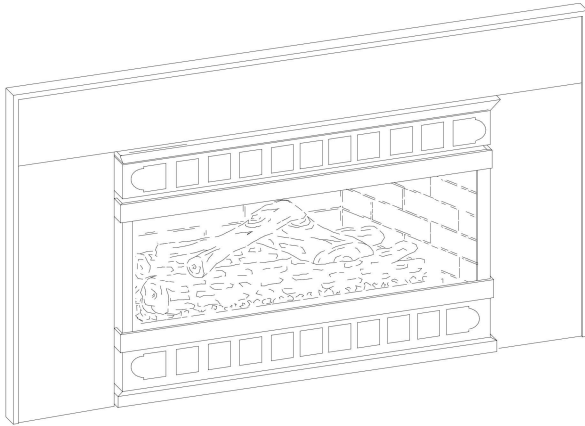


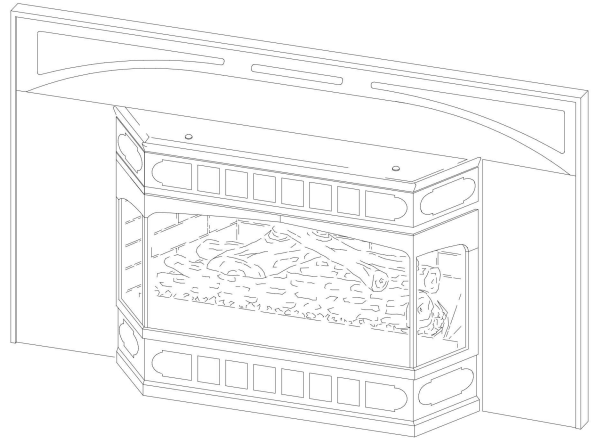
OSBURN MANDALAY SERIES

Vented Fireplace Inserts

Installation and Operating Instructions



FLUSH



BAY

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.

For your safety

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

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 neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier call the fire department.

WARNING

Improper installation, service, adjustment, alteration, or maintenance can cause injury or property damage. Refer to this manual. For assistance of 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.

Warnock Hersey



Made in Canada
06/03/02 MF1001

CONTENTS

	Page
1.0 INTRODUCTION	1
1.1 Specifications	1
1.2 Features	3
1.3 Intended Use	3
1.4 General Safety.....	4
2.0 OPERATION	4
2.1 Operation Safety.....	4
2.2 Lighting Instructions	5
2.3 Heat Output Adjustment	7
2.4 Fan Operation	7
2.5 Remote Control Operation.....	7
3.0 INSTALLATION	7
3.1 Installation & Safety Notes	7
3.2 Unpacking	8
3.3 Installation	9
3.3.1 Minimum Clearances	9
3.3.2 Chimney Liner or Vent Installation	11
3.3.3 Gas Line Installation	12
3.3.4 Thermostat, Wall Switch, or Remote Control Installation	13
3.3.5 Vent, Gas Line & Wiring Connections	15
3.3.6 Lower Grille Installation	16
3.3.7 Faceplate Installation	17
3.3.8 Firebox Component Installation	18
3.3.9 Initial Firing	21
3.3.9.1 Manifold Pressure Regulator Adjustment	22
3.3.9.2 Pilot Flame Adjustment	22
3.3.9.3 Flue Spillage Test	23
3.3.9.4 Altitude Adjustment	24
4.0 MAINTENANCE	24
4.1 Maintenance Safety	24
4.2 Recommended Service	24
4.3 Glass Cleaning	25
4.4 Cleaning of Brass Plated Surfaces	25
4.5 Cleaning of Gold Plated Surfaces	25
4.6 Burner & Pilot Cleaning	25
4.7 Fan Replacement & Electrical Schematic	25
4.8 Heater Dis-assembly & Re-assembly	28
5.0 AUSTRALIAN DRESS GUARD	29
6.0 TROUBLE SHOOTING	31
7.0 REPLACEMENT PARTS	34
8.0 OSBURN'S WARRANTY	36
9.0 LABEL INFORMATION	38

1.0 INTRODUCTION

1.1 SPECIFICATIONS

TABLE 1 SPECIFICATIONS

ITEM	NATURAL GAS (NG)	PROPANE (LPG)
INPUT:	35,000 (36.9 MJ)	35,000 (36.9 MJ)
AFUE: EFFICIENCY: Fan off	64%	
MANIFOLD PRESSURE:	3.8" w.c. (0.9 kPa)	10.5" w.c. (2.6 kPa)
GAS INLET SUPPLY PRESSURE:	Minimum: 5.0" w.c. (1.2 kPa)	Minimum: 11.0" w.c. (2.7 kPa)
	Normal: 7.0" w.c. (1.7 kPa)	Normal: 13.5" w.c. (3.4 kPa)
	Maximum: 13.5" w.c. (3.4 kPa)	Maximum: 13.5" w.c. (3.4 kPa)
ORIFICE SIZE: @ 0-4500'	#36 DMS (.107" DIA.)	#50 DMS (.070" DIA.)
CONTROL VALVE TYPE:	SIT 820 Nova (Variable)	SIT 820 Nova (Variable)
SHIPPING WEIGHT:	111 lb. (50 kg)	111 lb. (50 kg)
FLUE OUTLET SIZE:	4" DIA. (102 mm)	4" DIA. (102 mm)
FAN:	Variable Speed (110 Volt) Single Speed (240 Volt) Dual Speed (240 Volt)	

NOTE: AFUE was tested by the Manufacturer.

OPTIONS: Faceplate
Thermostat
Remote Control

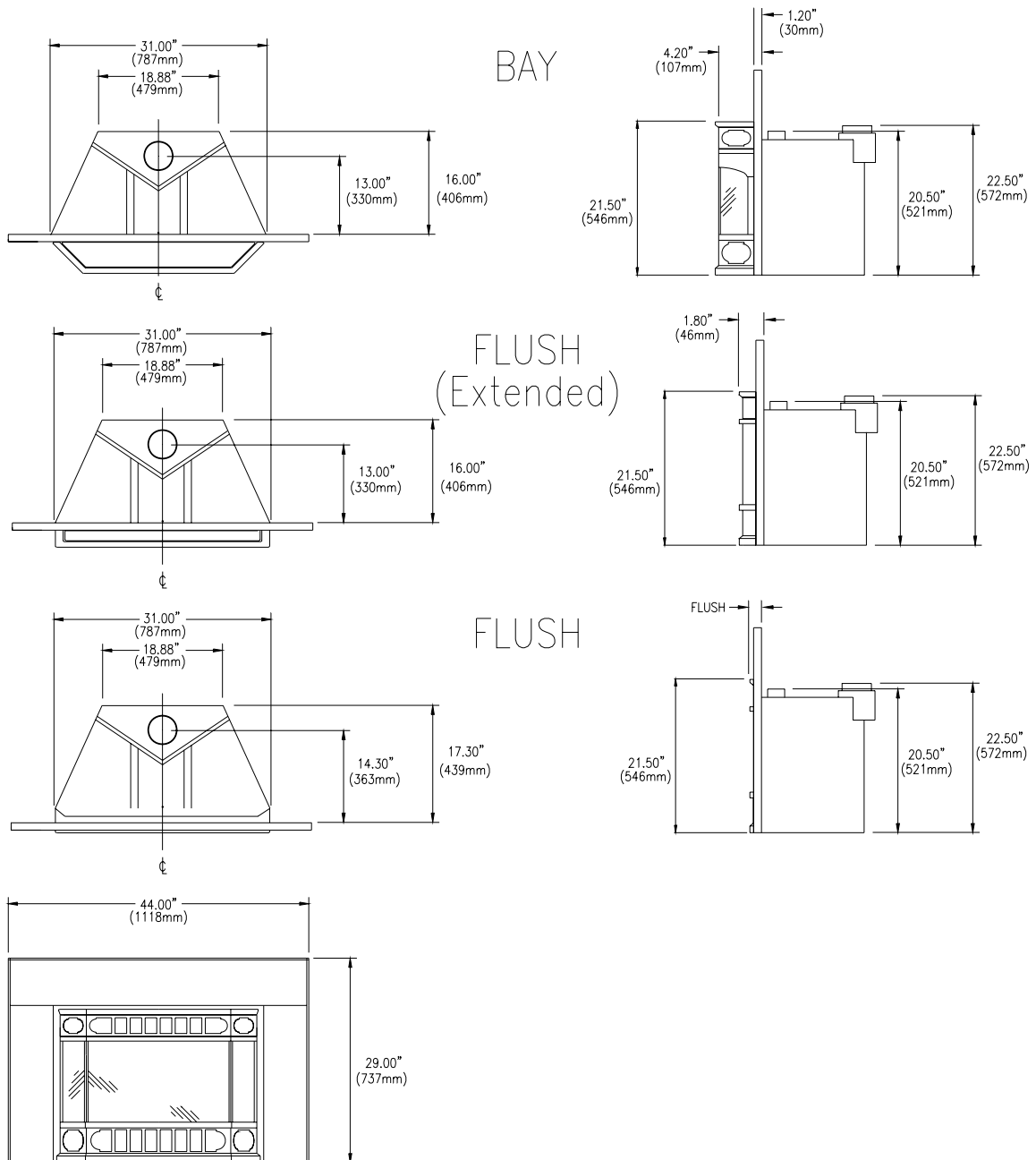


Figure 1

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). In the state of Massachusetts, this product can only be installed by a licensed plumber or a licensed gas fitter. Failure to comply will void the warranty.

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 variable flame control for convenience and on/off switch. Optional remote on/off wall switch, optional wall thermostat, and/or optional wireless remote control are available. The gas valve does not require electricity from an external source.

Fan control;

Variable speed control:

For units equipped with a fan control, the knob controls the fan speed in connection with a heat sensitive switch which turns on when the heater reaches operating temperature. Turning the knob counter-clockwise turns it to the "Off" position.

Auto/Off switch: (Single Speed 240 Volt)

For units equipped with a single speed fan switch, the fan may be switched between the "Automatic" and the "Off" settings.

High/Off/Low: (Dual Speed 240 Volt)

For units equipped with a double speed fan switch, the fan may be switched between the "High", "Off", and the "Low" settings.

Safety controls:

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

- Incorrectly installed vent system
- Blocked vent causing flue spillage
- Flow reversal or sustained down draft situation

Draffhood:

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

1.3 INTENDED USE

This appliance is intended to be used as a heater, when installed as an insert for code complying masonry, or listed factory built solid fuel burning fireplaces which meet the minimum requirements as described in detail in the installation instructions. This insert is certified for installation in a bedroom or a bed sitting room where the maximum input is within 50 cubic feet per 1000 Btu/hr, (i.e. 1250 cubic feet). All bedroom installations require the use of wall thermostats.

1.4 GENERAL SAFETY

The appliance **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 any other appliance. It is equipped with a safety control system to protect against improper venting of flue products.

WARNING: Operation of this insert when not connected to a properly installed and maintained venting system may result in carbon monoxide poisoning.

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 and allow accessibility clearance for servicing and proper operation. In Australia, a dress guard has been installed to cover the glass and to protect users against accidental contact with hot surfaces. Do not operate the appliance without the dress guard in place.

2.0 INTRODUCTION

2.1 OPERATION SAFETY

Inspect the appliance before use. Always keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapours and liquids. Never obstruct the flow of 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.

CAUTION: Children and adults should be alerted to the hazards of high surface 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 unit.

The glass door and top grille must be properly installed prior to operation. **Never** operate the unit with the glass door off or broken since this may cause dangerous indoor air pollution. This unit is **not** for use with solid fuel. **Do not** substitute any parts or materials. **Do not** abuse the glass door.

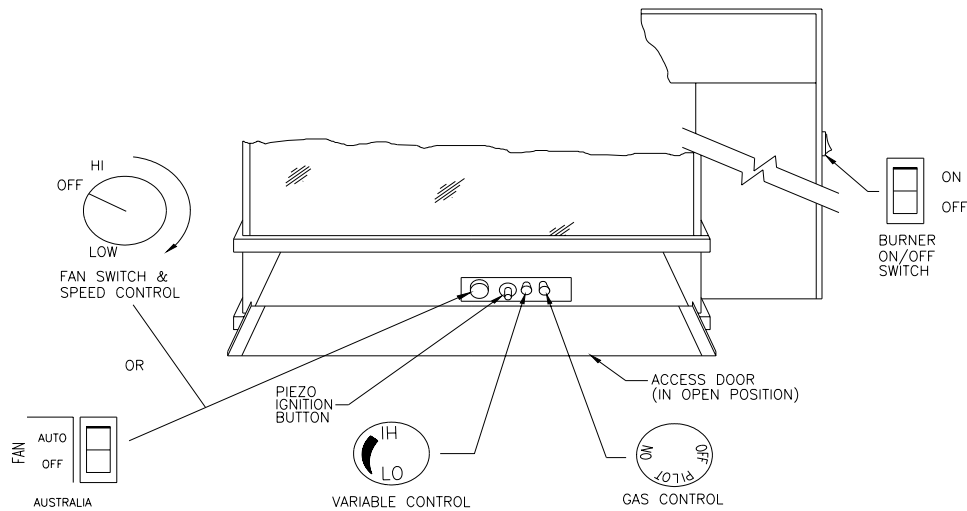


Figure 2

2.2 LIGHTING INSTRUCTIONS

FOR YOUR SAFETY, READ BEFORE LIGHTING

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

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

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

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch: do not use any phone in your home.
- Immediately call your gas supplier from a neighbour'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, hinged to open downward, by gently pulling the top toward you.
5. Push in the gas control knob slightly and turn clockwise to the “OFF” position (see Figure 3).

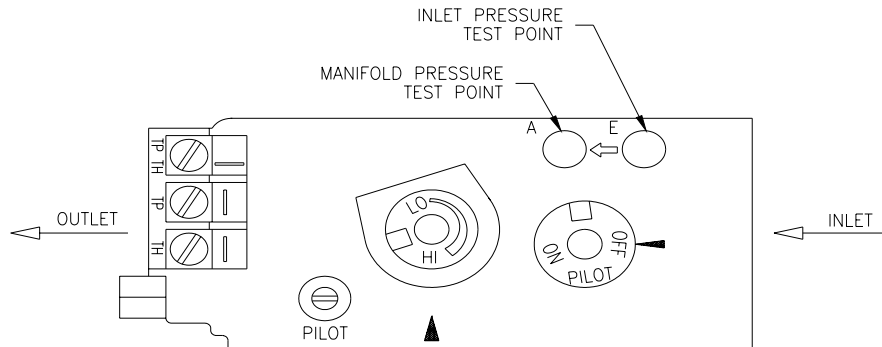


Figure 3

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 gas control knob and turn counter-clockwise to the “PILOT” position.
8. Push the control knob in all the way and hold it in. Immediately push the piezo ignition button (the black button second from the left) repeatedly so that it clicks; continue until the pilot ignites. Maintain pressure on the knob for about one minute after ignition. Then release the knob; if the pilot flame goes out repeat step 8; if the pilot flame remains on then turn the knob counter-clockwise 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. If equipped with a wall switch, select the “ON” position. If equipped with a thermostat or auxiliary control, set it to the desired setting.
11. Close the access door by lifting it, allowing the springs to pull it closed.

SHUTDOWN PROCEDURE

To turn off the main burner only, turn off the wall switch, thermostat, or On/Off switch located on the lower right side behind the access door.

For complete shutdown of the appliance, depress the gas 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

For units equipped with a fan control knob, the knob is located behind the access door and may be adjusted to the following settings:

OFF: Turn the control fully counter-clockwise until the switch operates.

Variable Speed Setting:

Turn the control to the desired setting. When the knob is turned fully clockwise the fan will be set to minimum speed.

For units equipped with a fan switch, the fan may be switched between the "Off" and "Automatic" settings.

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.

3.0 INSTALLATION

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 disclaimers regarding improper installation. 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 (240 VAC in Australia) to the gas control valve or its wiring, as this will damage the valve.

3.2 UNPACKING

Please check the appliance carefully for any damaged or missing components (specifically check the glass condition). Report any problems to your dealer. The insert is shipped with the logs and coals in separate packages inside the firebox. The faceplate with the leveling screws and the grille kit are packaged separately. All other standard parts are already in place.

Shutter Adjustment for Australian Units Only:

Before installation the two Shutters on the bottom outside corners of the Firebox must be checked to ensure their proper positioning (see Figure A).

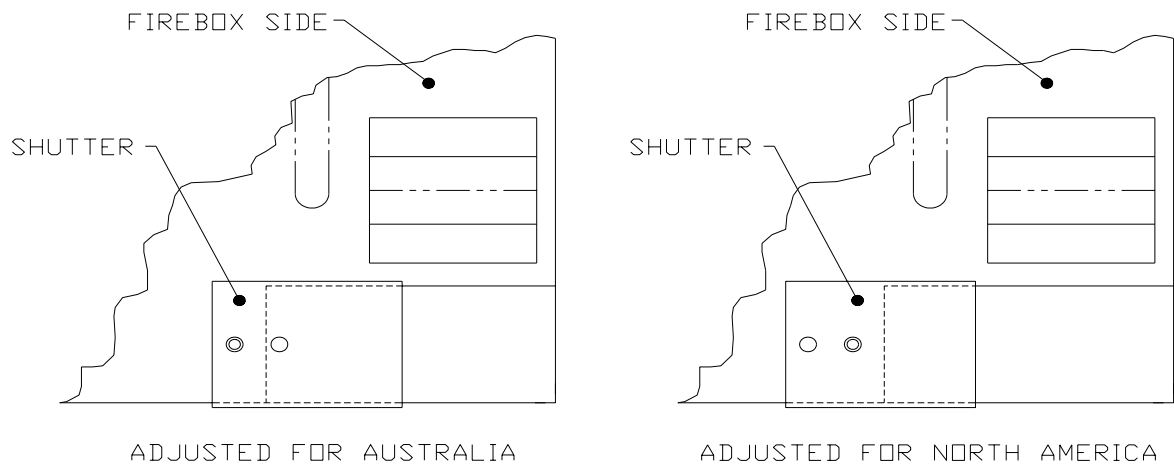


Figure A

3.3 INSTALLATION

For satisfactory results it is necessary to plan certain aspects of the installation prior to the appliance's final positioning. These include the vent system, the gas piping, and the fan siring. Combustible surfaces such as the hearth, mantle, and facing must also be planned for.

NOTE: All Installations Require Venting.

(In Australia, a minimum vent length of 11' (3353 mm) must be used off the top of the vent collar of the appliance).

Minimum enclosures are as follows:

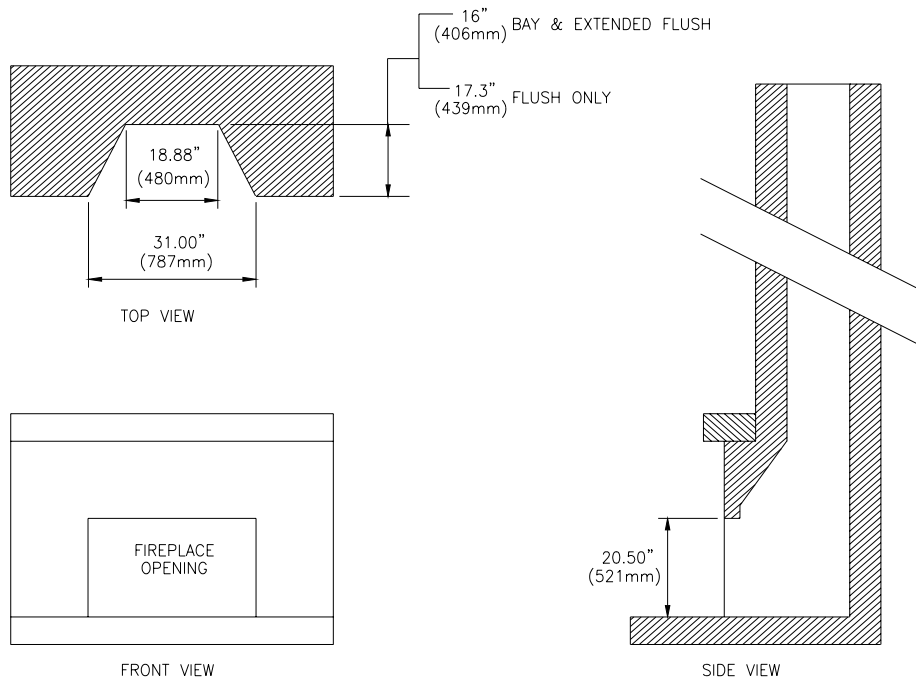


Figure 4

3.3.1 MINIMUM CLEARANCES

This top venting insert is suitable for installation into masonry fireplaces or into factory built certified fireplaces which have a gas line knockout and proper floor clearances.

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

Factory built certified 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. Inspect the fireplace to ensure the insert will fit (see Figure 4).

Minimum Clearances to Combustibles

A. Sidewall	10" (254mm) measured from glass
B. Ceiling	34" (864mm) measured from top grille
C. Facing Sides	1" (25mm) measured from standard faceplate
D. Top	8.5" (216mm) measured from the top of the grille assembly
E. Floor	2" (51mm) (see Figure 5a)
F. Mantle	12.5" (318mm) measured from top grille to 8" (204mm) mantle

- Note:**
1. For more mantle options see Figure 6
 2. When using paint or lacquer to finish the mantle, such paint or lacquer must be heat resistant to prevent discolouration.
 3. When installing the unit flush to the flooring, there must be a 16" non-combustible hearth extension (see Figure 5b)

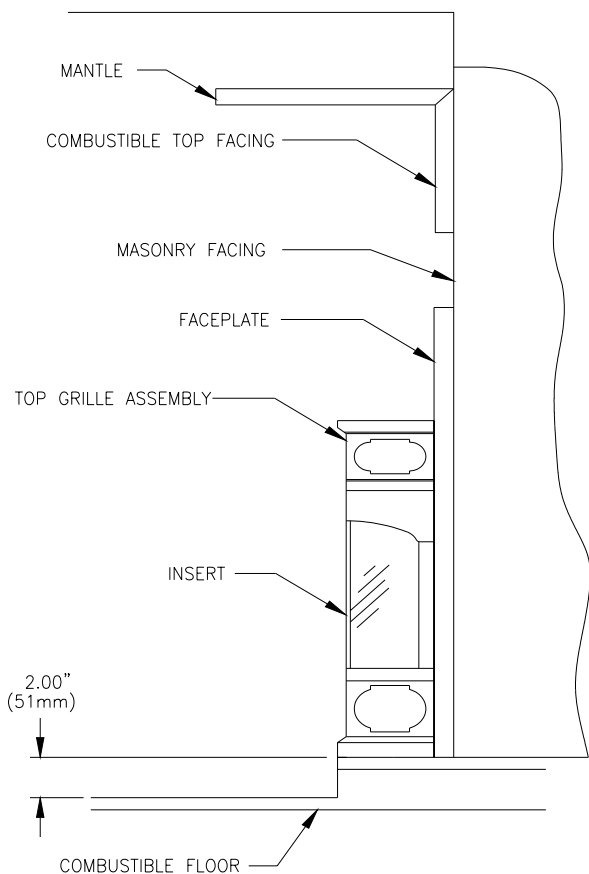


Figure 5a

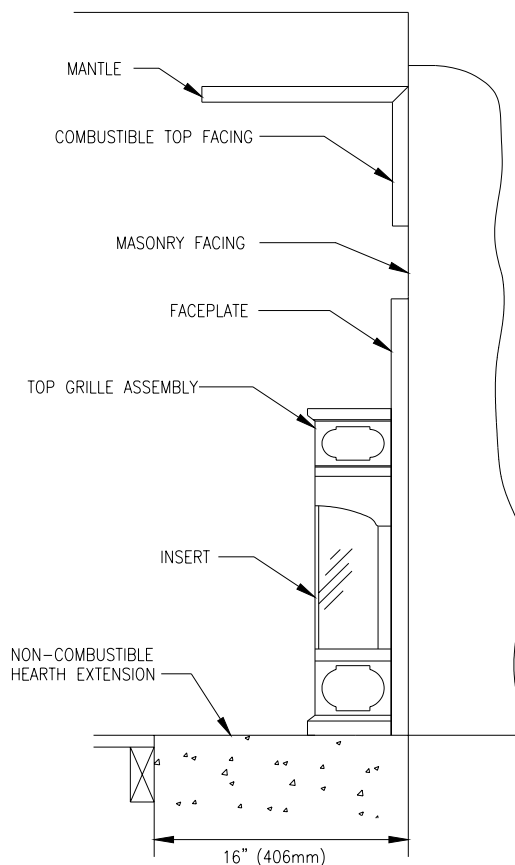


Figure 5b

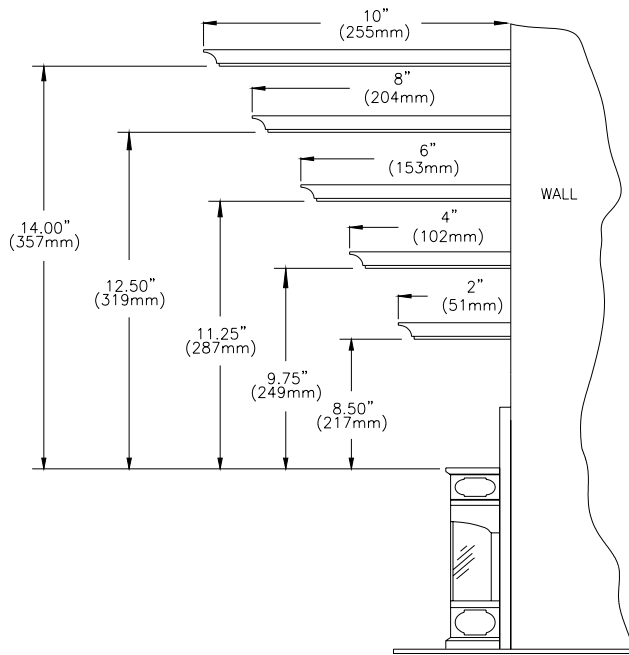


Figure 6

3.3.2 CHIMNEY LINER OR VENT INSTALLATION

Figures 7 and 8 show the completed installations into masonry and into a factory built certified fireplace. For Australia, installations and flue materials must comply with AG601 requirements.

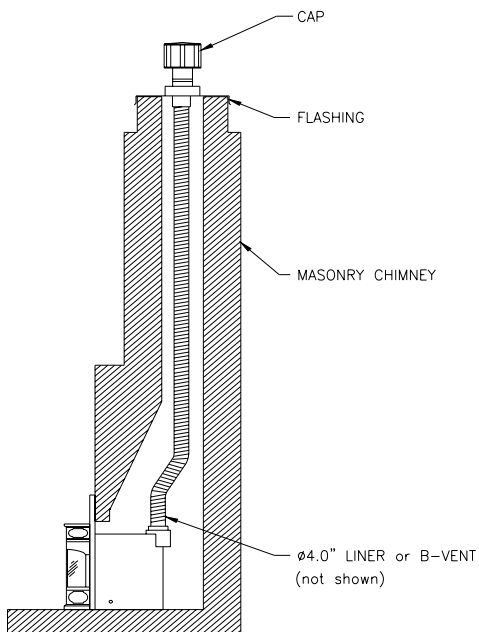


Figure 7

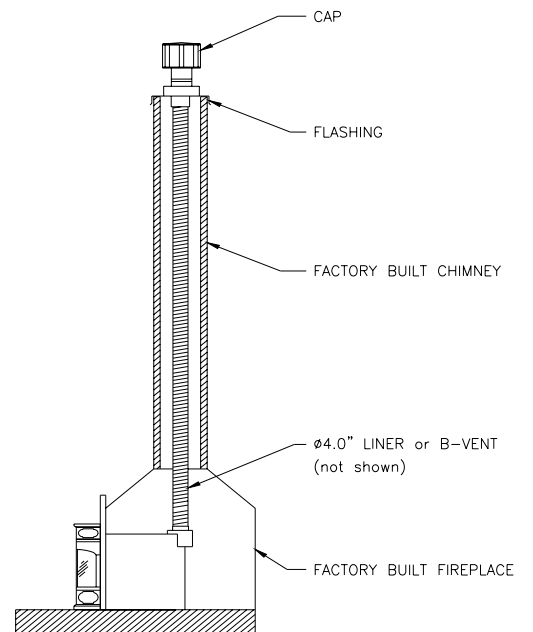


Figure 8

The insert must be connected to a flex liner or B-vent suitable for use with gas. The vent 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 vent according to the manufacturer's instructions. Use a maximum of two offsets; (four 45° elbows), or two 90° elbows. Slope horizontal pipes at least 1/4" (6.4mm) rise per foot of run. Horizontal runs should not exceed the vertical rise.

3.3.3 GAS LINE INSTALLATION

- Install supply line using any piping approved for your installation meeting CAN/CGA 6.10, AA 3, ANSI Z21.24 or Z21.45. A qualified gas fitter should install the gas line in accordance with all local building codes. If codes permit, coiled copper tubing may be used for gas supply.
- Pressure taps are provided on the gas control for test gauge connections to measure the manifold and inlet pressures.
- This appliance 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 appliance 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).
- Install the gas line as follows:

The gas line connection on the right side of the insert is shown in Figure 9. An AGA and/or CGA approved shut off valve can be installed to the 5" nipple if so desired. Installing the shut off valve on the end of the 5" nipple will allow quick accessibility.

WARNING: Do not use an open flame to test for gas leaks.

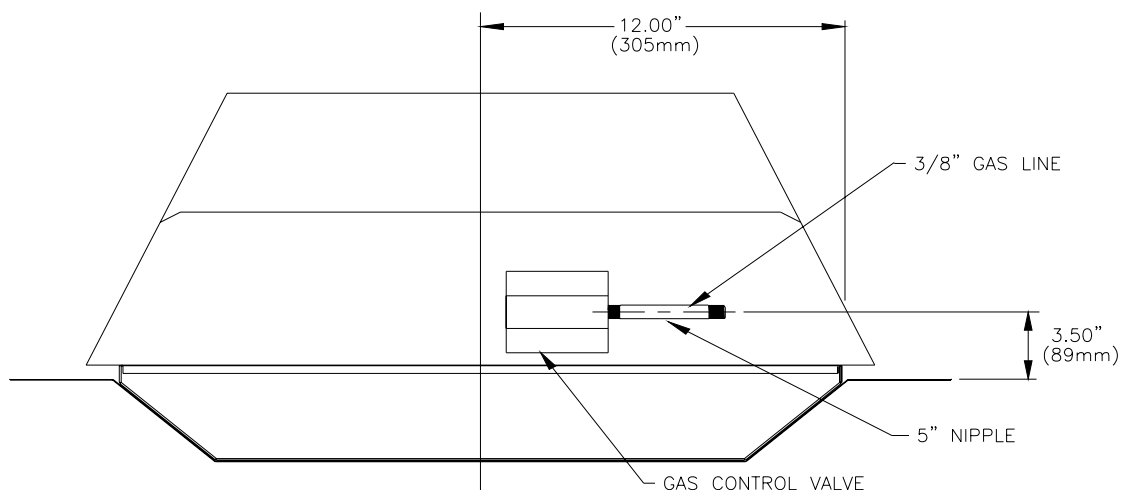


Figure 9

3.3.4 THERMOSTAT, WALL SWITCH, OR REMOTE CONTROL INSTALLATION

The burner control switch is located on the right top side of the faceplate (see Figure 2). For your convenience, the insert can also be operated by a thermostat, a wall switch, or a remote control. Millivolt thermostats and remote control kits are available from any authorized Osburn dealer. Bedroom installations require the use of a wall thermostat.

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

Remote Control Installation: Please refer to instructions included with kit.

Thermostat or Wall Switch Installation

Mount the thermostat or wall switch in the desired location and run **“two conductor thermostat wire”** to the heater’s lower right hand corner, close to the gas supply line.

1. 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 the length of wire increases, the probability of adequate operating voltage decreases.

TABLE 2 THERMOSTAT WIRE INFORMATION

AWG	WIRE SIZE		MAX. WIRE LENGTH	
	mm	ft.	m	
22	0.6	10	3.0	
20	0.8	25	7.6	
18	1.0	40	12.2	
16	1.3	64	19.5	
14	1.6	100	30.5	

- 2a) After the insert is installed and the gas line hooked up, solder a female spade connector to each wire and join them to the male connectors provided on the rear of the burner switch (see Figure 10), or
- 2b) Solder a fork connector to each wire and install them to the valve.
- 3) Check tests can be performed on the valve by using the trouble-shooting guide, Section 6.0.
- 4) This switch may be connected in parallel with a thermostat, wall switch, or remote control (see Figure 11).

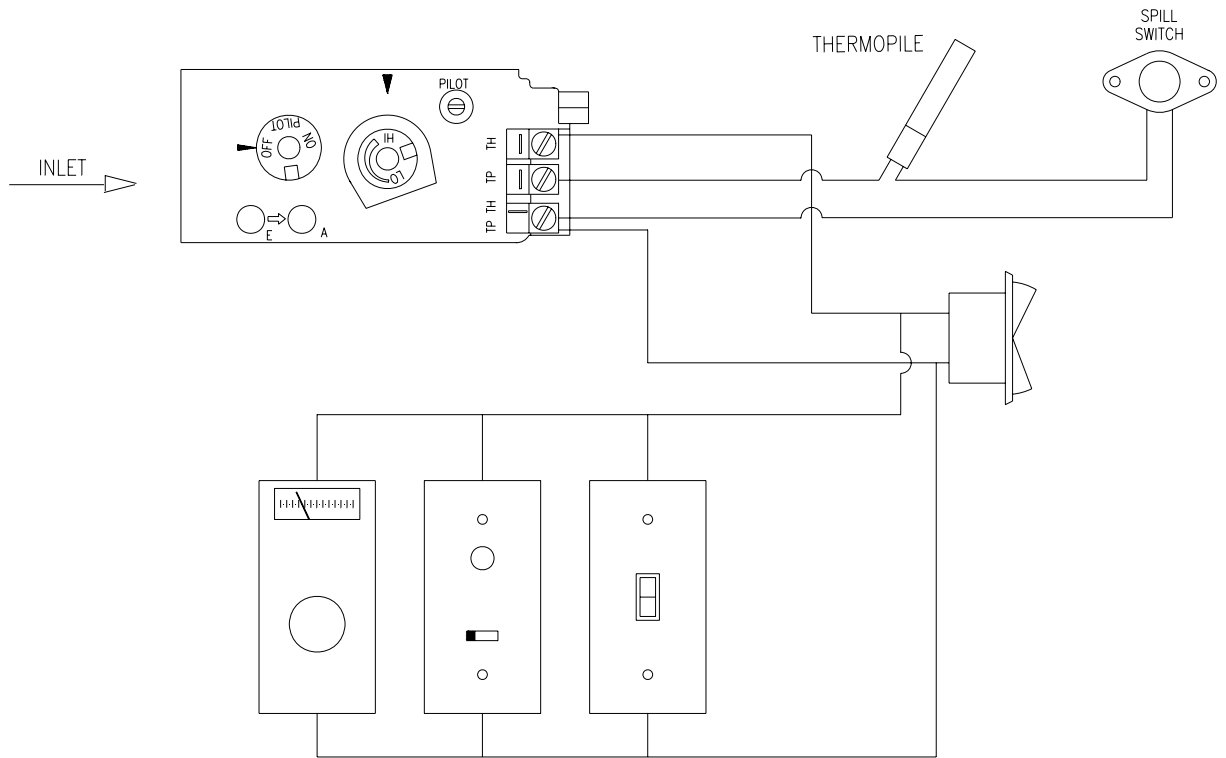


Figure 10

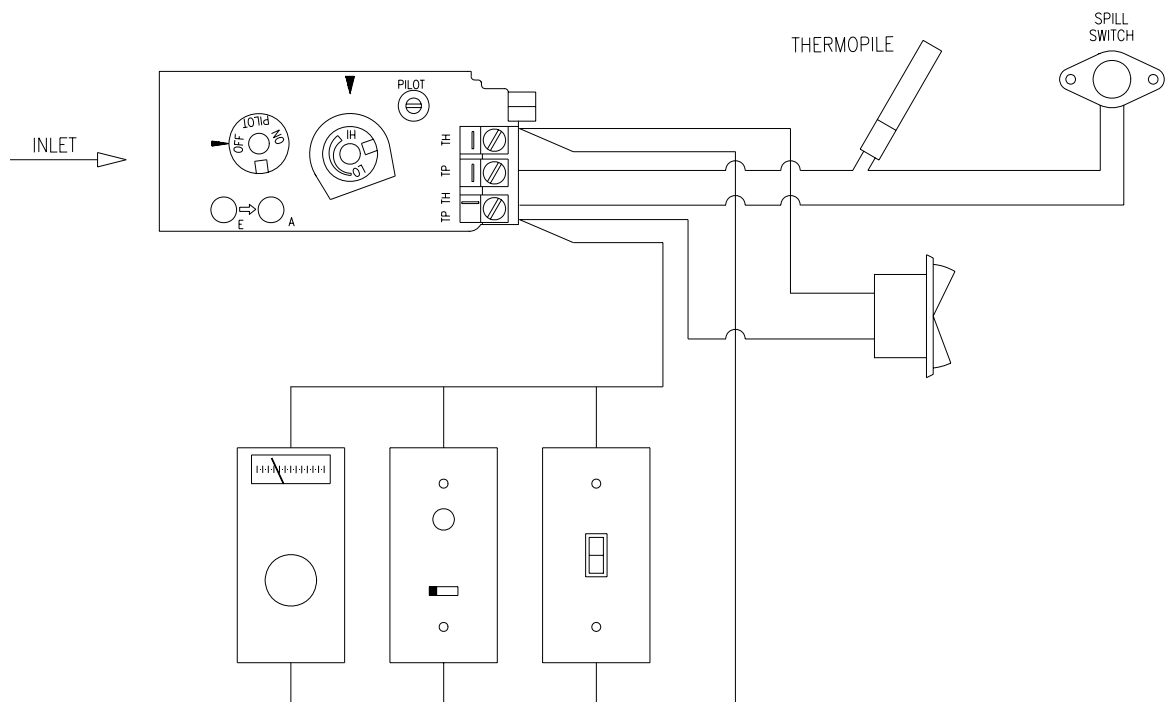


Figure 11

3.3.5 VENT, GAS LINE, & WIRING CONNECTIONS

Unless it is more easily installed with the insert, install the draffhood separately first as follows:

1. Disconnect the draffhood from the insert and fit its collar to the end of the previously installed vent, whether the flue-liner is in an existing masonry fireplace or the flue-liner is in an existing factory built certified fireplace.
2. Wiring:
 - i) Cut the plastic pull-tie securing the blue wires.
 - ii) Cut the plastic pull-tie securing the fan power cord to the heater.
3. Two captive nuts are attached to the air jacket bottom.
 - i) Remove the two 1/4" – 20 screws (2.5" [64mm] long) provided with the faceplate package.
 - ii) Turn the screws through the two rear captive nuts to level the unit as required.
4. Push the draffhood upward to 21" (535mm) above the hearth or fireplace bottom, and start sliding the insert 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 3.3.4.
6. The fan power cord is on the left side of the insert and can be routed to the right if desired. Route the power cord along the bottom *outside* edge of the heater, not underneath, nor under any sharp edges.
7. Push the insert back until the front firebox flanges are 1/4" (6mm) in front of the masonry or factory built fireplace facing. 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 (Figure 12).
8. Bend the positioning strips down over the top front edge, cut off the excess strip length, and fold the strips back over the top flange.
9. Connect the union of the gas supply line.
10. Purge the gas line of air.
11. 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.

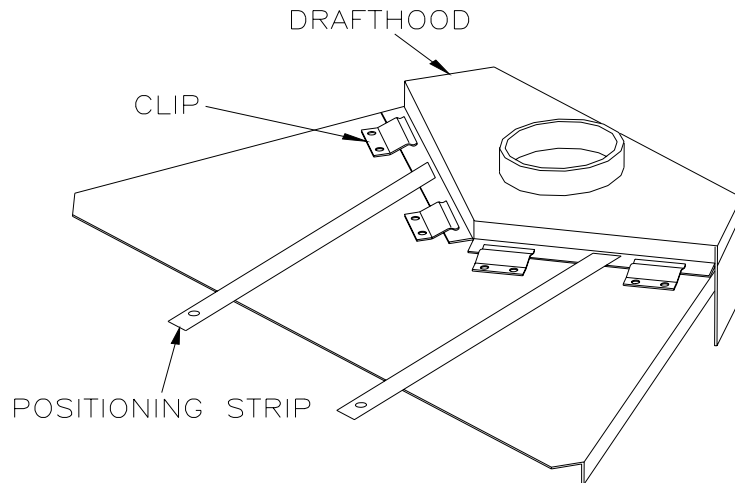


Figure 12

3.3.6 LOWER GRILLE INSTALLATION

1. Pull the control panel forward to release it from the retaining clips.
2. Remove the four screws from the firebox supports.

NOTE: The Contemporary Bay (JG124) lower grille has two adapter plates attached to the grille assembly. Remove these plates from the grille assembly and attach them to the firebox supports.

3. Place the lower grille assembly in position against the front of the firebox supports.
4. Place the lower grille assembly with the four screws that were previously removed (see Figure 13).
5. Push the control panel back into position under the retaining clips.

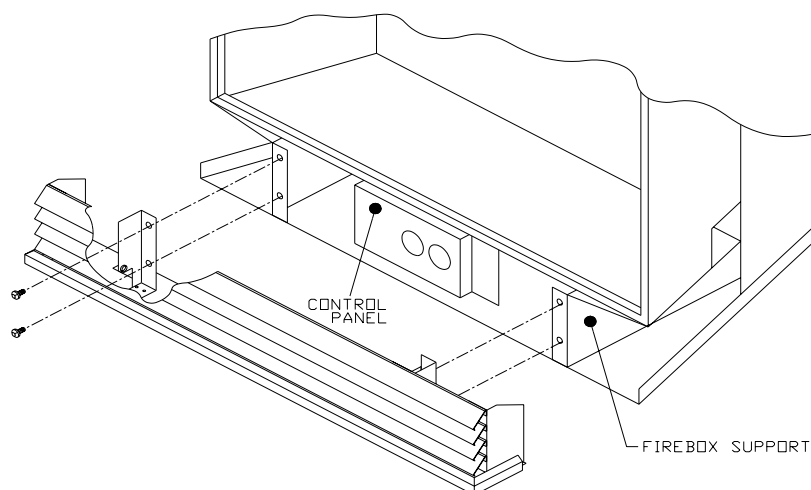


Figure 13

3.3.7 FACEPLATE INSTALLATION

Remove the faceplate panels and the edge trim from the packaging and assembly according to the following instructions:

1. Place the faceplate panels with the finished side down on a flat, soft, non-abrasive surface.
2. Line up the holes of the side and top panels and install the four screws loosely (see Figure 14).
3. Line up the edges of the faceplate top and sides then tighten all four screws.
4. Assemble the faceplate trim, attaching the mitred corners with the corner brackets (see Figure 15).

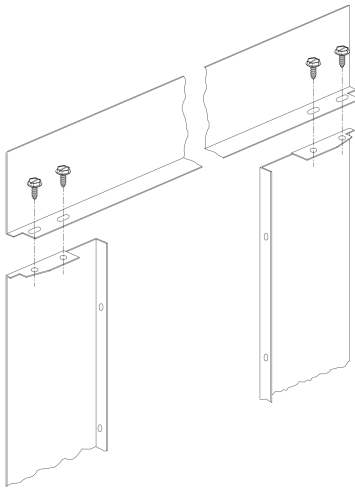


Figure 14

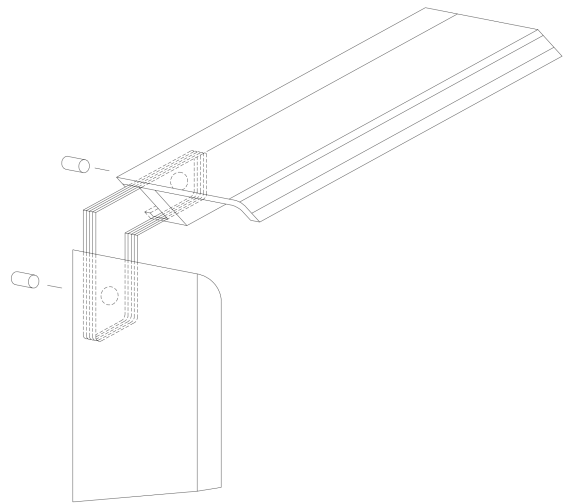


Figure 15

5. Slide the assembled trim over the edges of the faceplates.
- 6a. Snap the eight trim retainers in place (see Figure 16a).
- 6b. 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 16b).

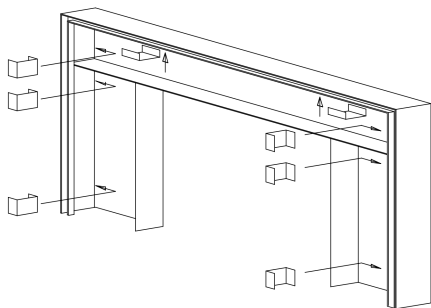


Figure 16a

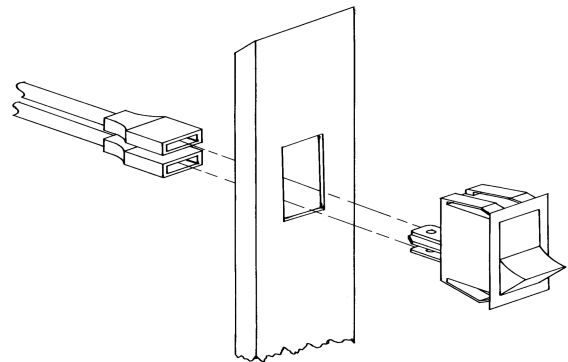


Figure 16b

7. With the door removed, place the faceplate assembly up to the front of the insert.
8. Secure the faceplate with the four Philips screws (see Figure 17a).

NOTE: Do not adjust the faceplate depth on the Bay Insert.

FLUSH INSERT ONLY:

9. Adjust the faceplate mounts to the desired setting (see Figure 17b).

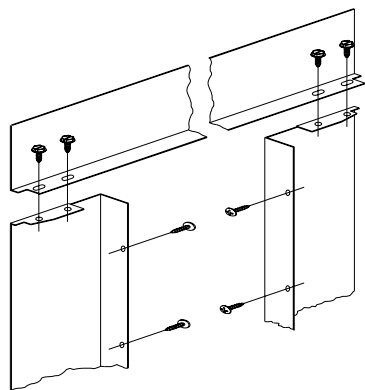


Figure 17a

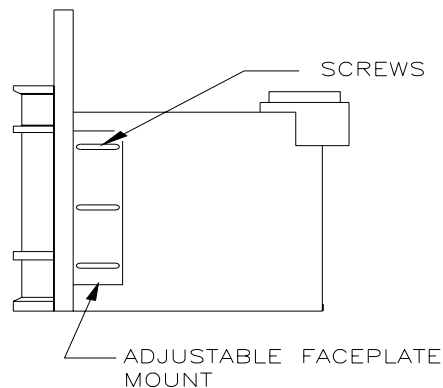


Figure 17b

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.

Place the rear log to the back of the rear log support and onto the vertical pins (see Figure 20).

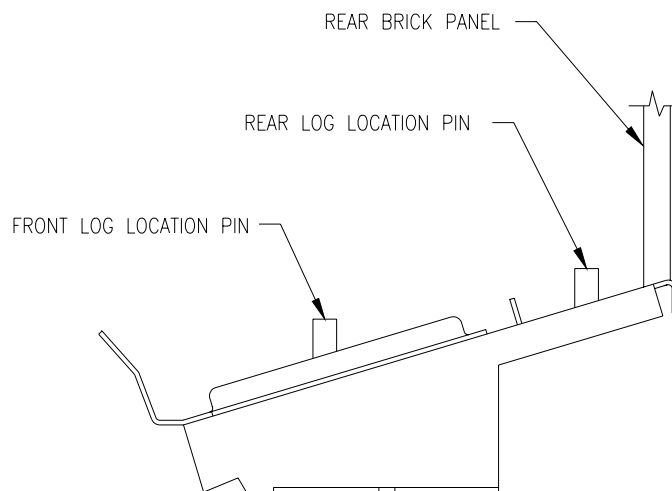


Figure 18

The front left and right logs are located by positioning them onto the positioning pins on the burner plenum (see Figure 19).

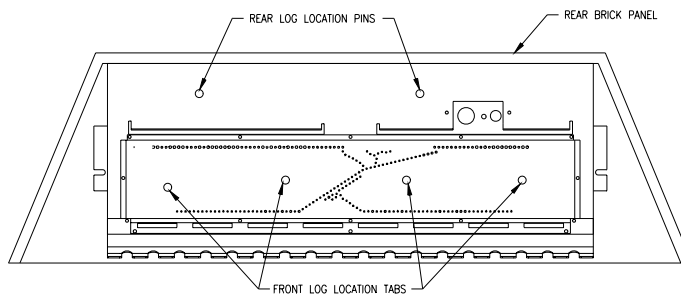


Figure 19

Place the top log on top of the lower logs locating it by inserting the pins into the holes of the top log. "Y" portion of top log is facing down towards grate.

Installing Coals

The coals should be placed along the coal grate on top of the burner, located in front of and below the front log (see Figure 20). The coals extend around the log end.

WARNING: Do not add any material to the appliance which will come in contact with the flames, other than that supplied by the manufacturer with the appliance.

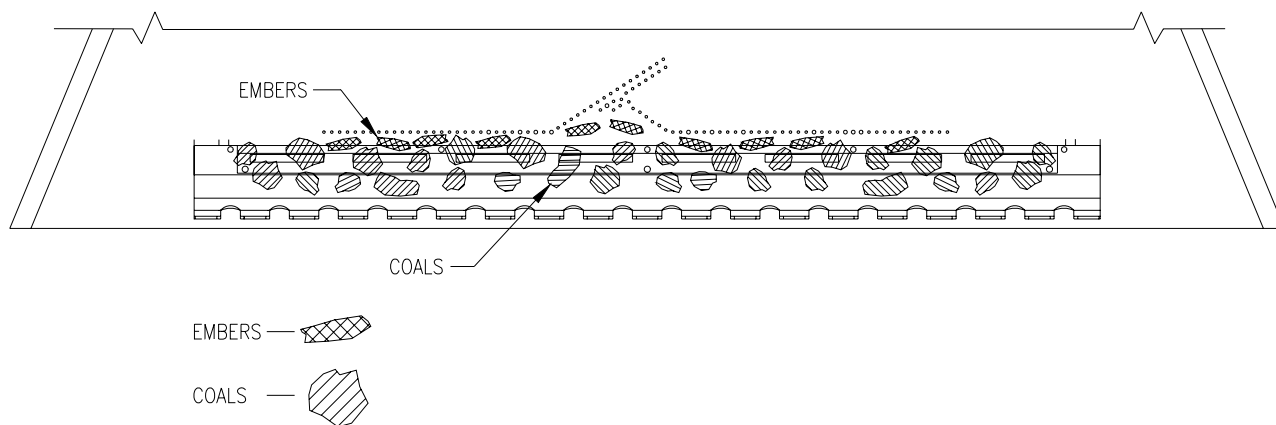


Figure 20

Installing the Lower Door Trim

WARNING: See sections 4.4 & 4.5 before installing the lower door trim.

1. Place the lower assembly upside down on a soft work area.
2. Remove the four retaining screws from the doorframe bottom.
3. Place the lower door trim in position over the door assembly and align the screw holes.
4. Secure the lower door trim with the four screws that were previously removed (see Figure 21).
5. Re-attach the door assembly onto the firebox.

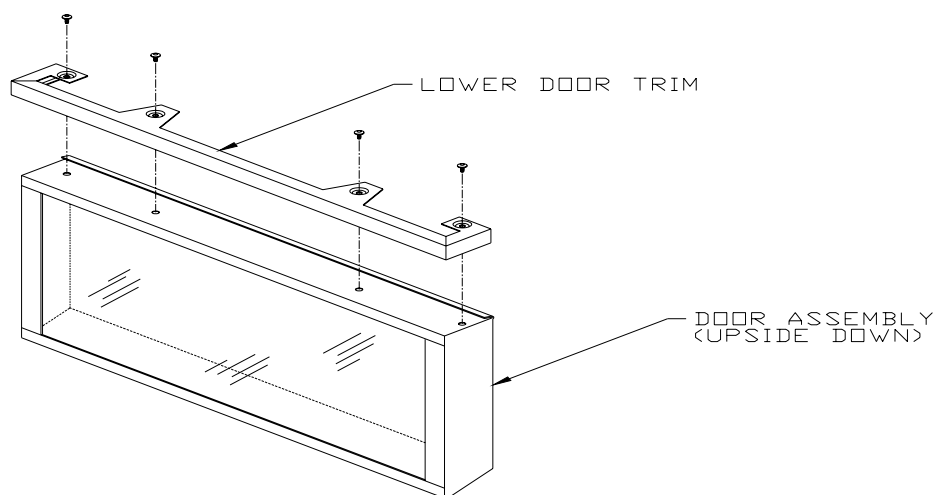


Figure 21

Installing the Door

Install the door by assembling its upper hinge slots to the hinge tabs on the top of the firebox. Swing the door down towards the fireplace and latch at the bottom.

Installing Top Grille Assembly

1. Place the top grille assembly above the door
2. Push the grille retaining plate into the clips and against the stops on top of the insert (see Figure 22).

NOTE: Improper installation of the top grille assembly may cause tarnishing of the brass.

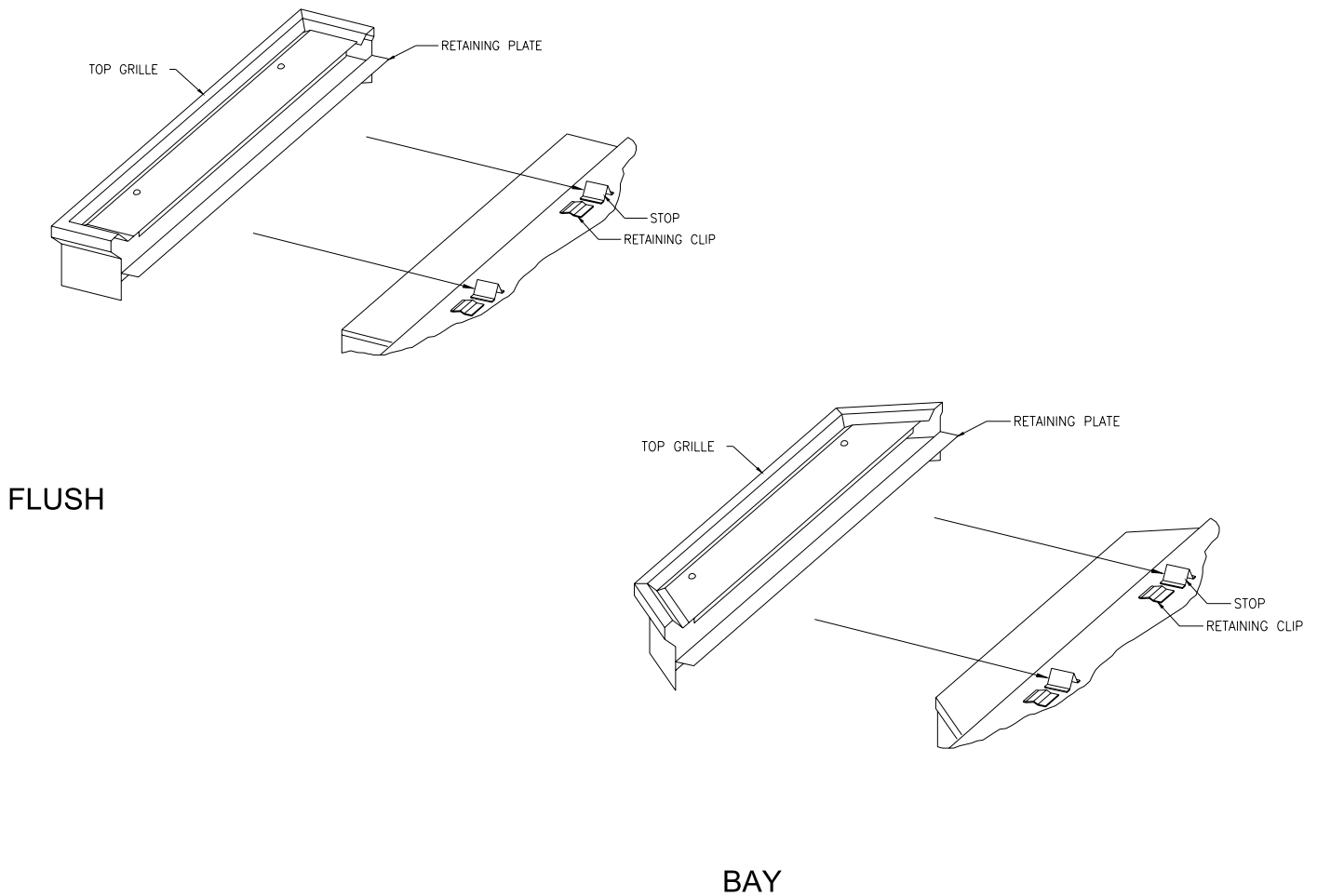


Figure 22

3.3.9 INITIAL FIRING

When lit for the first few times, the appliance may emit an odour 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.

NOTE: It is normal for the appliance to expand and contract while it heats up or cools down whether this is from a cold start or a steady-state condition where the fan has come on or off. Under these circumstances it is possible that the expansion/contraction of the metal parts may produce a ticking sound.

Occasionally, after a cold start, vapour may condense and fog the glass, and the flames may be partially blue. After a few minutes the moisture will disappear and the flames will become yellow. Visually check the maximum flame height after warm-up (see Figure 23).

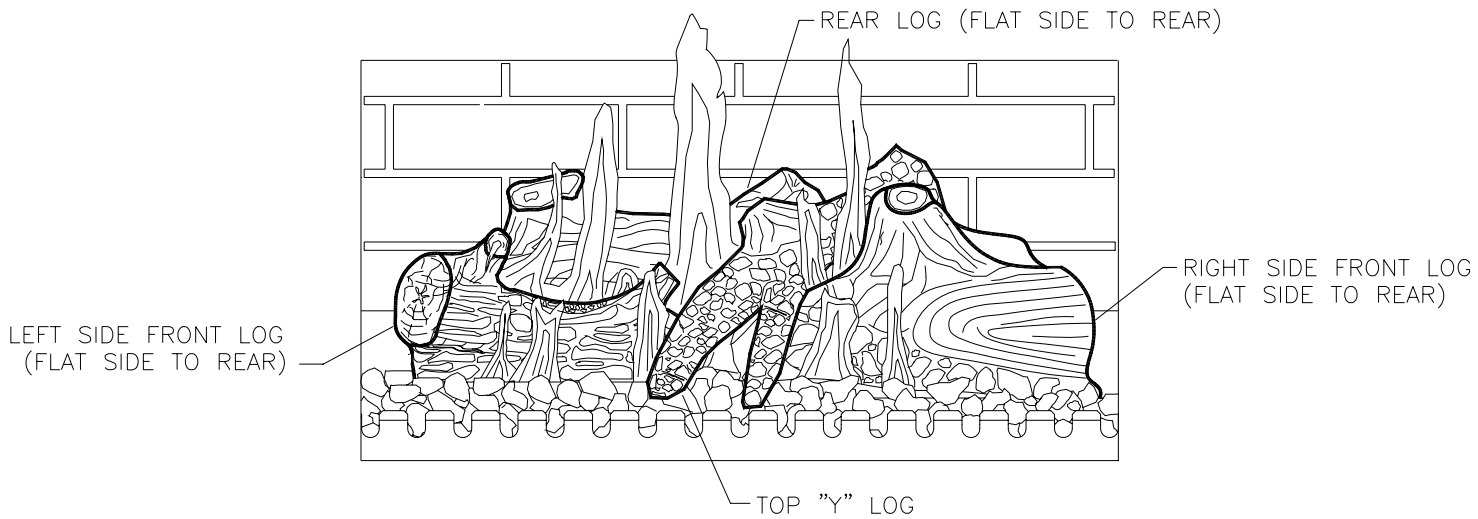


Figure 23

3.3.9.1 MANIFOLD PRESSURE REGULATOR ADJUSTMENT

The manifold pressure regulator controls gas input and flame height, and is pre-adjusted at the factory. No further adjustment is required. Manifold pressure can be verified only (see Figure 23).

3.3.9.2 PILOT FLAME ADJUSTMENT

For proper operation, the pilot and main burner flames 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. To adjust the pilot flame, turn the pilot adjustment screw counter-clockwise to increase, and clockwise to decrease the flame. Ensure that the pilot flame completely engulfs the thermopile (see Figure 24).

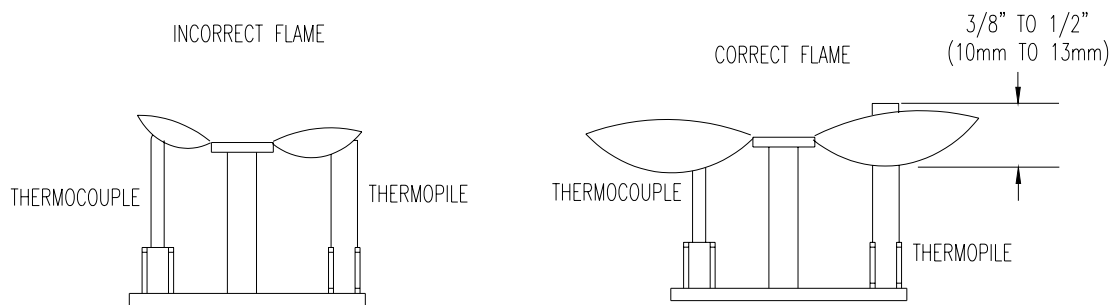


Figure 24

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. Remove the top grille assembly by pulling it forward carefully.
4. Light the heater to the full fire position.
5. After five to ten minutes, insert a match inside a draft duct opening and ensure that the flame wisps and smoke are drawn into the duct at the front corner (see Figure 25).
6. If the flame wisps are not drawn into the ducts, turn the heater of, and determine the cause of the lack of draft. ***Do not operate the heater until there is sufficient draft.***
7. Replace the top grille assembly after the insert cools.

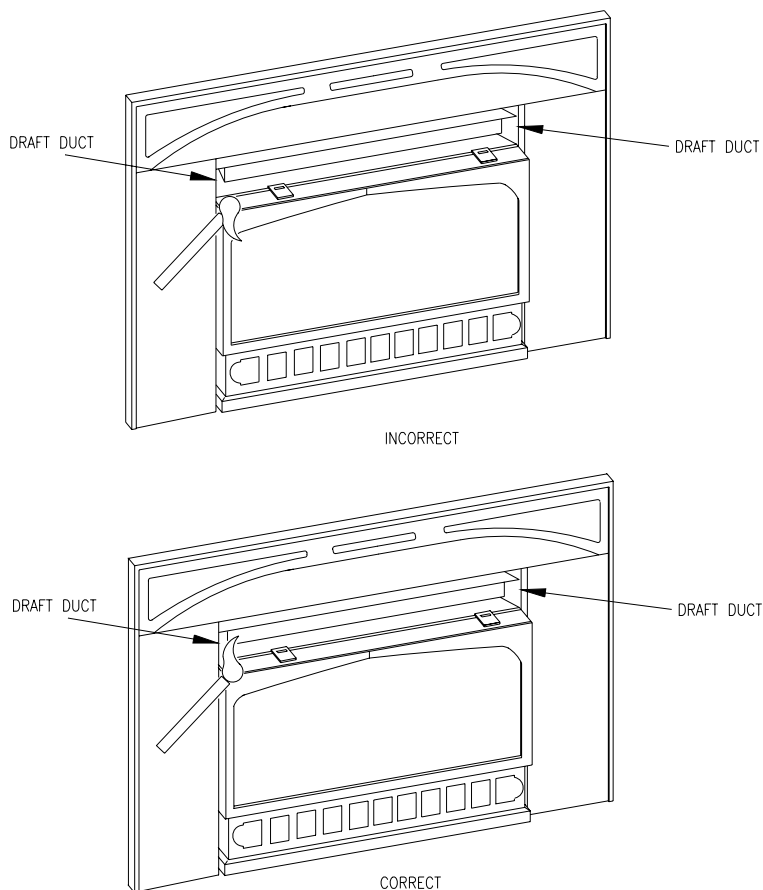


Figure 25

3.3.9.4 ALTITUDE ADJUSTMENT

All valves have been pre-set and certified for installation at elevations from 0 – 4500 feet (1 – 1372m) above sea level.

When installing this heater at higher elevations, it is necessary to decrease the input rating by replacing the existing burner orifice with a smaller size for installations over 4500 feet (1372m). The appliances input should be reduced 4% for each additional 1000 feet (305m) above sea level. For the USA, derate the heater from sea level according to the gas installation code.

4.0 MAINTENANCE

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 passageways be kept clean to provide for adequate combustion and ventilation airflow. Do not substitute materials or use components other than factory supplied.

4.2 RECOMMENDED SERVICE

1. Examine the venting system periodically.
2. Visually check the burner and pilot flames occasionally. Visually inspect height and colour of flames (see Figure 24).
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 regularly.

NOTE: Safety screens removed for service must be replaced prior to operating the heater.

Annual service: An annual service call should take between 1 – 2 hours. Start by disassembling the unit; take off the glass and remove all the logs, embers, burner, and fan. A small toothbrush is a handy tool for cleaning the fan. Loosen all the debris on the fan blades and vacuum it off. Vacuum the whole firebox and all the air passages. Clean the burner, pilot orifice, main orifice, logs, etc. After everything is clean, check all the connections and the chassis ground and reassemble. Fire up the unit and check the electrical readings of the thermopile/thermocouple. Clean the glass. Check the gas pressure. Check the draft (the venting system should also be checked).

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. Make sure you clean off the white film on the fireplace glass as soon as possible – otherwise the glass may deteriorate.

4.4 CLEANING OF BRASS PLATED SURFACE

Special care must be taken to avoid damage to the high temperature coating applied to each brass piece. **Do not** touch or attempt to clean the brass on your fireplace when the brass surface is warm.

Wipe only with a soft damp cotton cloth to maintain original brilliance. **Caution:** Some cleaning agents may contain chemicals that could harm the high temperature coating on the brass. Paper towels and other abrasive materials may scratch the surface.

4.5 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.

4.6 BURNER & PILOT CLEANING

Periodic cleaning is necessary for proper operation.

Refer to section 4.8, remove the burner, and check that the burner orifice is clean.

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 pilot flame pattern with the figures in Section 3.3.9.2. For re-lighting, refer to the lighting instructions in Section 2.2.

4.7 FAN REPLACEMENT & ELECTRICAL SCHEMATIC

1. **Turn off all electrical power to the heater.** Unplug fan cord or turn circuit breaker off.
2. Remove the four screws, which locate the lower grille assembly, and remove it.
3. Remove the two electrical shield screws and shield (see Figure 26).
4. Remove the two fan bracket to fan base securing screws (see Figure 27).
5. Remove the two fan bracket securing nuts (see Figure 28).
6. Remove the fan wire from the thermal switch.

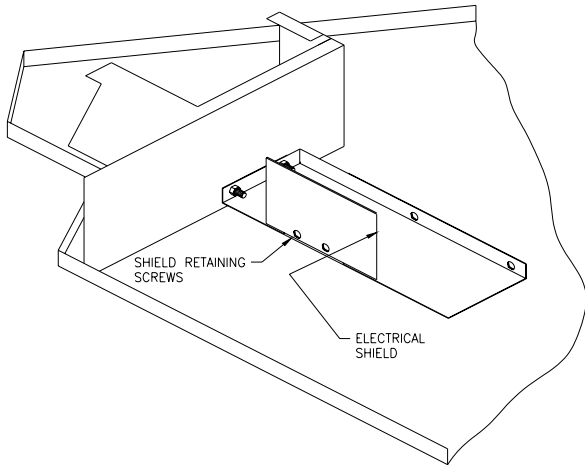


Figure 26

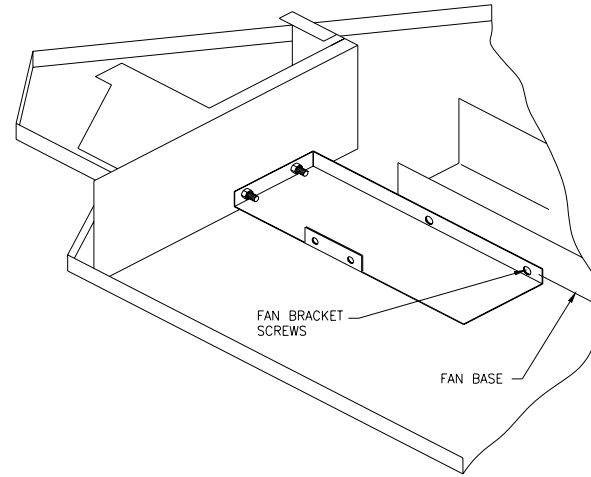


Figure 27

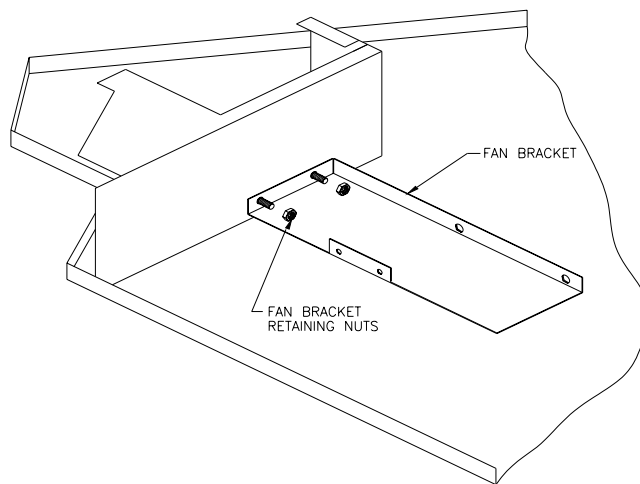


Figure 28

7. Disconnect the remaining fan wire at the inline connector.
8. Remove the fan by first rotating it 90° backward and then sliding it forward and out.
9. Reassemble in reverse order.
10. See Figure 29 for fan electrical schematic.
11. If the supply cord is damaged it must be replaced by a special cord available from the manufacturer or its service agent.

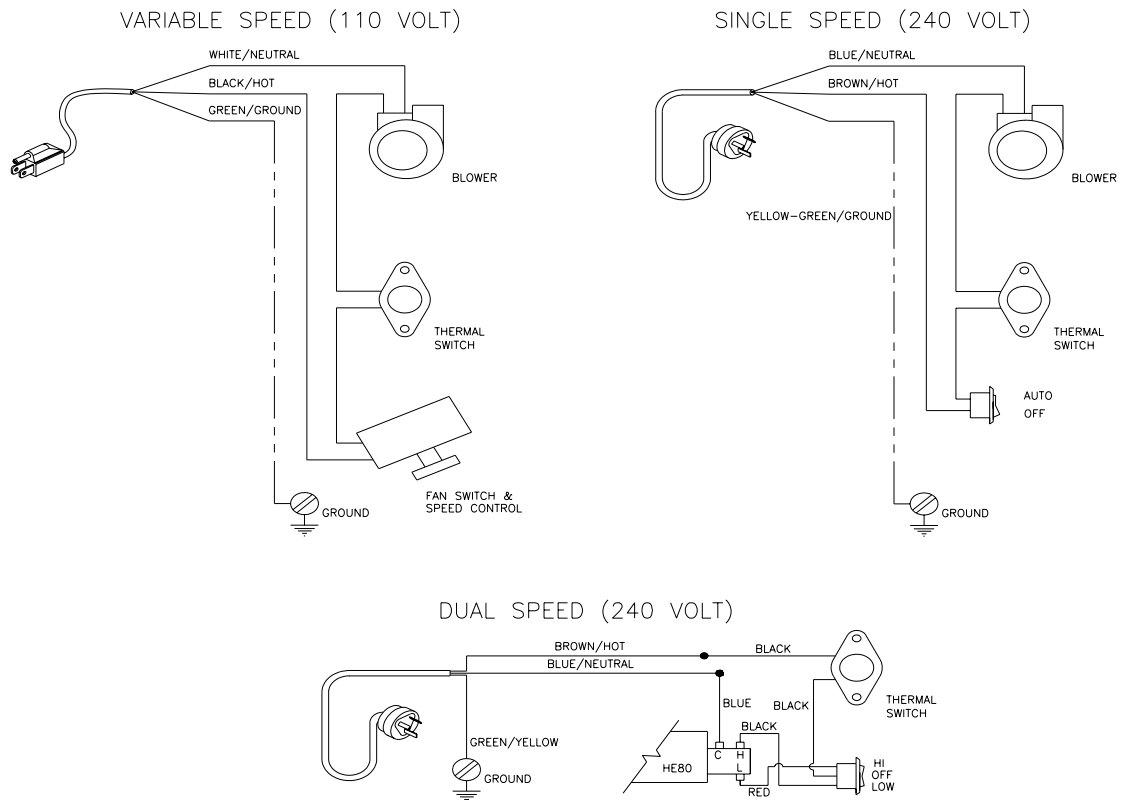


Figure 29

If necessary, the Fan Thermal Switch may be replaced as follows:

1. Turn off all electrical power to the insert; unplug power cord or turn circuit breaker off.
2. Remove the four screws that locate the lower grille assembly and remove it.
3. Remove the shield by removing two screws (see Figure 26).
4. Remove the fan thermal switch mount bracket by loosening two screws but do not remove them.
5. Disconnect the two wires from the switch.
6. Remove the two screws securing the switch.
7. Remove and replace the thermal switch.
8. Reassemble in the reverse order.

4.8 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 minutes.

1. Remove the top grille assembly.
2. Remove the door.
3. Remove the lower grille assembly.
4. Remove the logs and coals.
5. Remove the burner tray assembly as a unit by lifting it up and out.
6. Undo the gas flexline connection at the gas valve. These fittings are flared and do not require sealant.
7. Remove the screw securing the pilot assembly to the pilot bracket.
8. Remove the four screws securing the pilot cover plate and gasket and then remove them.
9. Remove the nut securing the orifice to the firebox bottom.
10. Remove the four screws holding the valve bracket to the firebox bottom.
11. Disconnect the thermostat wires from the valve. Once the fasteners are removed, the valve/pilot assembly can be lowered down and rotated out through the front of the appliance as a complete unit.
12. Reassemble the components in reverse order.

5.0 AUSTRALIAN DRESS GUARD

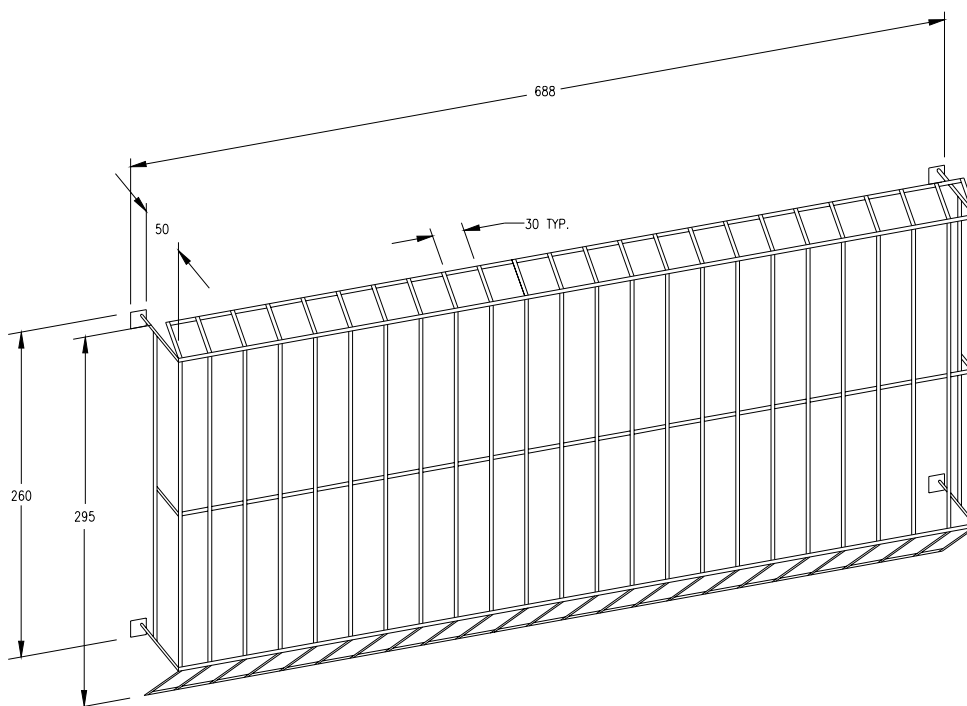
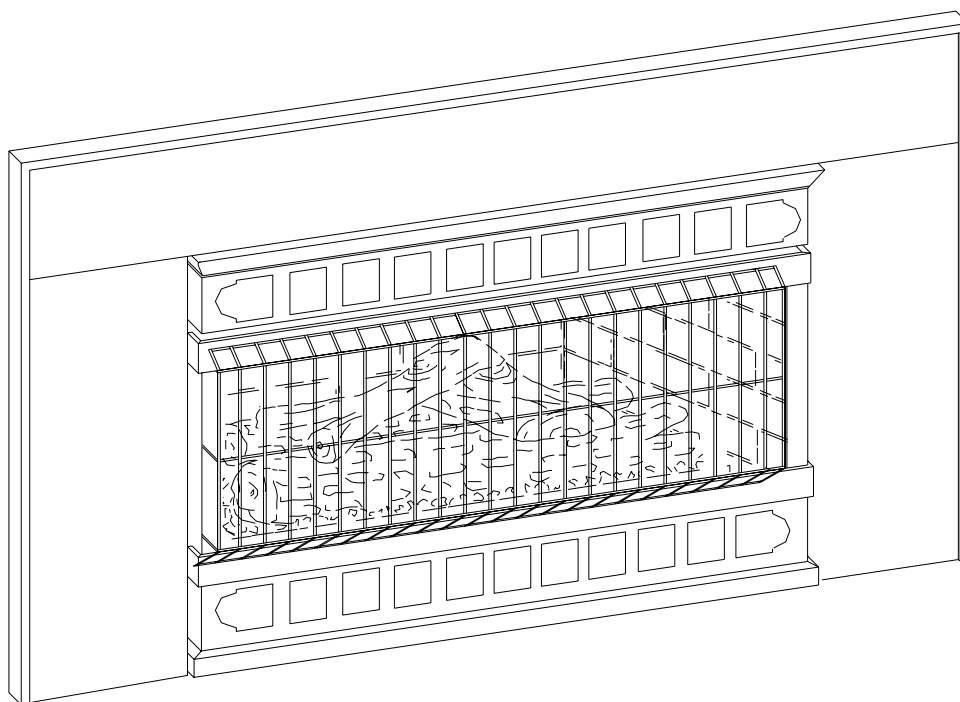


Figure 30

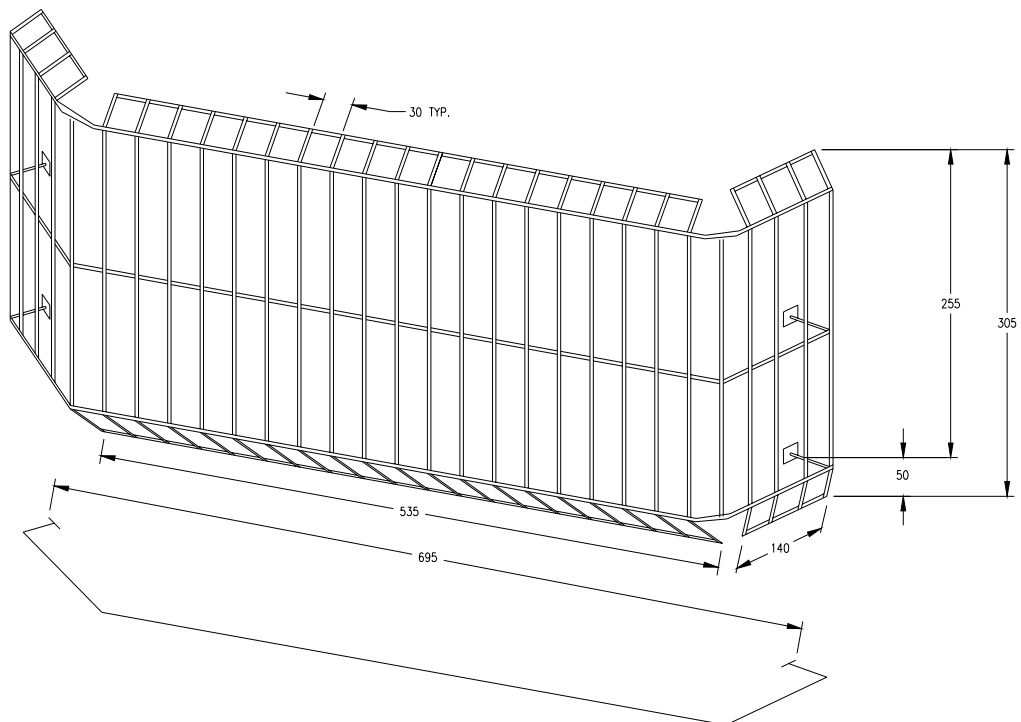
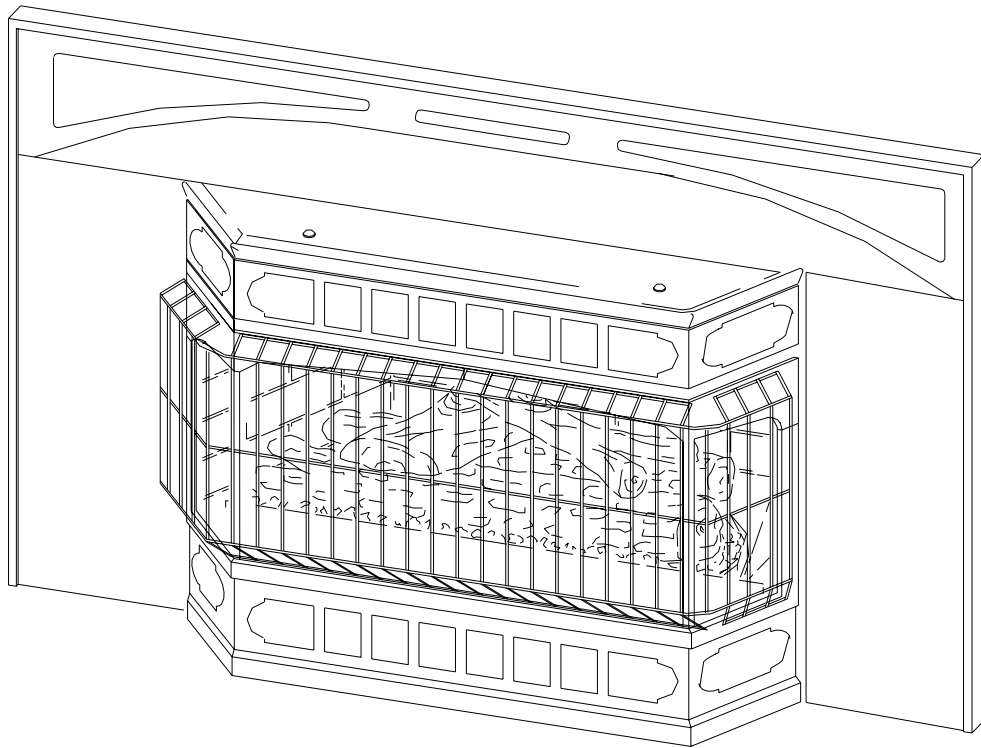


Figure 31

6.0 TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
I. Pilot will not light after repeated triggering of the red piezo ignition button	A. No spark at electrode (weak or not heat source for pilot ignition)	
	1. Improper ignition	1. Align the electrode with 1/8" (3mm) 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. No gas or low gas pressure	
	1. Gas line shut off(s) may not be turned on	1. Turn of 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	
II. Pilot will not stay lit after following the lighting instructions	A. Thermocouple / Valve	
	1. Weak or improperly located pilot flame	1. Adjust and clean pilot. The flame must impinge on or engulf the thermocouple, as shown in Figure 24
	2. Defective thermocouple	2. Replace thermocouple
	3. Thermocouple not installed properly	3. Make sure all wire connections at the gas valve terminals are tight and the thermocouple is fully inserted into the mounting bracket
	4. Open wire connection in pilot circuit	4. Check Wire continuity and connections in the pilot circuit
	5. Defective Valve	5. 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 lie, the valve is defective. Check section "B" below, before replacing valve

Pilot will not stay lit after following the lighting instructions continued ...	B. Defective safety circuit	
	1. Loose or defective connections	1. Check continuity, tighten wiring or connections, and repair
	2. Defective electromagnet power unit (EPU)	2. 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
	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. Excessive length of 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 SIT)	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 reset. 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
	12. Defective spill switch	12. Check continuity and replace if defective
IV. Soot deposits on glass	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 properly set to NG = Closed) and LP = Closed. Adjust if needed
	3. Foreign material impeding burner	3. Ensure that no foreign material blocks burner flame ports
	4. Air inlet blocked or restricted	4. Clean air inlets
	5. Vent system is restricted or inadequate	5. Conduct flue spillage test and correct flue as required

III. Flame burns blue and lifts off burner	1. Insufficient combustion air being supplied	1. Ensure that no foreign material blocks air inlets and that the burner shutter is correctly adjusted. Ensure the vent is adequate
	2. Manifold pressure set too high	2. Check manifold pressure
IV. Frequent pilot outage problem	3. Vent system restricted	3. Check vent system
V. Flames impinge on firebox top	See V	
	1. Vent system is restricted or inadequate	1. Correct flue as required
	2. Manifold pressure too high	2. Check manifold pressure as required

7.0 REPLACEMENT PARTS

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

MANDALAY REPLACEMENT PARTS LIST

COMMON PARTS	
PART No.	DESCRIPTION
JD105	Blower Assembly Single Speed (240 Volt)
JD106	Blower Assembly Dual Speed (240 Volt)
JD007	Blower Assembly North America
CA132	Burner LP & NG
MF1002	Burner Orifice LP (#50)
LA1033	Burner Orifice NG (#36)
HE23	Burner Switch On/Off
CZ037	Coals
CZ0127	Door Gasket
HG60	Extension Knob, On/Off
HG61	Extension Knob, High/Low
JD006	Fan Speed Control
HE57	Fan Thermal Switch
HM22	Grille Springs (2/unit)
BC044	Embers
MA1001	Front Log, RH

COMMON PARTS	
PART No.	DESCRIPTION
MA1002	Front Log, LH
MA1003	Log Rear
MA1004	Log Top
MA100	Log Set
BN022	On/Off wires (2/unit)
HG77	Pilot Assembly NG With Ignitor
CA1055	Pilot Gas Line
HG79	Pilot Orifice LP
HG78	Pilot Orifice NG
HE24	Switch, 2-Way Rocker, 240V Fan
HE25	Switch, 3-Way Rocker, 240V Fan
HG37	Thermocouple
HE32	Thermodisc Spill Switch
MA133	Valve Assembly LP
MA134	Valve Assembly NG
HG25	Thermopile
HG54	Ignitor (with wire)

TRADITIONAL BAY PARTS	
PART No.	DESCRIPTION
JD064	Access Door Assembly
CA109	Door Assembly (1 piece glass)
JD035	Door Assembly (3 piece glass)
JD0080	Door Trim Lower Brass
JD0074	Door Trim Upper Brass
JD0077	Gasket Glass Tadpole
JD0006	Glass Front
JD0007	Glass Sides (2/unit)
JD0028	Louvre Brass Top
BC0088	Glass, 1 Piece Bent

TRADITIONAL FLUSH PARTS	
PART No.	DESCRIPTION
JF107	Access Door Assembly
JF116	Door Assembly
JF1008	Door Trim Lower Brass
JF1007	Door Trim Upper Brass
JF1006	Gasket Glass Tadpole
JF1005	Glass
JF119	Grille Assembly Top
JF1025	Louvre Brass Top

CONTEMPORARY BAY PARTS	
PART No.	DESCRIPTION
JG115	Side Grille Assembly, Black
JG116	Access Door Assembly, Black
JG1008	Louvre, Top Gold
10003	Louvre, Black
JG131	Side Grille Assembly, Gold
JG130	Access Door Assembly, Gold
JG1023	Door Trim Lower Gold
JG1022	Door Trim Upper Gold
JG1018	Door Trim Lower Black
10004	Door Trim Upper Black
JG118	Lower Grille Assembly, Black
JG132	Lower Grille Assembly, Gold
JG120	Upper Grille Assembly, Gold
JG122	Upper Grille Assembly, Black
JH1017	Gold Truss Screw
10006	Black Truss Screw

CONTEMPORARY FLUSH PARTS	
PART No.	DESCRIPTION
JH107	Access Door Assembly, Black
JH113	Access Door Assembly, Gold
JH1011	Louvre, Top Gold
10005	Louvre, Black
JH1017	Gold Truss Screw
10006	Black Truss Screw
JH1009	Door Trim Lower Gold
JH1010	Door Trim Upper Gold
JH1012	Door Trim Lower Black
10007	Door Trim Upper Black
JH109	Lower Grille Assembly, Black
JH114	Lower Grille Assembly, Gold
JH110	Upper Grille Assembly, Gold
JH112	Upper Grille Assembly, Black



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LIMITED WARRANTY

The warranty of the manufacturer extends only to the original consumer purchaser and is not transferable. This warranty covers brand new products only, which have not been altered, modified nor repaired since shipment from factory. Proof of purchase (dated bill of sale), model name and serial number must be supplied when making any warranty claim to your Osburn dealer.

This warranty applies to normal residential use only. Damages caused by misuse, abuse, improper installation, lack of maintenance, over firing, negligence or accident during transportation are not covered by this warranty.

This warranty does not cover any scratch, corrosion or discoloration caused by over firing, abrasives or chemical cleaners. Any defect or damage caused by the use of unauthorized parts or others than original parts void this warranty.

An authorized qualified technician must perform the installation in accordance with the Instructions supplied with this product and all local and national building codes. Any service call related to an improper installation is not covered by this warranty.

Returned products are to be shipped prepaid to the manufacturer for investigation. If a product is found to be defective, the manufacturer will repair or replace such defect and reasonable transportation fees will be refunded. Repair work covered by the warranty, executed at the purchaser domicile by an authorized qualified technician requires the prior approval of the manufacturer. Labour cost and repair work to the account of the manufacturer are based on predetermined rate schedule and must not exceed the wholesale price of the replacement part.

The manufacturer at its discretion may decide to repair or replace any part or unit after inspection and investigation of the defect. The manufacturer may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of any warranted but defective parts

The manufacturer shall in no event be responsible for any special, indirect, consequential damages of any nature, which are in excess of the original purchase price of the product.

DESCRIPTION	WARRANTY APPLICATION	
	PARTS	LABOUR
Combustion chamber (weldings only)	5 years	5 years
Stainless baffle	5 years	1 year
Carbon Steel baffle	2 years	1 year
Gas Valve, piezo, thermopile, thermoswitch, burner	1 year	1 year
Logs	N/A	N/A
Ceramic glass (thermal breakage only)	5 years	N/A
Paint, gasket, blower, Blower thermoswitch and rheostat	1 year	N/A
Gold plating (tarnishing)	5 years	N/A

Shall your unit or a components be defective, contact immediately your Osburn dealer. Prior to your call make sure you have the following information necessary to your warranty claim treatment:

- Your name, address and telephone number;
- Bill of sale, dealer's name;
- Serial number and model name as indicated on the nameplate fixed to the back of your unit;
- Nature of the defect and any relevant information.

Before shipping your unit or defective component to our plant, you must obtain from your Osburn dealer an Authorization Number. Any merchandise shipped to our plant without authorization will automatically be refused and returned to sender.