



UNVENTED (VENT-FREE) FIREBOX Circulating Models

Listed Certified for USA
FVF300

FVFB300MVN, FVFB300MVP Burner Systems are approved to
ANSI Z21.11.2b – 1998, ANSI Z21.11.2 – 1996 for the FVF300 Vent Free Firebox only

Owner's Operation and Installation Manual



This appliance must be installed by a licensed plumber or gas fitter in the Commonwealth of Massachusetts and meet the requirements of 527 CMR 30 and 248 CMR.

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.

Warning

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

Warning

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which installed. Provisions for adequate combustion and ventilation must be provided. Refer to Page 11.

Warning

The FVF300 Firebox is to be used only with certain vent-free gas log heaters (see table 1, Page 4). Do not burn wood or other materials in these fireboxes.



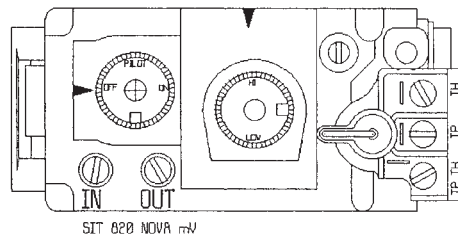
WARNING:

PLEASE VERIFY THE FOLLOWING STEPS ARE TAKEN WHEN INSTALLING A VENT FREE BURNER SYSTEM.

STEP 1: WHEN INSTALLING BURNER SYSTEMS, VERIFY THAT THE SERIAL NUMBER PLATE AND YELLOW BURNER INSPECTION TAG (LOCATED NEAR VALVE) ARE THE SAME TYPE OF GAS. SHOULD THE GAS TYPE NOT BE SAME, RETURN THE BURNER SYSTEM TO WHOM YOU PURCHASED IT FROM, AND ASK FOR A REPLACEMENT.

STEP 2: VERIFY THE WATER COLUMN PRESSURE (IN/OUT). (IF YOU DON'T KNOW HOW TO CHECK WATER COLUMN PRESSURE YOU SHOULD NOT BE INSTALLING THIS PRODUCT, CONTACT A LICENSED GAS FITTER.) THE OUTLET PRESSURE IS REQUIRED NOT TO EXCEED THE FACTORY SETTINGS. ADJUST PROPANE AT THE REGULATOR IF PRESSURES EXCEED THOSE RECOMMENDED, IF THE NATURAL GAS PRESSURE IS ABOVE 3 1/2" CONTACT THE FACTORY OR SALES REPRESENTATIVE WITH YOUR READING BEFORE YOU USE THE BURNER SYSTEM.

<u>TYPE OF GAS</u>	<u>INLET</u>	<u>OUTLET</u>
PROPANE	11"	10"
NATURAL GAS	5 1/2 - 7"	3 1/2"



STEP 3: THE POSITIONING OF THE LOGS IS CRITICAL FOR SAFE AND CLEAN OPERATION OF THIS HEATER. SOOTING AND OTHER PROBLEMS CAN OCCUR IF THE LOGS ARE NOT PROPERLY AND FIRMLY POSITIONED AS INSTRUCTED IN MANUAL. DO NOT ATTEMPT TO INSTALL LOGS IF THEY ARE DAMAGED OR BROKEN.

FAILURE TO FOLLOW AND COMPLY WITH THESE STEPS CAN CAUSE SOOTING AND KINGSMAN FIREPLACES WILL NOT BE RESPONSIBLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OR EXPENSES IN CONNECTION WITH ANY USE OR FAILURE OF THE VENT FREE BURNER SYSTEM.

READ OWNERS MANUAL CAREFULLY AND COMPLETELY BEFORE TRYING TO ASSEMBLE OPERATE, OR SERVICE THIS APPLIANCE.

PRE-INSTALLATION QUESTIONS and ANSWERS

Why does my fireplace or stove give off odour?

It is normal for your fireplace to give off some odour. This is due to the curing of the paint, adhesives, silicones and any undetected oil from the manufacturing process as well as the finishing materials used with the installations (e.g. marble, tile and the adhesives used to adhere this product to the walls can react with heat and cause odours).

It is recommended that you burn your gas fireplace or stove for a minimum of four hours at a time with the fan off after the curing of the paint has been completed. These odours can last upward to 40 hours of burn time, keep burning at a minimum of four hours per use until odours dissipate.

About curing of the paint

Your stove or fireplace has been painted with the highest quality silicone stove paint. This paint dries quickly in 15-20 minutes when first applied at the factory. However, due to the high temperature silicone components, the paint will cure when heat is applied to the appliance as it is first used.

The following information **applies to the curing process** to get the paint fully hard and durable.

Fire the appliance four successive times for 10 minutes each firing and a 5 minute cool down between each. Be aware during log and firebox paint curing that a white deposit may be developing on the inside of the glass doors. It is important to remove this white deposit from the glass doors with an appropriate cleaner to prevent build-up (such as Windex or a commercial fireplace glass cleaner).

- Babies, small children, pregnant women and pets should leave the area during the cure phase.
- Ventilate well, open doors and windows.
- Do not touch during curing.

Noise coming from the fireplace?

- Noise caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of your fireplace.

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BURNER SYSTEM OPTIONS

The appropriate burner system must be ordered for each firebox, see chart below for required burner system and logset.

TABLE 1

FVF300 Vent Free Firebox

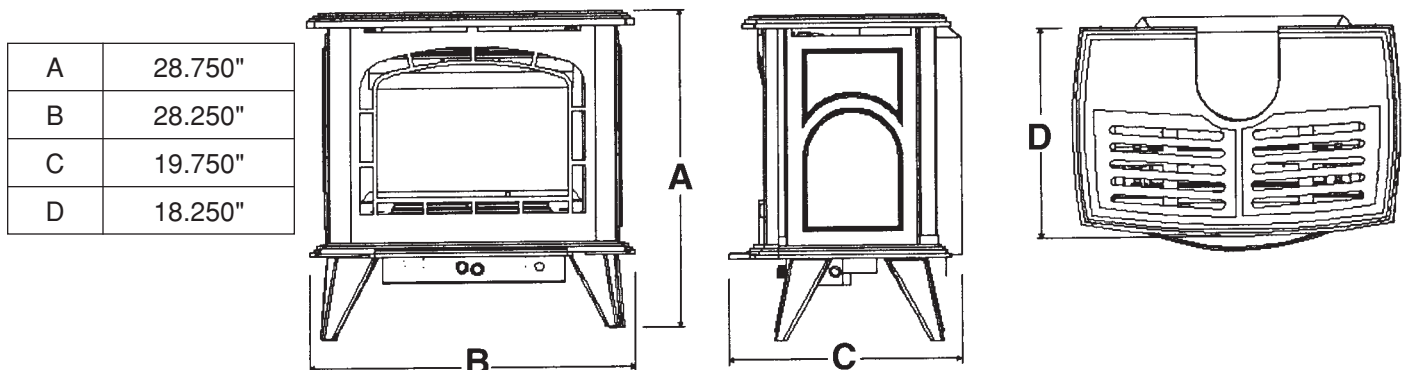
Required Burner system: (Select from below to complete the stove)

Burner Systems – Controls are hidden and accessed through bottom access door

Burner Model	Valve Type	Fuel Type	BTU Input	Min./Max. Inlet	Manifold Pressure	Orifice Size	Primary Air
FVFB300MVN	Millivolt	Natural Gas	38,000	5.5/10"	1.6 - 3.5"	31	0.25"
FVFB300MVP	Millivolt	Liquid Propane	40,000	11/13"	6.3 - 10"	49	Full Open

Product Number	Description
FVF300	FREE STANDING VENT FREE CAST IRON GAS STOVES Listed for USA as a Vent Free Firebox, with Pull Screens
FVF300	Free Standing Cast Stove - (as above) - Black
FVF300AL	Free Standing Cast Stove - (as above) - Porcelain Almond
FVF300BL	Free Standing Cast Stove - (as above) - Porcelain Black
FVF300 GR	Free Standing Cast Stove - (as above) - Porcelain Green
	BURNER SYSTEM (REQUIRED FOR FVF300 STOVE)
<i>FVFB300MVN</i>	Vent Free Burner System - Millivolt Valve 37,500 BTU/HR Natural Gas
<i>FVFB300MVP</i>	Vent Free Burner System - Millivolt Valve 40,000 BTU/HR Liquid Propane
	LOG SET: (REQUIRED FOR EACH UNIT)
LOGF35	Log Set - Fibre Split Oak (F350)
	ACCESSORIES:
F35FK	Fan Kit w/Variable Speed Control (Temperature Sensing)
FVF300RL	Refractory Liner
Z1MT	Thermostat Millivolt Wall Mount
Z80PT	Thermostat Programmable Digital Millivolt Wall Mount (1F80-40)
Z1RC	Remote Control Millivolt (On/Off with LED) (Model I)
ZART	Remote Control Thermostat Millivolt (Model K)
<i>DCHS</i>	Remote Control Heatshield

SPECIFICATIONS



SAFETY INFORMATION WARNINGS

WARNINGS

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

Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, and / or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Turn off gas appliance. Have appliance serviced. Some people (such as pregnant women, persons with heart or lung disease, persons with anemia and those at high altitudes) are more affected by carbon monoxide than others. Make certain you read and understand all warnings.

 **DANGER**
**CARBON MONOXIDE POISONING
MAY LEAD TO DEATH!**

1. Use correct gas type for your appliance. Do not convert from one gas type to another.
2. If this appliance is for use with Propane gas, do not place propane supply tank(s) inside any structure. Locate propane supply tank(s) outdoors.
3. If you smell gas:
 - Shut off gas supply.
 - 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.
4. Do not use this appliance for burning trash or cooking. Never place matches, paper, garbage, or any other material on top of logs or logs into flame.
5. Always operate appliance with front fireplace screens closed.
6. Make sure any safety screen or guard removed for servicing is in place before running appliance.
7. Never run appliance in a small, closed room. Open the door into next room to help ventilate.
8. If appliance shuts off, do not relight until you provide fresh outside air. If appliance keeps shutting off, have it serviced.
9. Do not run appliance:
 - where flammable liquids or vapors are used or stored.
 - under dusty conditions.
10. Surface of appliance becomes very hot when operating. Keep children and adults away from hot surface. Appliance will remain hot for some time after shutdown. Allow surface to cool before touching.
11. Do not use this appliance if any part has been submerged under water. Immediately call a qualified technician to inspect the appliance and to replace any part of the control system and gas control which has been under water.
12. The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1.
13. Never install the appliance:
 - in a bedroom, bathroom, mobile home, or recreational vehicle.
 - where curtains, furniture, clothing, or other flammable objects are less than forty-two inches (42") from the front of the appliance.
 - in high traffic areas.
 - in windy or drafty areas.
14. Disconnect the appliance and its individual shut off valve from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig, (3.5kPa).

SAFETY INFORMATION WARNINGS Cont.

15. Isolate the appliance from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the the gas supply piping system at test pressure equal or less than 1/2 psig.
16. Do not use any type of after-market blower that fits inside the fireplace. Drafts created by these type of blowers may cause sooting.
17. Turn off appliance and let cool before servicing. Only a qualified service person should install, service and repair appliance.
18. Inspect the appliance before use and at least annually by a professional service person. Frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is important that control compartment, burner and circulating air passage of the appliance be kept open.
19. When operated for the first time, there will be some smell from the appliance. This will diminish and disappear after a few hours of operation.
20. **Warning:** Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter flame patterns.
21. **Warning:** Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.
22. The firebox canopy must not be replaced with a canopy which may be provided with the decorative type UNVENTED room heater.
23. **Warning:** Do not operate ceiling fans in same room as the vent free appliance.
24. Keep burner and control compartment clean. See installation and operating instructions accompanying heater.
25. Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.
26. Young children should be carefully supervised when they are in the same room with the appliance.
27. Must be installed by a licenced gasfitter in the Commonwealth of Massachusetts. Complies to code 527CMR.

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 Electrical Code, ANSI/NFPA 70 (latest edition).

*Available from:

American National Standards Institute, Inc.
National Fire Protection Association, Inc.
1430 Broadway
Batterymarch Park
New York, NY 10018
Quincy, MA 02260

WARNING

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

FOR YOUR SAFETY READ BEFORE LIGHTING

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **Before lighting**, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
What to do if you smell gas
 - Do not try to light any appliance.
 - Do not touch any 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 or gas supplier. 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.

AIR FOR COMBUSTION AND VENTILATION

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.

WARNING

This firebox 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.

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 are excerpts from *National Fuel Gas Code, NFPA 54/ANSI Z223.1, 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 9 through 11](#) 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 building of usually 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 (6 x 10⁻¹¹ per pasc-m²) or less with openings gasketed or sealed and
- 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 11](#).

Confined 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 (4.8 m³ 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 AIR FLOW FOR FIREBOX LOCATION

Determining if You Have a Confined or Unconfined Space

Use the work sheet on the next page to determine if you have a confined or unconfined space.

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

AIR FOR COMBUSTION AND VENTILATION Cont.

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 22ft. (length) x 18 ft. (width) x 8 ft. (ceiling height) = 3168 cu. ft. (volume of space)

If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Divide the space volume by 50 cubic feet to determine the maximum Btu/Hr the space can support.
 _____ (volume of space) ÷ 50 cu. ft. = 63.3 or 63,300 (maximum Btu/Hr the space can support)
3. Add the Btu/Hr of all fuel burning appliances in the space.

Vent-free firebox	_____	Btu/Hr
Gas water heater*	_____	Btu/Hr
Gas furnace	_____	Btu/Hr
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. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.
 _____ Btu/Hr (maximum the space can support)
 _____ Btu/Hr (actual amount of Btu/Hr used)

Example: 63,300 Btu/Hr (maximum the space can support)
 79,000 Btu/Hr (actual amount of Btu/Hr used)

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

- A. Rework work sheet, 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 10.
- B. Vent room directly to the outdoors. See *ventilation Air from Outdoors*, page 11.
- 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.

AIR FOR COMBUSTION AND VENTILATION Cont.

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 on the wall connecting the two spaces. You can also remove door into adjoining room. Follow the *National Fuel Gas Code NFPA 54/ANSIZ223.1, Section 5.3, Air for Combustion and Ventilation* for required size of 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.

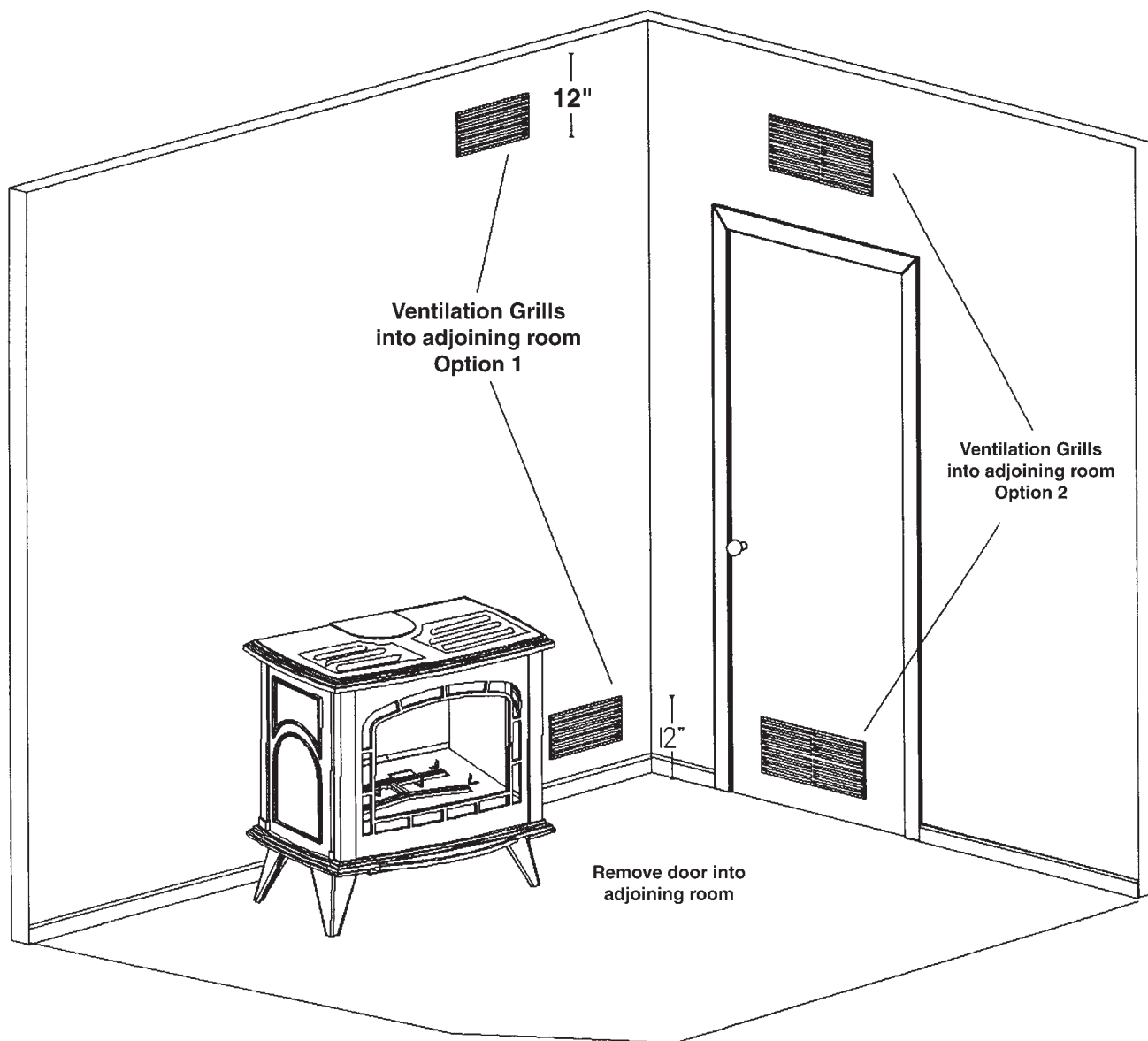


FIGURE 5 - Ventilation Air from Inside Building

AIR FOR COMBUSTION AND VENTILATION Cont.

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.

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

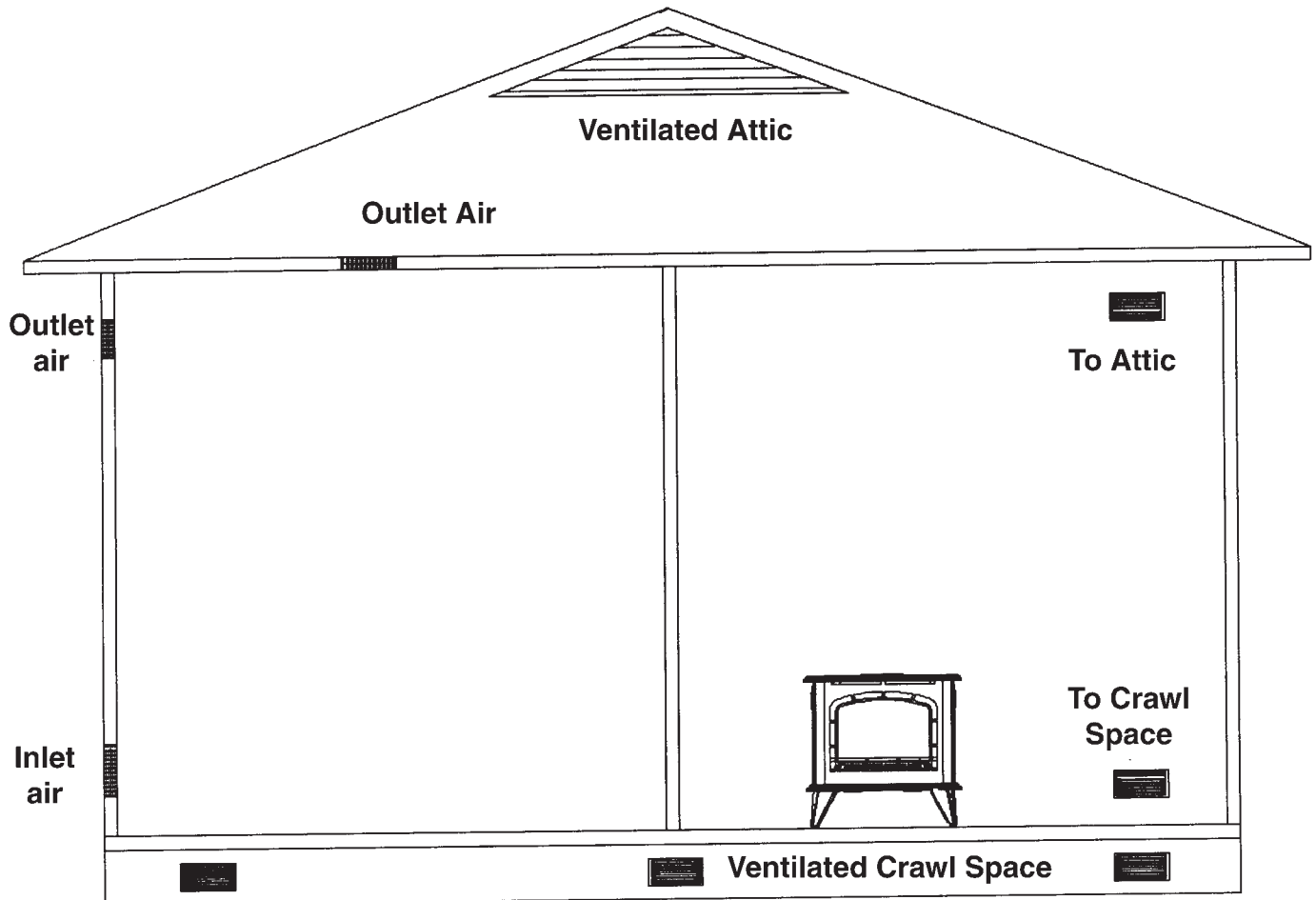


FIGURE 6 - Ventilation Air from Outdoors

Vertical Venting in Cold Climates

In cold climate conditions where temperatures go below -10 degrees Celsius or 14 degrees Fahrenheit, we recommend that the chase be insulated and where the vent pipe enters into the attic space that the pipe be wrapped with an insulated mylar sleeve. This will increase the temperature of the vent and help the appliance to vent properly in cold weather conditions.

It is also important in vertical vented direct vent appliances that the appliance be operated daily during the winter months as this will help stop the Termination from freezing up. We recommend using a thermostat set at room temperature to allow the unit to cycle.

INSTALLING – Clearances

NOTICE

A qualified service person must install firebox. Follow all local codes.

WARNING

Never install the firebox

- in a bedroom or bathroom
- in a recreational vehicle
- where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the firebox
- in high traffic areas
- in windy or drafty areas

IMPORTANT: Vent-free gas log heaters add moisture to the air. Although this is beneficial, installing firebox in rooms without enough ventilation air may cause mildew to form from too much moisture. See *Air for Combustion and Ventilation*, pages 8 through 11.

IMPORTANT: Make sure the firebox is level. If firebox is not level, log set will not work properly.

INSTALLATION CLEARANCES

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

Minimum Wall and Ceiling Clearances

- Clearances from the firebox to adjacent wall should not be less than 6 inches.
- Clearance from the back of the stove to the rear wall should not be less than 3 inches.
- Clearance from the side of unit in corner (45 degree installation) is 3" inches.
- Clearance from top of stove is 41 inches.

WARNING

Ensure the minimum clearances shown in Figure 7 are maintained. Left and right clearances are determined when facing the front of the heater.

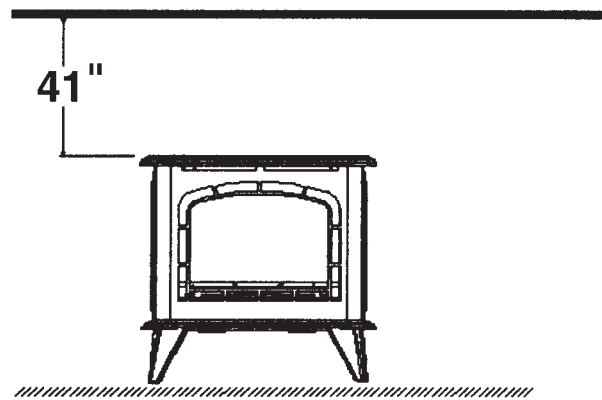
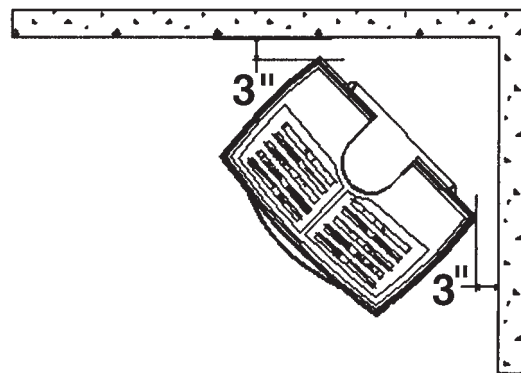
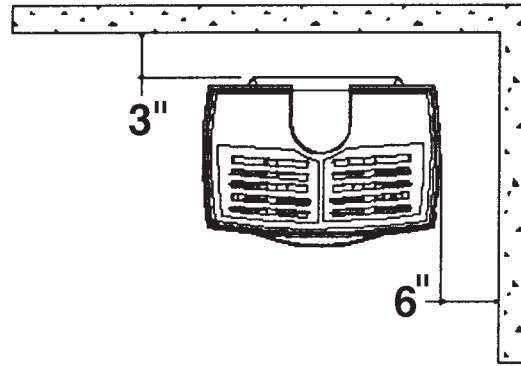


FIGURE 7 – Minimum Clearances - Top and Sides of Room Heater to Ceiling and Walls.

WARNING

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

INSTALLING

CAUTION

Log heaters installed in this firebox create warm air currents. These currents move heat to wall surfaces next to firebox. Installing firebox next to vinyl or cloth wall coverings or operating firebox where impurities in the air (such as tobacco smoke) exist, may discolor walls.

WARNING

Never modify or cover the louvered slots on the front of the firebox.

CAUTION

Use new black 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 tap pointer must be installed upstream of the heater.

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.

NOTICE

A qualified service person must install firebox. Follow all local codes.

WARNING

Any changes to this heater or its controls can be dangerous.

NOTICE

Installation and repair should be done by a qualified service person well trained in the installation of such appliances. You will also need a building permit from your local Building Commissioner before installing this appliance, otherwise your insurance company may not cover this appliance.

DANGER

**CARBON MONOXIDE POISONING
MAY LEAD TO DEATH!**

INSTALLING – Gas Line

INSTALLING GAS LINE

Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, and / or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Turn off gas appliance. Have appliance serviced. Some people (such as pregnant women, persons with heart or lung disease, persons with anemia and those at high altitudes) are more affected by carbon monoxide than others. Make certain you read and understand all warnings. Place Burner Base or Grate Assembly in center of firebox and connect flexible gas line to incoming black iron pipe gas line.

Do not connect appliance before pressure testing gas piping. Damage to gas valve may result and an unsafe condition may be caused.

Prepare incoming black iron gas line with **Teflon tape** or **pipe joint compound** (check with local codes about the use of Teflon tape). Compounds used on threaded joints of gas piping shall be resistant to the action of Liquefied Petroleum (LP or Propane) and should be applied lightly to ensure excess sealant does not enter the gas line.

Complete your gas installation by connecting incoming gas line to regulator. Secure all joints tightly with wrench but **do not over-tighten**. If a flexible gas line is used, take care not to kink connector. The burner pressure is controlled by the regulator. Check pressure at the pressure test point, which is located on the side of the gas control near the pilot outlet. Make sure that the pressure tap is completely closed after checking gas pressure. The pressure should be checked with the appliance burning and the control set on high.

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

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

For the state of Massachusetts a **T-handle gas shut-off valve** must be used on a gas appliance. This T-handle gas shut-off valve must be listed and approved by the state of Massachusetts. This is in reference to the state of Massachusetts state code CMR238.

CAUTION

All gas piping and connections must be tested for leaks after installation is completed. To test, turn gas valve on, then apply a soap and water solution to all connections and joints. If bubbles appear, leak can be detected and corrected. **Never use an open flame for leak testing. Never operate any appliance if a leak is detected!**

CAUTION

Any safety screen or guard removed for servicing an appliance must be replaced prior to operating the heater.

NOTICE

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

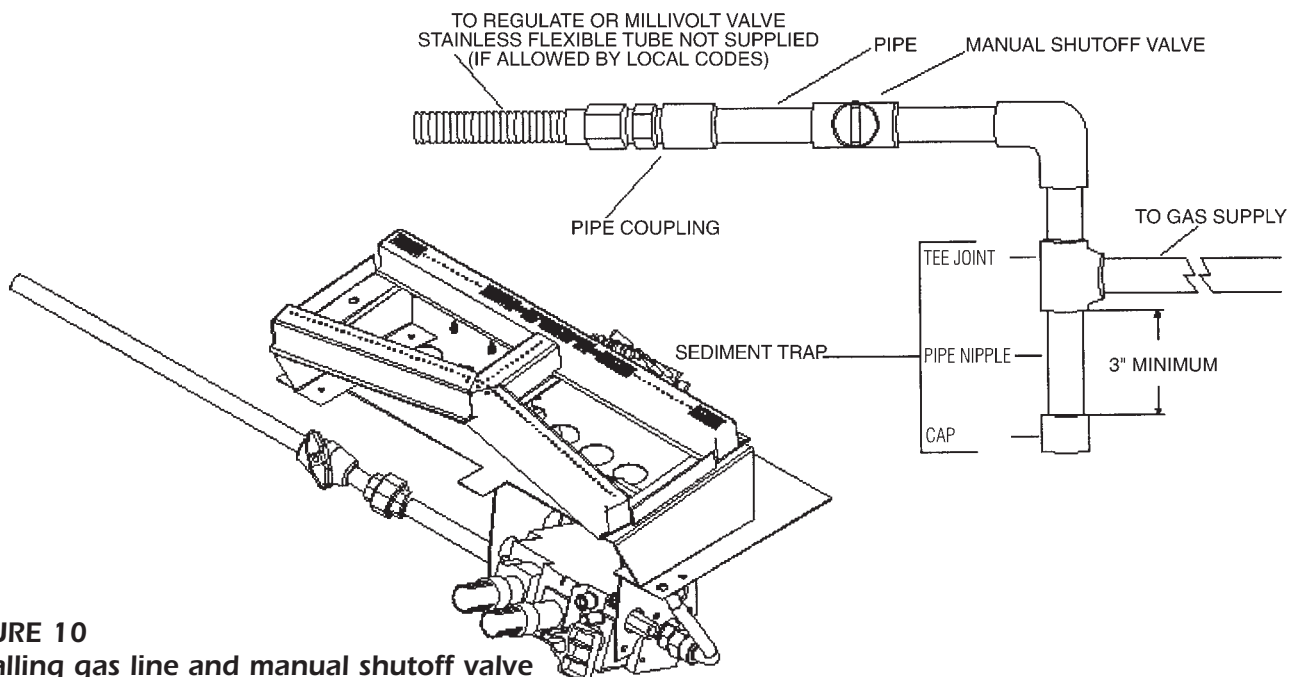


FIGURE 10
Installing gas line and manual shutoff valve

INSTALLING – Burner Systems

CLEANING AND SERVICING OF BURNER / ODS PILOT

It is recommended to annually inspect and clean the unit to prevent malfunction and / or sooting. This operation should be performed by your dealer or a qualified technician.

1. Remove door. (Refer to *Installation of Door*.)
2. Remove log set, handling carefully by holding gently at each end. (Refer to *Log Placement*.) Gloves are recommended to prevent skin irritation from ceramic.

Annual Cleaning / Inspection

- Do not use cleaning fluids to clean logs or any part of the heater.
- Use a soft bristle brush or a vacuum with brush attachment.
- Vacuum loose particles and dust from burner ports, valve and blower compartments.
- Vacuum any accumulation of lint from primary mixing tube.
- Inspect ODS pilot for operation, accumulation of lint at the air inlet holes.
- Verify flame pattern and log placement for proper operation.
- Verify that all ports ignite and cross over smoothly from rear to front burner.

WARNING

Turn off heater and allow to cool before cleaning. Only a qualified service technician should service and repair appliance.

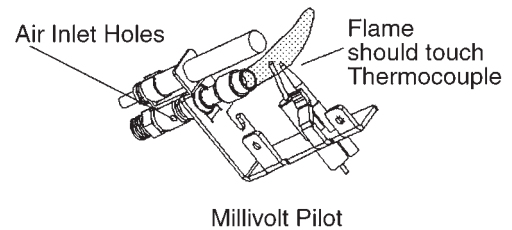


FIGURE 11 – Manual and Millivolt Pilot Flames

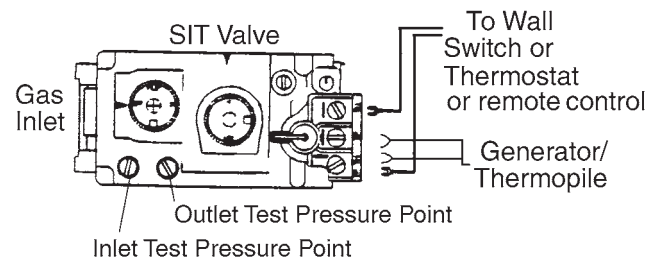
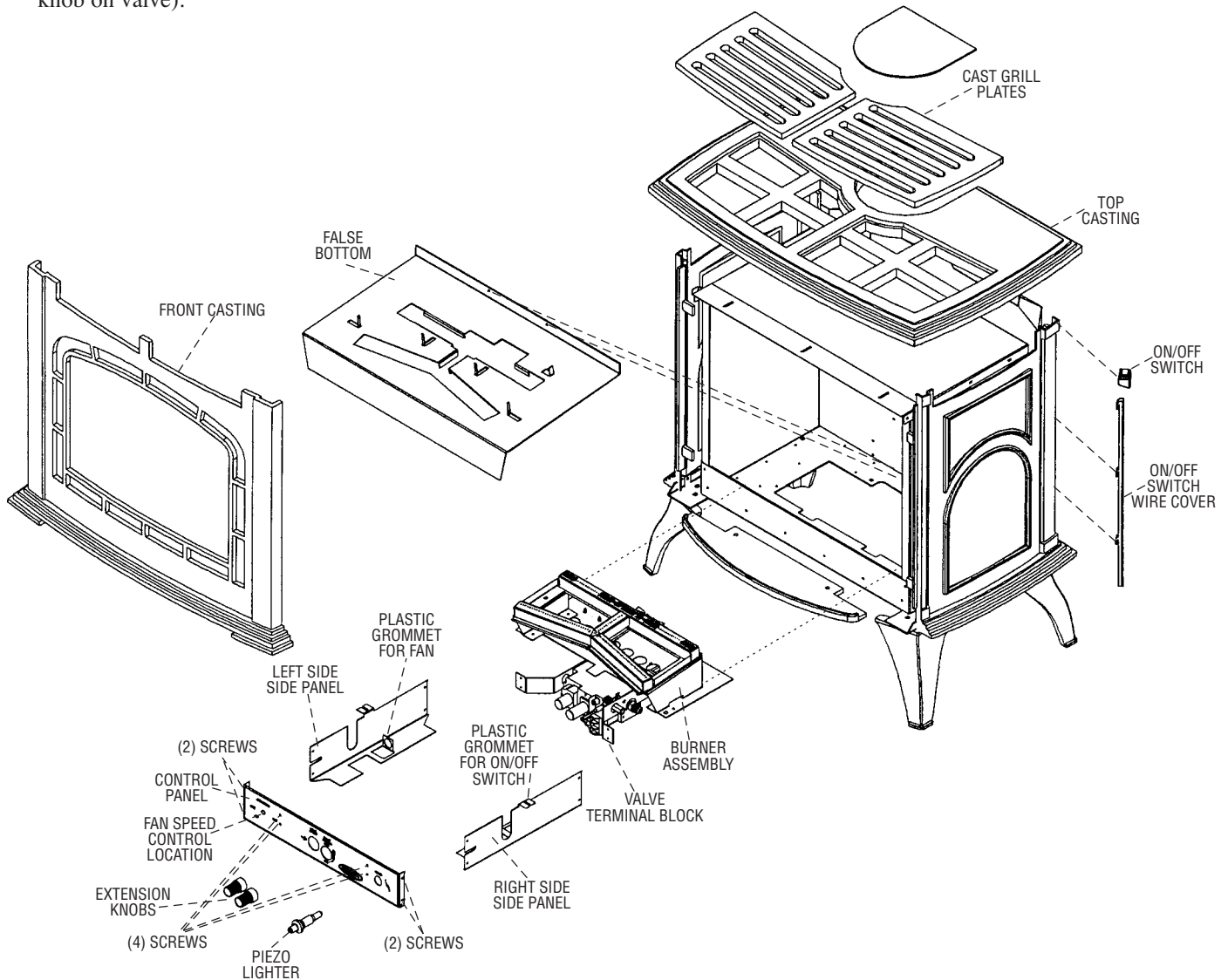


FIGURE 12 – Millivolt Models

FVF300 Burner System Installation

1. If installed, remove the top grill plates, the top casting, and front casting by simply lifting upwards.
2. Remove front control panel from the base of the stove by loosening the two screws on either side of the control panel and remove the four hex screws located on the front face of the control panel.
3. Remove the two hex screws from the back edge of the false bottom and then remove the false bottom from the stove. False bottom may need to be rotated slightly for removal.
4. Place the burner assembly into the stove by slightly rotating it towards yourself. Be careful not to disturb any of the pilot or valve tubing. Secure the burner to the stove using the four hex screws that are supplied. There is one hole on each side and two along the back.
5. Use the two hex screws removed in Step 3 and re-install false bottom to its original position.
6. After the burner assembly and false bottom are secure, it is recommended to install the gas line (see gas line instructions in manual).
7. Once the gas line is connected, the piezo wire can be attached. This is done by locating the single wire lead from the pilot system and attaching it to the piezo ignitor. For the on/off switch, locate the two wires leading down the back corner of the unit. Route the two on/off switch wires through the right side panel grommet. Connect one wire to the TP terminal on the valve and the other to the TPTH terminal (see installation manual for more info). Please note, if fan kit option has been purchased see fan kit installation instructions at this time to install the fan kit. Once all wiring is connected, line up control panel and install using the four hex screws that you removed in Step 2. Secure in place.
8. Install the extension knobs by matching the symbol on the knobs to the corresponding one on the valve (on/off goes on on/off knob on valve).



LOG ASSEMBLY FOR FVF300

If installing optional brick liner, proceed to [page 19](#) before installing log set.

Fig. 1. Remove front door as described on [page 16](#).

Fig. 2. Remove logs from carton (3) and inspect. The logs are lettered A, B, and C. Log strip D is shipped with the stove.

Fig. 3. Log A has 2 locating holes. Position the 2 holes on the log over the 2 pins on the left side of the log mounting pan as shown in the picture.

Fig. 4. Log B has 2 locating holes. Position the 2 holes on the log over the 2 pins on the right side of the log mounting pan as shown in the picture.

Fig. 5. Log C has to be lowered into position just behind logs A and B. Center Log C with rear burner tube.

Fig. 6. Position Log D up against logs A and B as shown in the picture.

Fig. 1

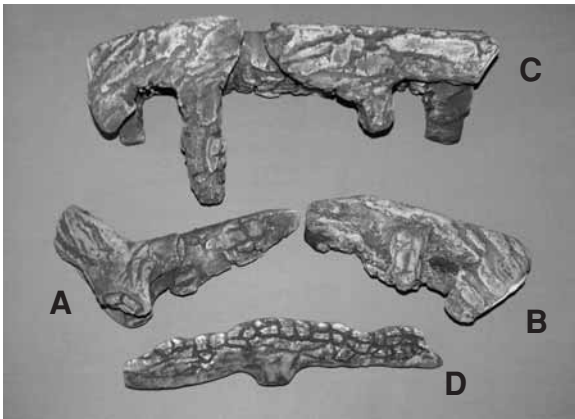


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



LIGHTING INSTRUCTIONS

LIGHTING INSTRUCTIONS

1. Stop. Read safety information on [page 6](#).
2. Open access door on bottom.
3. Push gas control knob in slightly and turn clockwise to "OFF".
NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
4. Wait five (5) minutes to clear out any gas remaining in burner combustion chamber.
5. Turn knob on gas control counter-clockwise to "PILOT".
6. Push control knob all the way in and hold. Immediately light the pilot with piezo-electric ignitor while continuing to hold knob in for one (1) minute. Release knob. Pilot should remain lit. If it goes out, repeat steps 2 through 5 until pilot remains lit.
 - If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
 - If pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
7. Turn gas control knob counter-clockwise to "ON".
8. All Millivolt models are supplied with a rocker switch that turns the main burner on or off. If main burner does not light immediately when you turn the gas control valve to "ON" ensure that the wall switch is in the "ON" position.
NOTE: For Millivolt models, the "ON/OFF" wall switch may be replaced with a wall thermostat allowing main burner to light and turn off automatically depending on thermostat setting and room temperature.
9. Adjust the gas flow (flame height) with the "HI/LO" gas control knob on valve.
10. Close control access door.



CAUTION

Do not wire 120 Volt power to Millivolt switches or thermostats.

To Turn Off Gas Appliance

1. Turn off all electric power to the appliance if service is to be performed. Open control access door.
2. Push gas control knob in slightly and turn clockwise to "OFF" position. Do not force.

INSTALLATION OF BRICK PANEL KIT

1. Remove the top and front as shown in the burner install diagram.
2. Hold the rear brick panel with both hands on the left-right panel, tilt the top of panel towards you slightly and pull your right hand towards you slightly and place panel directly onto the rear of the firebox.
NOTE: TAKE CARE NOT TO DAMAGE PILOT ASSEMBLY WHEN PLACING REAR PANEL.
3. Loosen both brick clips using 1/4" nut driver. Swing brick clip out of the way and position side brick panel up to rear brick panel and against side of firebox and tighten brick clip down onto panel. Repeat this step with the other side panel.
4. Install log set and front door.

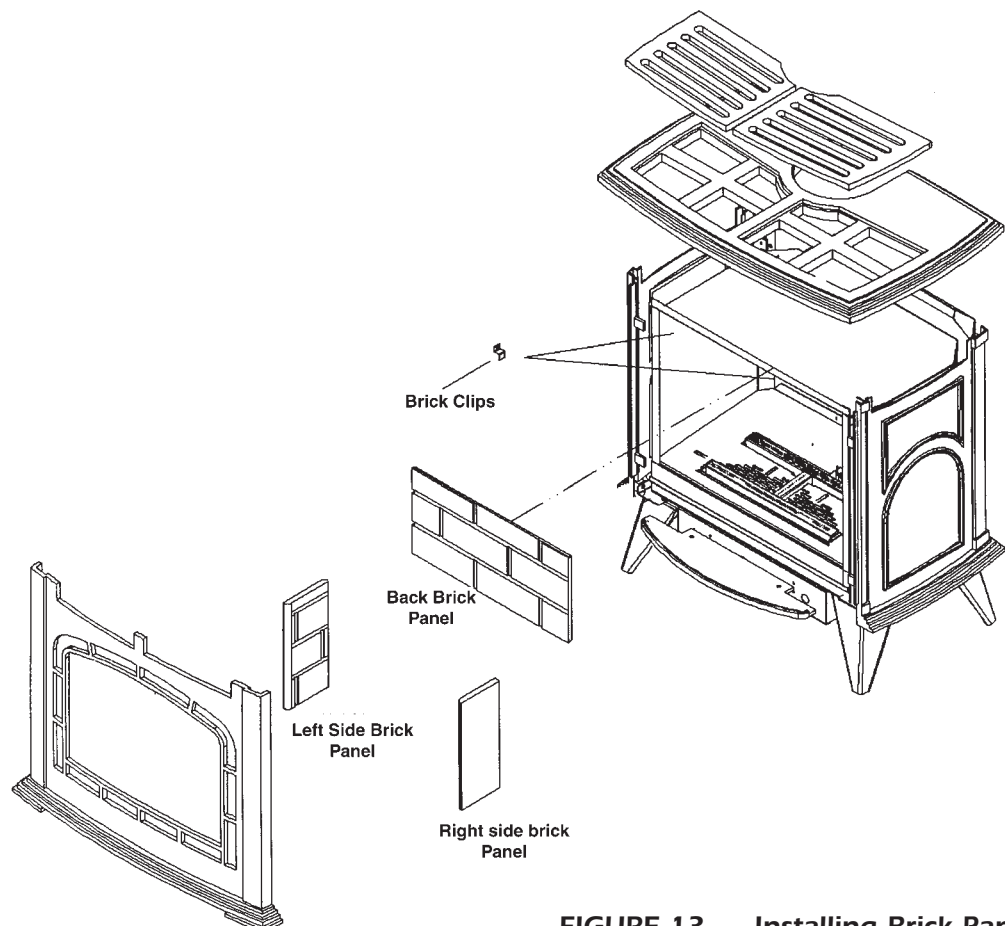
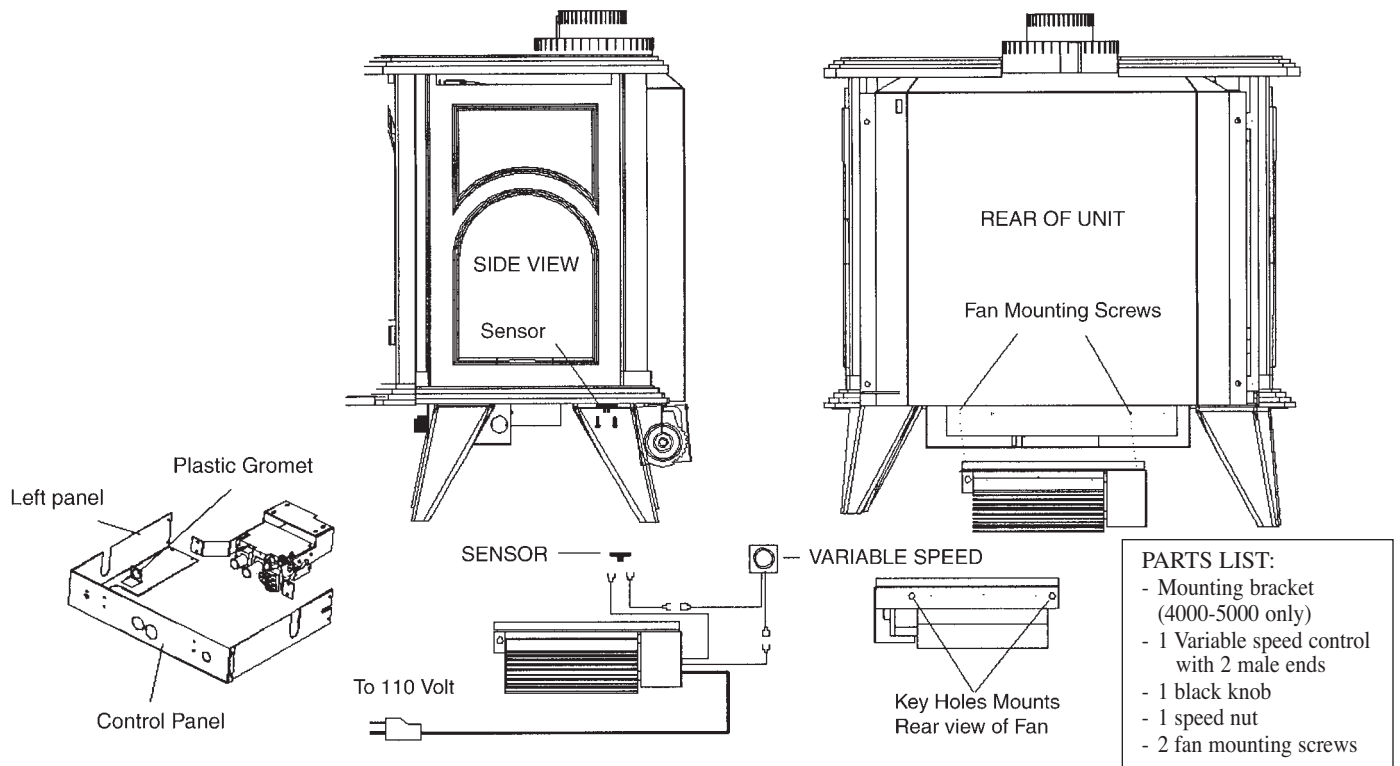


FIGURE 13 – Installing Brick Panels

FDV/FV/FVF 300 OPTIONAL FAN KIT INSTALLATION



NOTE: THE FAN ADAPTER IS NOT USED ON 300 MODEL UNITS. (DISCARD THIS ITEM.)

NOTE: FOR EASE OF INSTALLATION, THE FAN KIT SHOULD BE INSTALLED BEFORE THE STOVE IS PUT IN ITS FINAL POSITION.

AUTOMATIC ON/OFF THERMOSTAT CONTROLLED FAN KIT (Part #F35FK)

1. Install variable speed control onto the control panel. It will be located beside the valve controls. Be sure to route the wires from the speed control through the 3/4" plastic grommet located on the left side of the panel.
2. Locate the two fan mounting screws in the rear of the unit as shown in the above diagram and place the key holes on the rear of the fan over the mounting screws and drop into position.
3. Connect the power, sensor and variable speed control as shown in the wiring diagram.
4. Turn the switch on (clockwise). **NOTE:** The stove must now be installed and gas line attached before proceeding.
5. Turn the stove on. Once the sensor unit reaches operating temperature (in approximately 10 to 15 minutes) the fan will turn on. The fan can be switched off if desired by turning the switch fully counter-clockwise.
6. Once the fan has started to turn it may be desirable to adjust the minimum fan speed. Tilt the control panel forward to access the rear of the variable speed switch, turn the variable speed switch to its minimum setting (fully clockwise). Use the set screw on the side of the variable speed control to increase or decrease the minimum fan speed. (It may be desirable to lower minimum fan speed to decrease the sound level created by the fan.) Reinstall the control panel.

WARNING

A qualified electrician must connect electrical wiring to junction outlet for built-in installation. **Follow all codes.**

WARNING

Electrical Grounding Instructions - This appliance is equipped with a three - pronged (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle.

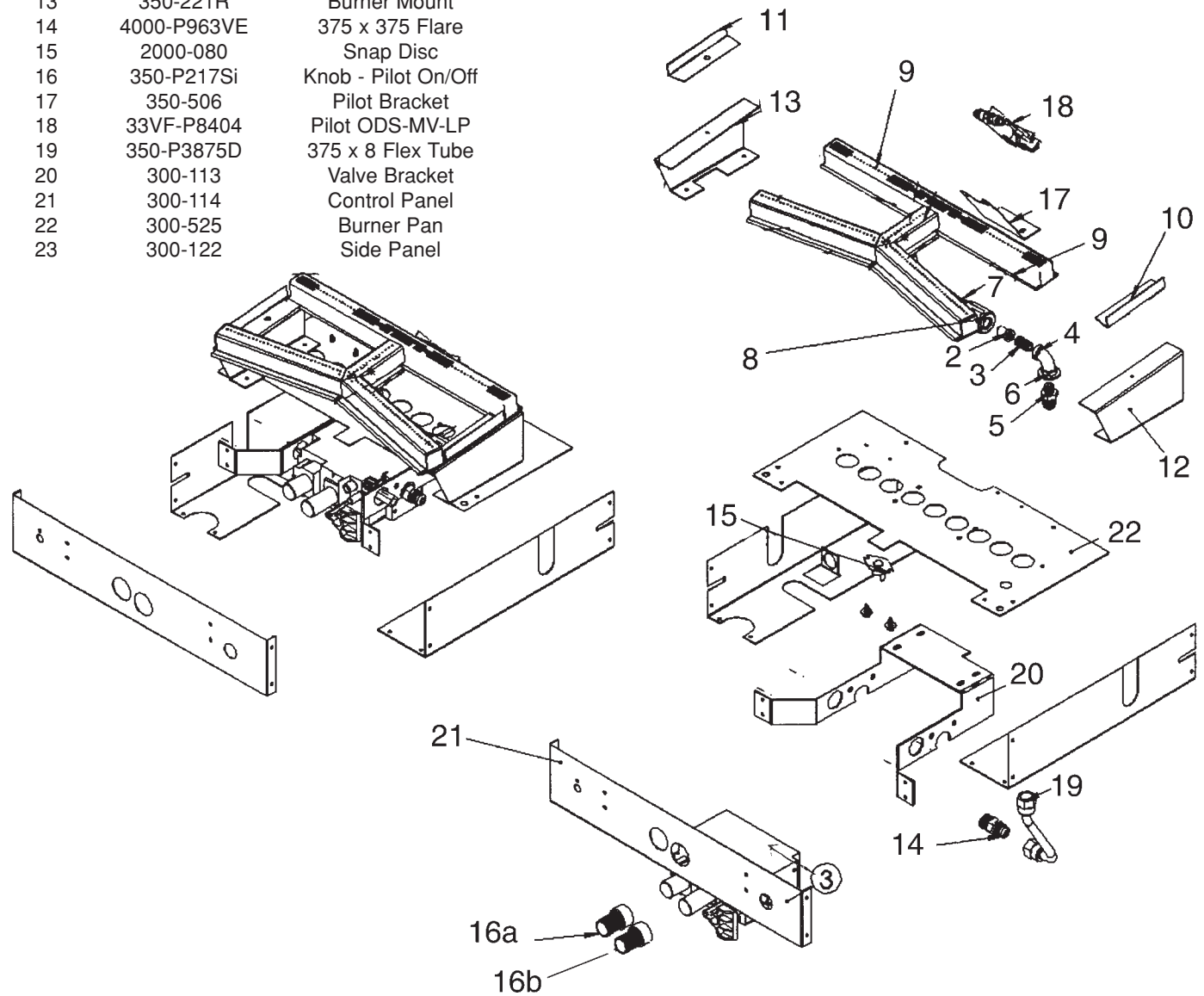
WARNING

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

ILLUSTRATED PARTS LIST

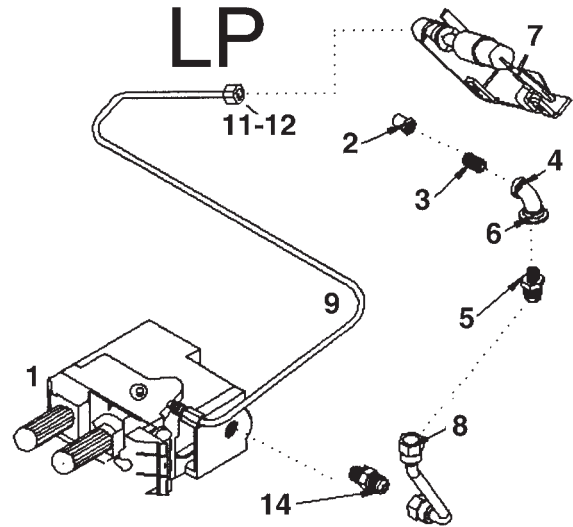
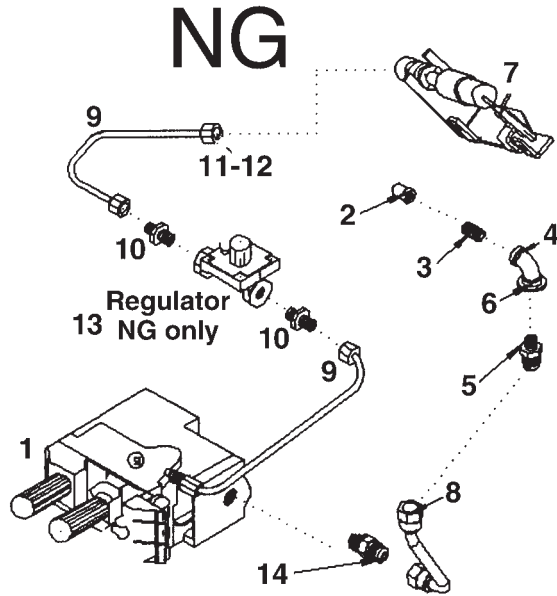
FVF300 Parts and Assembly

ITEM #	PART NO.	DESCRIPTION
1	(LP)33VF-P636SI (NG)33VF-P637SI	NOVASIT-820
2	1000-255	Orifice
3	1000-253	750 x125 Nipple
4	2000-213	Elbo90-125
5	27FP-P904FF	125x375 Flare
6		1 x .437 IN washer
7	4000-208	Mixing Sleeve
8		Air Shutter
9	350VF-200	Burner Assembly
10	350-520	Burner Retainer
11	350-520-R	Burner Retainer
12	350-221	Burner Mount
13	350-221R	Burner Mount
14	4000-P963VE	375 x 375 Flare
15	2000-080	Snap Disc
16	350-P217Si	Knob - Pilot On/Off
17	350-506	Pilot Bracket
18	33VF-P8404	Pilot ODS-MV-LP
19	350-P3875D	375 x 8 Flex Tube
20	300-113	Valve Bracket
21	300-114	Control Panel
22	300-525	Burner Pan
23	300-122	Side Panel



ILLUSTRATED PARTS LIST Cont.

FVF300 PARTS AND ASSEMBLY



31 BRASS CAP ORIFICE SET PRIMARY AIR .250
 @ 5" PILOT REG NAT. GAS
 #8214 ODS PILOT
 NATURAL GAS

#49 BRASS CAP ORIFICE SET PRIMARY FULL OPEN
 #8404 ODS PILOT
 PROPANE

ITEM #	PART NO.	DESCRIPTION
1	(LP)33VF-P636SI	Valve-LP
1	(NG)33VF-P637SI	Valve-NG
2	1000-255	Orifice
3	1000-253	750 x125 Nipple
4	2000-213	Elbo90-125
5	27FP-P90F44	125x375 Flare
6		1 x .437 IN washer
7	33VF-P8404	ODS-LP
7	33VF-P8214	ODS-NG
8	350-P3875D	375 x 8 Flex
9	33VF-P316VE	Air Tubing
10	33VF-P683VE	Connector
11	33VF-P603VE	Compression Sleeve
12	33VF-P613VE	Compression Nut
13	33VF-P2445M	Nat Gas Regulator
14	4000-P963VE	Flare 3/8 x 3/8

TROUBLESHOOTING

WARNING

NOTE: all troubleshooting items are listed in order of operation.

Turn off and let cool before servicing. Only a qualified service person should service and repair heater.

When ignitor button is pressed, there is no spark at ODS/Pilot.

Possible Cause

1. Ignitor electrode positioned wrong.
2. Ignitor electrode is broken.
3. Ignitor electrode not connected to ignitor cable.
4. Ignitor cable pinched or wet.
5. Piezo-ignitor nut is loose.
6. Broken ignitor cable.
7. Bad piezo-ignitor.

Remedy

1. Replace ignitor.
2. Replace ignitor.
3. Reconnect ignitor cable.
4. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry.
5. Tighten nut.
6. Replace ignitor cable.
7. Replace piezo-ignitor.

Appliance produces unwanted odors.

Possible Cause

1. Appliance burning vapors from paint, hair spray, glues, etc.
2. Gas leak.

Remedy

1. Ventilate room. Stop using odor-causing products while heater is running
2. Locate and correct all leaks.

Appliance shuts off in use.

Possible Cause

1. Not enough fresh air is available for ODS/pilot to operate.
2. Low line pressure.
3. ODS/pilot is partially clogged.

Remedy

1. Open window and/or door ventilation.
2. Contact local gas company.
3. Clean ODS/pilot.

Gas odor even when control knob is in OFF position.

Possible Cause

1. Gas leak.
2. Control valve defective.

Remedy

1. Locate and correct all leaks.
2. Replace control valve.

When ignitor button is pressed, there is a spark at ODS/pilot, but no ignition.

Possible Cause

1. Gas supply turned off or manual shutoff valve closed.
2. Control knob not in PILOT position.
3. Control knob not pressed in while in PILOT position.
4. Air in gas lines when installed.
5. ODS/pilot is clogged.
6. Gas regulator setting is not correct.

Remedy

1. Turn on gas supply or open manual shutoff valve.
2. Turn control knob while in PILOT position.
3. Press control knob in while in PILOT position.
4. Continue holding down control knob. Repeat igniting operation until air is removed.
5. Replace ODS/pilot assembly or get it serviced.
6. Replace gas regulator.

ODS/pilot lights, but flame goes out when control knob is released.

Possible Cause

1. Control knob not fully pressed in.
2. Control knob not pressed in long enough.
3. Manual shutoff valve not fully open.
4. Thermocouple connection loose at valve.

Remedy

1. Press control knob in fully.
2. After ODS/pilot lights, keep control knob pressed in for 30 seconds.
3. Fully open manual shutoff valve.
4. Hand tighten until snug, then tighten $\frac{1}{4}$ turn more.

TROUBLESHOOTING Cont.

5. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. Problem could be caused by one or both of the following:
 - A) Low gas pressure
 - B) Dirty or partially clogged ODS/pilot.
6. Thermocouple damaged.
7. Control valve damaged.
5. Contact local gas company.
6. Replace thermocouple
7. Replace control valve.

One or both burners do not light after ODS/pilot is lit.

Possible Cause

1. Burner orifice is clogged.
2. Inlet pressure is too low.

Remedy

1. Clean burner or replace light burner orifice.
2. Contact qualified service person.

Delayed ignition of burner.

Possible Cause

1. Manifold pressure is too low.
2. Burner orifice is clogged.

Remedy

1. Contact local gas company.
2. Clean burner or replace burner orifice.

Burner backfiring during combustion.

Possible Cause

1. Burner orifice is clogged or damaged.
2. Burner is damaged.
3. Gas regulator is defective.

Remedy

1. Clean burner or replace burner orifice.
2. Replace burner.
3. Replace Gas regulator.

Slight smoke or odor during initial operation.

Possible Cause

1. Vapors from paint or curing process of logs.

Remedy

1. Problem will stop after a few hours of operation. Run the heater with the damper open if you have one or open a window for the first few hours.

Log appears to smoke (after initial operation).

Possible Cause

1. Vapors from paint or curing process of logs.

Remedy

1. Log heater is intended to be smokeless. Turn off heater and call qualified service person.

Heater produces a whistling noise when burner is lit.

Possible Cause

1. Turning control knob to HI position when burner is cold.
2. Air in gas line.
3. Dirty or partially clogged burner orifice.

Remedy

1. Turn control knob to LO position and let warm up for a minute
2. Operate burner until air is removed from line. Have gas line checked by local gas company.
3. Clean burner or replace burner orifice.

No Gas to pilot.

Possible Cause

1. LP regulator shut down due to inlet pressure being too high

Remedy

1. Verify LP tank regulator is installed and set at 11 to 13 inches w.c.
2. Replace LP regulator on heater.



LIMITED LIFETIME WARRANTY

This Limited Lifetime Warranty applies only while the unit remains at the site of the original installation and only if the unit is installed inside the continental United States, Alaska, Hawaii, and Canada. The warranty applies only if the unit is installed and operated in accordance with the printed instructions and in compliance with applicable installation and building codes and good trade practices.

BASIC ONE YEAR WARRANTY

During the first year after installation, we will provide a replacement for any component part of your unit found to be defective in materials or workmanship, including labour costs. Repair work requires prior approval by Kingsman, labour costs are based on a predetermined rate schedule and any repair work must be done through an authorized Kingsman dealer.

LIMITED LIFETIME WARRANTY

The heat exchanger, combustion chamber and burner of every Kingsman product excluding the Outdoor Firepit are warranted against materials or workmanship during the period the product is owned by the original owner. The part to be replaced must be returned to our distributor in exchange for the replacement part. Any labor, material, freight and/or handling charges associated with any repair or replacement pursuant to this Limited Lifetime Warranty will not be covered by this warranty.

GENERAL TERMS

In lieu of providing a replacement part, we may, at our option, provide the distributor's component purchase price from us or a credit equal to the distributors component purchase price from us toward the purchase of any new unit which we distribute. If a credit is given in lieu of a replacement part, the rating plate from the unit being replaced must be submitted on a warranty claim, and the unit being replaced must be made available to our distributor for disposition.

In establishing the date of installation for any purpose, including determination of the starting date for the term of this Limited Lifetime Warranty, reasonable proof of the original installation date must be presented*, otherwise the effective date will be based upon the date of manufacture plus thirty (30) days.

We will not be responsible for and you, the user, will pay for: (a) damages caused by accident, abuse, negligence, misuse, riot, fire, flood, or Acts of God (b) damages caused by operating the unit where there is a corrosive atmosphere containing chlorine, fluorine, or any other damaging chemicals (other than in a normal residential environment) (c) damages caused by any unauthorized alteration or repair of the unit affecting its stability or performance (d) damages caused by improper matching or application of the unit or the unit's components (e) damages caused by failing to provide proper maintenance and service to the unit (f) any expenses incurred for erecting, disconnecting or dismantling the unit (g) parts or supplies used in connection with service or maintenance (h) damage repairs, inoperation or inefficiency resulting from faulty installation or application (i) electricity or fuel costs or any increase in electricity or fuel cost whatsoever including additional or unusual use of supplemental electric heat.

We shall not be liable for any incidental, consequential, or special damages or expenses in connection with any use or failure of this unit. We have not made and do not make any representation or warranty of fitness for a particular use or purpose, and there is no implied condition of fitness for a particular use or purpose. We make no express warranties except as stated in this Limited Lifetime Warranty. No one is authorized to change this Limited Lifetime Warranty or to create for us any other obligation or liability in connections with this unit. Any implied warranties shall last for one year after the original installation. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages or do not allow limitations on how long an implied warranty or condition lasts, so the above limitations or exclusions may not apply to you. The provisions of this limited warranty are in additions to and not a modification of or subtraction from any statutory warranties and other rights and remedies provided by law.

Save this certificate. It gives you specific legal rights, and you may also have other rights which may vary from state to state and province to province.

In the event your unit needs servicing, contact your dealer or contractor who installed or serviced your unit. When requesting service, please have the model and serial number from each unit readily available. If your dealer needs assistance, the distributor is available for support and we, in turn support the distributor's efforts.

Fill in the installation date and model and serial numbers of the unit in the space provided below and retain this limited warranty for your files.

Model No. _____ Serial No. _____ Date installed _____

Dealer or Contractor Name: _____

*To receive advantage of your warranty, you must retain the original records that can establish the installation date of your unit.