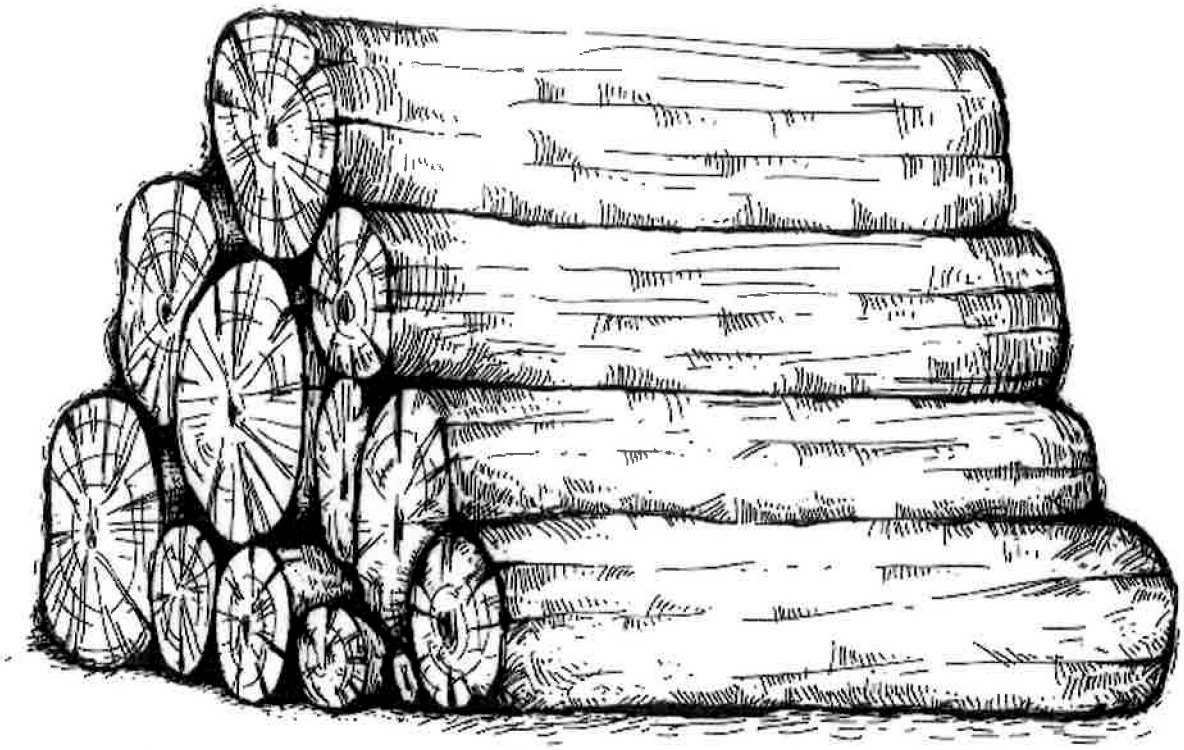
Wood fireplace Owner's Manual

Part 1 of 2

SAFETY NOTIFICATIONS AND GENERAL INFORMATION

ENGLISH



CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN LOCAL AREA.

READ THIS ENTIRE MANUAL BEFORE INSTALLATION AND USE OF THIS WOOD FIREPLACE. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN PROPERTY DAMAGE, BODILY INJURY OR EVEN DEATH.

READ AND KEEP THIS MANUAL FOR REFERENCE

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THANK YOU FOR CHOOSING THIS WOOD FIREPLACE

If this fireplace is not installed properly, combustible materials near it may overheat and catch fire.

To reduce the risk of fire, follow the installation instructions in this manual.

As one of North America's largest and most respected wood stove and fireplace manufacturers, Stove Builder International takes pride in the quality and performance of all its products.

The following pages provide general advice on wood heating, detailed instructions for safe and effective installation, and guidance on how to get the best performance from this fireplace.

It is highly recommended that this wood burning hearth product be installed and serviced by professionals who are certified by a «Qualified Agency» such as NFI (National Fireplace Institute®) or CSIA (Chimney Safety Institute of America) in the United States and in Canada by WETT (Wood Energy Technology Transfer) or in Quebec by APC (Association des Professionnels du Chauffage).

Contact local building or fire officials about restrictions and installation inspection requirements in your local area.

A building permit might be required for the installation of this fireplace and the chimney that it is connected to. It is also highly recommended to inform your home insurance company.

Please read this entire manual before installing and using this fireplace.

A primary alternative heat source should be available in the home. This heating unit may serve as a supplementary heat source. The manufacturer cannot be responsible for additional heating costs associated with the use of an alternative heat source.

TABLE OF CONTENTS

ENGLISH

1. Safety Information and Standards

1.1 Safety

- This stove has been tested for use with an open door in conjunction with a fire screen, sold separately (see in the specification manual of this product if it is possible to have this option). The door may be opened, or fire screen removed only during lighting procedures or reloading. Always close the door or put back on the fire screen after ignition. Do not leave the fireplace unattended when the door is opened with or without a fire screen.
- **WARNING : OPERATE ONLY WITH THE DOOR FULLY CLOSED OR FULLY OPEN WITH THE FIRE SCREEN IN PLACE. IF THE DOOR IS LEFT PARTLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE OPENING, CREATING RISKS FROM BOTH FIRE AND SMOKE.**
- **HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS. GLOVES MAY BE NEEDED FOR THE FIREPLACE OPERATION.**
- Using a fireplace with cracked or broken components, such as glass, firebricks or baffle may produce an unsafe condition and may damage the fireplace.
- **NEVER USE GASOLINE, LANTERN FUEL (NAPHTHA), FUEL OIL, MOTOR OIL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS OR AEROSOLS TO START A FIRE IN THIS FIREPLACE. KEEP ALL SUCH LIQUIDS OR AEROSOLS WELL AWAY FROM THE FIREPLACE WHILE IT IS IN USE.**
- Do not store fuel within heater minimum installation clearances.
- Burn only seasoned natural firewood.
- This wood heater needs periodic inspection and repairs for the proper operation. It is against federal regulations to operate this wood heater in a manner inconsistent with operating instructions in this manual.
- Do not obstruct air inlets. This fireplace needs air for its good operation.
- Do not block the hot air vents of the fireplace as this will cause the fireplace to overheat.
- A smoke detector, a carbon monoxide detector and a fire extinguisher should be installed in the house. Location of detectors should be chosen wisely to avoid false alarm when reloading the appliance. The location of the fire extinguisher should be known by all family members.
- Do not use makeshift materials or make any compromises when installing this fireplace.
- Mixing of appliance components from different sources or modifying components is prohibited and will void the warranty. Any modification of the fireplace that has not been approved in writing by the testing authority is prohibited and violates CSA B365 and NFPA 211 standards.
- The manufacturer grants no warranty, implied or stated, for the poor installation or lack of maintenance of this fireplace and assumes no responsibility for any consequential damages.
- Do not elevate the fire by means of grates, chenets, andirons or any other means.

WARNING This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov/

- The fireplace and chimney must be in an enclosure up to the attic.

CAUTION: DO NOT ATTEMPT TO MODIFY OR ALTER THE CONSTRUCTION OF THE FIREPLACE OR ITS COMPONENTS. ANY MODIFICATION OR ALTERATION OF CONSTRUCTION MAY VOID THE WARRANTY, LISTINGS AND APPROVALS OF THIS SYSTEM. IN THAT CASE, STOVE BUILDER INTERNATIONAL (SBI) WILL NOT BE RESPONSIBLE FOR DAMAGES. INSTALL THE FIREPLACE ONLY AS DESCRIBED IN THESE INSTRUCTIONS.

- Mixing of appliance components from different sources or modifying components is prohibited and will void the warranty. Any modification of the fireplace that has not been approved in writing by the testing authority is prohibited and violates CSA B365 (Canada) and NFPA 211 (USA) standards.

- The manufacturer grants no warranty, implied or stated, for the poor installation or lack of maintenance of the fireplace and assumes no responsibility for any consequential damages.

- This fireplace must always be used with the original andirons.

- Do not use a fireplace insert and other products not specified for use with this fireplace.

- Do not use materials other than those listed in the replacement parts section during installation as they may be safety hazards and a fire could result.

- Do not restrict air circulation around the unit. Air circulation around the unit is important. If air circulation is limited, this could increase heat on adjacent walls and ceiling.

- This fireplace has not been tested with an unvented or vented gas log set. To reduce risk of fire or injury, do not install an unvented or vented gas log set into this fireplace.

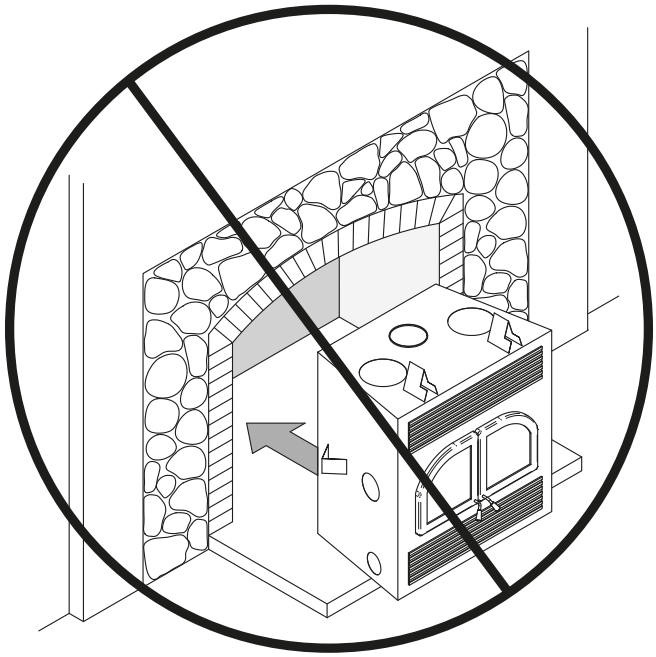
- The combustion air inlet ducts shall not terminate in attic space.

Over-Firing the fireplace

DO NOT OVERFIRE THIS FIREPLACE: Attempts to achieve firing rates that exceed the fireplace specifications can result in permanent damage to the heater.

This fireplace is designed to operate at a high temperature. However, all installation are differaint and due to differences in wood heating value, wood moisture content, chimney configuration, and flue draft, this appliance can reach excessive temperature in the worst conditions. If the top or door of the fireplace or other area starts to glow red, you are over-firing the fireplace. Shut down the air control down to slow down the firing rate.

- This fireplace has not been tested for installation inside a masonry fireplace.



1.2 Standards

When installed and operated as described in these instructions, this wood fireplace is suitable for use in residential installations.

In Canada, the CSA B365 «Installation Code for Solid Fuel Burning Appliances and Equipment» and the CSA C22.1 «Canadian National Electrical Code» are to be followed in the absence of local code requirements.

In the USA, the ANSI NFPA 211 «Standard for Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances» and the ANSI NFPA 70 «National Electrical Code» are to be followed in the absence of local code requirements.

This fireplace is not approved for use with a so-called "positive flue connection" to the clay tile of a masonry chimney.

2. General Information

2.1 Materials

The **body** of this fireplace, which is most of its weight, is carbon steel. Should it ever become necessary many years in the future, almost the entire fireplace can be recycled into new products, thus eliminating the need to mine new materials.

The **paint** coating on the fireplace is very thin. Its VOC content (Volatile Organic Compounds) is very low. VOCs can be responsible for smog, so all the paint used during the manufacturing process meets the latest air quality requirements regarding VOC reduction or elimination.

The **air tubes** are stainless steel, which can also be recycled.

The **baffle** is made of C-Cast or Vermiculite that is compressed with a binder to form a rigid board. C-Cast can withstand temperatures above 2,000 °F. It is not considered hazardous waste. Disposal at a waste management center is recommended.

Moulded **refractory panels** are mainly composed of silicon dioxide, also known as silica, a product processed from a mined mineral. It is most commonly found in nature in the form of sand and clay. Disposal at a waste management center is recommended. The steel mesh contained in some refractory bricks can also be recycled.

The door and glass **gaskets** are fibreglass which is spun from melted sand. Black gaskets have been dipped into a solvent-free solution. Disposal at a waste management center is recommended.

The door **glass** is a 5/32" (4 mm) thick ceramic material that contains no toxic chemicals. It is made of natural raw materials such as sand and quartz that are combined in such a way to form a high temperature glass. Ceramic glass cannot be recycled in the same way as normal glass, so it should not be disposed of with regular household products. Disposal at a waste management center is recommended.

2.2 Zone Heating

This fireplace is a space heater, which means it is intended to heat the area it is installed in, as well as spaces that connect to that area, although to a lower temperature. This is called zone heating and it is an increasingly popular way to heat homes or spaces within homes. Zone heating can be used to supplement another heating system by heating a particular space within a home, such as a basement, a family room or an addition that lacks another heat source.

Houses of moderate size and relatively new construction can be heated with a properly sized and located wood fireplace. Whole house zone heating works best when the fireplace is in the part of the house where the family spends most of its time. This is normally the main living area where the kitchen, dining and living rooms are located.

Locating the fireplace in this area will give the maximum benefit of the heat it produces and will achieve the highest possible heating efficiency and comfort. The space where the most time is spent will be warmest, while bedrooms and basement (if there is one) will stay cooler. In this way, less wood is burnt than with other forms of heating.

The best location for the fireplace should consider the location of windows, doors, and circulation in the room. There must be enough space in front of the fireplace for the hearth extension and mantel and on the sides or back for the different heat distribution system, for the fresh air intake and for the chimney. Ideally, the chimney must be able to pass through the house without the need to cut floor joists or roof trusses.

Although the fireplace may be able to heat the main living areas of the house to an adequate temperature, you must also have a conventional oil, gas or electric heating system as your primary heating source.

The success of zone heating will depend on several factors, including the correct sizing and location of the fireplace, the size, layout and age of your home and your climate zone. Three-season vacation homes can usually be heated with smaller fireplaces than houses that are heated all winter.

2.3 Emissions and Efficiency

The low smoke emissions produced by the special features inside this fireplace firebox mean that the household will release up to 90% less smoke into the outside environment than if an older conventional fireplace was used. But there is more to the emission control technologies than protecting the environment.

The smoke released from wood when it is heated contains about half of the energy content of the fuel. By burning the wood completely, this fireplace releases all the heat energy from the wood instead of wasting it as smoke up the chimney. Also, the features inside the firebox allow control of the air supply meaning controlling the heat output, while maintaining clean and efficient flaming combustion, which boosts the efficient delivery of heat to the home.

The emission control and advanced combustion features of this fireplace can only work properly if the fuel used is in the correct moisture content range of 15% to 20%. Refer to the following section of suggestions on preparing fuelwood and judging its moisture.

3. Fuel

Good firewood has been cut to the correct length for the fireplace, split to a range of sizes and stacked in the open until its moisture content is down to 15% to 20%.

DO NOT BURN:

- **COAL;**
- **GARBAGE;**
- **LAWN CLIPPINGS OR YARD WASTE;**
- **MATERIALS CONTAINING RUBBER, INCLUDING TIRES;**
- **MATERIALS CONTAINING PLASTIC;**
- **WASTE PETROLEUM PRODUCTS, PAINTS OR PAINT THINNERS, OR ASPHALT PRODUCTS;**
- **MATERIALS CONTAINING ASBESTOS;**
- **CONSTRUCTION OR DEMOLITION DEBRIS;**
- **RAILROAD TIES OR PRESSURE-TREATED WOOD;**
- **MANURE OR ANIMAL REMAINS;**
- **SALT WATER DRIFTWOOD OR OTHER PREVIOUSLY SALT WATER SATURATED MATERIALS;**
- **UNSEASONED WOOD; OR**
- **PAPER PRODUCTS, CARDBOARD, PLYWOOD, OR PARTICLE BOARD. THE PROHIBITION AGAINST BURNING THESE MATERIALS DOES NOT PROHIBIT THE USE OF FIRE STARTERS MADE FROM PAPER, CARDBOARD, SAW DUST, WAX AND SIMILAR SUBSTANCES FOR THE PURPOSE OF STARTING A FIRE IN AN AFFECTED WOOD HEATER.**
- **BURNING THESE MATERIALS MAY RESULT IN THE RELEASE OF TOXIC FUMES OR RENDER THE HEATER INEFFECTIVE AND CAUSE SMOKE.**
- **IF THESE FUELS ARE BURNED IT COULD CREATE A HIGHER CONCENTRATION OF CO THAN BURNING HARD WOOD.**

3.1 Tree Species

The tree species the firewood is produced from is less important than its moisture content. The main difference in firewood from various tree species is the density of the wood. Hardwoods are denser than softwoods.

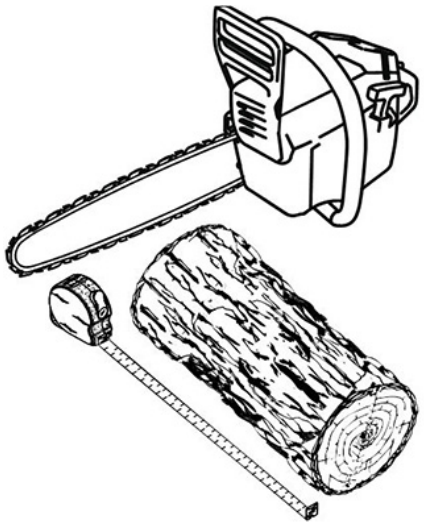
Homeowners with access to both hardwood and softwood use both types for different purposes. Softer woods make good fuel for mild weather in spring and fall because they light quickly and produce less heat.

Softwoods are not as dense as hardwoods so a given volume of wood contains less energy. Using softwoods avoids overheating the house, which can be a common problem with wood heating in moderate weather. Harder woods are best for colder winter weather when more heat and longer burn cycles are desirable.

Hardwood trees like oak, maple, ash and beech are slower growing and longer lived than softer woods like poplar and birch. That makes hardwood trees more valuable. The advice that only hardwoods are good to burn is outdated. Old, leaky cast iron fireplaces wouldn't hold a fire overnight unless they were fed large pieces of hardwood.

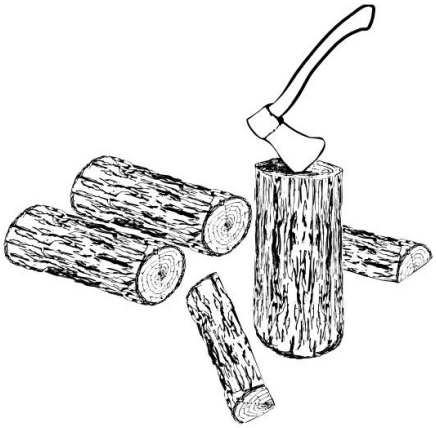
3.2 Log Length

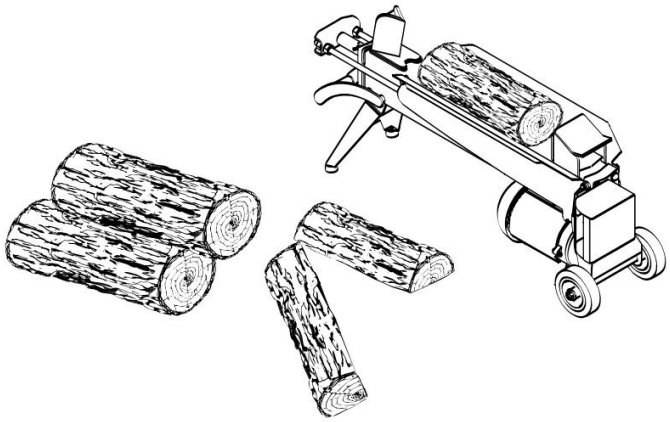
Logs should be cut at least 1" (25 mm) shorter than the firebox so they fit in easily. Pieces that are even slightly too long makes loading the stove very difficult. The most common standard length of firewood is 16" (400 mm).



3.3 Piece Size

Firewood dries more quickly when it is split. Large unsplit rounds can take years to dry enough to burn. Even when dried, unsplit logs are difficult to ignite because they don't have the sharp edges where the flames first catch.

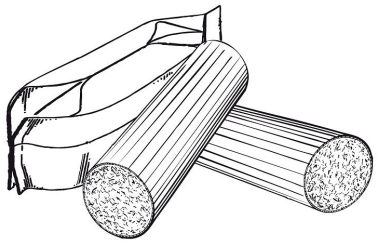




Wood should be split to a range of sizes, from about 3" to 6" (75 mm to 150 mm) in cross section. Having a range of sizes makes starting and rekindling fires much easier.

3.4 Compressed Wood Logs

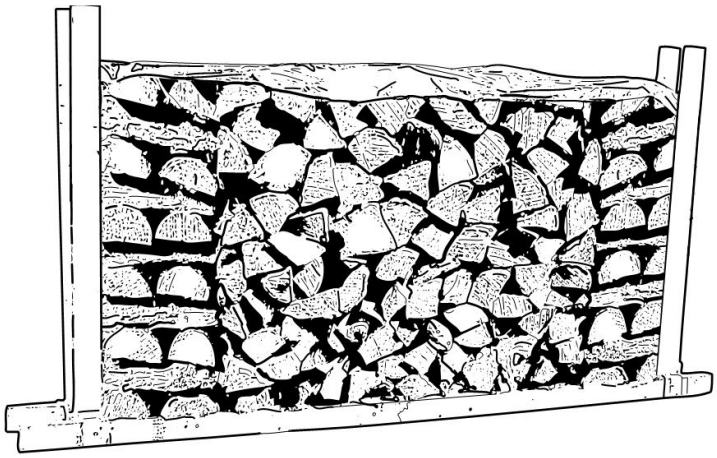
Compressed wood logs made of 100% compressed sawdust can be burned with caution in the number of these logs burned at once. Do not burn compressed logs made of wax impregnated sawdust or logs with any chemical additives. Follow the manufacturer's instructions and warnings. **Do not poke or stir the logs while they are burning.**



Use only logs that meet the requirements of ULC/ORD C127 M1990 for composite logs. Refer to package cautions and warnings before using logs. Refer to cautions and warnings on package before using logs.

3.5 Drying Time

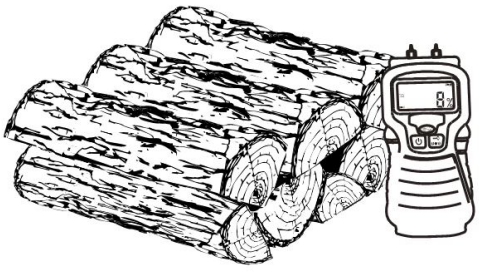
Firewood that is not dry enough to burn is the cause of most complaints about wood burning appliances. Continually burning green or unseasoned wood produces more creosote and involves lack of heat and dirty glass door. Firewood with a moisture content between 15% and 20% will allow the stove to produce its highest possible efficiency.



Here are some facts to consider in estimating drying time:

- Firewood bought from a dealer is rarely dry enough to burn, so it is advisable to buy the wood in spring and dry it yourself;
- Drying happens faster in dry weather than in a damp climate;
- Drying happens faster in warm summer weather than in winter weather;
- Small pieces dry more quickly than large pieces;
- Split pieces dry more quickly than unsplit rounds;
- Softwoods like pine, spruce, poplar, and aspen take less time to dry than hardwoods. they can be dry enough to burn after being stacked to air dry only for the summer months;
- Hardwoods like oak, maple and ash can take one, or even two years to dry fully, especially if the pieces are big;
- Firewood dries more quickly when stacked outside in a location exposed to sun and wind; it takes much longer to dry when stacked in a wood shed;

Use these guidelines to find out if the firewood is dry enough to burn:



- Cracks form at the ends of logs as they dry;
- The wood turns from white or cream colored to grey or yellow;
- Two pieces of wood struck together sounds hollow;
- Dry wood is much lighter in weight than wet wood,
- The face of a fresh cut feels warm and dry;
- The moisture content read by a moisture meter is between 15% to 20%.

4. Operating the Fireplace

4.1 Efficient Wood Combustion

For operating methods of your fireplace, refer to the "Efficient Wood Combustion" section of the "Installation and Operation Manual". This section explains in detail effective operating methods that will get maximum performance from your heating unit. The following topics are covered:

- The space where the wood can be placed for efficient combustion.
- Air control operation to increase or decrease firing rate.
- Lighting a fire when the combustion chamber is cold.
- Loading wood and adjusting the air control to obtain an intense fire allowing the temperature to quickly increase.
- Loading wood and adjusting the air control to obtain a fire that maintains the temperature.
- Loading wood and adjusting air control to obtain a long-lasting fire with the minimum possible intensity.

4.2 First Use

Two things happen when burning the first few fires; the paint cures and the internal components are conditioned. As the paint cures, some of the chemicals vaporize. The vapors are not poisonous, but they smell bad. Fresh paint fumes can also trigger false alarms in smoke detectors. When lighting the heater for the first few times, it may be wise to open doors and windows to ventilate the house.

Burn two or three small fires to begin the curing and conditioning process. Then build bigger and hotter fires until there is no longer paint smell from the fireplace. As hotter and hotter fires are burned, more of the painted surfaces reach the curing temperature of the paint. The smell of curing paint does not disappear until one or two very hot fires have been burned.

Never use gasoline, gasoline-type lantern fuel (naphtha), fuel oil, motor oil, kerosene, charcoal lighter fluid, or similar liquids or aerosols to start or 'freshen up' a fire in this wood stove. Keep all such liquids well away from the stove while it is in use.

4.2.1 Using Fire Starters

Commercial fire starters can be used instead of a newspaper. Some of these starters are made of sawdust and wax and others are made of specialized flammable solid chemicals. Always follow the package directions when using.

Gel starters can also be used, but only to light a fire, in a cold combustion chamber without hot embers inside.

The heater should not be left unattended during ignition and the fire should not burn at full intensity for more than a few minutes.

4.3 Combustion Cycles

Wood heating with a space heater is very different than other forms of heating. There will be temperature variations in different parts of the house and there will be temperature variations throughout day and night. This is normal, and for experienced wood burners these are advantages of zone heating wood burning.

Wood heaters don't have a steady heat output. It is normal for the temperature to rise after a new load of wood is ignited and for its temperature to gradually decrease throughout the burning cycle.

This increasing and decreasing temperature can be matched with the household routines. For example, the temperature in the area can be cooler when the household is active, and it can be warmer when it is inactive.

Wood burns best in cycles. A cycle starts when a new load of wood is ignited by hot coals and ends when that load has been consumed down to a bed of charcoal about the same size as it was when the wood was loaded.

Trying to produce a steady heat output by placing a single log on the fire at regular intervals is not recommended. Always place at least three, and preferably more pieces on the fire at a time so that the heat radiated from one piece helps to ignite the pieces next to it. Each load of wood should provide several hours of heating. The size of each load may vary depending on the amount of heat required.

Burning in cycles means the loading door does not need to be opened while the wood is flaming. This is an advantage since it is preventing smoke leaking from the heater when the door is opened as a full fire is burning. This is especially true if the chimney is on the outside wall of the house.

If the door must be opened while the fire is flaming, fully open air control for a few minutes then open the door slowly.

4.4 Removing Ashes

Ash should be removed from the firebox every two to three days of full-time heating. Ash should not accumulate excessively in the firebox since it will affect the proper operation of the appliance.

The best time to remove ash is in the morning, after an overnight fire when the fireplace is relatively cold, but there is still a little chimney draft to draw the ash dust into the fireplace and prevent going out into the room.

Ashes should be placed in a tightly covered metal container. The container must be placed on a non-combustible floor or on the ground well away from all combustible materials. Ashes almost always contain live embers that can stay hot for days and which release carbon monoxide gas. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be kept in a closed metal container until they are completely cooled. No other waste should be placed in this container.

NEVER STORE ASHES INDOORS OR IN A NON-METALLIC CONTAINER OR ON A WOODEN DECK.

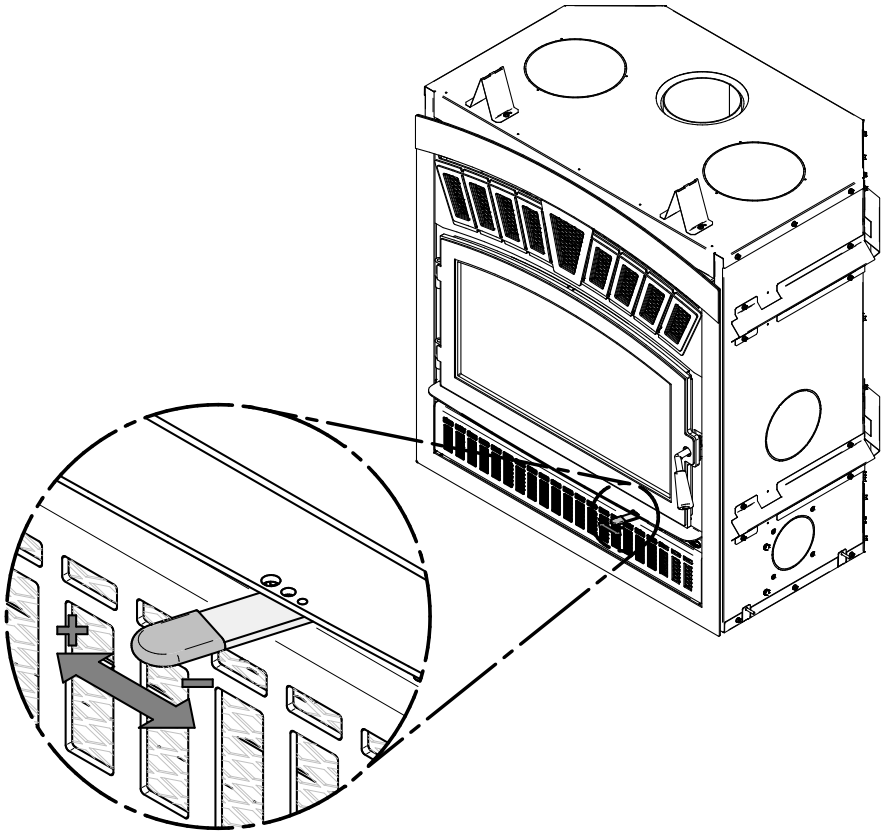
4.5 Air Intake Control

Once the firewood, firebox and chimney are hot, air intake can be reduced to achieve a steady burn.

As the air intake is reduced, the burn rate decreases. This has the effect of distributing the thermal energy of the fuel over a longer period of time. In addition, the flow rate of exhaust through the appliance and flue pipe slows down, which increases the duration of the energy transfer of the exhaust gases. As the air intake is reduced, the flame slows down.

If the flames diminish to the point of disappearing, the air intake has been reduced too early in the combustion cycle or the wood used is too wet. If the wood is dry and the air control is used properly, the flames should decrease, but remain bright and stable.

On the other hand, too much air can make the fire uncontrollable, creating very high temperatures in the unit as well as in the chimney and seriously damaging them. A reddish glow on the unit and on the chimney components indicates overheating. Excessive temperatures can cause a chimney fire.



YOUR PRODUCT MAY DIFFER FROM THE PICTURE, BUT THE OPERATION REMAINS THE SAME.

4.6 Fire Types

Using the air intake control is not the only way to match the fireplace heat output to the desired temperature in the house. A house will need far less heating in October than in January to maintain a comfortable temperature. Filling the firebox full in fall weather will overheat the space. Otherwise, the combustion rate will have to be reduced to a minimum and the fire will be smoky and inefficient. The method used to certify your appliance according to EPA Standards is presented in the Efficient Wood Combustion section of the Installation and Operation Requirements manual (Part 2 of 2) of your appliance. This method was developed specifically for your fireplace and results in the most efficient and cleanest combustion.

4.6.1 Maximum Burn Cycle Times

The burn cycle time is the period between loading wood on a coal bed and the consumption of that wood back to a coal bed of the same size. The flaming phase of the fire lasts for roughly the first half of the burn cycle and the second half is the coal bed phase during which there is little or no flame.

The burning time expected from this fireplace, including both phases, will vary depending on a number of things, such as:

- firebox size,
- the amount of wood loaded,
- the species of wood,
- the wood moisture content,
- the size of the space to be heated,
- the climate zone where the house is, and
- the time of the year.

The table below gives an approximate maximum burn cycle times, based on firebox volume.

Table 1 : Approximate Maximum Burn Cycle Time

FIREBOX VOLUME	MAXIMUM BURN CYCLE TIME
<1.5 cubic feet	3 to 5 hours
1.5 c.f. to 2.0 c.f	5 to 6 hours
2.0 c.f. to 2.5 c.f.	6 to 8 hours
2.5 c.f. to 3.0 c.f.	8 to 9 hours
>3.0 c.f.	9 to 10 hours

A longer burning time is not necessarily an indication of efficient fireplace operation. It is preferable to build a smaller fire that will provide three or four hours of heating than to fully load the firebox for a much longer burn. Shorter burn cycles make it easier to match the heat output of the fireplace to the heat demand for the space.

4.6.2 Logs Orientation

In a relatively square firebox, the wood can be loaded north-south (ends of the logs visible) or east-west (sides of the logs visible).

North-south loads allow more wood to be loaded at the same time. On the other hand, they break into smaller pieces faster. North-south loading is good for high output, long lasting fires for cold weather.

East-west loads allow a limited amount of wood since too many logs could cause them to fall on the glass. East-west loads, placed in a compact way, take a long time before breaking down. They are excellent for low-intensity, long-lasting fires in relatively mild weather.

4.6.3 Carbon Monoxide

When there is no more flame in the firebox and there are still some unburned logs, check outside if there is smoke coming out of the chimney. If this is the case, it means that the fire is out of air to burn properly. In this situation, the level of CO increase and it is important to react. Open the door slightly and move the logs with a poker. Create a passage for the air below by making a trench with the ember bed. Add small pieces of wood to restart the combustion.

5. Operating the Fireplace

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.

5.1 Using a Fire Screen

In the United States or in provinces with a particulate emissions limit (e.g.: US EPA), the use of open-door wood fireplace with a rigid fire screen is prohibited.

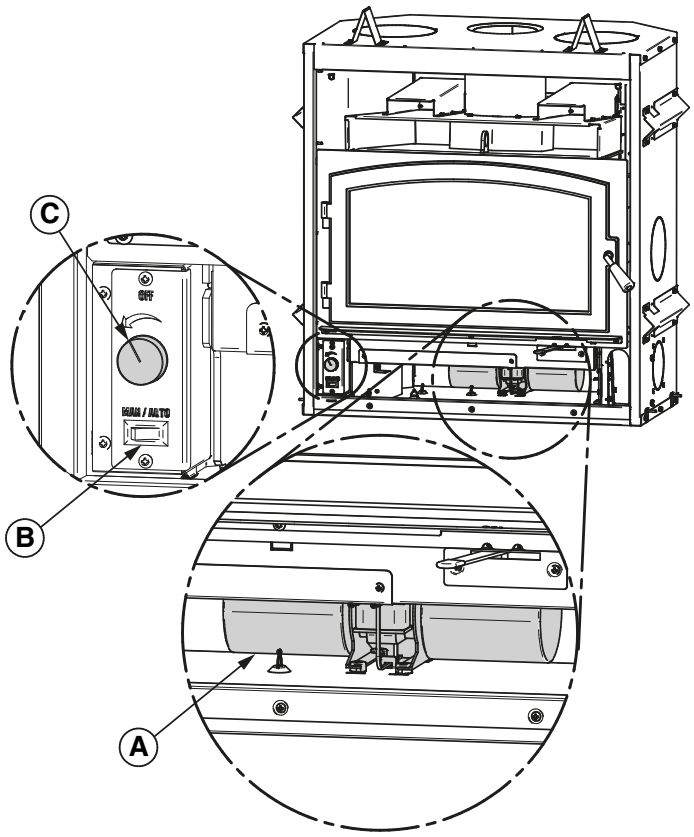
Some fireplaces have been tested for use open-door with a rigid fire screen, this option is sold separately (to confirm that your product has been tested with it, please refer to the specification manual). The fire screen must be properly secured on the fireplace to avoid any risk of sparks damaging the flooring. When the fire screen is in use, do not leave the fireplace unattended to respond promptly in the event of smoke spillage into the room. Potential causes of smoke spillage are described in Section 7 «The Venting System» of this manual. See “Optional Fire Screen Installation” in the specification manual of your product for installation instructions.

Operating the fireplace with a fire screen increases possibilities of generating carbon monoxide. Carbon monoxide is an odourless gas that is highly toxic which can cause death at high concentration in air. Installation of a carbon monoxide detector is highly recommended.

5.2 Blower Operation

A blower **(A)** may already be installed in the fireplace. If it is the case, it will be located behind the faceplace, at the bottom of the fireplace. Its function is to increase airflow around the fireplace air jacket and improve hot air circulation in the room. When used regularly, the blower can provide a small increase in efficiency, up to 2%. However, the use of a blower should not be used as a way to gain more output from a fireplace that is undersized for the space it is intended to heat.

The blower can operate in automatic or manual mode. To choose the mode, just press the rocker switch **(B)** and choose «AUTO» for automatic mode and «MAN» for manual mode.



YOUR PRODUCT MAY DIFFER FROM THE PICTURE, BUT THE OPERATION REMAINS THE SAME.

Automatic mode: Press the rocker switch **(B)** and choose the «AUTO» mode. Choose the operating speed of the blower with the rheostat button **(C)** above. The blower will start automatically when the fireplace is warm and will shut down automatically when the fireplace is cold.

Manual mode: Press the the rocker switch **(B)** and select the «MAN» mode. Choose the operating speed of the blower with the rheostat button **(C)** above. The blower will start immediately. The blower must be stopped manually, either by turning the rheostat button **(C)** fully to the left or by changing the mode.

OFF: To completely turn off the blower, turn the rheostat button **(C)** counterclockwise until the blower stops.

6. Maintenance

This heater will give many years of reliable service if used and maintained properly. Internal components of the firebox such as firebricks or refractory panels, baffle and air tubes will wear over time. Defective parts should always be replaced with original parts.

To avoid premature deterioration, follow the lighting and reloading procedures in section Burning Wood Efficiently» and also avoid letting the heater run with the air intake fully open for entire burn cycles.

6.1 Cleaning and Painting

Painted and plated surfaces can be wiped down with a soft, damp cloth. If the paint is scratched or damaged, it is possible to repaint the fireplace with a heat-resistant paint.

Do not clean or paint the fireplace when it is hot.

Before painting, the surface should be sanded lightly with sandpaper and then wiped off to remove dust. Apply two thin layers of paint.

6.2 Refractory Material and Baffle

The intense heat of the fire can cause slight cracks in the refractory panels. It is possible to minimize the appearance of these cracks by hardening the panels as described in the section « First Use».

Slight cracks will not reduce the effectiveness of the panels. On the other hand, if wider cracks appears, they must be replaced. Inspect the refractory panels and the baffle for damage periodically and replace anything that is cracked or broken.

Operation of the heater with a cracked or missing baffle may cause unsafe temperatures and hazardous conditions and will void the warranty.

6.3 Glass Door Cleaning

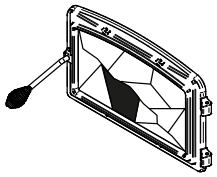
Under normal conditions, the door glass should stay relatively clear. If the firewood is dry enough and the operating instructions in this manual are followed, a whitish, dusty deposit will form on the inner surface of the glass after a week or so of use. This is normal and can be easily removed when the heater is cold by wiping with a damp cloth or paper towel and then drying.

When the fireplace runs at a low combustion rate, light brown stains may form, especially in the lower corners of the glass. This indicates that the fire has been smoky and some of the smoke has condensed on the glass. It also indicates incomplete combustion of the wood, which also means more smoke emissions and faster formation of creosote in the chimney.

The deposits that form on the glass are the best indication of the fuel quality and success in properly using the fireplace. These stains can be cleaned with a special wood stove glass cleaner.

Do not use abrasive products to clean the glass.

The goal should be having a clear glass with no brown stains. If brown stains appear regularly on the glass, something about the fuel or the operating procedure needs to be changed. When brown streaks are coming from the edge of the glass, it is time to replace the gasket around the glass. Always replace the gasket with a genuine one.



Do not clean the glass when the fireplace is hot.

Do not abuse the glass door by striking or slamming shut.

Do not use the fireplace if the glass is broken.

6.4 Exhaust System

Wood smoke can condense inside the chimney, forming a inflammable deposit called creosote. If creosote builds up in the system, it can ignite when a hot fire is burned in the insert. A very hot fire can progress to the top of the chimney. Severe chimney fires can damage even the best chimneys. Smouldering, smoky fires can quickly cause a thick layer of creosote to form. When the insert is operated properly, the exhaust from the chimney is mostly clear and creosote builds up more slowly.

«Creosote - Formation and Need to Removal

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cooler 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. The chimney connector and chimney should be inspected at least once every two months during the heating season to determine if a creosote buildup has occurred. If creosote has accumulated (⅛" [3mm] or more it should be removed to reduce the risk of a chimney fire»

6.4.1 Cleaning frequency

It is not possible to predict how much or how quickly creosote will form in the chimney. It is important, therefore, to check the build-up in the chimney monthly until the rate of creosote formation is determined.

Even if creosote forms slowly in the system, the chimney should be cleaned and inspected at least once each year.

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.

6.4.2 Sweeping the Chimney

Chimney sweeping can be a difficult and dangerous job. People with no chimney sweeping experience will often prefer to hire a professional chimney sweep to inspect and clean the system for the first time. After seeing the cleaning process, some will choose to do it themselves. The chimney should be checked regularly for creosote buildup. Inspection and cleaning of the chimney can be facilitated by removing the baffle. See « Refractory Panels Replacement » in the product specification manual for more details.

To access the top of the chimney, you will need to remove the chimney cap. It can be secured in place with screws or other fasteners. With the appropriate tool, remove the fasteners holding the cap in place and remove the cap.

6.4.3 Chimney Fire

Regular chimney maintenance and inspection can prevent chimney fires. If you have a chimney fire, follow these steps:

1. Close the fireplace door and the air intake control;
2. Alert the occupants of the house of the possible danger;
3. If you require assistance, alert the fire department;
4. If possible, use a dry chemical fire extinguisher, baking soda or sand to control the fire. *Do not use water* as it may cause a dangerous steam explosion;

Do not use the appliance again until the fireplace and its chimney have been inspected by a qualified chimney sweep or a fire department inspector.

7. The Venting System

The venting system acts as the engine that drives the wood heating system. Even the best fireplace will not function safely and efficiently as intended if it is not connected to a suitable chimney. The heat in the flue gases that pass from the fireplace into the chimney is not waste heat. This heat is what the chimney uses to make the draft that draws in combustion air, keeps smoke inside the fireplace and safely vents exhaust to outside. Heat in the flue gas can be seen as the fuel the chimney uses to make draft.

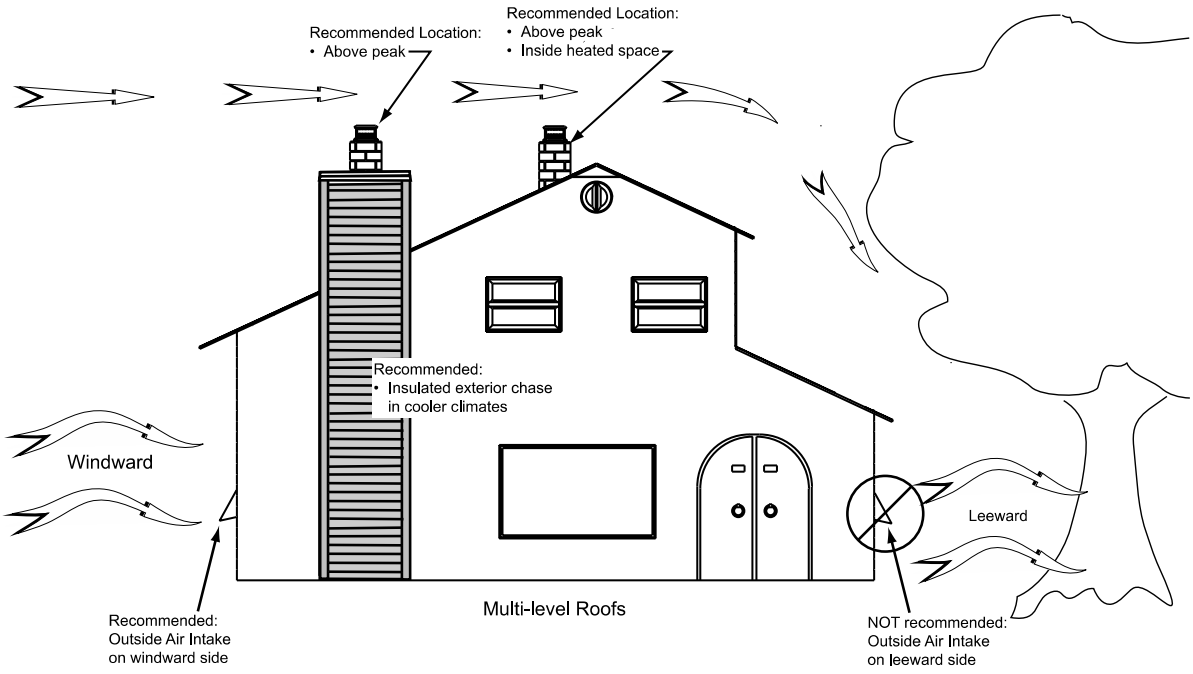
7.1 Location

The location of the chimney is crucial for the proper functioning of the appliance. The chimney should be installed within the house rather than up an outside wall and should rise straight up through the tallest part of the house. This installation benefits from being enclosed within the warm house environment, produce stronger draft, accumulate fewer creosote deposits and will be unaffected by cold temperatures or harsh winds.

The signs of bad system design are cold back drafting when there is no fire in the fireplace, slow kindling of new fires, and smoke roll-out when the door is open for loading. On the other hand, an excessive draft can make the fire uncontrollable, creating very high temperatures in the unit as well as in the chimney and seriously damaging them. A reddish glow on the unit and on the chimney components indicates overheating. Excessive temperatures can cause a chimney fire.

7.2 Supply of Combustion Air

The safest and most reliable supply of combustion air for a fireplace is from the room in which it is installed. Room air is already preheated so it will not chill the fire, and its availability is not affected by wind pressures on the house. The only case in which the fireplace may not have adequate access to combustion air is if the operation of a powerful exhaust device (such as a kitchen range exhaust) causes the pressure in the house to become negative relative to outdoors.



Using a fireplace can deplete the air supply for other fuel burning appliances of combustion This can lead to incomplete combustion, backdrafting, poor appliance performance, fire risk and can diminish the indoor air quality. Ensure a proper ventilation and air intake for all fuel burning appliances.

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