of mantel.

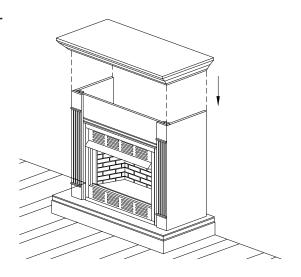


Figure 14 - Installing Mantel Top

# **BUILT-IN INSTALLATION**

#### **Built-in Fireplace Installation.**

Built-in installation of this fireplace involves installing the fireplace into a framed-in enclosure. This makes the front flush with the wall. If installing a mantel above the fireplace, you must follow the clearances shown in Figure 4, page 11. Follow the instructions below to install the fireplace in this manner.

	Height		Front Width		Depth	
Model #	Actual	Framing	Actual	Framing	Actual	Framing
VFZC32	35"	35-1/4"	35-3/8"	35-1/2"	17-3/8"	18"

1. Frame in rough opening. Use dimensions shown in Figure 15 for rough opening.

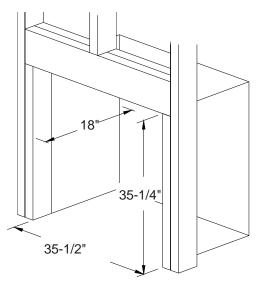


Figure 15 - Rough Opening for Installing in Wall

# **BUILT-IN INSTALLATION CONTINUED**

If installing in a corner, use the dimensions shown in *Figure 16* below for the rough opening. The height is 35", which is the same as the wall opening in *Figure 15*, page 18.

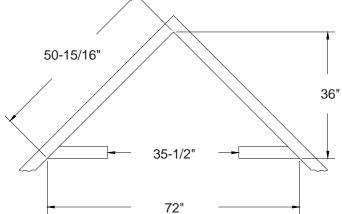
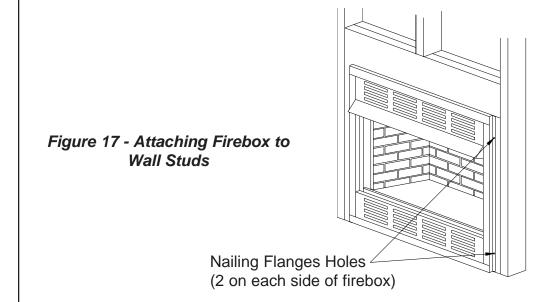


Figure 16 - Rough Opening for Installing in Corner.

- 2. Install gas piping to fireplace. NOTE: This unit give (2) options on where the gas line can be ran into the fireplace. Knock outs are provided on the left and right side of the cabinet and firebox for gas line connection. See Gas Connection, pages 15.
- 3. Carefully set the firebox in front of rough opening with back of firebox inside wall opening.
- 4. If using the VFZCB (optional) Blower Kit, see installation instructions included with blower.
- 5. Attach gas line to the flexible gas line provided with unit. See *Gas Connection*, pages 14-15.
- 6. Carefully insert firebox into rough opening.
- 7. Attach fireplace to wall studs using nails or wood screws through holes in nailing flange (see Figure 17).
- 8. Check all gas connections for leaks.
- 9. If using optional Trim Kit, install the trim after final finishing and/or painting of wall. See instructions included with Trim Kit for attaching trim. (See Optional Accessories, page 29 & 30, for the different kits available).



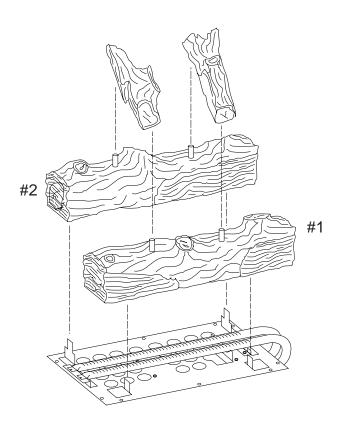
# LOG ASSEMBLY

#### LOG POSITIONING

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

#### PROPER INSTALLATION SEQUENCE:

- 1. Install the rear log (#2) on the rear set of locators. Visually check to verify the log is securely placed on the locators.
- 2. Install the front log (#1) on the front locators. Visually check to verify the log is securely placed on the locators.
- 3. Install the left and right cross twigs as illustrated, on the locator pins provided in the front and rear logs. Holes provided in the bottom of the cross twigs should allow them to seat completely over these pins.



WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

FIGURE 18 - Log Set Assembly

WARNING

The positioning of the logs is critical to the safe and clean operation of this heater. Sooting and other problems may result if the logs are not properly and firmly situated in the appliance. Never add additional logs or embellishments such as pine cones, vermiculite or rock wool to the heater.

# **OPERATING INSTRUCTIONS**

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

This vent-free gas heater is intended to be smokeless. If logs appear to smoke, turn off the heater and call a qualified service person. Initial burn off may cause slight smoke and odor during the first four hours of operation.

#### FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING

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

- A. This appliance is equipped with an ignition device (Piezo) which automatically lights the pilot. If Piezo fails, then light the pilot using matches. Refer to match lighting instructions (page 23). When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### WHAT TO DO IF YOU SMELL GAS

- Do not attempt to light any appliance.
- 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, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

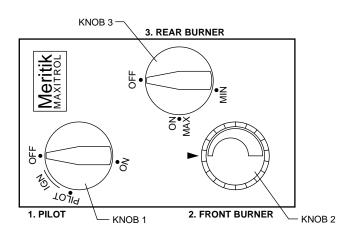
#### FOR YOUR SAFETY

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

# OPERATING INSTRUCTIONS, CONTINUED

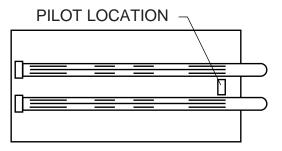
#### LIGHTING INSTRUCTIONS

- 1. STOP! Read the safety information on the previous page.
- 2. Turn off all electrical power and open the access door.
- 3. Turn off the rear burner and set the front burner to low.
- 4. Push in gas control (knob 1) slightly and turn clockwise to "OFF".



NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.

5. 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 on the previous page. If you don't smell gas, go on to the next step.



#### TOP VIEW OF BURNER ASSEMBLY

- 6. Push in the control (knob 1) all the way and rotate counterclockwise to "PILOT". The piezo ignitor will light the pilot as the knob passes "IGN" traveling to the "PILOT". Continue to hold the control (knob 1) in for about ten (10) seconds after the pilot is lit. Release knob and it should pop back up. Pilot should remain lit. If it goes out, repeat steps 4 through 6. If the control (knob 1) does not pop up when released, stop and immediately call your service technician or gas supplier. If the pilot will not stay lit after several tries, turn the gas control (knob 1) to "OFF" and call your service technician or your gas supplier.
- 7. Turn gas control (knob1) counterclockwise to "ON".
- Set the front burner (knob 2) to the desired setting rotating counterclockwise to MAX. and clockwise to MIN.
- Set the rear burner (knob 3) to the desired setting rotating counterclockwise to MAX./ ON or MIN.
- Close access door and turn on electrical power.

## TURN OFF GAS TO APPLIANCE

- 1. Open access door.
- 2. Set front burner to Min. and turn off the rear burner by depressing knob and rotating clockwise until stop.
- 3. Unplug all electric power (optional blower) if service is to be performed.
- 4. Push in gas control knob slightly and turn clockwise to "OFF". Do not force.
- 5. Close access door.

# OPERATING INSTRUCTIONS, CONTINUED

WARNING

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

#### MATCH LIGHTING INSTRUCTIONS

If the pilot will not light using the piezo ignitor, you can light the pilot with a match. First, locate the pilot. The pilot is located between the two burner tubes on the right end (facing the unit), inside the firebox. To light pilot with a match, move the gas control (knob 1, pg. 22) to the pilot position and hold down. Light match and place near pilot. Once pilot is lit, continue to hold the knob for about ten seconds. Then follow steps 7 thru 10 on page 22.

#### **CHECKING FLAME APPEARANCE**

Flames from the pilot, front and rear burner should be visually checked when the heater is installed. In addition a periodic visual check of the flames should be made.

#### PILOT FLAME

The pilot flame should always be present when the heater is in operation and should just touch the top of the thermocouple tip (FIGURE 19).

If the pilot flame does not touch the thermocouple, then the main burner is unlikely to function reliably (FIGURE 20).

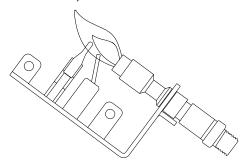


FIGURE 19 - Pilot Flame

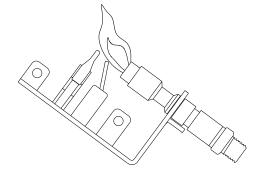


FIGURE 20 - Incorrect Shape of Pilot Flame

# **CLEANING / SERVICING**

Annual inspection and cleaning by your dealer or qualified service technician is recommended to prevent malfunction and/or sooting.

WARNING

Turn off heater and allow to cool before cleaning.

Remove logs, handling carefully by holding gently at each end. Gloves are recommended to prevent skin irritation from ceramic. If the skin becomes irritated, wash gently with soap and water. Refer to page 20 for correct log placement.

# CLEANING / SERVICING, CONTINUED

#### **Periodic Cleaning**

- Do not use cleaning fluid to clean logs or any part of heater.
- Logs Brush with soft bristle brush or vacuum with brush attachment.
- Vacuum loose particles and dust from the front and rear burner, control, and piezo.
- Inspect burner's and air intake hole. Remove lint or particles with vacuum.
- External case should be dusted and wiped with a wet soapy cloth.

#### Annual Cleaning/Inspection

- Inspect and clean burner air intake holes.
- Inspect and clean all burner ports.
- Inspect ODS pilot for operation and accumulation of lint at air intake holes.
- Verify flame pattern and log placement for proper operation.
- Verify smooth and responsive ignition of main burner and rear burner.

In normal operation at full rate after 15 minutes the following flame appearance should be observed.

# FLAME APPEARANCE

#### **FLAMES**

The flames behind log #1, and in front of log #2, should be yellow with a blue base. The flames should not be impinging on the small cross twigs. (See Below, Figure 21)

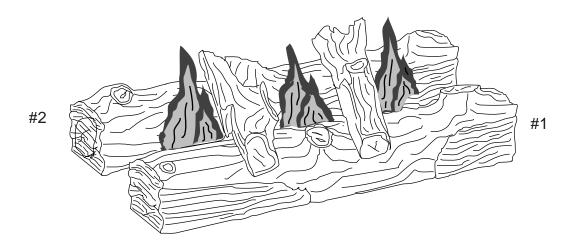
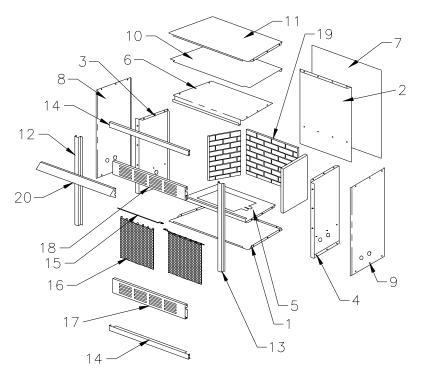


FIGURE 21 - Flames, Natural Gas and LP Gas

# PARTS DIAGRAM AND PARTS LIST



KEY	DESCRIPTION	PART#	QTY.
1	CABINET BOTTOM 24651		1
2	FIREBOX BACK	24652	1
3	FIREBOX LEFT SIDE	24653	1
4	FIREBOX RIGHT SIDE	24654	1
5	FIREBOX BOTTOM	24655	1
6	FIREBOX TOP	24656	1
7	CABINET BACK	24657	1
8	CABINET LEFT SIDE	24658	1
9	CABINET RIGHT SIDE	24659	1
10	INNER TOP	24660	1
*	INSULATION	24661	1
11	CABINET TOP	24662	1
12	LEFT SIDE TRIM	24670	1
13	RIGHT SIDE TRIM	24671	1
14	TOP/BOTTOM TRIM	24663	2
15	CURTAIN ROD	24695	2
16	FIREPLACE SCREEN	89896	2
17	LOWER GRILL	24664	1
•	BRASS KNOB	89899	1
•	8-32 X 3/8 MS SCREW	83323	1
18	TOP GRILL	24665	1
•	SHOULDER SCREW	83477	12
19	BRICK PANEL SET 89		1
-	BACK BRICK PANEL 898		1
-	SIDE BRICK PANEL	89890	2
•	BRICK BRACKET	24650	3
20	HOOD	24666	1

Not Shown

# GENERATOR ASSEMBLY PARTS DIAGRAM 19 18 26

# GENERATOR ASSEMBLY PARTS LIST

VEV	DADT #	DESCRIPTION	OTV
KEY	PART#	DESCRIPTION	QTY.
1	24610	BURNER PLATE	1
2	24611	CONTROL BRACKET	1
3	81193	CONTROL VALVE (NATURAL)	1
	81194	CONTROL VALVE (L.P.)	1
4	83251	10-24 x 1 SL ROD	2
5	83244	10-24 KEP NUT	2
•	83343	#10 X 1/2 HX HD SCREW	10
6	89831	BURNER/CONTROL FITTING	1
7	89834	1/4" TUBE, BURNER	1
8	89838	1/4 CC X 3/8-27 FITTING	1
9	89839	1/4 COMPRESSION NUT	1
10	89840	1/4 COMPRESSION SLEEVE	1
11	24612	PILOT BRACKET	1
12	89900	"O.P. AMERICA" NAT. PILOT	1
	89873	"O.P. AMERICA" L.P. PILOT	1
•	83437	10-3/4 HX HD SCREW (TO MOUNT PILOT)	2
13	89841	3/16 COMPRESSION NUT	1
14	89842	3/16 COMPRESSION SLEEVE	1
15	89853	#50 NATURAL BURNER ORIFICE(FRONT)	1
	89854	#56 L.P. BURNER ORIFICE (FRONT)	1
16	89853	#50 NATURAL BURNER ORIFICE(REAR)	1
	89854	#56 L.P. BURNER ORIFICE (REAR)	1
17	24613	BURNER (PAINTED)	2
18	89874	LOG SET (CONSISTS OF 4 PIECES)	1
а	89874-1	FRONT LOG	-
b	89874-2	REAR LOG	-
С	89874-3	RIGHT TWIG	-
d	89874-4	LEFT TWIG	-
19	89856	3/16" LOXIT FITTING	1
•	86318	16GA WIRE LINK	1FT.
20	89855	PILOT TUBE	1
	89728	GAS FLEX PIPE	

• = NOT SHOWN

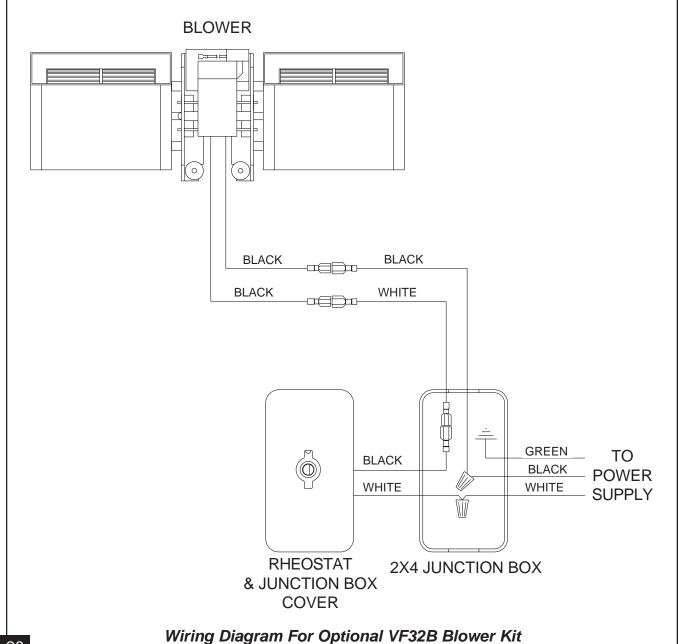
# VF32B BLOWER KIT, WIRING DIAGRAM

#### Installing the Optional VF32B Blower Kit.

You may install the VF32B Blower Kit in the VFZC32 Vent-free Gas Fireplace. Each Blower Kit includes the following:

- 1- 120 CFM Blower
- 1 Blower Box
- 1- Manual fan control switch
- 1- Parts bag
- 1- Installation Instruction sheet

The Blower will aid in the distribution and circulation of the heat throughout the heating area. **NOTE:** Install blower assembly per instruction sheet included in Blower Kit.

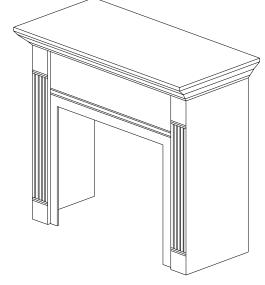


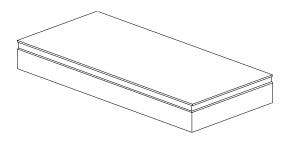
# **OPTIONAL ACCESSORIES**

You may purchase these fireplace accessories from your local dealer. If they can not supply these accessories, call United States Stove Company's Sales Department at 1-423-837-2100 for information. You can also write to the address listed on the back page of this manual.

#### CABINET MANTEL

Model VFGO32M Golden Oak Cabinet Mantel
Model VFUF32M Unfinished Cabinet Mantel





#### **HEARTH BASE**

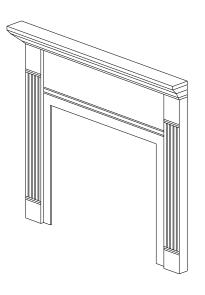
Model VFGO32B Golden Oak Hearth Base
Model VFUF32B Unfinished Hearth Base

The hearth base creates a handsome riser for the firebox (cannot be used with the face mantel).



Model VFUN32FM -

Unfinished Face Mantel Designed for use with recessed applications.

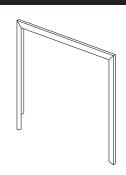


Drawings are for illustration purposes only. Actual product may very in appearance.

# **OPTIONAL ACCESSORIES**

#### **ALUMINUM TRIM KITS**

Model VF32PB - Polished Brass Trim Kit Model VF32SB - Satin Black Trim Kit The Trim Kits must be used when installing firebox with Cabinet Mantel or Face Mantel.



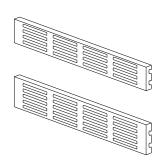


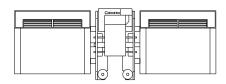
#### **BRASS HOOD**

Model VF32BH for use with VFZC36 Firebox.

#### LOUVERED GRILL KITS

Model VF32BL - Brass Louvered Grills Black Louvered Grills are shipped with the fireplace, but the Brass Louvered Grills add an extra touch of class to the fireplace.





#### **BLOWER ACCESSORY**

Model VF32B - Blower Kit The variable blower allows you to select the desired speed. The blower circulates heated air from the fireplace into the room.

#### WALL SWITCH ACCESSORY

Model VF32WS - Wall Switch Kit The Wall Switch accessory will give you control over the main burner functions. (i.e. ON, OFF, HIGH, LOW, ETC.)

#### REMOTE CONTROL ACCESSORY

Model VF32RC - Remote Control Kit The Remote Control accessory will give you remote control of the main burner functions. (i.e. ON, OFF, HIGH, LOW, ETC.)

Drawings are for illustration purposes only. Actual product may very in appearance.

# **HOW TO ORDER REPAIR PARTS**

This Manual will help you obtain efficient, dependable service from your Vent-Free Zero-Clearance Gas Fireplace, and enable you to order repair parts.

Keep this manual in a safe place for future reference.

When writing, always give the full model number which is on the nameplate attached to the fireplace.

When ordering repair parts or options, always give the following information as shown in this list:

- 1. The PART NUMBER
- 2. The PART DESCRIPTION
- 3. The MODEL NUMBER: VFZC32
- 4. The SERIAL NUMBER \_\_\_\_\_

Before installing this fireplace, fill in the serial number in the space provided for your records.

# UNITED STATES STOVE COMPANY

227 INDUSTRIAL PARK ROAD P.O.BOX 151 SOUTH PITTSBURGH, TN 37380 (423) 837-2100



# Keeping America Warm Since 1869

# VFZC32 Owner's Manual

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