



S O A P S T O N E



# Sterling "G" B-Vent

(Model 8521)

## Gas Fired B-Vent Room Heater Owner's Manual Operation & Installation Guide



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

**WARNING: IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.**

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

### WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch electrical switches; do not use the phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow your gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

**AVERTISSEMENT: ASSUREZ-VOUS DE BIEN SUIVRE LES INSTRUCTIONS DONNÉES DANS CETTE NOTICE POUR REDUIRE AU MINIMUM LE RISQUE D'INCENDIE OU POUR ÉVITER TOUT DOMMAGE MATERIEL, TOUTE BLESSURE OU LA MORT.**

*Ne pas entreposer ni utiliser d'essence ni d'autre vaperurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.*

### QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:

- Ne pas tenter d'allumer d'appareil.
- Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous vous trouvez.
- appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.

*L'installation et service doit être exécuté par un qualifié installateur, agence de service ou le fournisseur de gaz.*

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CozyCabin.com 518-623-4349

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## INTRODUCTION

Congratulations on your purchase of a Hearthstone® Sterling™ gas-fired B-vent fireplace heater. The Sterling incorporates the latest in energy efficient gas technology which will provide you with clean, efficient heat for years to come. The combination of natural stones with cast iron gives the Sterling a pleasing look which can be maintained with minimum care.

To own a Hearthstone is to make a statement - a *statement of your appreciation and understanding of exceptional quality*. Your Sterling is manufactured using imported cast iron and stone which combine to enhance the decor of any home. *Handcrafted in Vermont*, your Hearthstone stove is a fine piece of furniture which will complement any room, even when it is not burning. However, when your Sterling is burning, it provides the warmth of radiant heat from the granite, marble and soapstone tiles.

Your Sterling is easy to use too. There is no chopping, hauling or stacking wood; simply adjust the temperature on your wall-mounted thermostat

and it will keep your home at a comfortable temperature throughout the year.

### Welcome to the Hearthstone® family.

Please read this manual carefully to familiarize yourself with the safe installation, operation, and maintenance of your Sterling. Should you have any questions, do not hesitate to contact your Hearthstone Dealer.

### Manufactured and Warranted by:

Hearthstone Quality Home Heating Products, Inc.  
317 Stafford Avenue  
Morrisville, Vermont 05661  
E-Mail: [inquiry@Hearthstonestoves.com](mailto:inquiry@Hearthstonestoves.com).  
Web: [www.Hearthstonestoves.com](http://www.Hearthstonestoves.com)

### Certified for use by:

Board of State Examiners of Plumbers and Gasfitters  
100 Cambridge Street, Room 1511  
Boston, Massachusetts 02202

## Information Sheet

Use this page to record all relevant information concerning the purchase, installation, and maintenance of your Sterling Model 8521 B -Vent heater. This information will facilitate servicing, purchase of replacement parts, and warranty claims (if necessary). Keep your original receipt in a safe place as proof of purchase.

<b>Serial Number:</b>		
<b>Fuel type:</b>	Natural Gas	Liquid Propane
<b>Sold by:</b>		
Address:		
Phone:		
E-mail		
<b>Installed by:</b>		Date of Installation:
Address:		
Phone:		
E-mail		
<b>Gas Supplier:</b>		
Address:		
Phone:		
E-mail		

**Read this Owner's Manual** before installing or operating your Sterling. Retain this manual for future reference.

## SERVICE RECORD

<b>WHAT</b>	<b>WHEN</b>
Firebox Cleaning.....	annually
Glass Cleaning.....	as needed
Gaskets.....	Replacement as needed

## WARNINGS - CAUTIONS - SAFETY INFORMATION

- 🔥 **NOTE: THIS GAS APPLIANCE MUST BE INSTALLED AND MAINTAINED BY QUALIFIED SERVICE PERSONNEL. FAILURE TO PROPERLY INSTALL, ADJUST AND MAINTAIN THIS GAS APPLIANCE MAY RESULT IN AN UNSAFE OR HAZARDOUS CONDITION WHICH MAY LEAD TO CARBON MONOXIDE POISONING, FIRE, EXPLOSION, PERSONAL INJURY AND LOSS OF LIFE.**
- 🔥 **CAUTION: THIS GAS APPLIANCE MUST BE OPERATED AND MAINTAINED ACCORDING TO THE INSTRUCTIONS CONTAINED IN THIS OWNER'S MANUAL. THE UNIT MUST BE INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY QUALIFIED SERVICE PERSONNEL. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIAL, ETC. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS, AND CIRCULATING AIR PASSAGEWAYS OF THE APPLIANCE BE KEPT CLEAN.**
- 🔥 **WARNING: DO NOT USE THIS APPLIANCE IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL QUALIFIED SERVICE PERSONNEL TO INSPECT THE APPLIANCE AND TO REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.**
- 🔥 **HAZARD: THIS GAS APPLIANCE MUST BE CONNECTED TO A PROPERLY INSTALLED AND MAINTAINED VENTING SYSTEM (CHIMNEY). THIS APPLIANCE IS EQUIPPED WITH A DOWN DRAFT SENSOR SWITCH (VENT SPILL SWITCH). TAMPERING, MODIFYING, DISCONNECTING OR OVERRIDING THE VENT SAFETY SHUTOFF SYSTEM MAY RESULT IN AN UNSAFE OR HAZARDOUS CONDITION WHICH MAY LEAD TO CARBON MONOXIDE POISONING AND LOSS OF LIFE.**

### 🔥 HOT SURFACES:

Certain exposed surfaces of the Sterling will reach high temperatures during normal operation. Clothing or other flammable material should not be placed on or near the appliance. Do not place objects that may obstruct air

circulation on, under or near this heater. Clearances to combustibles must be maintained as specified elsewhere in this manual. *The Sterling should be located out of traffic and away from furniture, draperies, clothing and flammable material.* Children and adults who are unfamiliar with heaters of this type should be alerted to the hazards of high surface temperatures and warned that they should stay away to avoid burns to skin or clothing ignition. Children should be carefully supervised when in the same area as the Sterling heater. Do not leave children unattended in the vicinity of this unit.

🔥 **FIRE HAZARD: DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS APPLIANCE. CLEAN THE AREA AROUND, UNDER AND BEHIND THE UNIT ON A REGULAR BASIS TO PREVENT THE ACCUMULATION OF DUST AND LINT.**

### ELECTRICAL HAZARD:

This appliance is equipped with a three-prong grounded plug if equipped with an optional blower fan. The three-prong grounded plug must be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from the plug or otherwise attempt to circumvent the grounding protection provided with the unit. The appliance must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current NFPA 70-National Electric Code or CSA C22.1-Canadian Electrical Code.

🔥 **CAUTION: THIS UNIT HAS A STANDING PILOT LIGHT WHICH IS LIT USING A PIEZOELECTRIC SPARK GENERATOR AS DESCRIBED ELSEWHERE IN THIS MANUAL. NEVER ATTEMPT TO LIGHT THE PILOT LIGHT OR MAIN BURNERS BY HAND WITH A MATCH OR LIGHTER. IF, AFTER REPEATED ATTEMPTS, THE PILOT LIGHT FAILS TO LIGHT, DISCONTINUE OPERATION, TURN OFF THE GAS AT THE STERLING GAS CONTROL VALVE AND IMMEDIATELY CONTACT QUALIFIED SERVICE PERSONNEL FOR ASSISTANCE.**

**FUEL WARNING:**

This unit is designed to burn either natural gas or liquid propane as specified. Do not place candles on top or above the stove. Never burn paper, wood or any other materials in this unit, failure to comply may result in property damage or personal injury.

**SAFETY INFORMATION:**

This unit is supplied with decorative ceramic fiber logs. If the decorative ceramic fiber become damaged or broken they must be replaced with similar, approved decorative ceramic fiber logs supplied by the manufacturer. Do not replace the manufacturer-supplied decorative ceramic fiber logs with unapproved ceramic logs, real wood logs or any other material.

**NOTE:** *The Sterling requires an adequate supply of air to provide ventilation around the unit and to support combustion. Most buildings have sufficient air infiltration to satisfy these requirements. However, extremely airtight structures may require the introduction of supplemental air from the outside to allow for the proper operation of the unit.*

**CAUTION:** ANY SHIELD, DOOR, SAFETY SCREEN OR COMPONENT REMOVED FOR SERVICING THE STERLING MUST BE

**REPLACED PRIOR TO OPERATING THE UNIT.** IF YOU BELIEVE THAT YOUR STERLING IS NOT PERFORMING PROPERLY IN ANY WAY WHATSOEVER, IMMEDIATELY DISCONTINUE OPERATION UNTIL THE UNIT HAS BEEN INSPECTED AND APPROVED FOR CONTINUED OPERATION BY QUALIFIED SERVICE PERSONNEL.

 **WARNING:** DO NOT OPERATE THIS APPLIANCE WITH THE GLASS REMOVED, CRACKED OR BROKEN. DO NOT SUBSTITUTE MATERIALS. REPLACEMENT OF GLASS SHOULD BE DONE BY A LICENSED OR QUALIFIED SERVICE PERSON.

 **CAUTION:** LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.

 **ATTENTION:** AU MOMENT DE L'ENTRETIEN DES COMMANDES, ÉTIQUETEZ TOUS LES FILS AVANT LE DÉBRANCHEMENT. DES ERREURS DE CÂBLAGE PEUVENT ENTRAÎNER UN FONCTIONNEMENT INADÉQUAT ET DANGEREUX.

 **WARNING:** DO NOT SLAM OR STRIKE GLASS DOOR.

# UNPACKING AND INSPECTION

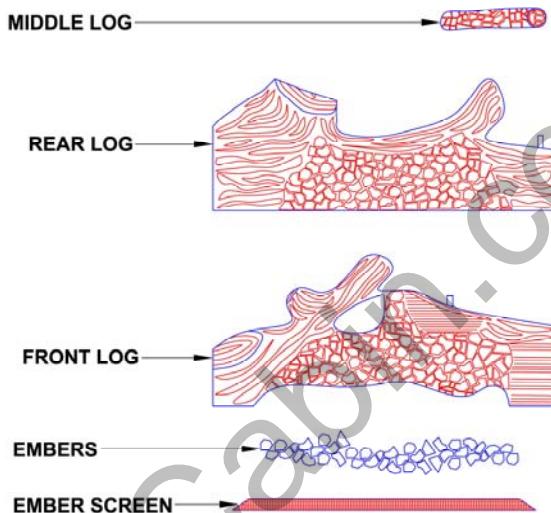
## UNPACK AND INSPECT FOR DAMAGE

### PACKING LIST

- 1 – Sterling B-Vented Gas Fireplace Heater
- 3 – Decorative Ceramic Fiber Logs
- 1 – Bag of Embers
- 1 – Bag Platinum Bright Embers
- 1 – Ember Screen
- 1 – Owner's Manual
- 1 – Warranty Card
- 1 – Thermostat with 40' Thermostat Wire

The Sterling is packaged by Hearthstone to withstand shipment without damage under most circumstances. However, damage can occur during transit and handling, so take care to inspect for damage when unpacking and installing the unit. If any damage or missing parts are detected, immediately contact your dealer. **Do not install or put into service a damaged or incomplete heater.**

**CAUTION: FRAGILE! HANDLE LOG SET WITH CARE. ALWAYS WEAR GLOVES AND SAFETY GLASSES, WHILE HANDLING THE LOG SET.**



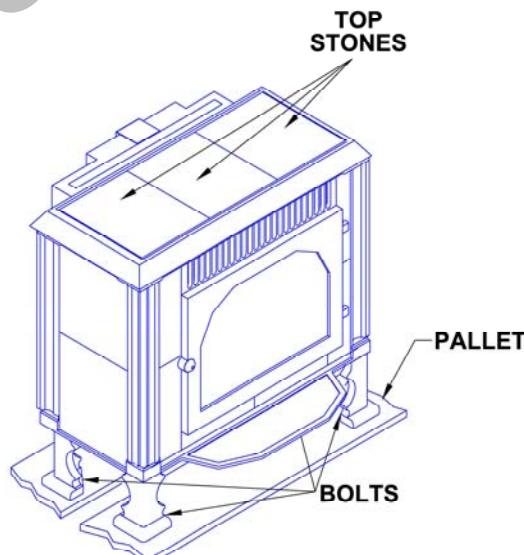
Prior to removing the shipping crate, inspect the crate for visible signs of damage. Carefully remove

the shipping crate. Carefully remove and set aside the three top stones.

**NOTE: The three top stones are not cemented or otherwise permanently fastened in place! Use the protective wrapping to protect them from damage while the unit is inspected and installed.**

Inspect the Sterling for visible or concealed damage. The unit should appear square and true, with the sheet metal parts smooth and free of bends or dents. The enameled cast iron (if applicable) should be free of chips or cracks. If visible or concealed damage is found or suspected, contact your dealer for instructions.

With the top stones removed and set aside, remove the lag bolts that fasten the unit to the pallet. Take care not to mar or chip the enameled legs (if applicable). Lift the stove off the pallet and set it into place. For information regarding hearth requirements and minimum clearances, refer to *Hearth Requirements and Clearances to Combustibles* sections.



# Installation

The Sterling is a sophisticated vented gas fireplace heater. *Qualified service personnel must complete installation.* Any attempt by unqualified personnel to complete venting, gas and electrical connections and other technical components of the installation procedure with which he/she is not familiar and technically qualified may result in carbon monoxide poisoning, explosion, fire, damage or loss of life. *Do not attempt to complete any part of the installation of this unit unless technically qualified to do so.*

**⚠ NOTE: Special gas line location is required to accommodate optional blower fan. Please consult your authorized Hearthstone Dealer.**

When installing the Sterling gas heater the following items must be considered for a safe and practical installation:

Hearth Requirements/Floor Protection  
 Clearances to Combustibles  
 Electrical Connections (Thermostat)  
 Venting/Chimney Requirements  
 Gas Supply  
 Log Placement Within Unit

## Hearth Requirements

The floor protection must meet one of the following criteria.

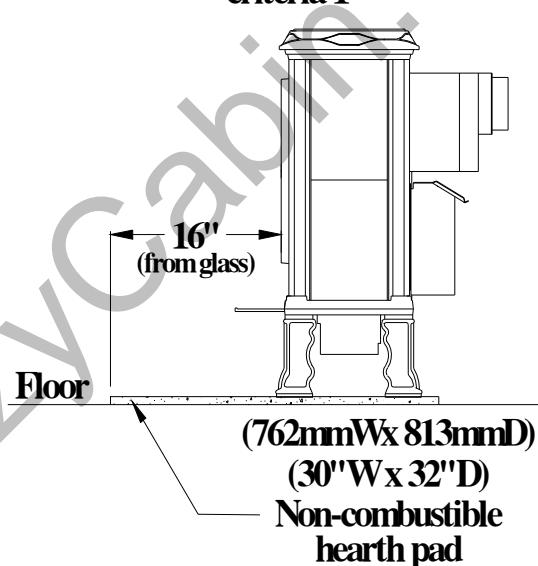
1. A non-combustible hearth pad with an R-value of 1.1 and a minimum measurement of 30"W x 16"D. The hearth pad must extend 16" in front of the stove (measured from the glass).

**⚠ NOTE: If the platform is made of combustible material, it cannot extend further than the ash lip unless it is protected as in #1 above. Do not install on vinyl tile or carpeting.**

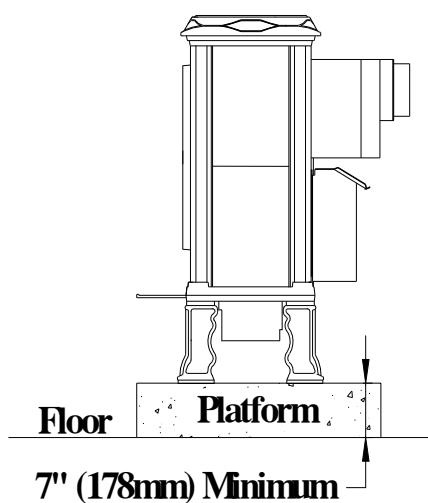
2. Installed on a platform equal to or greater than 7" in height, no floor protection is required.

3. A hearth pad is not required when using the optional front door screen(item # 95-57200). This screen must be attached in accordance with the technical data sheet provided with the screen.

### Sterling BV Hearth Requirements criteria 1



### Sterling BV Hearth Requirements criteria 2



## CLEARANCES TO COMBUSTIBLES

Due to high surface and radiant temperatures, the Sterling should be located out of traffic and away from furniture and draperies. Clothing and other flammable material should not be placed on or near the Sterling heater.

Always maintain adequate clearances around the air openings into the combustion chamber and allow for adequate ventilation. When positioning the unit be sure to consider the need for access to the gas control valve access door on the lower right side of the unit as well as full access for periodic cleaning and servicing.

Minimum clearances to combustibles must be maintained as shown in *Figures 1-4*. Note that the rear clearance to combustibles will be determined by either the unit's or vent pipe's minimum clearance, depending on whether the installation calls for a top exit (vertical) vent within the room or a rear exit (horizontal), through-the-wall vent.

### Vertical Exit Installations Using Single Wall Stovepipe:

Parallel Setting - 6" (152-mm) rear wall-to-stovepipe (*Figure 1*); 4" side wall-to-stove  
Corner Setting - 3" (75-mm) rear wall-to-stove (*Figure 2*)

### Vertical Exit Installation Using Type B-1 Vent:

Parallel Setting - 2" (51-mm) rear wall-to-stove (*Figure 1*); 4" side wall-to-stove  
Corner Setting - 3" (75-mm) rear wall-to-stove (*Figure 2*)

### Horizontal Exit Installations:

Parallel Setting - 2" (51-mm) rear wall-to-stove; 4" side wall-to-stove (*Figure 3*)  
Corner Setting - 3" (75-mm) rear wall-to-stove (*Figure 2*)

**Stove Top Clearance:** 14" (356-mm) (*Figure 4*)

## STOVEPIPE CLEARANCES MUST BE MAINTAINED AS FOLLOWS:

### Stovepipe Clearances:

Single Wall = 6" (152-mm); Type B-1 Vent = 1" (25-mm) (*Figure 4*)

## Sterling BV Minimum Clearance to Combustibles

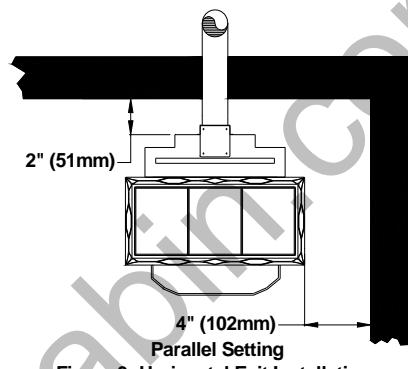


Figure 3: Horizontal Exit Installations

A=6" (152mm) Single Wall Stove Pipe  
B=2" (51mm) Type B-1 Vent

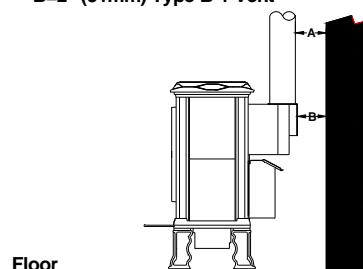


Figure 1: Vertical Exit Installations

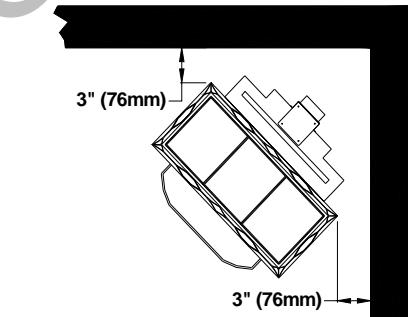


Figure 2: Horizontal & Vertical Exit Installations

B=6" (152mm) Single Wall Stove Pipe  
B=1" (25mm) Type B-1 Vent

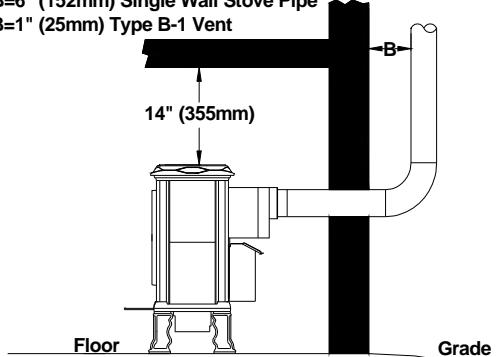


Figure 4: Stove Top & Stove Pipe Clearances

## ELECTRICAL CONNECTIONS

### Thermostat

The Sterling can use a wall-mounted thermostat for operation. The thermostat controls the unit by "calling for heat" and turning the unit on when the room is cold, and turning the unit off once the room has warmed sufficiently to satisfy the thermostat.

The Sterling thermostat is controlled by a 750 milli-volt DC two-wire circuit. Both the thermostat and 40 feet of thermostat wire are included with the Sterling as standard equipment.

### Thermostat Placement

The thermostat should be placed in the same room or living space as the Sterling, typically 5' (1.5-m) off the floor and away from areas of draft, direct sunlight or other influences which would cause the temperature in the vicinity of the thermostat to be unrepresentative of the room temperature in general. Such influences might include strong lighting, a heater vent from the central heating system, a nearby drafty window, etc.

Placement of the thermostat on an inside wall rather than an outside wall is generally preferable. Do not place the thermostat directly behind or too near the Sterling, otherwise every time the thermostat calls for heat and the unit turns on, heat

from the unit will immediately satisfy the thermostat and turn the unit off.

 **NOTE: Remove facade under ash lip for electrical and gas connections.**

### Thermostat Wiring

The thermostat should be connected to the Sterling using 18-gauge insulated thermostat wire supplied. The thermostat wire from the Sterling to the thermostat can be surface mounted or routed under the floor, through walls, etc.

Connect one of the two conductor thermostat wires to the terminal on the gas valve marked "TH". Connect the other to the yellow wire from the on/off T-stat switch assembly. When making these connections, position the thermostat wire so that it extends towards the wall behind the Sterling, then towards the thermostat. Check to ensure that the connections are secure and permanent.

At the thermostat, the thermostat wire should be connected to the two connection screws on the thermostat base plate per the instructions received with the thermostat. Take care not to over-tighten the connection screws and not to damage the internal parts of the thermostat. The thermostat should be mounted level for proper operation and accurate temperature control.

## VENTING /CHIMNEY REQUIREMENTS

### Normally Aspirated Chimneys

The Sterling is a high efficiency gas heater. With operating efficiencies as high as 80%, most heat output is retained within the living space, with minimal heat leaving the room via the chimney. However, some heat is required in all chimneys in order to establish and maintain a draft. Since most of the heat is retained in the living space with minimal heat entering the chimney, it is imperative that the chimney/venting system be properly sized and installed in order to establish and maintain the draft required for the unit to function.

The Sterling must be properly connected to a 4" (102-mm) diameter type B-1 vent which is constructed and installed in accordance with NFPA54 and NFPA211. Single wall vent pipe may be used within the same room as the Sterling so long as adequate (6" or 152 mm) clearance is maintained from the single wall pipe to combustible surfaces. The single wall vent pipe must connect to double-wall type B-1 vent at the first wall or ceiling penetration, and continue with type B-1 vent from thereon. The minimum clearance from type B-1 vent to combustibles is 1" (25-mm).

Connect the single wall vent pipe or the B-1 vent to the flue collar located on the rear surface of the unit using 3 sheet metal screws. For wall, roof or partition penetration, refer to the current edition of ANSI Z223.1 or CAN1-B149 for instructions and clearances to combustibles. The Sterling can be connected to an existing, properly constructed masonry or prefabricated chimney so long as the type B-1 vent is extended through the entire length of the chimney. An annual inspection is required to confirm that the vent is unobstructed. The venting can not be connected to a flue serving a solid fuel appliance. It can however, be connected to a flue serving another gas or oil appliance, so long that it is in compliance with the National Fuel Gas Code.

Type B-1 vent pipe is intended primarily for installation inside buildings to provide an essentially vertical passageway for flue gases from the vented gas appliance to the outside air. When it is impractical to install B-1 vent pipe inside a building, it may be installed outdoors provided that it is: 1) certified for outside installation, 2) installed in accordance with the manufacturer's installation instructions and 3) adequately chased (enclosed) and insulated (per Venting Tables, Category I - Central Furnaces, AGA and GAMA, July 1991; Standards for Gas Vents, National Standards of Canada; and CAN/CGA-B149.1-M91). Exterior B-1 venting not chased and insulated below the roof line may experience continuous condensation depending on the locality. B-1 vent pipe passing through an unused masonry chimney flue is not considered to be exposed to the outdoors.

Four inch flexible pipe can be used in place of Type B-1 vent pipe wherever it is impractical or impossible to install rigid Type B-1 vent pipe. However, flexible pipe is less desirable than B-1 vent pipe, because there is a greater heat loss along the length of flex pipe which may result in a reduced or unacceptable draft.

### Draft Hood/Down Draft Sensor/Spill Switch

The Sterling has a draft hood as part of its rear assembly. The draft hood must not be altered or obstructed. The Sterling must be installed so that the draft hood is in the same atmospheric pressure zone as the combustible air inlet for the unit. The Sterling cannot and must not be connected to an outside air source; the unit must take its combustion air from the living space in which it is installed.

The draft hood is equipped with a safety shutoff down draft sensor switch (spill switch) which is located in the draft hood just beneath the flue collar on the rear of the unit. This switch is designed to sense a loss of draft within the chimney. The down draft sensor switch is wired in series with the pilot thermocouple and is typically in the closed position.

Should the Sterling fail to establish or lose its draft while in operation, hot exhaust gasses will spill into the room through the bottom of the draft hood instead of exiting the draft hood via the flue collar and venting to the outdoors. When this undesirable down draft condition occurs the hot gasses spilling out of the draft hood will heat the spill switch causing it to open which turns the unit off.

Do not modify, disconnect or otherwise defeat the purpose of the down draft sensor switch. If your stove shuts off during normal operation, it is indicative of an unsafe venting condition which must be corrected. Operation of this unit when not properly connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

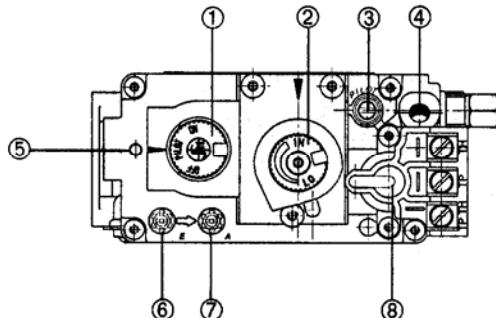
### Power Venting

For applications where it is impractical or impossible to extend B-1 vent pipe to above the existing roof line, the Sterling can be vented using a power vent. A power vent is essentially a specialized electric fan mounted on the outer wall of the building which is connected to the heater via flue pipe. When the thermostat calls for heat, the power vent turns on and creates a draft in the flue pipe similar to the draft created by a properly functioning conventional chimney. The Sterling then operates in a normal fashion, satisfied by the simulated draft. A series of interlocking safety devices prevents operation of the heater unless the power vent is operating properly. Both the Sterling and the power vent are controlled by the wall thermostat and neither will operate if there is a power failure. For installations requiring power venting, use only an AGA (U.S.) or CGA (Canada) listed unit. The power vent supplier will in turn supply the power vent installation instructions.

## Gas Supply

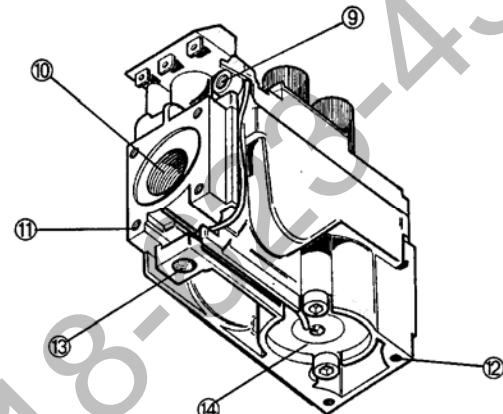
### VALVE DESCRIPTION

- ① Gas cock knob
- ② Manual HI-LO adjustment or pressure regulator adjustment
- ③ Pilot adjustment
- ④ Thermocouple connection
- ⑤ Mounting for piezo & bracket



- ⑥ Inlet pressure test point
- ⑦ Outlet pressure test point
- ⑧ Main operator
- ⑨ Pilot outlet
- ⑩ Main gas outlet

- ⑪ Flange securing screw holes
- ⑫ Additional valve mounting hole
- ⑬ Alternative TC connection point
- ⑭ Thermoelectric unit



### FACTORY-READY FOR GAS OPERATION

All Sterlings are shipped from the manufacturer fully assembled and ready for natural gas or LP (liquid propane) gas operation with minor adjustment. However, if the Sterling needs to be converted from natural gas to LP or from LP to natural gas, conversion of the unit must be performed by qualified service personnel using the manufacturer-supplied optional conversion kit. Follow the conversion instructions supplied with the conversion kit.

"For installations from 2,000-4,500 ft. (610-1370m), the orifice sizes (DMS) for natural and propane gas are 45 and 56 respectively. See data plate for additional information. For high altitude installations, consult the local gas distributor or the authority having jurisdiction for proper rating methods. If the installer must convert the unit to adjust for varying altitudes, the information sticker must be filled out by the installer and adhered to the appliance at the time of conversion.

**⚠ The conversion shall be carried out by a manufacturer's authorized representative in accordance with the requirements of the manufacturer, provincial or territorial authorities having jurisdiction and in accordance with the requirement of the CAN/CGA 2.17 Installation Codes.**

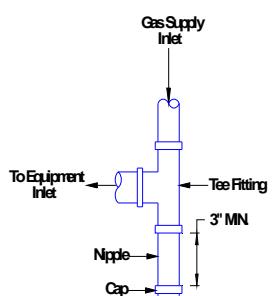
### Gas Connection

The gas supply line connection is made to the Sterling's gas control valve just inside the right rear leg of the unit using a  $1/2$ " male NPT fitting. The supply line should be  $1/2$ " diameter or appropriately sized to provide a sufficient gas supply to meet the maximum demand of the unit without undue loss of pressure. We recommend a flexible line to avoid undue mechanical load on the valve and to ease thread alignment.

The unit must be installed and connected in accordance with local codes, or in absence of local codes, with the most current edition of the *National Fuel Gas Code ANSI Z223.1 CAN/CGA B149*. The supply line must include a manual shut-off valve and union so that the unit can be disconnected for servicing. Also, a sediment trap must be installed upstream of the heater. The sediment trap is installed to prevent moisture and contaminants from passing through the pipe to the heater controls. A  $1/8$ " N.P.T. plugged tapping is recommended for ease of pressure and gauge connection tests.

### Gas Pressure Adjustment

Once connected to the gas supply, the supply line and manifold gas pressures must be tested. The supply line pressure is tested, to ensure it meets the minimum gas supply pressure as listed in the Specifications for the type of fuel in use (*natural gas or LP*), by connecting a manometer to the supply line and adjusting the incoming pressure if necessary to meet the required supply line pressure



**Sediment Trap**

as listed in the Specifications. The manifold pressure is tested by connecting the manometer to the manifold pressure tap on the gas control valve (Figure 7).

This appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of *that system* at test pressures in excess of  $\frac{1}{2}$ " psig. The Sterling must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$ " psig.

## Log Placement Within Unit

**⚠ CAUTION: Fragile!** Handle the logs set with care. Always wear gloves and safety goggles while handling the logs set.

Position the front and rear burner tubes in their cradles firmly. Center the ember screen directly on the front burner tube, with the cut out set over the pilot. The largest log fits tightly to the rear of the firebox.

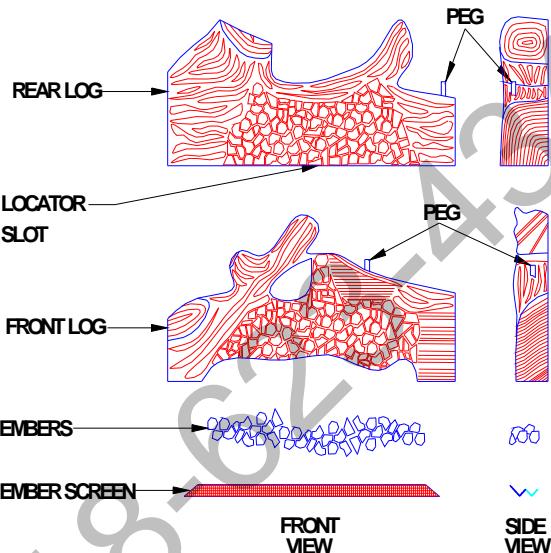
**NOTE:** There is one "locator" slot in the base of the main log to aid in correct placement.

When setting the log, place the log over the "locator" and push log set firmly against rear wall of the firebox. The next piece to install is the middle-sized piece. Stand this piece directly between the two burner tubes. The small log will now fit over the post locators provided on the two larger logs. Open the bag of embers and place in a single file row across the front burner tube, on top of the screen. Do not place embers on or in front of the pilot. Spread the Platinum Bright Embers randomly over the logs.

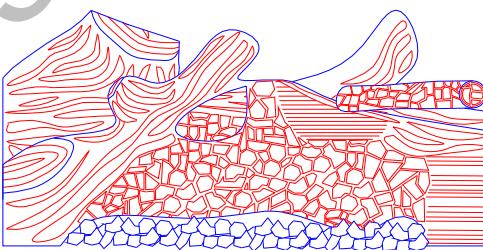
**⚠ NOTE:** Exact positioning of the log set is required in order to obtain a pleasing flame pattern and efficient combustion. Incorrect log placement may cause carbon build-up, excess thermal stress on the log set and stove parts, reduced efficiency and, high levels of carbon monoxide.

### Log Set Removal

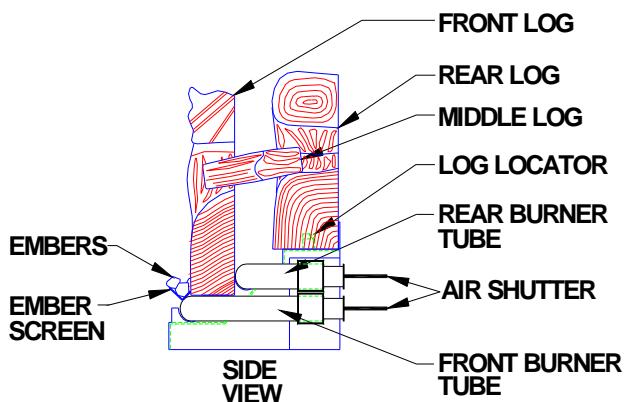
To remove the logs set, follow the Installation of Logs Set instructions in the reverse order.



Sterling BV Log Set Assembly



Sterling BV Assembled Log Set



Sterling BV Assembled Log Set

## Lighting the Unit for the First Time

Once the Sterling has been set in place and connected as described above, the unit is ready to be lit for the first time. Each Sterling is tested prior to shipment by the manufacturer, so ignition should take place without failure. However, a number of small adjustments may be necessary to compensate for variations in gas pressure, altitude and other factors particular to each installation. Lighting the Sterling for the first time and adjustments to the unit should be performed by qualified service personnel.

### WARNING PRIOR TO FIRST LIGHTING OF UNIT

#### SMOKE AND FUMES WARNING

When lit for the first time the Sterling will emit some smoke and fumes. This is normal "off-gassing" of the paints and oils used in the assembly and manufacturing of the unit. Open windows to vent the room as necessary. The off-gassing and fumes will subside after the first 10 to 20 minutes of operation.

#### BREAK-IN WARNING

The natural stones used in the assembly of the Sterling were polished using a water-based polishing system prior to assembly of the unit. Any residual moisture in the stones must be dried out slowly to avoid damaging the stones. This is accomplished by adhering to the following break-in procedure.

When lit the first three times, the Sterling should be burned for no more than 10 minutes, then allowed to cool for 1 to 2 hours. This gentle warming and cooling of the unit will allow any residual moisture in the stones to evaporate slowly. Once this break-in procedure has been completed, the Sterling can be burned at will with no time restrictions on the length of burn.

#### PILOT LIGHT WARNING

The Sterling has a piezoelectric spark igniter (the push button located just above the gas control valve behind the valve access door) which ignites the pilot light by means of a spark at the pilot light assembly. Do not attempt to light the unit with a match or by any means other than the piezoelectric spark.

### INSTRUCTIONS PRIOR TO FIRST LIGHTING OF UNIT

**BEFORE LIGHTING**, smell all around the appliance area for gas. Be sure to smell next to the floor because some gases are heavier than air and will settle on the floor. If you smell gas immediately follow the *What To Do If You Smell Gas Warning on the cover of this manual*.

Use only your hand to turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it; call a qualified service

technician. Any force or attempt to repair may result in fire or explosion.

 **WARNING: 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.**

As an additional safety precaution prior to lighting the unit for the first time, wait 5 minutes to allow any residual gas within the unit to dissipate. If you do not smell gas after this five minute period, proceed with the lighting procedure. If you do smell gas, do not proceed with the lighting procedure. Instead, immediately refer to the *What To Do If You Smell Gas Warning on the cover of this manual*.

Prepare for the lighting procedure by adjusting the thermostat to its lowest setting or "OFF" position. If the gas control knob is not in the "OFF" position, turn the knob fully clockwise to "OFF". Locate the variable output control and turn it fully clockwise to the highest setting.

## Lighting Instructions

1. STOP! Read the safety information above.
2. Set the thermostat to "OFF" position.
3. Unplug the fan accessory, if so equipped.
4. Push in and turn gas control knob clockwise to "OFF"
5. Wait (5) five minutes to clear out any gas. If you then smell gas, **STOP!** Smell all around the appliance for gas. Be sure to smell next to the floor because some gases are heavier than air and will settle on the floor. If you smell gas immediately follow the *What To Do If You Smell Gas Warning* on the cover of this manual. If you do not smell gas, go to the next step.
6. Turn knob on gas control counterclockwise to "PILOT".
7. Push in control knob all the way and hold in. Immediately light the pilot with the gas lighter [push in and "click" the piezoelectric spark igniter button] (This can be found after opening the gas control door on the lower right side of the unit) Continue to hold the control knob in for about 20 seconds after the pilot is lit. Release knob and it will pop back out. Pilot should remain lit. If the pilot goes out, repeat the operation.

**! If knob does not pop out when released, stop and immediately call your service technician or gas supplier.**

**! If the pilot will not stay lit after several tries, turn the gas control knob "OFF" and call your service technician or gas supplier.**

8. Shut the gas control valve access door.
9. Turn gas control knob counterclockwise to "ON".
10. Plug in fan accessory, if so equipped. Select "ON" of the on/off/T-stat switch, or if "T-stat" is selected.
11. Set thermostat to desired setting.

## To Turn Off Gas To Appliance

1. Set thermostat to OFF position, or select the "OFF" position of the on/off/T-stat switch.
2. Turn off all electric power to the appliance if service is to be performed. Unplug accessory fan (if equipped).
3. If shutting the unit for the non-heating season, turn gas control knob fully clockwise to "OFF". Do not force.

As a supplement to the above instructions: When pressing/clicking the piezoelectric spark ignition button to light the pilot light, watch through the glass front door of the unit. Click the ignitor button until a flame is visible at the pilot light and once lit, continue to press on the gas control knob for another 20 seconds, then release. Ascertain that the pilot light is still lit by looking through the front door. If lit, then turn the gas control knob fully counterclockwise to the ON position. If the pilot light failed to light or if it went out due to a premature release of the gas control knob while pressed in the PILOT position, wait 60 seconds for interlock to release, then repeat the lighting process as described above.

 **WARNING: THE CONTROL HAS AN INTERLOCK DEVICE. AFTER SHUTTING OFF ALL GAS FLOW, THE PILOT BURNER CANNOT BE RELIT UNTIL THE THERMOCOUPLE HAS COOLED, ALLOWING THE ELECTROMAGNET TO BE RELEASED (APPROX. 60 SEC.). THE GAS CONTROL KNOB IS DESIGNED TO BE OPERATED BY HAND. DO NOT USE ANY TOOLS DURING THIS OPERATION. DAMAGED KNOBS MAY RESULTS IN SERIOUS INJURY.**

Once the pilot light has been lit, the main burners are lit moving the thermostat to a high setting so that it "calls" for heat (i.e. turns the unit on). The main burners should light immediately. Note that the on/off cycling of the main burners are controlled by the thermostat but that the pilot light remains lit regardless of the thermostat setting. To turn the pilot light off, turn the gas control valve fully clockwise to the OFF position.

Once the unit is lit, observe the flame pattern and adjust as necessary per the following instructions while keeping in mind the off-gassing and break-in warnings listed above.

## Initial adjustments

### Variable Output Control

The gas control valve is equipped with a variable output control. This control varies the **rate** of heat produced by the unit by varying the gas pressure to the main burner tube. The **length** of the burn cycle is affected by a combination of heat output and the thermostat setting. If your stove cycles **OFF & ON** often, try reducing the burn with the gas control valve first.

Using the variable output control, the heat output of the unit can be reduced for mild Fall and Spring months or maximized for the colder Winter months. This adjustment can be made by the homeowner as necessary by turning the variable output control knob to **HI** or **LO** or any setting in between.

### Air Shutter Adjustments

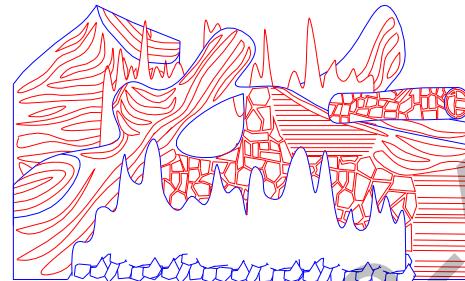
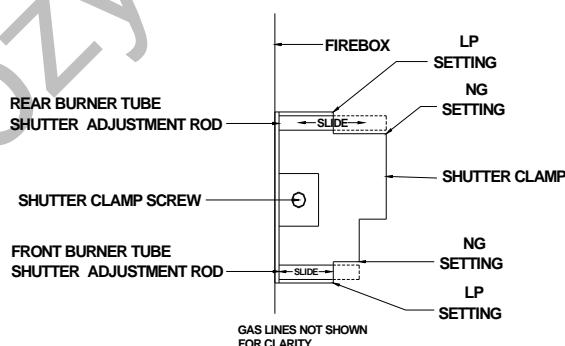
*The air shutters are preset by the manufacturer for optimum operation and should not need adjustment by the owner.* There are adjustable air shutters located on the main burner tubes on the right rear of the unit behind the right rear cover. The air shutters are used to regulate the air-to-gas combustion mixture which in turn influences the size and color of the flames. However, it may need adjustment once the unit has been installed to compensate for variations in supply line pressure, altitude and other variables.

To determine if the air shutters need adjustment, it is necessary to view the flame pattern with the variable output control knob at its highest setting. Allow the unit to operate for 10 minutes to allow the entire unit to reach temperature and for the flame pattern to stabilize.

There are two simple guidelines to aid in determining the correct flame pattern: 1) If the flame at the base of the logs is completely blue, the air shutters may be open too far; 2) If the flame is dirty or licks the top of the stove, the air shutters may be closed too far.

To adjust the air shutter openings, simply loosen the screw on the shutter, clamp and pull the adjustment rod to close the air opening, or push the adjustment rod to open the air opening. Closing the air shutters allow less oxygen to burn and results in

### Sterling BV Air Shutter Adjustment

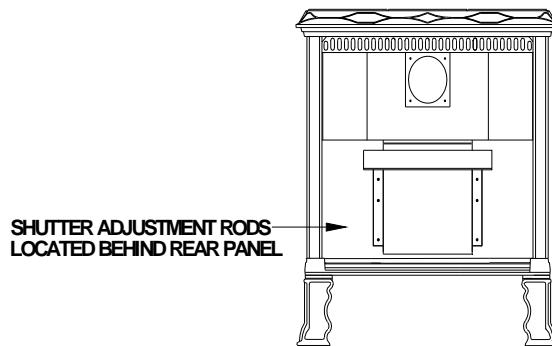


### Sterling BV Flame Pattern

a higher, yellow flame. Opening the shutters allow more oxygen to burn and results in a lower, blue flame. Adjustment may be done while viewing the fire. Once the desired flame pattern is achieved, tighten the screw.

**⚠ WHEN TIGHTENING THE SHUTTER CLAMP SCREW, DO NOT OVER-TIGHTEN. TIGHTEN UNTIL THE SCREW-HEAD TOUCHES METAL, AND THEN ANOTHER 1/4 TURN.**

Supply line and manifold gas pressure adjustments must be performed by **qualified service personnel**. Do not attempt to complete any part of the installation or adjustment of this unit



### Sterling BV Rear View

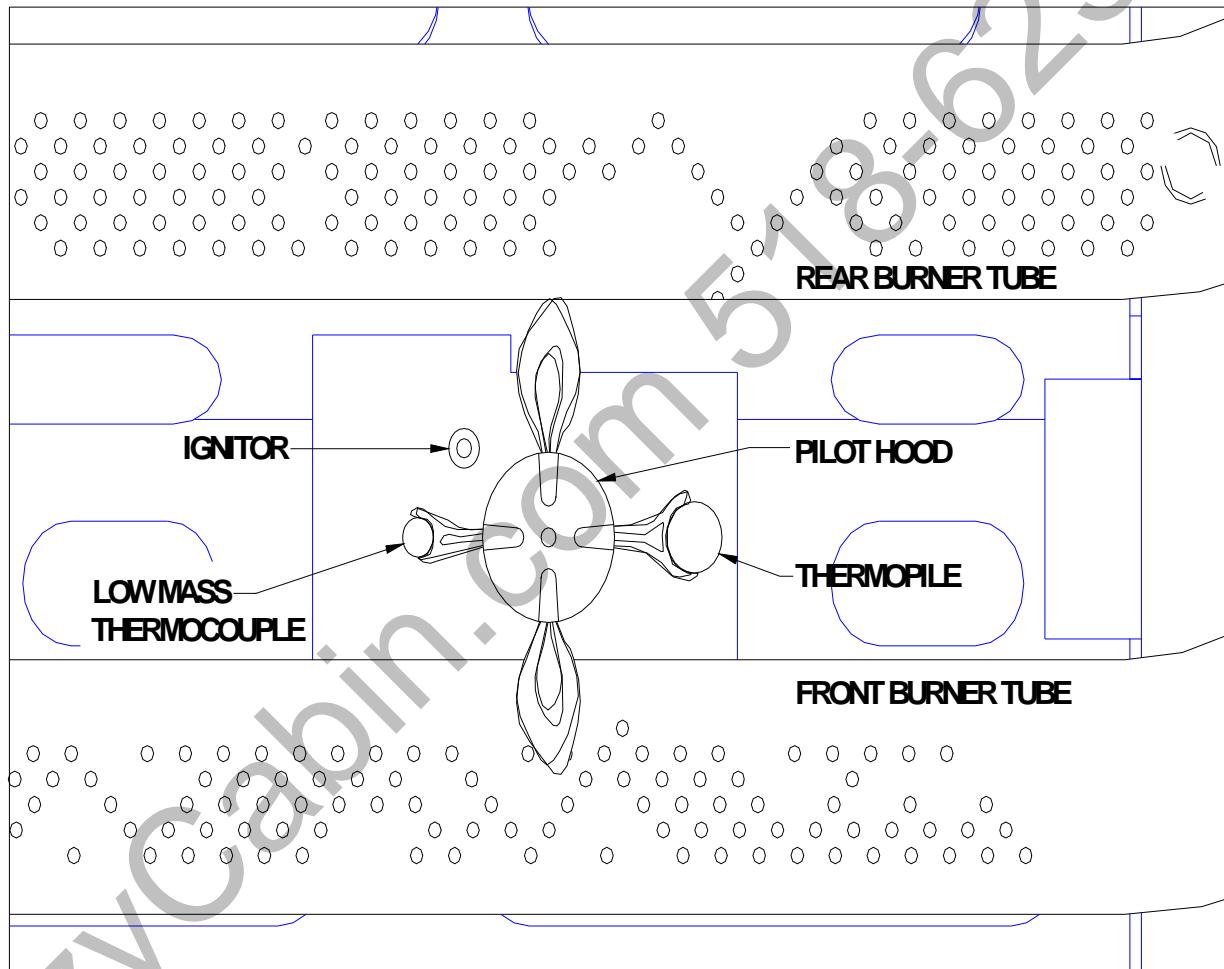
unless technically qualified to do so.

When adjusting the air shutters for flame color take care not to obtain a flame which is too yellow (shutters closed; too little oxygen). While such a flame may be aesthetically pleasing, it is the result of incomplete combustion which will eventually result in an accumulation of carbon in the firebox, on the logs, burner tubes and window glass.

## Pilot Adjustments

The pilot light is preset by the manufacturer and should not need adjustment. The pilot light flame should be large enough to engulf the thermopile and thermocouple located just next to the pilot light, but not so large as to create excessive noise or consume excessive gas. However, it can be adjusted by means of the pilot light adjustment screw located on the gas control valve. Remove the front lower facade to access.

Note too that the pilot light flame must properly engulf the thermopile so that the thermopile can generate sufficient milli-voltage (750mv) to power the millivolt gas control valve. Control of the Sterling by the wall-mounted thermostat may become erratic or non-existent if the pilot light flame is too small or misdirected away from the thermopile, or the unit may go out.



## PILOT FLAMES

## DAILY OPERATION

The Sterling gas-fired heater is easily operated by the homeowner once installed and adjusted by qualified service personnel. If the "T-stat" position of the on/off/T-stat switch is selected, the unit is controlled via the wall-mounted thermostat during the heating season. Set the thermostat to the desired room temperature and the unit will cycle on and off as required. By adjusting the variable output control located on the gas control valve, the rate of heat output can be varied to meet the heating requirements of the season. Choosing a low flame setting will result in longer burn cycles at a reduced output, while choosing a high flame setting will result in a shorter, hotter burn cycle. Through trial and error the homeowner can select the optimum flame size for their setting and application.

During the summer non-heating season, switch the wall thermostat to *OFF*, and turn off the pilot. This will improve the overall efficiency of the unit as the heat from the pilot is wasted. When putting the

unit back into service follow the lighting instructions described elsewhere in this manual.

When the unit first lights, especially when cool, it is normal to experience some condensation on the inside of the window glass. This condensation will burn off within the first few minutes of operation. If continuous condensation on the window glass or dripping water from any part of the unit or venting system (*chimney*) is noted, immediately discontinue operation of the unit and contact qualified service personnel.

Keep the area around the Sterling clear of combustible materials, gasoline and other flammable vapors and liquids. Do not allow the placement of items near the unit that will obstruct air flow or be ignited due to the heat from the surfaces of the stove.

## ROUTINE MAINTENANCE AND CARE

The Sterling requires minimal routine maintenance and care. The unit should always be cool and off when being cleaned or maintained.

The unit should receive regular cleaning on, under and around the stove to prevent the build up of dust and lint. The exterior surfaces of the unit can be cleaned using soap and water and a soft cloth. Do not use abrasive or chemical cleaners and take care not to scratch the stones, glass or enamel finish (if so equipped) when cleaning the unit. The use of chemical or wax-based cleansers or polishes is not recommended due to the potential for discoloration of the stones when the residue of the cleansers or polishes is exposed to heat.

The firebox should receive periodic cleaning to prevent the accumulation of dust, lint and other debris. To clean the firebox, set the thermostat to the OFF position, and turn off the gas at the gas control valve. When the unit is cool, unfasten the front door and carefully remove the decorative ceramic fiber log set taking care not to damage the logs or chip the enamel cast iron. Clean the entire firebox, the burner tubes and carefully vacuum the entire surface of the log set. Take care to thoroughly vacuum the ports (holes) along the top of the burner tubes.

With the decorative ceramic fiber logs out of the firebox, fasten the door shut and momentarily light the unit according to the lighting instructions described elsewhere in this manual. Check to ensure that a flame is burning from each burner port. The pilot light flame should be large enough to engulf the sensor/thermocouple as described

elsewhere in this manual (*Initial Adjustments: Pilot Adjustment*). Turn the unit off by setting the thermostat to off, turning off the gas at the gas control valve. Allow the unit to cool.

Check and clean any burner ports which are not burning or burning properly. Clean burner ports using a soft brush or vacuum cleaner. If the pilot light flame height needs adjustment it should be adjusted by qualified service personnel as described elsewhere in this manual.

Complete the cleaning procedure by carefully replacing the log set within the firebox as described elsewhere in this manual. Close and fasten the front door. Turn on the gas, light the unit and check for proper operation.

Regularly check that the area around the Sterling is kept free and clear from combustible materials, gasoline and other flammable vapors and liquids. Check that the flow of combustion and ventilation air is not obstructed.

 **Note:** If any replacement parts are needed, contact your local dealer for parts. Do not substitute materials.

Once a year the unit and venting system should be inspected by qualified service personnel to ensure that they are clean, free of obstruction, safe and in good working order. If service or maintenance is required it should be performed by qualified service personnel.

## OPTIONAL BLOWER FAN

An optional blower fan (Item #95-57010) is available from the dealer or manufacturer to boost heat output efficiency and improve air circulation within the room. It will come with complete installation instructions. The blower fan, which is powered by standard 110/115 volt, 60 cycle, 1.6 amp household current, is easily placed beneath the lower rear casting of the unit. The blower fan has a thermo-switch. When the stove heats up, the blower fan turns on. The blower fan will continue to operate for a period of time after the unit shuts off as it takes some time for the stove to cool down.

### Gas Requirements For Blower

The gas supply line connection is made to the Sterling's gas control valve using  $1/2"$  male NPT fitting. The supply line should be  $1/2"$  diameter pipe or tubing. We recommend a flexible line to avoid undue mechanical load on the valve and to ease thread alignment. Check local codes.

The unit must be installed and connected in accordance with local codes, or, in the absence of local codes, with the most current edition of the *National Fuel Gas Code ANSI Z223.1 CAN/CGA B149 Vented Gas Fireplaces Heaters, and CAN/CGA 2.17*. The supply line must include a manual shut-off valve and union so that the unit can be disconnected for servicing. The gas control valve has built-in pressure taps for test gauge connections.

#### SPECIAL GAS INSTALLATION REQUIREMENTS FOR STERLING G (TO ACCOMODATE ACCESSORY BLOWER INSTALLATION)

FIGURE 1

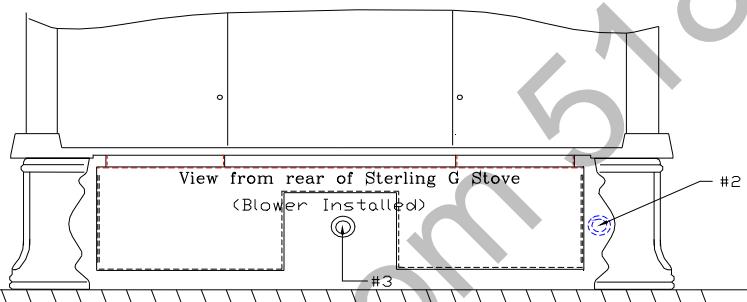
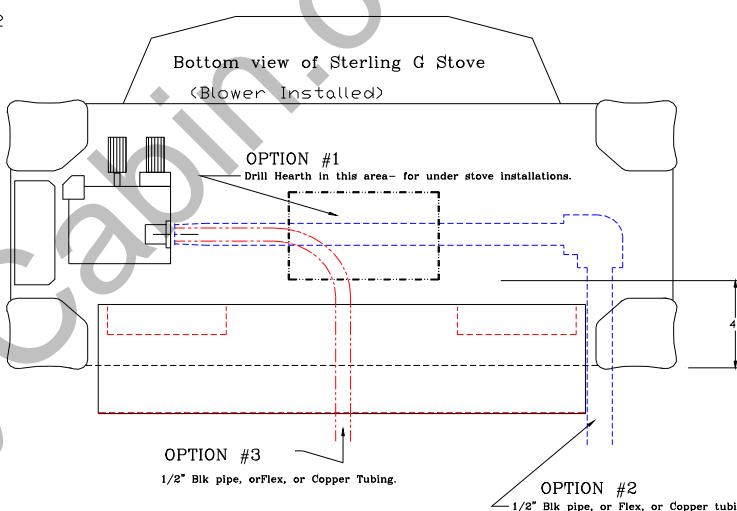


FIGURE 2



#### OPTIONS

1. Drill floor for gas line below stove.
2. Route Pipe, Flex or Copper around Blower.
3. Using Flexible Tubing or Copper, route gas line below blower.

## TROUBLE SHOOTING

<b>Symptom</b>	<b>Possible Cause</b>	<b>Corrective Action</b>
1. Pilot will not light.	<ul style="list-style-type: none"> <li>A. Insufficient gas pressure, or air in the pilot line.</li> <li>B. Pilot orifice plugged.</li> <li>C. Defective or misaligned electrode at pilot.</li> <li>D. Defective ignitor.</li> </ul>	<ul style="list-style-type: none"> <li>A. Using the piezospark, try to light the pilot. If it will not light, check the inlet gas pressure.</li> <li>B. Clean or replace pilot orifice.</li> <li>C. If a match lights the pilot, check the electrode gap and location. Should be a 3-mm gap in the flame area.</li> <li>D. Check for a good connection between ignitor and electrode. Check wire insulation. If properly connected and no spark, replace ignitor.</li> </ul>
2. Pilot will not stay lit after carefully following lighting instruction.	<ul style="list-style-type: none"> <li>A. Low or too high gas pressure .</li> <li>B. Defective thermo-couple.</li> </ul>	<ul style="list-style-type: none"> <li>A. Check for proper inlet pressure for the gas being used.</li> <li>B1. Check pilot flame to see that it is impinging on the top 9.5-mm of the thermocouple. Clean and/or adjust pilot for maximum flame impingement.</li> <li>B2. Ensure that the thermocouple connection at the gas valve is tight, and thermocouple is fully inserted into the pilot bracket and is tight. (Hand tight, plus <math>\frac{1}{4}</math>" turn.).</li> <li>B3. Check thermocouple output using milli-volt meter. Insert adapter in between valve and thermocouple. If the reading is less than 14-mV, replace thermocouple.</li> </ul>
3. Pilot burning, no gas to main burner, valve knob in the "ON" position, on/off/T-stat switch in "ON" position, or if "T-stat" is selected, T-stat in "ON" position.	<ul style="list-style-type: none"> <li>A. If T-stat is selected, or T-stat or wires defective.</li> <li>B. Thermopile may not be generating sufficient voltage.</li> <li>C. Plugged burner orifice.</li> </ul>	<ul style="list-style-type: none"> <li>A. Check T-stat/wires for proper connections. Place Jumper wire across terminals at T-stat. If burner comes on, replace defective wall switch. If OK, place jumper across T-stat wires at gas valve. If burner comes on, tighten connections, or replace faulty wires.</li> <li>B. Check Thermopile output, using a milli-volt meter. Take the readings across generator terminals of the gas valve. (TH and TP). Millivolt reading should be greater than 150-m V. If not, replace Thermopile. If the meter reading is OK, but the burner does not come on, replace the gas valve.</li> <li>C. Remove and check burner orifice, clean or replace. Note: do not use any metal cleaning device, as this may damage the orifice.</li> </ul>
4. Pilot and burner come on, but go out after some warm-up.	<ul style="list-style-type: none"> <li>A. Inconsistent, or insufficient flame on Thermopile.</li> <li>B. Insufficient gas pressure.</li> </ul>	<ul style="list-style-type: none"> <li>A. Adjust flame size and assure that the flame is aimed directly at the Thermopile.</li> <li>B. Check line pressure to ensure that the correct inlet pressure is present for the type of gas being used. If propane pressure is inconsistent, check for water condensation at the regulator.</li> </ul>
5. Frequent pilot outage problem.	A. Pilot may be too low or blowing, (high), causing the pilot safety to drop out.	A. Clean and/or check the pilot flame for correct impingement on the thermogenerator and thermocouple.

## PARTS LIST

1546-462	Top Stone	1546-462A	Side Stone
1546-463	Front Side Stone	1546-464	Front Bottom Stone
2510-219RS	Door	2510-303	Bottom Leg
2510-401	Top	2510-403F	Front Grill
2510-411 RF	Door Frame	2510-413	Side Leg
5500-2402	Ember Screen	7211-502	Rear Log
7200-120	Burner Orifice: Size 55	7211-503	Middle Log
7200-129	Burner Orifice: Size 44	7211-504	Front Log
7211-505	Bag of Embers	7211-212	Front Burner Tube (Lower)
7211-310	Gas Valve Sit (NG)	7211-202	Rear Burner Tube (Upper)
7211-372	Pilot Burner Assy (NG)	7211-026	Spillage Switch
94-58405	Glass Kit	95-56211	LP Fuel Conversion Kit
7211-430	Piezo ceramic and wire	95-56210	NG Fuel Conversion Kit
7210-103	Piezo push button igniter	7211-470	Thermocouple
7210-090	Thermopile	7211-391	4 way pilot hood and clip
7211-009	Pilot gas tube	7211-136	.35 Pilot orifice (LP)
7211-163	.62 Pilot Orifice (NG)		

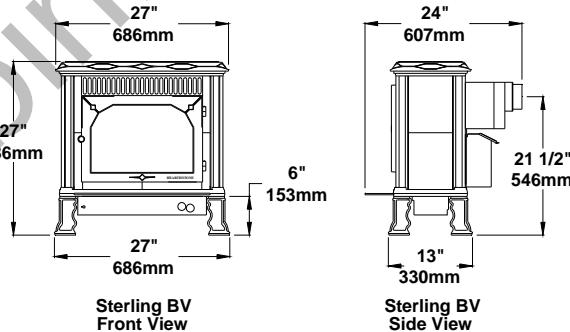
## SPECIFICATIONS

Fuel requirements	NATURAL GAS	Liquid Propane (LP)
Input Rating	40,000	40,000
Maximum Output (Btu/hr) 0-610 m	31,200	30,200
Minimum Input (Btu/hr) 0-610 m	21,200	22,000
Orifice Size (DMS) 0-610 m	44/44	55/55
Input Rating (Btu/hr) 610-1370 m	37,000	37,500
Orifice Size (DMS) 610-1370 m	45/45	56/56
Manifold Pressure (in. w.c./kpa)	3.5/.87	10/2.49
Manifold Pressure, Lo Setting (in. w.c./kpa)	1.2/0.3	3.3/0.8
Minimum Inlet Pressure (in. w.c./kpa)	5/1.24	11/2.74
Fuel supply line size	1/2"	
Flue exit	4" diameter, top or rear exit (reversible)	
Chimney requirement	Type B-1 vent, 4" diameter	
Ignition	Standing pilot light	

**Certification** Tested to: *ANSI Z 21.88-2002* □ *CSA 2.33-M02 Vented Gas Fireplace Heaters, and CAN / CGA 2.17-M91 (high altitude)*. Approved for use in the state of Massachusetts by, The Commonwealth of Massachusetts Board of State Examiners of Plumbers and Gas Fitters.

**Installation** Install in accordance with local codes, if any; if not, follow current edition ANSI Z223.1 (U.S. installations) or current CAN1-B149 installation code (Canadian installations)

Shipping weight 260 lbs  
Actual weight 230 lbs



### DIMENSIONS

# Safety Label

LISTED GAS-FIRED VENTED FIREPLACE HEATER, RADIATEUR VENTILE  
 MODEL NAME: Hearthstone Sterling<sub>®</sub> VENTED GAS FIREPLACE HEATER  
 NOT FOR USE WITH SOLID FUEL



SERIAL # 8521-

TESTED TO: ANSI Z21.88-2002 CSA 2.33-M02 VENTED GAS FIREPLACE HEATERS  
 CAN/CGA - 2.17

CERTIFIED FOR USA AND CANADA/HOMOLOGUE POUR LE CANADA  
 THIS APPLIANCE MUST BE INSTALLED IN ACCORDANCE WITH LOCAL CODES, IF  
 ANY; IF NOT FOLLOW THE CURRENT EDITIONS OF ANSI Z223.1 (U.S. INSTALLATION)  
 OR CAN1-B149 (CANADIAN INSTALLATION).

	<input type="checkbox"/> NATURAL GAS	<input type="checkbox"/> LP
INPUT RATING (Btu/hr) 0-610 m	40,000	40,000
INPUT RATING (Btu/hr) 610-1370 m	37,000	37,500
ORIFICE SIZE (DMS) 0-610 m	(2) #44	(2) #55
ORIFICE SIZE (DMS) 610-1370 m	(2) #45	(2) #56
MANIFOLD PRESSURE (in. W.c./kpa)	3.5/0.87	10.0/2.49
MAN. PRESSURE - LO SETTING (in. W.c./kpa)	1.2/0.3	3.3/0.8
MINIMUM INLET PRESSURE (in.w.c./kpa)	5.0/1.24	11.02/2.74
MINIMUM INPUT (btu/hr) 0-610 m	21,200	22,000
MAXIMUM OUTPUT (btu/hr) 0-610 m	31,200	30,200

## MINIMUM CLEARANCES TO COMBUSTIBLE CONSTRUCTION

REAR OF STOVE TO BACK WALL	2" / 50 mm
EDGE OF TOP CASTING TO SIDEWALL	4" / 100 mm
EDGE OF TOP CASTING TO DIAGONAL WALL	3" / 75 mm
UNIT TOP TO ALCOVE CEILING	14" / 355 mm

FLOOR PROTECTION (MIN R VALUE 1.1) REQUIRED FROM  
 FRONT OF UNIT TO 16" / 406mm (FROM GLASS)

BLOWER ASSEMBLY (Part number 95-57010) 168 CFM MAY BE USED  
 ELECTRICAL RATING: 115 VOLTS, 2.4 AMPS, 60 HZ UL,CSA LISTED.  
 DANGER: RISK OF ELECTRICAL SHOCK. DISCONNECT POWER BEFORE SERVICING  
 UNIT. DO NOT ROUTE POWER CORD UNDER HEATER.

THIS VENTED GAS FIREPLACE IS NOT FOR USE WITH AIR FILTERS

THIS APPLIANCE MUST BE PROPERLY CONNECTED TO A VENTING SYSTEM IN  
 ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

WARNING: OPERATION OF THIS HEATER WHEN NOT CONNECTED TO A PROPERLY  
 INSTALLED AND MAINTAINED VENTING SYSTEM OR TAMPERING WITH THE VENT  
 SAFETY SHUTOFF SYSTEM CAN RESULT IN CARBON MONOXIDE (CO) POISONING  
 AND POSSIBLE DEATH.

MANUFACTURED BY: HearthStone, MORRISVILLE, VERMONT 05661

## Date of Manufacture

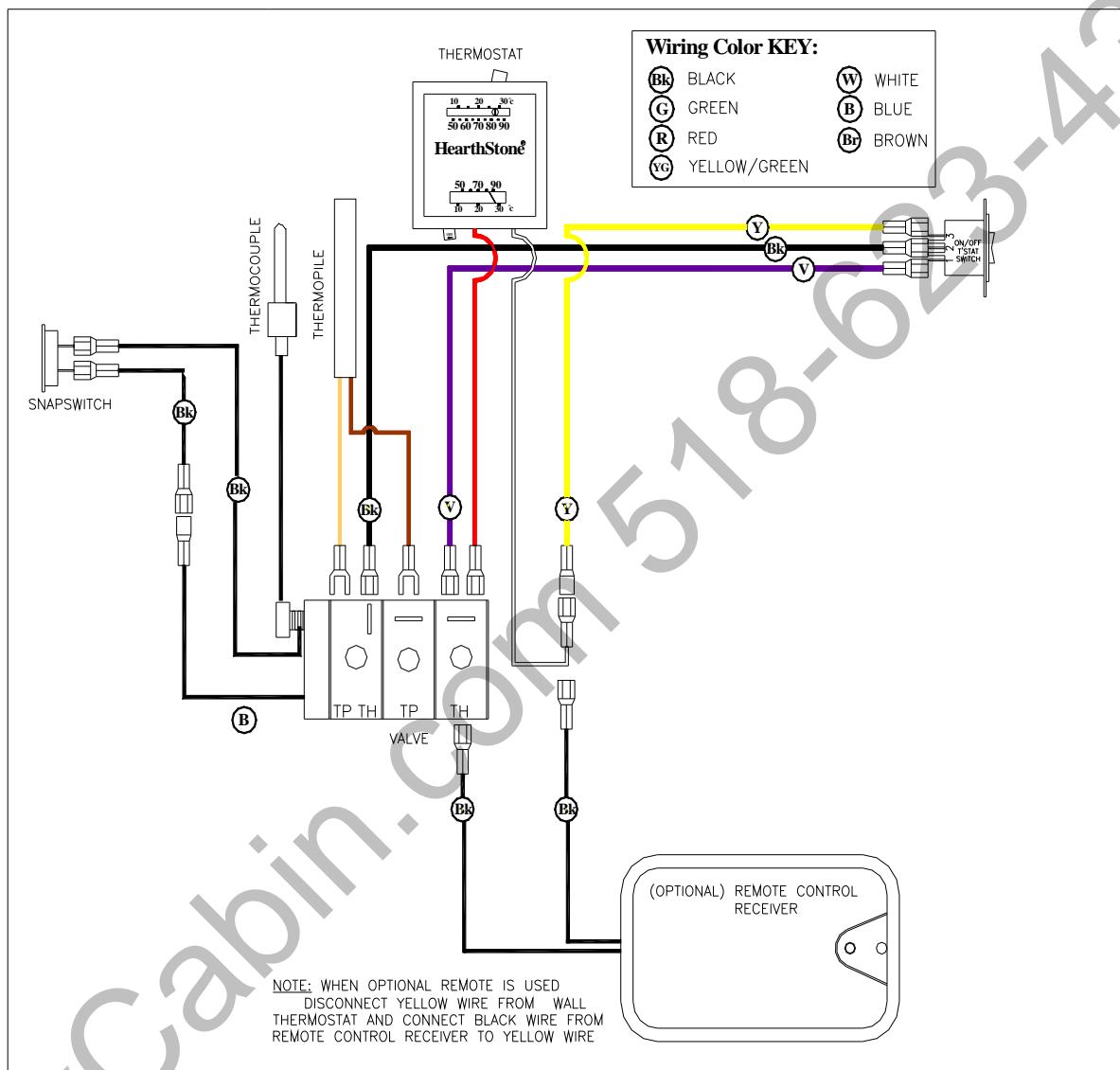
2003	2004	2005	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<input type="checkbox"/>														

DO NOT REMOVE OR COVER THIS LABEL

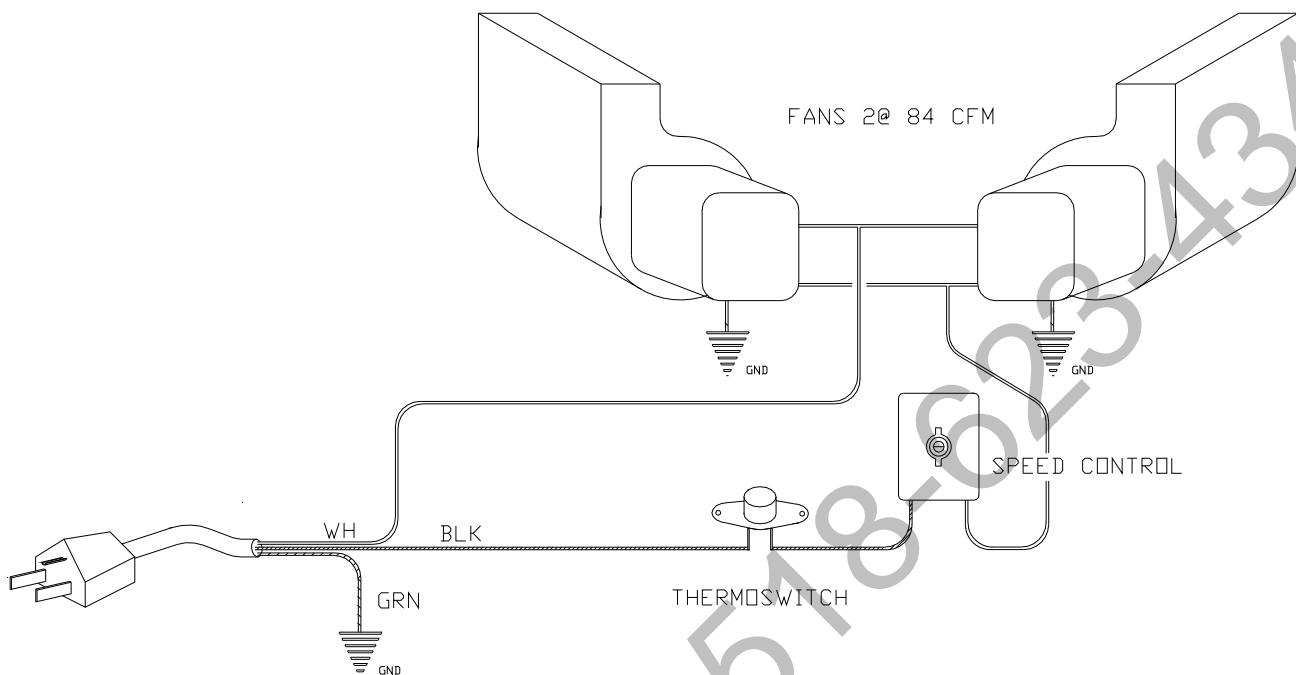
MADE IN USA

3300-130

# Electrical Schematics



## OPTIONAL BLOWER



## HEARTHSTONE GAS-FIRED STOVE AND INSERT LIMITED WARRANTIES

These warranties give you specific legal rights. You may also have other rights which vary from State to State.

Hearthstone Quality Home Heating Products, Inc. (Hearthstone) warrants to the original purchaser only (the "Original Purchaser") the new gas-fired stove/insert manufactured by Hearthstone and purchased by the Original Purchaser (referred to as the "Stove" for simplicity) against any of the occurrences listed in this document that result from defects in material or workmanship. All obligations of Hearthstone under this document commence on the date the Original Purchaser purchases the Stove (the "Purchase Date").

### **LIMITED LIFETIME WARRANTY**

Hearthstone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

- I. All cast iron parts, including the cast iron heat exchanger – against breakage, cracking or burn-through.
- II. All stones – against cracking or breakage due to thermal stress, excluding surface and hairline cracks and scratches that do not affect the operation or safety of the Stove.
- III. Glass – against breakage due to thermal shock.

### **LIMITED FIVE-YEAR WARRANTY**

Hearthstone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

- ! Firebox and firebox baffle – against breakage, cracking or burn-through.
- ! Convective heat exchanger – against breakage, cracking or burn-through.
- ! Burners, air shutters and orifices – against breakage, cracking or burn-through.
- ! Ceramic logs and embers – against breakage, cracking or burn-through.

**This warranty expires on the fifth (5<sup>th</sup>) anniversary of the Purchase Date.**

### **LIMITED THREE-YEAR WARRANTY**

Hearthstone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

- ! Gas train, including gas valve, millivolt wiring, spill switch, pilot assembly, thermopile, thermocouple, piezo igniter, and, if the Stove is a vent-free model, ODS system – against breakage or malfunction.

**This warranty expires on the third (3<sup>rd</sup>) anniversary of the Purchase Date.**

### **LIMITED ONE-YEAR WARRANTY**

Hearthstone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

- θ Enamel Finish – against peeling or fading, excluding chipping, mechanical abrasion, chemical abrasion or crazing.
- θ Gaskets and sealants – against breakage or deterioration.

θ Accessories and electrical components such as blowers, switches and thermo discs, **excluding** venting components, hearth components, electrical components and other components or accessories used in conjunction with the installation of the Stove **not** manufactured or supplied by Hearthstone – against breakage or malfunction.

**This warranty expires on the first (1<sup>st</sup>) anniversary of the Purchase Date.**

### **EXCLUSIONS**

The warranties contained in this document do not cover, nor is Hearthstone responsible for:

- I. Damage resulting from installation or operation of the Stove in a manner contrary to the owner's manual.
- II. Damage or non-performance resulting from faulty or incomplete setup, installation and start-up or mishandling, abuse, or misuse of the Stove, including but not limited to over-firing.
- III. Damage resulting from installation, modification, alteration, repair or service of the Stove by any party other than Hearthstone or an authorized Hearthstone dealer (a "Dealer").
- IV. Damage due to water or due to installation of the Stove in a damp or high condensation area.
- V. Damage due to installation of the Stove in an atmosphere contaminated by damaging chemicals, including but not limited to chlorine, fluorine or salts.
- VI. Scratches on glass, enameled surfaces or stones due to mechanical abrasion.
- VII. Standard wear and tear of the Stove resulting from normal usage over time.
- VIII. Damage, operational-related problems, or inadequate performance caused by site, installation or environmental conditions beyond Hearthstone's control, including but not limited to nearby trees, rooftops, buildings, wind, hills, mountains, inadequate or excessive venting, insufficient make up air, or negative air pressure whether or not caused by mechanical systems such as furnaces, exhaust fans, clothes dryers, etc.
- IX. A defect in any part of the Stove if the Original Purchaser fails to comply with Hearthstone's or a Dealer's request to ship the part or the Stove to Hearthstone or a Dealer, as the case may be.

THE WARRANTIES CONTAINED IN THIS DOCUMENT ARE EXCLUSIVE AND ARE GIVEN BY HEARTHSTONE AND ACCEPTED BY THE ORIGINAL PURCHASER IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND ANY OBLIGATIONS, LIABILITIES, RIGHTS, CLAIMS, OR REMEDIES IN CONTRACT OR TORT, WHETHER OR NOT ARISING FROM HEARTHSTONE'S NEGLIGENCE, ACTUAL OR IMPUTED. ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE GIVEN **ONLY** TO THE EXTENT REQUIRED BY FEDERAL OR STATE LAW. EXCEPT AS OTHERWISE REQUIRED BY STATE LAW, UPON THE EXPIRATION OF THE EXPRESS LIMITED WARRANTIES CONTAINED HEREIN, **NO** IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THE SUBJECT STOVE. **SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

THE WARRANTIES CONTAINED IN THIS DOCUMENT EXTEND **ONLY** TO THE ORIGINAL PURCHASER OF THE WOODSTOVE WARRANTED HEREUNDER. THEY DO NOT EXTEND TO ANY SUBSEQUENT OWNERS.

UNDER NO CIRCUMSTANCES SHALL HEARTHSTONE BE LIABLE TO THE ORIGINAL PURCHASER OR ANY OTHER PERSON FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGE TO PROPERTY OR PERSONAL INJURIES, WHETHER ARISING OUT OF BREACH OF WARRANTY, TORT, OR OTHERWISE, EVEN IF HEARTHSTONE HAS BEEN APPRAISED OF THE POSSIBILITY OF SUCH DAMAGES.

**SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

## **QUALIFYING FOR WARRANTY COVERAGE**

To obtain performance of any obligation under this document, the Original Purchaser must, within the applicable warranty time period, contact Hearthstone, at the address listed in the Warranty

Registration section below or at **(802) 888-5235**, or a Dealer for instructions regarding the return of defective parts for repair, the return of the Woodstove for repair, or a Dealer service call. The Original Purchaser should refer to the Dealer network search engine contained on Hearthstone's Web site ([www.Hearthstonestoves.com](http://www.Hearthstonestoves.com)), to find a Dealer nearest the Original Purchaser's location.

## **REMEDY**

The remedy for any breach of the foregoing warranties will consist of repair or replacement, at Hearthstone's option, of any covered defect in the Stove. When the Original Purchaser contacts Hearthstone or a Dealer, Hearthstone or the Dealer, as the case may be, will instruct the Original Purchaser to either return the defective part, or the entire Stove (if needed), with shipping prepaid, to Hearthstone or a Dealer or allow a Dealer to make a service call at the place where the Stove is located. In the event the Original Purchaser refuses to allow a Dealer to make a service call, Hearthstone or a Dealer, as the case may be, will request that the Original Owner return the defective part, or the entire Stove (if needed), with shipping prepaid, to Hearthstone or a Dealer.

**Notwithstanding any other provision of this document, the Original Purchaser shall pay for any travel fees and service charges related to a Dealer's service call.**

**Parts:** Hearthstone will replace defective parts covered by the foregoing warranties at no charge.

**Labor:** Within the first (1<sup>st</sup>) year after the Purchase Date, Hearthstone will pay for warranty labor performed by a Dealer at Hearthstone's published labor rates in effect at the time the labor is performed. Thereafter, the Original Purchaser is responsible for the cost of labor.

**Shipping cost for parts:** Within the first ninety (90) days after the Purchase Date, Hearthstone will pay for the shipping of Stove parts covered by any of the foregoing warranties to and from Hearthstone or a Dealer, as the case may be. Thereafter, the Original Purchaser is responsible for all shipping costs related to shipping Stove parts to and from Hearthstone or a Dealer, as the case may be.

**Shipping cost for the Stove:** Within the first (1<sup>st</sup>) year after the Purchase Date, if the Original Purchaser is instructed to return the Stove to Hearthstone or a Dealer for repair, Hearthstone will pay fifty percent (50%) and the Original Purchaser will pay fifty percent (50%) of the shipping costs related to shipping the Stove to and from Hearthstone or a Dealer, as the case may be. Thereafter, the Original Purchaser is responsible for one hundred percent (100%) of all of the shipping costs related to shipping the Stove to and from Hearthstone or a Dealer, as the case may be. Notwithstanding any other provision of this document, in no event will Hearthstone pay for any Dealer fees or other fees for pick up or delivery of the Stove returned for repair; the Original Purchaser shall be responsible for any such fees.

## **WARRANTY REGISTRATION**

The Original Purchaser may send a completed and signed Warranty Registration Form, which is enclosed in the Stove warranty packet, to the following address:

**Hearthstone Quality Home Heating Products, Inc.**  
**Warranty Department**  
**317 Stafford Avenue**  
**Morrisville, VT 05661**

**NOTE: SENDING IN THE SIGNED WARRANTY REGISTRATION FORM IS NOT A CONDITION OF  
WARRANTY COVERAGE OR HEARTHSTONE'S PERFORMANCE.**