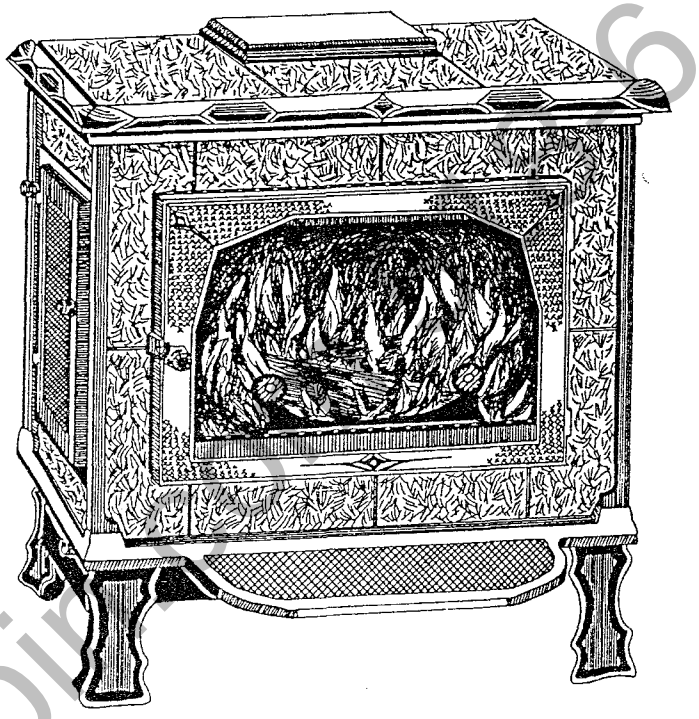
AMERICAN HERITAGE

OWNER'S MANUAL



HearthStone® Stoves

SAFETY NOTICE: IF THIS STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA.

Welcome to the HearthStone Family. You have made an investment in perhaps the finest solid fuel radiant/convection heater available today. To own a HearthStone Stove is to make a statement - a statement of your appreciation and understanding of a quality handcrafted product.

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 information that will be useful to you now and in years to come, so keep it handy and refer to it as needed.

The performance of your stove depends on many variables that make your installation unique. The sections on operating procedure and general information, therefore, can only serve as useful guidelines rather than hard and fast rules. Should you have any questions, do not hesitate to contact the factory or your dealer for additional information.

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SAFETY NOTICE

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I. INSTALLATION MATERIALS NEEDED FOR YOUR SAFETY

The following is a list of parts and materials required for installing this woodstove. Prevent the consequence of a house fire; do not use materials that don't meet these minimum requirements.

CHIMNEY CONNECTOR: The chimney connector joins the stove to the chimney. It should be 6" diameter, 24 gauge minimum, metal stovepipe.

THIMBLE: An approved wall pass-through system is a manufactured or site-constructed device installed in combustible walls through which the chimney connector passes to the chimney. It is intended to keep walls from igniting.

CHIMNEY: The chimney can be one of two types:

APPROVED MASONRY, minimum 4" in thickness, with at least 5/8" fire clay lining joined with refractory cement or other listed lining system suitable for use with wood stoves.

OR

PREFABRICATED 6" listed high temperature (tested to 2100 F) residential type and building heating appliance chimney.

Components required by manufacturers for installation such as the chimney support base, firestop (as appropriate), attic insulation shield, insulated tee, etc. are necessary to assure a safe chimney installation. Use only components manufactured for the chimney.

FLOOR PROTECTOR: 3/8" minimum thickness non-combustible or listed floor protector with an "R" factor of 1.0.

II. INSTALLATION

When locating your stove, consider safety, convenience, traffic flow, and the fact that the stove will need a chimney and chimney connector.

Your stove should be located away from doors and hallways in an open area to allow for necessary clearances. Review the clearance illustrations for proper measurements from combustibles.

Keep furniture, drapes, curtains, wood, paper, and other combustibles far away from the stove. Never install the stove in locations where gasoline, kerosene, charcoal lighter, or any other

flammable liquids are used or stored.

The soapstone walls produce an even, radiant heat. Locate the stove centrally in your living area to allow the heat to travel naturally to distant rooms.

Do not locate your stove in the basement. The amount of radiant energy required to heat your basement walls is so great that most of the useable heat is absorbed by them and lost.

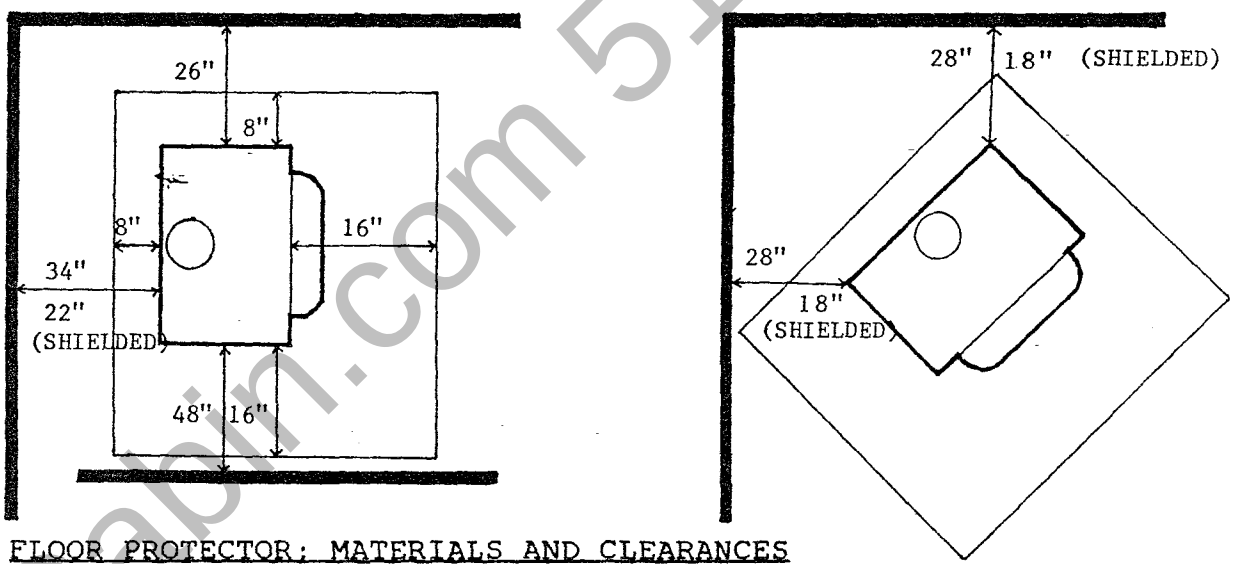
A. CLEARANCES TO COMBUSTIBLES

STOVE CLEARANCES TO COMBUSTIBLES

A rear heat shield is optional. Only through the use of the heat shield supplied by NHC,Inc., through your dealer, can decreased clearances be attained.

The following clearances are the distance the stove should be from walls and other combustible surfaces (measure from the edge of the top casting):

SIDE:	26"	LOADING DOOR SIDE:	48"
REAR:	34"	SHIELDED REAR:	22" (MEASURE FROM SHIELD)
CORNERS (CORNER INSTALLATION):		28";	18" (SHIELDED)



FLOOR PROTECTOR: MATERIALS AND CLEARANCES

The stove must be placed on a floor protector if the floor is wood or other combustible flooring. If carpeting is present, it must be removed. The floor protector must not be placed on carpet.

An acceptable floor protector is a 3/8" minimum thickness non-combustible or listed floor protector with an "R" factor of 1.0. The following clearances are the distance the hearth should extend beyond the body of the stove:

SIDE:	8"	LOADING DOOR SIDE:	16"
REAR:	8"	FRONT (MEASURE FROM FRONT DOOR):	16"
		TOTAL HEARTH MEASUREMENT:	51" X 42.5"

CHIMNEY CONNECTOR (STOVEPIPE) CLEARANCES

The following clearances are the minimum distances the chimney connector should be from walls, ceilings, and other combustibles:

WALLS: 18" (MEASURE FROM VERTICAL PIPE)
CEILING: 18" (MEASURE FROM HORIZONTAL PIPE)

AVOID FIRES

-Maintain the designated stovepipe and stove clearances to walls, ceilings, hearth, and other combustible surfaces.
-There must be the designated air space clearance around a masonry chimney to allow natural heat removal from the area. Insulation in this space will cause a heat build-up which may ignite wood framing.

B. VENTING SYSTEM

The venting system consists of a chimney connector and a chimney. These get extremely hot during use. Temperatures inside the chimney may exceed 2,000 F in the event of a creosote fire.
To protect against the possibility of a house fire, the chimney and stovepipe must be properly installed and maintained. Be sure the venting system is constantly in good condition. Replace rusted, cracked, or broken components.
A thimble must be used when a connection is made through a combustible wall to the chimney. A chimney support package must be used when a connection is made through the ceiling to a prefabricated chimney. These accessories are absolutely necessary to provide safe clearances to combustible wall and ceiling material.
This stove may be connected to a lined masonry chimney or a listed high temperature prefabricated residential type building heating appliance chimney.
Do not connect this stove to a chimney serving another appliance. To do so will affect the safe operation of both appliances.

CHIMNEY CONNECTOR

The chimney connector must be 6" diameter, 24 gauge stovepipe. Do not use aluminum or galvanized steel. They cannot properly withstand the extreme temperatures of a wood fire.
Do not use stovepipe as a chimney. You must connect your stove to a chimney comparable to those recommended in this manual.
Stovepipe sections must be attached to the stove and to each other with the crimped end toward the stove. This allows creosote to run into the stove and not onto the stove and not onto the outside of the pipe.
All joints should be secured with three sheet metal screws. Otherwise, in the event of a creosote fire, the stovepipe may

vibrate apart. Holes pre-drilled in the flue collar accept 1/8" X 1/2" sheet metal screws.

Additional stovepipe accessories (draw-bands, slip-joints, clean-out tees) greatly simplify the connection of stovepipe to chimney, make inspection easier, and let you dismantle the stovepipe without moving the stove.

Because of the air control design of this product, a stovepipe damper is not necessary.

For proper operation, the stovepipe should be as short as possible. Avoid too many elbows. Horizontal lengths of stovepipe should have an upward slope from the stove of at least 1/4" per foot.

CONNECTION TO A MASONRY CHIMNEY

CHIMNEY:

Should the stove be connected to a masonry chimney, the chimney should be examined for cracks, loose mortar, other signs of deterioration, and blockage. The stove should not be installed until it is determined that the chimney is safe for use.

Since an oversized flue contributes to the accumulation of creosote, the size of the flue should be checked to determine that it is not too large for the stove. For this stove, the flue should be no larger than 8" X 8" or 6" in diameter.

The following is a checklist of minimum requirements for masonry chimneys:

-Chimney wall construction:
- Brick or modular block at least 4" thick.
- A rubble or stone wall at least 12" thick.

-Must have a fire clay flue liner:
- Minimum thickness of 5/8".
- Installed with refractory mortar.
- At least 1/2" air space.
- An equivalent flue liner must be a listed chimney liner system or other approved material.

-Interior chimney requirements:
- At least 2" clearance to combustible structure.
- Fire stops must be installed at the spaces where the chimney passes through floors and/or ceiling.
- Insulation must be 2" from the chimney.

-Exterior chimney requirements:
- At least 1" clearance to combustible structure.

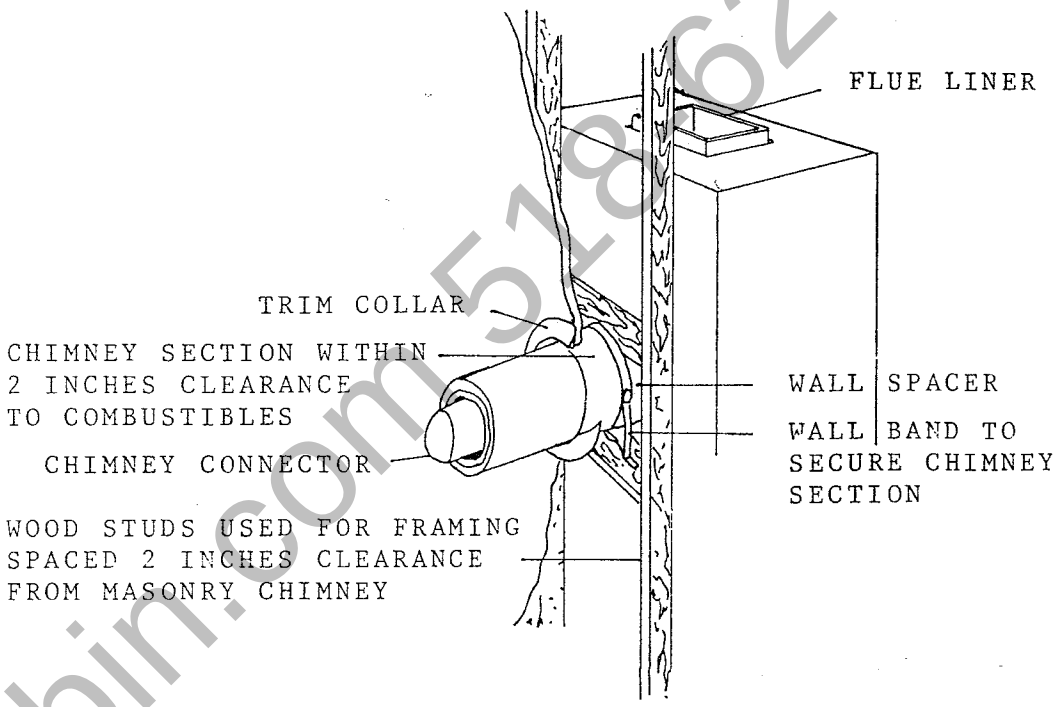
-Chimney height requirements:
- At least 3 feet higher than the highest part of the roof opening through which it passes and at least 2 feet higher than any part of the roof within 10 feet (measured horizontally).

THIMBLE: A thimble must be used when the connection from the stove is made through a combustible wall to a masonry chimney.

There are several methods to use for connection through a combustible wall. Local building authorities may be consulted for referencing methods of chimney connection.

Also, listed prefabricated metal thimbles can be bought for use with woodstoves. The manufacturer's installation instructions must be strictly followed to assure the safety of the system. Be sure to maintain the designated clearance to combustible materials.

ILLUSTRATION OF ONE TYPE OF THIMBLE CONSTRUCTION:



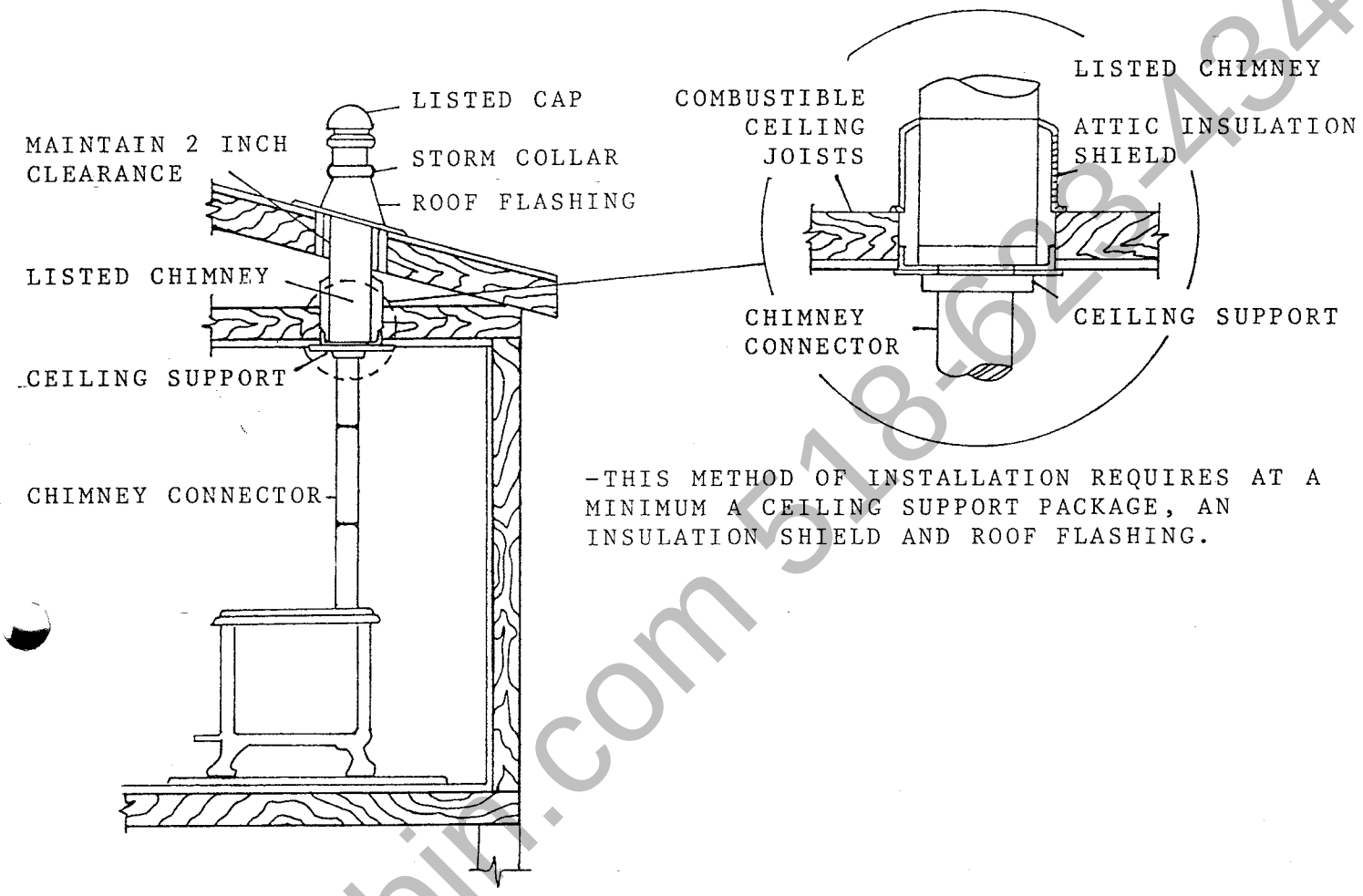
CONNECTION TO A METAL PREFABRICATED CHIMNEY

When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed precisely. Choose only Class A 103 H.T., solid insulation type chimneys.

You must also purchase (from the same manufacturer) and install the ceiling support package or wall pass-through and "T" section package, firestops (when needed), insulation shield, roof flashing, chimney cap, etc.

Maintain the proper clearance to the structure as recommended by the manufacturer. (This clearance is usually a minimum of 2").

ILLUSTRATION OF A PREFABRICATED CHIMNEY INSTALLED INSIDE THE HOUSE:



-THIS METHOD OF INSTALLATION REQUIRES AT A MINIMUM A CEILING SUPPORT PACKAGE, AN INSULATION SHIELD AND ROOF FLASHING.

There are basically two methods of metal chimney installation.

1) Install the chimney inside the residence through the ceiling and roof.
2) Use an exterior installation where the chimney runs up the outside of the residence.

The interior chimney is recommended. The exterior chimney walls may cool quicker which reduces the draft and increases creosote accumulation.

Height requirements are the same as for a masonry chimney.

III. OPERATING INSTRUCTIONS

A. CONTROLS AND FEATURES

You should become familiar with the location and operation of your stove's controls and features. Do not modify these features in any way.

DAMPER: Located in the flue collar.

While the stove is in operation, the damper can be used to control the burn rate. The damper should be opened under the following circumstances:

1. When starting the stove.
2. For 5 to 15 minutes after reloading with fuel.
3. For 30 seconds before opening either door to prevent smoke spillage or to "boost" the draft as necessary.

ASH DRAWER: Located under the side loading door.

The firebox should be cleared of ashes daily by sifting through the grate into the ash drawer. The ash drawer is easy to remove and has a handle for convenient disposal of ashes.

B. BUILDING A FIRE

CAUTION

DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE; DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.

BREAK-IN PROCEDURE

It is imperative that your stove be broken in very slowly. Cast iron must be "seasoned"; overfiring a new stove may cause castings to crack or may damage other stove parts. Moisture in the soapstone must be driven out slowly to minimize the "shock" to the stove of its first exposure to high firebox temperatures. Also, the asbestos-free furnace cement must be cured slowly to insure adequate sealing and bond.

The bottom layer of soapstone in your firebox are intended to prevent thermal stress and should remain in place in the firebox at all times.

TO BUILD YOUR FIRST FIRE

1. Open the damper.
2. Place five or six double sheets of tightly twisted newspaper in the center of the firebox.
3. Arrange kindling in a criss-cross pattern over the newspaper. (Kindling should be approximately ten pieces, 1/2" in diameter and 10" to 18" long.)
4. To get the draft started, light the paper under the kindling.
5. Leave the front door slightly ajar until the kindling has started to burn and draft begins to pull. Keep the fuel door and

ash drawer closed while the stove is in use.

6. KEEP A WATCHFUL EYE ON YOUR STOVE to maintain a steady, low-heat fire. Your first and subsequent break-in fires should make the stove warm but not hot to the touch. (At the most, a few small chunks of wood should be added to the fire to reach these safe break-in temperatures.)

7. Once these temperatures have been achieved, close the damper and allow the fire to die out completely.

8. Let the stove return to room temperature.

Your first three break-in fires should be build and maintained accordingly. Your patience will be rewarded by a properly seasoned stove.

NOTE: Because of the cool flue gas temperatures present during the break-in, creosote may build up quickly. We recommend a visual inspection (and cleaning if necessary) of your stovepipe and chimney once the break-in procedure is completed.

NORMAL OPERATION

If your stove is not to be used continuously, follow the break-in procedure at least once to minimize the stress of a hot fire on a cold stove before proceeding with normal operation.

To build a fire for everyday use:

1. Open the damper.

2. Place five or six double sheets of tightly twisted newspaper in the center of the firebox.

3. Arrange kindling in a criss-cross pattern over the newspaper. (Kindling should be approximately ten pieces, 1/2" in diameter and 10" to 18" long.)

4. To get the draft started, light the paper under the kindling.

5. Leave the front door slightly ajar until the kindling has started to burn and draft begins to pull.

6. Add the logs, small at first to build the fire up, and let the fire burn briskly for 10 to 20 minutes.

7. Once the fire is burning well, use the damper to regulate the desired rate of burn.

8. When reloading, once again open the damper. It is advised to wait a few minutes before opening the loading door.

NOTE: Reloading on a bed of hot, red coals reduces smoking time and will bring fresh fuel up to a high temperature rapidly.

9. Reload and close the door.

10. Keep the bypass damper open until the fire is fully established again.

11. Once the fire is burning well, use the damper to regulate the desired rate of burn.

C. OPERATING THE STOVE

Some days a draft isn't easily established. Seasonal factors or a cold chimney may be the problem. 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.

BURN RATE

HIGH BURN: Partially close the damper. If the stove is overfiring, the damper should be closed completely to reduce the temperatures.

A high burn is acceptable for a few minutes, once or twice a day to help minimize creosote accumulation.

MEDIUM BURN: Close the damper almost all the way. A medium burn is desired if the stove is not to be left unattended.

LOW BURN: Completely close the damper. Low burns for extended periods of time will promote the accumulation of creosote.

The venting system should be inspected more often if low burn rates are maintained consistently.

OVERFIRE CAUTION

Overfiring means operating your stove at excessively high temperatures for extended periods of time.

Because it can cause damage to the stove, it should be carefully avoided. The surest indication of overfiring is when the stove creaks and glows and when enameled surfaces bubble.

Do not operate the stove with the damper control fully open or with any of the doors open. Doing so could result in a house fire.

In the case of an overfire or a chimney fire, close the damper control.

Evidence of overfiring is warping and/or failure of internal parts, discolored external cast iron, or damaged enamel. Blistering or bubbling of enameled parts is caused when the temperature of the enamel is in excess of 900 F.

ANY OF THESE SYMPTOMS OF OVERFIRING WILL VOID YOUR WARRANTY!!

DISPOSAL OF ASHES

Ashes should be placed in a metal container with a tight fitting lid. Don't put anything else in the container.

The closed container of ashes should be placed on a noncombustible floor or the ground, well away from all combustible materials, pending disposal. Ashes should be retained in the closed container until all cinders have thoroughly cooled.

Ashes should NEVER be placed in wooden or plastic containers, or in paper or plastic bags, no matter how long the fire has been out. Coals have been known to stay hot for several days when embedded in ashes.

IV. MAINTENANCE

A. MONITORING YOUR TEMPERATURES

As stated in the overfiring caution, overfiring means operating your stove at excessively high temperatures for extended periods of time. This would mean leaving the damper fully open for a long time with a full charge of fuel.

It is possible to be more accurate in your estimation of the stove's temperature. We recommend the installation of an electric monitor with a hi-temp, 9" thermocouple to monitor temperatures inside the stovepipe, 12" to 18" from the flue collar.

Temperature guidelines of the stack are as follows:

0 F to 420 F

LOW TO MEDIUM BURN: Typical temperatures of a stack at the start up of a fire or when the damper is closed.

420 F to 750 F

MEDIUM TO HIGH BURN: By maintaining these temperatures, you can be sure to avoid an overfire situation.

Over 750 F

OVERFIRING: Close the damper to reduce temperatures.

B. CREOSOTE FORMATION AND NEED FOR REMOVAL

When wood is burned, it produces tar, water vapor, and other organic vapors which combine to form creosote. The creosote vapors condense in the relatively cool chimney flue of a newly started 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.

The chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote build-up has occurred. If creosote has accumulated (greater than 1/4"), it should be removed to reduce the risk of a chimney fire.

The system is inspected at the stove connection and at the chimney top. Cooler surfaces tend to build creosote deposits quicker, so it is important to check the chimney from the top as well as from the bottom.

The creosote should be removed with a brush specifically designed for the type of chimney in use. A chimney sweep can perform this service.

It is also recommended that before each heating season the entire system be professionally inspected, and cleaned and repaired if necessary.

C. GASKETS

Normally, gasket material should be replaced every two to three seasons, depending on stove use. Also, if the door seals are loose, a new gasket will assure a tight seal. Contact our Customer Service Department or your dealer for a gasket kit which includes instructions and gaskets for your three doors and the glass.

The procedure for replacing gaskets on the glass is reviewed in Section D.-Glass.

To replace gaskets in the doors, first remove old gaskets with a utility or putty knife. Clean all gasket channels with a wire brush. Apply gasket cement to the channels and push new gaskets into them (without stretching). The door should be shut immediately to assure a positive seal.

We require the use of the following gaskets:

GLASS:	42" Length, 3/4" Wide, Adhesive Backed Black Tape
FRONT DOOR:	54" Length, 1/4" Dia., Low Density Black Tube
SIDE DOOR:	42" Length, 1/2" Dia., Low Density Black Tube
ASH DOOR:	22.5" Length, 3/8" Dia., Low Density, Black Tube

D. GLASS

Do not operate the stove with a broken glass. Do not abuse the front door by striking or slamming.

The glass can be cleaned with commercial glass cleaners, or straight ammonia. The new edge of a utility knife blade can be used to scrape stubborn creosote from the glass surface.

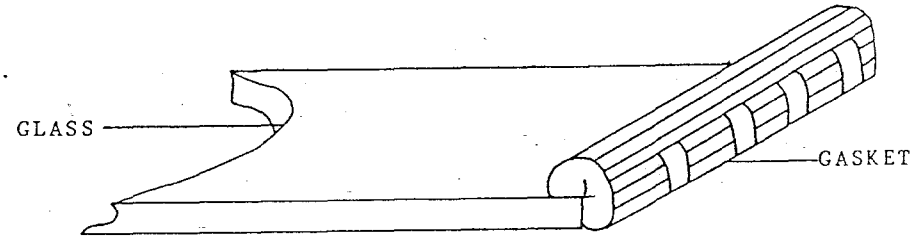
The front door glass is a ceramic, shock-resistant glass, made specifically for wood stoves by Robax. It measures 15 11/16" X 11 3/16" and is 5 mm thick. It should not be substituted with other glass types.

In the event of breakage, it should be replaced immediately. Contact our Customer Service Department or your dealer for replacement glass which is accompanied with instructions and everything needed for the repair.

The procedure for glass and glass gasket replacement is as follows:

1. Remove the door by lifting it straight up off the hinges with the hinge pins remaining in the door.
2. Place it face down on a flat, smooth surface.
3. Remove the eight window frame screws to separate the window frame from the door.
4. Carefully lift the glass from the door.
5. Apply the new gasket to the new glass as illustrated to form a cushion on one side of the glass.
6. Place the gasketed glass onto the door with the cushion of gasket facing down towards the door.
7. Replace and screw the window frame back to the door.
8. Replace the door.

ILLUSTRATION OF HOW TO GASKET THE GLASS:



E. STONE

Often, with use, subtle earth tones of brown, red, and yellow appear on the soapstone. This is a natural reaction in the soapstone. Occasional cleaning is all that should be necessary to maintain the stone's beauty. Care must be taken not to scratch or chip the stone.

Clean the polished stones with water and any non-abrasive cleaner and a soft cloth. The natural unpolished finishes require a light sanding with fine sandpaper (200-220 grit). Wipe dust from the stone with a clean cloth.

F. CASTINGS

Exterior cast iron parts are painted with black, high-temperature stove paint. Use this type of paint to regain the cast iron's original appearance. When using a damp sponge to wipe clean, dry the iron thoroughly to prevent rusting.

The enamel castings can be cleaned with a standard glass cleaner. With time and use, a very fine subtle network of crazed lines may appear seemingly beneath the surface of the enamel. Crazing is a natural predictable process and does not represent a flaw.

V. OPERATION GUIDELINES

A. DO'S AND DO NOT'S

<u>DO</u>

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

-Install the stove according to N.H.C.'s recommendations.

-Burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried, seasoned hardwoods, as compared to green or freshly cut hardwoods.

-Install this appliance with the proper sized chimney.

-For proper operation of the stove, the chimney must provide a good draft. Adequate draft is 0.05 to 0.09 inches of water column.

-Follow recommended break-in procedure as outlined in this manual.

DO NOT

-Modify this product in any way.
-Expect the stove to heat more than 50% of the recommended volume if installed in a basement or in any area with a large portion of uninsulated masonry walls.
-Burn kiln dried, painted or treated wood, solvents, trash, plywood, colored or glossy paper, artificial logs, cardboard, coal, garbage or driftwood.
-Use chemical fire starters or chimney cleaners.
-Fail to inspect the chimney, chimney connector, as recommended.

B. SAFETY GUIDELINES

1. Always keep combustible items (furniture, drapes, clothing, etc.) a minimum of 36" from the stove.
2. Do not overfire your stove.
3. Install a smoke alarm.
4. Keep a fire extinguisher handy. We recommend the type rated A B C.
5. Dispose of ashes properly.
6. NEVER use gasoline type fuel, kerosene, charcoal lighter fluid or similar liquids or solid fire starters to start or invigorate a fire. Keep all such materials away from the stove.
7. Keep children and pets away from the stove.
8. NEVER put articles of clothing or candles on a hot stove.
9. Do not connect the stove to a flue that is serving another appliance.
10. Clean your system when it is needed.

C. PERIODIC CHECKLIST

EVERYDAY
-Empty ashes from the firebox and ash pan.

EVERY TWO WEEKS
-Visually inspect chimney connector and chimney for creosote; clean accordingly.

EVERY EIGHT WEEKS
-Check door seals using the "dollar bill test". When the fire is out, shut the door on a dollar bill. If the bill pulls out easily, the door isn't sealed properly. Change the gaskets.

AT SEASON'S END
-Dismantle chimney connector and clean thoroughly; replace any pieces that show signs of rust or deterioration.
-Inspect and, if necessary, clean your chimney.
-Thoroughly clean out the inside of the stove.
-Inspect gasket material in all doors and replace if worn, frayed, cracked or extremely hard.

D. EMERGENCY PROCEDURES

In the event of a stovepipe or chimney fire follow these instructions:

1. Close the damper.
2. Keep all doors shut.
3. Call the fire department.
4. Keep an eye on the stove, stovepipe, and chimney.

Once the chimney fire has expired, continue to keep the damper closed and let the fire in the stove die out completely. The stove should not be fired again until the stove, stovepipe, and chimney are all thoroughly inspected for any sign of damage. Damage must be corrected before resuming use of your stove.

E. FUELWOOD INFORMATION

The quality of your fuelwood is an important variable which determines both heat output and duration of burn. Softwoods generally burn hotter and faster, while hardwoods burn longer and produce more coals.

The density of the wood is the critical factor to consider when either purchasing wood or assessing your stove's performance. For your reference, we have provided a list of wood species and their relative BTU content.

HIGH: Ash, Black Birch, Hickory, Hophorbeam, Locust, White Oak, Black Beech

MEDIUM HIGH: White Ash, Beech, Yellow Birch, Sugar Maple, Red Oak

MEDIUM LOW: Black Ash, White Birch, Grey Birch, Elm, Norway Pine, Pitch Pine, Black Cherry, Soft Maple, Tamarack

LOW: White Pine, White Cedar, Balsam Fir, Spruce, Aspen, Basswood, Butternut, Hemlock

Moisture content also plays a key role in the performance of your stove. Wood that is freshly cut from a living tree (green wood) has a great deal of moisture in it. To properly season green wood, it should be split and stacked and allowed to air dry for a period of six months to one year.

Ideally, it should be stacked on skids or blocks to keep it off the ground, and only the top should be covered. Plastic or tarp 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."

Fuelwood should not be stored within the stove's specified clearances to combustible materials.

VI. TROUBLESHOOTING

A. YOUR HEATING NEEDS

Virtually all woodstove operators at one time or another experience basic common problems. All 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 will be very temporary.

If you question whether or not your stove is producing adequate heat, the best way to troubleshoot the problem is to monitor the temperature of the stack. A 400 F 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 glass 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) all are determining factors of room temperature.

Your stove's performance is also dependant on its installation. Over-sized flues result in decreased pressure which will keep the smoke from rising out the chimney. This reduction in draft will cause the stove to die down or even force the smoke to pour into the room. If your chimney is the proper size and draft is still not easily established, there is the possibility of the chimney being too cold. Hot chimneys provide a stronger draft.

Other draft guidelines are as follows:

AN "AIRTIGHT" HOUSE: If your home is super-insulated or especially well sealed, the air supply to it may be inadequate. This would result in a weak draft.

Other causes of air starvation are exhaust fans and other appliances that rob valuable air supplies.

Ducting air form the outside to the vicinity of the stove can correct this problem.

TALL TREES OR BUILDINGS in proximity to your flue exit: Chronic or occasional down-drafts are often a result of nearby trees and building which alter outside air currents.

WIND VELOCITY: Generally, the stronger a steady wind, the stronger the draft. However, "gusty" wind conditions may cause down-drafts.

BAROMETRIC PRESSURE: On balmy, wet or muggy days, a draft is generally sluggish.

BRISKNESS OF FIRE: The hotter the fire in your stove, the stronger the draft.

BREAKS IN THE CHIMNEY: An unsealed clean-out door or leaky stovepipe joints or chimney may cause inadequate draft.

SEASONAL FACTORS: Early fall and late spring are generally difficult seasons to establish proper drafts because of the outside temperature and barometric pressure factors. (the colder the outside air, the stronger the draft.)

B. TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTIONS
STOVE SMOKES	Operating Technique:	Open the damper one minute before opening doors.
	Cold Chimney:	Preheat the chimney when first starting a fire.
	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 it.
	Air Infiltration Into The Chimney:	Seal chimney connections and openings in clean-out doors.
	More Than One Appliance Connected to the Flue:	Disconnect all other appliances and seal openings.
BACK-PUFFING OR GAS EXPLOSIONS	Operating Technique:	Open the damper one minute before opening the door and keep it open for a few minutes after reloading.
	Extra Low Burn Rate:	Burn the stove in a higher operating range.
	Chimney Downdraft:	Install a chimney cap.
	Excessive Ash Build-up:	Empty ash pan daily.
UNCONTROLLED OR SHORT BURN	Unsealed or Open Doors:	Close the doors tightly or replace the gaskets.
	Excessive Draft:	Check the installation. Operate at LOW BURN.

PROBLEM	POSSIBLE CAUSE	SOLUTIONS
UNCONTROLLED OR SHORT BURN	Deteriorated Cement Seals:	Reseal the stove with furnace cement.
	Extra Long Chimney:	Shorten the chimney.
	Oversized Chimney	Reline the chimney to the proper diameter.
	High Winds or Hilltop Location:	Install chimney cap.
INSUFFICIENT HEAT	Poor or Green Wood:	Use only air dried wood-preferably dried <u>at least</u> one year.
	Low Burn Rate:	Operate the stove at a higher burn rate.
	Air Insulated Chimney:	Replace with a pre-fabricated insulated chimney system or a properly sized masonry chimney.
	Exterior Chimney: Leaky Stovepipe or Chimney:	Insulate the chimney. Check the installation.
	Too Much Heat Loss From House:	Insulate house.
BLISTERING OF ENAMEL CASTING	Operating Technique:	Do not overfire the stove. Monitor the temperatures.
	Excessive Draft:	Check the installation. Operate the stove at a LOW BURN range.

SPECIFICATION	HEARTHSTONE HERITAGE
MAXIMUM HEAT OUTPUT (1)	56,000 BTU/HR
HEAT-LIFE (2)	4.0 HR
MAX. COMBUSTION EFFICIENCY	91%
SIZE OF HEATED AREA	MID-SIZED HOUSE
FIREBOX	2.0 CUBIC FEET
FUEL SIZE (3)	18" TO 20" LOGS
MIN. RATE OF BURN	11 DRY LBS/HR
HEIGHT	28 7/8"
WIDTH	26 3/4"
DEPTH	26 3/8"
FRONT DOOR SIZE	15 7/8" X 8 3/8"
SIDE DOOR SIZE	9" X 10 5/8"
STOVEPIPE SIZE	6" DIA.
-METAL CHIMNEYS	6" INSIDE DIA.
-MASONRY CHIMNEYS	6" INSIDE DIA. OR 8" X 8"
FLUE EXIT	TOP VENT
ACTUAL WEIGHT	475 LB.
SHIPPING WEIGHT	530 LB.
CRATED DIMENSIONS	H- 37 3/4" W- 32" L- 32 1/2"
OPTIONAL EQUIPMENT	REAR HEAT SHIELD WARMING SHELF
SOAPSTONE FINISH (4)	NATURAL BUFF GREY POLISHED BROWNSTONE
CASTINGS FINISH	MATTE BLACK PORCELAIN ENAMEL: -BLACK -BLUE -BROWN -ALMOND

(1) Based on latest N.H.C., Inc. laboratory test results.
(2) Heat-Life is a trademark of N.H.C., Inc. and is defined as thermal capacitance or quantity of heat stored. Used here, it refers not just to burn time, but also to hours of usable heat obtained from a single load of fuel.
(3) The Heritage's firebox will hold 43 lbs. of 16" to 18" wood. The firebox is capable of a maximum log length of 20"
(4) Colors of polished stone can very from grey to grey-green, according to natural composition. Colors fo brownstone can very from grey-brown to brown, according to natural composition.

WARNOCK HERSEY

LISTED SOLID FUEL BURNING SPACE HEATER

MODEL: ■ AMERICAN HERITAGE ■ HERITAGE

WH-[redacted]

TESTED TO: UL 1482(90)/ULC S627-M83 SERIAL NO.

INSTALL AND USE ONLY IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA.

MINIMUM CLEARANCES TO COMBUSTIBLE CONSTRUCTION

A. UNIT TO SIDEWALL	26 IN./661MM
B. UNIT TO BACKWALL (NO SHIELD)	34 IN./864MM
REAR SHIELD TO BACKWALL	22 IN./559MM
C. UNIT TO ADJACENT WALL (NO SHIELD)	28 IN./712MM
REAR SHIELD TO ADJACENT WALL	18 IN./458MM

USE A MINIMUM 3/8 IN./10MM NON-COMBUSTIBLE OR LISTED FLOOR PROTECTOR WITH AN "R" FACTOR OF 2.0 (AMERICAN HERITAGE)/1.0 (HERITAGE) EXTENDING 16 IN./407MM IN FRONT OF UNIT AND FUEL LOADING DOOR AND 8 IN./204MM TO THE REMAINING SIDE AND REAR OF UNIT.

USE A 6 IN./153MM DIAMETER 24 MSG BLUED-STEEL CHIMNEY CONNECTOR AND A 6 IN./153MM DIAMETER LISTED TYPE HT FACTORY-BUILT OR APPROVED MASONRY CHIMNEY. SEE LOCAL BUILDING CODE AND MANUFACTURER'S INSTRUCTIONS FOR PRECAUTIONS REQUIRED FOR PASSING CHIMNEY THROUGH A COMBUSTIBLE WALL OR CEILING. DO NOT PASS CHIMNEY CONNECTOR THROUGH WALL OR CEILING. DO NOT CONNECT THIS UNIT TO A CHIMNEY SERVING ANOTHER APPLIANCE.

KEEP FUEL FEEDING DOOR AND ASH DRAWER CLOSED WHILE IN USE. REPLACE GLASS ONLY WITH 5MM CERAMIC GLASS.

MANUFACTURED BY:

NHC, INC.
P.O. BOX 1069
MORRISVILLE, VT 05661

DO NOT REMOVE OR COVER THIS LABEL