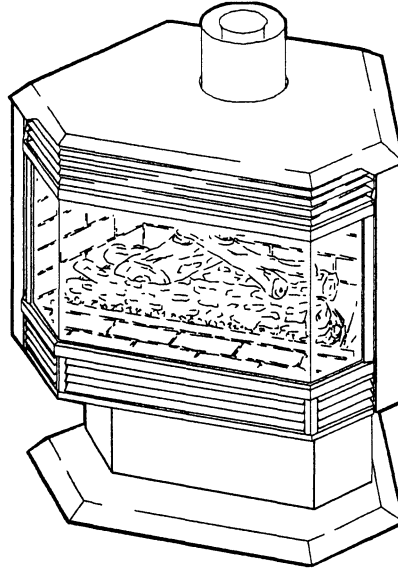


OSBURN BAY VISTA

DIRECT VENT

Freestanding Gas Stove Installation and Operation Instructions



The Flame of Desire

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 vapors and liquids in the vicinity of this or any other appliance.

IF YOU SMELL GAS

- Open windows.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Extinguish any open flame.
- 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

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.

Patents Pending



Made in Canada

CS014

10/01/97

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1.0 INTRODUCTION

1.1 SPECIFICATIONS

TABLE 1 SPECIFICATIONS

ITEM	NATURAL GAS (NG)	PROPANE (LPG)
INPUT:	High	40,000 Btu/hr (42.2 MJ/hr)
	Low	28,000 Btu/hr (29.5 MJ/hr)
Flue Loss Efficiency: Fan Off	72%	74%
	Fan On	75%
AFUE Efficiency: Fan Off	68%	70.4%
	Fan On	70%
MANIFOLD PRESSURE:	3.5" w.c. (0.9 kPa)	10.0" w.c. (2.5 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: 13.3" w.c. (3.3 kPa)
	Maximum: 13.5" w.c. (3.4 kPa)	Maximum: 13.5" w.c. (3.4 kPa)
ORIFICE SIZE:	31 DMS (.120") (3.05 mm)	47 DMS (.078") (1.98 mm)
CONTROL VALVE:	SIT 820 Nova	
SHIPPING WEIGHT:	190 Lbs.	
CHIMNEY:	Simpson Duravent Model DV-GS	

NOTE: The efficiency rating of the appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

- OPTIONS:**
- Fan, Variable Speed
 - Gold top & bottom door trim
 - Gold & color grille assemblies
 - Thermostat
 - Remote Control

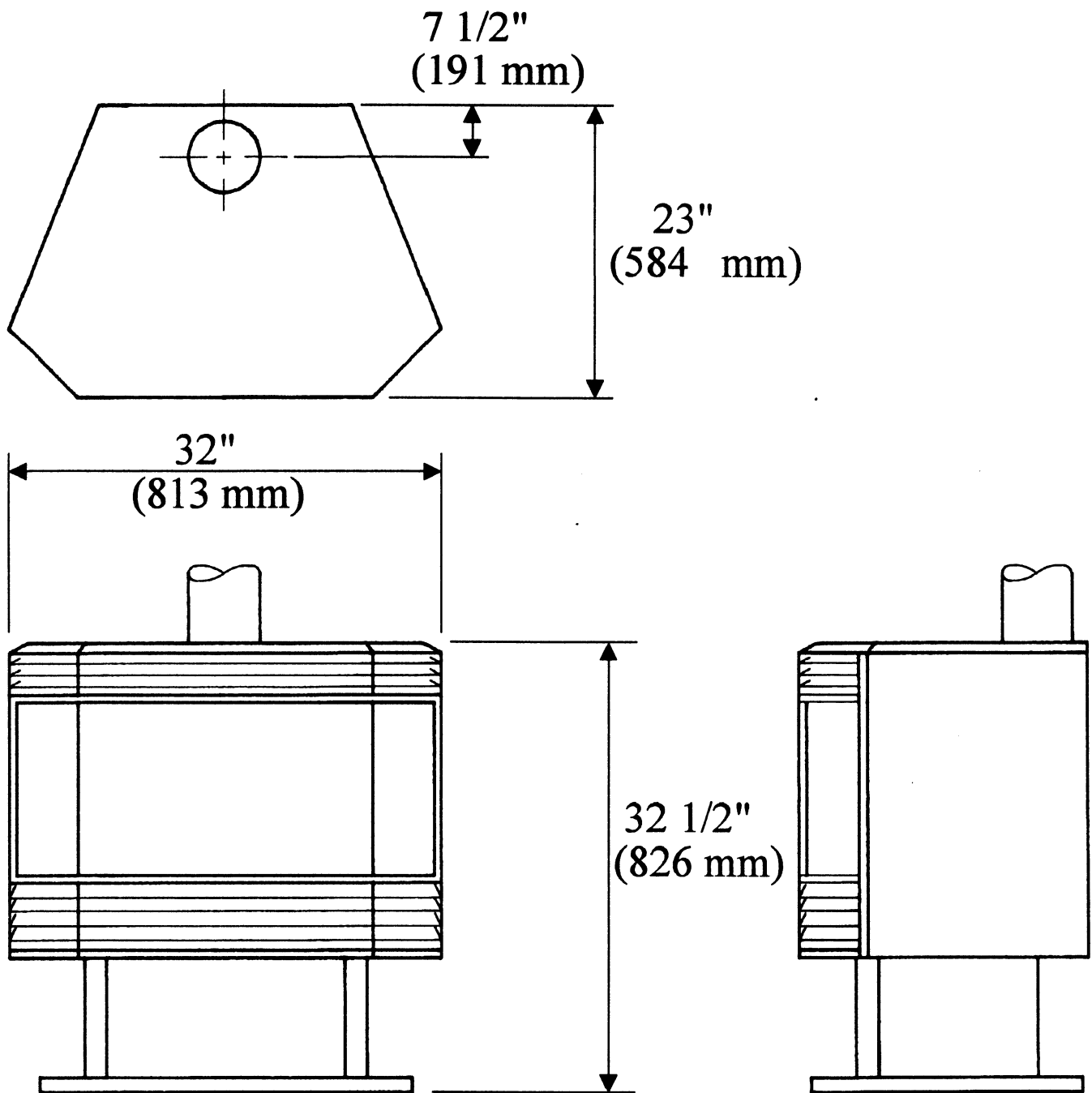


Figure 1

INSTALLATION CODES

Installation must conform to local codes. In the absence of local codes, installation must conform to the current National Fuel Gas Code, ANSI Z233.1 (in the U.S.), or with the current installation code CAN/CGA B149.1-M86 (in Canada). The conversion shall be carried out in accordance with the requirements of the provincial authorities having jurisdiction and in accordance with the requirements of the CAN/CGA B149.1-M86 Installation Code. In Australia, the Australian Gas Association installation code for gas burning heaters and equipment must be used. The appliance, 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 (in the U.S.), or with the current CAN/CSA C22.1 Canadian Electrical code (in Canada), or in other countries with the appropriate national code.

1.2 FEATURES

Ignition system:

Standing pilot ignition system with 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 wall thermostat, and/or optional remote control are available. The gas valve does not require electricity.

Safety controls:

A safety switch will shut the gas system down in the event of loss of pilot flame.

1.3 INTENDED USE

This appliance is intended to be used as a freestanding room heater when installed according to these instructions. This appliance is suitable for installation in bedrooms where the maximum input is within 50 cubic feet of room volume per 1000 BTU/hr, (i.e. 2000 minimum cubic feet). The appliance is also suitable for retrofit into mobile homes, as shown in section 3.4. Installation must conform with the Standard for Manufactured Home Installations, ANSI A225.1/NFPA 501A.

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.

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 and allow accessibility clearance for servicing and proper operation.

2.0 OPERATION

2.1 OPERATION SAFETY

Inspect the appliance 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 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 stove in any manner.

CAUTION: 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 unit.

The glass door and louvers 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.

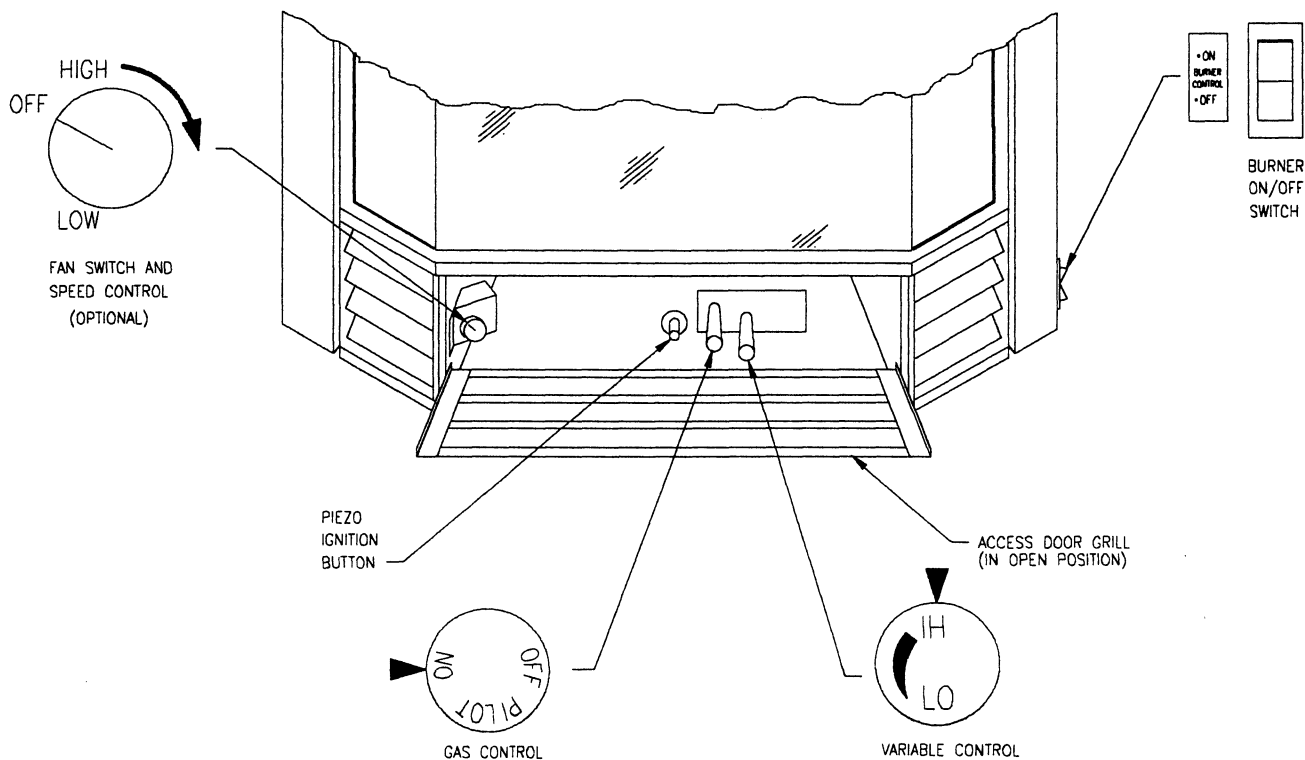


Figure 2

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 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 bar 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.

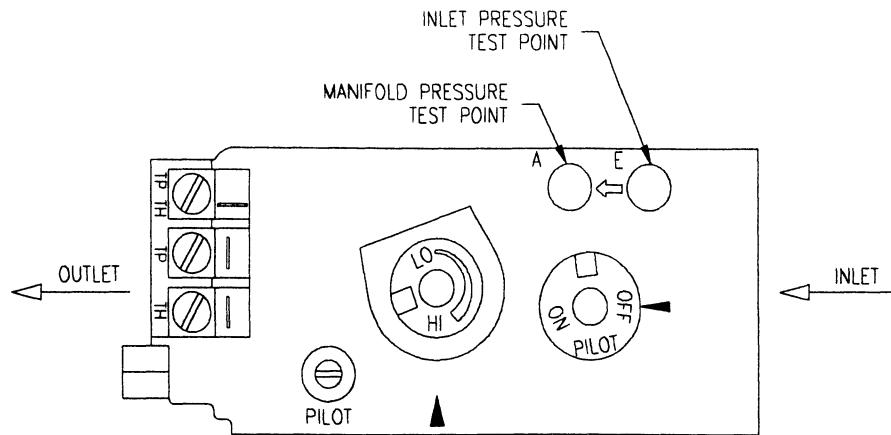


Figure 3

7. Press in the gas control 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.

NOTE: 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.

9. Close the access door grille by lifting it and allow the springs to pull it closed.
10. Turn the burner switch to on (Figure 2).
11. If equipped with a 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 lower right side shield (Figure 2).
2. 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 select the heat output and flame height (see Figure 2).

3.0 INSTALLATION

3.1 INSTALLATION & SAFETY NOTES

Read all instructions before beginning 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 stove and its components are certified and safe when installed in accordance with this manual.

WARNING: Do not connect 120 VAC 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 stove is shipped with the logs and coals packaged inside the firebox and the decorative vent collar is packaged inside the pedestal. All other standard parts are already in place.

3.3 INSTALLATION

In planning the installation, it is necessary to install certain items before the unit is completely positioned and installed. These include the vent system, the gas piping and the wiring for the optional fan.

NOTE: All installations require venting.

3.3.1 Minimum Clearances To Combustible Construction

A. Sidewall	8" (203 mm)	measured to unit
B. Back wall	1" (25 mm)	measured to unit
C. Ceiling	43" (1092 mm)	measured to cooktop
D. Floor	Install directly on combustible floor	
E. Corner	1" (25 mm)	measured to unit
F. Front wall	48" (1219 mm)	measured to glass
G. Alcove	48" (1219 mm)	

Minimum enclosures are as follows:

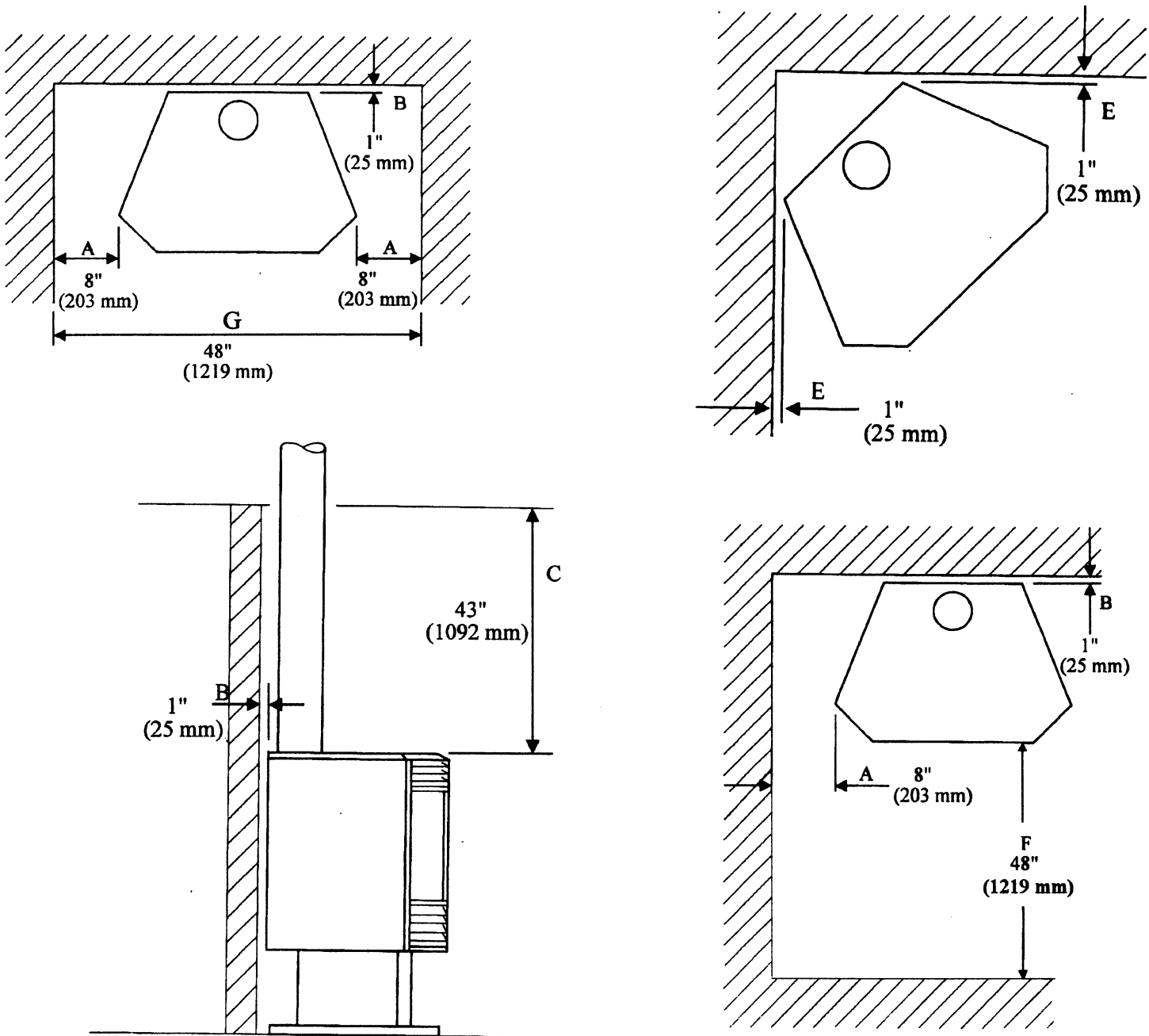


Figure 4

CAUTION: Due to high temperatures, the room heater should be located out of traffic and away from furniture and draperies. Provide a minimum 48" (1219 mm) front clearance to the unit.

3.3.2 Chimney Vent Installation

The stove must be connected to Simpson Duravent model DV-GS vent. Only install the chimney according to the manufacturer's instructions. Use a maximum of two 90° elbows or four 45° elbows. Slope horizontal pipe at least 1/4" (6 mm) rise per foot of horizontal run. Allow 2" (50 mm) clearance to the vent. A vinyl siding standoff must be used when terminating horizontally to vinyl siding. Refer to the graph for allowable vent configurations.

The minimum vent system for horizontal termination must consist of:

- 24" vertical length directly on top of stove
- 90° elbow
- 9" length horizontally
- round support box/wall thimble
- horizontal termination cap

The maximum horizontal vent system consists of:

- 4' vertical length directly on top of the stove
 - 90° elbow
 - 13' maximum horizontal length
 - horizontal termination cap
 - snorkel kits can be used if needed. (Part #981 - 36" or Part #982 - 14")
- Do not exceed more than 13' of horizontal length of vent.

The maximum vertical system consists of:

- up to 30' of vertical length
- firestop
- flashing
- collar
- high wind cap 980 (**use only the high wind cap**)

Use a ceiling firestop when penetrating a ceiling. Use a round support box/wall thimble when penetrating an inside wall, or on an outside wall, only when additional support or decorative trim is required. The round support box is not required on basic installations.

NOTE: In Canada local codes may require the use of a wall thimble on horizontal terminations. Use part # 942.

Typical Chimney Installation:

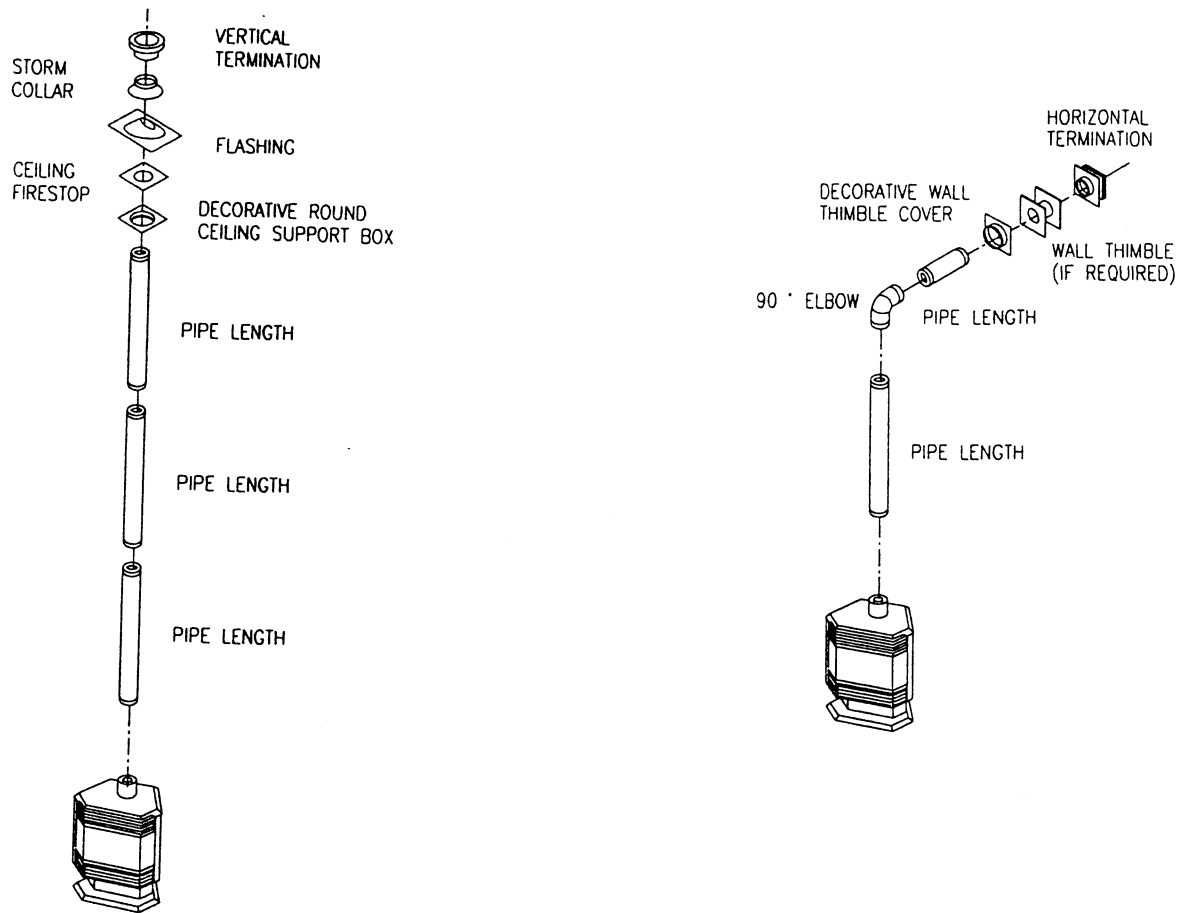


Figure 5

Minimum Vent Requirement:

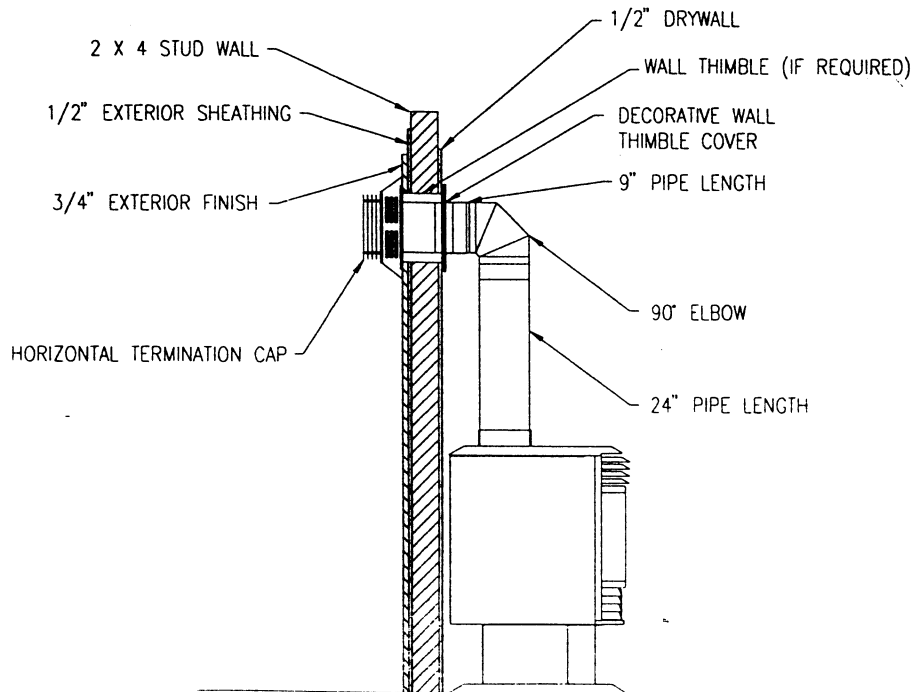
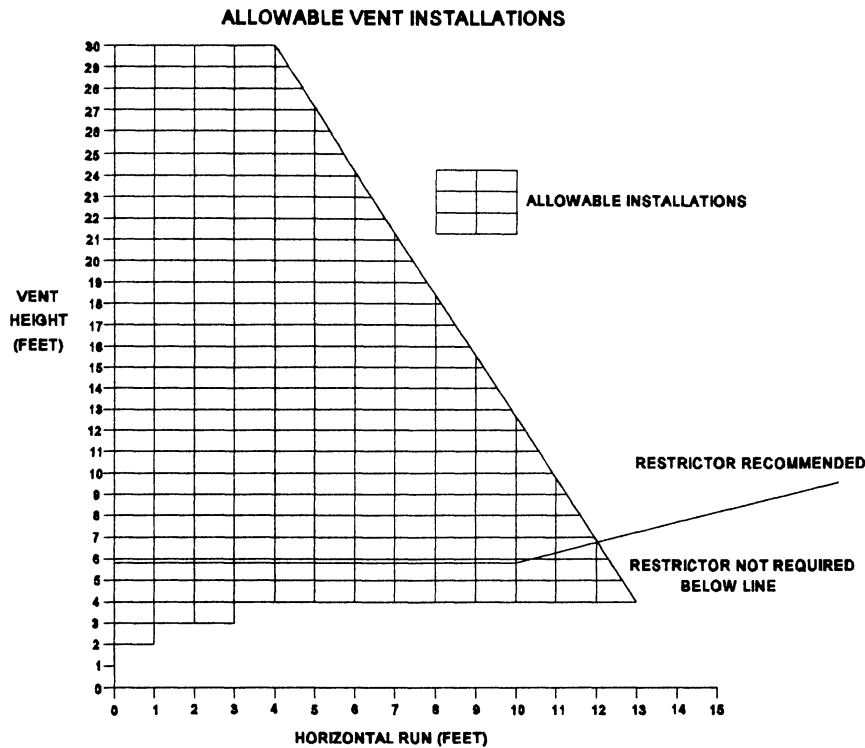


Figure 6



USE OF SEALANT

Sealant is required on vent system joints. On longer vent runs, especially vertical runs, sealant will ensure that the combustion air enters from outdoors, and not through the vent joints. Use Mil-Pac Black sealant (not silicone), available from local suppliers or Osburn dealers, on the inner pipe joint, applying the sealant around the outside of the male part of the vent. A bead of silicone should be used on the outside of the joint after assembly to seal the supply air.

RESTRICTOR INSTALLATION

Restrictors are recommended for all vertical vent systems, and for some horizontal systems which have excessive draft. Restrictors compensate for high draft, restore the visual flame height, and limit excessive cooling resulting from too much secondary air. Restrictors are supplied by Osburn with the vent cap, they are also available separately by using the following part numbers:

Vertical Cap Restrictor	CZ054
Horizontal Cap Restrictor	CZ055

Install the restrictor using the instructions supplied with the part.

Refer to the allowable vent configuration graph for systems where a restrictor is recommended. Vent systems above the line will have better visual flame height when a restrictor is used.

VENT TERMINAL LOCATIONS

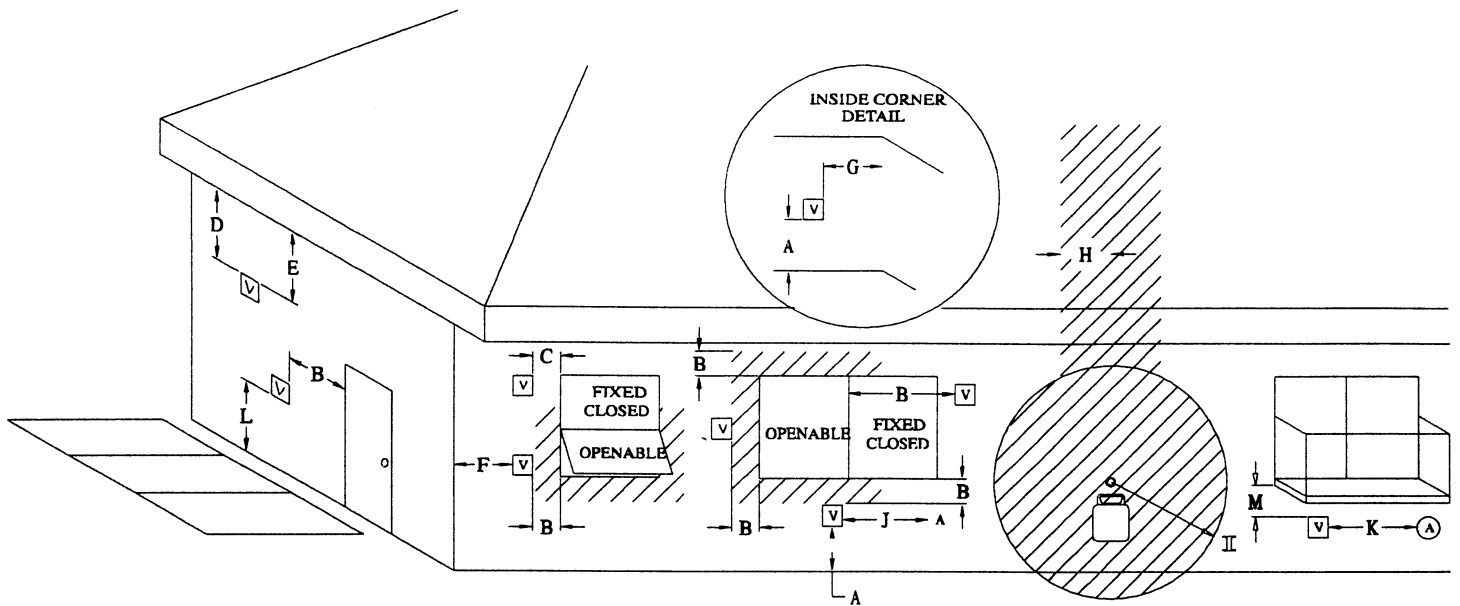
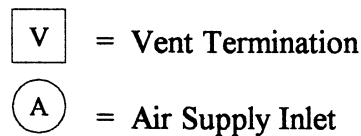


FIGURE 7



- A = clearances above grade, veranda, porch, deck, or balcony [* 12" (305 mm) minimum]
- B = clearance to window or door that may be opened [* 12" (305 mm) minimum]
- C = clearance to permanently closed window [minimum 12" (305 mm) recommended to prevent condensation on window]
- D = vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 24" (610 mm) from the center-line of the terminal [18" (455 mm) minimum]
- E = clearance to unventilated soffit [18" (455 mm) minimum]
- F = clearance to outside corner = 10" (255mm)
- G = clearance to inside corner = 36" (914 mm)
- H = * not to be installed above a meter/regulator assembly within 36" (914 mm) horizontally from the center-line of the regulator
- I = clearance to service regulator vent outlet [* 72" (1829 mm) minimum]
- J = clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance [* 12" (305 mm) minimum]
- K = clearance to a mechanical air supply inlet [* 72" (1829 mm) minimum]
- L = † clearance above paved side-walk or a paved driveway located on public property [* 84" (2134 mm) minimum]
- M = clearance under veranda, porch, deck, or balcony [* 12" (305 mm) minimum ‡]

† a vent shall not terminate directly above a side-walk or paved driveway which is located between two single family dwellings and serves both dwellings*

‡ only permitted if veranda, porch, deck, or balcony is fully open on a minimum of 2 sides beneath the floor*

* as specified in CGA B149 Installation Code (1991) **NOTE:** local codes or regulations may require different clearances

* follow ANSI Z223.1 for U.S.A.

3.3.3 Gas Line Installation

- A qualified gas fitter should install the gas line in accordance with all local building codes, using any piping system meeting CAN/CGA 6.10, AGA 3, ANSI Z21.24 or Z21.45.
- 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.
- 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).

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

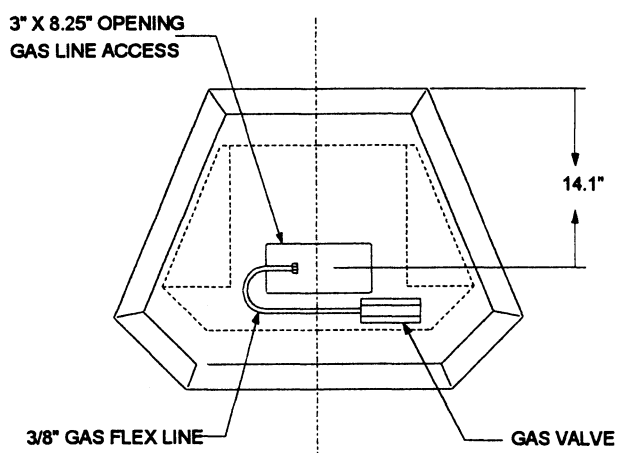


Figure 8a

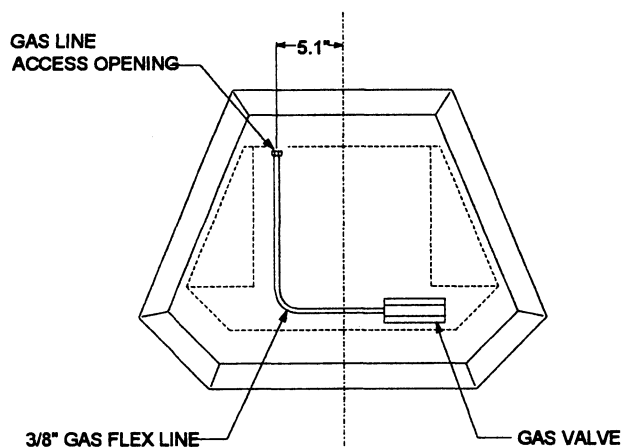


Figure 8b

The gas line can be installed in two locations:

1. Install the piping below the stove so that it protrudes through the access opening in the pedestal base (see Figure 8a).
2. Install the piping behind the stove and enter the pedestal through the removable rear cover (see Figure 8b).

3.3.4 Thermostat, Wall Switch, Or Remote Control Installation

The burner control switch is located on the right side panel near the bottom (see Figure 2). For your convenience, the stove 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.

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

1. Mount the thermostat or wall switch in the desired location and run **"two conductor thermostat wire"** to the burner control switch (Figure 9a). To bypass the burner control switch, run the wires directly to the gas valve (Figure 9b).

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 below and the information packaged with the thermostat. Be aware that, as the length of wire increases, the probability of adequate operating voltage decreases.

TABLE 2 THERMOSTAT WIRE INFORMATION

WIRE SIZE		MAX. WIRE LENGTH	
AWG	mm	ft.	m
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. Solder an appropriate wire connector to each wire. To connect to the burner switch, 1/4" female tab socket connectors are required and to connect directly to the valve use spade tongue connectors.
3. Check tests can be performed on the valve by referring to the trouble shooting guide.

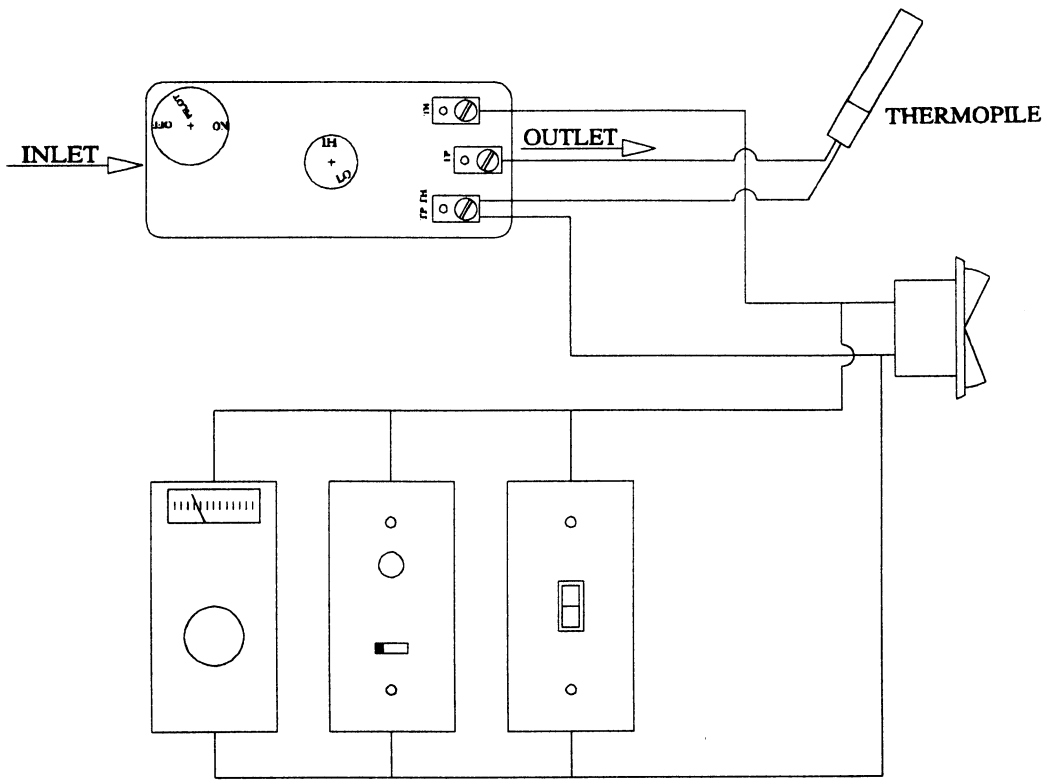


Figure 9a

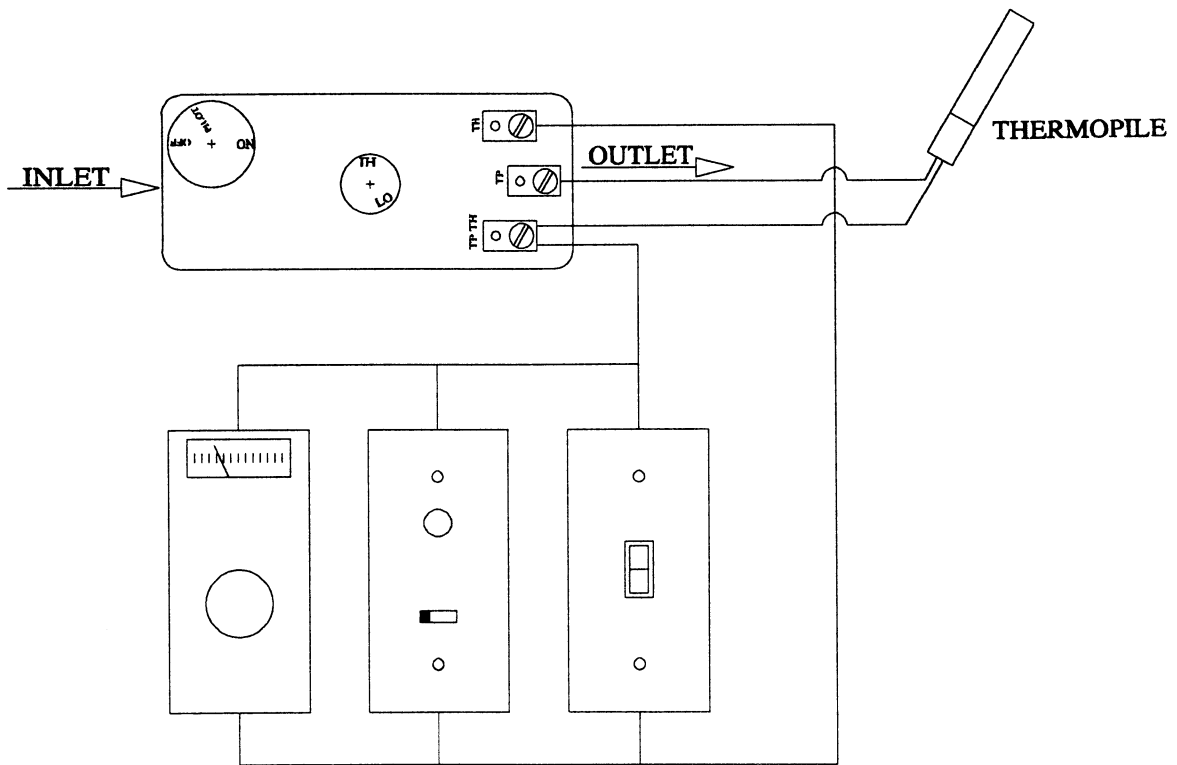


Figure 9b

3.3.5 Firebox Component Installation

Installing Logs

Proper log placement is very important. The logs are designed to be installed in only one position.

1. Place the front and rear lower logs as shown in Figure 10 below:
 - * Position the front log against the stop on the right
 - * Position the rear log against the stop on the left.



Figure 10

2. 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 pins fit into the recesses in the upper log as shown above. Push the log towards the back of the appliance.

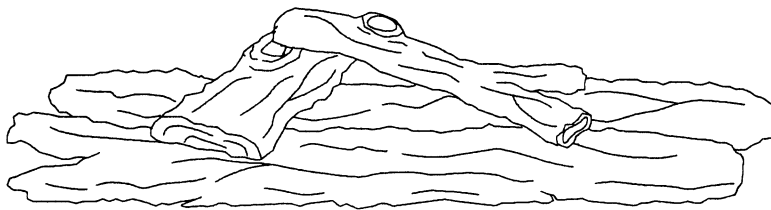


Figure 11

3. Place the upper right log on top of the other logs as shown.
4. Verify that the placement of the factory installed brick panels is as follows:
 - * The brick panels should be up against the firebox sides and as far to the rear of the firebox as possible.

Installing Coals

The coals should be placed along the coal tray on top of the burner, located in front of and below the front log, as shown in Figure 12 below. The coals extend around the log ends as shown.

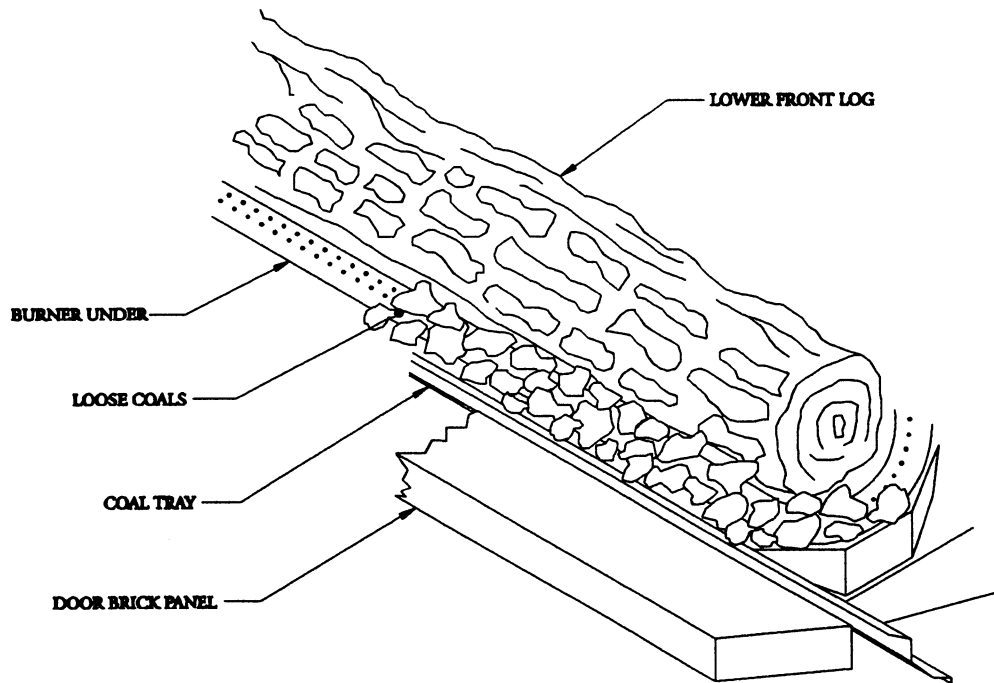


Figure 12

Installing The Door And Louvre Assembly

1. Install the door by holding it in position while securing the 4 draw latches around the door.
2. Install the top louvre assembly above the door as shown.

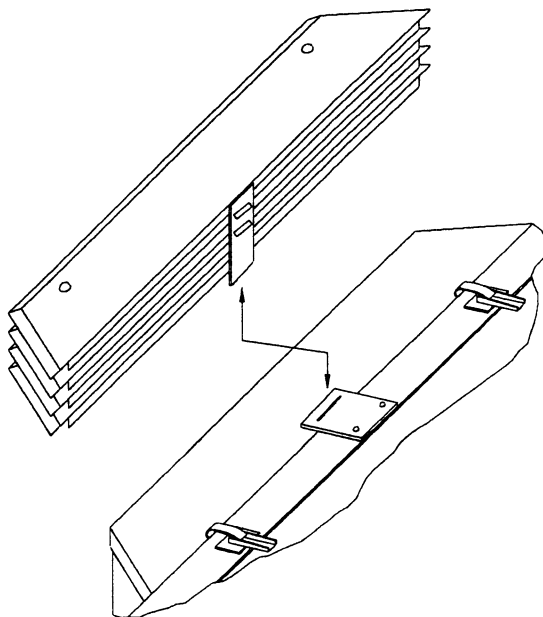


Figure 13

3.3.6 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 more minutes the flames should become yellow.

NOTE: It may take up to 25 minutes for the flames to reach maximum height.

3.3.6.1 Manifold Pressure Regulator Adjustment

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

3.3.6.2 Pilot Flame Adjustment

For proper operation, the pilot and main burner flames must be steady and not lifting off or floating. The top $3/8"$ - $1/2"$ (10-13 mm) 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 counterclockwise ← to increase, and clockwise → to decrease the flame. Ensure that the pilot flame completely engulfs the thermopile, as shown in Figure 14.

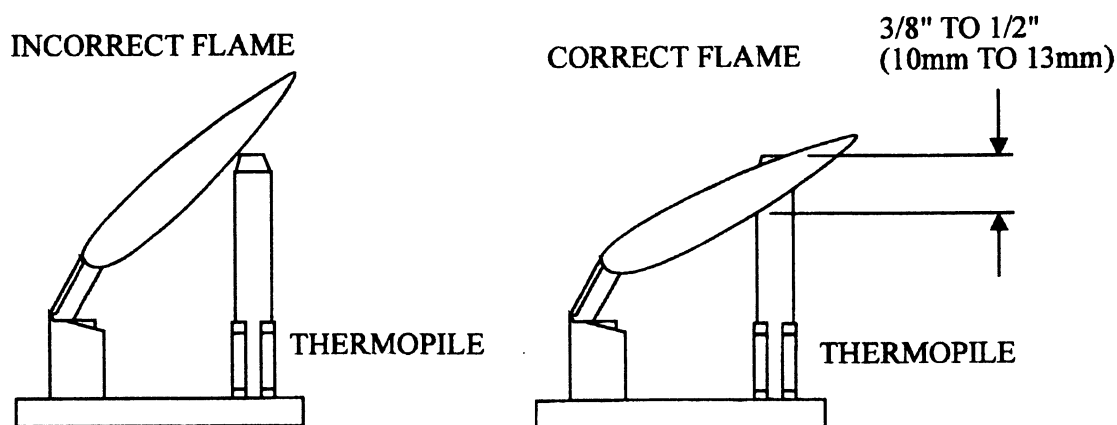


FIGURE 14

3.3.6.3 Altitude Adjustment

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

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

Use Tables 3A & 3B 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 3A ALTITUDE ADJUSTMENT BY CHANGING ORIFICE (NATURAL GAS ONLY)

ALTITUDE up to (ft)	REDUCTION (%)	ORIFICE SIZE	TARGET INPUT	MANIFOLD PRESSURE (in. wc)
4500	-	31	40,000	3.5
5500	4	32	38,400	
6500	8	33	36,800	
7500	12	34	35,200	
8500	16	35	33,600	
9500	20	35	32,000	
10500	24	36	30,400	
11500	28	37	28,800	

TABLE 3B ALTITUDE ADJUSTMENT BY CHANGING ORIFICE (PROPANE/LP GAS ONLY)

ALTITUDE up to (ft)	REDUCTION (%)	ORIFICE SIZE	TARGET INPUT	MANIFOLD PRESSURE (in. wc)
4500	-	47	40,000	10.5
5500	4	48	38,400	
6500	8	48	36,800	
7500	12	49	35,200	
8500	16	49	33,600	
9500	20	50	32,000	
10500	24	50	30,400	
11500	28	50	28,800	

3.4 MANUFACTURED (MOBILE) HOME INSTALLATION

This heater may be installed in manufactured (mobile) homes after the first sale. See and comply with the Installation Codes noted on page 2. This Direct Vent System Appliance must be installed in accordance with these instructions and the Manufactured Home Construction and Safety Standard Title 24 CFR, Part 3280, or the current Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities ANSI/NFPA 501A, and with CAN/CSA Z240 MH Mobile Home Standard in Canada.

1. Venting must be installed in the building interior or in an enclosed chase.
2. Use a maximum of two offsets, for example: four 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.
3. The vent shall extend at least 3ft. (914mm) above the point where it passes through the roof and at least 2 ft. (610mm) above any wall, roof, or adjacent building within 10 ft. (3.1 meters) of it.
4. Do not fill the 1" (25mm) air space around the vent with insulation or any other material. Insulation placed in this area could cause adjacent combustibles to overheat.
5. Do not compromise the structural integrity of the manufactured home wall, floor, or ceiling.
6. The appliance must be grounded to the steel chassis of the home with 8 ga. copper wire using a serrated or star washer to penetrate paint or protective coating and ensure grounding. Secure the wire to the .182" dia hole in the center rear of the pedestal base, see Figure 15.
7. Secure the heater to the floor with the use of two carriage bolts. Locate the heater in the desired position and turn the lag bolts through the two 3/8" holes inside the rear of the pedestal base as shown in Figure 15.
8. See section 3.3.2 Chimney Vent Installation for the required vent components and configurations.

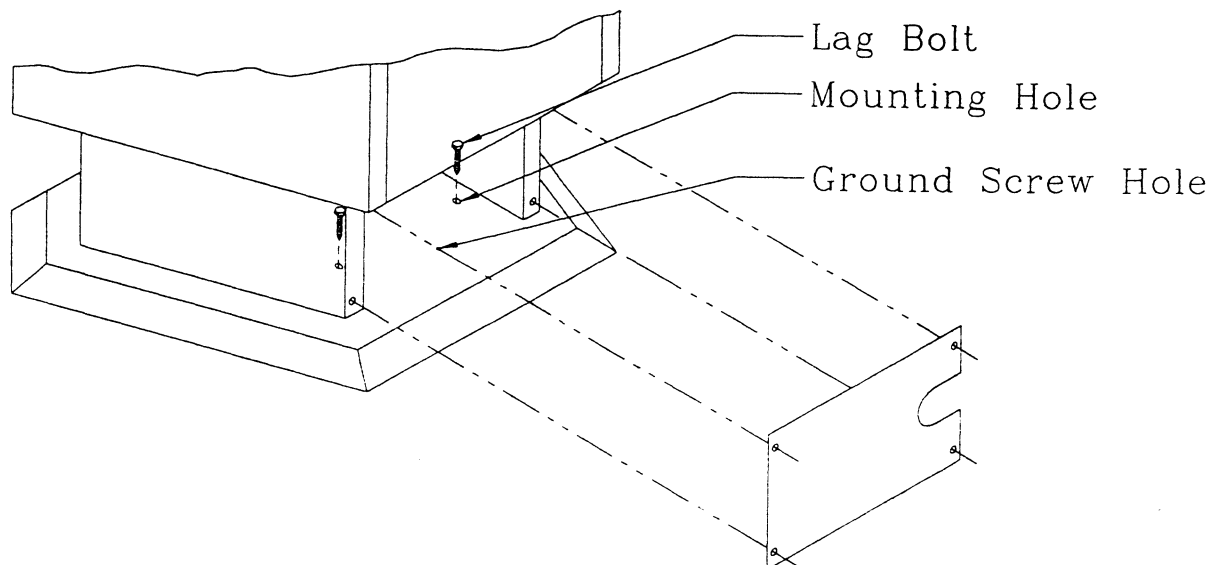


Figure 15

3.5 FIELD CONVERSIONS

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. Local building codes and installation codes listed in this instruction manual must be adhered to.

1. Ensure that the supplied valve subassembly has the complete valve, burner orifice, pilot orifice, gasket, and plumbing components. Note: The valve subassembly should be complete, no singular valve or orifice components need to be installed or replaced
2. Follow the instructions in section 4.6 to remove the firebox components and valve assembly.
3. Install the new valve sub-assembly under the firebox, and complete the replacement with the new burner tray according to section 4.6.
4. Fill out the conversion label and install it near the “Caution: Hot while in operation” label inside the access door grille.

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 passage-ways be kept clean to provide for adequate combustion and ventilation air flow. 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 flame periodically. Visually check height and color of flame.
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 4.6, 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 FIREBOX 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 before proceeding.

Remove the valve as follows:

1. Remove the louvre assembly.
2. Remove the door.
3. Remove the logs and coals.
4. Remove the burner tray assembly as a unit by lifting it up and out.
5. Remove the air dam at the bottom of the firebox by removing the 2 screws securing it. Note their positions.
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 3 screws securing the pilot cover plate and remove the plate.
9. Remove the nut securing the orifice to the firebox bottom.
10. Remove the 4 screws holding the valve bracket to the firebox bottom.
11. Remove the blue wires to 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.

Brick Panels

Decorative brick panels which develop cracks are still serviceable and should not be moved out of position once fired, since strength deteriorates after firing.

4.7 FAN

An optional fan is available. Installation and operation instructions are included with the fan kit.

5.0 TROUBLESHOOTING

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 no heat source for pilot ignition)	
	1. Improper spark gap	1. Align the electrode with 1/8" gap to pilot hood
	2. Poor connection at piezo igniter and/or 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 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	
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 14.
	2. Defective thermopile	2. Replace thermopile.
	3. Overheated thermopile	3. 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.	

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
II Pilot will not stay lit after following the lighting instructions (continued)	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 2. Loose or defective connections 3. Defective electromagnet power unit (EPU)	1. Rewire correctly. 2. Check continuity, tighten wiring or connections and repair. 3. Check and replace if required.
III. Main burner will not light	1. Valve control off 2. Blockage at the burner (line, orifice, or ports) 3. Defective wall switch or thermostat 4. Defective wiring or connections 5. Excessive length of thermostat wire from valve to wall switch or thermostat 6. Wall switch or thermostat incorrectly wired 7. Defective remote control 8. Mismatched remote control frequencies 9. Defective valve	1. Turn to "ON" position. 2. Check and clean. 3. Conduct a continuity test or jumper wire test and replace if defective. 4. Conduct a test with a jumper wire and repair as required. 5. Reduce wire length to less than 100 feet, or increase wire size (see table 2, page 14). 6. Re-wire correctly. 7. Check batteries and replace if required 8. Match frequencies 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 (140 mV ITT & 325 mV Robertshaw/Honeywell)	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.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
III. Main burner will not light (continued)	11. Wall switch, thermostat, remote control, or wires are defective.	11. Follow previous corrective action, check switch and wiring. Replace where defective.
IV. Soot deposits on glass	1. Flame impingement on logs 2. Improper shutter setting 3. Foreign material impeding burner 4. Air inlet blocked or restricted 5. Vent system is restricted or inadequate	1. Adjust the log set to avoid direct flame impingement. Follow log placement instructions. 2. Ensure the air shutter is properly set to NG = .42" and LP = .45". 3. Ensure that no foreign material blocks burner flame ports. 4. Clean air inlets. 5. Correct flue as required.
V. Flame burns blue and lifts off burner	1. Insufficient combustion air being supplied 2. Manifold pressure set too high 3. Vent system restricted	1. Ensure that no foreign material blocks air inlets and that the burner shutter is correctly adjusted. Ensure the vent is adequate. 2. Check manifold pressure. 3. Check vent system
VI. Frequent pilot outage	See V	
VII. Flames impinge on firebox top	1. Vent system is restricted or inadequate 2. Manifold pressure too high	1. Correct flue as required. 2. Check manifold pressure as required.

6.0 REPLACEMENT PARTS

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

DIRECT VENT GAS STOVE REPLACEMENT PARTS LIST

PART NO.	DESCRIPTION
CZ034	VALVE ASSEMBLY, NATURAL GAS
CZ045	VALVE ASSEMBLY, PROPANE
HG25	THERMOPILE
HG37	THERMOCOUPLE
HG35	PILOT ASSEMBLY, NATURAL GAS (INCL. IGNITER)
HG36	PILOT ASSEMBLY, PROPANE (INCL. IGNITER)
CZ0080	PILOT GAS LINE
HG04	IGNITER, PIEZO
HG38	CABLE, IGNITER
CZ037	COALS
CZ0097	BURNER ORIFICE JAM NUT
CZ0083	BURNER ORIFICE, PROPANE
CZ0096	BURNER ORIFICE, NATURAL GAS
CZ035	BURNER ASSEMBLY, NATURAL GAS (INCL. TRAY)
CZ046	BURNER ASSEMBLY, PROPANE (INCL. TRAY)
HG40	FLEX GAS LINE (INCL. FITTINGS)
HG43	EXTENSION KNOB, ON/OFF
HG44	EXTENSION KNOB, HIGH/LOW
HG51	PILOT ORIFICE, PROPANE
HG52	PILOT ORIFICE, NATURAL GAS
HE23	SWITCH, BURNER ON/OFF
CZ041	DOOR ASSEMBLY (COMPLETE)
HM22	GRILLE SPRING (2 PER UNIT)
CN030	BRICK PANEL SET
CN0076	BRICK PANEL, RIGHT HAND
CN0077	BRICK PANEL, LEFT HAND
CN0078	BRICK PANEL, REAR
JA0022	METAL DOOR TRAY PANEL
CZ0050	FRONT LOG, NATURAL GAS AND PROPANE
CZ059	LOG SET, NATURAL GAS AND PROPANE
CZ0131	REAR LOG, NATURAL GAS AND PROPANE
CZ0134	TOP RIGHT LOG, NATURAL GAS AND PROPANE
CZ0135	TOP LEFT LOG, NATURAL GAS AND PROPANE

**DIRECT VENT GAS STOVE
REPLACEMENT PARTS LIST**

PART NO.	DESCRIPTION
BC076 BC079 BC078 BC077 BC080	METALLIC BLACK BOTTOM GRILLE ASSEMBLY - COMPLETE IVORY BOTTOM GRILLE ASSEMBLY - COMPLETE EBONY BOTTOM GRILLE ASSEMBLY - COMPLETE FORREST GREEN BOTTOM GRILLE ASSEMBLY - COMPLETE GOLD PLATED BOTTOM GRILLE ASSEMBLY - COMPLETE
CZ043 BN0014 CZ0017 CZ0012 CZ0089 CZ0088	LOUVRE ASSEMBLY SCREW, LOUVRE (GOLD) SPACER, LOUVRE LOUVRE SUPPORT PEG TOP LOUVRE (GOLD) LOUVRE (BLACK)
BC055 BC056 BC057 BC058 BC059 BC060 BC061 BC062 BC063 BC064	CENTER GRILLE (MET. BLACK) SIDE GRILLE (MET. BLACK) CENTER GRILLE (EBONY) SIDE GRILLE (EBONY) CENTER GRILLE (GREEN) SIDE GRILLE (GREEN) CENTER GRILLE (IVORY) SIDE GRILLE (IVORY) CENTER GRILLE (GOLD PLATED) SIDE GRILLE (GOLD PLATED)
BC0088 HB25 HB06	GLASS - ONE PIECE BENT GLASS GASKET (tadple) 1/4" BLACK DOOR GASKET - 3/8" BLACK
FG002 FG007 HE30 CZ048 CZ051 HF71 HF72 HM75	SPEED CONTROL ASSEMBLY (110 V) FAN KIT (110 V) FAN THERMAL SWITCH DOOR TRIM KIT, GOLD PLATED UPPER OR LOWER DOOR TRIM UPPER DOOR TRIM SCREW (2 PER UNIT) UPPER DOOR TRIM NUT (2 PER UNIT) LOWER DOOR TRIM MAGNET (2 PER UNIT)
CZ054 CZ055 BS018	VERTICAL RESTRICTOR ASSEMBLY HORIZONTAL RESTRICTOR ASSEMBLY ON/OFF WIRE (2 PER UNIT) FOR FIREPLACE AND STOVE
HE59 HE58	THERMOSTAT - WHITE RODGERS REMOTE CONTROL