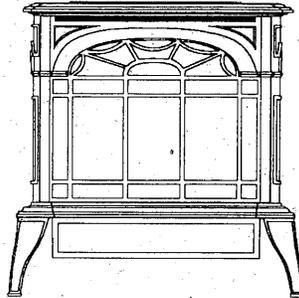


VENT FREE GAS HEATER

Model VF25

OWNER'S GUIDE



- INSTALLATION AND ASSEMBLY PROCEDURES FOR THE**
- **FREESTANDING STOVE 2650**
 - **HEARTH MOUNT 2660**
 - **FIREPLACE 2646**

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.

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.



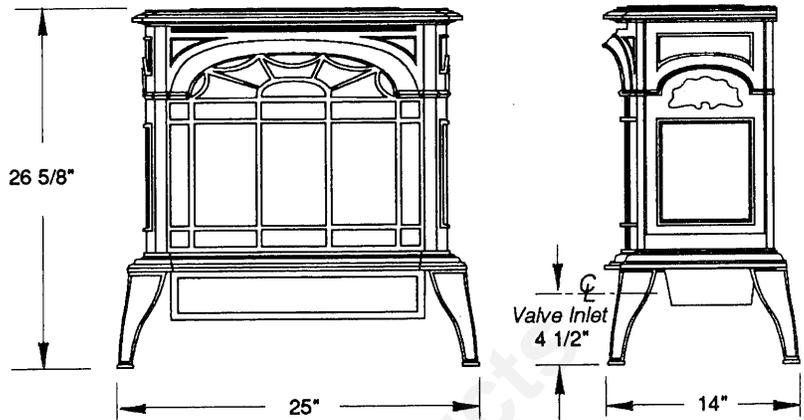
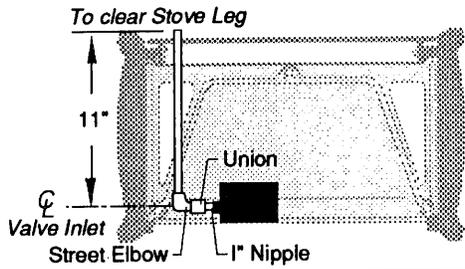
SAVE THIS MANUAL FOR FUTURE REFERENCE.

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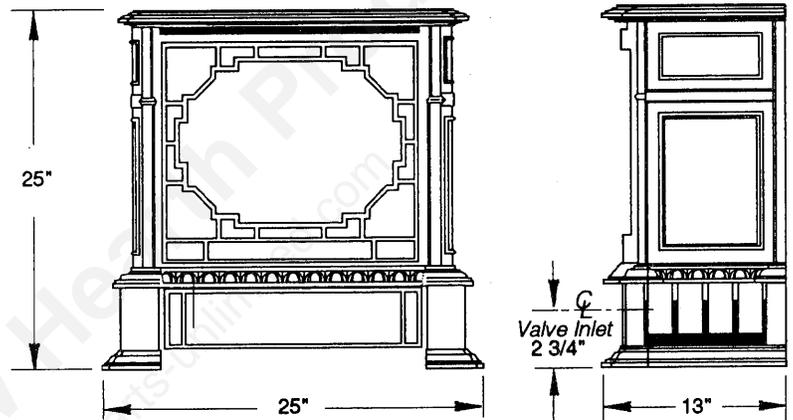
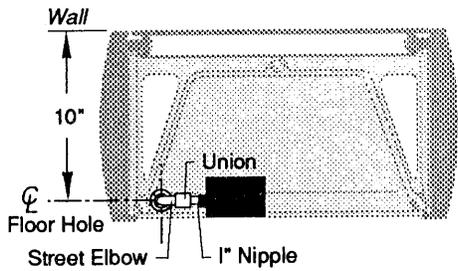
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Shell Dimensions

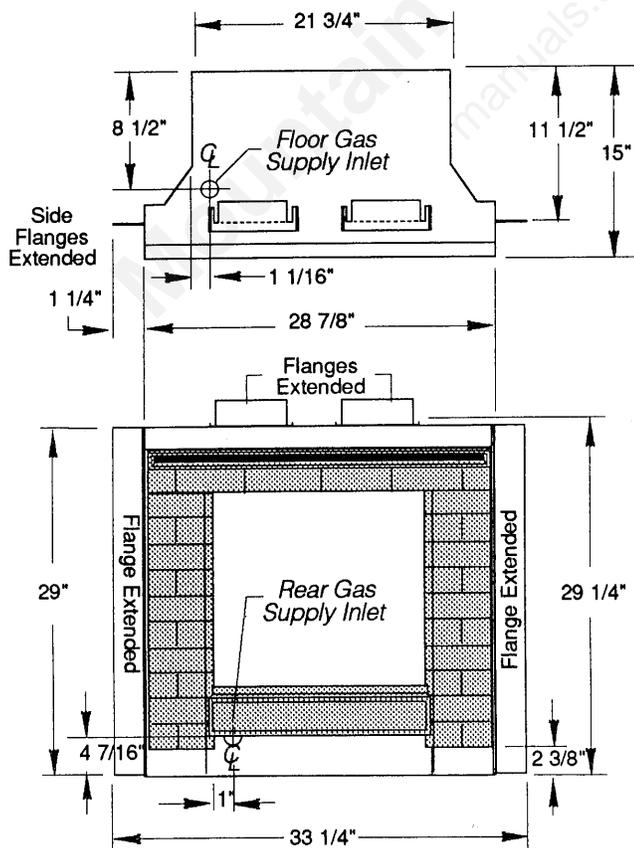
Freestanding Stove



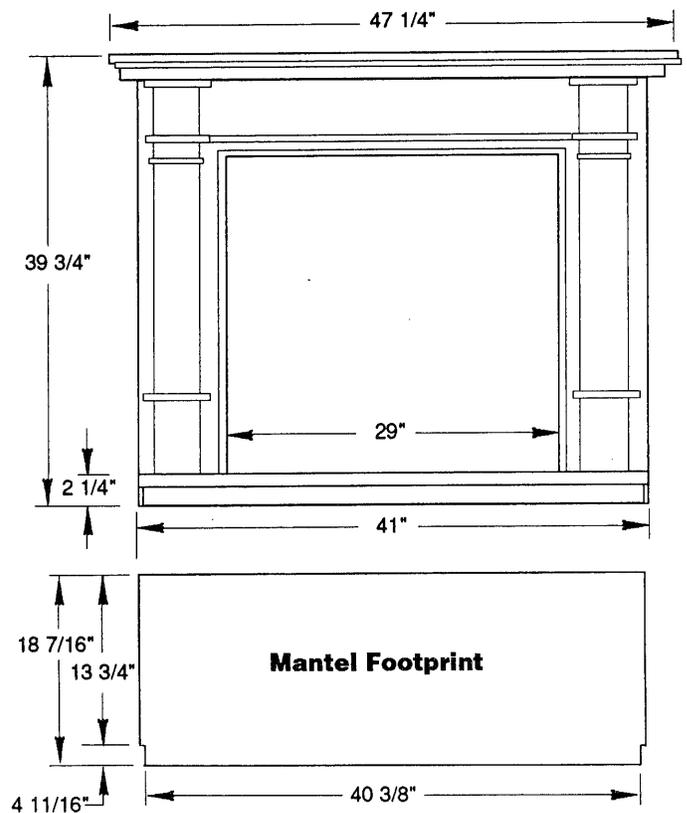
Hearthmount



Fireplace Cabinet



Optional Fireplace Mantel



DRAWINGS NOT TO SCALE

Safety Information

WARNINGS

IMPORTANT: READ THIS OWNER'S MANUAL CAREFULLY AND COMPLETELY BEFORE TRYING TO ASSEMBLE, OPERATE, OR SERVICE THIS HEATER. IMPROPER USE OF THIS HEATER CAN CAUSE SERIOUS INJURY OR DEATH FROM BURNS, FIRE, EXPLOSION, ELECTRICAL SHOCK, AND CARBON MONOXIDE POISONING.

DANGER

CARBON MONOXIDE POISONING MAY LEAD TO DEATH!

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the heater may not be working properly. Get fresh air at once! Have the heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Make certain you read and understand all Warnings. Keep this manual for reference. It is your guide to safe and proper operation of this heater.

1. Use only Natural Gas with VF25 Firebox 2640 or propane with VF25 firebox 2641. Do not use any other fuels.
2. Install only in accordance with National Fuel Gas Code, ANSI Z223.1 - latest edition. (Exception: Do not derate this appliance for altitude. This appliance has been tested and listed for use in altitudes up to 10,000 feet. Maintain the manifold pressure at 3.5 inches W.C. for Natural Gas and 10 inches W.C. for LP gas.)
3. Use only the installation instructions provided by Vermont Castings for this appliance. Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.
4. **Warning:** Any change to this heater or its controls can be dangerous. DO NOT make modifications to any heater or associated parts.
5. DO NOT install this heater in a bedroom or bathroom.
6. Due to high surface temperatures, DO NOT install this heater
 - in a recreation vehicle
 - where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the heater
 - in high traffic areas
 - in windy or drafty areas.
7. DO NOT place clothing or other flammable material on or near the appliance.
8. This heater needs fresh, outside air ventilation to operate properly. See Fresh Air Requirements on Pages 5 and 6.
9. If heater shuts off, heater may not have enough fresh air ventilation. Provide more fresh air. If heater keeps shutting off, see *Troubleshooting*, Pages 19 - 20.
10. DO NOT operate this heater
 - where flammable liquids or vapors are used or stored
 - under dusty conditions.
11. The heater becomes very hot when operating. Alert children and adults to stay away from hot surfaces to avoid burns or clothing ignition. The heater will remain hot for a time after shut-down. Allow surface to cool before touching.
12. Carefully supervise young children when they are in the room with the heater.
13. Do not use the heater if any part has been exposed to or 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.
14. DO NOT operate the heater if any log is broken or damaged.
15. Turn heater off and let cool before servicing. Only a qualified service person should service and repair heater.
16. If the safety screen is removed from the appliance for service or cleaning, it must be replaced before operating the heater.

General Information

Vent Free Features

The Vent Free Gas Heater is configured to use Natural Gas, (VF25 #2640) or Propane, (VF25 #2641). Because it is clean-burning and highly energy-efficient, it requires no venting system.

The VF25 is shipped completely assembled and ready for installation with either the Freestanding Stove, the Hearthmount or the Fireplace Cabinet.

The firebox assembly is composed of the NG or LP Burner, a Base Plate, Firebox and Screen. The logset, burner tube, gas valve and pilot comprise the Burner assembly. Fig. 1.

A push-button Piezo Ignitor is used to ignite the gas. No power, batteries, or matches are needed.

The standing pilot incorporates an Oxygen Depletion System, (ODS/pilot), which shuts off gas flow to the burner in the event that sufficient fresh air becomes unavailable for continued safe operation.

The Control Valve incorporates a variable regulator with which the operator can adjust the gas flow and flame intensity at any level between HIGH, (25,000 BTU), and LOW, (15,000 BTU).

Unpack the VF25 Firebox

Remove the firebox assembly from the shipping carton and inspect it for loose or damaged parts. The Logset, Burner, Firebox and Base Plate should all be secured as a unit. Do not install this appliance any parts are loose or if there is any visual or suspected damage resulting from shipping or handling. Report damage to your dealer/distributor immediately.

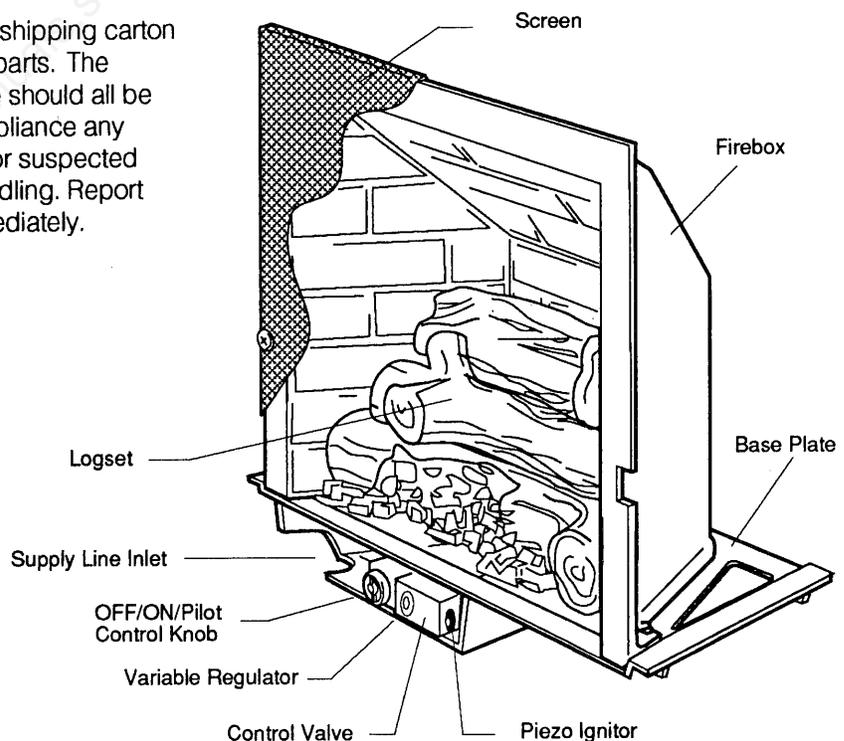
VF25 Specifications

	VF25 #2640	VF25 #2641
Fuel	NG	LP
Manifold Pressure; Min./Max.:	1.3" / 3.5"	3.6" / 10.0"
Min. Inlet Supply Pressure for adjustment:	5.0"W.C.	11.0"W.C.
Output, BTU/hr. Min./Max.:	15,000 / 25,000	
Ignition :	Piezo	
Weight	59 lbs.	

An optional Fan Kit #2653 is available to enhance circulation of heated air into the living area.

The VF25 Heater is listed for use in mobile homes.

Figure 1. The VF25 Firebox.



Installation Requirements

Fresh Air Requirements for Combustion and Ventilation



WARNING

THIS HEATER MUST HAVE FRESH AIR FOR PROPER OPERATION. IF NOT, POOR FUEL COMBUSTION COULD RESULT. READ THE FOLLOWING INSTRUCTIONS TO INSURE PROPER FRESH AIR FOR THIS AND OTHER FUEL-BURNING APPLIANCES IN YOUR HOME.

Modern construction standards have resulted in homes that are highly energy-efficient and that allow little heat loss. Your home needs to breathe, however, and all fuel-burning appliances within it require fresh air in order to function properly and safely. Exhaust fans, clothes dryers, fireplaces, and other fuel burning appliances all use the air inside the building. If the available fresh air is insufficient to meet the demands of these appliances, problems can result.

The VF25 heater has specific fresh air requirements. You must determine that these fresh air requirements will be met within the space where the appliance will be installed. The following information will help you insure that adequate fresh air is available for the heater to function properly.

Provide For Adequate Ventilation

Any space within a home can be classified in the following categories:

- 1) Unusually Tight Construction
- 2) Confined Space
- 3) Unconfined Space

First, determine which classification defines the intended space.

Unusually Tight Construction

You must provide additional fresh air if the space falls into this classification. *Unusually Tight Construction* is defined as construction wherein:

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm 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 supplemental fresh air for the appliance. See Page 6 for details.

If your home does not meet the above criteria, follow the procedure below.

Determine if You Have a Confined or Unconfined Space

Use the following formula to determine if you have a confined or unconfined space.

Space is defined as the room in which you will install the heater plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

An **Unconfined Space** has an air volume of at least 50 cubic feet for each 1,000 Btu/Hr input rating of all appliances in the space, (cubic feet equals length x width x height of space). Include adjoining rooms only if they are doorless passageways or ventilation grills between the rooms.

A **Confined Space** has an air volume of less than 50 cubic feet for each 1,000 Btu/Hr input rating of all appliances in the space. Include adjoining rooms only if there are doorless passageways or ventilation grills between the rooms.

1. Determine the volume of space, (length x width x height). Include adjoining rooms connected by doorless passageways or ventilating grills.

Example:

A room that is 18' x 12' x 8' has a volume of 1728 cubic feet, (length x width x height). An adjoining open kitchen that is 10' x 12' x 8' has a volume of 960 cubic feet. An adjoining open dining room is 12' x 12' x 8' with a volume of 1152 cubic feet. has The total space volume is 3840 cubic feet. (1728 + 960 + 1152).

2. Divide the volume of space by 50 cubic feet. The result is the maximum BTU/Hr that the space can support.

Example:

3840 divided by 50 = 76.8 or 76,800 BTU/Hr.

3. Add the BTU/Hr ratings of all fuel-burning appliances installed in the same space, including the following:

Gas Water Heater	Gas Furnace
Gas Fireplace Logs	Vent Free Gas Heater
Vented Gas Heater*	Other Gas Appliances*

*Do not include Direct Vent appliances as these utilize outside air for combustion and vent to the outdoors.

Example:

Gas Range	55,000 BTU/Hr
Vent Free Heater	+25,000 BTU/Hr
Total	80,000 BTU/Hr

4. Compare the maximum BTU/Hr rating the space can support with the total BTU/Hr used by the appliances.

Example:

76,800 BTU/Hr - max. the space can support
80,000 BTU/Hr - total used by appliances

In this example, the maximum BTU/Hr that the space can support is less than the total used by the appliances, the space is considered to be **Confined space**. Additional air must be provided to meet the requirements of the Vent Free heater.

A confined space may be ventilated in two ways:

A) Open up or provide at least two ventilating grills to an adjoining unconfined space. Fig. 2.

Each of the two grills must provide an opening of at least 50 square inches, with all opening dimensions being at least 3". One grill must be located within 12" of the ceiling; the other within 12" of the floor. (If the total exceeds 100,000 BTU/Hr, additional grills will be required.)

B) Vent the room directly to the outdoors. (Provide one square inch of opening for each 4,000 Btu/hr.

For further information on ventilation guidelines and sizing specifications follow the National Fuel Gas Code NFPA 54/ANSI Z223.1 Section 5.3.

If the total BTU/Hr used by the appliances is less than the maximum BTU/Hr the space is able to support, the room meets the **Unconfined space** criteria and no further ventilation is required.

WARNING

THIS HEATER SHALL NOT BE INSTALLED IN A CONFINED SPACE UNLESS PROVISIONS ARE PROVIDED FOR ADEQUATE COMBUSTION AND VENTILATION AIR.

WARNING

IF THE AREA IN WHICH THE 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.

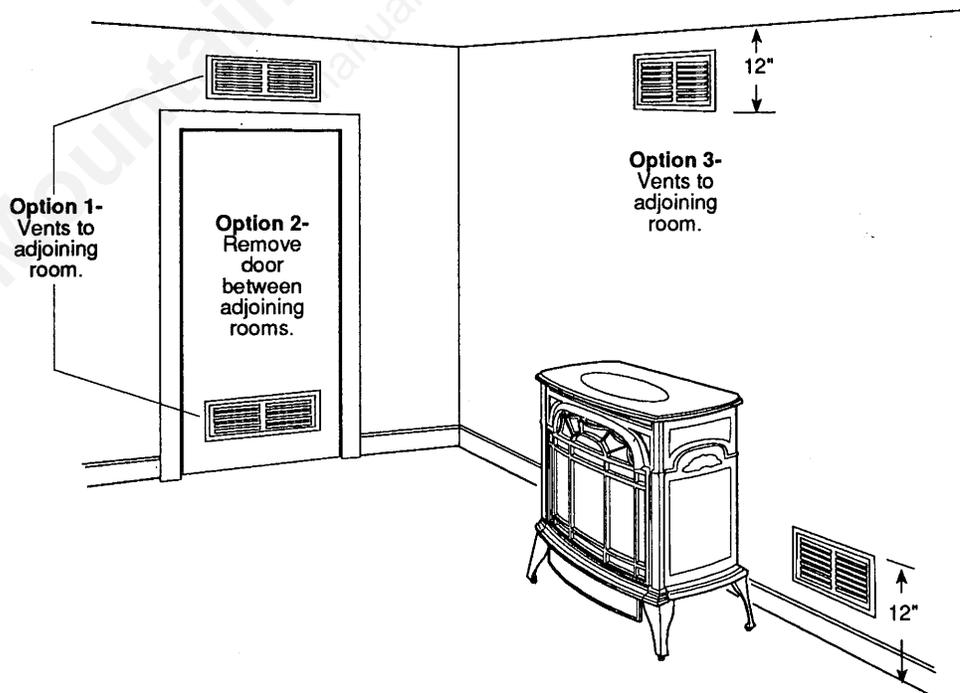


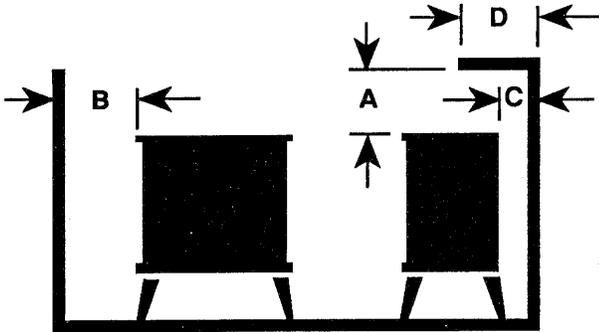
Figure 2. Supplementing Ventilation Air.

Clearance Requirements

Minimum Clearances to Combustible Materials

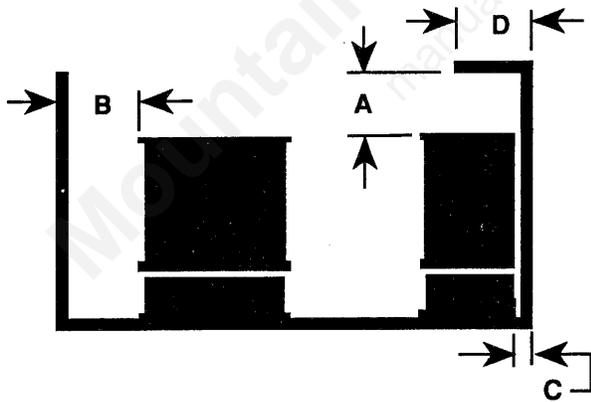
Maintain clearance, (empty space), between combustible materials and the heater as specified for the appropriate firebox shell being installed.

Freestanding Stove # 2650



- A: Mantel / Trim* 8" / 2"
 - B: Side Wall / Trim* 2"
 - C: Rear Wall 0"
 - D: Maximum Mantel Width 13"
- * Trim is 1" thick max.

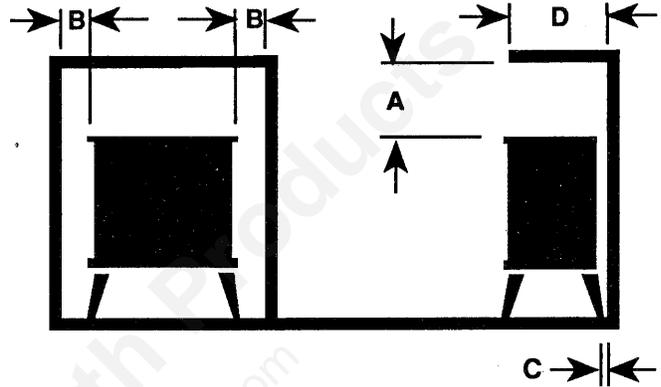
Hearthmount #2660



- A: Mantel / Trim 8" / 2"
- B: Side Wall / Trim 2"
- C: Rear Wall 0"
- D: Maximum Mantel Width 13"

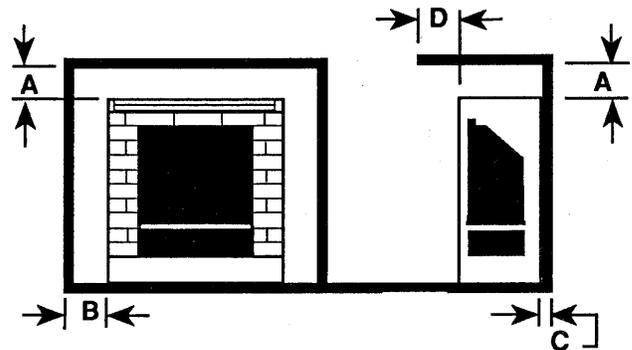
Alcove Clearances

The Freestanding Stove and the Hearthmount may be installed in an alcove constructed to maintain the clearances specified below.



- A: Ceiling 8"
- B: Side Wall 3"
- C: Rear Wall 0"
- D: Maximum Alcove Depth 13"

Fireplace Cabinet #2646



- A: Mantel / Trim 10" / 0"
- B: Side Wall / Trim 0"
- C: Rear Wall 0"
- D: Maximum Mantel Width 3"

Mantel width (D) can extend to a maximum of 9" when A is 16" or greater.

Fireplace Mantels 2648 (2649) are designed to be installed with the VF25 firebox and Fireplace Model 2646 without additional protection for adjacent combustible materials.

VF25 Hearth Requirements

The Freestanding Stove #2650 and Hearthmount #2660 must be installed on rigid flooring. If the appliance is installed on any combustible surface other than wood flooring, such as carpet or tile, a metal or wood panel must be installed to extend the full length and width of the unit.

There are no other hearth or floor protection requirements.



WARNING

DO NOT INSTALL THIS HEATER IN A BATHROOM OR BEDROOM.



WARNING

AVOID ANY DRAFTS THAT ALTER BURNER FLAME PATTERNS. DO NOT ALLOW FANS TO BLOW DIRECTLY INTO THE FIREPLACE.



WARNING

INSTALLATION OF THIS HEATER MUST CONFORM WITH LOCAL CODES OR, IN THE ABSENCE OF LOCAL CODES, WITH THE NATIONAL FUEL GAS CODE, ANSI Z223.1.



WARNING

DO NOT USE A BLOWER INSERT, HEAT EXCHANGER INSERT OR OTHER ACCESSORY NOT APPROVED FOR USE WITH THIS HEATER.



CAUTION

THIS HEATER CREATES WARM AIR CURRENTS. THESE CURRENTS MOVE HEAT TO WALL SURFACES NEXT TO THE HEATER. INSTALLING THE HEATER NEXT TO VINYL OR CLOTH WALL COVERINGS OR OPERATING THE HEATER WHERE IMPURITIES IN THE AIR SUCH AS TOBACCO SMOKE EXIST, MAY DISCOLOR WALLS.

Assembly Procedures

Refer to the specific assembly instructions for the shell appropriate to your VF25 Heater installation.

WARNING

FAILURE TO POSITION THE PARTS IN ACCORDANCE WITH THESE DIAGRAMS OR FAILURE TO USE ONLY PARTS SPECIFICALLY APPROVED FOR USE WITH THIS HEATER MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY.

CAUTION

Porcelain enamelled surfaces are fragile. Handle porcelain enamelled castings tenderly. Familiarize yourself with the assembly steps before you begin and proceed with deliberation and care. If possible, have assistance available.

Place enamelled castings on a soft, cushioned surface until you are ready to assemble them.

Avoid contact between the castings and other hard surfaces or objects.

NOTE: If you intend to hard-plumb the gas supply line to the burner, you may wish to install the union or elbow at the burner control valve inlet before installing the firebox within the shell.

Freestanding Stove or Hearthmount

Step 1. Attach the Back Panel to the Left Side Plate by aligning the key holes in the shroud with the bolts in the Side. Fig. 3. Slide the shroud panel downward to engage it behind all three washers on the side plate and then tighten the lower wingbolt.

Step 2. Attach the Right Side Plate to the Back Panel in a similar manner. Tighten the lower wingbolt. Fig. 4. Move this assembly into the final position and align the two side plates perpendicular to the Back Panel as in Fig. 5.

Step 3. The Firebox is completely assembled. The Logset, Burner and Valve assembly require no adjustment. DO NOT TAMPER WITH THE LOGSET.

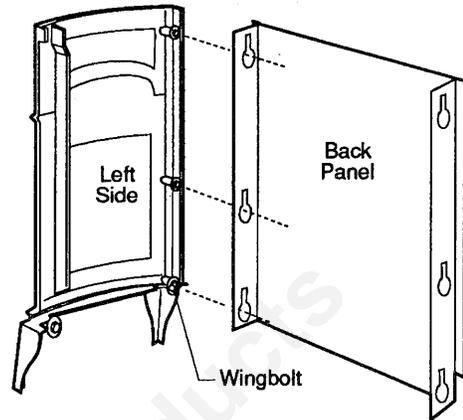


Figure 3. Secure the Left Side to the Back Panel.

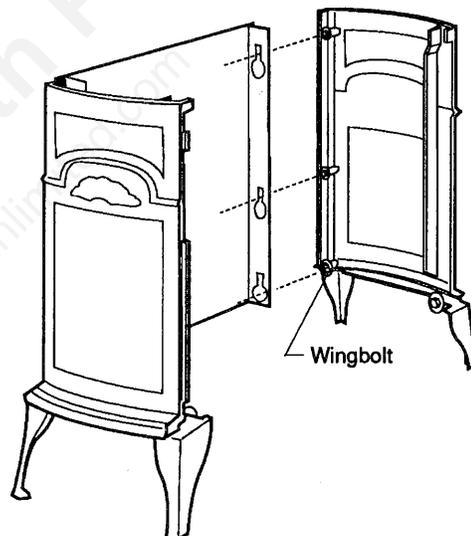


Figure 4. Secure the Right Side to the Back Panel.

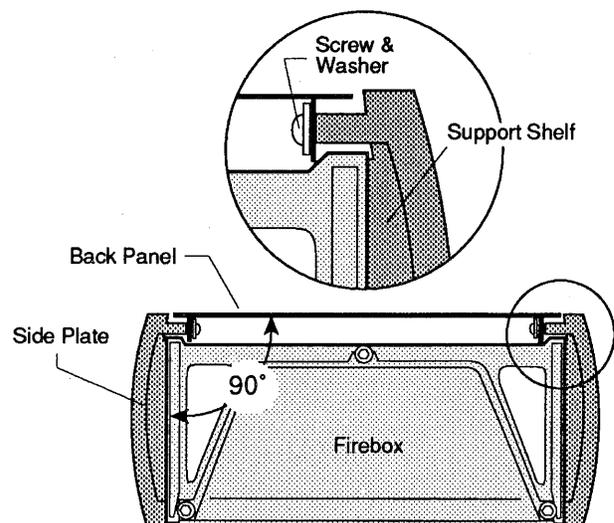


Figure 5. The sides must be at right angles to the Back Panel in order for the firebox to fit properly.

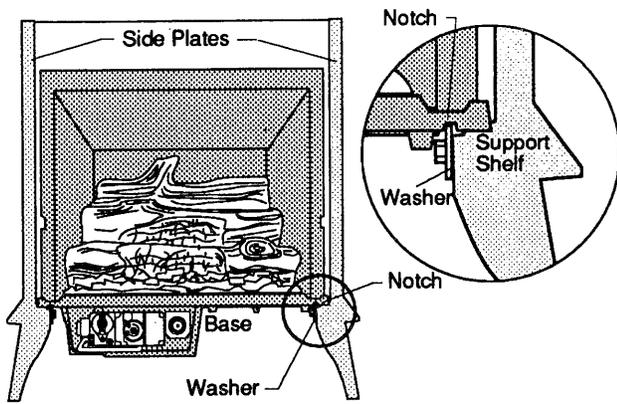


Figure 6. Install the Firebox Assembly. Be sure that the two large front washers engage both notches in the underside of the base.

Lift the VF25 firebox assembly as a unit and slide it back to position it within the shell. The base of the firebox should rest on the side support shelves as in Figs. 5 and 6. The large washer at the forward leg of each Side Plate, should engage the corresponding notch in the underside of the firebox base as shown in Fig. 6. Properly positioned, the firebox will be level and locked in place. If not, adjust the levelling screws as required to keep the entire assembly level.

Step 4. Connect the gas supply line as required by local codes. This may be a flexible line, (not supplied), or hard plumbing. See *Connecting the Gas Supply* on Page 15.

Step 5. Install the optional VF25 Convection Fan Kit #2653. Use the instructions supplied with the kit.

Step 6. Grasp the Front Plate by the window bars and lift it into position engaging the two steel tabs behind the adjacent bosses in the Side Plates. Fig. 7. Then seat the Front against the sides so that the tabs at the bottom lip engage with the notches in the stove legs.

On the Hearthmount, the Front tabs will engage behind the notched cut-outs in the base of either Side Plate.

When properly installed, the bottom of the Front Plate cannot be pulled away from the sides without also lifting it.

NOTE: Be sure that the Control Door can swing out. It should close against the steel tab stop.

Step 7. Tilt the Top Plate to engage its rear rib **in front** of the Back Panel and then carefully lower it onto the sides. Fig. 8. The upper edge of the side plates should seat into the channel in the underside of the Top.

This completes assembly of the Freestanding and Hearthmount shells.

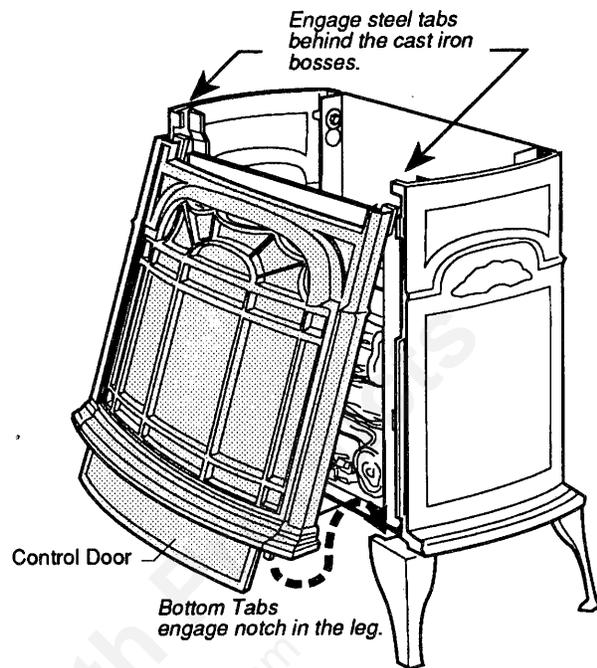


Figure 7. Install the Front Plate.

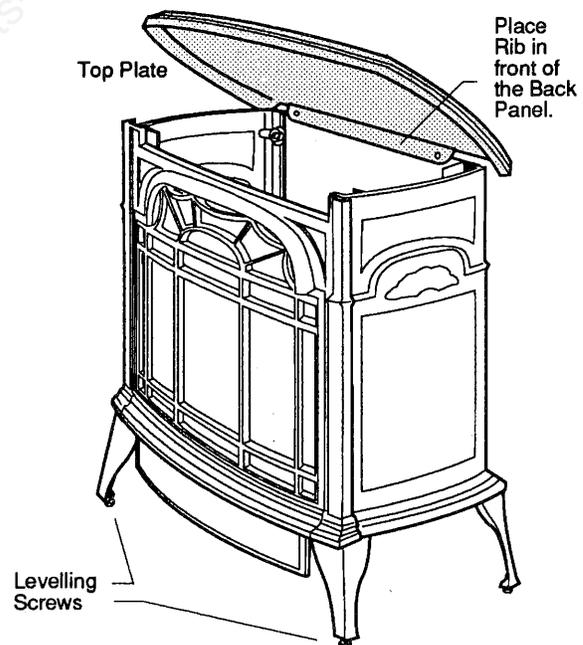


Figure 8. Install the Top Plate.

Fireplace Installation

The Fireplace Cabinet may be installed in two ways:

A) as a freestanding unit with the optional wood Mantel or,

B) as a custom built-in using your choice of surround materials.

Follow the steps below as they apply to your type of installation.

A. Manteled Cabinet Installation

Finish treatments should be applied to the Mantel prior to installation. Follow assembly instructions provided with the Mantel.

Step 1. The Cabinet shell is completely assembled, however, the cast iron brick panels must be removed prior to installing the firebox. Disengage the Brick Panels/Control Door as a unit by lifting them up and away from the Cabinet. Fig. 9.

Step 2. Bend the four Cabinet stand-offs 90°. Fig. 9.

Step 3. IMPORTANT: Test fit the Mantel and Cabinet together to determine the final position of the Cabinet. Pull the Cabinet all the way forward to butt the top and side flanges against the inside of the Mantel. See Fig. 10. **WARNING: Improper positioning of the Cabinet within the Mantel can result in an unsafe condition.**

Step 4. Remove the Mantel and plumb in the gas supply line to the 1 1/2" inlet hole in the left side, rear or floor of the Cabinet. (See also *Connecting the Gas Supply*, Page 15.)

Step 6. Lift the Firebox as a unit and position its base on the support shelves attached to the sides within the cabinet. Fig. 11. Properly seated, the Firebox Base will be securely engaged and level.

Step 7. Connect the gas supply line to the burner. This may be a flexible line, (not supplied), or hard plumbing. See *Connecting the Gas Supply* on Page 15. Fig. 12 illustrates an example of a supply line plumbed through the floor.

Step 8. Install the optional VF25 Convection Fan Kit #2653 according to the instructions provided with that kit.

Step 9. Re-install the cast iron brick panels on the hanger holes in the Cabinet front. Fig. 13.

Step 10. Secure nailing strips, (1"x1" stock or similar material) to the wall. Fig. 14.

Step 11. Position the Mantel over the Cabinet and secure to the nailing strips with finishing nails. Fig. 15.

Step 12. Place the Mantel Sill into position at the base of the Mantel. Fig. 15.

WARNING: Do not block the opening between the Control Access Door and the Mantel Sill with any material. See Fig. 16.

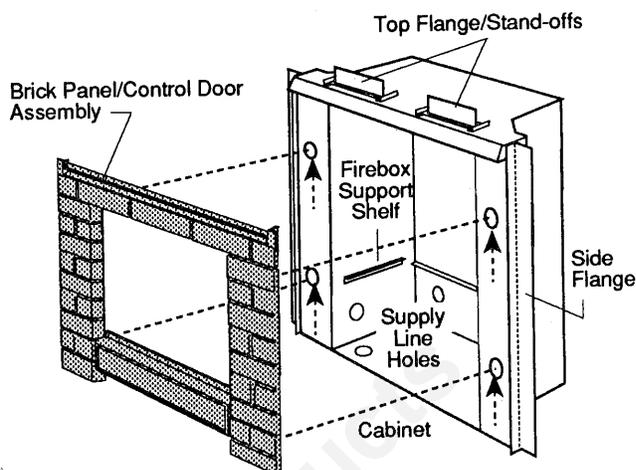


Figure 9. Remove the Brick Panels/Control Door and bend the top and side flanges out.

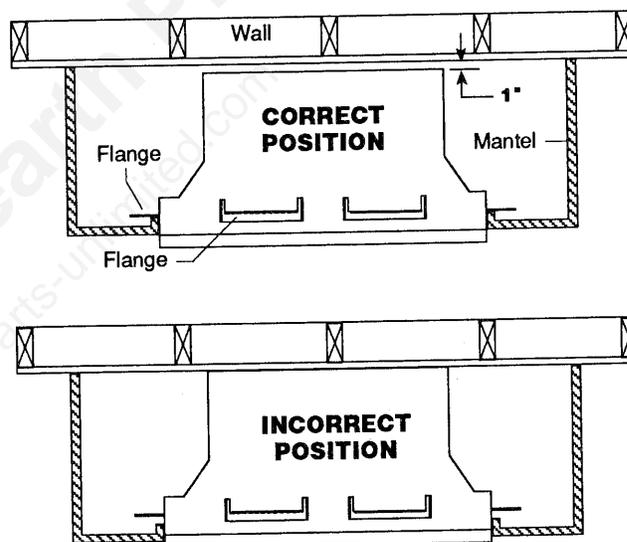


Figure 10. Correct Cabinet / Mantel position.

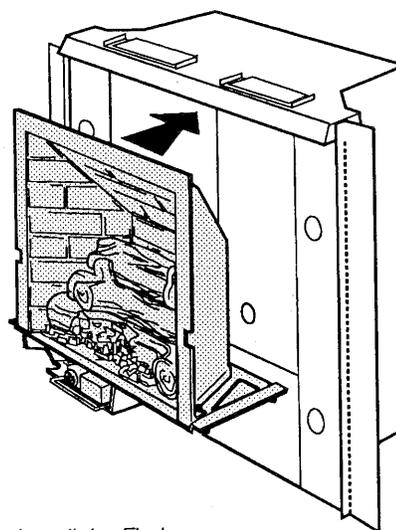


Figure 11. Install the Firebox.

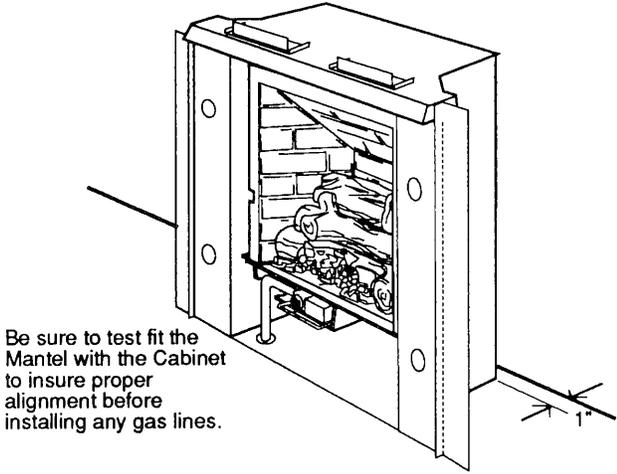


Figure 12. Gas Supply plumbed through floor.

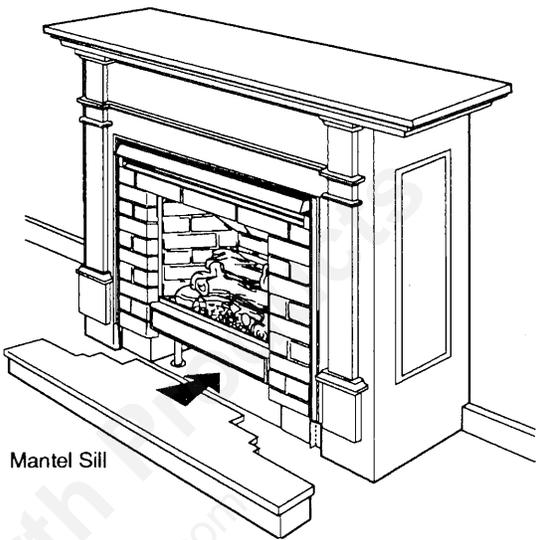


Figure 15. Install the Mantel and Sill.

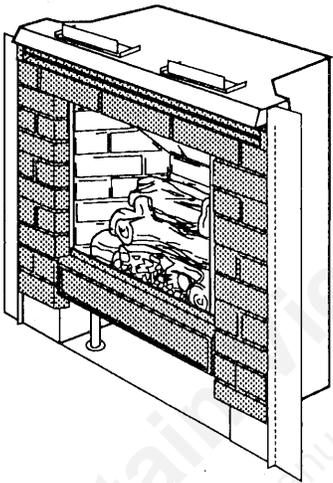


Figure 13. Replace the Brick Panels/Control Door Assembly.

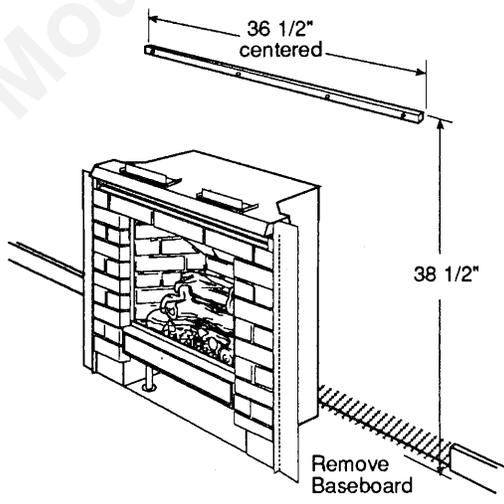


Figure 14. Secure Mantel nailing strip to wall.

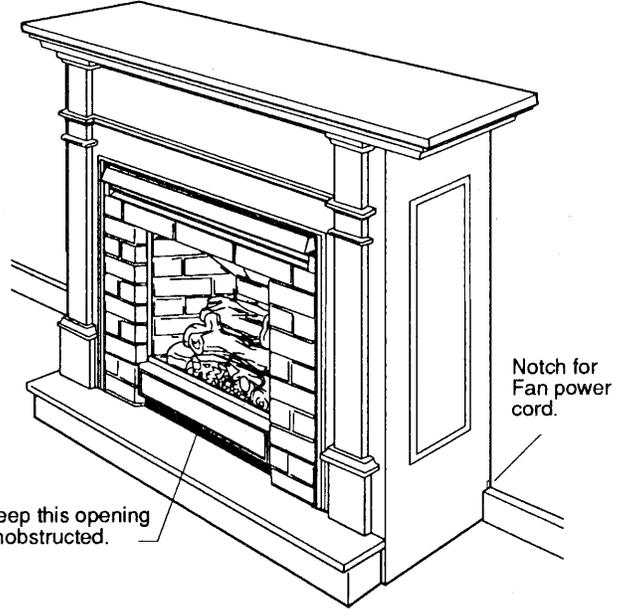


Figure 16. Completed Mantel Assembly

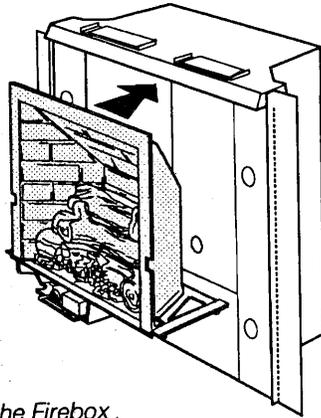


Figure 20. Install the Firebox.

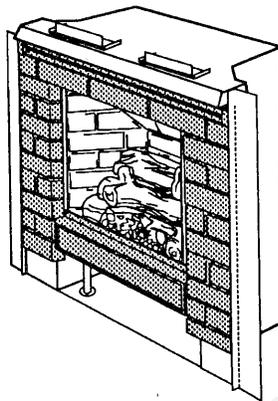
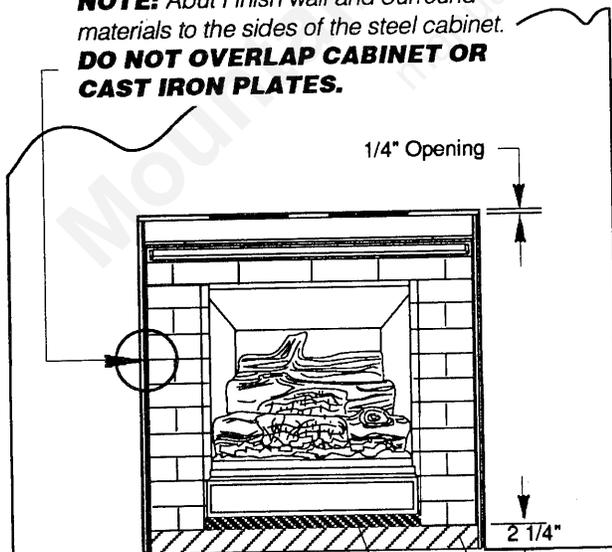


Figure 21. Replace the Brick Panel/Control Door Assembly.

NOTE: Abut Finish wall and Surround materials to the sides of the steel cabinet. **DO NOT OVERLAP CABINET OR CAST IRON PLATES.**



-  This area must remain open.
-  Construct hearth sill to cover this area. See Fig. 23 for details.

Figure 22. Surround Construction Guidelines.

⚠ WARNING

THIS HEATER CREATES WARM AIR CURRENTS. THESE CURRENTS MOVE HEAT TO WALL SURFACES NEXT TO THE HEATER. INSTALLING THE HEATER NEXT TO VINYL OR CLOTH WALL COVERINGS OR OPERATING THE HEATER WHERE IMPURITIES IN THE AIR SUCH AS TOBACCO SMOKE EXIST, MAY DISCOLOR WALLS.

⚠ WARNING

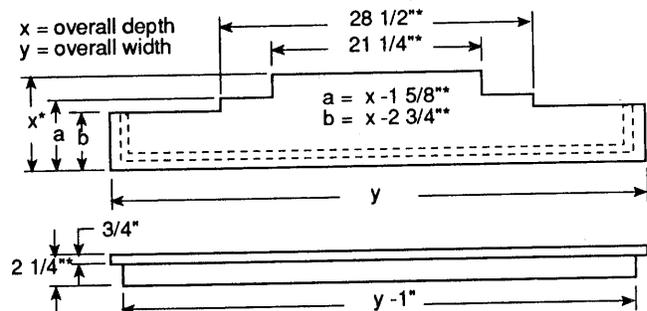
AVOID ANY DRAFTS THAT ALTER BURNER FLAME PATTERNS. DO NOT ALLOW FANS TO BLOW DIRECTLY INTO THE FIREPLACE.

⚠ CAUTION

DO NOT OVERLAP THE CAST IRON BRICK PANELS WITH SURROUNDING WALL MATERIALS. THE BRICK PANELS MUST REMAIN REMOVABLE FOR FIREBOX AND BURNER SERVICE AND MAINTENANCE.

⚠ WARNING

DO NOT ALLOW SURROUNDING COMBUSTIBLE MATERIALS TO CONTACT THE CAST IRON BRICK PANELS.



* Critical Dimensions to fit fireplace Cabinet.

Figure 23. Hearth Construction Guidelines. This drawing is intended to show how a custom hearth should be shaped to fit into the Cabinet. Dimensions x and y will vary depending on the overall depth and width appropriate for your surround and finished wall design.

Connecting the Gas Supply

The following procedures apply to the VF25 Firebox / Burner Models 2640 (NG) and 2641 (LP) installed in the Freestanding stove, Hearthmount or Fireplace cabinet. Check the rating plate on the cable under the valve to confirm that you have the appropriate burner for the type of fuel to be used.

NOTICE

THIS APPLIANCE SHOULD BE CONNECTED TO THE GAS SUPPLY ONLY BY A QUALIFIED GASSERVICE TECHNICIAN. INSTALL ONLY IN ACCORDANCE WITH NATIONAL FUEL GAS CODE, ANSI Z223.1 - LATEST EDITION. (EXCEPTION: DO NOT DERATE THIS APPLIANCE FOR ALTITUDE. THIS APPLIANCE HAS BEEN TESTED AND LISTED FOR USE IN ALTITUDES UP TO 10,000 FEET. MAINTAIN MANIFOLD PRESSURES AS SPECIFIED BELOW.) FOLLOW ALL LOCAL CODES.

The VF25 Heater and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).

The VF25 Heater must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig.

An 1/8-inch N.P.T. plugged tapping, accessible for test gauge connection, must be installed on the inlet gas connection.

CAUTION

- Install a gas shut-off valve between this appliance and the supply.
- **For Natural Gas:** Use a 3/8" or 1/2" natural gas supply line with an input of 25,000 BTU/Hr at a manifold pressure of 3.5" and minimum inlet supply for adjustment of 5.0 W.C.
- **For Propane:** Use a 3/8" or 1/2" natural gas supply line with an input of 25,000 BTU/Hr at a manifold pressure of 10" and minimum inlet supply for adjustment of 11" W.C.

Operation

Your First Fire

Read these instructions carefully and familiarize yourself with the burner controls of this heater. Locate the Pilot assembly, Fig. 24. Follow the lighting instructions on Page 17 exactly.

During the first fire, it is not unusual to smell some odor associated with new logs, paint and metal being heated. Odors should dissipate within an hour or so, however, you can open a window to provide plenty of fresh air to alleviate the condition.

Pilot and Burner Inspection

Each time you light your heater check that the pilot flame and burner flame pattern are as shown in Fig. 25 or Fig. 26. and Fig. 28. If flame patterns are incorrect, turn the heater off. See *Troubleshooting*, Page 19.

Do not operate the heater until the pilot flame is correct.

Follow regular maintenance procedures as described on Page 18.

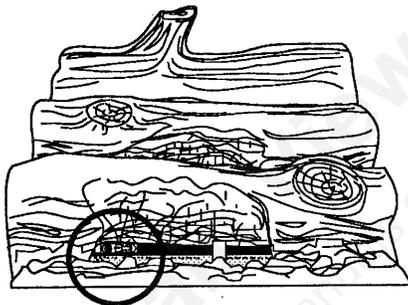


Figure 24. Pilot Assembly Location

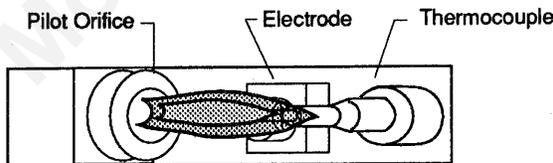


Figure 25. Correct LP Pilot Flame

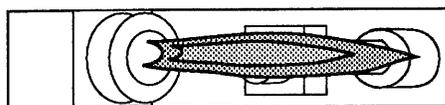


Figure 26. Correct NG Pilot Flame

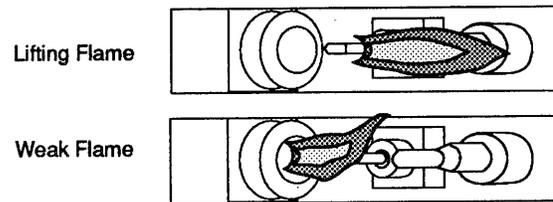


Figure 27. Examples of Incorrect Pilot Flame.

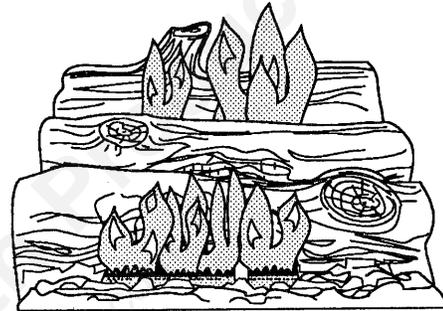


Figure 28. Proper flame pattern with Regulator in HIGH position.

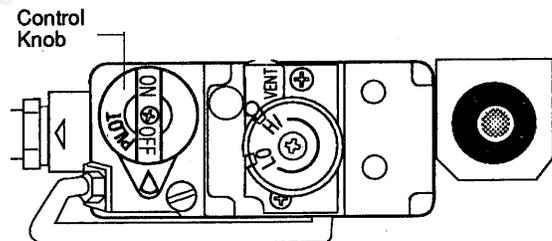


Figure 29. Control Valve OFF.

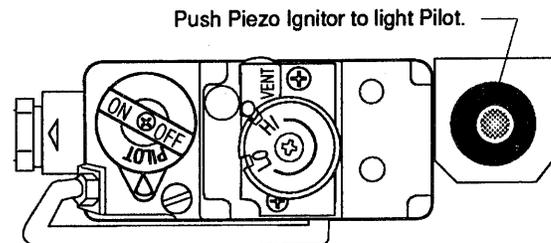


Figure 30. Control Valve in Pilot position.

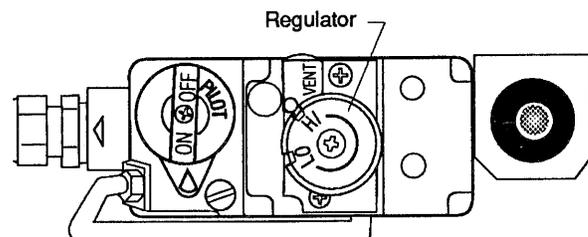


Figure 31. Control Valve in ON position.

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR LOSS OF LIFE.

- A. This appliance has a pilot. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE OPERATING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any gas 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 turn the gas control knob. Never use tools. If the knob will not 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 that has been under water.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this panel.
 2. Turn off all electric power to the appliance.
 3. Push in gas control knob slightly and turn clockwise  to "OFF." See Fig. 29.
- 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. If you then smell gas, STOP! Follow "B" in the safety information above on this panel. If you don't smell gas, go to the next step.
 5. Turn knob on gas control counter-clockwise  to "PILOT." See Fig. 30.
 6. Push in control knob all the way and hold in. Immediately light the pilot by pushing the red Ignitor button. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 3 through 5.
 - If knob 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 clockwise  to "OFF" and call your service technician or gas supplier.
 7. Turn gas control knob counter-clockwise  to "ON." See Fig. 31.
 8. Turn on all electric power to the appliance.

TO TURN OFF GAS TO APPLIANCE

1. Turn off all electric power to the appliance if service is to be performed.
2. Push in gas control knob slightly and turn clockwise  to "OFF."

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

Maintenance

Your Vent Free Heater will provide years of service with minimal upkeep. The following procedures will help ensure that your stove or fireplace continues to function properly.

Firebox Cleaning and Inspection

Cleanliness is critical to the proper function of the heater. The Logset, Burner, Valve Controls and air circulation areas must all be kept free of dust and unobstructed by debris. Inspect these areas before each use.

Have the heater inspected annually by a qualified gas technician. More frequent cleaning may be necessary in living environments subject to excessive carpet lint or pet hair.

Step 1. Turn the burner OFF and let the heater cool completely before cleaning.

Step 2. Freestanding or Hearthmount: Lift the Front Plate up and then swing the bottom out to disengage it from the heater shell.

Fireplace: Lift the cast iron Brick Panels/Control Door as a unit to disengage them from the steel Cabinet.

Step 3. Disengage the side clips to remove the screen from the Firebox.

Step 4. Carefully inspect the Logset for damage. Contact your local dealer if any damage is evident.
DO NOT OPERATE THE HEATER WITH A DAMAGED LOGSET.

Use a soft bristled brush to sweep dust or debris from the Logset, Pilot and Burner. Use care as the Logset is fragile and susceptible to damage. **DO NOT USE A VACUUM TO CLEAN THE LOGSET OR BURNER.**

Fireplace Only: Clean the Cabinet area under the Firebox.

Step 5. Replace the screen and Front Plate or Brick Panels. **DO NOT OPERATE THE HEATER WITH THE SAFETY SCREEN REMOVED.**

Care of Cast Iron

An occasional dusting with a dry rag will help keep the *painted surfaces* looking new. Use high-temperature stove paints, available through your local dealer, to touch-up areas as needed. Clean areas to be painted with a wire brush and be sure to cover the Logset, Burner and Valve assembly. Apply the paint sparingly; two light coats of paint will give better results than a single heavy coat.



WARNING

TURN THE PILOT OFF BEFORE PAINTING.

Porcelain enamel surfaces should be cleaned with a soft, damp cloth. Do not use abrasive cleaning agents. If necessary, use only a cleaning agent formulated specifically for use on porcelain enamel surfaces.

Troubleshooting

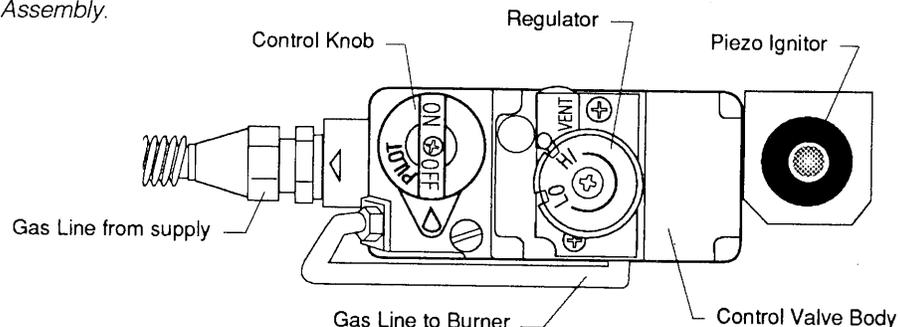
Follow these procedures in the order presented.

⚠ WARNING

TURN OFF HEATER AND ALLOW TO COOL COMPLETELY BEFORE SERVICING.

CONDITION	POSSIBLE CAUSE	SOLUTION
No spark at pilot when Ignitor button is pressed.	<ol style="list-style-type: none"> 1. Ignition Electrode is disconnected from ignition wire, broken, or incorrectly positioned. 2. Piezo Ignitor nut is loose. 3. Ignitor wire is broken. 4. Bad Piezo Ignitor. 	<ol style="list-style-type: none"> 1. Inspect and re-connect, replace or repair as necessary. 2. Tighten the nut to establish secure contact to the valve bracket. Fig. 32. 3. Replace wire. 4. Replace Piezo Ignitor.
The Ignitor Electrode sparks, but Pilot does not light.	<ol style="list-style-type: none"> 1. Gas supply is turned off or supply line shut-off valve is closed. 2. Control Knob is not in PILOT position. 3. Control Knob not pressed in while in PILOT position. 4. Air present in gas lines. 5. Inlet supply pressure is not within correct settings. 6. Other conditions that should be identified only by a qualified gas technician. 	<ol style="list-style-type: none"> 1. Turn on gas supply or open supply line shut-off valve. 2. Turn Control Knob to PILOT. 3. Press Control Knob in while in the PILOT position. 4. Continue holding in Control Knob and repeat ignition procedure until air is bled from the lines. 5. Call local gas supplier. Adjust inlet supply pressure to specification: 5" W.C. - 8" W.C. (5" W.C. - 7" W.C. at elevations over 8000 ft.) 6. Call qualified gas technician.

Figure 32. VF25 Control Valve Assembly.



CONDITION

POSSIBLE CAUSE

SOLUTION

Pilot lights but flame goes out when Control Knob is released.

Figure 33.

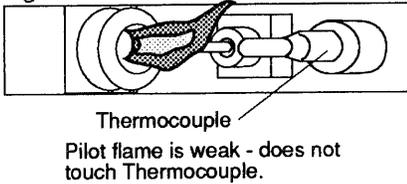


Figure 34.

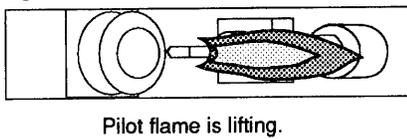


Figure 35. Correct LP Pilot Flame

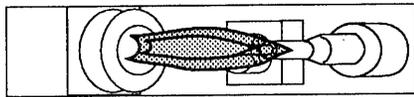
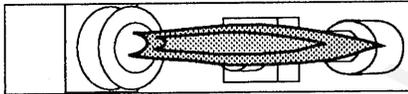


Figure 36. Correct NG Pilot Flame



1. Control Knob not fully depressed or held in long enough.
2. Gas supply line shut-off valve is not fully open.
3. Thermocouple connection is loose at the Control Valve.
4. Pilot flame does not touch the Thermocouple. Figs. 33 - 34. This can be caused by:
 - A) Incorrect gas pressure, and / or
 - B) other conditions that should be identified only by a qualified service technician.
5. Thermocouple is damaged.
6. Control Valve is damaged.

1. Depress Control Knob fully and hold in for a full 30 seconds.
2. Fully open gas supply line shut-off valve.
3. Inspect and tighten securely.
4. A) Contact the local gas company. Inlet supply pressure should be between 5" W.C. and 8"W.C. (5" W.C.- 7"W.C. over 8000 ft. elevation). Adjust as necessary.
B) Call local gas service technician.
5. Call local gas service technician.
6. Call local gas service technician.

Pilot lights but Main Burner does not.

1. Gas supply line shut-off valve is not fully open.
2. Foreign material is blocking Burner ports.
3. Main Burner orifice is clogged.

1. Fully open gas supply line shut-off valve.
2. Inspect and clear debris away from Burner ports.
3. Call local gas service technician.

Main Burner shuts off and Pilot flame goes out while in operation.

1. Insufficient fresh air.
2. Incorrect inlet supply pressure.

1. Determine that adequate ventilation exists to provide sufficient fresh air. Open a window or provide additional ventilation. (See *Fresh Air Requirements*, Pages 5-6.)
2. Contact the local gas company. Adjust inlet supply pressure to specification: 5" W.C. - 8" W.C. (5" W.C. - 7" W.C. at elevations over 8000 ft.)

Troubleshooting *cont'd.* **WARNING****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.**

ODOR DURING OPERATION

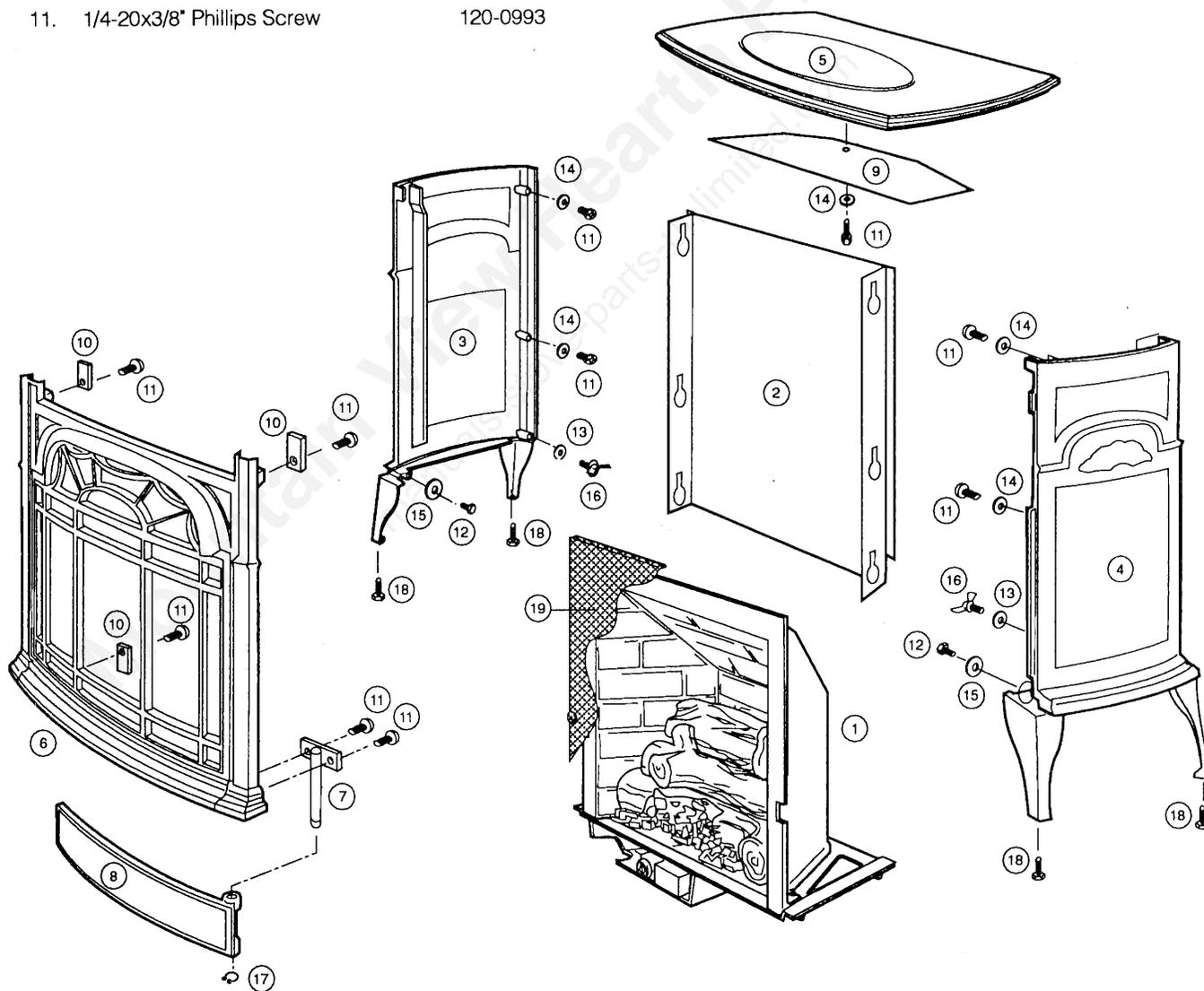
Neither natural gas nor LP gas give off an odor when burned. The nature of a vent free combustion system, however, is such that odors may occasionally be produced during heater operation when impurities exist in the immediate area. Cleaning solutions, paint, solvents, cigarette smoke, adhesives, new carpet or textiles, etc., all can create fumes. These fumes may mix with combustion air and can create odor. Such odors will disappear over time, however, the condition can be alleviated by opening a window or otherwise providing additional ventilation to the area.

If odors persist and you are unable to locate the source, contact a qualified gas service technician.

Parts List

FREESTANDING STOVE 2650

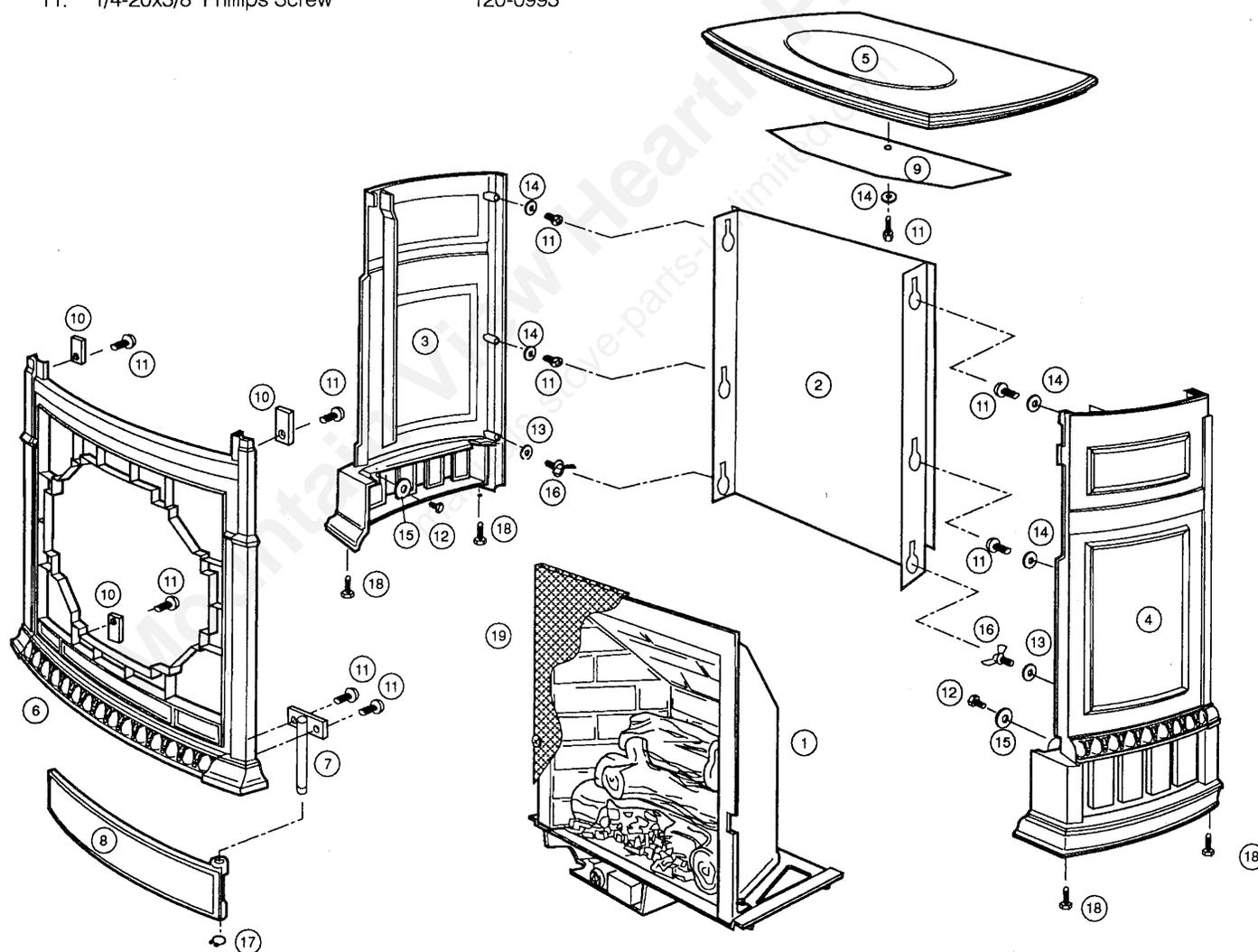
1.	Firebox Assembly / NG	000-2640	12.	1/4-20x1/2" Hex Head Screw	120-1338
	Firebox Assembly / LP	000-2641	13.	Washer, Wingbolt	120-2470
2.	Back	140-8852	14.	Washer	120-2474
3.	End, Left	130-1085	15.	Fender Washer	120-2527
4.	End, Right	130-1086	16.	1/4-20 Wingbolt	120-3110
5.	Top	130-1083	17.	Snap Ring	120-1987
6.	Front	130-1084	18.	Levelling Bolt	120-1745
7.	Hinge, Control Door	160-1670	19.	Screen	140-8851
8.	Control Door	130-1087			
9.	Heatshield	140-8871			
10.	Tab, Steel	160-1488			
11.	1/4-20x3/8" Phillips Screw	120-0993			



Parts List

HEARTH MOUNT 2660

1.	Firebox Assembly / NG	000-2640	12.	1/4-20x1/2" Hex Head Screw	120-1338
	Firebox Assembly / LP	000-2641	13.	Washer, Wingbolt	120-2470
2.	Back	140-8852	14.	Washer	120-2474
3.	End, Left	130-1088	15.	Fender Washer	120-2527
4.	End, Right	130-1089	16.	1/4-20 Wingbolt	120-3110
5.	Top	130-1083	17.	Snap Ring	120-1987
6.	Front	130-1105	18.	Levelling Bolt	120-1745
7.	Hinge, Control Door	160-1670	19.	Screen	140-8851
8.	Control Door	130-1087			
9.	Heatshield	140-8871			
10.	Tab, Steel	160-1488			
11.	1/4-20x3/8" Phillips Screw	120-0993			



Parts List

FIREPLACE CABINET 2646

- | | | |
|-----|-----------------------------------|----------|
| 1. | Top | 140-8858 |
| 2. | Sides/Back | 140-8857 |
| 3. | Bottom | 140-8855 |
| 4. | Sheetrock Stop, Left | 140-8856 |
| 5. | Sheetrock Stop, Right | 140-8861 |
| 6. | Standoff, Top (2) | 140-8860 |
| 7. | Firebox Support Shelf (2) | 140-8859 |
| 8. | Brick Extension, Right | 130-1091 |
| 9. | Brick Extension, Left | 130-1092 |
| 10. | Lintel/Louver | 130-1093 |
| 11. | Control Door | 130-1094 |
| 12. | Washer (2) | 120-2470 |
| 13. | 1/4-20 x 3/4" Phillips Screw (2) | 120-0900 |
| 14. | Damper Tab (6) | 160-1488 |
| 15. | 1/4-20 x 3/8" Phillips Screw (6) | 120-0993 |
| 16. | Compression Spring (2) | 120-1846 |
| 17. | 140-8862 | |
| 18. | Back Bracket | 140-8886 |
| 19. | #10 x 1/2" Sheet Metal Screw (53) | 120-2058 |
- not illustrated*

