

# OSBURN BAY VISTA

## Gas Fireplace Insert Installation and Operating Instructions



## *The Flame of Desire*

### FOR YOUR SAFETY - WHAT TO DO IF YOU SMELL GAS

- \* Open windows
- \* Extinguish any open flame
- \* 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.

### WARNING

Do not store or use gasoline, or other flammable vapors and liquids, in the vicinity of this, or any other appliance. Improper installation, service, adjustment, alteration, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency, or the gas supplier.

Please read this manual before installing or using this appliance. Retain this manual for future reference.

ISO  
9002

WARNOCK HERSEY  
**WH**<sup>®</sup>

**OSBURN**<sup>™</sup>  
GAS & WOOD  
HEARTH SYSTEMS

Patents Pending  
Made in Canada  
11/26/98 BN048

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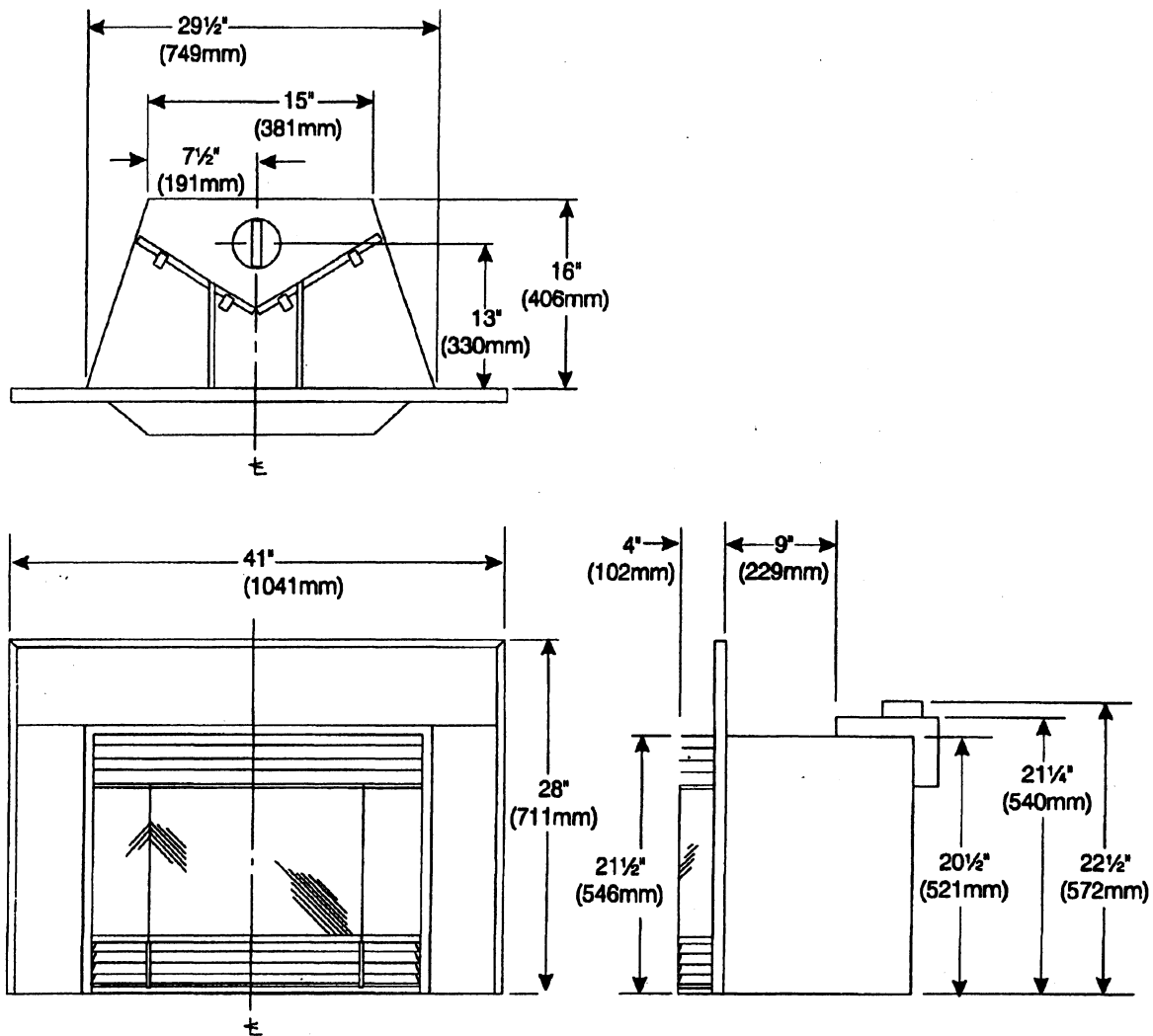
# 1.0 INTRODUCTION

## 1.1 SPECIFICATIONS

**TABLE 1 SPECIFICATIONS**

ITEM	NATURAL GAS (NG)	PROPANE (LPG)
INPUT:	35,000 BTU/hr (36.9 MJ/hr)	27,000 Btu/hr (28.5 MJ/hr)
Flue Loss: EFFICIENCY:	Fan off 74.5%	75.0%
	Fan on 77.3%	78.5%
OUTPUT:	Fan off 26,000 Btu/hr (27.4 MJ/hr)	20,250 Btu/hr (21.3 MJ/hr)
	Fan on 27,000 Btu/hr (28.5 MJ/hr)	21,200 Btu/hr (22.3 MJ/hr)
MANIFOLD PRESSURE:	3.5" w.c. (0.87 kPa)	10.5" w.c. (2.6 kPa)
GAS INLET SUPPLY PRESSURE:	Min: 5.0" w.c. (1.24 kPa)	Min: 13.3" w.c. (4.02 kPa)
	Normal: 7.0" w.c. (1.74 kPa)	Normal: 13.3" w.c. (4.02 kPa)
	Max: 13.5" w.c. (3.36 kPa)	Max: 13.8" w.c. (3.44 kPa)
ORIFICE SIZE:	#32 drill (Ø.116") @ 0-4500'	1/16" drill (Ø.0625") @ 0-4500'
CONTROL VALVE TYPE:	Sit 820 Nova	
SHIPPING WEIGHT:	111 lb. ( 50 kg)	
FLUE OUTLET SIZE:	4"DIA. (102mm)	
FAN:	Variable Speed 120 CFM	

Options: Gold plated and color trim packages  
 Faceplates and trim kits  
 Osburn Zero Clearance Kit Assembly



**Figure 1 Exterior Dimensions**

## INSTALLATION CODES

Installation must conform to local codes. In the absence of local codes, installation must conform to the National Fuel Gas Code, ANSI Z233.1 1988, (in the U.S.), or with the current installation code CAN/CGA B149.1-M86 (in Canada). In Australia, the Australian Gas Association installation code for gas burning heaters and equipment must be used. The heater, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electric code ANSI/NFPA No. 70-1990 (in the U.S.) or with the current CSA C22.1 Canadian Electrical code (in Canada).

## 1.2 FEATURES

### Ignition system:

Standing pilot ignition system with thermopile and thermocouple flame detection and piezo igniter.

### Gas control:

#### Gas control valve type:

Automatic millivolt powered combination gas control valve with on/off switch, and variable flame control for convenience. Optional remote on/off switch, optional wall thermostat, and/or optional remote control are available. The gas valve does not require electric power from an external source.

### Fan controls:

#### Automatic/Manual selector switch:

Automatic selection controls fan operation through a heat sensitive switch turning on when the heater is at operating temperature.

#### Fan speed selector switch:

A three position switch providing high speed, off, and low speed operation.

### Safety controls:

A safety switch will shut the system down in the event of any one of the following conditions:

- Loss of pilot flame
- Incorrectly installed vent system
- Blocked stack causing flue spillage
- Flow reversal or sustained downdraft situation

### Draffhood:

The appliance is provided with a draffhood design which minimizes the effects of downdrafts or flue blockages on the quality of combustion. It will vent out of the appliance upon downdraft or flue blockage and, by design, it exhausts to the same pressure zone as the combustion air inlet to the appliance.

### Optional outside combustion air supply:

The outside combustion air supply damper may be open during operation and closed when the heater is not in use.

## 1.3 INTENDED USE

This appliance is intended to be used as a heater, when installed as an insert for masonry, or factory built zero clearance fireplaces, which meet the minimum requirements as described in detail in the installation instructions. This heater is also intended to be installed in an Osburn Zero Clearance Kit Assembly. This heater is suitable for installation in bedrooms where the maximum input is within 50 cubic feet per 1000 BTU/hr, (ie. 700 cubic feet for NG, 540 cubic feet for LPG).

## 1.4 GENERAL SAFETY

This vented heater must be properly connected to a venting system in accordance with local codes. This unit must not be connected to a chimney or flue serving a separate solid fuel burning appliance. It is equipped with a safety control system (vent safety shut-off system) to protect against improper venting of flue products. The heater will shut down if no vent is connected, if the drafthood becomes disconnected, or if there is flue downdraft.

**WARNING: Operation of this heater when not connected to a properly installed and maintained venting system, or any tampering with the safety shutoff system may result in carbon monoxide poisoning and possible death.**

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 technician.

Provide adequate clearances around air openings into the combustion chamber and allow accessibility clearance for servicing and proper operation.

Ensure that the fresh air control is closed, if not connected to an outside air duct.

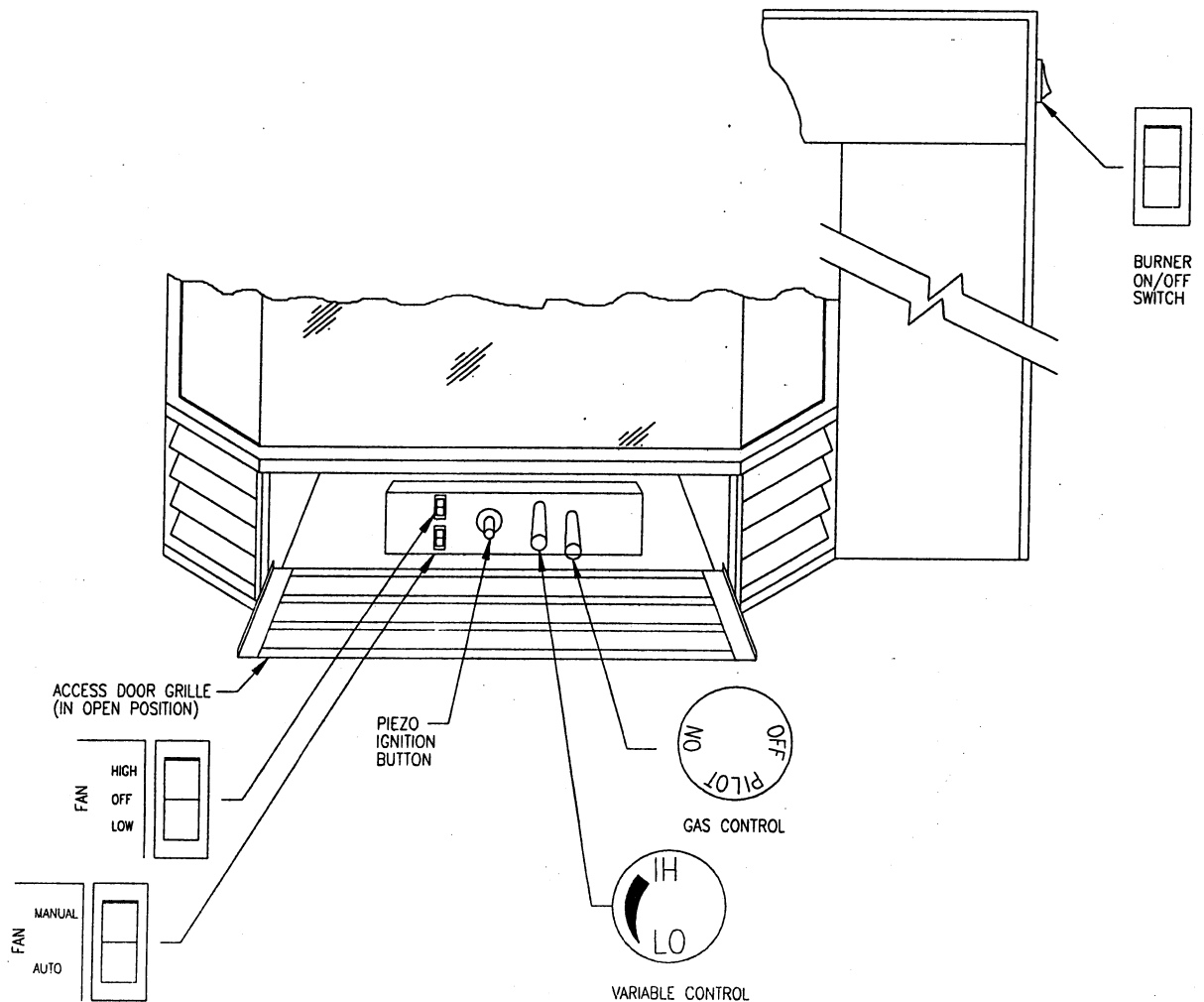


Figure 2

## 2.0 OPERATION

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### 2.1 OPERATION SAFETY

Inspect the heater before use. Always keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids. Never obstruct the flow of combustion and ventilation air. Keep the front of the appliance clear of all obstacles and foreign materials. Never obstruct or modify the air inlet/outlet grilles of the fireplace in any manner.

Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or contact with hot surfaces. Young children should be carefully supervised when they are in the same room as the heater. Clothing or other flammable material should not be placed on or near the heater.

The glass panel and louvers must be properly installed prior to operation. Never operate the heater with the glass panel off or broken since this may cause dangerous indoor air pollution. This heater is not for use with solid fuel.

### 2.2 LIGHTING INSTRUCTIONS

#### FOR YOUR SAFETY, READ BEFORE LIGHTING

- A. This appliance is provided with a standing pilot flame. When lighting the pilot, follow these instructions exactly:

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

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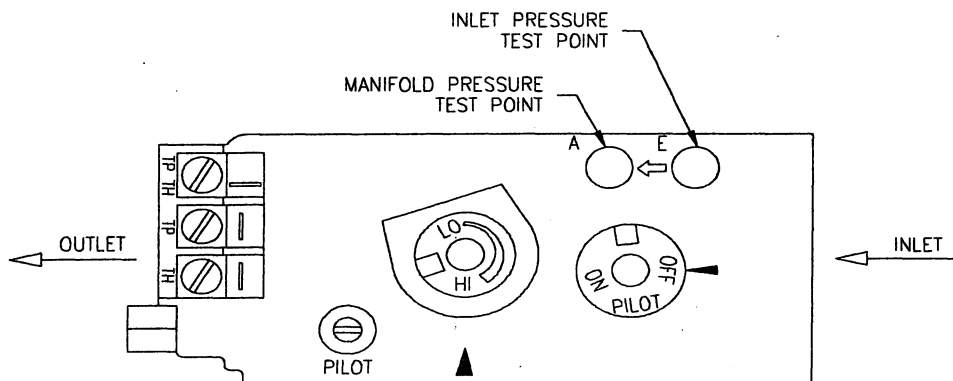
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### WHAT TO DO IF YOU SMELL GAS

- \* Do not try to light any appliance.
  - \* Do not touch any electrical switch: do not use any phone in your building.
  - \* Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions.
  - \* If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to force or repair it, call a qualified service technician. Forcing 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.

## LIGHTING PROCEDURE

1. **"STOP!"** Read the safety information in the previous section.
2. Set the thermostat to the lowest setting.
3. Turn off all electrical power to the appliance.
4. Open the access door grille, hinged to open downward, by pulling the top grille toward you.
5. Push in the gas control knob slightly and turn clockwise → to the "OFF" position as shown in Figure 3.



6. Wait a minimum of five minutes to clear out any residual gas. If you then smell gas, **STOP!** Follow "B" in the Lighting Instruction section described on the previous page. If you don't smell gas, go to the next step.
7. Press in the valve knob and turn counterclockwise ← to the "PILOT" position.
8. Push in the control knob all the way and hold it in. Immediately push the piezo ignition button (the red button to the left) repeatedly so that it clicks; continue until the pilot ignites. Maintain pressure on the control knob for about one minute after ignition. Then release the control knob; if the pilot flame goes out repeat step 8; if the pilot flame remains on then turn the valve knob counterclockwise ← to the "ON" position.
9. If the pilot lights, but will not stay on after several tries, turn the gas control knob to the "OFF" position and call your service technician or gas supplier. If the control knob does not pop out when released, **STOP** - shut off the gas supply to the control valve, and **IMMEDIATELY** call your service technician or gas supplier.
10. Close the access door grille by lifting it and allow the springs to pull it closed.
11. If equipped with an on/off faceplate or wall switch, select the "ON" position. If equipped with a thermostat or auxiliary control, set it to the desired setting.



## **SHUTDOWN PROCEDURE**

1. To turn off the main burner only, turn off the wall switch, thermostat, or On/Off switch located on the faceplate. The pilot will remain lit, ready for main burner relighting.
2. For complete shutdown of the appliance, depress the valve control knob and turn it clockwise → to the "OFF" position.

## **2.3 HEAT OUTPUT ADJUSTMENT**

The valve supplied with the appliance has a HI/LO knob to control the heat output and flame height (see Figures 2 & 3).

## **2.4 FAN OPERATION**

The fan control switches are located behind the access door grille assembly and may be adjusted to the following settings:

Automatic or Manual: (lower switch)

When set to automatic, the fan will come on when the unit reaches operating temperature.

High, Off, or Low speed: (upper switch)

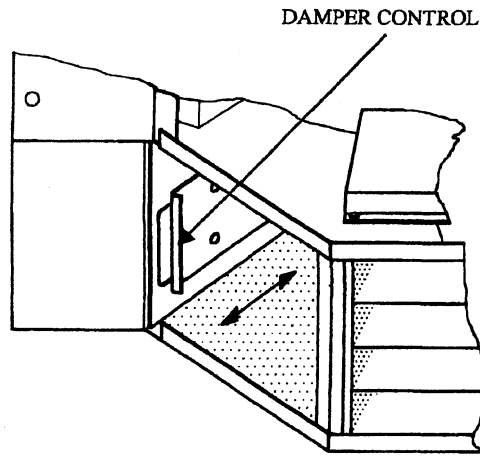
When the switch is pushed up, the fan will be on high speed; in the middle position off, and when pushed down, on low speed.

## **2.5 REMOTE CONTROL OPERATION**

An optional hand held remote control kit for turning the unit On and Off, is also available. Detailed instructions for the optional Remote Control are included with the kit.

## **2.6 OUTSIDE COMBUSTION AIR SUPPLY DAMPER OPERATION (Fresh Air Control)**

If outside air is being supplied the damper should be opened during operation and closed when the heater is either not in use, or not connected.



**Figure 4 Operation of Fresh Air Control**

1. First remove the left hand side grille assembly.
2. To open the damper, slide the damper control towards the rear of the unit (see Figure 4).
3. To close the damper, slide the damper control towards the front of the unit.

## **3.0 INSTALLATION**

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### **3.1 INSTALLATION & SAFETY NOTES**

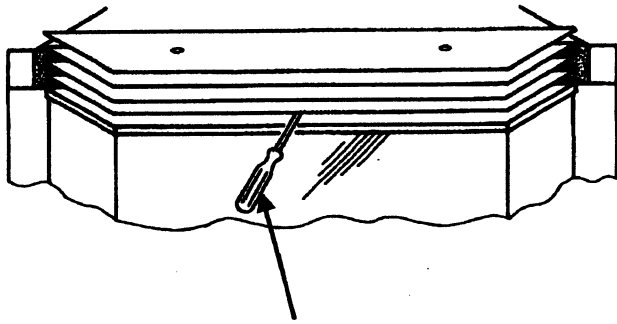
Read all instructions before starting installation and follow them carefully during installation to ensure maximum benefit and safety. Failure to follow these instructions will void your warranty and may present a fire hazard. See the Osburn warranty at the back of this manual for improper installation disclaimers. This fireplace insert and its components are tested and safe when installed in accordance with this installation manual. ***This insert must never be installed in direct contact with combustible construction.***

***ELECTRICAL GROUNDING NOTE:*** This heater fan is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

**WARNING:** Do not connect 120 VAC to the gas control valve or its wiring, as this will damage the valve.

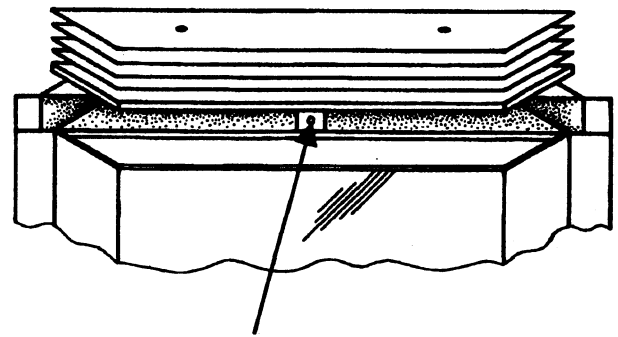
### **3.2 UNPACKING**

The unit is shipped with the logs, vermiculite, and glowing ember wool in separate packages inside the firebox. The three grille assemblies and faceplate assembly with the levelling screws are packaged separately. All other parts of the unit are in place.



#2 PHILLIPS SCREWDRIVER

Figure 5a



LOUVRE SCREW HOLE

Figure 5b

Report to your dealer any parts that may have been damaged in shipment (*specifically check the glass condition*).

The right hand grille will need to be removed from the unit prior to connecting the gas line. The best time to install the internally packaged parts is after connection of the gas line. The louvre assembly and glass panel need to be removed before installation of the vermiculite, glowing ember wool, and logs.

1. Note the position of the louvre assembly before removing. Hold the glass against the unit removing the Phillips screw located above the center of the glass as shown in Figure 5a.
2. Carefully lift the louvre assembly while holding the glass in place as shown in Figure 5b.
3. Gently lift the glass panel with glass edge trims out of the bottom glass retainer. Handle the glass and trim very carefully and set it *in a safe place*, away from traffic areas.

**NOTE: THE ONE PIECE GLASS IS VERY FRAGILE AND IS EXPENSIVE TO REPLACE. DO NOT MOVE THE HEATER WITH THE GLASS IN PLACE AFTER THE INITIAL UNPACKING IS DONE.**

4. Remove the packaging containing the logs, vermiculite, and glowing ember wool.

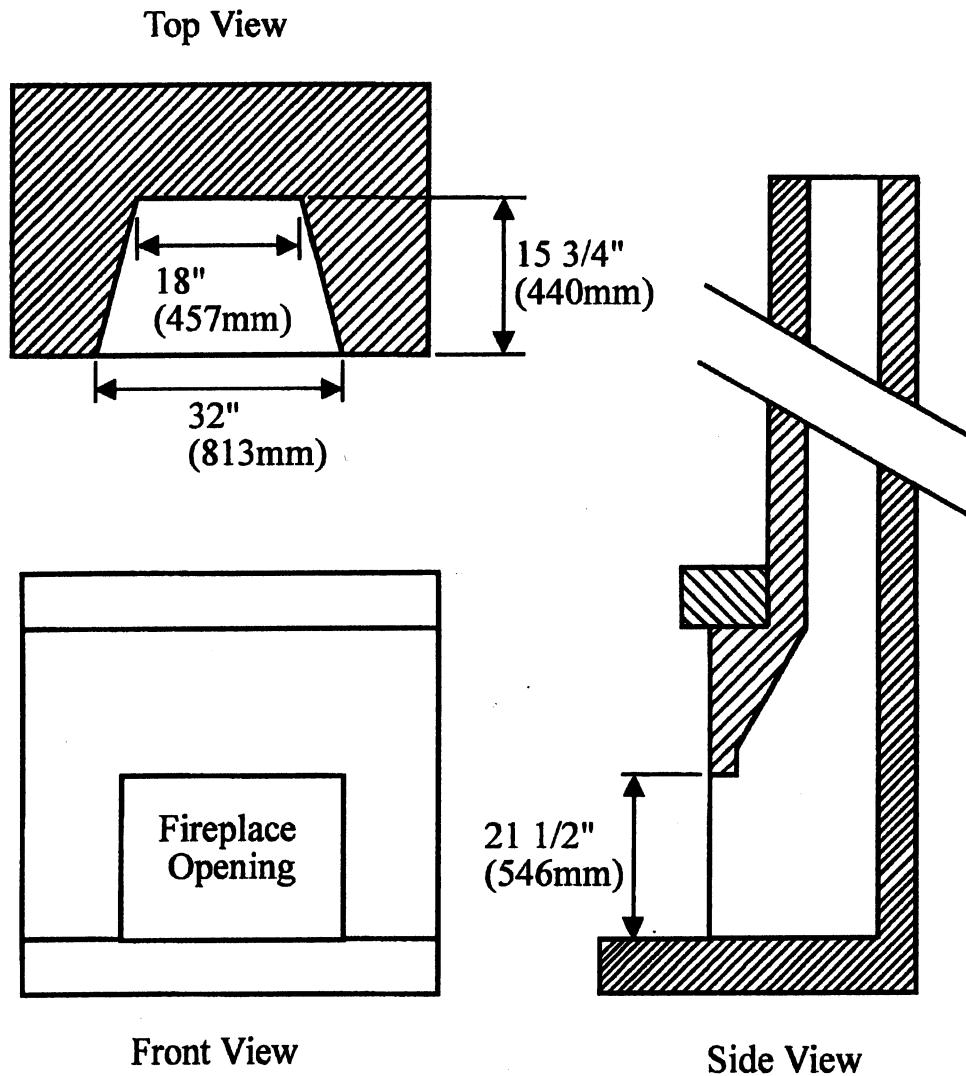
### 3.3 INSTALLATION

In planning the installation for the insert it is necessary to install certain items prior to its final positioning. These include the vent system, the gas piping, and the wiring. The installer must test the appliance before leaving.

**NOTE: ALL INSTALLATIONS REQUIRE VENTING.**

#### 3.3.1 MINIMUM CLEARANCES TO COMBUSTIBLE CONSTRUCTION

This top venting insert is suitable for installation in masonry fireplaces, in Osburn Zero Clearance Kit Assemblies, or in factory built zero clearance fireplaces which have a gas line knockout and proper floor clearances.



**Figure 6 Minimum Fireplace Dimensions**

A masonry fireplace must meet the minimum building code requirements or the equivalent for a safe installation.

Inspect the fireplace to ensure the insert will fit (see Figure 6).

Do not modify the unit by removing or altering the spacer so that the insert can fit into a smaller sized cavity.

Factory built zero clearance fireplaces and their chimneys must be certified and meet local code requirements. Both must be free from cracks, blockage, creosote deposits, loose mortar, or other types of deterioration.

## Minimum Clearances to Combustible Construction

- A. Sidewall 10" (255mm) measured to glass
- B. Mantle 22" (585mm) to top louvre
- C. Ceiling 40" (1015mm) to top louvre
- D. Facing
  - sides 1" (25mm) to masonry fireplace standard faceplate
  - top 7.5" (190mm) to masonry fireplace standard faceplate
- E. Floor See Figure 7.

**NOTE: SIDE MANTLE SUPPORT POSTS MUST BE A MINIMUM OF 43" (1090mm) APART.**

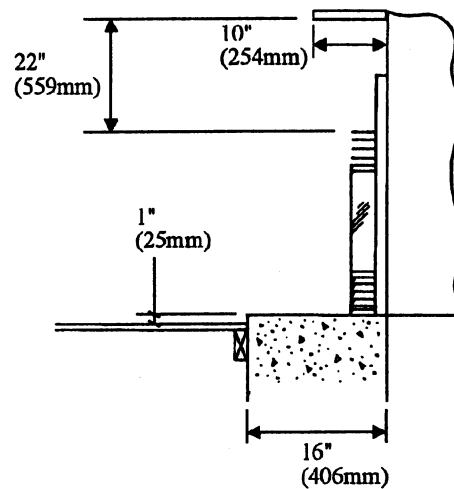
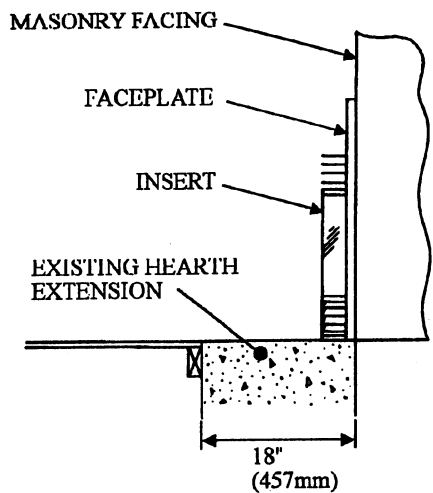


Figure 7a & b

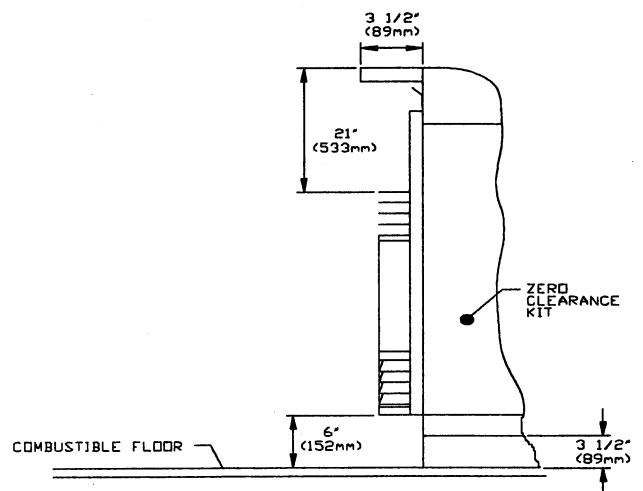
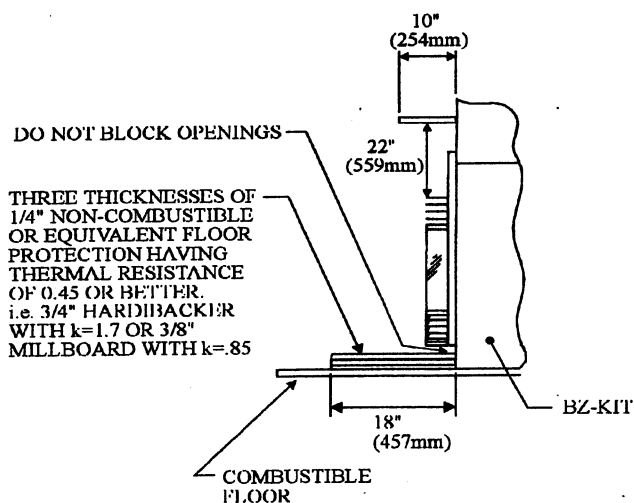


Figure 7c & d

### 3.3.2 OPTIONAL OUTSIDE COMBUSTION AIR SUPPLY INSTALLATION

Supply a 4" (102mm) diameter flex aluminum pipe or equivalent from the outside preferably to the lower left of the fireplace cavity.

### 3.3.3 CHIMNEY LINER OR VENT INSTALLATION

Figure 8 shows the completed installation in a masonry or factory-built zero clearance fireplace.

The insert must be connected to a liner suitable for use with gas. The liner must run within the existing chimney from the outlet collar of the draft hood to the top of the masonry or factory built chimney. Install the liner according to the manufacturer's instructions. Use a maximum of 2 offsets (4-45° elbows), or two 90° elbows. Slope horizontal pipe at least 1/4" (6.4mm) rise per foot of run. Horizontal runs should not exceed the vertical rise.

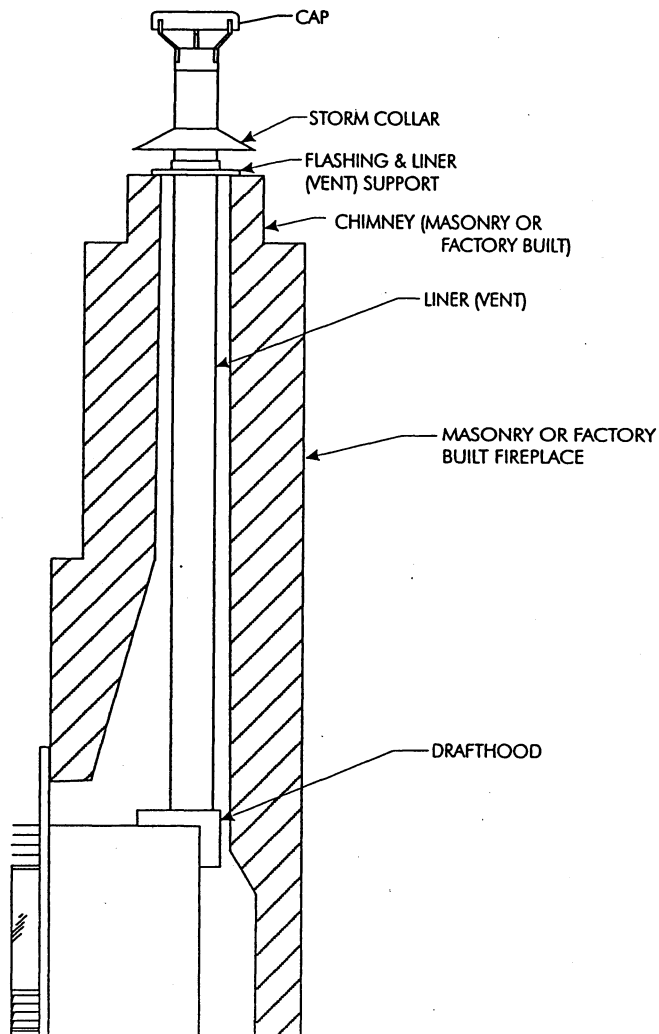


Figure 8

### 3.3.4 GAS LINE INSTALLATION

Install supply line using flexible gas line such as listed gas appliance connectors meeting CAN/CGA 6.10, AGA 3, ANSI Z21.24 or Z21.45, or any other approved piping method. A qualified service technician should install the gas line in accordance with all local building codes. If codes permit, flex gas line or coiled copper tubing may be used for gas supply.

A plugged tapping is provided on the gas control for a test gauge connection to measure the manifold pressure.

This 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 (3.45 kPa).

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

A plugged tapping is provided on the gas control for a test gauge connection to measure the manifold pressure, as well as a connection for inlet pressure measurement.

Install the gas line as follows:

Install half of a union onto the nipple upstream of the control valve. Run a 3/8" (9.5mm) NPT gas line straight toward the front 12 3/4" - 13" (325-330mm) to the right of fireplace and heater center line is 1/2" (13mm) back from the front facing for masonry and factory built fireplaces, and 3/4" (19mm) from the front facing for zero clearance installations as shown in Figure 9. Connect the other half of the union to the nipple.

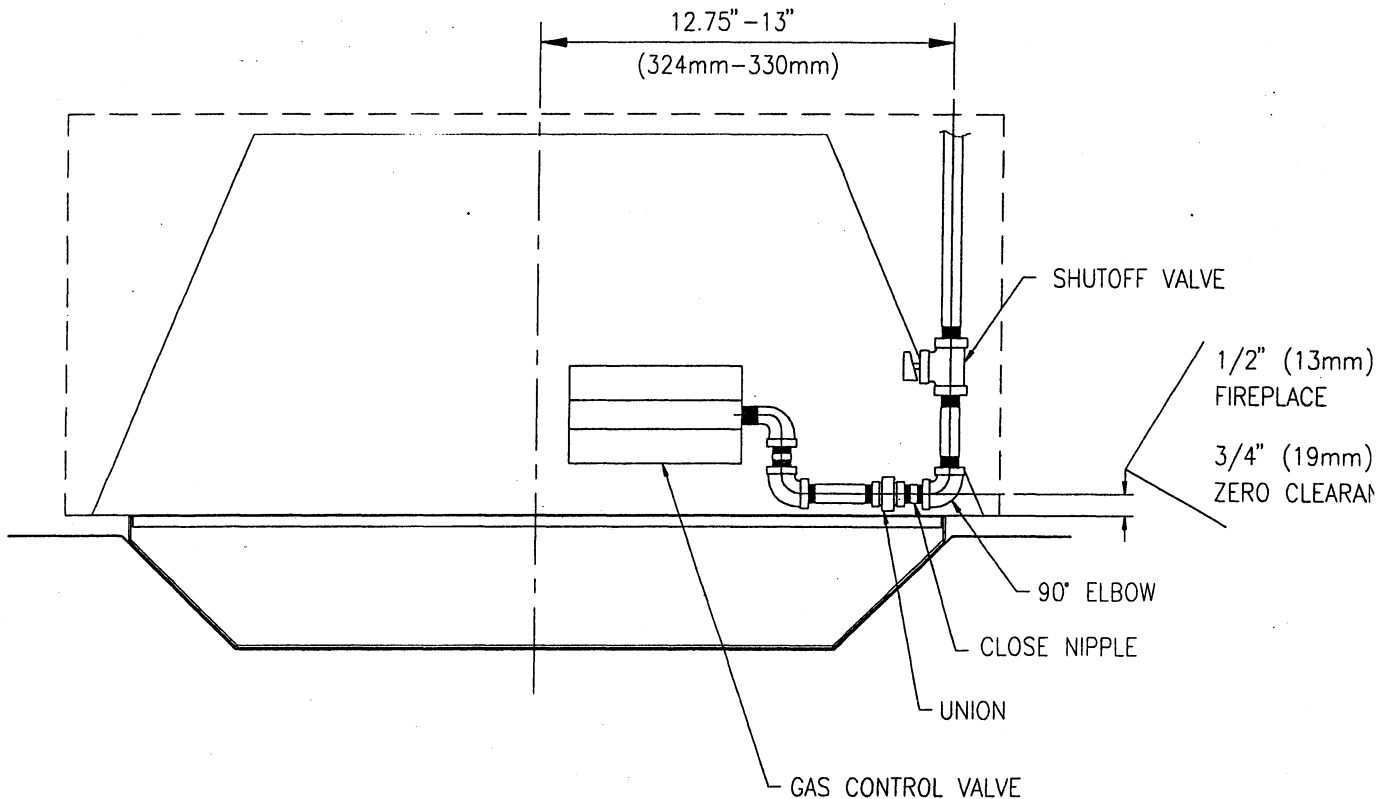


Figure 9

### 3.3.5 THERMOSTAT, WALL SWITCH, OR REMOTE CONTROL INSTALLATION

The thermostat must be CSA or UL approved. Osburn supplies an optional thermostat. If used, a wall switch may be purchased locally as Osburn does not supply this item.

**NOTE:** The thermostat or wall switch **MUST** be rated for millivolt use. Minimize splicing in all millivolt wiring & solder all unavoidable splices.

The two supplied blue lead wires that run from the valve of the heater to the right outside are to be connected to a thermostat, wall switch, faceplate switch, and/or remote control.

1. Mount the Thermostat, Wall Switch, or Remote Control Receiver in the desired location and run "*two conductor thermostat wire*" to the heater's lower right hand corner, close to the gas supply line.

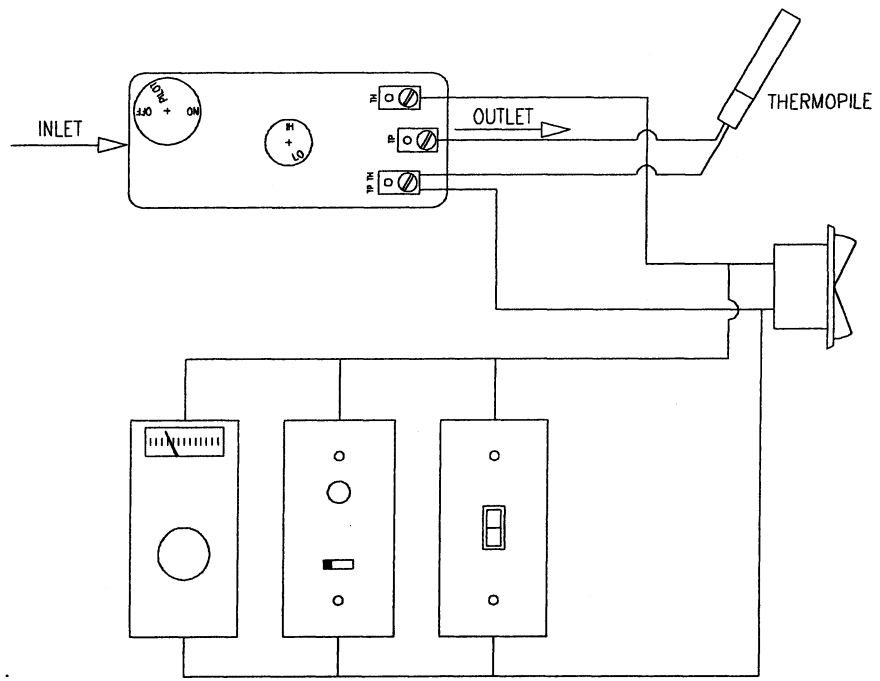
Purchase "*two conductor thermostat wire*," which is not provided, at any local supplier. The gauge of thermostat wire will determine the maximum wire length and distance at which to locate the thermostat or wall switch. See Table 2 and the information packaged with thermostat. Be aware that as wire length increases, the probability of adequate operating voltage decreases.

**TABLE 2 THERMOSTAT WIRE INFORMATION**

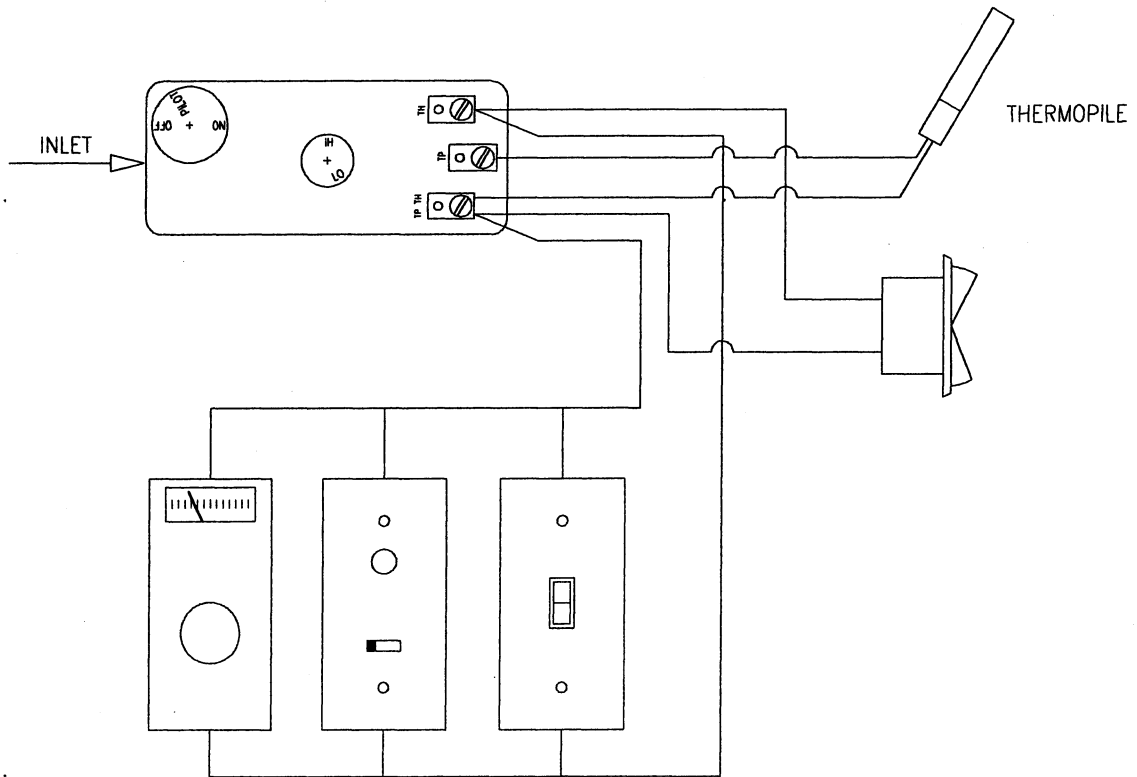
WIRE SIZE	MAX. WIRE LENGTH		
	AWG	mm	ft.
22	0.6	10	3.1
20	0.8	25	7.6
18	1.0	40	12.2
16	1.3	64	19.5
14	1.6	100	30.5

2. While the heater is being installed and the gas line is connected, attach the thermostat wire to the two blue 1/4" (6.4mm) insulated female spade connector wires. If the heater is being installed in a masonry fireplace, connect the blue wires from the valve to the two wires running from the switch on the right side faceplate brass. This switch may be connected in parallel with a thermostat, wall switch, faceplate switch, or remote control as shown in Figures 10a & 10b.
3. Check tests can be performed on the valve by referring to the trouble shooting guide, Section 5.0.





**Figure 10a**



**Figure 10b**

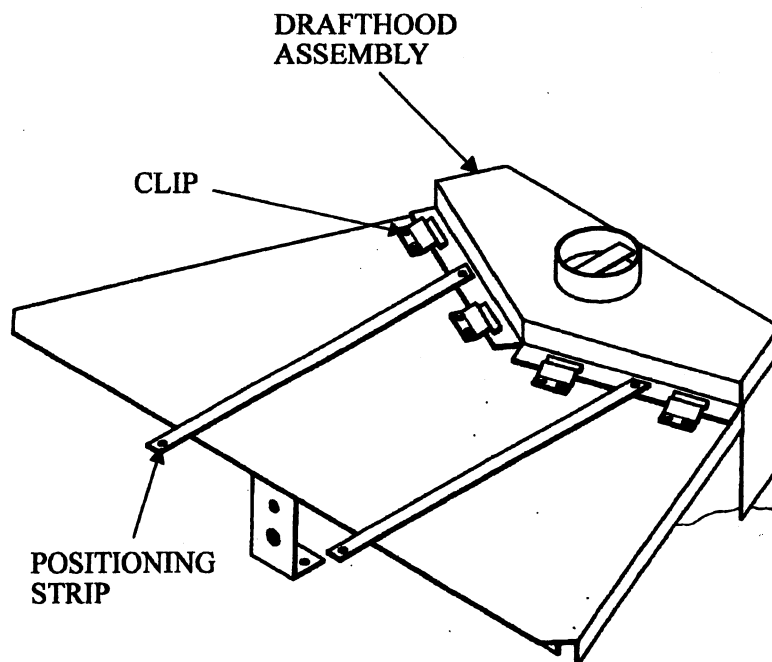
### **3.3.6 VENT, GAS LINE, & WIRING CONNECTIONS**

Unless easily installed with the insert, install the draffhood first as follows:

1. Disconnect the draffhood from the insert and fit it to the end of the previously installed vent, whether it be flue-liner in an existing fireplace, the flue of the Osburn Zero Clearance Kit Assembly, or the flue-liner in an existing factory built zero clearance fireplace.
2. Wiring:
  - i) Cut the plastic pull-tie which holds the blue wires.
  - ii) Cut the plastic pull-tie which holds the fan power cord to the heater.
3. Four captive nuts are attached to the air jacket bottom.
  - i) Remove the two provided 1/4"-20 screws (4" (102mm) long) from the faceplate package.
  - ii) Turn the screws through the two rear captive nuts to level the unit as required.
4. Push the draffhood up so that it is 21" (535mm) above the hearth or fireplace bottom, and start sliding the heater into the fireplace cavity.
5. Connect the wiring for the thermostat, wall or faceplate switch, or the remote control as noted in #2 of section 3.3.5.
6. For fireplace installation:

Route the fan power cord out the right or left side of the heater as desired. If the fireplace opening is less than 33" wide, trim and round the bottom right or left flange of the heater as needed to allow power cord egress. Route the power cord along the bottom *outside* edge of the heater, not underneath, nor under **any** sharp edges.
7. For zero clearance installation:

Plug the power cord into the 120 VAC electric outlet previously installed in the lower right rear corner of the Zero Clearance Kit Assembly. Tie the power cord so that it does not touch the heater bottom.
8. Push the heater back until the front firebox flanges are 1/4" (6mm) in front of the masonry or factory built fireplace facing, or flush with the zero clearance enclosure. As the heater is pushed back, pull the draffhood positioning strips firmly toward the heater front until the draffhood flange is secured under the top clips of the heater as shown in Figure 11.



**Figure 11 Drafthood Mounting**

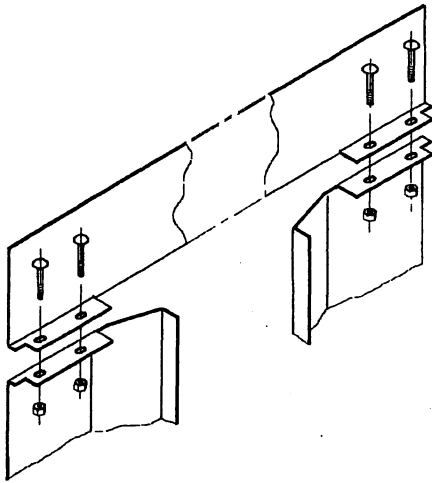
9. Bend the strips down over the air jacket top front edge, cut off the excess strip length, and fold the strips under the air jacket top flange.
10. Connect the union of the gas supply line.
11. Purge the gas line of air.
12. Test the gas line for leaks using an electronic gas leak detector or soapy solution.

**WARNING: DO NOT USE AN OPEN FLAME TO TEST FOR GAS LEAKS.**

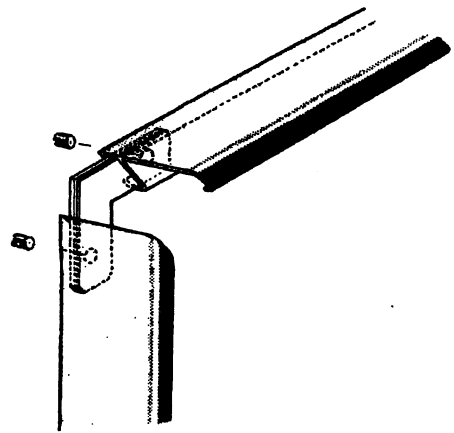
### 3.3.7 FIREPLACE FACEPLATE INSTALLATION

For Zero Clearance Units, install only a standard 28" x 41" (710mm x 1040mm) faceplate. Remove the faceplate panels from the packaging and assemble according to the following instructions:

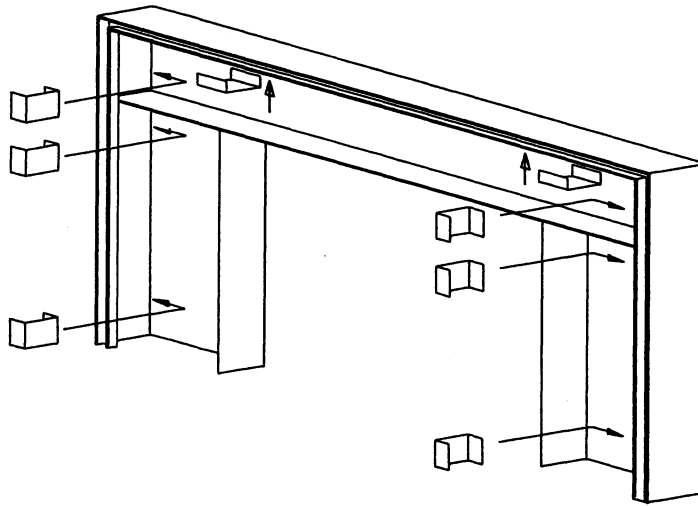
1. Place the faceplate panels with the finished side down on a flat, soft, nonabrasive surface.
2. Line up the holes of the side and top panels and install the four bolts loosely (see Figure 12a).
3. Line up the edges of the faceplate top and sides, then tighten all four bolts.
4. Assemble the faceplate trim, attaching the mitred corners with the corner brackets (see Figure 12b).



**Figure 12a Faceplate Assembly**

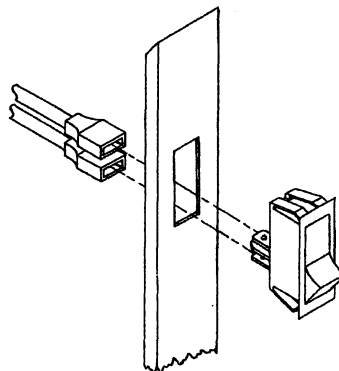


**Figure 12b Corner Bracket**



**Figure 12c**

5. Push the burner switch through the hole in the right hand faceplate trim and connect the two blue wires to the switch connectors (see Figure 13).



**Figure 13 Burner Switch Installation**

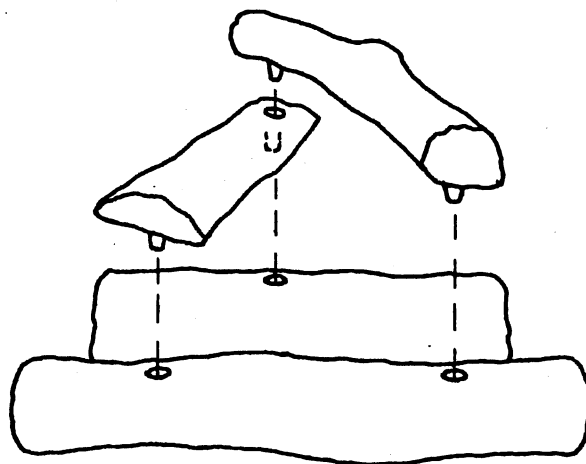
6. Slip the assembled trim over the faceplate and push the faceplate trim clips between the trim and the faceplate (two on the top edge and three down each side) (see Figure 12c).
7. Lift the faceplate up to the insert and align the faceplate tabs with the retainer clips; then slide the faceplate assembly down into the clips on the insert front.
8. Push the insert into the fireplace opening until the faceplate trim is sealed against the fireplace facing.

### 3.3.8 FIREBOX COMPONENT INSTALLATION

#### Installing Logs

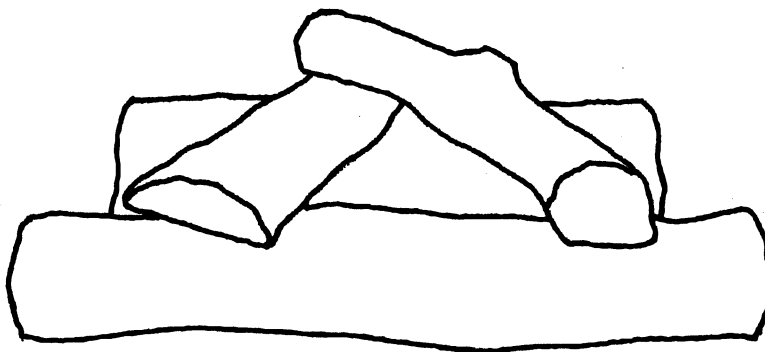
*Proper log placement is very important.* The logs are designed to be installed in only one position so that flames do not impinge on them.

1. Place the front and rear lower logs as shown in Figure 14:
2. Brick panels provide the side to side positioning of the lower logs.



**Figure 14 Installing Logs**

3. Place the upper left log on top of the two lower logs ensuring that the split log knot is to the rear of the firebox and the alignment knobs fit into the recesses in the lower logs as shown above.
4. Place the upper right log against the rear brick panel, on top of the upper left and front logs, so that it curves toward the rear of the firebox and does not rotate. Ensure that alignment knobs fit into the recesses in the logs (see Figure 14).



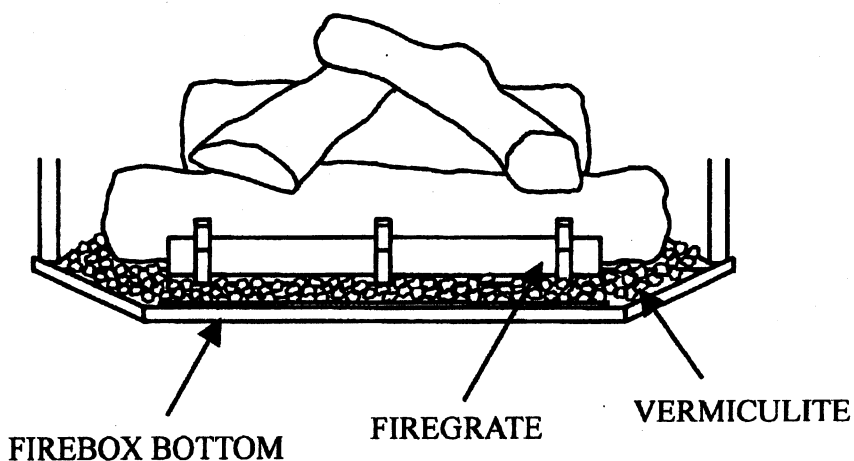
**Figure 15 Final Log Position**

5. Verify that the placement of the factory installed brick panels and baffle is as follows:

- \* The baffle rear flange should be behind the rear brick panel and the baffle should rest on top of the side brick panels.
- \* The brick panels should be up against the firebox sides and as far back to the rear of the firebox as possible.

## Installing Vermiculite

Open the bag of vermiculite and spread it evenly over the firebox bottom, around each side, and in front of the fire grate as shown in Figure 16. Do not obstruct any air holes around the burner. Do not place vermiculite on the rockwool tray, which is located in front of the front lower log.



**Figure 16 Installing Vermiculite**

## Installing Glowing Ember Wool

The glowing ember wool should be placed along the rockwool tray located behind the burner as shown in Figure 17 below. Ensure that the glowing ember wool does not block the air space between the rockwool tray and the burner tube. Do not place the wool on top of the burner tube. Any excess glowing ember wool should be used as replacement material during subsequent servicing.

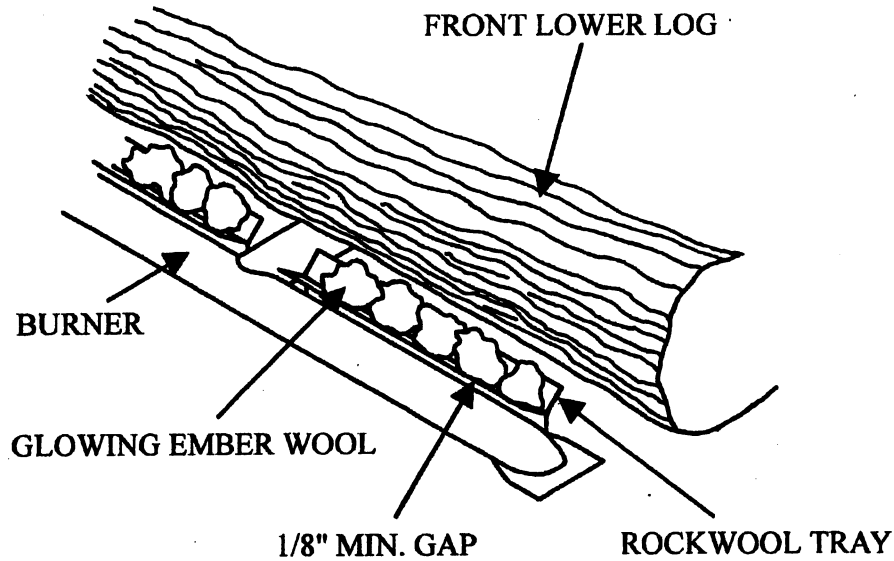


Figure 17 Installing Glowing Ember Wool

## Installing The Glass & Louvre Assembly

Before installing the glass, inspect the top glass support gasket, (see Figure 18) to ensure a tight seal between the glass and the heater will be possible. **Any leakage in the seal will result in combustion products entering the room.** The top glass support gasket must be in good condition. The front top edge of the firebox and the rear edge of the top glass support **must be** straight and free from dents.

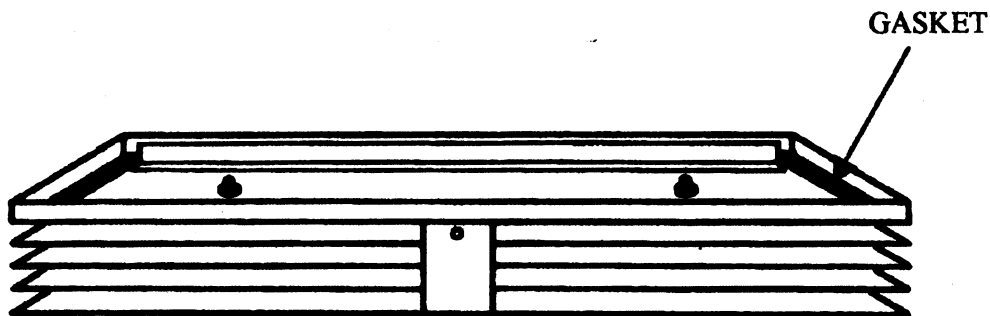


Figure 18 Gasket Inspection

See section 3.2 and follow the reverse of the glass and louvre assembly removal procedure. Push down on the bottom of the louvre assembly to ensure that it is tight to the glass before tightening the louvre assembly mounting screw. After tightening, a precautionary check for leaks can be made using an electronic gas detector or carbon monoxide meter. If necessary inject high temperature (600° F.) silicone sealer up into the right and left corner cavities of the top glass support.

## Installing Grille Assemblies

Handle the grilles with care as they may scratch easily. Follow the instructions included with the grille packaging.

### 3.3.9 INITIAL FIRING

When lit for the first few times, the appliance may emit an odor resulting from evaporation of paint and lubricants used in the manufacturing process. Open a door or window for ventilation. Anyone with a respiratory condition may need to leave the room during the initial firings.

Occasionally, after a cold start, vapor may condense and fog the glass, and the flames may be partially blue. After a few minutes the moisture will disappear and after several minutes the flames should become yellow.

#### 3.3.9.1 MANIFOLD PRESSURE REGULATOR ADJUSTMENT

The manifold pressure regulator controls gas input and flame height, and is preadjusted at the factory. No further adjustment is normally required. Manifold pressure can be verified only.

#### 3.3.9.2 PILOT FLAME ADJUSTMENT

For proper operation, the pilot and main burner flame characteristics must be steady and not lifting off or floating. The top 3/8"-1/2" (10-13mm) of the thermopile should be engulfed by the pilot flame. The pilot flame adjustment should be performed by a qualified service person only. Turn the pilot adjustment screw counterclockwise ← to increase, and clockwise → to decrease the flame.

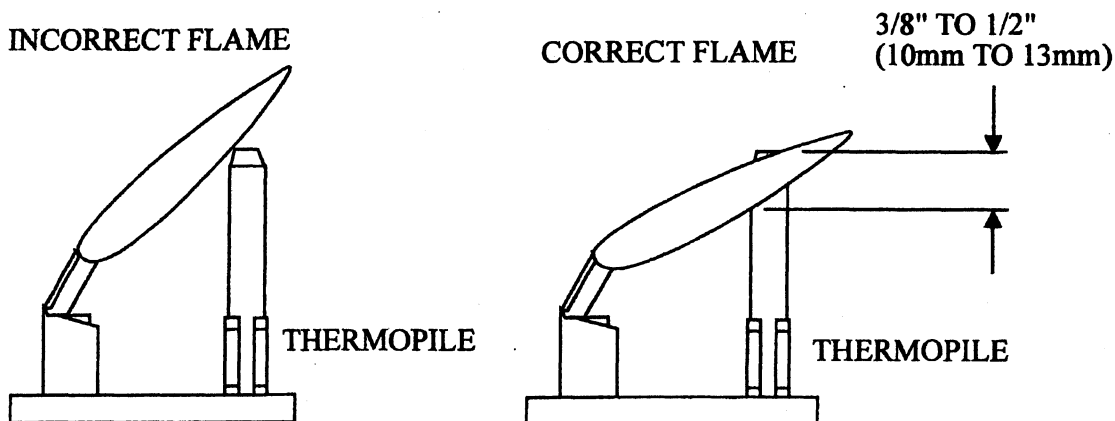


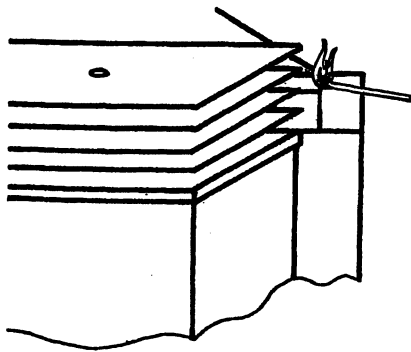
Figure 19 Pilot Flames



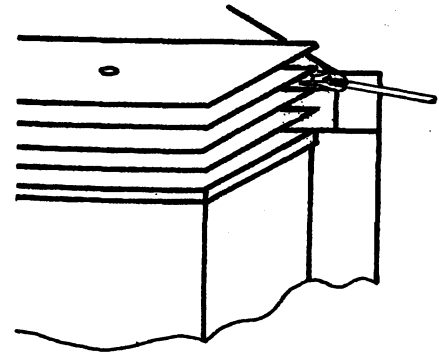
### 3.3.9.3 FLUE SPILLAGE TEST

A flue spillage test is recommended as part of this installation and should be performed by a qualified service person only. Hereafter, periodically check the vent draft.

1. Close all the doors and windows in the room.
2. Start all the exhaust fans in the home.
3. Light the heater to the full fire position.
4. After five to ten minutes, insert a match under the 2nd louvre as shown in Figure 20, and ensure that the flame wisps and smoke are drawn into the ducts at the front corners.
5. If the flame wisps are not drawn into the ducts, turn the heater off, and determine the cause of the lack of draft. **Do not operate the heater until there is sufficient draft.**



INSUFFICIENT DRAFT



SUFFICIENT DRAFT

Figure 20 Flue Spillage Test

### 3.3.9.4 ALTITUDE ADJUSTMENT

All valves have been pre-set and certified for installation at elevations from 0 - 4500 feet (1-1370m) above sea level.

When installing this heater at higher elevations, it is necessary to decrease the input rating by changing the existing burner orifice to a smaller size. To adjust the pressure, see section 3.3.9.1. Input should be reduced 4% for each additional 1000 feet above sea level.

To derate the heater for Canada, use Tables 4A, & 4B shown on the following pages or check with the local gas authorities for proper orifice size identification. For the USA, derate the heater from sea level according to the gas installation code.

**TABLE 4A****ALTITUDE ADJUSTMENT BY CHANGING  
ORIFICE (NATURAL GAS ONLY)**

<b>ALTITUDE up to (ft)</b>	<b>REDUCTION (%)</b>	<b>ORIFICE SIZE</b>	<b>TARGET INPUT</b>	<b>MANIFOLD PRESSURE (in. wc)</b>
4500	-	35	35,000	3.5
5500	4	36	33,600	
6500	8	36	32,200	
7500	12	37	30,800	
8500	16	38	29,400	
9500	20	39	28,000	
10500	24	40	26,600	
11500	28	41	25,200	

**TABLE 4B****ALTITUDE ADJUSTMENT BY CHANGING  
ORIFICE (PROPANE/LP GAS ONLY)**

<b>ALTITUDE up to (ft)</b>	<b>REDUCTION (%)</b>	<b>ORIFICE SIZE</b>	<b>TARGET INPUT</b>	<b>MANIFOLD PRESSURE (in. wc)</b>
4500	-	53	27,000	10.5
5500	4	53	25,920	
6500	8	53	24,840	
7500	12	54	23,760	
8500	16	54	22,680	
9500	20	55	21,600	
10500	24	55	20,520	
11500	28	55	19,440	

## 4.0 MAINTENANCE

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### 4.1 MAINTENANCE SAFETY

*Turn off the gas to the main burner and allow the heater to cool for up to 30 minutes before servicing.* Service 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 technician. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is important that the access door compartment, burner, and circulating air passage-ways be kept clean to provide for adequate combustion and ventilation air flow.

### 4.2 RECOMMENDED SERVICE

1. Examine the venting system periodically.
2. Visually check the burner and pilot flame periodically. Visually check height and color of flame and see Figure 19 (Pilot Flame) shown in section 3.3.9.2.
3. Clean the glass as needed. See section 4.3 for instructions on glass cleaning.
4. Have the appliance inspected annually by a professional service technician.
5. Clean the appliance periodically.

### 4.3 GLASS CLEANING

The inside of the glass may require periodic cleaning to remove deposits left from impurities in the gas and combustion air. For best results, use a ceramic glass cleaner or polish. A suitable cleaner is available from your dealer. Avoid the use of ammonia based cleaners such as Windex. Do not clean while hot. Do not use abrasive cleaners.

### 4.4 CLEANING OF GOLD PLATED SURFACES

Take special care and **DO NOT** use chemical or abrasive cleaners. Wipe only with a soft damp cotton cloth to maintain original brilliance. **CAUTION:** Vigorous wiping may damage the gold finish.

### 4.5 BURNER & PILOT CLEANING

Periodic cleaning is necessary for proper operation.

1. Refer to section 4.7, remove the burner and check to make sure that the burner orifice is clean.
2. Visually inspect the pilot. Brush or blow away any dust, lint or foreign debris. If the pilot orifice is plugged, disassembly may be required to remove any foreign material from the orifice or tubing. When the appliance is back in service, check the burner flame pattern with the Pilot Flame Figures in section 3.3.9.2. For relighting, refer to the lighting instructions in section 2.2.

## 4.6 FAN REPLACEMENT & ELECTRICAL SCHEMATIC

1. Turn off all electrical power to the heater. Unplug the fan or turn the breaker off.
2. Refer to section 4.7 and remove the firebox components.
3. Remove the fan cover at rear of cavity by removing the three screws.
4. Disconnect the fan wiring, remove the fan assembly, and replace or service it as required.
5. Reassemble in reverse order.
6. See Figure 21 for fan electrical schematic.
7. If necessary, the Fan Thermal Switch behind the right hand grille may be replaced as follows:
  - a. Ensure the fan switches are in the "OFF" and "MANUAL" positions.
  - b. Remove the right hand grille assembly.
  - c. Pull the fan thermal switch mount bracket out from the bottom.
  - d. Disconnect the two wires from the switch.
  - e. Remove the two screws securing the switch.
  - f. Reassembly in the reverse order.

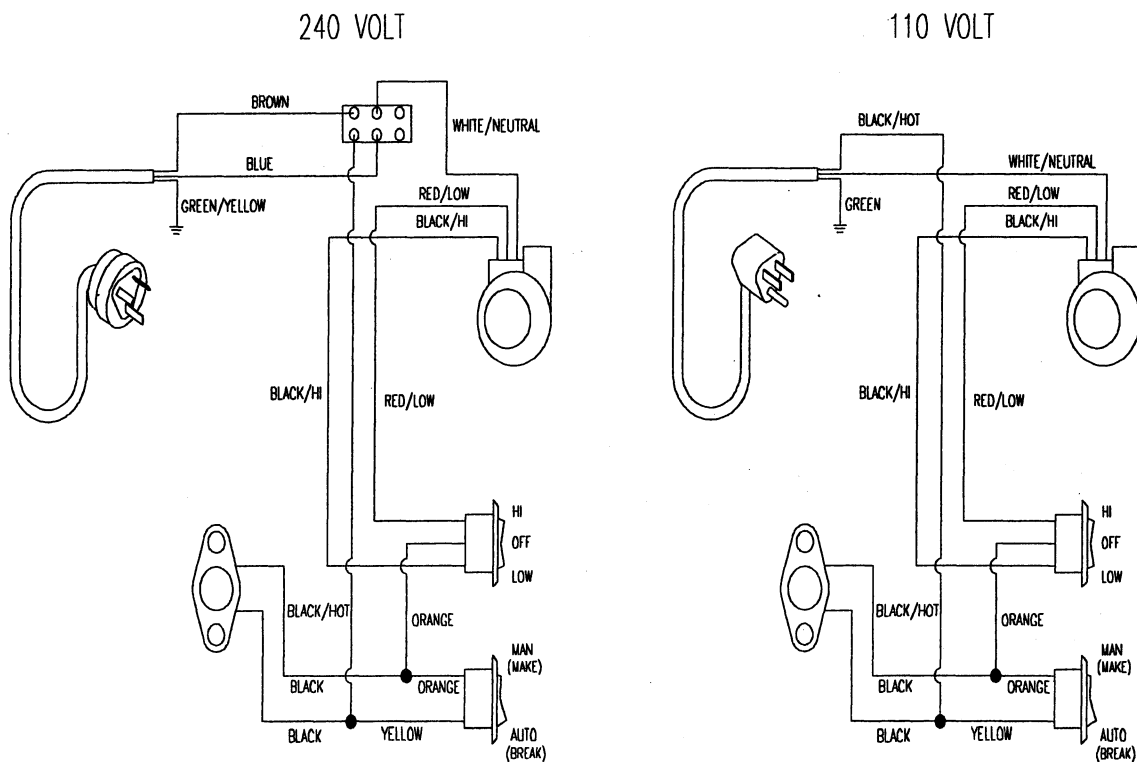


Figure 21

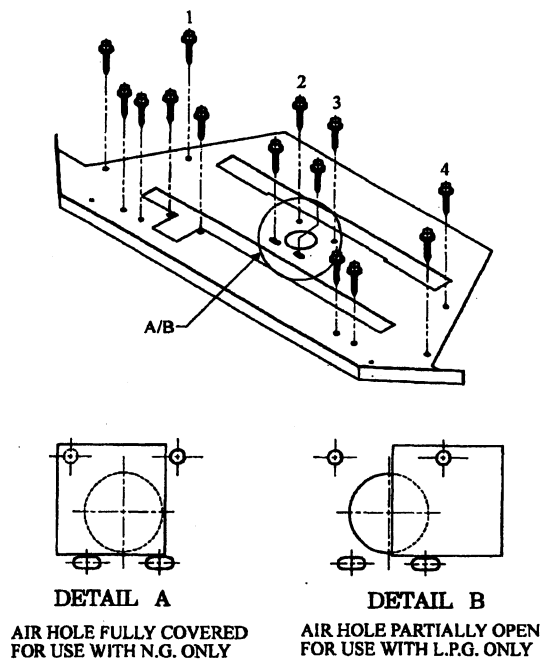
## 4.7 HEATER DISASSEMBLY & REASSEMBLY

**The following procedure is to be performed by qualified service personnel ONLY. Turn off the gas supply and allow the heater to cool for up to 30 min.**

Refer to steps 1-3 of Unpacking section 3.2.

**CAUTION:** *The screw located above the top center of the glass just below the louvers, may be damaged if removed while the heater is still hot.*

1. Remove the logs, vermiculite, and glowing ember wool.
2. Remove the fire grate.
3. Remove screws 1 thru 4 from the firebox bottom and the front burner duct.



**Figure 22 Firebox Bottom Removal**

4. Remove the burner by lifting up and sliding it over so that the venturi leg passes through the notch for the pilot assembly.
5. Note the position of the cover plate, and unscrew the remaining ten screws from the firebox bottom (see Figure 22).
6. Pull forward and lift out the firebox bottom and perform required service.
7. Reinstall the firebox bottom.
8. Reassemble the remaining components in reverse order.

## 5.0 TROUBLE SHOOTING

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<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>	<b>CORRECTIVE ACTION</b>
<b>I. Pilot will not light after repeated triggering of the red piezo ignition button.</b>	<b>A. <i>No spark at electrode (weak or no heat source for pilot ignition).</i></b>	
	1. Improper ignition.	1. Align the electrode with 1/8" gap to pilot hood.
	2. Poor connections at starter and ignition electrode.	2. Reconnect if loose.
	3. Broken ceramic cover on ignition electrode.	3. Replace pilot assembly.
	4. Defective piezo igniter.	4. Replace piezo igniter.
	5. Poor grounding of piezo igniter.	5. Tighten mounting nut and/or igniter screws.
	<b>B. <i>No gas or low gas pressure</i></b>	
	1. Gas line shut off(s) may not be turned on.	1. Turn on shut-off valves.
	2. No gas supply (LPG).	2. Check propane tank, you may be out of fuel.
	3. Air in gas lines.	3. Purge gas lines.
	4. Gas lines may not be connected.	4. Connect all gas lines.
	5. Low pressure may be caused by bent line.	5. Check for a kinked line.
	6. Valve control knob not fully depressed in "PILOT" position.	6. Fully depress control knob.
	7. Too narrow diameter of pipe or low line pressure.	7. Consult with a plumber (fitter) or your gas supplier.
	8. Pilot adjustment fully closed.	8. Adjust as required.
	9. Blockage of pilot line or orifice.	9. Check and clean.

## SYMPTOM

## POSSIBLE CAUSE

## CORRECTIVE ACTION

### II. Pilot will not stay lit after following the lighting instructions.

#### A. *Thermopile / valve*

- |  |   |
|--|---|
| 1. Weak or improperly located pilot flame. | 1. Adjust and clean pilot. The flame must impinge on or engulf the thermopile, as shown in Figure 19.   |
| 2. Defective thermopile.                   | 2. Replace thermopile.  |
| 3. Overheated thermopile.                  | 3. Provide cooling and make sure no foreign objects are in the way.   |
| 4. Thermopile not installed properly.      | 4. Make sure all wire connections at the gas valve terminals are tight and the thermopile is fully inserted into the mounting bracket.  |
| 5. Open wire connection in pilot circuit.  | 5. Check wire continuity and connections in the pilot circuit, including the white wires to the spill switch.   |
| 6. Defective valve                         | 6. Connect the millivolt meter probes to the thermopile terminals on the gas valve. Turn the valve to the "PILOT" position, depress and light. If the meter reading is greater than 250 millivolts after 30 seconds, the thermopile is good. If the pilot does not stay lit, the valve is defective. Check section "B" below, before replacing valve. |

#### B. *Defective safety circuit*

- |   |   |
|---|---|
| 1. Improperly wired                         | 1. Rewire correctly   |
| 2. Loose or defective connections           | 2. Check continuity, tighten wiring or connections and repair |
| 3. Defective spill switch                   | 3. Check continuity and replace if defective                  |
| 4. Defective electromagnet power unit (EPU) | 4. Check and replace if required                              |

### III. Main burner will not light

#### A. *Valve / Switches*

- |   |                          |
|---|--------------------------|
| 1. Valve control off                                | 1. Turn to "ON" position |
| 2. Blockage at the burner (line, orifice, or ports) | 2. Check and clean       |

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
<b>III. Main burner will not light (Continued).</b>	<b>A. Valve / Switches (Continued).</b>	
	3. Defective wall switch or thermostat.	3. Conduct a continuity test or jumper wire test and replace if defective.
	4. Defective wiring or connections.	4. Conduct a test with a jumper wire and repair as required.
	5. Too long a run with thermostat wire from valve to wall switch or thermostat.	5. Reduce wire length to less than 100 feet, or increase wire size.
	6. Wall switch or thermostat incorrectly wired.	6. Wire correctly.
	7. Defective remote control.	7. Check batteries and replace if required.
	8. Mismatched remote control frequencies.	8. Match frequencies.
	9. Defective valve.	9. Turn valve and "ON/OFF" switch to the "ON" position. Check with millivolt meter at terminals TP - TH. Millivolt meter should read greater than 100 millivolts. If the reading is OK and the burner does not come on, replace the gas valve.
	10. Thermopile may not be generating sufficient voltage 325 mV.	10. Recheck using the millivolt meter. The pilot flame may not be high enough for the flame to properly engulf the thermopile. If so, adjust and retest. If voltage is still insufficient, replace thermopile.
	11. Wall switch, thermostat, remote control, or wires are defective.	11. Follow previous corrective action, check switch and wiring. Replace where defective
<b>IV. Soot deposits on glass.</b>		
	1. Flame impingement on logs.	1. Adjust the log set to avoid direct flame impingement. Follow log placement instructions.
	2. Improper venturi setting.	2. Ensure the air shutter is wide open.
	3. Vermiculite or ember wool impeding burner.	3. Ensure that no foreign material blocks burner flame ports.
	4. Air inlet blocked or restricted.	4. Clean air inlets.



SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
<b>IV. Soot deposits on glass (continued).</b>	5. Vent system is restricted or inadequate. 6. Baffle is out of position.	5. Conduct flue spillage test and correct flue as required. 6. Ensure baffle is correctly positioned towards the back of the stove.
<b>V. Flame burns blue and lifts off burner.</b>	1. Insufficient combustion air being supplied. 2. Manifold pressure set too high.	1. Ensure that no foreign material blocks air inlets and that the shutter is wide open. Ensure the vent is adequate. 2. Check and adjust manifold pressure.
<b>VI. Frequent pilot outage problem.</b>	1. High limit switch is defective or has reached its maximum temperature.	1A. Allow the unit to cool; then repeat lighting instructions. 1B. If 1A above does not allow ignition, place jumper wires across the high limit switch. If you can re-ignite the pilot, the high limit switch is defective. Do not use the fireplace until the high limit switch is replaced. If the unit does not light with the jumper wires in place, the wires or the connectors may be defective.
<b>VII. Flames impinge on baffle</b>	1. Baffle is out of position 2. Vent system is restricted or inadequate 3. Manifold pressure set too high	1. Ensure baffle is correctly positioned. 2. Conduct flue spillage test and correct flue as required. 3. Check and adjust manifold pressure as required.

# 6.0 REPLACEMENT PARTS

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When requesting service or replacement parts for your fireplace, please provide model number and serial number. All parts listed below may be ordered from an authorized dealer.

**TABLE 6A** **REPLACEMENT PARTS**

BAY VISTA INSERT FACEPLATES  
Includes On/Off switch

DESCRIPTION	PRODUCT CODE
<b>METALLIC BLACK FACEPLATES</b> (includes brass trim)	
Regular (28 x 41)	AF025
Medium (32 x 44)	AF044
Large (32 x 50)	AF063
<b>COLOURED FACEPLATES</b> (includes brass trim)	
Regular (28 x 41) Ebony	AF033
Medium (32 x 44) Ebony	AF052
Large (32 x 50) Ebony	AF068
Regular (28 x 41) Ivory	AF036
Medium (32 x 44) Ivory	AF055
Large (32 x 50) Ivory	AF077
Regular (28 x 41) Forrest Green	AF030
Medium (32 x 44) Forrest Green	AF049
Large (32 x 50) Forrest Green	AF071
<b>GOLD PLATED FACEPLATES</b> (includes anodized black trim)	
Regular (28 x 41)	AF039
Medium (32 x 44)	AF058
Large (32 x 50)	AF074
<b>FACEPLATE TRIM KITS</b> (includes hardware)	
Brass 28 x 41	AF083
Black 28 x 41	AF084
Brass 32 x 44	AF085
Black 32 x 44	AF086
Brass 32 x 50	AF087
Black 32 x 50	AF088

**TABLE 6B****REPLACEMENT PARTS**

DESCRIPTION	PRODUCT CODE
<b>BOTTOM GRILLE ASSEMBLIES</b> Includes (2) sides and (1) access door grille Black Metallic Assembly Ebony Assembly Ivory Assembly Forrest Green Assembly Gold Assembly	BC076 BC078 BC079 BC077 BC080
<b>ZERO CLEARANCE KIT</b> Requires an insert, faceplate and grille assembly Black Metallic Zero Clearance Box	BZ010
<b>BAY VISTA ACCESSORIES</b> Thermostat, White Rodgers Remote Control	HE59 HE58

**TABLE 6C****REPLACEMENT PARTS**

DESCRIPTION	PRODUCT CODE
<b>MISCELLANEOUS PARTS</b> Grille Springs Faceplate hardware (Excluding Trim) Louvre Assembly Mounting Screw (Brass) Louvre Assembly Mounting Screw Ret.  Glowing Ember Package Vermiculite Package  Draft Hood - Insert  Switch Arm & Spill Switch - Insert\ Stainless Steel Baffle  Bottom Trim Strip - Gold	HM22 AF024 HF34 HF18  BC044 BC043  BN014  BN017 BC042  BC0059
<b>FAN</b> Fan Assembly - Complete to fit	BC031
<b>MISCELLANEOUS ELECTRICAL ITEMS</b> Thermodisc Fan Snap Disc Fan Switch 2 Position (Auto/Man) Fan Switch 3 Position (Hi/Low/Off)	HE30 HE24 HE25

**TABLE 6D**

**REPLACEMENT PARTS**

DESCRIPTION	PRODUCT CODE
<p><b>INDIVIDUAL LOUVRES</b>                      Top Louvre Assembly - Complete                      Louvre - Metallic Black                      Top Louvre - Gold Plated</p> <p><b>GRILLE COMPONENTS</b>                      Centre Grille - Metallic Black                      Side Grille - Metallic Black                      Centre Grille - Ebony                      Side Grille - Ebony                      Centre Grille - Forrest Green                      Side Grille - Forrest Green                      Centre Grille - Ivory                      Side Grille - Ivory                      Centre Grille - Gold Plated                      Side Grille - Gold Plated</p>	<p>BS018                      BC0092                      BC0093</p> <p>BC055                      BC056                      BC057                      BC058                      BC061                      BC061                      BC059                      BC061                      BC063                      BC064</p>
<p><b>CERAMIC GLASS</b>                      One piece bent glass                      Glass edge trim - black - each (2 per unit)                      Side and top glass gasket (cut to fit)</p>	<p>BC0088                      BC0112                      BC0084</p>
<p><b>CERAMIC FIBRE LOGS</b>                      Log Set - Complete                      Top Left Log                      Top Right Log                      Bottom Front Log                      Bottom Rear Log</p>	<p>BC045                      BC0096                      BC0095                      BC0098                      BC0097</p>
<p><del>STAMPED METAL BRICK</del>  <b>REFRACTORY PANELS</b>                      Brick Panel Set - Complete                      Brick Panel - Back                      Brick Panel - Left                      Brick Panel - Right</p>	<p>BC086097                      BC01350151                      BC01360152                      BC01370153</p>

**TABLE 6D**

**REPLACEMENT PARTS**

DESCRIPTION	PRODUCT CODE
<p><b>INDIVIDUAL LOUVRES</b>                      Top Louvre Assembly - Complete                      Louvre - Metallic Black                      Top Louvre - Gold Plated</p> <p><b>GRILLE COMPONENTS</b>                      Centre Grille - Metallic Black                      Side Grille - Metallic Black                      Centre Grille - Ebony                      Side Grille - Ebony                      Centre Grille - Forrest Green                      Side Grille - Forrest Green                      Centre Grille - Ivory                      Side Grille - Ivory                      Centre Grille - Gold Plated                      Side Grille - Gold Plated</p>	<p>BS018                      BC0092                      BC0093</p> <p>BC055                      BC056                      BC057                      BC058                      BC061                      BC061                      BC059                      BC061                      BC063                      BC064</p>
<p><b>CERAMIC GLASS</b>                      One piece bent glass                      Glass edge trim - black - each (2 per unit)                      Side and top glass gasket (cut to fit)</p>	<p>BC0088                      BC0112                      BC0084</p>
<p><b>CERAMIC FIBRE LOGS</b>                      Log Set - Complete                      Top Left Log                      Top Right Log                      Bottom Front Log                      Bottom Rear Log</p>	<p>BC045                      BC0096                      BC0095                      BC0098                      BC0097</p>
<p><b>STAMPED METAL BRICK PANELS</b>                      Brick Panel Set - Complete                      Brick Panel - Back                      Brick Panel - Left                      Brick Panel - Right</p>	<p>BC097                      BC0151                      BC0152                      BC0153</p>

**TABLE 6E**

**REPLACEMENT PARTS**

DESCRIPTION	PRODUCT CODE
VALVE ASSEMBLY, NATURAL GAS	BN046
VALVE ASSEMBLY, PROPANE	BN047
THERMOPILE	HG25
THERMOCOUPLE	HG37
PILOT ASSEMBLY, NATURAL GAS (INCL. IGNITER)	HG35
PILOT ASSEMBLY, PROPANE (INCL. IGNITER)	HG36
PILOT GAS LINE & FITTINGS	BC0133
IGNITER, PIEZO	HG04
CABLE, IGNITER	HG38
MAIN GAS LINE & FITTINGS	BC0134
BURNER UNIT NATURAL GAS & PROPANE	BC073
EXTENSION KNOB, ON/OFF	HG43
EXTENSION KNOB, HIGH/LOW	HG44
PILOT ORIFICE, PROPANE	HG51
PILOT ORIFICE, NATURAL GAS	HG52
THERMODISC SPILL SWITCH	HE32
MILLIVOLT SWITCH GOLD CONTACT	HE23
WIRE, ON/OFF (2 PER UNIT)	BN022
BURNER ORIFICE NATURAL GAS	BC0138
BURNER ORIFICE PROPANE	BC0139