



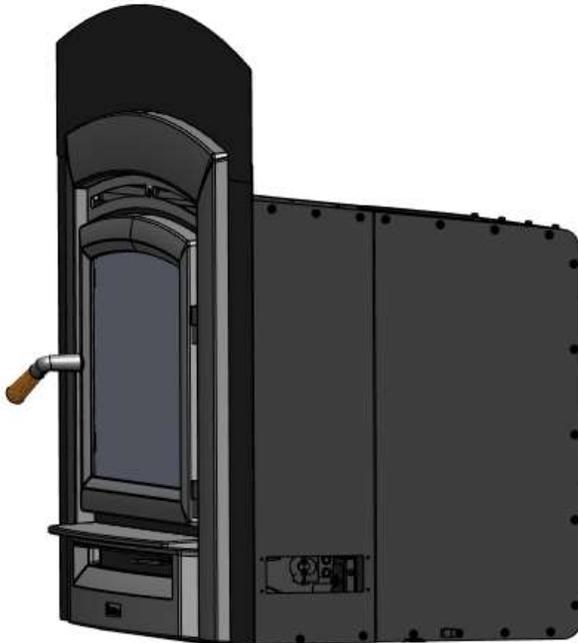
# Green Mountain Insert 90

(Model 8460)

## Woodstove

### OWNER'S MANUAL

#### Installation And Operating Instructions



Safety tested according to ULC S628,  
UL 737 and UL 1482 Standards  
by an accredited laboratory

**CONTACT LOCAL AUTHORITIES WITH  
JURISDICTION (BUILDING  
DEPARTMENT or FIRE OFFICIALS),  
ABOUT PERMITS REQUIRED,  
RESTRICTIONS AND INSTALLATION  
INSPECTION IN YOUR AREA.**

**SAVE THIS OWNER'S MANUAL FOR FUTURE REFERENCE**

**PLEASE READ THIS ENTIRE OWNER'S MANUAL BEFORE YOU INSTALL AND  
USE YOUR NEW GREEN MOUNTAIN INSERT 90 WOOD STOVE.  
Ce manuel est disponible en français sur [hearthstonetech.com](http://hearthstonetech.com)**



**Intertek**

**If this room heater is not properly installed, a house fire may result.  
To reduce the risk of fire, follow the installation instructions.**

**Failure to follow these instructions can result in property damage, bodily injury, or even death.  
Conforms to UL Std. 1482 & 737  
Certified to ULC Std. S628**



#### California Prop 65

**⚠ WARNING:** This product can expose you to chemicals including glass wool fiber and carbon monoxide which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# NOTES ON STOVE OPERATION AND EFFICIENCY

## **Rating:**

You have purchased a Hearthstone Green Mountain Insert 90 tested to EPA Alt 125 emissions testing where applicable. This stove is certified to comply with the U.S. Environmental Protection Agency 2020 particulate emissions standard using cord wood. It is certified at 1.14 gr/hr. emission rate and under specific test conditions has been shown to deliver heat at rates ranging from 14,200 to 48,200 Btu (output).

This wood heater has a manufacturer-set minimum allowable low burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual.

Please refer to the Warranty section of this manual for registration instructions. In case of warranty claims, please contact the point of original sale or the nearest authorized Hearthstone dealer. Our dealer network processes all warranty claims. Authorized Hearthstone dealers can be located at [www.hearthstonestoves.com](http://www.hearthstonestoves.com).

This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air-dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods. **DO NOT BURN:** *Garbage, lawn clippings, material containing rubber (including tires), materials containing plastic, waste petroleum products paints or paint thinners, asphalt products, materials containing asbestos, construction or demolition debris, railroad ties, pressure treated wood, manure or animal remains, salt water driftwood or other previously salt-water saturated materials, unseasoned wood, paper products, cardboard, plywood, or particleboard.* This prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, sawdust, wax, and similar substances for the purpose of starting a fire in an affected wood heater. Burning these materials may result in a release toxic fume or render the heater ineffective and cause smoke.

Following the maintenance guidelines set forth in this manual will help ensure the efficient use of your wood heater and minimize visible emissions. Having your stove inspected by a trained professional on a regular basis will greatly increase the potential for recognizing potential impacts to efficiency.

Proper draft is important to the efficient operation of your heater. Refer to the Normal Operation section of this manual for information regarding adequate draft. Both excessive and sub-minimum draft can affect the efficiency of your wood heater. Excessive draft can lead to over-consumption of fuel, lower overall heating capacity of the stove and potential over firing. Low draft can result in inefficient burns, low heat output, expulsion of smoke into the living area when stove doors are opened and an increased potential for build-up of flammable materials in the flue.

## **Efficiency:**

Efficiency was measured and weighted using CSA B415.1-10 methodology. A weighted average was used to calculate the overall efficiency across all the 4 burn rate categories using the higher heating value (HHV). The weighted average efficiency is 68% (HHV).

To maximize the efficiency of your wood stove, make sure it is sized properly for the space you plan to heat. An oversized stove will often be forced to burn at a lower and dirtier burn rate. Consult with your dealer for sizing and correctly placing the stove in your home. An incorrectly placed stove can greatly reduce efficiency. Maximizing the efficiency of your stove will heat your house quickly, burn cleaner and use less wood.

Refer to the Choosing Firewood section of this manual for appropriate fuel selection. Seasoned firewood is typically at or near 20% moisture content. This can be measured with any number of hand-held moisture meters available through your local hearth shop. Follow instructions included in the meter you purchase to measure fuel wood moisture content. Burn only dry, seasoned wood as using wet wood will greatly reduce your efficiency.

## **CO Emissions:**

The Green Mountain Insert 90 has an average CO emission rate over all burn categories of 53 g/hr. Wet wood or unapproved fuel described above can greatly affect the emissions of a wood burning stove.

## **Smoke/Fire/CO Detectors:**

It is highly recommended that smoke and CO detectors be installed throughout the heated space when a wood burning heater is installed. Be certain to install these devices not only in the area where the wood appliance is located, but also in bedrooms, hallways leading to other areas of the house and all common areas of the heated space. Check the batteries in these devices and assure operation by performing whatever test operations are recommended by the manufacturer.

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## INTRODUCTION

Thank you for purchasing a Green Mountain Insert 90 woodstove from Hearthstone Quality Home Heating Products. This stove will provide years of comfortable heat. The Green Mountain Insert 90 blends modern technology with the unique beauty and qualities of cast iron and Soapstone. We trust that you will appreciate the quality of this handcrafted product.

Your Green Mountain Insert 90 woodstove burns very efficiently, and produces a large amount of heat. However, you should not consider your Green Mountain Insert 90 the primary heat source for your home. The Green Mountain Insert 90's large glass window allows you to enjoy the fire from a variety of locations in the room.

Please read this manual in its entirety. Its purpose is to familiarize you with your stove's safe installation, proper break-in, operation, and maintenance. It contains extremely important information so keep it handy and refer to it often.

A qualified heating technician may need this owner's manual as a reference when installing this stove in your home. There are national, state, and local building codes that direct the technician on how to install your stove. These codes stipulate the dimension of stovepipe and clearances to walls, ceilings, hearth, and other combustible surfaces. The codes exist to reduce the risk of fire. Failure to follow these instructions can result in fire, property damage, bodily injury, and even death.

It is extremely important to install this stove with the proper clearance from combustible surfaces. You can purchase special wall coverings as specified by this manual and the NFPA 211 code to protect combustible surfaces. As a general rule, keep furniture, drapes, curtains, wood, paper, and other combustibles at least 36 inches (92 cm) away from the stove. Never install the stove in or near a storage location for gasoline, kerosene, charcoal lighter fluid or any other flammable liquids.

Install the stove in your central living area to allow heat to radiate naturally to distant rooms. Do not install your stove in a poorly insulated area. This is inefficient and would likely result in higher fuel usage.

- **SAFETY NOTICE:**

**AN IMPROPERLY INSTALLED STOVE CAN RESULT IN A HOUSE FIRE. FOR YOUR SAFETY, CAREFULLY FOLLOW THE INSTALLATION DIRECTIONS. CONTACT LOCAL BUILDING OR**

## **FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA.**

The safety of your stove will depend on many factors, some of which include: distance to combustible objects, correct venting, and adequate chimney maintenance. Should you have any questions, do not hesitate to contact your dealer for additional information.

Contact your dealer for any necessary warranty service.

This Green Mountain Insert 90 Model 8460 stove is warranted by:

**Hearthstone Quality Home Heating Products, Inc®**  
317 Stafford Ave.  
Morrisville, Vermont 05661, USA  
[www.Hearthstonestoves.com](http://www.Hearthstonestoves.com)

## CODES

When you install your Green Mountain Insert 90 woodstove, it is imperative that you adhere to all Federal and local codes. Obtain these codes from either of the following sources:

**American National Standards Institute, Inc. (ANSI)**  
1430 Broadway  
New York, NY 10018  
www.ansi.org

**National Fire Protection Association, Inc. (NFPA)**  
Battery March Park  
Quincy, MA 02269  
www.nfpa.org

## SAFETY INFORMATION

**Read and understand this Owner's Manual thoroughly before installing and using this stove.**

### Make sure to install your stove:

- According to the manufacturer's recommendations
- In accordance with all applicable codes
- With the proper sized chimney

### When using your stove, follow these safety precautions:

- **Never** modify this stove in any way.
- **Never** burn kiln dried, painted or treated wood in this stove.
- **DO NOT BURN GARBAGE.** Never burn garbage or trash, colored or glossy paper, solvents, plywood, artificial logs, cardboard, or driftwood, in this stove.
- **Never** burn coal in this stove.
- **DO NOT BURN FLAMMABLE FLUIDS.**
- **DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.** Never use gasoline, kerosene, charcoal lighter fluid, or other flammable fluids to start or invigorate the fire. These fuels will cause dangerous burning conditions in the stove. Keep all such materials away from the stove.
- **Never** use a wood grate or other device to elevate the fire.
- **Never** allow logs in the firebox to hit the glass when the door is closed.
- **Never** slam the door or use the door to force wood in to the stove.

- **Never** over-fire your stove.
- **Never** put articles of clothing or candles on a hot stove.
- **Never** connect the stove to a flue used by another appliance.

### Other safety guidelines:

- Keep all combustible items such as furniture, drapes, clothing, and other items, at least 36" (0.92 m) from the stove (See page 10)
- Install a smoke detector, preferably in an area away from your wood stove.
- Keep a fire extinguisher handy. We recommend the type rated "A B C."
- Dispose of ashes properly.
- Keep children and pets away from the stove when it is burning; they could be seriously injured by touching a hot stove.
- Clean your chimney system as needed.
- Outside combustion air may be required if:
  1. This solid-fuel-fired appliance does not draw steadily, smoke rollout occurs, fuel burns poorly, or back-drafts occur whether or not there is combustion present.
  2. Existing fuel-fired equipment in the house, such as fireplaces or other heating appliances, smell, do not operate properly, suffer smoke roll-out when opened, or back-draft whether or not there is combustion present.
  3. Opening a window slightly on a calm (windless) day alleviates any of the above symptoms.
  4. The house is equipped with a well-sealed vapor barrier and tight-fitting windows and/or has any powered devices that exhaust house air.
  5. There is excessive condensation on windows in the winter.
  6. A ventilation system is installed in the house.

If these or other indications suggest that infiltration air is inadequate, additional combustion air should be provided from the outdoors. Outside combustion air can be provided to the appliance by using the optional outside air kit #94-53500

## PERIODIC CHECKLIST

Perform each of these tasks at the specified intervals.

### At the End of Every Week:

- Empty ashes from the firebox, sooner if the firebox is full.

### At the Beginning of Every Other Month:

- Depending upon your use of the stove, visually inspect the chimney connector and chimney for creosote.
- Check door seals using the "dollar bill test." - When the stove is cool, shut the door on a dollar bill. If the bill pulls out without any resistance, then your stove's door is not sealing properly. To tighten the seal, adjust the door latch mechanism or change the door gasket.

### At the End of Every Season:

- Dismantle the chimney connector and clean it thoroughly. Replace any pieces that show signs of rust or deterioration.
- Inspect and, if necessary, clean your chimney.
- Clean out the inside of the stove thoroughly.
- Inspect all door gasket material and replace if worn, frayed, cracked or extremely hard.

## EMERGENCY PROCEDURES

If you have a stovepipe or chimney fire, follow these instructions:

1. If the fire is too threatening, leave the area and call the fire department immediately! If not, perform the next three steps.
  2. Close the primary air control.
  3. Close the stovepipe damper (if present).
  4. Keep the stove front door closed!
- **WARNING: DO NOT ATTEMPT TO PUT OUT A STOVEPIPE OR CHIMNEY FIRE BY THROWING WATER ONTO THE STOVE, STOVEPIPE, OR CHIMNEY. THE EXTREMELY HIGH TEMPERATURE OF SUCH FIRES CAN CAUSE INSTANTANEOUS STEAM AND SERIOUS BODILY HARM.**

Once the chimney fire expires, leave the primary air control closed and let the fire in the stove die out completely. Inspect the stove, liner, and chimney thoroughly for any sign of damage before firing the stove again. You must correct any damage before using your stove again.

Establish a routine for the fuel, wood burner and firing technique. Check daily for creosote build-up until experience shows how often you need to clean to be safe. Be aware that the hotter the fire the less creosote is deposited, and weekly cleaning may be necessary in mild weather even though monthly cleaning may be enough in the coldest months. Contact your local municipal or provincial fire authority for information on how to handle a chimney fire. Have a clearly understood plan to handle a chimney fire.

# SPECIFICATIONS

**Maximum Heat Output:**

80,000 BTUs per hour of cordwood max.

**Floor Size of Heated Area:**

Up to a maximum of 2,200 square feet. Factors unique to your home can reduce the square footage the stove will heat. Home insulation value, number and efficiency of windows, floor plan, stove placement, quality of the fuel and other conditions may limit the heating ability of the stove.

**Firebox Capacity:**

2.5 cubic feet.

**Maximum Log Length:** Up To 20" (50.8 cm).

**Emissions:** 1.14 g/hr.

**Burn Time:** HeatLife Up to 9+ hrs. Note: The amount and weight of wood contained per cubic foot of firebox volume can vary from 10 to 25 lbs. per cubic foot depending on type of wood, moisture content, packing density and other factors.

**Stove Dimensions:**

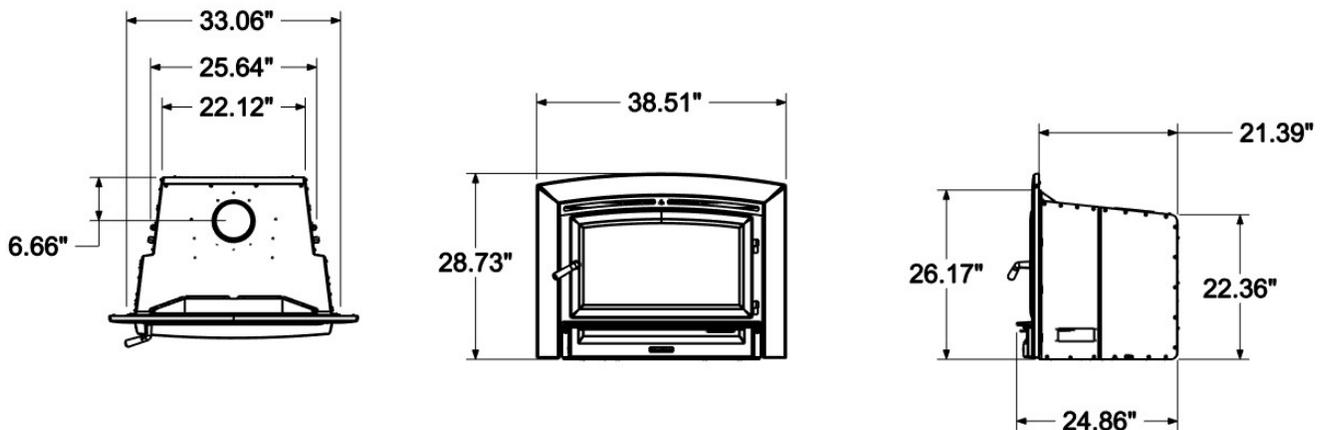
**Height:** 28 3/4" (73.0cm)  
**Width:** 38 1/2" (97.8cm)  
**Depth:** 24 7/8" (63.2cm)  
**Weight:** 440 lbs. (200 kg)

**Connector Size:** 6" (152 mm) diameter  
**Metal Chimney:** 6" (152 mm) inside diameter  
**Masonry Chimney:** 6" (152 mm) inside diameter (round flue), 8" x 8" (203 x 203 mm) (square flue)

**Crate Dimensions:** H-34" W-30" L-36" or 86.4x76.2x 91.4cm

**Optional Equipment:**

Outside Air Kit 94-53500  
 Steel Surround 94-5960010  
 Surround Extension 94-5960110  
 Fire Screen Insert 94-69600



**Figure 1 – Green Mountain Insert 90 Dimensions**

# INSTALLATION

## UNPACKING

Hearthstone packages your Green Mountain Insert 90 woodstove with the greatest care so that it ships safely. Under certain circumstances, however, damage may occur during transit and handling. When you receive the Green Mountain Insert 90, carefully unpack and inspect the stove and all accompanying parts. Ensure that all parts are included inside the stove. If any parts are damaged or missing, please contact your authorized Hearthstone dealer immediately.

Be sure to remove the packaging material in the flue collar and above the baffle before installing the chimney.

## PACK LIST

- Green Mountain Insert 90 Model 8460 Woodstove
- Owner's Manual
- Three boxes of refractory stone
- Optional 90-degree Romex connector
- Side Stone Retainer Brackets
- 2 Leg Leveling Bolts

The safety label is attached by a cable in the bottom of the stove, behind the ash lip assembly. Be careful not to destroy label when assembling or removing blower. Make sure safety label is secured in clip when you are before closing off this area by reinstalling the ash lip.

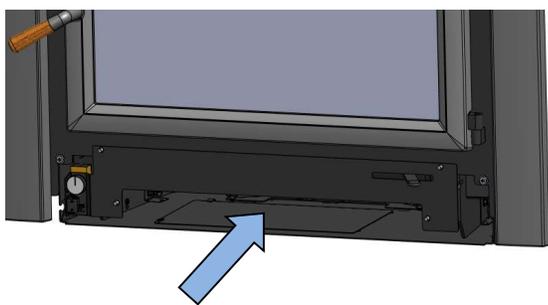


Figure 2: Safety Label Location

The rear valence bracket may come installed or packed with the stove. This is used to cover the opening in the top of the stove. Install this before installing the stove.

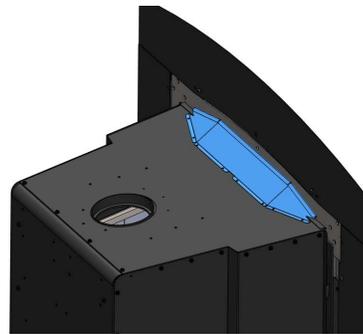
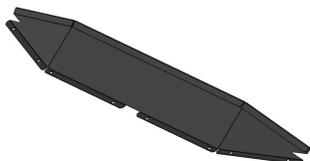


Figure 3 – Rear Valence Cover Bracket

## INSTALLING YOUR STOVE

Inspect this location to make sure that the stove and liner will have the required clearance from combustible materials that are near the stove. Combustibles include walls, floor, ceiling, and chimney chase. You must carefully consider the clearances to all of these combustibles before actually connecting your stove.

If the floor in front of the insert is made of combustible material, then a non-combustible floor protector is required out to the dimensions indicated in the clearances section of this manual. An example of a non-combustible floor protector is a hearth constructed with a continuous layer of tile, brick, slate, glass or another non-combustible facing. There is no R-value requirement.

Check the listing of your pipe with UL for the correct clearances.

The diagrams in this manual represent typical installations, but are specific to the Simpson Dura-Vent brand.

Packaged with the stove are 2 leg leveling bolts. These should be installed into the two welded nuts located on either side of the stove. The leg leveling bolts will help adjust the stove height during stove installation.

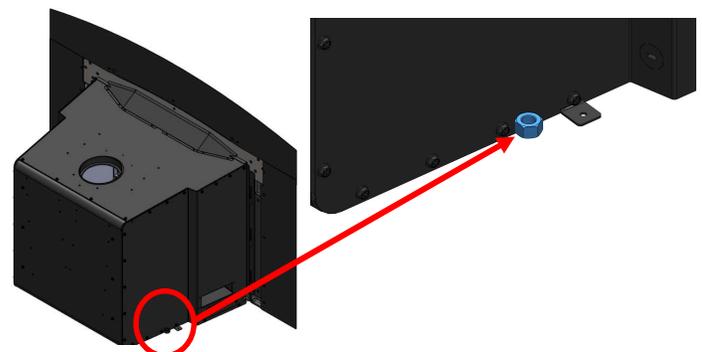


Figure 4: Welded Nut Location for Leg Leveling Bolts

### **Clearances to NFPA Code 211 Protected Surfaces**

You can reduce the clearances to combustible surfaces by using any National Fire Protection Agency (NFPA) approved wall protection system with additional approval of the regulatory authority having jurisdiction in your area. Please refer to NFPA Code 211 for specifications and complete details. You can obtain this information directly from the NFPA.

### **National Fire Protection Agency**

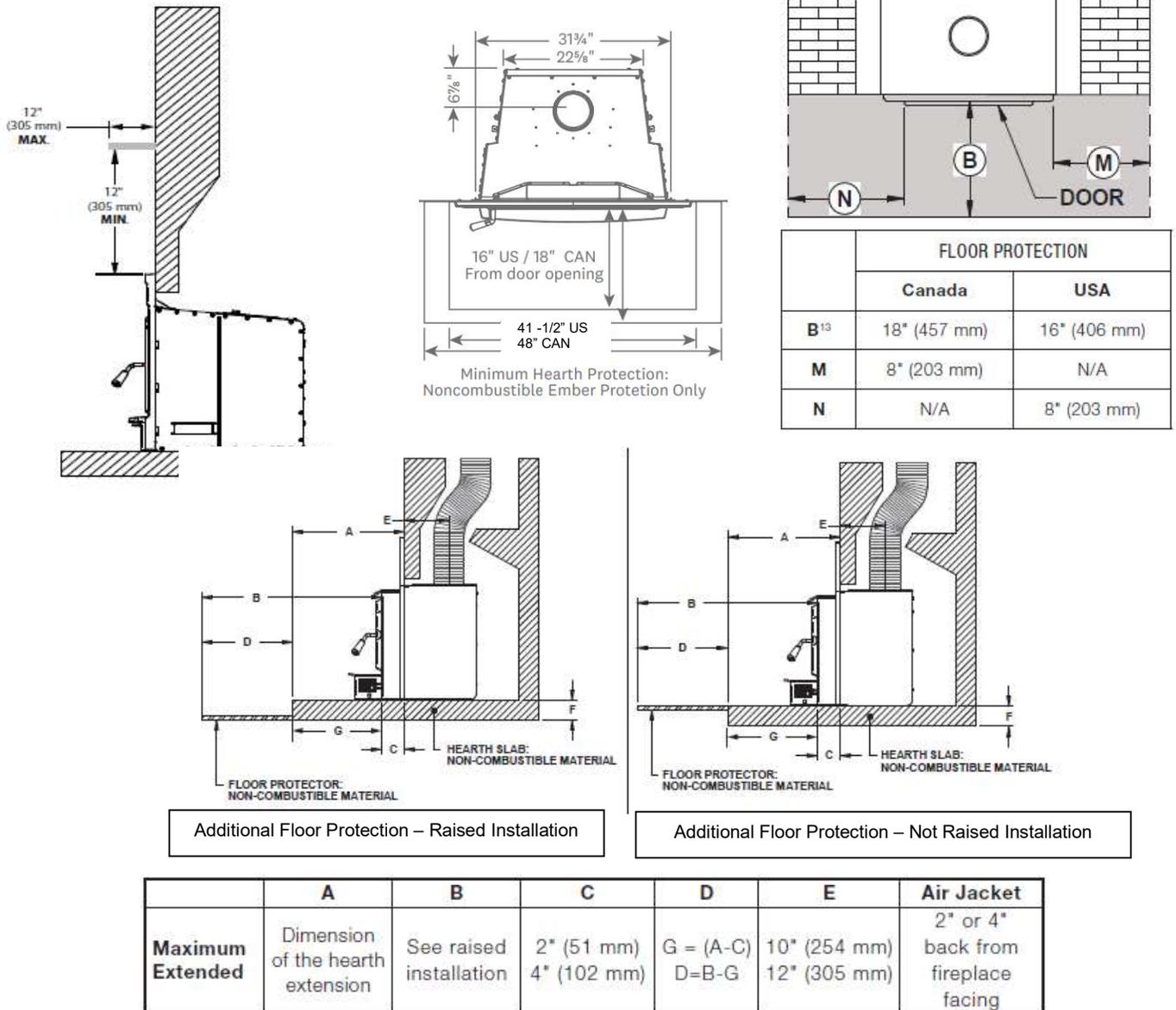
Batterymarch Park  
Quincy, MA 02269  
1-800-344-3555  
1-617-770-3000  
[www.nfpa.org](http://www.nfpa.org)



## HEARTH REQUIREMENTS & FLOOR PROTECTION

Ensure you protect combustible flooring with a covering of noncombustible material. The Green Mountain Insert 90 does not require an insulated hearth pad. The minimum floor protection must be met under the stove and extend beyond the stove as follows:

The minimum floor protection for US installations is 41-1/2in x 16in.  
The minimum floor protection for installations in Canada is 48in x 18in.



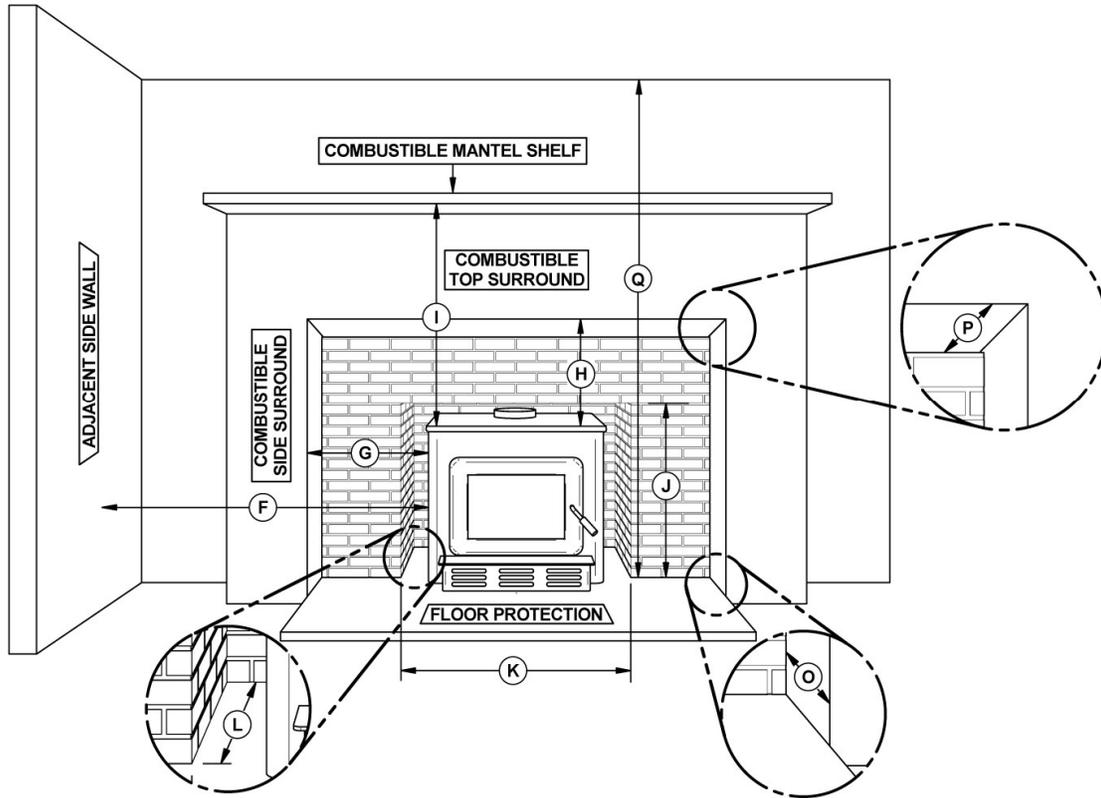
**Figure 5 Trim and Mantle and Floor Protection Clearances**

Installing the stove in a room with Luxury Vinyl Plank (LVP) or Luxury Vinyl Tile (LVT) flooring requires extra consideration from the stove to the LVP or LVT flooring. Some LVP and LVT flooring begins to warp at 110° Fahrenheit. Each installation and flooring specification is different. **Consult the flooring manufacturer for maximum temperature recommendations. Additional shielding to prevent warping may be necessary depending on the flooring used.**

## COMBUSTIBLE SURFACE REQUIRED CLEARANCES

**Note:** Dimensions shown in the following figures are from the body of the stove unless otherwise indicated.

It is very important to follow minimum clearances for chimney connectors to combustibles such as walls and ceilings when installing the stove near combustible surfaces.



**Figure 6 – Clearance to Combustibles**

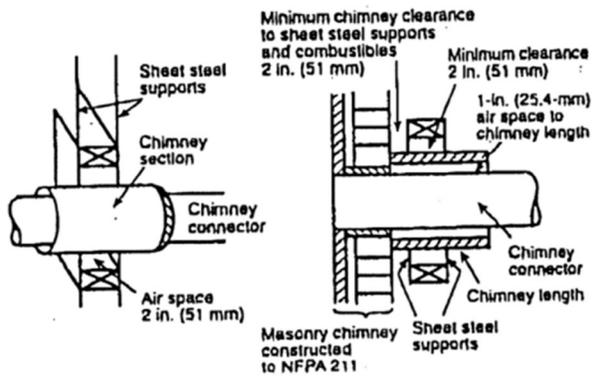
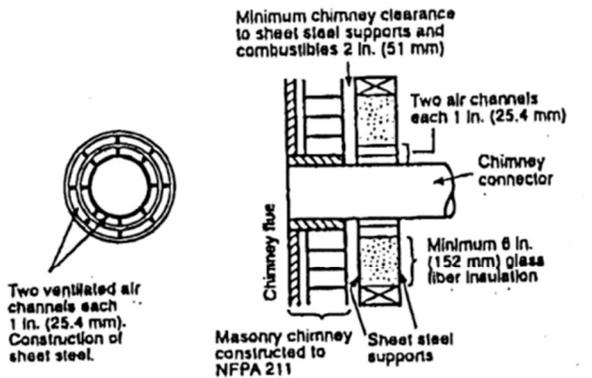
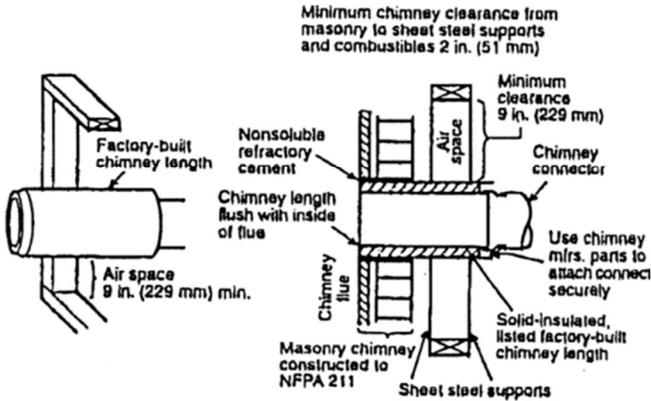
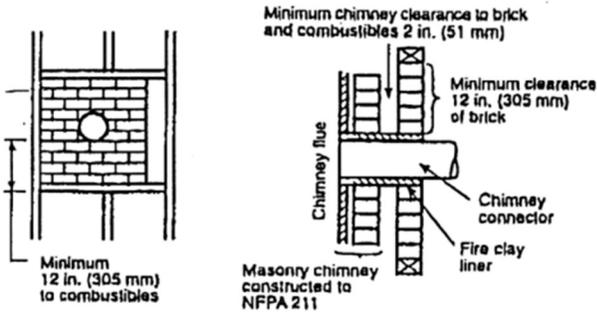
	MINIMUM CLEARANCES
<b>F</b>	19" (483 mm)
<b>G</b>	9 ½" (242 mm)
<b>H</b>	12" (305 mm)
<b>I</b>	12" (305 mm)
<b>Q</b>	84" (213 cm)

	MAXIMUM THICKNESS
<b>O</b>	5" (127 mm)
<b>P</b>	12" (305 mm)

	MINIMUM MASONRY OPENING
<b>J</b>	27 ¼" (690 mm)
<b>K<sup>17</sup></b>	31 ¾" (806 mm)
<b>L<sup>18</sup></b>	22 ¼" (562 mm)

<sup>17</sup> If a fresh air intake is required, it is recommended to add at least 4" to the width of the minimum opening of the hearth.

<sup>18</sup> If projection kit is used L = 20 ¼" or 18 ¼", otherwise L = 22 ¼".



## CHIMNEY CONNECTOR SYSTEMS AND CLEARANCES FROM COMBUSTIBLE WALLS FOR RESIDENTIAL HEATING APPLIANCES

- A. Minimum 3.5in thick brick masonry all framed into combustibile wall with a minimum of 12in. brick separation from clay liner to combustibles. The fire clay liner shall run from outer surface of brick wall to, but not beyond, the inner surface of chimney flue liner and shall be firmly cemented in place.
- B. Solid-insulated, listed factory-built chimney length of the same inside diameter as the chimney connector and having 1in. or more of insulation with a minimum 9in. air space between the outer wall of the chimney length and combustibles.
- C. Solid insulated, listed factory-built chimney length with an inside diameter 2in. larger than the chimney connector and having 1in. or more of insulation, serving as a pass-through for a single wall sheet steel chimney connector of minimum 24 gauge thickness, with a minimum 2in. air space between the outer wall of chimney section and combustibles. Minimum length of chimney section shall be 12in. chimney section spaced 1in. away from connector using sheet steel support plates on both ends of chimney section. Opening shall be covered, and chimney section supported on both sides with sheet steel supports securely fastened to wall surfaces of minimum 24-gauge thickness. Fasteners used to secure chimney section shall not penetrate chimney flue liner.

## OUTSIDE AIR SUPPLY

(Optional Kit #94-53500)

You can connect an outside air source directly to this stove using an optional outside air kit. The advantage of providing outside air directly to the stove is that the air used by the stove for combustion is taken from outside the residence rather than from within the room where the stove is located.

The outside air kit for this stove allows for the direct connection of the stove's air intake to a minimum 3" (76 mm) diameter duct (supplied by others) \* which leads to the outside of the house. When considering placement of the duct from the outside of the house to the hearth, keep in mind the need to avoid structural members of the house. The outside air kit attaches to the side of the stove. Refer to the instructions provided with the kit for installation.

\*An adaptor for 4" duct is available if needed. KIT #90-53308

When using an outside air kit in Canada, the stove must be attached to your home's floor. Use the shipping clips that came with the stove and fasteners long enough to attach securely to the subfloor. (The clips and fastener heads may be painted to minimize visibility).

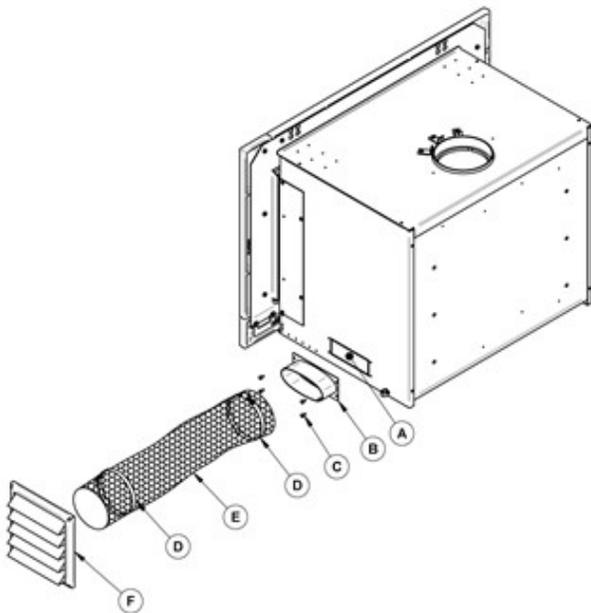


Figure 7 – Outside Air Kit Detail

The International Residential Code (IRC) does not allow the outside air duct to terminate higher than the appliance. Some building officials restrict vertical rise

in the duct's termination. Hearthstone recommends the termination be at the same level, or lower than the air intake on the stove.

Locate the termination of the duct on the outside wall of the home in such a manner to avoid the possibility of obstruction by snow, leaves or other material. Screen the termination using  $\frac{1}{4}$ " x  $\frac{1}{4}$ " mesh rodent screen and cover it with a rain/wind proof hood (flex pipe, outside termination, mesh, and hood supplied by others) Contact your dealer for availability.

## VENTING COMPONENTS & CONFIGURATION REQUIREMENTS

- NOT APPROVED FOR MOBILE HOME INSTALLATION
- DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE USED BY ANOTHER APPLIANCE
- Connect the insert to a listed 6" stainless steel flexible connector that connects to a listed 6" stainless steel liner extending the full length of the chimney.
- In all cases, a sealed block off plate, or a plug of other noncombustible material such as unfaced fiberglass insulation, must be installed at the damper area of the existing fireplace to seal the chimney from the room air
- The fireplace insert must be installed with a continuous chimney liner with a minimum diameter of 6" extending from the fireplace insert to the top of the chimney. The chimney liner must conform to the class 3 requirements of chimney liner standards ULC-S635 or ULC-S640, or UL1777.
- Be sure to follow the manufacturer's instructions to maintain an effective vapor barrier at the location where the chimney or other component penetrates the exterior of the structure
- It is very important to follow minimum clearances for chimney connectors to combustibles **Check the specifications from the manufacturer of your connector.**

## COMPONENTS OF A VENTING SYSTEM

The complete venting system consists of several components: chimney connector, flue liner, and chimney. It is *absolutely necessary* that you install all of these components and maintain the clearances to combustibles discussed earlier to ensure a safe stove installation.

To protect against the possibility of a house fire, you *must properly install and constantly maintain the venting system in good condition. Be sure to inspect the chimney and chimney connector and keep it clean.* Upon inspection, immediately replace rusted, cracked, or broken components. Failure to follow these instructions and specified components or using make-shift compromises can result in fire, property damage, bodily injury, and even death.

- The *chimney connector* is the stovepipe from the woodstove to the chimney. The chimney connector stovepipe is 6" (152 mm) diameter, 24 stainless steel connector pipe. *Do not use mild steel, aluminum or galvanized steel pipe* - they cannot withstand the extreme temperatures of a wood fire.
- Only install this stove to a *lined masonry chimney* or an *approved high temperature prefabricated residential* type building heating appliance chimney. *Do not* connect this stove to a chimney serving another appliance; you will compromise the safe operation of both the wood stove and the connected appliance.
- A *liner* is the UL 1777 or ULC S635 (for factory built fireplace or masonry) chimney.

You must connect your stove to a chimney comparable to those recommended in this manual. *Do not use stovepipe as a chimney.* Use stovepipe for installations only to connect the stove to a proper chimney.

- **WARNING: DO NOT CONNECT THIS APPLIANCE TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.**

## INSTALLING A VENTING SYSTEM

Attach stovepipe section to the flue collar and to each other with the crimped end toward the stove. If creosote builds up, this allows the creosote to run into the stove and not on the outside of the stovepipe or onto the stove.

Secure all joints, including attaching the stovepipe to the stove's flue collar, with three sheet metal screws.

Install #10 x 1/2" (3 mm x 13 mm) sheet metal screws into the holes pre-drilled in the flue collar. Disregarding the screws can cause joints to separate from the vibrations that result from a creosote chimney fire.

In general, you do not need to install a stovepipe damper with the Green Mountain Insert 90. Some installations, however, could benefit from a stovepipe damper, such as a tall chimney which can create a higher than normal draft. In such cases, a damper can help regulate the draft. The Green Mountain Insert 90 requires a draft between 0.06" and 0.1" WC. For drafts above 0.1" WC, install a stovepipe damper. Check the draft at stove installation time.

Remember, the NFPA recommends minimum clearances for chimney connectors to combustibles such as walls and ceilings. Once the stove is installed at safe distances from these combustible surfaces, it is also important to maintain these connector clearances for the remainder of the installation.

## CONNECTING THE STOVE TO A CHIMNEY

You can install your Green Mountain Insert 90 to a prefabricated metal chimney, or to a masonry chimney.

This room heater must be connected to (1) a listed Type HT (2100° F) chimney per UL 103 or ULC S629, or (2) a code-approved masonry chimney with a flue liner. The chimney size should not be less than the flue collar, or more than three times greater than the cross-sectional area of the flue collar.

Ensure the size of the chimney's flue is appropriate for the GMI90. The GMI90 requires a 6" (152 mm) inside diameter flue for new installations. A 6" diameter flue provides adequate draft and performance. You can use an 8" (203 mm) diameter existing flue with a reducer. An oversized flue contributes to creosote accumulation. (In this case, bigger is NOT better.)

An interior installation where the chimney passes inside the residence through the ceiling and roof. • An exterior installation where the chimney passes through the wall behind the Fireplace Insert then up the outside of the residence. Whenever possible, choose an interior chimney. An interior chimney heats quickly and retains its heat; thus promotes a better draft and discourages the formation of creosote. An exterior chimney does not benefit from the surrounding warmth of the building, so it typically operates at lower flue temperatures than an interior chimney. An exterior chimney's draft is not as strong and may experience increased creosote accumulation.

• REMOVE THE DAMPER OR LOCK IT OPEN

We recommend installing a cleanout tee where possible to simplify chimney cleaning and maintenance.

### Connecting to a Prefabricated Metal Chimney

Before installing the stove in a prefabricated metal chimney, the fireplace must have the following characteristics:

- 1) Listed per UL 127 or ULC S610.
- 2) Include a full height listed chimney liner meeting ULC-S635 or ULC-S640 standards.
- 3) The means to prevent room air passage to the chimney cavity of the fireplace.
- 4) Does not disturb the airflow in or within the fireplace when installed (louvers, or cooling air inlet or outlet ports must not be blocked).
- 5) Not be altered in any way, except for the following:
  - a) External trim pieces which do not affect the operation of the fireplace can be removed, providing they are stored on or within the fireplace for re-assembly if the insert is removed.
  - b) The chimney damper can be removed to install the chimney liner.
- 6) Must not have blocked circulating chambers (if available).
- 7) The means for removing the insert to clean the chimney flue.
- 8) Have a permanent metal warning label (provided with the GMI90—see following illustration) attached to the fireplace by riveting it to the outside wall, stating that the fireplace must be restored to its original condition for safe use without the insert.

### Connection to a Masonry Chimney

Consider two primary elements when connecting your stove to a masonry chimney: the chimney itself and the thimble where the stovepipe connects to the chimney. **Use only code approved masonry chimneys containing a proper flue liner.**

Before connecting to a masonry chimney, hire a professional to examine the chimney for cracks, loose mortar, and other signs of deterioration and blockage. If the chimney needs repair, complete them before installing and using your stove. Do not install your stove until the chimney is safe for use.

Ensure the chimney's cleanout is complete and working properly. To avoid a loss of draft, the cleanout door must close completely and provide a tight seal. If the cleanout door leaks, the chimney will cool, your stove will perform poorly, and creosote can form.

Ensure the size of the chimney's flue is appropriate for this stove and that it is not too large. Use a masonry chimney with a maximum 6" Diameter or 8" x 8" (203 mm x 203 mm) tile size for best results. An oversized flue contributes to the accumulation of creosote.

Use the following checklist to ensure that your masonry chimney meets these minimum requirements:

#### MASONRY CHIMNEY WALL CONSTRUCTION:

- Mortared brick or modular block at least 4" (102 mm) thick – must use liner
- A mortared rubble or stone wall – must use liner

#### FLUE LINER OPTIONS:

- Tile - minimum wall thickness of 5/8" (16 mm), installed with refractory mortar, and with at least 1" (25 mm) air space around the liner
- Stainless steel - UL listed 6" diameter, insulated or wrapped liner, or the space around the liner filled with vermiculite or suitable material (these keep the liner warmer for better performance)
- Ensure any equivalent flue liner is a listed chimney liner system meeting type HT requirements or other approved material.

#### INTERIOR CHIMNEY REQUIREMENTS:

- Must have at least 2" (51 mm) clearance to combustible materials
- Must install fire stops at the spaces where the chimney passes through floors and/or ceiling
- Any insulation material must be at least 2" (51 mm) from the chimney

#### EXTERIOR CHIMNEY REQUIREMENTS:

- At least 1" (25 mm) clearance to combustible materials

#### CHIMNEY HEIGHT REQUIREMENTS (SEE FIGURE 8):

- At least 3 feet (0.9 m) higher than the highest part of the roof opening through which it passes.
- At least 2 feet (0.6 m) higher than any part of the roof within 10 feet (3 m) measured horizontally from the top of the chimney.

The recommended minimum chimney height is 10 feet (3 m) off the floor. The recommended maximum chimney height is 30 feet (9m). The Green Mountain Insert 90 requires a draft between 0.06" and 0.1" water column. Ensure your chimney is long enough to provide the minimum draft, and use a damper if

your installation has a required chimney height that provides too much draft.

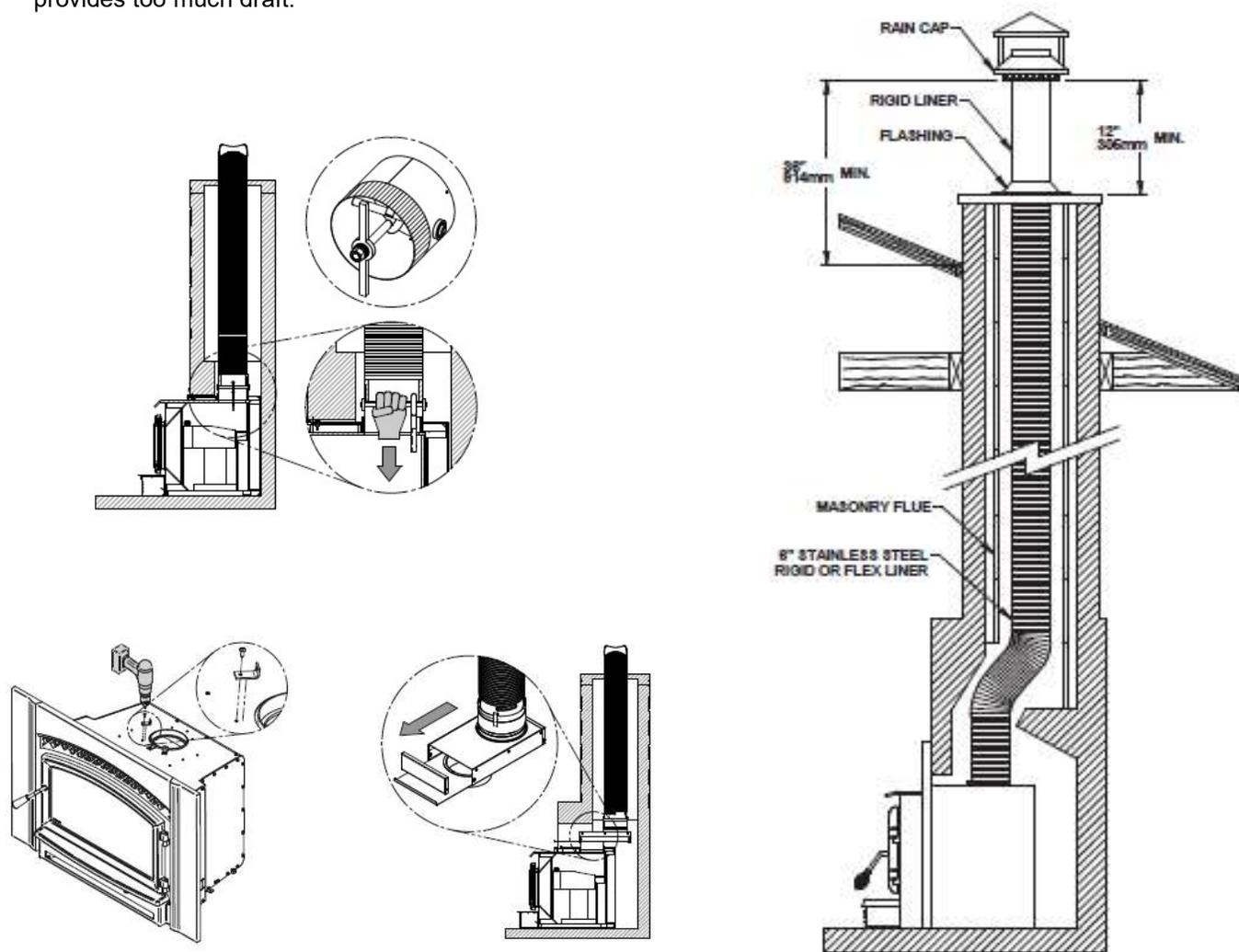
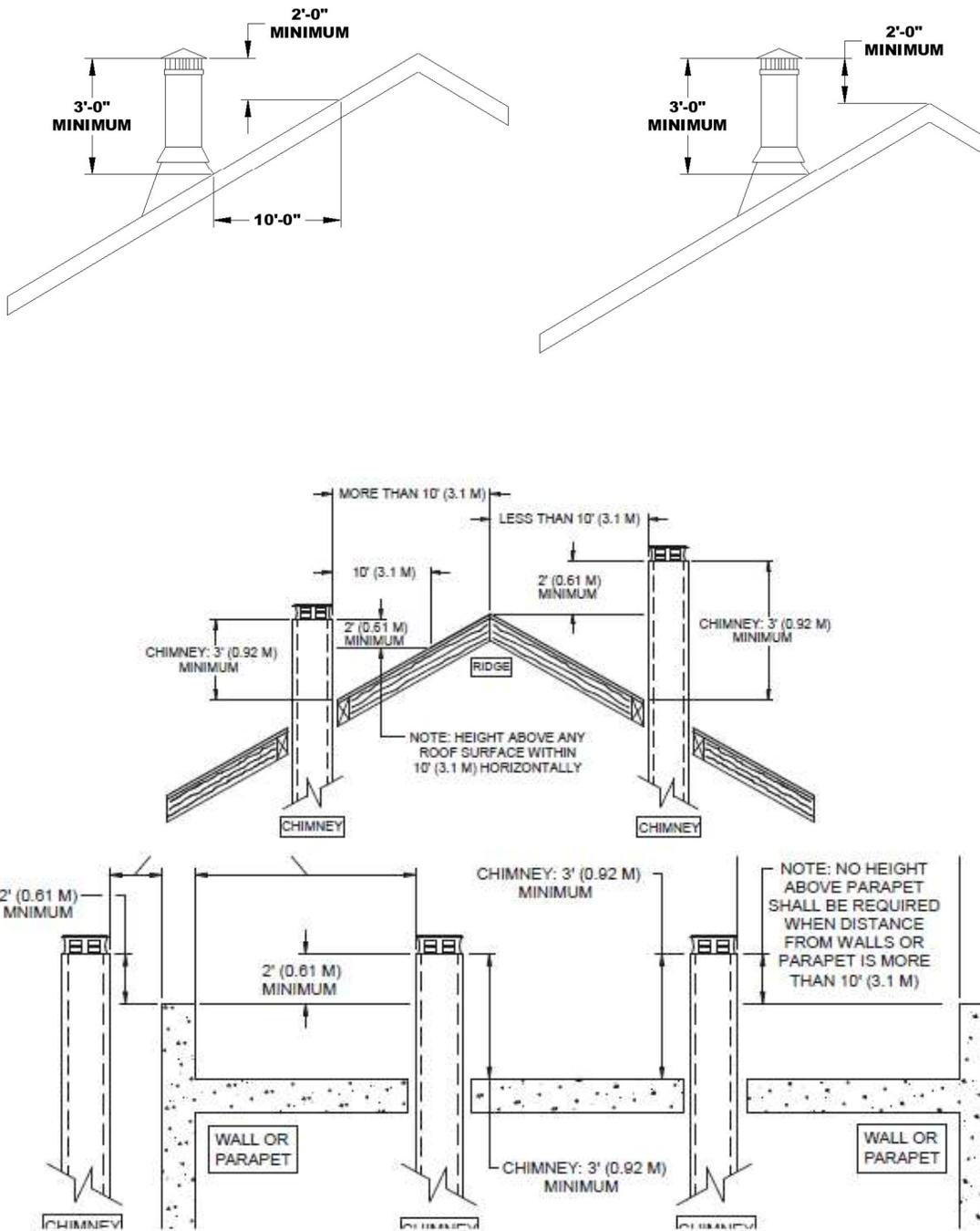


Figure 8 - Installation of Chimney Liner



**Figure 9 - Chimney Height Requirements**

## OPERATION

Once your Green Mountain Insert 90 is installed, you are ready to light a fire.

Every installation, season's firewood, and operator's technique varies. Learn how to use your stove most efficiently for your installation. We can give you the basic principles, but only you can ensure maximizing the potential of your stove while also operating it safely.

- **WARNING: HOT WHILE IN OPERATION! KEEP CHILDREN, PETS, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.**

Read this entire chapter before lighting your first fire. It explains the controls and features of your wood stove, how to choose firewood, and how to use your stove on a daily basis.

### CONTROLS AND FEATURES

Before lighting any fires, become familiar with the location and operation of your stove's controls and features and learn how to use them (See Figure 10). For your own safety, do not modify these features in any way. We recommend you use fireplace gloves when the stove is in operation and hot.

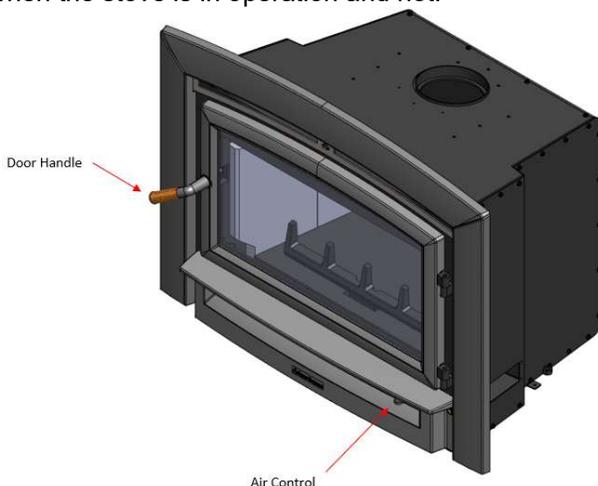


Figure 10 - Controls & Features

**FRONT DOOR HANDLE:** The firebox door allows you to load wood into your stove; a wood handle operates the door. To open the door, pull up on the handle and swing the door away from the stove. To latch the door, push the door tightly towards the firebox then continue to push the handle in and down until it latches shut. Gently pull on the door handle to make sure it is properly latched.

**PRIMARY AIR CONTROL:** The primary air control lever is located under the ash lip. The primary air control allows you to regulate the amount of air entering the firebox. Generally, the more air allowed into the firebox, the faster the rate of burn and the higher the heat output; conversely, less air creates a slower burn, with lower heat output. For maximum airflow, pull the lever left as far as possible; move the lever right as far as possible for minimum airflow (does not close completely).

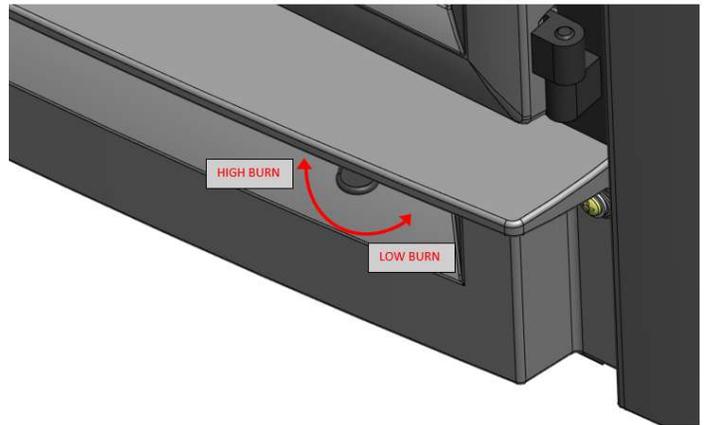


Figure 11 – Air Control

### CHOOSING FIREWOOD

Burn only natural firewood (known as cordwood) in the Green Mountain Insert 90 Model 8460 Wood Heater. This stove is not designed to burn other fuels.

- **CAUTION: DO NOT USE CHEMICALS OR FLAMMABLE FLUIDS TO START THE FIRE. DO NOT USE CHARCOAL, PELLETS, COAL, ARTIFICIAL LOGS OR ANY OTHER MATERIALS AS FUEL; THEY ARE NOT SAFE. DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS.**
- **THE USE OF UNAUTHORIZED FUEL SUCH AS COAL COULD PRODUCE HIGH LEVELS OF CARBON DIOXIDE IN THE LIVING SPACE. AT HIGH LEVELS CARBON DIOXIDE COULD RESULT IN PERSONAL INJURY OR DEATH.**

The quality of your firewood directly affects heat output, duration of burn and performance of your stove. Softwoods generally burn hotter and faster, while hardwoods burn longer and produce better coals. Density and moisture content are two critical factors to consider when purchasing wood.

The following is a list of some wood species and their relative BTU (British Thermal Unit) content. The higher the BTU content, the longer the burn. Firewood with higher BTUs is generally ideal for a wood stove.

Burn untreated wood only. Other materials such as wood preservatives, metal foils, coal, plastic, garbage, sulphur, or oil may damage the catalysts.

<b>Wood Heat Value: Sorted By Btu Content</b>		
<b>Common Name</b>	<b>Lb/ cord</b>	<b>MBTU/ cord</b>
<b>High</b>		
Osage Orange (Hedge)	4,728	32.9
Hickory, Shagbark	4,327	27.7
Hop Hornbeam (Ironwood)	4,267	27.3
Beech, Blue (Ironwood)	3,890	26.8
Birch, Black	3,890	26.8
Locust, Black	3,890	26.8
Hickory, Bitternut	3,832	26.7
Locust, Honey	3,832	26.7
Apple	4,100	26.5
Mulberry	3,712	25.8
Oak, White	4,012	25.7
<b>Medium High</b>		
Beech, European	3,757	24
Maple, Sugar	3,757	24
Oak, Red	3,757	24
Ash, White	3,689	23.6
Birch, Yellow	3,689	23.6

<b>Medium</b>		
Juniper, Rocky Mtn	3,150	21.8
Elm, Red	3,112	21.6
Coffee tree, Kentucky	3,112	21.6
Hackberry	3,247	20.8
Tamarack	3,247	20.8
Birch, Gray	3,179	20.3
Birch, White (Paper)	3,179	20.3
Walnut, Black	3,192	20.2
Cherry	3,120	20
Ash, Green	2,880	19.9
Cherry, Black	2,880	19.9
Elm, American	3,052	19.5
Elm, White	3,052	19.5
Sycamore	2,808	19.5
Ash, Black	2,992	19.1
Maple, Red	2,924	18.7

Fir, Douglas	2,900	18.1
<b>Medium Low</b>		
Boxelder	2,797	17.9
Alder, Red	2,710	17.2
Pine, Jack	2,669	17.1
Pine, Norway (Red Pine)	2,669	17.1
Pine, Pitch	2,669	17.1
Catalpa	2,360	16.4
Hemlock	2,482	15.9
Spruce, Black	2,482	15.9
Pine, Ponderosa	2,380	15.2
<b>Low</b>		
Aspen, American	2,290	14.7
Butternut (Walnut, White)	2,100	14.5
Spruce	2,100	14.5
Willow	2,100	14.5
Fir, Balsam	2,236	14.3
Pine, White (Eastern, Western)	2,236	14.3
Fir, Concolor (White)	2,104	14.1
Basswood (Linden)	2,108	13.8
Buckeye, Ohio	1,984	13.8
Cottonwood	2,108	13.5
Cedar, White	1,913	12.2

Moisture content also plays a key role in the performance of your stove. Wood freshly cut from a living tree (green wood) contains a great deal of moisture. As you might expect, green wood burns poorly. You must season green wood before using it in your wood stove. To season green wood properly, split, stack, and allow it to air dry for a period of one year. Green wood may provide less than 2000 Btu per pound, whereas dry wood can provide up to 7000 Btu per pound.

Stack the firewood on skids or blocks to keep it off the ground, cover only the top of the stack. Plastic or tarps that cover the sides of the woodpile trap moisture and prevent the wood from drying. As for stacking, an old Vermonter said, "The spaces between the logs should be large enough for a mouse to get through, but not for the cat that's chasing it."

- **CAUTION: DO NOT STORE FIREWOOD WITHIN THE STOVE'S SPECIFIED CLEARANCES TO COMBUSTIBLE MATERIALS.**

## BUILDING A FIRE

Once you understand the controls of your wood stove and have the appropriate firewood, you are ready to start a fire.

- **WARNING: NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR 'FRESHEN UP' A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE.**

## BREAKING IN YOUR WOOD STOVE

It is imperative that your stove is "broken in" gradually. Soapstone must be "seasoned"; over-firing a new stove may cause soapstone to crack or may damage other stove parts. Natural moisture in the freshly quarried soapstone must be driven out slowly to minimize the "shock" to the stone of its first exposure to high firebox temperatures. In addition, the asbestos-free furnace cement must be cured slowly to ensure adequate sealing and bonding.

When you light your first fires, the woodstove will emit some smoke and fumes. This is normal "off-gassing" of the paints and oils used when manufacturing the woodstove. If you find it necessary, open a few windows to vent your room. The smoke and fumes will usually subside after 10 to 20 minutes of operation. The odor and smoke will end once the stove is "cured".

The first few fires of the season may produce other odors from impurities that exist in the area immediately surrounding the stove. Some potential impurities are cleaning solvents, paint solvents, cigarette smoke, and soot from scented candles, pet hair, dust, adhesives, a new carpet, and new textiles. These odors will dissipate over time. You can alleviate these odors by opening a few windows or otherwise creating additional ventilation around your stove. If any odor persists, contact your dealer or an authorized service technician.

If you adhere to the operating procedures in this manual, the steel, cast iron, and soapstone components of your stove will give you many years of trouble-free use. With use, the color of the soapstone may change and small fractures may appear on the surface. These changes do not affect the function of the stove. If a panel breaks completely, it must be replaced.

Avoid the following conditions that can cause the glass, soapstone, steel or cast iron pieces to break:

- Do not throw wood into the stove.

- Do not use the door as a lever to force wood into the stove.
- Do not load wood encrusted with ice into a burning stove - the thermal shock can cause damage.
- Do not use a manufactured log grate or otherwise support the fuel. Burn the fire directly on the floor of the firebox.

## BUILDING A BREAK IN FIRE

- 1) Open the front door and place five or six double sheets of tightly twisted newspaper in the center of the firebox. Arrange kindling in a crisscross pattern over the newspaper. Kindling should be approximately ten pieces, 1/2" (13 mm) in diameter and 10" to 16" (254 mm to 457 mm) long.
- 2) Fully open the primary air control by pulling the control handle towards you, away from the firebox.
- 3) Light the paper under the kindling. Leave the door slightly ajar momentarily until the kindling has started to burn and draft begins to pull.
- 4) Close the door and allow the fire to burn. Keep the door closed while the stove is in use.
- 5) **KEEP A WATCHFUL EYE ON YOUR STOVE** to maintain a steady, low-heat fire. Your first fire should make the stove warm but **not hot to the touch**. Visible steam, or boiling moisture and hissing indicate the soapstone is too hot. At most, a few small chunks of wood should be added to the fire to reach safe break-in temperatures.
- 6) Once the stove is warm but **not hot to the touch**, close the primary air control by pushing it fully inward toward the stove to allow the fire to die out completely.
- 7) Let the stove return to room temperature.

Your first fire and first fire each season thereafter should be built and maintained as outlined above. Your patience will be rewarded by a properly seasoned stove.

- **NOTE:** The cool flue gas temperatures present during the break-in procedure may cause rapid creosote build-up. The door glass may also get dirty. A good hot fire will clean it. We recommend a visual inspection (and cleaning if necessary) of your stovepipe and chimney once the break-in procedure is completed.

## NORMAL OPERATION

### BUILDING A FIRE FOR EVERYDAY USE

- 1) Open the front door and place five or six double sheets of tightly twisted newspaper in the center of the firebox. Arrange kindling in a tee-pee configuration over the newspaper. Use approximately 10 pieces of kindling, 1/2" (13 mm) in diameter and 10" to 16" (254 mm to 406 mm) long.
- 2) Fully open the primary air control by pulling the lever completely left.
- 3) Light the paper under the kindling. Leave the front door slightly ajar momentarily until the kindling begins to burn and draft begins to pull.
- 4) Close the door and allow the fire to burn.
- 5) Once the kindling is burning, open the front door and add logs, small at first, to build the fire up. Ensure you keep the logs away from the glass in front in order for the air-wash system to work properly. Keep the front door closed while the stove is in use.

**CAUTION: DO NOT BUILD THE FIRE TOO CLOSE TO THE GLASS. KEEPING THE FIRE TOWARDS THE CENTER OF THE FIRE BOX WILL KEEP COALS FROM BUILDING UP AGAINST THE GLASS DURING RELOADING.**

- 6) Use the primary air control to regulate the desired rate of burn. Pull the handle left for a higher burn rate, and pull the handle right for a lower burn rate. The air control does not close completely.

**Note:** When opening the front door to reload or rearrange logs, it is advisable to open the door just a crack, pause for a moment then open the door completely. This procedure allows the firebox to clear of smoke before the door is open fully. In addition, reloading on a bed of hot, red coals reduces smoking time and brings fresh fuel up to a high temperature rapidly. During the refueling and rekindling of a cool fire, or a fire that has burned down to the charcoal phase, operate the stove at a medium to high firing rate for about 10 minutes. When reloading the stove, try to keep an open path behind the Lower Primary Air Opening (LPAO). It is helpful to leave a small valley in the coal bed behind the LPAO to insure faster re-lighting.

### BURN RATE

**This wood heater has a manufacturer-set minimum low burn rate that must not be altered.**

**It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual**

**LOW BURN:** Move the air control lever all the way to the right. (See figure 10). This closes the air shutter to its minimum opening. A low burn rate over extended periods is not advisable as it can promote the accumulation of creosote. Inspect the venting system frequently if using low burn rates consistently.

**MEDIUM LOW BURN:** With the primary air control in the low position, pull the air control left (a little less than 1/2"). A medium-low burn rate is the typical setting and is preferable if the stove is unattended. At this burn rate, a little goes a long way.

**MEDIUM HIGH BURN:** With the primary air control in the low position, pull the air control left (a little less than 1")

**HIGH BURN:** Completely open the primary air control by moving it all the way left. Fully load the firebox with wood on a bed of hot coals or on an actively flaming fire. To minimize creosote accumulation, run the stove on high once or twice daily for 35 to 45 minutes to fully heat the stovepipe and chimney.

**CAUTION:** Do not burn fuel other than cordwood in your stove.

### OVER-FIRE CAUTION

Over-firing means the stove is operating at temperatures above normal temperatures reached during High Burns outlined in the *BURN RATE* section. Carefully avoid over-firing, as it will damage the stove. Symptoms of chronic over-firing can include warped components, short burn times, a roaring sound in the stove or stovepipe, and discoloration of the stovepipe. A properly installed stove using fuel and following operating procedures as outlined in this manual should not over-fire.

Excessive draft, inappropriate fuel, and operator error can cause over-firing. Correct an over-fire situation as follows:

- **EXCESSIVE DRAFT:** Contact your local dealer to have a draft reading taken. Any draft in excess of 0.1 WC requires a damper in the stovepipe. Some installations may require more than one damper.
- **INAPPROPRIATE FUEL:** Do not burn coal; kiln dried lumber, wax logs, compressed wood, highly volatile fuels or combustibles, or anything other than natural cordwood.

- **OPERATOR ERROR:** Ensure all the gaskets are in good condition. Replace worn out or compressed gaskets. Only burn the stove with the firing and ash doors in the closed position.

If you suspect your stove is over-firing, discontinue use and contact your dealer immediately. **Damage caused by over-firing is not covered by your warranty.** Results of over-firing can include warped or burned out internal parts, cracked refractory panels, discolored or warped external parts, and damaged finish.

- **ANY SIGNS OF OVER-FIRING WILL VOID YOUR WARRANTY!**
- **THE FRONT DOOR MUST REMAIN CLOSED WHEN IN OPERATION**

### **REMOVAL AND DISPOSAL OF ASHES**

You can leave a thin layer of ashes in the firebox if preferred. Allow fire to die down or go out completely. It is important to prevent ashes from building up around the front door opening or they will spill out, or they can pack into the gasket channel and prevent proper sealing. To remove ashes, use a fireplace shovel. Avoid removing large live coals by pushing them to the side and removing only the finer ash with a shovel.

Disposal of ashes - Ashes should be placed directly into a **metal** container with a tight fitting lid. Do not place any other items or trash into the metal container. Do not pour water into the container. Replace the container's lid and allow the ashes to cool. Never place the ash disposal container on a combustible surface or vinyl flooring, as the container could be **hot!**

Pending disposal, place the closed ash container on a noncombustible floor or on the ground outside, well away from all combustible materials, liquid fuels, or vehicles. Retain ashes in the closed container until all coals thoroughly cool.

If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

**NEVER** place ashes in wooden or plastic containers, in trashcans with other trash, or in paper or plastic bags, no matter how long the fire has been out. Coals within a bed of ashes can remain hot for several days once removed from the firebox.

# MAINTENANCE

## GLASS REPLACEMENT PROCEDURES

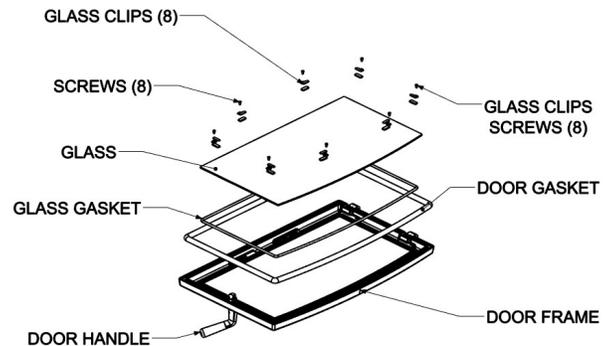
- **WARNING: DO NOT OPERATE THIS APPLIANCE WITH THE GLASS PANEL REMOVED, CRACKED, OR BROKEN. DO NOT SUBJECT THE DOOR TO ABUSE, SUCH AS STRIKING OR SLAMMING SHUT. ONLY A QUALIFIED SERVICE PERSON SHOULD REPLACE THE GLASS PANEL.**
1. Follow the instructions included with the replacement glass kit.
  2. Remove the door.
  3. Remove the screws from the glass clips (use penetrating oil if necessary) – Set aside for reinstallation.
  4. Carefully lift the damaged glass off the door and discard.
  5. Remove any remaining glass and old gasket material.
  6. Clean the screw holes and place a small amount of anti-seize compound in each one.
  7. Install a new glass gasket in the glass gasket groove.
  8. Place the new glass onto the door.
  9. **Important! Center the glass** and ensure that the edges of the glass are parallel with the edges of the opening.

Figure 12 Front Door Assembly

## CREOSOTE FORMATION & REMOVAL

When wood burns slowly at low temperatures, it may produce tar and other organic vapors, which combine with expelled moisture to form creosote. These creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire, which may damage the chimney or even destroy the house. When burning wood, inspect the chimney connector and chimney at least once every two months during the heating season to determine if there is a creosote buildup. If a creosote build-up occurs, inspect the stovepipe connector and chimney more often, at least monthly during the heating season to monitor the accumulation. If a creosote residue greater than 1/4" (6 mm) accumulates, remove it to reduce the risk of a chimney fire.

10. Check glass position again (centered, and parallel), then screw the glass retainer clips with the glass pads back on the door using a crisscross pattern. Tighten the screws no more than 1/8<sup>th</sup> of a turn after they seat. The glass will break at this point if not positioned correctly.
11. Apply a light film of anti-seize lubricant on the door's hinge pins if needed.
12. Install the door.
13. After 5 or 6 fires, check the glass retainer screws, and retighten if necessary



**Required Glass Kit:** Part Number: 94-58605. Use only 4mm x 642mm x 346mm Ceramic, or Neoceram glass. Contact your Hearthstone dealer.

## PREVENTION

Burn the stove with the primary air control fully open for 35 - 45 minutes daily to burn out creosote deposits from within the stove and the venting system.

After reloading with wood, burn the stove with the primary air control fully open for 15 to 20 minutes. This manner of operation ensures early engagement of the secondary combustion system that minimizes creosote buildup in the chimney.

If your glass always remains dirty, your operating temperatures are too low or your wood is wet; therefore, there is a higher risk of creosote buildup.

Inspect the venting system at the stove connection *and* at the chimney top. Cooler surfaces tend to build creosote deposits faster, so it is important to check the chimney at the top (where it is coolest) as well as from the bottom near the stove.

## CLEANING

Remove accumulated creosote with a cleaning brush specifically designed for the type of chimney in use. We recommend you use a certified chimney sweep to perform this service. Contact your dealer for the name

of a certified chimney sweep in your area (your dealer may be a certified sweep!).

We recommend that before each heating season you have the entire system professionally inspected, cleaned and repaired, if necessary.

## GASKETS

Replace door gasket material every two to three seasons, or whenever it becomes deteriorated or loose, depending on stove use. If the door seal leaks, a new gasket will ensure a tight seal and improve stove performance.

We recommend you only use Hearthstone replacement gaskets when you need to replace your door gasket. Contact your dealer for a gasket kit that includes instructions, and the gasket for your stove.

## GLASS

The glass used in our stoves is actually not plain glass, but a tough, clear ceramic material capable of operating at temperatures up to 2300° F. Do not operate the stove with a broken door glass. Do not abuse the front door by striking or slamming.

When necessary, clean the glass. For the inside surface of the glass, we recommend using a damp paper towel dipped in gray ash. Rub the inside of the glass with a circular motion. When all the deposits are removed, clean up with window cleaner or with commercial stove glass cleaners, which are available from your local dealer. Use this type of cleaner for the outside surface as well. Never attempt to clean the glass while the fire is burning or while the glass is hot. Remove deposits by following the instructions provided with the cleaner. Wipe the cleaner off with a soft cloth, or black & white newsprint.

**Important:** scratching or etching the glass will weaken the integrity of the glass. Do not use a razor blade, steel wool, or any other abrasive material to clean the glass. Use a cleaner specifically manufactured for woodstoves only.

The front door glass is a ceramic, thermal shock-resistant glass, made specifically for use in woodstoves. Do not use any replacement glass other than the ceramic glass manufactured and supplied for use in this woodstove. Replacement glass is available through your local dealer.

Replace the door glass immediately if broken or chipped. Contact your local dealer for replacement glass. The glass kit includes instructions and everything needed for the repair. If you replace the glass yourself, wear work gloves and safety glasses.

**Required Glass Kit:** PN: 96-58605.

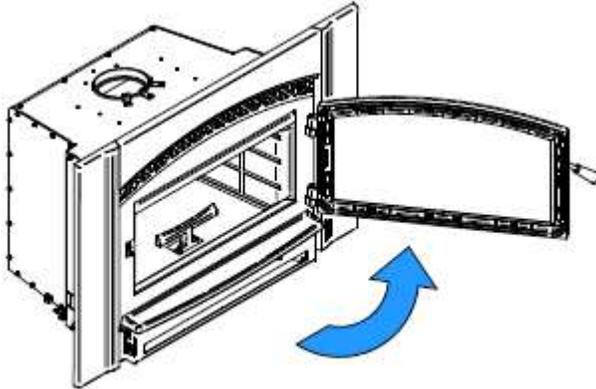
## ASH REMOVAL

Ash should be removed from the firebox every two or three days of full-time heating. Do not let the ash build up in the firebox because it will interfere with proper fire management.

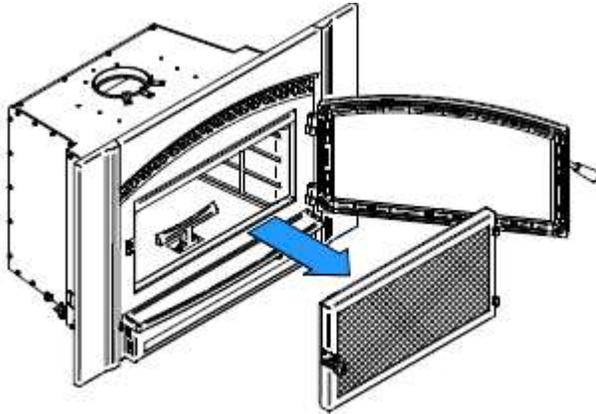
The best time to remove ash is after an overnight fire when the fireplace is relatively cool, but there is still some chimney draft to draw the ash dust into the fireplace and prevent it from coming into the room.

After ashes have been removed from the fireplace and placed in a tightly covered metal container, they should be taken outside immediately. The closed container of ashes should be placed on a non-combustible floor or on the ground well away from all combustible materials pending final disposal. Ashes normally contain some live charcoal that can stay hot for several days. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Other waste should not be placed in this container.

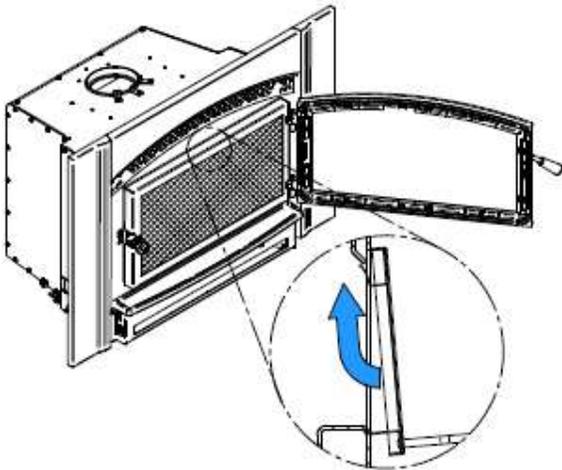
## Appendix 1: Installing the Optional Fire Screen



Open the door.



Hold the fire screen by the two handles and bring it close to the door opening.



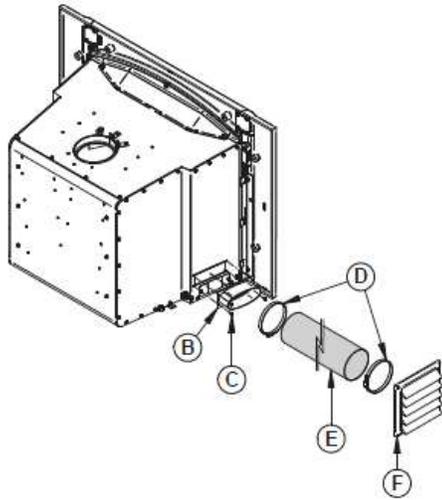
Lean the upper part of the fire screen against the top door opening making sure to insert the top fire screen brackets behind the primary air deflector.

Lift the fire screen upwards and push the bottom part towards the insert then let the fire screen rest on the bottom of the door opening.

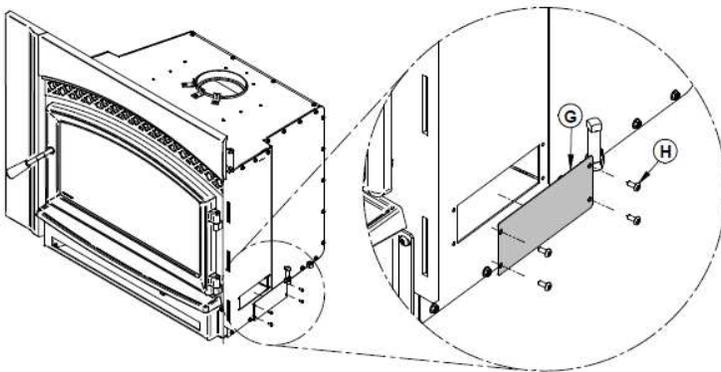
**Warning: Never leave the insert unattended while in use with the fire screen.**

## Appendix 2: Installing the Optional Fresh Air Intake Kit

**Note:** Fresh air intake kit may be installed on the right or left-hand side of the unit.



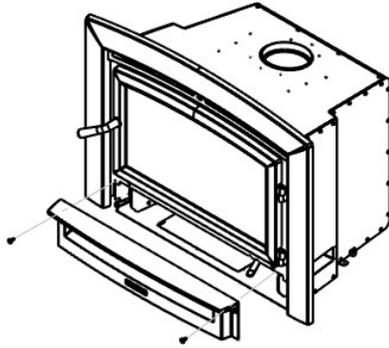
Install the fresh air kit adapter (B) using 4 screws (C). Secure the flexible pipe<sup>1</sup> (E) to the adapter (B) using one of the adjustable pipe clamps (D). Secure the other end of the pipe to the outside wall termination (F) using the second adjustable pipe clamp (D). The outside wall termination (F) must be installed outside of the building.



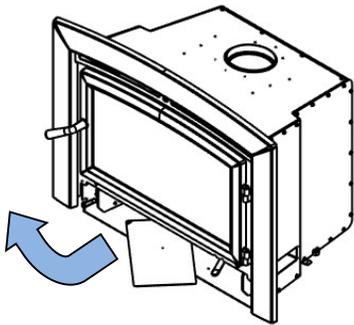
Install the cover plate (G) with 4 screws (H) on the other side of the insert. The cover plate and the screws can be found in the user manual kit.

<sup>1</sup> The pipe must be HVAC type, insulated, and must comply with ULC S110 and/or UL 181, Class 0 or Class 1.

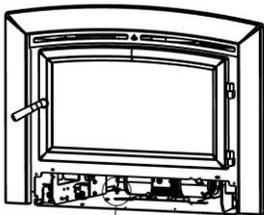
### Appendix 3: Blower Installation / Replacement



1. Loosen and remove two screws on bottom of frame. Gently pull the bottom of the faceplate forward.



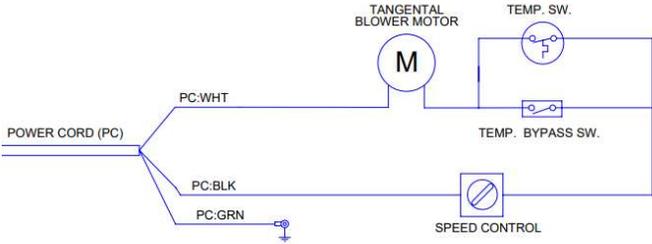
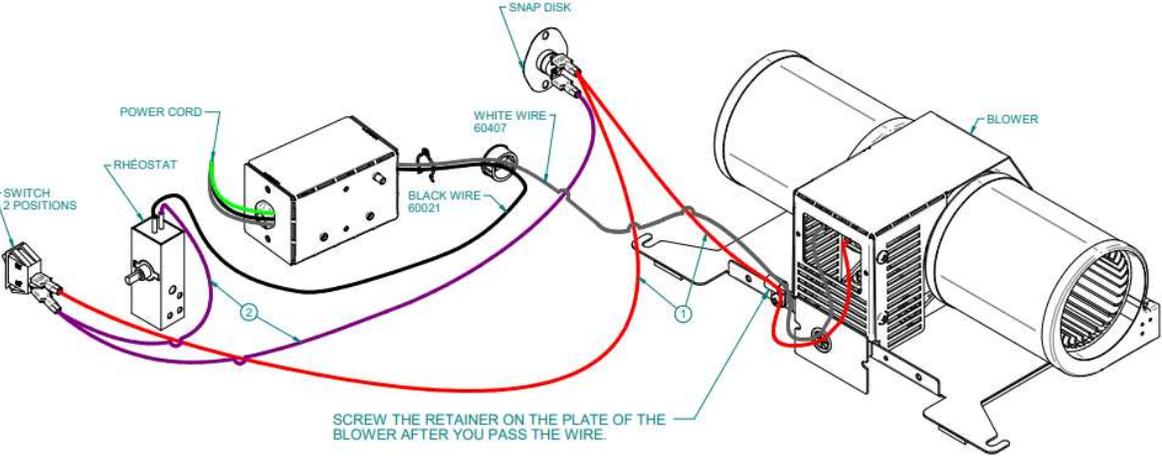
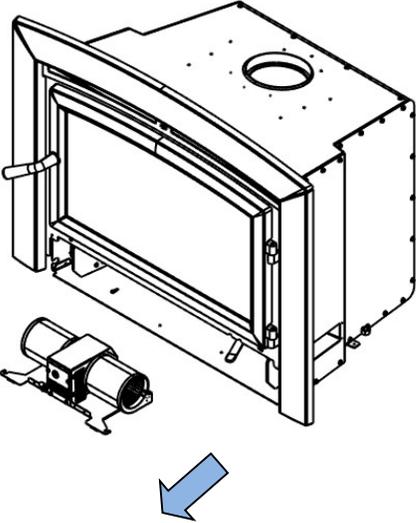
2. Remove the certification plate.



3. Unscrew the wing nuts on each side of the blower, 2 total.



1. Carefully remove the blower motor assembly from the stove. Be sure to disconnect the electrical switch from the cast iron frame once removed, being careful not to pull on the wires or terminals. The switch plate is removed by way of two fasteners on the inside-left of the iron frame as shown.

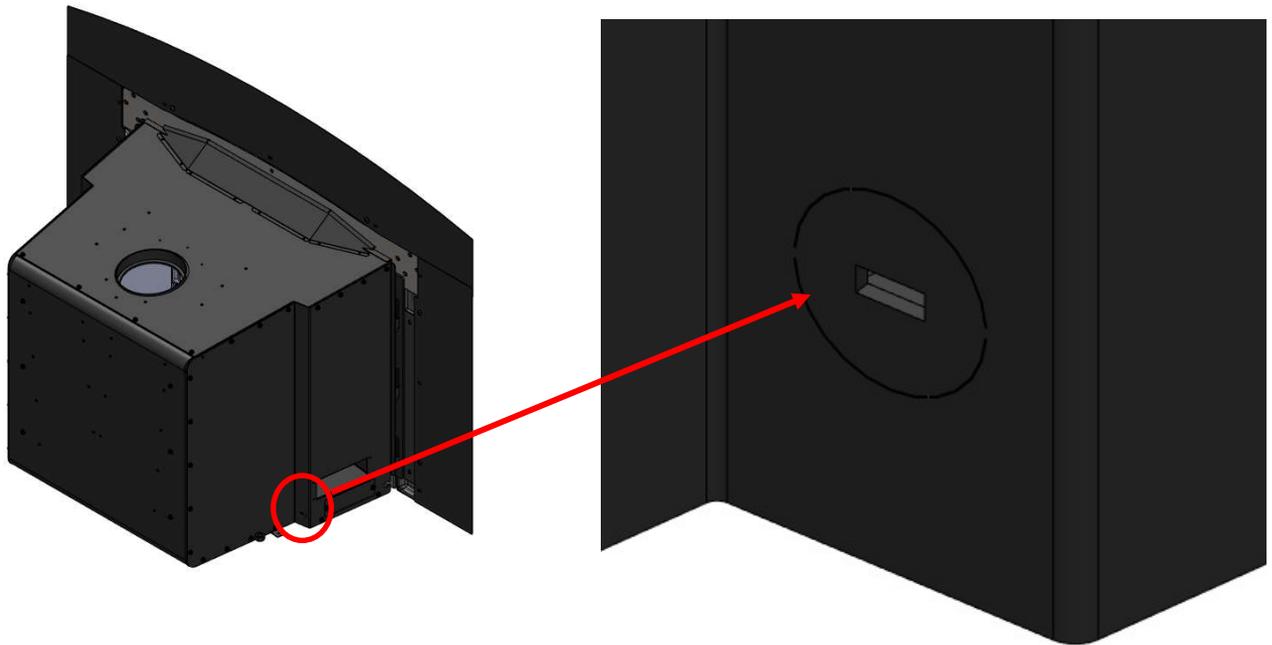


## Optional Romex Installation for Blower

1. A 90-degree Romex will be supplied with the stove for optional installation. This acts as a conduit for hardwiring the blower directly to a power source through the rear of the stove.

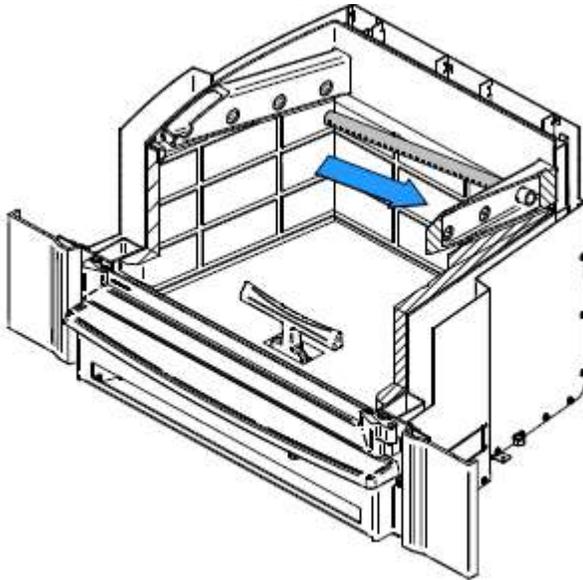


2. There is a circular knockout in the rear of the body of the stove that can be removed for installation of a 90-degree Romex. Insert a flat head screwdriver into the rectangular slot and move around to remove the cutout.

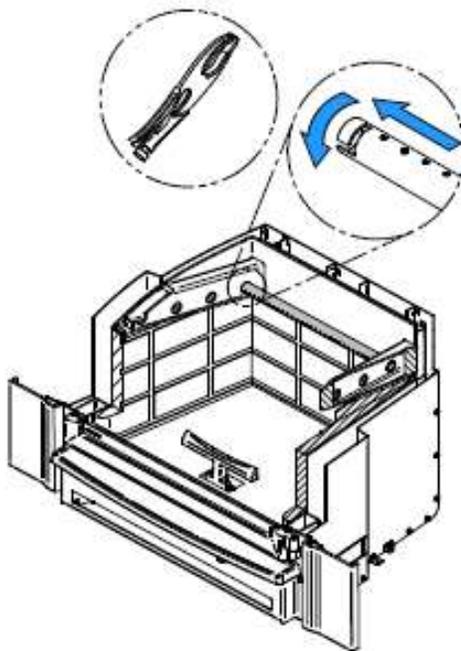


3. Thread on the 90-degree Romex to the opening.

## APPENDIX 4: INSTALLATION OF SECONDARY AIR TUBES AND BAFFLE

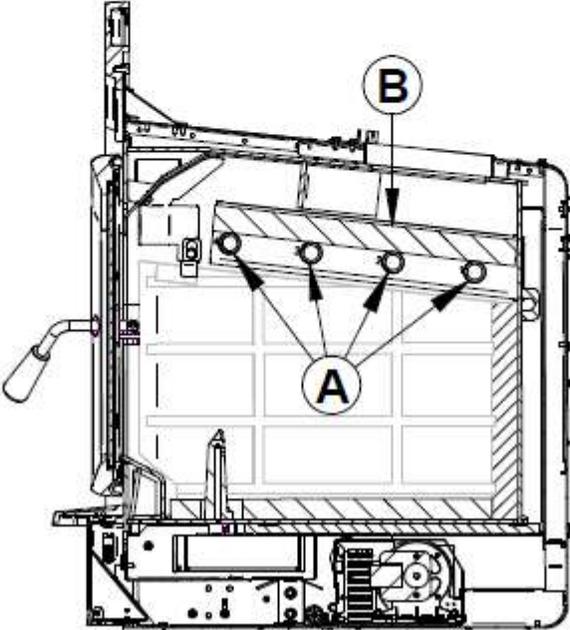
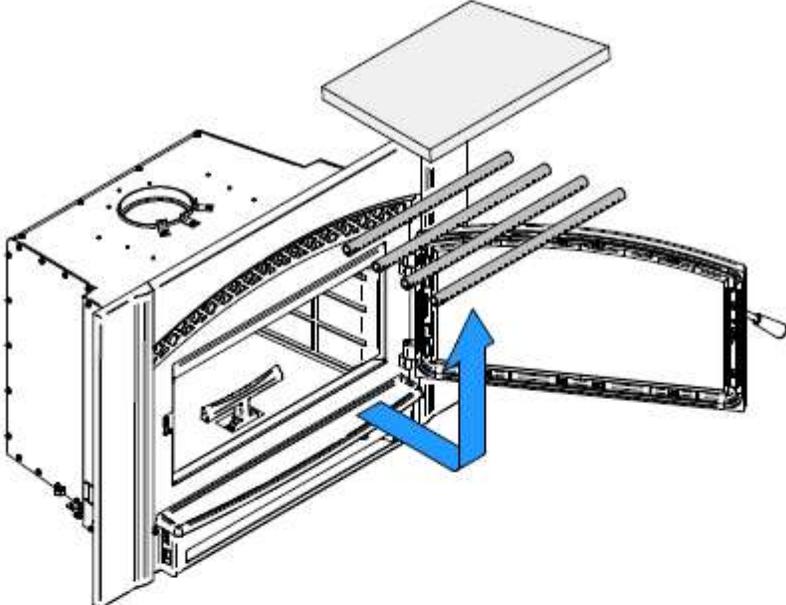


1. Starting with the rear tube, lean and insert the right end of the secondary air tube into the rear right channel hole. Then lift and insert the left end of the tube into the rear left channel.



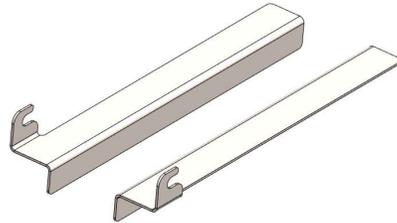
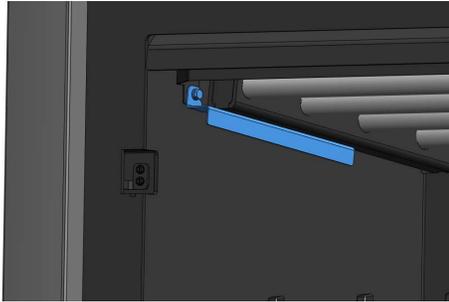
2. Align the notch in the left end of the tube with the key of the left air channel hole. Using a « Wise grip » hold the tube and lock it in place by turning the tube as shown in **DETAIL A**. Make sure the notch reaches the end of the key way.
3. Put the baffle in place.
4. Repeat **steps 1** and **2** for the two tubes in the back then install the baffle before installing the two front tubes.
5. To remove the tubes, use the above steps in reverse order.

**Note that** secondary air tubes (B) can be replaced without removing the baffle board (A).

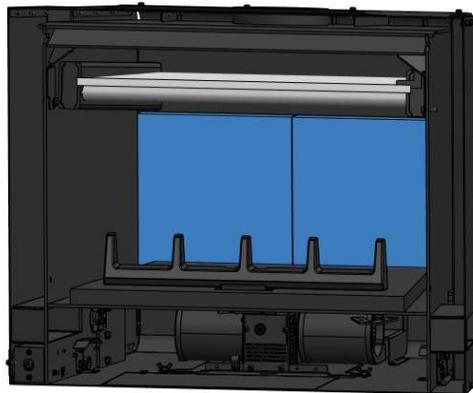


## Appendix 5: Stone Installation

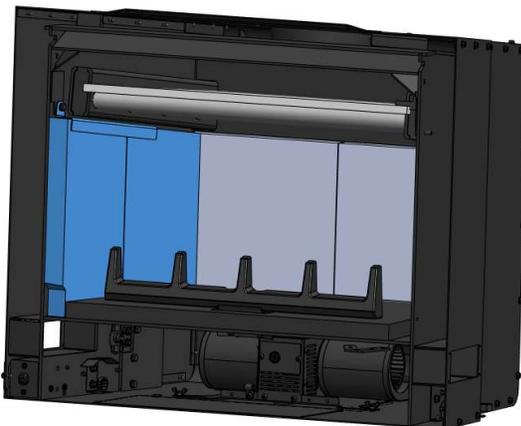
1. Locate the three boxes of refractory stone that come packaged with the stove. There should be two 1-0400-601 (rear refractory), two 1-0400-602 (side-rear refractory) and two 1-0400-603 (side-front refractory). Next, locate the side stone retaining brackets (5460-021 and 5460-022). If the side stone retaining brackets are installed in the stove, remove both brackets from the stove and set off to the side. To remove, loosen the screw and slide the bracket toward the front of the stove. If the side stone retaining brackets are not installed, continue to Step 2.



2. Install two rear refractory stones (1-0400-601) first. Carefully place these in the back of the stove aligned as shown below.



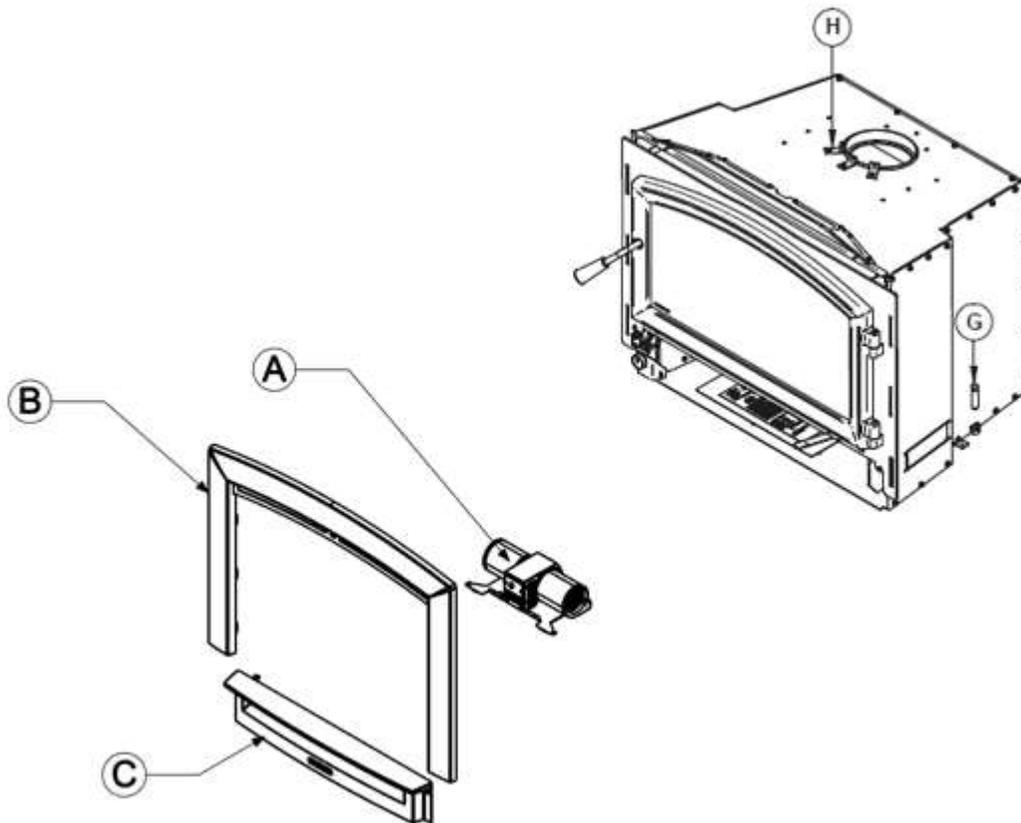
3. Once rear stones are installed, slide the side stones into place. Start with rear side stone (1-0400-602) and then the front side stone (1-0400-603). Do this for both sides. Once side stones are in place, install the side stone retaining bracket to secure.



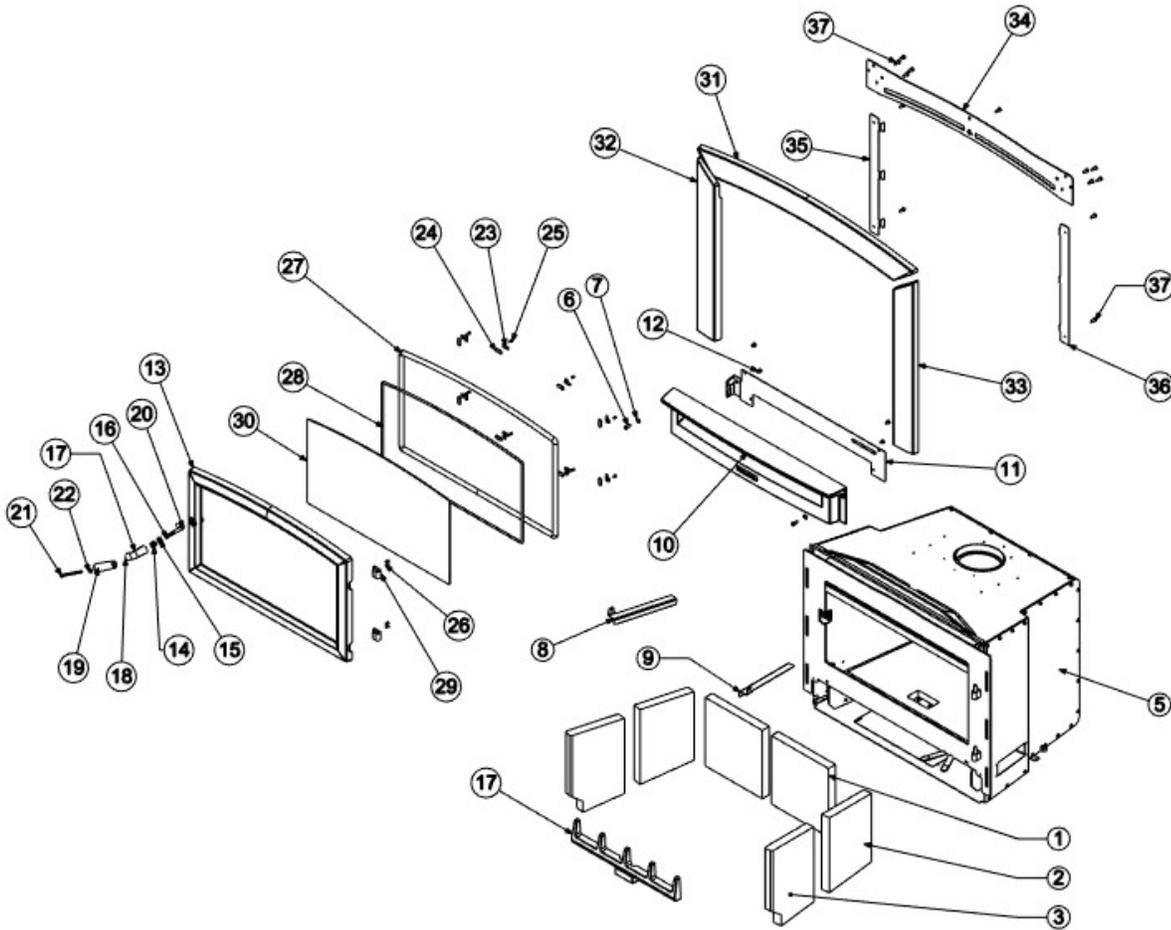
## APPENDIX 6: REMOVAL INSTRUCTIONS

For the purpose of inspecting the insert itself or the fireplace, your insert may need to be removed. To remove your insert, follow these instructions:

- Remove the faceplate assembly (B) and ash lip assembly (C).
- If necessary, remove blower (A) using the process defined in **Appendix 3**.
- Remove the screws that secure the chimney liner to the fixation brackets (H).
- Unscrew the leveling bolts (G) located on each side of the insert.
- Pull-out the insert from the fireplace opening to perform the maintenance work.



## Appendix 7: Exploded Diagram and Parts List



**IMPORTANT:** When requesting service or replacement parts for your insert, please provide the model number and the serial number. We reserve the right to change parts due to technology upgrade or availability. Contact an authorized dealer to obtain any of these parts. Never use substitute materials. Use of non-approved parts can result in poor performance and safety hazards.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1-0400-601	STONE, REFRACTORY, REAR	2
2	1-0400-602	STONE, REFRACTORY, SIDE-BACK	2
3	1-0400-603	STONE, REFRACTORY, SIDE-FRONT	2
4	2410-115	ANDIRON	1
5	3946-000	STOVE BODY: FIREPLACE INSERT, GMi-90	1
6	4500-1359	SCREW: MACH, 1/4-20x3/4", PAN, PH, BLK	2

7	4600-0310	WASHER: FLAT, 1/4, SAE, ZN (5/8" OD)	2
8	5460-021	RETAINER, STONE, LEFT	1
9	5460-022	RETAINER, STONE, RIGHT	1
10	2410-630	ASH LIP	1
11	5460-410	VANITY PANEL, ASH LIP	1
12	4500-0540	SCREW: MACH, 1/4-20x3/8", PAN, PH, ZN, BLK	4
13	2410-640	DOOR	1
14	5240-138	SPRING: LATCH, WOOD STOVES, 325#	1
15	4600-0800	WASHER: FLAT, 5/16, USS (7/8" OD), BLK ZN	1
16	4700-0790	SPACER: DOOR LATCH, 0.435"x0.375"x0.03"	2
17	4500-2976	SCREW: SET, 5/16-18x3/8", HALF DOG, SOCKET	1
18	2010-254	HANDLE CRANK, CAST	1
19	3900-179	WOOD HANDLE	1
20	5460-020	DOOR LATCH	1
21	4500-1680	SCREW: MACH 1/4-20, 3-1/2, ROUND, SLOT, ZN	1
22	4600-0400	WASHER: LOCK, 1/4", SPLIT, ZN	2
23	5021-060	GLASS CLIP	8
24	3120-021	GASKET: GLASS CLIP, BLACK, HER 1/TRI/BRI	8
25	4500-2105	SCREW: MACH, 10-24x3/8", UNCUT, FLAT, PH,	8
26	4500-2130	SCREW: SHCS, LOW, 10-24 X 3/8", BL OX	4
27	3110-066	GASKET: ROPE 5/8", MED DEN, BLK	1
28	3110-056	GASKET: ROPE 1/4", BLK, AD	1
29	5410-035	DOOR HINGE	2
30	3030-074	CERAMIC GLASS	1
31	2410-692	FACEPLATE SURROUND TOP	1
32	2410-690	FACEPLATE SURROUND LEFT	1
33	2410-691	FACEPLATE SURROUND RIGHT	1
34	5700-008	VENT	1
35	5460-010	HANGER BRACKET, FACEPLATE, LEFT	1
36	5460-011	HANGER BRACKET, FACEPLATE, RIGHT	1
37	4500-0700	SCREW: CAP, 1/4-20 X 5/8", HEX, GREASE 5, BL OX	13

# TROUBLESHOOTING

## COMMON ISSUES

Virtually all woodstove operators experience basic common problems at one time or another. Most are correctable and generally require only a minor adjustment of the stove, installation, or operating technique. In cases where weather conditions dramatically affect stove performance, the problems are typically temporary and solve themselves once the weather changes.

If you question whether your stove is producing adequate heat, the best way to troubleshoot the problem is to monitor the temperature of the stack no more than 12 inches (30 cm) above the flue collar. A 400° F (200° C) stovepipe confirms the stove is supplying sufficient heat. Keep in mind that your house itself will regulate room/house temperatures. How well the walls, floors and ceilings are insulated, the number and size of windows, the tightness of outside doors, and the construction or style of your house (vaulted ceilings or other open spaces which collect large percentages of heat, ceiling fans, etc.) all are determining factors of room temperature.

Your stove's performance is also dependent on its installation. One common cause of poor performance is an oversized chimney flue. Oversized chimney flues result in decreased draft, which prevents the smoke from rising out the chimney. Oversized flues are also more difficult to heat effectively, especially when burning a high efficiency stove. Cool flue temperatures inhibit the establishment of a strong draft (and encourage the accumulation of creosote). The lack of a strong draft will cause the fire to die down and may even force smoke to pour into the room.

If your chimney is the proper size and a strong draft is not easily established, there is the possibility that the chimney is too cold. Again, hot chimneys promote stronger drafts. Opening a window briefly in the room while lighting the stove may help.

Other draft guidelines are as follows:

An **"AIRTIGHT" HOUSE:** The air supply (infiltration) to the interior of the house may be inadequate if your home is super-insulated or especially well sealed. This phenomenon of air starvation within the

building is exacerbated if exhaust fans, such as clothes dryers, bathroom fans or cook stove exhaust fans, are in operation within the home. Outfitting your stove with the optional outside air adaptor connected to an air duct, which leads to the outside of the building, can correct this problem.

**Tall Trees or Buildings:** These obstructions, when located close to the top of the chimney can cause chronic or occasional downdrafts. When selecting a site for a new chimney, consider the placement of other objects near the proposed chimney location.

**Wind Velocity:** Generally, the stronger and steadier a wind, the stronger (better) the draft. However, "gusty" wind conditions can cause erratic downdrafts. For consistent problems, consider a high wind cap, such as the Vacu-Stack.

**Barometric Pressure:** Chimney drafts are typically sluggish on balmy, wet or muggy days (low barometric pressure). This is a weather-related phenomenon, which generally is self-correcting as the weather changes.

**Briskness of Fire:** The hotter the fire in your stove, the hotter your chimney and, therefore, the stronger the draft.

**Breaks in the Venting System:** An unsealed clean-out door at the bottom of the chimney, leaky stovepipe joints, a poor stovepipe-to-thimble connection, missing caps, or a leaky chimney all can cause inadequate draft.

**Seasonal Factors:** Early fall and late spring are generally difficult seasons in which to establish proper drafts. The colder the outside air is relative to room temperature, the stronger the draft.

## OPERATING THE STOVE

As outlined above, there are days when a good draft is just not easy to establish. The causes are usually seasonal factors or a cold chimney. Try starting the fire by using small kindling and fuel to obtain a quick, hot fire. Tend the fire frequently with small fuel until the chimney is hot and the draft is well established. Sometimes, partially opening a first floor window briefly will help quickly get draft established.

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTIONS
STOVE SMOKES	Operating Technique	Fully open the primary air control one minute before opening doors, and ensure the bypass is open before opening door.
	Cold Chimney or reverse draft	Preheat the chimney when first starting a fire. Briefly open a window in the room containing the stove.
	Blocked Chimney	Examine the chimney and stovepipe for blockage or creosote accumulations.
	Oversized Chimney	Reline the chimney to the appropriate diameter
	Undersized Chimney	Install a draft inducer or replace the chimney.
	Chimney Too Short	Lengthen the chimney.
	Air Infiltration Into The Chimney	Seal chimney connections and openings. Check clean-out doors.
	Bypass not closed	Ensure that the bypass door is closed when the catalysts are in the active range.
	Catalysts not functioning	Inspect catalysts for damage, ash build-up, or plugging. Brush catalysts with a soft-bristled brush, or vacuum lightly. Replace if required. Follow instructions to ensure catalyst light-off.
	Not burning proper fuel	Ensure cordwood is seasoned and dry.
More Than One Appliance Connected to the Flue	Disconnect all other appliances and seal openings.	
BACK-PUFFING OR GAS EXPLOSIONS	Operating Technique	Fully open the primary air control one minute before opening the door and keep it fully open for a few minutes after reloading. Ensure the bypass door is open before opening the door
	Extra Low Burn Rate	Burn the stove at a higher burn rate.
	Chimney Down-draft	Install a chimney cap.
	Excessive Ash Build-up	Empty the ash pan more frequently. Increase efficiency of burns, and avoid using poor quality or green wood.
UNCONTROLL- ED OR SHORT BURN	Unsealed or Open Door	Close the door tightly or replace the gaskets. Air leakage around glass gasket – replace gasket
	Excessive Draft	Check the installation. Operate at LOW BURN. Install stovepipe damper. Draft in excess of 0.1 wc should be corrected with a stovepipe damper(s)
	Extra Long Chimney	Shorten the chimney. Install stovepipe damper(s).
	Oversized Chimney	Reline the chimney to the proper diameter.
	High Winds or Hilltop Location:	Install a chimney cap.
INSUFFICIENT HEAT	Poor Quality, low Btu content, or Green Wood	Use only air-dried wood, preferably dried <u>at least</u> one year. Use a wood with a high Btu content if available.
	Low Burn Rate	Operate the stove at a higher burn rate.
	Cold Exterior Chimney	Reline or insulate the chimney.
	Leaky Stovepipe or Chimney	Check the installation. Replace with a pre-fabricated insulated chimney system or a properly sized masonry chimney.
	Too Much Heat Loss From House	Add insulation, use energy efficient windows, or caulk windows, and seal openings in home.
	Excessive Ash Build-up	Empty the ash pan more frequently. Increase efficiency of burns, and avoid using poor quality or green wood.
BLISTERING OF FINISH	Operating Technique	Do not over-fire the stove. Monitor stove temperatures. Use seasoned wood only.
	Excessive Draft	Check the DRAFT. A damper may be required. Operate the stove at a LOW BURN range.



# SAFETY LABEL



STANDARDS / NORMES D'ESSAI:  
 Certified to / Certifié selon UL 6628  
 Certified to / Certifié selon UL 1482  
 Certified to / Certifié selon UL 737  
 CSA B415.3-10  
 Control number: 4002461  
 (March/Mars 2018)

**Intertek**

LISTED SOLID FUEL BURNING  
 INSERT APPLIANCE  
 APPAREIL ENCASTRABLE À  
 COMBUSTIBLE SOLIDE HOMOLOGUÉ

MODEL / MODÈLE :

**MATRIX-I**

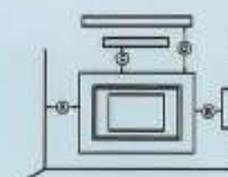
Serial Number  
 No. de Série

0

## Clearances to combustibles / Dégagements aux combustibles

Measured from door opening

Mesuré à partir de l'ouverture de porte

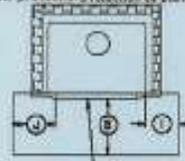


Blower / Ventilateur:  
 115VOLTS, 0.8 AMPS, 60Hz

Combustible side wall  
 Mur côté adjacent  
 Combustible side surround [1]  
 Parement latéral combustible [1]  
 Combustible top surround [1]  
 Parement supérieur combustible [1]  
 Combustible mantle shelf [3]  
 Tablette combustible [1]  
 Combustible top surround with shield [1][2]  
 Parement supérieur combustible avec écran [1][2]  
 Combustible mantle shelf with shield [1][2]  
 Tablette combustible avec écran [1][2]

A: 18 in./po. (468 mm)  
 B: 9 in./po. (229 mm)  
 C: 27 in./po. (686 mm)  
 D: 27 in./po. (686 mm)  
 E: 21 in./po. (533 mm)  
 F: 21 in./po. (533 mm)

Floor protection/Protection de plancher



E: 10 in./po. (254 mm) USA  
 18 in./po. (457 mm) CANADA  
 F: 8 in./po. (203 mm) CANADA  
 H: 8 in./po. (203 mm) USA

[1] Subject to a maximum protrusion (consult owner's manual) / Sujet à une saillie maximale (consultez le manuel d'instructions)  
 [2] Consult owner's manual for additional details concerning shields / Pour plus de détails sur l'écran consulter le manuel de l'utilisateur.

### PREVENT HOUSE FIRES

- Install and use only in accordance with the manufacturer's installation and operating instructions.
- Contact local building or fire officials about restrictions and installation inspection in your area.
- Use with solid wood fuel only. Do not use other fuels.
- Risk of smoke and flame spillage. Operate only with door closed or door open with screen door installed. Open door or remove screen door only to feed the stove.
- Do not connect this unit to a chimney serving another appliance.
- Install only in masonry fireplaces. Do not remove bricks or mortar from masonry fireplace.
- The non-combustible floor protection in front of the unit should have an R value equal to or greater than 1.00 extending 23 inches (584 mm) in front of the insert if the hearth elevation is lower than 5 inches (127 mm) or extend 18 inches (468 mm) (USA), 18 inches (457 mm) (CANADA) without a R value if the hearth elevation is higher than 5 inches (127 mm).
- Connect to a code-approved masonry chimney or listed factory-built fireplace chimney with a direct line connector into the first chimney floor section.
- Do not overfire. If soot or chimney connector glows, you are overfiring.
- Inspect and clean chimney frequently. Under certain conditions of use, creosote buildup may occur rapidly.
- Do not use grate or elevate fire. Build wood fire directly on hearth.
- Replace glass only with ceramic glass.
- This wood heater needs periodic inspection and repair for proper operation. Consult the owner's manual for further information. It is against US Federal regulations to operate this wood heater in a manner inconsistent with the operating instructions in the owner's manual.

### PRÉVENEZ LES INCENDIES

- Installer et utiliser conformément au manuel d'utilisation du fabricant.
- Contacter les autorités de votre localité ayant juridiction concernant les restrictions et inspections d'installation.
- Utiliser avec le bois seulement. Ne pas utiliser d'autres combustibles.
- Risque de fuite de fumée et de flammes. Utiliser l'appareil la porte fermée ou ouverte avec le pare-étincelle en place uniquement. Ouvrir la porte ou retirer le pare-étincelle seulement lors du chargement.
- Ne pas raccorder à un conduit de fumée venant d'un autre appareil.
- Installer seulement dans un foyer de maçonnerie. Ne pas enlever les briques ou le mortier du foyer de maçonnerie.
- La protection de plancher incombustible au devant de l'encastrable devrait avoir un facteur d'isolation R égal ou supérieur à 1,00 et se prolonger 23 pouces (584 mm) au devant de l'appareil lorsque l'âtre possède moins de 5 pouces (127 mm) d'élévation et se prolonger 18 pouces (457 mm) (USA), 18 pouces (457 mm) (CANADA), sans facteur d'isolation R au devant de l'encastrable lorsque l'âtre possède plus de 5 pouces (127 mm) d'élévation.
- Raccorder à une cheminée de maçonnerie respectant les codes ou à une cheminée préfabriquée homologuée, directement à la première section de cheminée gainée.
- Ne pas surchauffer. Si l'appareil ou le tuyau rougit, il y a surchauffe.
- Inspecter et nettoyer la cheminée fréquemment. Dans certaines conditions, la formation de crasse peut être rapide.
- Ne pas utiliser de grille ou de grilles pour élever le feu. Préparer le feu directement sur l'âtre.
- Remplacer le verre avec un verre de céramique.
- Cet appareil de chauffage requiert des inspections et réparations périodiques. Consulter le manuel de l'utilisateur pour plus d'information. Opérer cet appareil de chauffage de façon inconsistante par rapport au manuel de l'utilisateur constitue une violation de la loi fédérale (USA).

U.S. ENVIRONMENTAL PROTECTION AGENCY Certified to comply with 2020 particulate emission standards using cordwood.  
 AGENCE DE PROTECTION DE L'ENVIRONNEMENT DES É.-U. Conforme aux normes d'émission de particules de 2020 avec bûche de bois.  
 Weighted average emission rate / Moyenne pondérée des émissions: 1.54 g/h  
 When tested in accordance with / Lorsque testé selon: ASTM E2515

Tested and certified in compliance with CFR 60 part 60, subpart AAA, section 60.534(e)(1)(i) and Draft ASTM W647525-14



## CAUTION

- HOT WHILE IN OPERATION.
- DO NOT TOUCH. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY.
- CONTACT MAY CAUSE SKIN BURNS. SEE NAME-PLATE AND INSTRUCTIONS.

## ATTENTION

- CHAUD EN FONCTIONNEMENT.
- NE PAS TOUCHER. GARDER LES ENFANTS, LES VÊTEMENTS ET LES MEUBLES ÉLOIGNÉS.
- UN CONTACT AVEC LA PEAU PEUT OCCASIONNER DES BRÛLURES. VOIR LES INSTRUCTIONS.

Made in St-Augustin-de-Desmaures (Qc), Canada  
 26/03/2018 (# test)



Fabricant de poêles international  
 Stove Builder International

Fabriqué à St-Augustin-de-Desmaures (Qc), Canada  
 26/03/2018 (# test)

17722



## LIMITED WARRANTY

**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 retail purchaser only (the "Original Purchaser") the new appliance manufactured by Hearthstone, purchased by the Original Purchaser and installed by an authorized Hearthstone dealer or their designated representative against any of the occurrences listed in this document that result from defects in material or workmanship. This warranty is not transferrable. All obligations of Hearthstone under this document commence on the date of the Original Invoice (the "Purchase Date"). The term "Limited Lifetime" is defined as 10 years from the beginning of warranty coverage. Hearthstone appliances are designed to be operated only with the fuels listed in your owner's manual.

### Stove components Limited Warranty

Warranty Period	Wood	Gas	Pellet	Covered Components
Limited Lifetime	X	X	X	Stone
	X	X	X	Cast iron not listed elsewhere
	X			Clean burning air supply system*
5 Year	X	X	X	Door handles and latches
	X	X	X	Steel Components and Firebox
		X		Burner and logs
3 Year			X	Burn Pot and Baffles
2 Year	X	X	X	Appliance Electrical and Gas Components
	X	X		Refractory, Vermiculite Panels, Baffles
1 Year	X	X	X	Enamel finish against peeling or fading
	X	X	X	Accessories
	X	X	X	Glass
	X			Ash Grate
	X	X	X	All components not listed elsewhere

Any parts repaired or replaced during the limited warranty period will be warranted under the terms of the limited warranty for a period not to exceed the remaining term of the original limited warranty or one year, whichever is longer.

**Parts:** Hearthstone will replace through an authorized dealer, defective parts covered by the foregoing warranty at no charge.

**Labor:** Within the first (1<sup>st</sup>) year after the Purchase Date, Hearthstone will pay for warranty labor performed by an authorized Dealer at Hearthstone's published labor rates in effect at the time the labor is performed only if the appliance is installed by an authorized dealer or their designated representative. Otherwise or 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 appliance parts covered by any of the foregoing warranties to and from Hearthstone or an authorized

Dealer, as the case may be. Thereafter, the Original Purchaser is responsible for all shipping costs related to shipping appliance parts to and from Hearthstone or an authorized Dealer, as the case may be.

**Shipping cost for the appliance:** Within the first (1st) year after the Purchase Date, if the Original Purchaser is instructed to return the appliance to Hearthstone or an authorized 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 appliance to and from Hearthstone or an authorized 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 appliance to and from Hearthstone or an authorized 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 appliance returned for repair; the Original Purchaser shall be responsible for any such fees.

## EXCLUSIONS & CONDITIONS

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

1. Damages resulting from:
  - a. Failure to install, operate, or maintain the appliance in accordance with the owner's manual, operating instructions, installation instructions, or safety rating label provided with the appliance.
  - b. Over-firing the appliance. Over-firing can be identified by, but not limited to, warped cast iron or steel, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
  - c. Failure to install the appliance in accordance with all national or local building codes.
  - d. Shipping or improper handling.
  - e. Improper operation, abuse, misuse, continued operation with damaged, corroded, or failed components, accident, or improper/incorrect service or repairs.
  - f. Environmental conditions, inadequate ventilation, negative pressure, or improper drafting caused by tightly sealed constructions, insufficient make-up air supply, or air handling devices such as exhaust fans, forced air furnaces, or other such causes.
  - g. Damage caused by direct exposure to water.
  - h. Use of fuels other than those specified in the owner's manual.
  - i. Installation or use of components not supplied with the appliance, or any other components not expressly authorized and approved by Hearthstone.
  - j. Modifications of the appliance not expressly authorized and approved by Hearthstone in writing.
  - k. Interruptions or fluctuations of electrical power supplied to the appliance.
2. All stones are warranted 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 appliance.
3. Repair or replacement of wear parts. Such parts that are subject to normal wear and tear during the warranty period such as paint, gaskets, baffles, refractory materials, ash grates, and glass.
4. Damage resulting from installation, modification, alteration, repair or service of the appliance by any party other than an authorized Hearthstone dealer (a "Dealer") or their designated representative, or Hearthstone.
5. Damage due to water or condensation due to installation of the appliance in a high moisture area.
6. Damage due to installation of the appliance in an atmosphere contaminated by damaging chemicals, including but not limited to chlorine, fluorine or salts.
7. Scratches on glass, enameled surfaces or stones due to mechanical abrasion.
8. Noise caused by expansion or contraction caused by the heating and cooling of the appliance.
9. Odors caused by the heating of the appliance, or surrounding materials
10. Consequential damage caused by leaking of condensate during startup
11. A defect in any part of the appliance if the Original Purchaser fails to comply with Hearthstone's or a Dealer's request to ship the part or the appliance to Hearthstone or a Dealer, as the case may be.
12. Replacement stones and enameled parts are taken from current stock, and may not match originals in color, grain, or pattern. Hearthstone will supply replacement parts for discontinued parts in finishes or colors as available, or at their discretion.
13. Hearthstone's obligation under this warranty does not extend to the appliance's ability to heat the desired space. Information is provided to assist the customer and the dealer in selecting the appropriate appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

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 APPLIANCE. 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 APPLIANCE WARRANTED HEREUNDER. THEY ARE NOT TRANSFERRABLE AND 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 LOSS OF USE, 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 their original Hearthstone dealer, or the current responsible local Hearthstone dealer, for instructions regarding the return of defective parts for repair, the return of the appliance for repair, or to schedule 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)) if the original dealer is not available, to find a Hearthstone dealer nearest to 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 appliance. When the Original Purchaser contacts a Hearthstone Dealer, the Dealer on behalf of Hearthstone, as the case may be, will instruct the Original Purchaser to either return the defective part, or the entire appliance (if requested), to the Dealer or Hearthstone or allow a Dealer to make a service call at the place where the appliance is located. Hearthstone may require that a digital picture be provided to support the claim. Notwithstanding any other provision of this document, the Original Purchaser shall pay for any fees and service charges related to a Dealer's service call or the shipping charges associated with the return.

### **WARRANTY REGISTRATION**

The Original Purchaser can complete their warranty registration on our website at [www.hearthstonestoves.com](http://www.hearthstonestoves.com), or send a completed and signed Warranty Registration Form, which is enclosed in the appliance document 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 REQUIRED* AS A CONDITION OF WARRANTY COVERAGE OR HEARTHSTONE'S PERFORMANCE.**