

KILLINGTON (8870)

GAS-FIRED DIRECT VENT INSERT HEATER



Robert Davis Paul



Manufactured by **HearthStone**
317 Stafford Avenue
Morrisville, Vermont 05661
E-Mail-Inquiry@HearthStoneStoves.com

READ THIS OWNER'S MANUAL

Operate and maintain this gas heater according to instructions in this manual. Read this manual in its entirety.

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

POUR VOTRE SÉCURITÉ: Ne pas entreposer ni utiliser d'essence ni d'autre vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

FOR YOUR SAFETY: What To Do If You Smell Gas:

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

POUR VOTRE SÉCURITÉ: 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.
Evacuez la pièce, le bâtiment ou la zone.
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.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified, service agency, or the gas supplier.

AVERTISSEMENT: Une installation, un réglage, une modification, un entretien ou une maintenance incorrects peuvent entraîner des dommages matériels, des lésions corporelles ou la perte de vies humaines. Consulter le manuel des usagers fourni avec ce générateur d'air chaud.

INFORMATION SHEET

Record on this page, all relevant information concerning the purchase, installation, and maintenance of your Killington Gas-Fired Direct Vent Insert. 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.

Serial Number: _____

Fuel type (check one) _____ Natural Gas
_____ Liquid Propane

Sold by: _____

Phone: _____

Date of Purchase: _____

Installed by: _____

Phone: _____

Date of Installation: _____

Gas Supplier: _____

Phone: _____

Read this Owner's Manual before installing or operating the Killington heater. Retain this manual for future reference.

Service Record

Date	Who Performed Work	Work Performed	Notes
__/__/__	_____	_____	_____
__/__/__	_____	_____	_____
__/__/__	_____	_____	_____
__/__/__	_____	_____	_____
__/__/__	_____	_____	_____
__/__/__	_____	_____	_____
__/__/__	_____	_____	_____

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CODES

Adhere to all **local codes** or, in their absence, the latest edition of THE NATIONAL FUEL GAS CODE ANSI Z223.1 (NFPA54) which can be obtained from:

AMERICAN NATIONAL STANDARDS INSTITUTE, INC.

1430 BROADWAY
NEW YORK, NY 10018

OR

NATIONAL FIRE PROTECTION ASSOCIATION, INC.

BATTERY MARCH PARK
QUINCY, MA 02269

The appliance when installed, must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current NFPA 70-National Electrical Code or CSA C22.1-Canadian Electric Code.

For mobile home installation, install per the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 (U.S.) Or CAN/SCA Z240 MH (Canada). (*Installer l'appareil selon les codes ou règlements locaux, ou, en l'absence de tels règlements, selon les Codes d'installation CAN/CGA-B149.*)

INTRODUCTION

Congratulations on the purchase of your HearthStone Killington Gas-Fired Direct Vent Insert. The Killington incorporates the latest in energy and gas technology, which will provide you with clean, efficient heat for years to come. The combination of elegant cast iron and durable steel construction gives the Killington attractive looks and allows for years of durable performance, which can be maintained with minimal care.

If there are any questions regarding installation or operation, which are not answered within this manual, contact your local dealer or your building inspector.

Your Killington is equipped with a standing pilot which:

- 1) generates a millivolt signal that powers the control circuit and;
- 2) lights the main burner when the switch or thermostat calls for heat.

This unit is equipped with a variable output control located on the gas control valve. It allows you to vary the heat output, along with the flame height, to suit personal taste. Heat output can be reduced during the Fall and Spring (when the need for heat is reduced) and increased during Winter months (when the need for heat is the greatest). Regardless of how you set the variable

output control, the on/off cycling of the unit is always controlled by the on/off switch or the optional wall-mounted thermostat. Also available through your local HearthStone dealer is an optional front door screen (Kit #98-69700) which enhances the realistic flame.

The unit is also equipped with a two speed fan which turns on automatically and off independently of the burner flames. The fan turns on when the stove is hot and cycles off when the unit cools down. Allowing the blower to push warm air only.

The Killington will provide you with years of economical and convenient service. However, as with any gas appliance, the unit must be properly installed and maintained by a qualified service technician to ensure safe and trouble-free operation.

READ THIS OWNER'S MANUAL

Operate and maintain this gas heater according to instructions in this manual. Please read this manual in its entirety, before attempting to light the unit.

SAFETY INFORMATION

By following a few simple safety precautions and by performing minimal maintenance, your Killington will remain appealing while providing years of quality performance.

WARNING

Installation and repair should be done by a qualified service technician. The appliance should be inspected before use and at least annually by a qualified service technician. 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 passages of the appliance are kept clean and free of obstructions. (S'assurer que le brûleur et le compartiment des commandes sont propres. Voir les instructions d'installation et d'utilisation qui accompagnent l'appareil.

IMPORTANT

Please read and understand all warnings before installing or operating this heater. Failure to follow these instructions or improper use of this heater will void the warranty and can cause serious injury or death from burns, fire, explosion and carbon monoxide poisoning. Do not attempt to alter or modify the construction of this heater or its components. Any alteration or modification of construction voids the warranty and the certification of this heater. Save this manual for future reference.

FIRE HAZARD

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this appliance. The Killington should be located out of traffic and away from furniture, draperies, clothing, and flammable material.

NEVER BURN PAPER, WOOD, OR OTHER MATERIALS

This gas heater is designed to burn either natural gas (NG) or liquid propane (LP). Never burn any fuel which was not intended for use.

SAFETY INFORMATION Continued

The installation must conform with local codes or, in the absence of local codes, the current National Fuel Gas Code, ANSI Z223.1 (NFPA 54).

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and gas control, which has been under water. *(Ne pas se servir de cet appareil s'il a été plongé dans l'eau, complètement ou en partie. Appeler un technicien qualifié pour inspecter l'appareil et remplacer toute partie du système de contrôle et toute commande qui ont été plongés dans l'eau.)*

During the first few hours of operation the appliance may produce a slight smoke and/or odor. This is normal during the first several burns. During the initial burn, open a window(s) to assist in the removal of the smoke/odor. If the logs appear to smoke, turn the heater off and call a qualified service technician.

The 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 1/2 psig. (3.5k Pa). The appliance 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 1/2 psig (3.5 kPa).

CERAMIC FIBER LOG SAFETY INFORMATION

If the decorative ceramic log material supplied with the Killington is damaged or missing, it must be replaced with the same, approved replacement parts supplied by the manufacturer. These components affect the combustion quality and safety of the heater. Do not replace fiber ceramic logs with unapproved ceramic logs or any other material. **Always wear gloves and safety goggles while handling the log set and ember strip.**

SHOCK HAZARD

This appliance is equipped with a three-prong (grounding) plug for protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from the plug.

WARNING

This gas appliance must not be connected to a chimney flue serving a separate solid-fuel burning appliance.

SERVICE CAUTION

If you believe your Killington is not, in any way, performing properly, immediately discontinue operation until the unit has been inspected and approved by qualified service personnel. Prior to servicing the unit, turn the valve control knob clockwise to "OFF". The unit should be cool prior to servicing and cleaning. Any component removed during servicing should be replaced prior to operation. Use of any components not supplied by HearthStone on the stove voids all warranties. **Do not substitute components.**

DO NOT LIGHT PILOT OR MAIN BURNERS BY HAND

The standing pilot light equipped with this gas heater is lit by using a piezoelectric spark generator, as described in the How To Turn the Unit On & Off section of this manual. Never attempt to light the pilot or main burners by hand (with a match or lighter). After repeated attempts, if the pilot light fails to light, discontinue operation, turn off the gas at the gas control valve, and immediately contact qualified service personnel for assistance.

HOT SURFACES

Certain exposed surfaces of the Killington will reach high temperatures during normal operation. Clearances to combustibles must be maintained, as specified in the Clearances To Combustibles section of this manual. Due to high temperatures the appliance should be located out of traffic and away from furniture, draperies, clothing and flammable materials. Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns to skin or clothing ignition. Young children should be carefully supervised when in the same room as the appliance. Clothing or other flammable material should not be placed on or near the appliance. *(Surveille les enfants. Garder les vêtements, les meubles, l'essence ou autres liquides à vapeur inflammables loin de l'appareil.)* Clean the area around, under, and behind the unit on a regular basis to prevent the accumulation of dust and lint.

MUST BE VENTED TO THE OUTSIDE

Never vent the gas heater to other rooms or buildings. Do not burn the gas heater with the front open. Do not burn gas heater with broken glass. Only open front for routine service. Do not slam or strike glass.

SPECIFICATIONS

Listed:

Direct Vent Gas Fireplace

Model:

Killington Direct Vent Insert Room Heater

Testing Agency:

Intertek Testing Services NA Inc. (ITS)

Tested to:

ANSI Z21.88-1998CSA 2.33-M98
CAN/CGA2.17

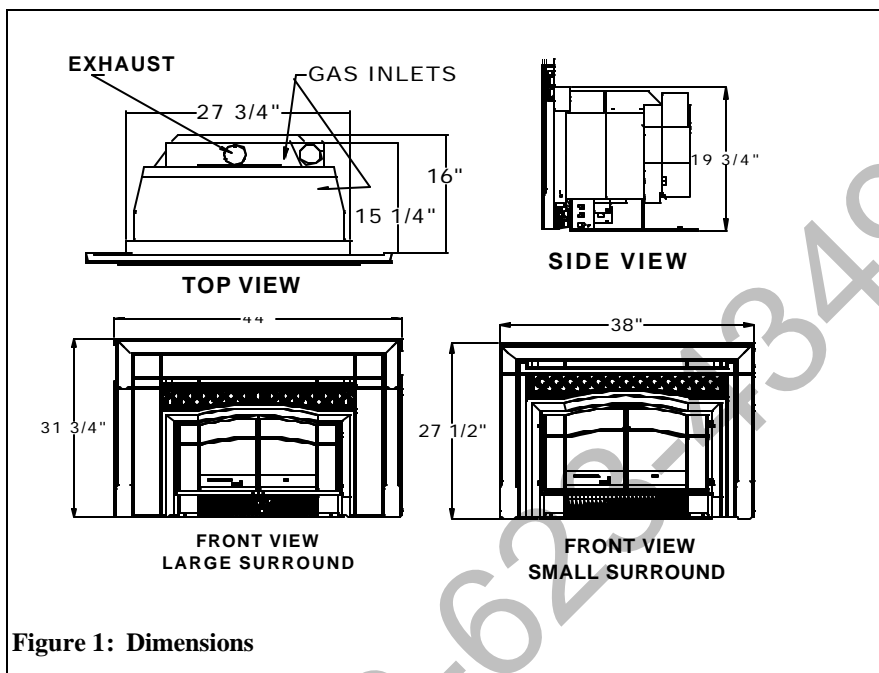


Figure 1: Dimensions

Certified for use by:

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

	Natural Gas	LP
Input rating (Btu/hr)	31,000	31,000
Maximum output (BTU/hr)	23,200	23,800
Minimum input rating (Btu/hr)	20,800	24,800
Orifice size DMS	46	56
Man. pressure-HI setting (in. w.c./kPa)	3.5/1.15	10.0/2.48
Man. Pressure-Lo setting (in.w.c./kPa)	1.6/0.42	6.4/1.59
Inlet pressure-HI (in. W.c./kPa)	10.5/2.6	14.0/3.47
Inlet pressure-LO (in. W.c./kPa)	5.0/1.24	11.0/2.88

Conditionally approved for purchased mobile home installation. This appliance may be installed in an aftermarket permanently located, manufactured (mobile) home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a qualified HearthStone kit is used.

Cet appareil peut être installé dans un after market situé définitivement, fabriqué (mobile) logement, où ne prohibé pas par des codes ocaux.

Cet appareil est seulement pour l'emploi avec le type de gaz indiqué sur l'assiette d'évaluation. Cet appareil n'est pas décapotable pour l'emploi avec autres gaz, à moins qu'un équipement certifié est employé.

UNPACKING

The Killington is packaged by the manufacturer to withstand shipment, without damage, under most circumstances. However, damage can occur during transit and handling. Care should be taken when unpacking, inspecting for damage, and installing the unit. **If any damaged or missing parts are detected, immediately contact your dealer.**

A complete Killington is shipped with three packages. Locate and remove these packages. Package #1 will contain the Log Set. Package #2 will contain the front set, doors, and grills. Package #3 will contain the optional surround if ordered. Lift the stove off the pallet and partially insert it into the fireplace, (with regards to the Clearances To Combustibles section on page 7 of this manual). Carefully remove the surround set and front set from the packaging carton.

Components

1- Killington DV Heater

Package #1

- 6 Decorative Logs
- 1 Ember Screen-T-Stat
- 2 Bags of Embers
- 40' Wire
- 1 Andiron
- 1 Andiron Support
- 1 LP Conversion Kit
- 1 3/8" Flex Tube
- 1 Restrictor Disc
- 2 Metal Surround Flanges

Package #2

- 2 Doors
- 1 Grill
- 1 Frame
- 1 Hardware Set
- 1 Steel Set

Package #3

- 1 Top surround cast
- 1 Left side surround cast
- 1 Right side surround cast
- 1 Hardware set
- 1 Top steel heat deflector

Inspect for Damage

Inspect the Killington for visible and/or concealed damage. The unit should appear to be square and true. The sheet metal parts should be smooth and free of bends and/or dents. If the heater is enameled, the enameled cast iron should be free of chips and/or cracks. If visible or concealed damage is found or suspected, contact your local dealer for instructions. To open the firebox, reach over the firebox, and under the front grill. With a flat screwdriver pry the retaining clips up. There will be four separate clips. Be careful, when you lift the last one, as it will free the glass and frame from the unit. *Refer to Figure 10, in the Installing The Surrounds section on page 12.* Pull the top of the glass towards your body, and lift the glass and frame up and away from the unit. Carefully set the glass and frame away from the unit, as it will need to be installed later. Inspect the log set for damage. It is important to wear safety goggles and gloves when handling the log set. If a damaged log is encountered, contact your local dealer for a replacement log. Put the log set, aside. It will be installed later.

You Will Need the Following to Complete the Installation Of The Unit

- ▮ Surround Set (See Dimensions Above)
- ▮ Two - 3" Flex Liners (Dura-Vent #2280)
- ▮ Co-Linear Chimney Liner Termination Kit (Dura-Vent #923GK)
- ▮ High Wind Termination Cap (Dura-Vent #991)
- ▮ Four - 3.5" Hose Clamps
- ▮ Gas Hookup Equipment/Tools
- ▮ High Temperature Silicone
- ▮ Small Level
- ▮ Phillips Screwdriver
- ▮ Slotted Screwdriver or 5/16" Nut Driver
- ▮ Thread Sealant
- ▮ Open End Wrenches or Adjustable Wrench
- ▮ Permanent Marker
- ▮ Fiberglass insulation
- ▮ Safety glasses
- ▮ Gloves
- ▮ An external regulator (for Propane/L.P. gas only)
- ▮ Gas piping which complies with local codes
- ▮ Pipe sealants approved for use with propane/L.P. Gas (resistant to sulfur compounds)
- ▮ A manual shutoff valve for the gas supply
- ▮ A sediment trap
- ▮ Pipe wrenches
- ▮ Other parts required by local code

CLEARANCES TO COMBUSTIBLES

Due to high surface temperatures, the unit 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 heater. Always maintain adequate clearances around the air openings into the combustion chamber and allow for adequate ventilation. Minimum clearances to combustibles must be maintained as shown in Figure 2.

HEARTH REQUIREMENTS /FLOOR PROTECTION

The Killington can be installed on wood flooring or a non-combustible surface. For installation of the unit on carpeting, vinyl tile, or other combustible materials other than wood flooring, the unit shall be installed on a metal, wood, or other non-combustible hearth.

NOTE: Some wood floor varnishes, stains, or polyurethanes may be affected by heat.

VENTING COMPONENTS & CONFIGURATION

The Killington cannot be vented jointly with any other solid fuel or gas appliance. The Killington must be vented directly to the outside of the building using a proper termination as listed below. The venting configuration is shown in Figures 4 & 5. If the vent-air system is disassembled for any reason, reinstall per the instructions provided in the Assembling The Unit section of this manual on page 12.

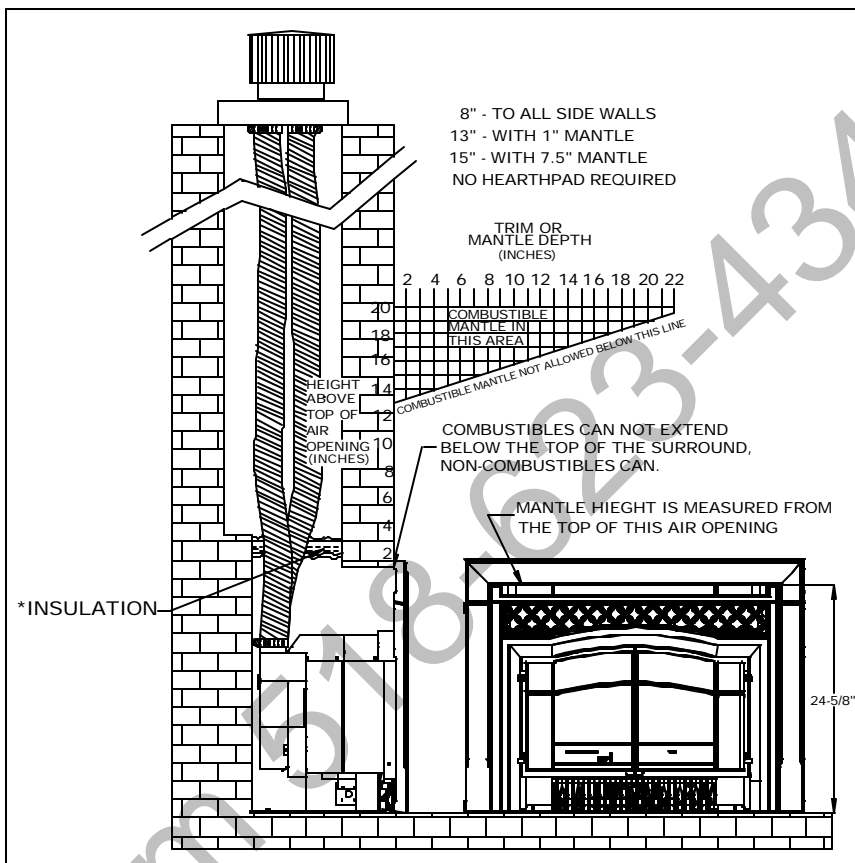


Figure 2:

Clearance To Combustibles (* Insulation is recommended)

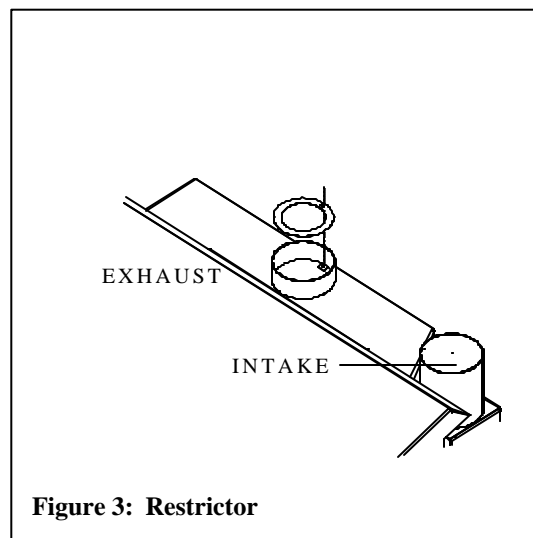


Figure 3: Restrictor

Restrictor Disc

Your Killington has been supplied with a restrictor disc. This disc will provide excellent restriction for vertical vent runs exceeding 20 feet. If your vertical rise is less than 20 feet, do not use the restrictor. See Figure 3.

1. Chimney Liner System*

1. Two Sections 3" Co-Linear Flex Liners (10ft Min./40 ft Max.). Dura-Vent #2280
2. Chimney Liner Termination Kit (Includes Co-Linear to Co-Axial Termination and Flashing) Dura-Vent #923GK
3. High Wind Termination Cap Dura-Vent #991
4. High Temperature Silicone
5. Four 3-1/2" Hose Clamps

*Available through your local HearthStone dealer.

Venting System Installation

Before You Begin

Make sure the masonry fireplace and flue comply with the applicable codes and are in good condition. Repair any damage before installation of the Killington begins. Prepare a zero clearance (metal) fireplace by doing the following:

-Place the label provided on the Z.C.

-Remove the damper, grate, and log set.

-If necessary, remove the smoke shelf, internal baffles, screen, masonry lining and doors. (see the Dimensions in *Figure 1*).

-**DO NOT** remove any insulation or structural frame members.

-**DO NOT** remove or alter the metal sides, floor, door frame, or face of the fireplace.

The gas line will enter the valve on the right side of the unit, with a 24" flexible connector which is provided.

Installation of The Co-linear Vent Pipe

- ▮ Mark each end of one of the flexible vent pipes "intake" with a permanent marker. Mark each end of the other flexible vent pipe "exhaust".
- ▮ Apply the high temperature silicone on the upper portion of the vent (flex pipes to co-linear to co-axial adaptor). **Important:** Make certain the pipe connected to the exhaust on the stove connects to the exhaust portion of the co-linear to co-axial adaptor. Be sure to meet all the manufacture's requirements when installing the adaptor and cap assembly. Follow the manufactures instructions when installing the same. (The exhaust pipe on the co-linear to co-

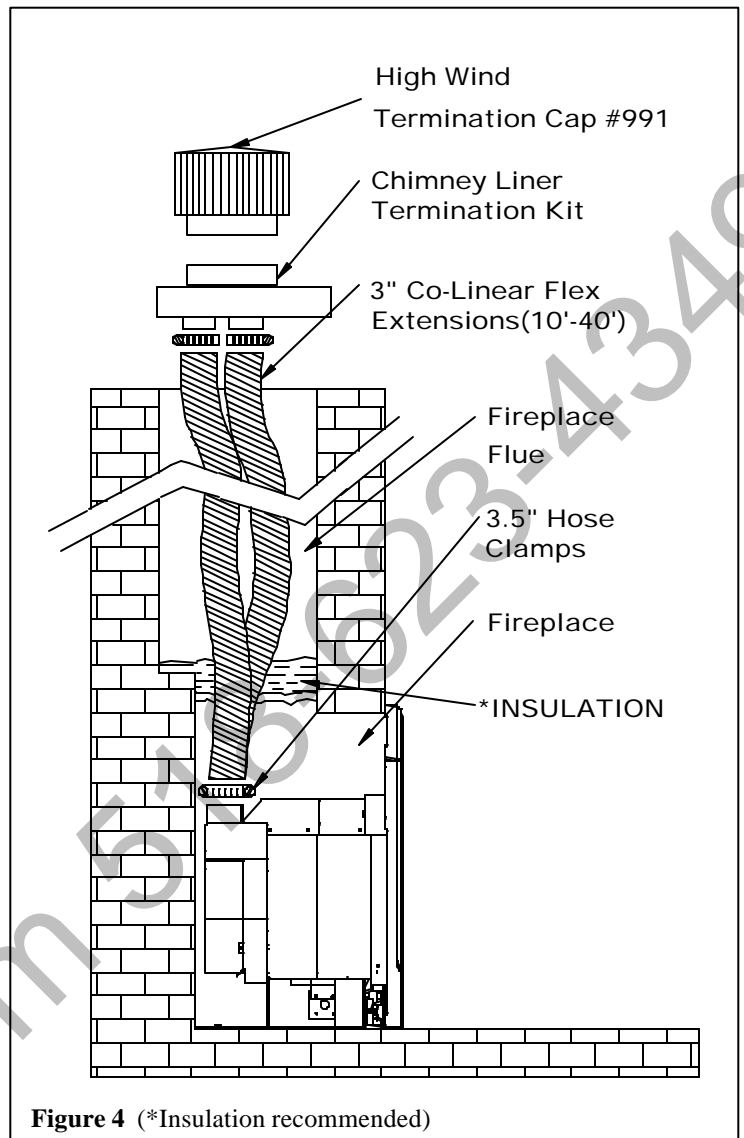


Figure 4 (*Insulation recommended)

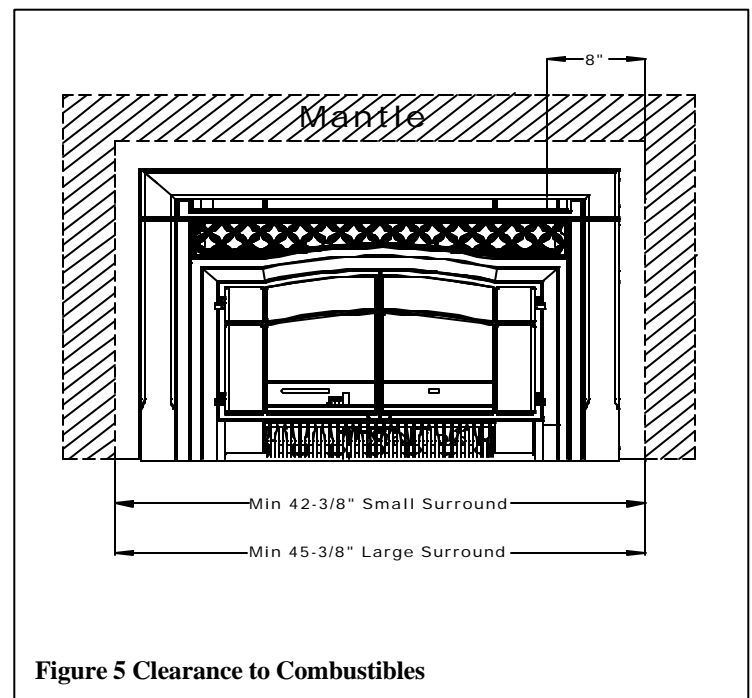


Figure 5 Clearance to Combustibles

axial adaptor is the pipe that is in the center of the adaptor.)

- Repeat this process to the top outer edge of both the intake and exhaust collars on the back of the unit. The exhaust adaptor is the collar nearest the center of the unit, the intake adaptor collar is on the right side of the stove (refer to Figure 1, on page 5 & Figure 5 on page 8). Install the restrictor if necessary (refer to Figure 3 on page 7). Slide a hose clamp over the ends of both flexible vent pipes. Place the flexible vent pipe marked "intake" onto the intake collar, place the flexible vent pipe marked "exhaust" onto the exhaust collar. Secure them to the collar adaptors by tightening the hose clamps with a slotted screwdriver or 5/16" nut driver.

- The following guidelines must be observed when installing the vent pipes:

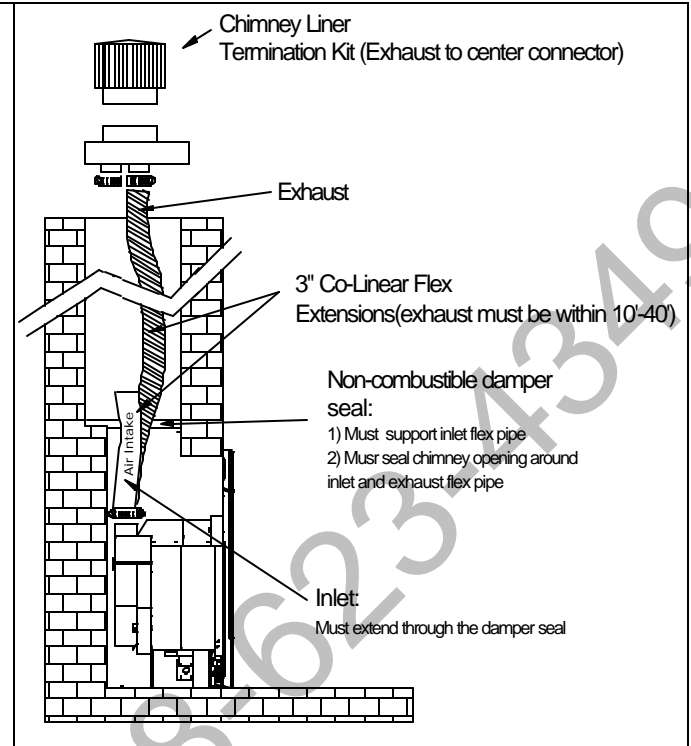
- Do not install the venting into a chimney serving another appliance, be it fossil fuel, solid fuel, or another gas.
- Do not crimp or rupture the vent pipes.
- Both the Exhaust and Intake vent pipes must reline the **entire** length of the chimney. The exhaust and inlet vents **must terminate above the top** of the chimney using the appropriate vent termination components listed in these instructions.

2. Using the existing chimney as an air inlet

The following installation procedure is not covered under the ANSI Z21.88 test method and product certification. Use of an existing chimney as an air intake must be specifically approved by your gas supplier and the local code Authority Having Jurisdiction.

The chimney flue must be carefully sealed from the room environment. Fabricate a plate of non-combustible material and carefully fit it to the damper area with high temperature sealant.

This stove is certified for use with a coaxial venting system. ANSI Z21.88 standards state that the maximum leakage rate for the venting system is 32 SCFM @ .06" w.c. This leakage must be accounted for if you use the chimney for intake air.



NOTE: All joints must be sealed. Leakage around the damper seal must be avoided.

WARNING: This installation may not work in a negative pressure environment, or if a seal cannot be attained. If sooting, ghosting of flame occurs, please check and repair leakage of chimney system.

CAUTION

A reverse flue condition may occur if the venting is not attached correctly, or if the unit is lit before the glass front is secured. A reverse flue condition may damage the unit.

ELECTRICAL CONNECTIONS

NOTE: OPEN VALVE DOOR ON THE CENTER BOTTOM OF THE FRONT FOR ELECTRICAL AND GAS CONNECTIONS

Electrical Grounding Instructions

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug. Place the receptacle to the right of, or behind the unit.

Switch Plate

The Killington comes pre-wired to the control switches. To install, simply use the two 10-24 x 1/2" screws to mount the plate to the left surround panel. The plate will fit in the recessed side of the surround.

Thermostat

The fireplace insert is operated by the on/off/thermostat switch. The Killington may also be controlled by the wall mounted thermostat for automatic operation. We recommend installation of the thermostat for more comfortable, automatic performance, however you may still override the thermostat by setting the switch to "on". The thermostat controls the unit by "calling for

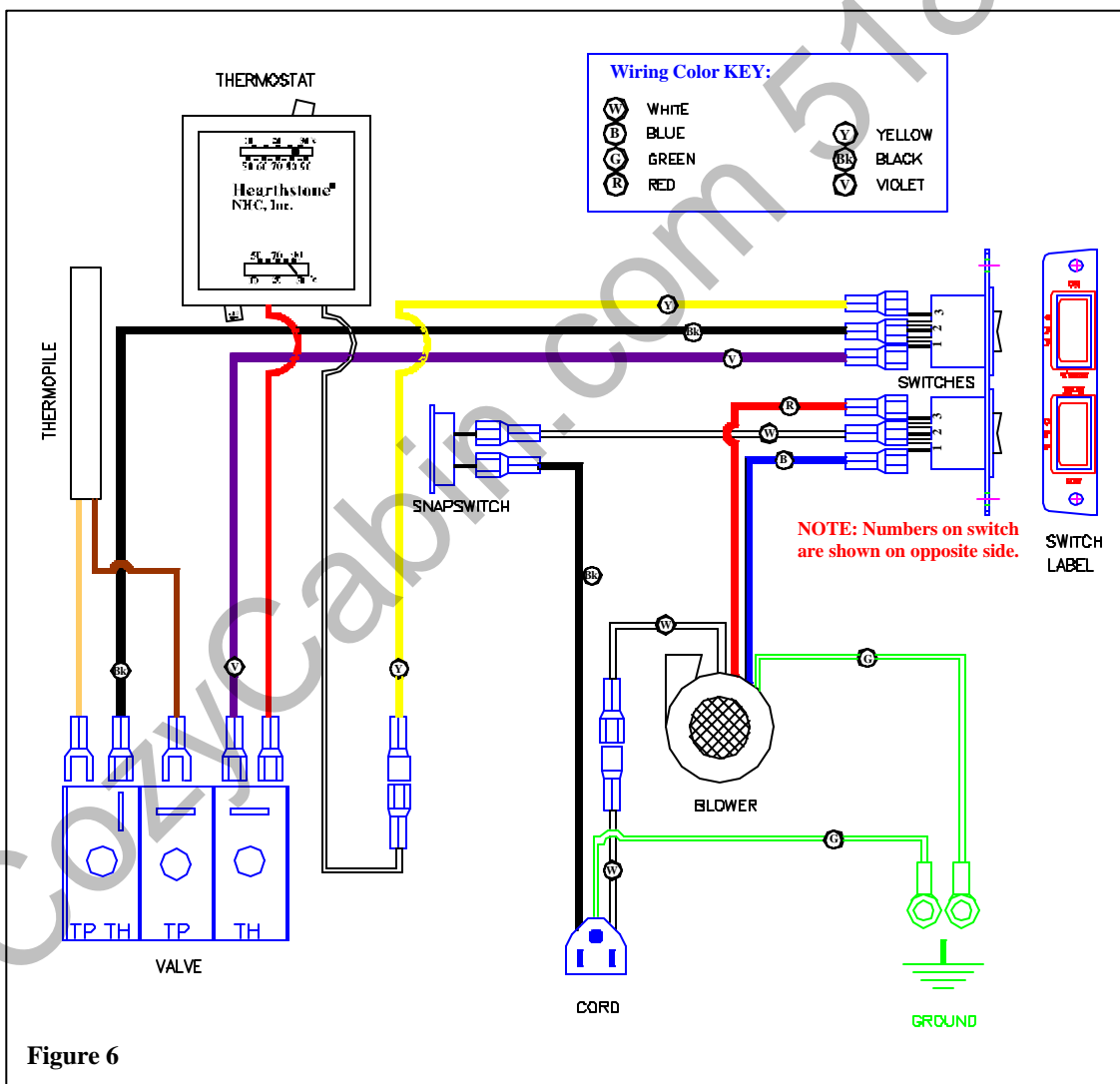
heat." The thermostat turns the unit on when the room is cold, and turns the unit off once the room is warmed sufficiently. The thermostat is controlled by a 750 millivolt DC two-wire circuit. The thermostat comes with 40' (12m) of thermostat wire.

Thermostat Wiring

The thermostat wire from the unit to the thermostat can be surface mounted, routed under the floor, or through walls, etc. The thermostat should be connected to the unit using the 40' (12 m) of insulated thermostat wire, provided, but must not exceed 40' (12 m) in length. Be sure to leave a small coil of wire behind the unit so that it can be moved out of position for servicing and cleaning.

Thermostat Placement

The thermostat should be placed in the same room or living space as the unit. Typically 5' (1.5 m) off the floor and away from any influences that may 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, or a nearby drafty window. Placement of the thermostat on an inside wall rather than an outside wall is preferable. Do not place the thermostat directly over or too close to the unit, otherwise heat from the unit will immediately satisfy the thermostat and turn the unit off.



Wiring

Instructions

(Location of the valve post connections can be found by opening the bottom center grill on the front of the unit. Also refer to *Figure 7 on page 11.*)

The proper location of wire connections is shown in *figure 6*, on this page. When making these connections, position the thermostat wire so it

extends out the side surround panel towards the thermostat. (At the thermostat, the wires should be connected to the two connection screws on the back of the thermostat 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. Now attach the wires in their proper location on the firebox.

GAS SUPPLY AND CONNECTIONS

NOTICE: A qualified technician must connect the heater to the gas supply and leak test the unit before it is approved for use. Consult all local codes.

WARNING: 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.

We recommend using new black iron or steel pipe only. Internally tinned copper tubing can be used in some areas when permitted by local codes. Only use pipe of sufficient diameter to allow full gas volume to heater, without undue loss of pressure. Excessive pressure loss will occur if the pipe is too small.

The gas supply line must include a manual shut-off valve and union so the unit can be disconnected for servicing. Also a sediment trap and a 1/8" N.P.T.

plugged tapping 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 and burners. Failure to install a sediment trap could prevent the heater from operating reliably. The 1/8" N.P.T. plugged tapping is installed for the test gauge connection (immediately upstream of the gas supply connection). Damage to the valve caused by lack of a sediment trap will not be covered by the warranty.

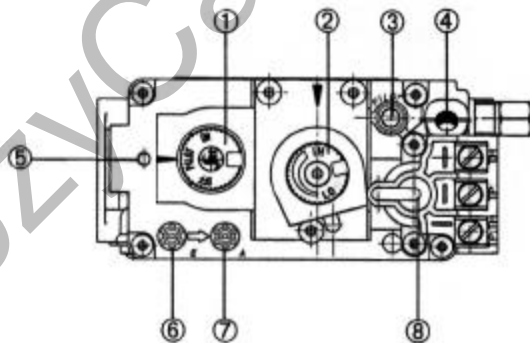
We have supplied a 24" flexible stainless steel gas line for installation convenience and to avoid undue mechanical load on the valve. We recommend using the flexible line, but also refer to local code. The gas supply line connection is made to the flexible line in the lower rear right portion of the Killington. Apply a thread sealant to both male ends on the flexible gas line. Thread one end directly into the valve and the other to a 3/8" connector on the gas line.

CAUTION: Check Gas Type! This unit is supplied as NG only. The gas supply must be the same as stated on the heater's rating plate (located on the unit). If the gas supply is different, **DO NOT INSTALL** the heater. Contact your dealer for the correct model or conversion kit.

Gas Pressure Adjustment: A QUALIFIED TECHNICIAN MUST PERFORM THIS PROCEDURE

VALVE DESCRIPTION

- | | |
|--|------------------------------|
| ① Gas cock knob | ⑥ Inlet pressure test point |
| ② Manual HI-LO adjustment or pressure regulator adjustment | ⑦ Outlet pressure test point |
| ③ Pilot adjustment | ⑧ Main operator |
| ④ Thermocouple connection | ⑨ Pilot outlet |
| ⑤ Mounting for piezo & bracket | ⑩ Main gas outlet |



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

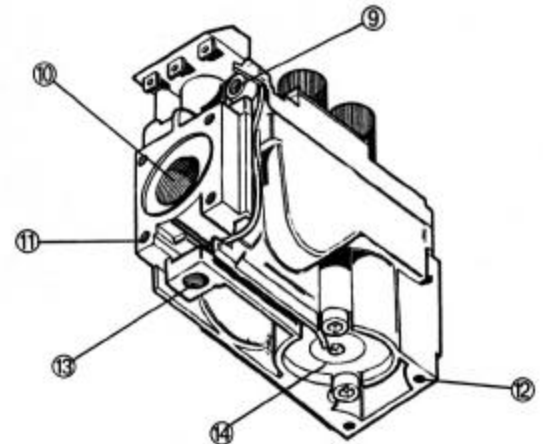


Figure 7

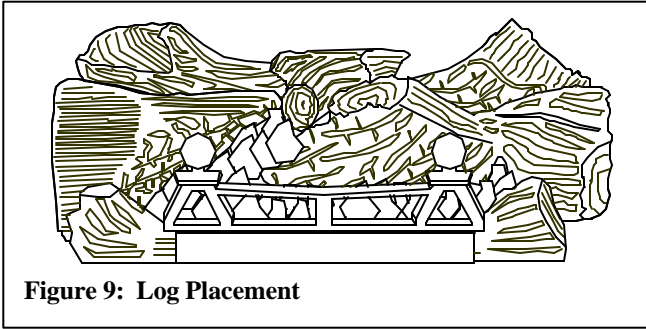


Figure 9: Log Placement

The supply line pressure is tested, to ensure it meets minimum pressure requirements, as listed in the Specifications sections of this manual, for the type of fuel in use (NG or LP). The unit 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 1/2 psig. During tests in excess of 1/2 psig. (14" w.c.), the heater must be disconnected from the gas supply system. Test by connecting a manometer to the supply line. Adjust the incoming pressure, if necessary, to meet the required supply line pressure. Once connected to the gas supply, the gas inlet pressure and manifold gas pressure must be tested. The gas inlet tap (6) and manifold pressure tap (7) is located on the control valve (see Figure 7). Connect a manometer to the test points on the gas control valve, refer to #'s 6 & 7 of Figure 7 for locations.

NOTE: For installations from 610-1370 meters (2000-4500 ft.) the orifice sizes (DMS) for natural and propane gas are 47 and 57 respectively (2 each). (*Cet appareil est équipé pour des altitudes comprises entre et 2000-4500 pieds (610-1370m) seulement.*) 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 unit must be adjusted, the information sticker (provided with the high altitude kit) must be filled out completely and mounted to the unit per the instructions provided with the kit.

ASSEMBLING THE UNIT

Log Placement Within The Unit

Fragile! Handle logs with care. Always wear gloves and safety goggles while handling the log set.

NOTE! The rear and middle logs with "locator" posts should be on the right side of the firebox when installed.

The logs set and an ember screen must be placed in the firebox at their precise location. Remove the front glass as described in the Inspect for Damage section of this manual, on page 6. Using the "locator" tabs on the bottom of the rear logs, position the rear logs on the ridge to the back of the firebox near the base of the firebox. Next, place the two middle logs with grooves over the two burner tubes. The face should be parallel to the leg of the burner tubes. Now the center rear twig will fit over the "locator" posts on both the rear and middle logs. Position the front log in front of the burner tubes on the base of the firebox. Place steel andiron support centered on top of the front log. Place the ember screen over the two burner tubes. It will fit tightly around the right middle log and in front of the left middle log. Next, place the andiron on the steel andiron support groove on the front log. The log set should appear as in Figure 9.

NOTE

When installing the embers be sure to leave gaps throughout the burner. (This is important to allow for proper ignition of the burner tube) It is recommended to experiment with arranging of the embers to achieve a pleasing flame pattern. **Leave embers off the pilot to allow the pilot flame to ignite the ignition ports on the burner tube.**

Open the two bags of embers and distribute the large embers evenly across the burner tubes, on top of the ember screen. Next, scatter the small embers throughout the burner to create a pleasant flame pattern, leaving gaps throughout the burner. Install the front glass by following the instructions as described in the Installing the "Glass and Frame" section on page 13 of this manual.

Log Set Removal

To remove the log set, follow the "Log Placement Within the Unit" instructions in the reverse order on page 12.

Installing The Surrounds To Unit

(Refer to Figures 10 & 11)

You will need to determine which surround set you will need, the standard or the large using the following dimensions:

Standard Surround Set

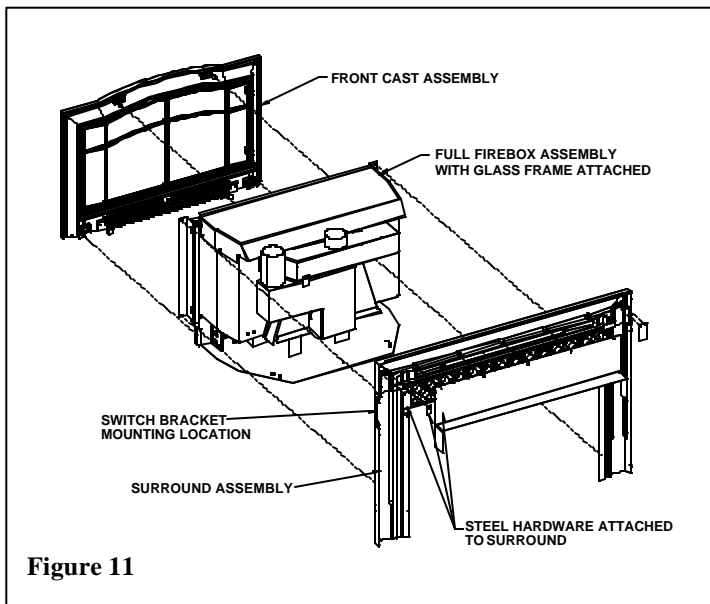
Height: 27.5"

Width: 38"

Large Surround Set

Height: 31.75"

Width: 44"

**Figure 11**

Each surround set will have the following hardware:

- 1 – Left Side Panel
- 1 – Right Side Panel
- 1 – Top Panel
- 2 – Top To Side Panel Clips
(w/ 8 10-24 x 1/2 bolts)
- 1 – Modesty Panel (w/ 3 10-24 x 1/2 bolts)
- 2 – Surround To Grill Clips (w/ 2 10-24 x 1/2 bolts)
- 4 - 10-24 x 1/2 bolts (for surround to firebox fit)

NOTE: The large and small surround sets use the same hardware kits.

Attach the left and right flanges, which come in the log accessory box, to the sides of the firebox, using the four screws also included. (for placement see figure 10)

- Ⓟ Attach the two side surrounds to the firebox using 4 screws, 2 per side.
- Ⓟ Attach the top decorative grill to the two side surrounds by using one screw and one clip per side.
- Ⓟ Attach the top surround to the two side surrounds by using one clip and four screws per side.
- Ⓟ Attach the steel modesty panel to the top surround by using 3 screws to the top panel.
- Ⓟ Attach the switch plate to the surround using 2 10-24 x 3/8" self tapping screws.

WARNING: Failure to position the parts in accordance with the Figures in this manual, or failure to use only parts specifically approved with this appliance may result in property damage or personal injury

Installing The Unit

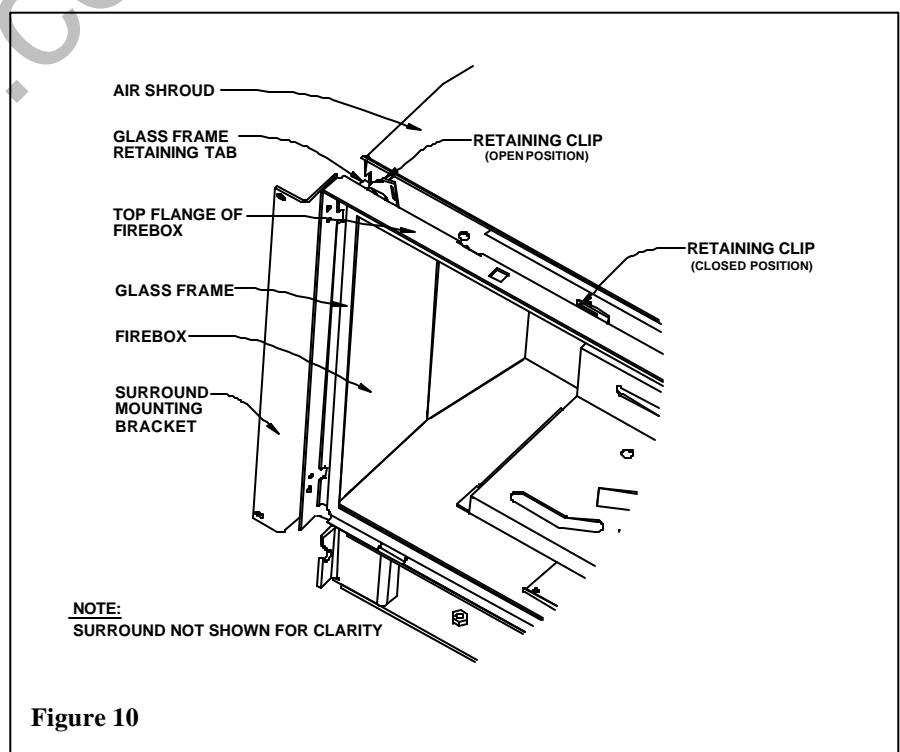
Place a level on top of the unit. Leg leveling bolts are located in the front and rear of the base plate. Adjust the rear leveling bolts now as they will not be accessible once the unit is fully inserted into the fireplace.

- Ⓟ Push the unit as far into the fireplace as you can, leaving just enough room for the fan power cord to exit on the bottom right side, between the surround and fireplace.
- Ⓟ Before replacing the front cast, carefully unwrap and place the log set into the unit. Refer to the Log Placement section of this manual, on page 12 for the precise positioning of the log.

Installing The Glass And Frame

(Refer to Figures 10.)

- Ⓟ Set the bottom of the glass frame into the two grooves on the bottom of the firebox.

**Figure 10**

- ⌋ Push the top of the glass/frame into the firebox.
- ⌋ Pull the 4 retaining clips down, securing the glass into the firebox seal.
- ⌋ Attach the front cast to the firebox by setting the two knobs into the receiving holes on the firebox. Center the front and push the top in until it “clicks” shut.

Place a level on the top of the unit. Two leveling leg bolts are located in the front of the base plate. Use a wrench to turn these bolts up or down as necessary to level the unit. Note, leveling bolts are also located in the back of the base, but the insert must be pulled out of the fireplace to gain access to them.

LIGHTING THE UNIT FOR THE FIRST TIME

CAUTION: Lighting the Killington for the first time and adjustments to the unit should be performed by qualified service personnel.

Smoke and Fumes Warning

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

Odors and Impurities

A heater of this type may produce odors during heater operation due to impurities that may exist in the immediate area. Sources of impurities can be cleaning solvents, paint solvents, cigarettes, smoke, pet hair, dust, adhesives, new carpet, and/or textiles. Such odors will dissipate. However, the condition can be alleviated by opening a window or otherwise providing additional ventilation to the area. If any odor persists, contact your dealer or an authorized service technician.

Pilot Light Warning

The Killington has a piezoelectric spark ignitor (the push button located next to 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 ignitor.

Prepare for Lighting

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 knob and turn it fully counter-clockwise to the highest setting.

Initial Adjustments

Once the Killington has been set in place, connected and assembled as described in the Assembly Of The Unit, Electrical Connections, and Gas Supply & Connections sections of this manual, the unit is ready to be lit for the first time. Each unit 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.

Prior to lighting the unit for the first time, wait 5 minutes to allow any residual gas within the unit to dissipate. 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 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.**

Lighting the Unit

NOTE: The gas control knobs and the piezo ignitor are located behind the lower gas control access door.

1. STOP! Read the **What To Do If You Smell Gas!** warning (on the cover of this manual).
2. Set the control switch to “OFF”, and (if so equipped) the thermostat to the “OFF” position.
3. Push in and turn the gas control knob clockwise

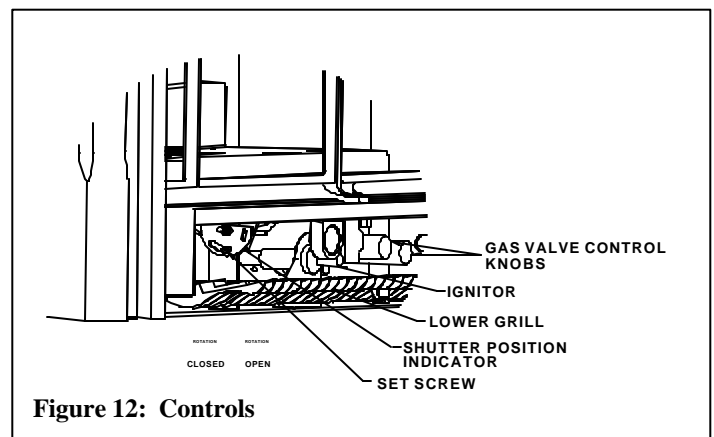


Figure 12: Controls

to "OFF".

4. Wait (5) five minutes to clear out any gas. If you then smell gas, **STOP!, immediately follow the *What To Do If You Smell Gas!* warning** (on the cover of this manual). 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 do not smell gas, proceed to the next step.
5. Push in and turn the gas control knob counterclockwise to "PILOT".
6. Push the control knob in all the way and hold it there. Immediately light the pilot with the piezo lighter (push in and "click" the piezoelectric spark ignitor button several times until lit). Continue to hold the control knob in for about 20 seconds after the pilot is lit. Release the knob and it will pop back out. The pilot should remain lit. If the pilot goes out, repeat the operation.
 - If the knob does not pop out when released, stop, shut off the gas supply to the heater, and immediately call a qualified service technician or gas supplier
 - If the pilot will not stay lit after several tries, turn the gas control knob clockwise to "OFF" and call a qualified service technician or gas supplier.
7. After the pilot lights, turn the gas control knob counterclockwise to "ON".
8. Shut the gas control valve access door.
9. Set the "ON/OFF/THERMOSTAT" switch to "ON" or to "THERMOSTAT". If using the optional thermostat, turn the thermostat to "ON" and set the desired temperature.

NOTE: When pressing/clicking the piezoelectric spark ignition button to light the pilot, watch through the glass (front) of the unit. "Click" the ignitor button until a flame is visible at the pilot. Once the pilot is lit, continue to press on the gas control knob for another 20 seconds, then release. Ascertain that the pilot 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 fails 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 the Interlock to release. Then repeat the lighting process as described in this section of the manual.

Once the pilot has been lit, and the gas control knob has been turned to the "ON" position, the main burners are lit by setting the "ON/OFF/THERMOSTAT" switch to "ON" or to "THERMOSTAT". If using the optional

thermostat, turn the thermostat to "ON" and set it to a higher position 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 is controlled by the thermostat, but the pilot remains lit regardless of the thermostat setting. To turn the pilot off, turn the gas control knob fully clockwise to the "Off" position.

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 (APRX. 60 SEC). THE GAS CONTROL KNOB IS DESIGNED TO BE OPERATED BY HAND. NEVER USE ANY TOOLS DURING THIS OPERATION. IF THE KNOB WILL NOT PUSH IN OR TURN BY HAND, DON'T TRY TO REPAIR IT, CALL A QUALIFIED SERVICE TECHNICIAN. DAMAGED KNOBS MAY RESULT IN FIRE, EXPLOSION, OR SERIOUS INJURY.

Turning Off the Unit

1. Set the "ON/OFF/THERMOSTAT" switch to the "OFF" position, or turn the thermostat to the "OFF" position.
2. If shutting the unit off for the non-heating season, turn the gas control knob fully clockwise to the "OFF" position. Do not force the knob to turn.

PILOT AND BURNER FLAMES

Variable Output Control

The gas control valve is equipped with a variable output control. This control varies the rate of heat produced by the

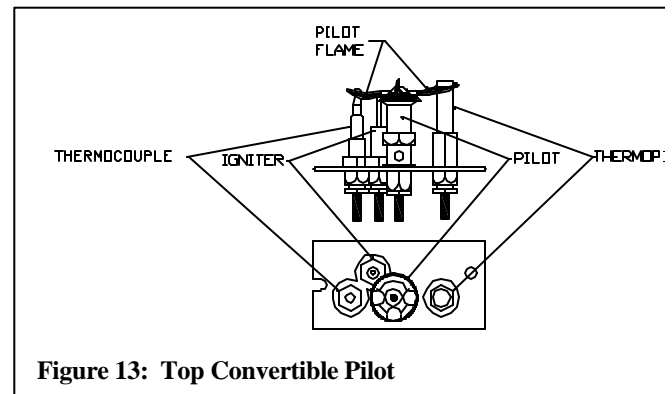


Figure 13: Top Convertible Pilot

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

turns on and off too often, try, first, reducing the burn cycle by turning the HI/LOW knob, on the control valve to a lower setting. 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", "LO", or any setting in between.

Air Shutter

Only qualified personnel should adjust the air shutter. The air shutter is used to regulate the air-to-gas combustion mixture which influences the size and color of the flames. The air shutters have been positioned in the general location needed for the type of gas being used. If the stove is being converted for use with a different fuel the air shutters will need repositioning. If the unit is not burning as well as it should, then the air shutters may need adjusting. To adjust the air shutters, open the valve control door and locate the shutter position indicator, as shown in *Figure 12*. Loosen the position indicator set screw. The rod should be free to move. The open position (LP) is a counterclockwise rotation, and the closed position (NG) is a clockwise rotation. Carefully adjust the position of the shutter indicator to the desired location. Then tighten the set screw. Very little movement is needed to substantially change the burn and flame pattern.

Pilot Adjustment

The pilot light is preset by the manufacturer and should not need adjustment. The pilot flame should be large enough to engulf the thermopile and the thermocouple, 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. Open the valve door to access the pilot adjustment screw. *Refer to # 3 of Figure 7, on page 11*, to determine the location of the pilot adjustment screw. Note that the pilot flame must engulf the thermopile so the thermopile can generate sufficient milli-voltage (325 to 750mv) to power the millivolt gas control valve. The flame on the pilot should look like *Figure 13*. Controlling the Killington by the wall mounted thermostat may become erratic, nonexistent, or the unit may go out, if the pilot flame is too small or misdirected away from the thermopile.

Burner Flame Appearance

Once the unit is lit, observe the flame pattern and adjust as necessary. Also a periodic visual check of the burner

flame should be performed. To determine if the burner flame needs adjustment, it is necessary to view the flame pattern with the variable output control knob at its highest setting (turned fully counter-clockwise). Allow the unit to operate for 10 minutes enabling the entire unit to reach temperature and for the flame pattern to stabilize. The flame pattern should be similar to the one shown in *Figure 14*. There are several guidelines to aid in determining if the flame pattern is correct:

- 1) The flame should not be dirty, smokey, sooty, or lick the top of the stove.
- 2) The flame should not raise off of the burner tube, called "lifting". Flames should not impinge heavily on log set, they should "fit" through the pre-formed spaces designed in the log set.

DAILY OPERATION

The Killington gas-fired heater is easily operated by the homeowner once installed and adjusted by a qualified service technician. The unit can be controlled automatically, with a thermostat, or manually. The unit is controlled manually by setting the "ON/OFF/THERMOSTAT" switch (upper switch) in the "ON" position. The main burner will stay on constantly. In the "OFF" position, only the pilot remains lit but the main burners and thermostat will not operate. If you want the unit to be controlled automatically via the wall-mounted thermostat, set the switch to "THERMOSTAT". By setting the thermostat to the desired room temperature, the unit will cycle on and off as requested by the room thermostat or remote, available through your HearthStone dealer. 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 you can select the optimum flame size for your setting and application. During the summer, non-heating season, switch the wall thermostat and rocker switches to "OFF", and turn off the pilot. This will improve the overall efficiency of the unit as the heat from the pilot is not wanted in the summer. When putting the unit back into service follow the Lighting the Unit portion in the How To Turn the Unit On & Off section of this manual.

When the unit is first lit, especially when cool, it is normal to experience some condensation on the inside of the glass window. This condensation will burn off within the first few minutes of operation. If continuous

condensation or water drips are noted from any part of the unit, immediately discontinue operation of the unit and contact a qualified service technician.

MAINTENANCE AND CARE

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

WARNING: Do not substitute Materials

For replacement parts, or for information about parts or

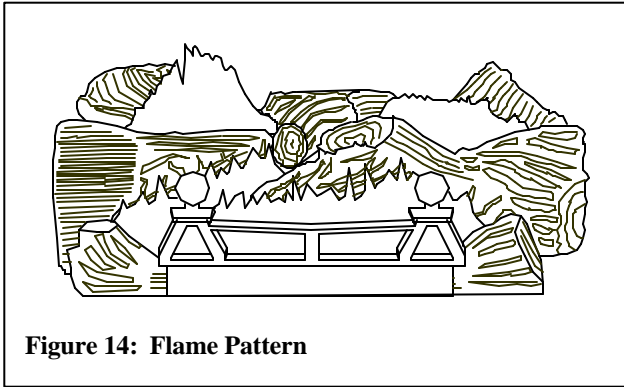


Figure 14: Flame Pattern

service, contact your local HearthStone dealer.

NOTE: Label all wires prior to disconnecting when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

Replacing The Glass

1. Remove the cast front by lifting and pulling away from the unit. Carefully set aside.
2. Pull the 4 retaining clips up.
3. Pull the top of the glass and the frame out and up.
4. Drill out the rivets that hold the glass to the frame.
5. Pull the glass apart from the frame.
6. Tape the new glass with new $\frac{3}{4}$ inch tape. (available through your HearthStone dealer)
7. Reattach the glass to the frame using $\frac{1}{8}$ "x $\frac{1}{8}$ " rivets.
8. Install frame per the instructions on page 13

Cleaning

WARNING: DO NOT CLEAN THE UNIT WHEN HOT! The unit should receive regular cleaning on, under, and around the stove to prevent the buildup of dust and lint. The exterior surfaces of the unit can be cleaned using soap, water, and a soft cloth. **Do not use** abrasive or chemical cleaners and take care not to scratch the glass or enamel finish (if so equipped) when cleaning the unit.

Firebox

The firebox should receive periodic cleaning to prevent the accumulation of dust, lint, and other debris. To clean the firebox, set the valve to the "OFF" position, and turn off the gas at the gas control valve. When the unit is cool, remove the front and carefully remove the decorative ceramic fiber log set (after it has cooled), taking care not to damage the log or chip the enamel cast iron. Clean the firebox, burner tube, pilot assembly, 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 and the pilot assembly.

Pilot & Burner Flames

Check and clean any burner ports which were not burning properly or at all. Clean burner ports using a soft brush or vacuum cleaner. If the pilot flame height needs adjustment it should be adjusted by a qualified service technician as described in the Initial Adjustments section of this manual.

Complete the cleaning procedure by carefully placing the log set within the firebox as described in the Log Set Information section of this manual. Close and fasten the front. Turn on the gas, light the unit and check for proper operation. Flame patterns should look like the one pictured in Figure 14, on page 17. Regularly check to insure the area around the Killington 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. **Once a year the unit should be inspected by a qualified service technician to ensure that it is clean, free of obstruction, safe, and in good working order. If service or maintenance is required, it should be performed by a qualified service technician.**

Cleaning the Glass

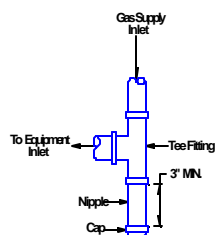
If operating on propane, it may be necessary to clean the inside of the glass after break-in and occasionally. Do not use abrasive cleaners, steel wool, or a razor blade.

Scratching the glass will weaken the integrity. Your dealer will usually stock a gas fireplace glass cleaner or a window cleaning fluid will work adequately. **Do not clean when hot!!**

WARNING: Do not operate this appliance with the glass panel removed, cracked or broken. Contact your authorized dealer for replacement glass.

For replacement parts, or for information about parts or service, contact your local HearthStone dealer. For the name of the dealer nearest to you, contact:

HearthStone
317 Stafford Ave.
Morrisville, Vermont 05661
E-Mail: gastech@hearthstonestoves.com



Sediment Trap

PARTS LIST

Cast

Bottom Grill	2810-280
Frame	2810-300
Left Door	2810-340
Right Door	2810-360
Top Grill	2810-400
Small Surround Top	2810-776
Small Surround Right Side	2810-774
Small Surround Left Side	2810-772
Large Surround Top	2810-786
Large Surround Right Side	2810-784
Large Surround Left Side	2810-782
Andiron	2421-341
Heat Exchanger	2810-824
Heat Exchanger Base	2810-825

Steel

Pilot Shield	5300-085
Baffle	5800-080
On/Off/Stat Switch Bracket	5800-200
Air Shutter Indicator	5800-210
Air Shutter Arm	5800-230
Air Shutter	5800-240
Shutter Packing Clip	5800-250
Burner Tube Placement Clip	5800-260
Firebox	5870-010
Front Bottom Bracket	5870-012
Front Top Bracket	5870-016
Air Shutter Rod	5870-020
Left Bottom Grill Hinge	5870-025
Right Bottom Grill Hinge	5870-027
Burner Pan	5870-030
Secondary Air Plenum	5870-035
Andiron Support	5870-037
Air Inlet Plenum	5870-040
Air Exit Plenum	5870-050
Restrictor Plate	5870-055
Left Blower Duct	5870-060
Right Blower Duct	5870-070
Top Blower Duct	5870-080

Steel cont.

Glass Frame	5870-090
Glass Retainer Clip	5870-092
Glass Clip	5870-095
Surround Bracket	5870-100
Modesty Panel	5870-110
Ember Screen	5870-120
Grill Clip	5870-130
Hinge Clip	5870-140
Surround Clip	5870-150

Miscellaneous

Owner's Manual	6400-40439
On/Off/Stat Switch	7000-200
Main Burner Orifice #46 (NG)	7200-131
Ignitor	7210-103
Gas Supply Tube 3/8" x 24"	7211-016
Main Burner Manifold	7211-052
Left Burner Tube	7211-235
Right Burner Tube	7211-236
Valve (NG)	7211-300
Thermostat Remote Assy	90-56914
4 Way Pilot Assembly (NG)	7211-372
Thermocouple	7211-470
Thermopile	7211-090
Pilot Orifice .62 mm(NG)	7211-163

KITS/ASSEMBLIES

NG to LP Conversion Kit	98-56301
Pilot Orifice 35mm (LP)	7211-136
Main Burner Orifice #56	7200-125
LP to NG Conversion Kit	98-56300
Large Surround Assembly	98-5970110
Small Surround Assembly	98-5970010
Standard Remote Assy	90-56912
Front Door Screen Kit	98-69700
Front Cast Assy	98-5170010
Blower Assembly	7211-942

TROUBLESHOOTING

Symptom	Possible Cause	Corrective Action
1. Pilot will not light.	<p>A. Insufficient gas pressure, air in the pilot line, or dirty or kinked gas line.</p> <p>B. Pilot orifice plugged.</p> <p>C. Defective or misaligned electrode at pilot.</p> <p>D. Defective ignitor.</p> <p>E. After sitting for "off" season (summer), pilot assembly may be dirty</p>	<p>A. Using the piezo ignitor, try to light the pilot. If it will not light, check the inlet gas pressure.</p> <p>B. Clean or replace the pilot assembly</p> <p>C. If a match lights the pilot, check the electrode gap and location. Should be a 1/8" gap in the flame area.</p> <p>D. Check for a good connection between ignitor and electrode. Check wire insulation. If properly connected and no spark, replace ignitor.</p> <p>E. Clean or replace the pilot assembly</p>
2. Pilot will not stay lit after carefully following lighting instruction.	<p>A. Low or too high gas pressure</p> <p>B. Faulty connections</p> <p>C. Defective thermocouple.</p> <p>D. Pilot dirty or plugged</p>	<p>A. Check for proper inlet pressure for the gas being used.</p> <p>B. Measure voltage between valve body and solder connection on the rear of the valve (where the blue wire connects). It should be no less than 7 mV.</p> <p>C1. Ensure that the thermocouple connection at the gas valve is tight.</p> <p>C2. Check thermocouple output using milli-volt meter. Disconnect from valve and read voltage across wire ends. If the reading is less than 14 mV, replace the pilot assembly.</p> <p>C3. Check pilot flame to see that it is impinging on the top of the thermocouple. Clean or replace pilot for maximum flame impingement.</p> <p>D. Clean or replace the pilot assembly</p>
3. Pilot burning, no gas to main burner, valve knob in the "ON" position, wall switch in the "ON" position.	<p>A. Thermostat switch or wires defective.</p> <p>B. Thermopile may not be generating sufficient voltage.</p> <p>C. Plugged burner orifice.</p>	<p>A. Check thermostat/wiring for proper connections. Place Jumper wire across terminals at thermostat. If burner comes on, replace defective thermostat. If not OK, place jumper across thermostat wires at gas valve. If burner comes on, tighten connections, or replace faulty wires.</p> <p>B. Check thermopile output, using a milli-volt meter. If the optional on/off kit has not been installed, take the readings across generator terminals of the gas valve. (TPTH and TP). With the on/off kit, take the readings across TH and Terminal block (which corresponds to #3 on the switch). Millivolt reading should be greater than 325 mV. If not, replace the pilot assembly. If the meter reading is OK, but the burner does not come on, replace the gas valve.</p> <p>C. Remove and check burner orifice, clean or replace. Note: do not use any metal cleaning device, as this may damage the orifice.</p>
4. Pilot and burner come on, but go out after some warm-up.	<p>A. Inconsistent, or insufficient flame on thermopile.</p> <p>B. Insufficient gas pressure.</p>	<p>A. Adjust pilot flame size and assure that the flame is aimed directly at the thermopile.</p> <p>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.</p>
5. Frequent pilot outage problem.	A. Pilot flame may be too low or blowing, (high), causing the pilot safety to drop out.	A. Clean and/or adjust the pilot flame for maximum impingement on the thermopile and thermocouple.
6. Glass fogs	A. A normal result of gas combustion.	A. After the heater has warmed up, the glass should clear.

Symptom	Possible Cause	Corrective Action
7. Blue Flames	A. A normal result during the first 20 minutes.	A. Flames should begin to turn more yellowish after 20 minutes of burning. B. If blue color stays, adjust the air shutter for a proper burn.
8. Floating flames, lazy ill-defined, quiet flames which roll around, sometimes completely off of the port, sometimes with overly yellow tips). Possible sooting. Usually accompanied by the odor of aldehydes.	A. Potentially dangerous incomplete combustion due to incorrect air to fuel ratio (lack of combustion air or excessive fuel delivery i.e. excessive gas pressure, overrating of appliance). B. Incorrect air intake/exhaust flow system. Causes may be: B1. Blocked burner B2. Blocked primary air B3. Blocked secondary air inlets	A. Check the appliance input rate and reduce if necessary. The air intake/exhaust flow system may be too restrictive or blocked (the rate at which the exhaust leaves [draft] determines the rate at which the combustion air is delivered). Poor draft results in insufficient air delivery or a restricted exhaust. Correct air intake/exhaust flow system. B1. Clear ports B2. Clear obstructions B3. Clear obstructions. C. If gas pressures are correct and the flames stay the same, adjust the air shutter for a proper burn.
9. Burner Flashback. Air-gas mixture ignites inside the burner near the orifice, usually creating a roaring noise like a blow torch. The problem is an imbalance of gas flow velocity and burning speed pattern.	A. Excessive. B. Burner input underrated. C. Valve leak if flashback occurs with burner valve in off position D. Improper gas pipe size	A. Adjust the air shutter for a proper burn. B. Check input rate. Check input pressure using a manometer. Confirm correct gas pressure at house meter or tank (call gas company). Confirm burner orifice size. C. Replace valve. If above corrections do not eliminate flashback, replace burner. D. Correct plumbing
10. Delayed ignition (makes a sudden "whoosh" noise as the burner lights). This is a buildup of gas's prior to ignition. This is more prevalent with propane (LP) fuel.	A. Incorrect air-to-fuel ratio. A1. Primary air incorrect A2. Burner ports plugged B. Improper log placement	A1. Adjust the air shutter for a proper burn. A2. Open ports to allow for proper travel of flames. B. Reposition logs to eliminate interference with flame travel

SAFETY LABEL



Manufactured by:



MODEL # 8870-

SERIAL #

MODEL NAME: KILLINGTON DIRECT VENT GAS FIRED INSERT
NOT FOR USE WITH SOLID FUEL

LISTED: GAS-FIRED DIRECT VENT FIREPLACE HEATER,
RADIATEUR VENTILE

TESTED TO: ANSI Z21.88-1998 CSA 2.33-M98 VENTED GAS FIREPLACE HEATERS
CAN/CGA - 2.17-M91

CERTIFIED FOR CANADA/HOMOLOGUE POUR LE CANADA
APPROVED FOR MOBILE HOME INSTALLATION 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). FOR MOBILE
HOME INSTALLATION, INSTALL PER THE MANUFACTURED
HOME CONSTRUCTION AND SAFETY STANDARD, TITLE 24
CFR, PART 3280 (U.S.) OR CAN/CSA Z240 MH (CANADA).
Installer l'appareil selon les codes ou reglements locaux, ou,
en l'absence de tels reglements, selon les Codes d'installation
(CAN/CGA-B149).

WARNING: Improper installation, adjustment, alteration, service, or
maintenance can cause injury or property damage. Refer to the manual
provided with this appliance. For assistance or additional information
consult a qualified installer, service agency, or the gas supplier. This
appliance is only for use with the type of gas indicated on this rating
plate and may be installed in an aftermarket, permanently located,
manufactured (mobile) home where not prohibited by local codes. See
owner's manual for details. This appliance is not convertible for use with
other gases, unless a certified kit is used. If the vent-air intake system
is disassembled for any reason, reinstall per the instructions provided
with the initial instructions.

	■ NATURAL GAS	■ LP
INPUT RATING (Btu/hr) 0-1370 m	31,000	31,000
ORIFICE SIZE (DMS) 0-1370 m	46	56
MANIFOLD PRESSURE (in. W.c./kpa)	3.5/1.15	10.0/2.48
MAN. PRESSURE - LO SETTING (in. W.c./kpa)	1.6/0.42	6.4/1.59
MINIMUM INLET PRESSURE (in.w.c./kpa)	5.0/1.24	11.0/2.88
MINIMUM INPUT (btu/hr)	20,800	24,800
MAXIMUM OUTPUT (btu/hr)	23,200	23,800

MINIMUM CLEARANCES TO COMBUSTIBLE CONSTRUCTION

TOP OF TOP AIR OPENING TO 1" MANTLE 13" / 330 mm
TOP OF TOP AIR OPENING TO 7-1/2" MANTLE 15" / 381 mm
UNIT TO SIDEWALL 8" / 203 mm

NO COMBUSTIBLES BEHIND THE TOP OF THE SURROUND

ELECTRICAL RATING: 115 VOLTS, LESS THAN 2.4 AMPS. DANGER: RISK OF ELECTRICAL SHOCK. DISCONNECT POWER BEFORE SERVICING UNIT.

THIS DIRECT VENT GAS FIREPLACE IS NOT FOR USE WITH AIR FILTERS

THE APPLIANCE MUST BE PROPERLY CONNECTED TO A VENTING SYSTEM IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION
INSTRUCTIONS. MAXIMUM VERTICAL RISE 40', MINIMUM VERTICAL RISE 10'.

THIS APPLIANCE IS FACTORY EQUIPPED FOR 0 - 2000FT.

CAUTION: Do not operate the appliance with glass removed, cracked or broken. Replacement of the panel(s) should be done by a licensed or qualified
service person. CAUTIONNER: N'opere l'appareil avec le verre enleve, craque ou casse. Le remplacement du panneau(s) devrait etre fait par une personne
de service qualifie ou autorise.

THIS APPLIANCE IS FOR USE WITH NATURAL GAS WHEN EQUIPPED WITH NO 46 DRILL SIZE ORIFICE.
THIS APPLIANCE IS FOR USE WITH PROPANE WHEN EQUIPPED WITH NO 56 DRILL SIZE ORIFICE.

Date of Manufacture
2000 2001 2002 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

This appliance is factory set for use with Natural Gas. A conversion kit for model Killington
Direct Vent supplied by HearthStone shall be used to convert this appliance to the alternate
fuel. Instructions will be included with the conversion kit. Ask for kit#98-56301 for NG to LP,
kit#98-56300 for LP to NG. Refer to the appliance data plate (above) for correct inlet and
manifold pressures, as well as input rating.

This appliance has been converted for use with _____ gas, On Day _____ Mth _____
Yr _____ with kit# _____ by _____

(name & address of organization making this conversion which accepts the responsibility that this conversion has been properly made.)

Orifice _____ Manifold Pressure _____ Input Rating _____

Cet appareil etait converti sur le jour-mois-année a _____ gaz avec L'équipement No. _____
par _____

(Nom & adresse d'organisation faisant cette conversion qui accepte la responsabilité que cette conversion a été faite correctement.)

DO NOT REMOVE OR COVER THIS LABEL

MADE IN USA

3300-557

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:

- All cast iron parts, including the cast iron heat exchanger – against breakage, cracking or burn-through.
- 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.
- 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 (5th) 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 (3rd) 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:

- Enamel Finish – against peeling or fading, **excluding** chipping, mechanical abrasion, chemical abrasion or crazing.
- Gaskets and sealants – against breakage or deterioration.
- 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 (1st) anniversary of the Purchase Date.

EXCLUSIONS

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

1. Damage resulting from installation or operation of the Stove in a manner contrary to the owner's manual.
2. 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.
3. 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").

4. Damage due to water or due to installation of the Stove in a damp or high condensation area.
5. Damage due to installation of the Stove in an atmosphere contaminated by damaging chemicals, including but not limited to chlorine, fluorine or salts.
6. Scratches on glass, enameled surfaces or stones due to mechanical abrasion.
7. Standard wear and tear of the Stove resulting from normal usage over time.
8. 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.
9. 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 STOVE 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), or call HearthStone at (802) 888-5235, 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 (1st) 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 (1st) 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.