Euroheat Distributors (H.B.S.) Ltd
Unit 2 Court Farm Business Park
Bishops Frome
Worcestershire
WR5 6AY

Thermic Distribution Europe S.A.
B-5660
Frasnes Les Couvin
Belgium

Euroheat
The Stove Company

Lighting Operating and Maintance Instructions for Harmony H23 Stanford S23 SP23 Nestor Martin R23 Smoke Control Exemption Edition Wood Stoves

with Plexus Control and ZR Technology

SMOKE CONTROL APPROVED

This Manual Must Always Be Available To The Stove Operator

Part No.

Model Name

Serial Number

Instructions Part Number IN1143 Ed.B

Manufacturer Address	Thermic Distribution - Nestor Martin Group Route Axiale 5 B-5660 Frasnes-les-Couvin, Belgium
Appliance	H23, S23, R23, SP23
Nominal Heat output	6kW (Wood)
Thermal output / Energy Efficiency	6kW / 72% (net)
Recommended fuels	Seasoned Wood (less than 25% moisture)
Maximum log length	330mm / 13"
Emissions of combustion products related to 13% O_2	CO: 0.28 vol %
Mean flue gas temperature	204°C
Flue Gas Mass Flow	7.8g/s
Air requirement equivalent area	1100mm²
Flue outlet size (internal diameter)	153mm / 6"
Weight	H23 125KG, S23 124KG, R23 103KG, SP23 132KG

Declaration

The efficiency of the room heater fired by wood, model S23 and its variant H23, R23, SP23 has been measured as specified in EN13240:2001 and EN 13240-A2:2004 and the result efficiencies are those listed as net. The test data from which it has been calculated has been certified by TNO Science and Industry for Nestor Martin Group.

Warranty

Thank you for choosing a Euroheat/Nestor Martin stove. It has been constructed with the utmost care and with the finest materials; we hope it gives you many years of pleasurable warmth. If your stove has an enamel finish you will notice, after the stove has been used several times, it develops what is called a "crackle" pattern in the enamelling. This is caused by the different expansion rates between the enamel and the cast iron, it is normal and should not be regarded as a fault or indicating that the stove is beginning to shed its finish.

Any modification to the appliance will cancel any warranty and may make it unsafe.

Warranty Registration

Please ensure this is fully completed by your installing engineer with details of your approved Euroheat supplier and returned to Euroheat within 14 days of installation. The free 10 year technical telephone help can only be authorized if the stove is registered with Euroheat by returning the registration form.

Euroheat & Nestor Martin have a policy of continual research and development and reserve the right to modify its appliances without prior notice. We make every effort to ensure that the information provided in this document is correct and accurate at the time of printing. Continued updates occur to adapt documents to customer requirements and appliance changes. For the latest editions of all Euroheat documentation visit our web site **www.euroheat.co.uk.**

We would welcome any comments or information which you feel is not provided in this document that may assist other users in the future.

The Euroheat Technical Team: tech@euroheat.co.uk

The Model Range Explained

Thank you for purchasing your stove and helping to protect our environment. Nestor Martin insist on progressive development to produce products which are marketing leading. Our aims are to produce stoves with the latest innovations, user friendly operation and high efficient for lower cost operation.

This operation manual offers user information for the range of HARMONY H23. STANFORD S23, SP23. NESTOR MARTIN R23.

Model Identification

You will see on the front page of this document a label which confirms which model you have. This label also advises you of the stoves unique serial number. This information is also attached to your stove for reference.

Important

Please ensure the warranty registration form is returned to Euroheat. In this way the model and its history will be recored for reference in the future.

Euroheat
The Stove Company

Contact Details:
Euroheat Distributors (H.B.S). Ltd.
Unit 2,
Court Farm Business Park,
Bishops Frome,
Worcestershire. WR6 5AY.

www.euroheat.co.uk

info@euroheat.co.uk

Whilst we are always happy to assist you, please make sure you have read this manual and have watched the **Driving Your Stove** DVD before contacting the technical support team.
Technical support Telephone Number 01885 491117. E-mail tech@euroheat.co.uk

Advanced Driving Manual for the Plexus Range.

Document Part Number IN1172
Please contact your Euroheat Retailer, Euroheat web site or Euroheat directly for your free copy.

Useful organisations

Solid Fuel Association	0845 601 4406	www.solidfuel.co.uk
The National Association of Chimney Sweeps	01785 811732	www.chimneyworks.co.uk
HETAS Ltd.	0845 634 5626	www.hetas.co.uk

IMPORTANT

- The installation of this appliance must comply with all local regulations, including those referring to national and European Standards before it can be operated. The stove is not suitable for a shared flue.

- Improper adjustment, alteration, maintenance or the fitting of replacement parts not recommended by the manufacturer can cause injury or property damage. Do not operate the stove with faulty seals or damaged glass.

- Ensure all manuals are kept safely and are available for the user at all times.

- Do not store or use petrol or other flammable vapours and liquids in the vicinity of this or any other heating appliance. Do not burn anything but natural wood or approved coals on this appliance.

- Due to high operating temperatures of this appliance it should be located away from pedestrian traffic and away from furniture and draperies. Do not store paper or wood near the appliance. Any mats and rugs put in front of the stove should be fire proof and secured to prevent the possibility of tripping.

- Advise all persons as to the stove's high surface temperatures, including visitors. If it is possible for children or infirm adults to come into contact with the stove, fit a suitable fire guard. Never let children "help" with the stove in any way, even when the stove is cold.

- It is imperative that all air passageways into, out of, and within the appliance are kept clean. All permanent ventilation into the room provided for the stove must remain clear and unobstructed at all times. Consideration must be given to the need for extra ventilation if another heating source needing air is to be operated simultaneously. If an extraction fan is proposed to be fitted to a connecting area of the house, after the stove has been installed, professional advice should sought from a qualified engineer.

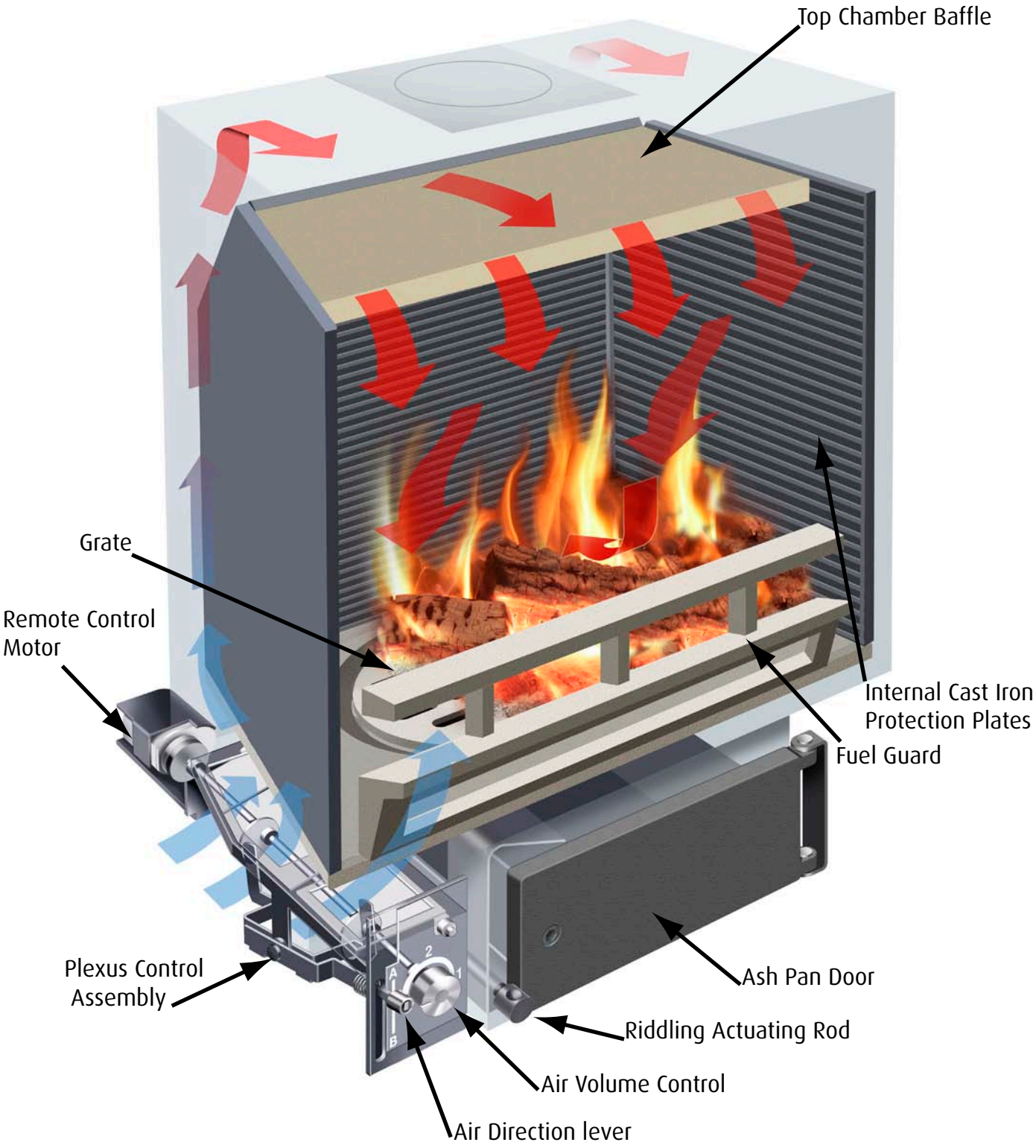
- If a flue blockage or adverse weather conditions cause the stove to emit smoke, do not treat it as merely a nuisance, this smoke will indicate that carbon monoxide is being emitted into he room. Turn the stove to its minimum firing rate, open windows and allow the stove's fuel to burn out before closing the windows. Do not re-light the stove without consulting a qualified engineer.

- In the event of a chimney fire the stove should be turned to its minimum setting and the fire brigade informed. Do not re-light the stove until the complete installation has been inspected by a qualified engineer.

- The appliance should be inspected regularly and the chimney cleaned at least annually. More frequent cleaning may be required and the advice of a qualified chimney sweep should be sought. Always check for any flue blockage before lighting the stove after a prolonged shut down.

Your stove has been carefully designed and constructed to give clean burning with optimum efficiency and safety, but as with all stoves these standards will not be achieved unless the stove is installed and maintained regularly by qualified engineers. It must also be operated strictly with the procedures given in this manual. If you are unsure about anything concerning your stove please seek professional advice.

The Stove Construction



Before Operating the Appliance

After curing, the paint used on the stove will harden and be capable of withstanding 650°C, but curing will only occur if the stove is operated at a sufficiently high temperature. The lighting procedures should be followed and the stove's fire size increased over a two hour period to achieve this temperature. When this temperature is reached the stove will give off a pungent smell and a blue haze. These fumes may activate a smoke detector, if fitted. During this period the room should not be occupied by people or pets and windows must be left open to ventilate the room. The time taken for the paint to be fully cured will normally be approximately 6 hours. If you re-paint or fit new parts to your stove, another period of curing will be necessary but the curing time will be much shorter.

Understanding Wood Stoves

Gas and oil are consistent fuels and stoves can be designed to obtain the maximum heat from them with the user having to do no more than choose a heat setting. Wood is almost infinitely variable and however well a stove has been designed, to have the ability to realize the full potential from wood, the stove's performance will ultimately depend on the way the user operates it. Whilst we have endeavoured to make the stove as simple to operate as possible, understanding just a little about wood and the way your stove was designed to burn it will be rewarded by your being able to achieve the best from your stove with the least effort.

As a fuel, wood is an environmentally friendly, renewable source of energy, giving the most visual pleasure of any fuel when burning correctly. Unfortunately, because wood is regarded as a natural and basic fuel it is often not appreciated as being the most complex of all domestic fuels and much potential heat is often lost by it being burned incorrectly.

Wood can be thought of as having two differing components which burn. The fixed carbons which burn as the glowing embers, and the compounds that vaporize when heated to burn as gasses. The fixed carbon, which is charcoal, is a virtually trouble free fuel needing little assistance to burn cleanly, but it would be difficult to describe it as visually entertaining. The visual impact comes from the vapourizing components that convert to the gasses giving the bright, endlessly changing flame patterns when burning properly, but cause all the problems associated with wood burning if they fail to burn correctly.

Wood releases its volatile components when heated. If wood is placed on a hot fire bed, or into a hot stove, it will begin releasing its volatile components almost immediately as it heats. If these gases are below their ignition temperature and fail to ignite they will be lost heat and a pollutant, however much air is available. If the stove surfaces are below the temperature at which these volatiles vaporize, the released volatiles will condense back into tars as they come into contact with the metal and glass, causing the familiar staining of a badly running stove. If the stove is above this temperature, but the flue is not, these tars will condense onto the walls of the flue causing a fire hazard. If the gasses are released into a stove and flue at their correct operating temperature but are released with insufficient air to ensure complete combustion, these unburned gasses will not stain the stove, or coat the flue, but they are a waste of potential heat and pollute the atmosphere.

The erroneous practice of filling a stove with fresh wood, whilst operating the stove with a minuscule air supply, as a technique to operate for long periods without attention, will cause both the above situations to occur during the burning cycle of the wood. Properly controlling the rate at which wood burns is therefore not simply a matter of restricting the air supply, nor of running the stove with a very small fire. A correctly operating stove will maintain releasing volatiles above their ignition temperature and supply sufficient air to ensure all the volatiles burn completely.

The model 23 stove supplies air to the wood, heated and as slowly as possible so as not to blow out or chill any established flames, and it comes in across the full width of the stove ensuring that all parts of the stove receive an equal air supply. Because the air enters slowly over a curved blade it is directed towards the burning volatiles rather than the bed of the fire, allowing the volatile components to use the incoming air as a priority, and governs the air supplied to the bed of the fire. This limits the generation of more volatiles until air becomes available.

Continually placing new logs into the stove whenever previous logs have almost stopped producing flames allows a bed of embers to build up within the stove. These embers are the clean burning charcoal, which not only stabilize the heat output from the stove by burning in proportion to the available air but is a fuel capable of burning cleanly for incredibly long periods with restricted amounts of air allowing the stove to burn overnight without risk of smoke or tar deposits.

Because the stove is designed to achieve clean combustion by balancing the air supply and direction with the fuel available it will perform at its best if the air volume control is set to one position and wood is introduced into the stove whenever necessary. Constantly adjusting the stove's controls will upset this balance and give poor economy and unacceptable amounts of emissions.

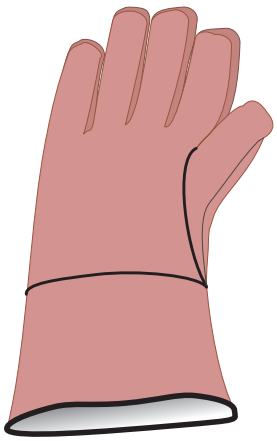
No two woods have the same burning characteristics but all wood contains water. How much water will have more effect on the way it burns than its species. It is difficult to quantify the amount of water any log might hold whilst its exterior feels dry but it would not be unreasonable to estimate a good sized, poorly seasoned, log containing a mug full of water. Imagine pouring that onto your fire every time you introduce a new log and you will realize its obvious effect of cooling the fire. What is not so obvious is that the moisture mixing with the vaporized gasses is cooling them, possibly below their ignition temperature. So the water within a wet log cooled the stove, it has prevented much of the potential heat from the log being realized and the unburned combustible products will be deposited as tars within the stove and flue. When applied to wood terms like "seasoned" or "barn dried" should not be assumed to mean dry. Advice on how to dry wood can be found on the Universal DVD "User Guide" for Wood and Multifuel Stoves supplied with the stove.

Never burn anything but natural wood in the stove. Painted or treated wood and wood products such as plywood, and chipboard will all contain products that may damage your stove or give off toxic fumes.

Safety

A stove is very much safer than an open fire, but if you have children or infirm people in the house please ensure it is suitably guarded, and consideration should also be given to accidental contact with the stove if you are entertaining with a busy house full of guests. If you have a remotely operated stove please ensure you

Items Supplied With the Stove

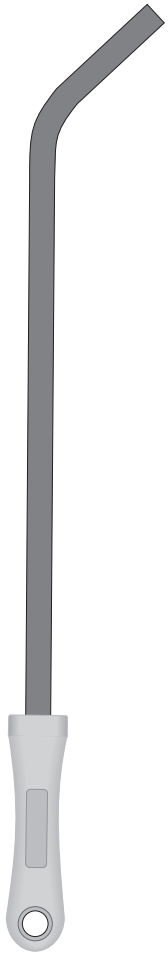


Heat Resistant Glove
Please note that the die is not colour fast and if damp may leach out and be absorbed into porous surfaces.

Operating Tool for Plexus Control and Ash Pan Removal

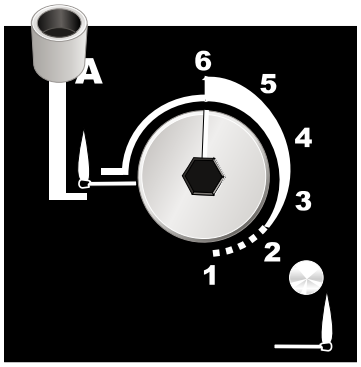
Universal User Guide DVD for Wood and Multifuel Stoves

Allen Key For Plexus Maintenance

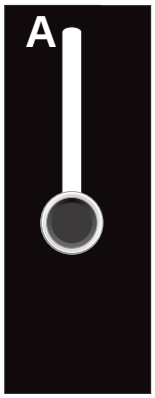


Poker

The Plexus Air Control



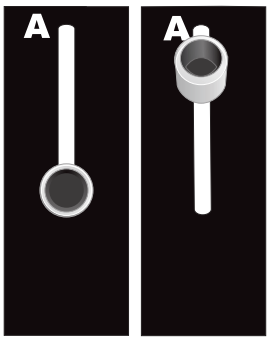
Behind the stove's lower door will be found the Plexus air control allowing you to adjust both the volume, by rotating the round knob, and the direction from which air enters the stove, by moving the lever vertically up or down.



Air Direction Lever

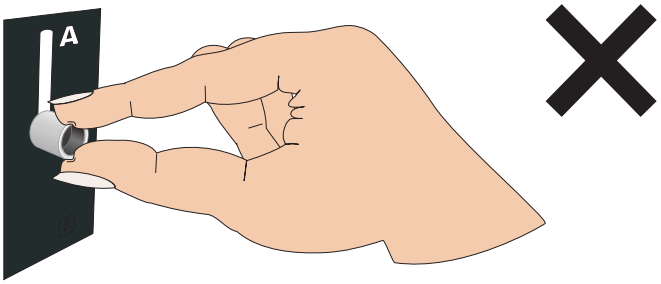
When the direction lever is in its uppermost position, "A", air enters the stove above the fire, to supply air to the gasses being released from the wood as a priority. Positioning the lever at its lighting position will supply air both over and under the fire and this position is used when lighting a fire to promote the rapid development of the fire's size. This position can be set briefly when new wood is introduced and the existing fire is no longer producing flames. This will ensure the new wood ignites as quickly as possible and prevent it from simply smouldering and emitting smoke. Experience will show that it may not always require the lever to be set fully to its ignition position. The lever should always be returned to position "A" as soon as possible.

Lighting

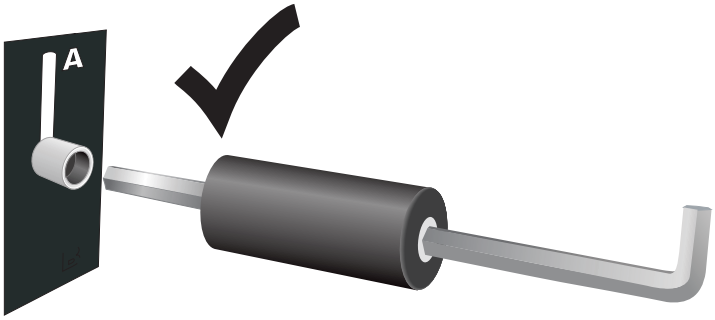


Lighting or Rousing a Slumbering Fire

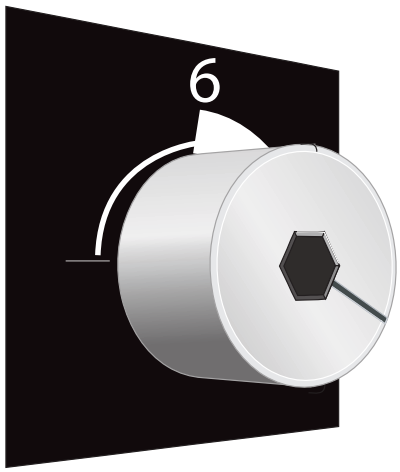
All Other Times



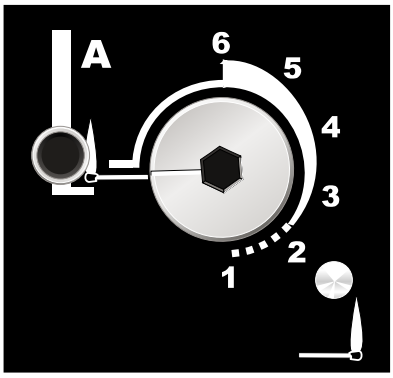
This lever may be hot. Always use the stove tool to make air direction adjustments.



Air Volume Control

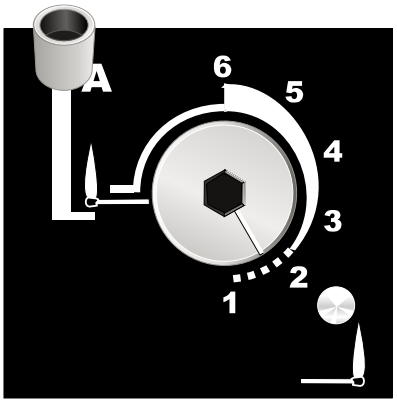


The air volume control's maximum setting, 9 O'clock, is only used when the stove is being lit and the flue draught is minimal. To prevent the control being inadvertently turned to this position when the stove is at operating temperature it is blocked from being turned beyond the 12 O'clock position until the ignition override button is pressed. Turning the control from its ignition position to operation positions will reset this block.
Settings giving normal operating temperatures will usually be between 12 O'clock and 3 O'clock, with slow burning being achieved when the control is set between 3 O'clock and 6 O'clock.
Do not expect the stove's performance to match any setting repeatedly because it will be affected by other variable factors such as fuel quality and weather conditions.



Ignition Setting

Ignition overide button pushed to allow volume to be set to maximum. Air direction set to supply air through the grate.



Maximum Operating Setting

Position 6

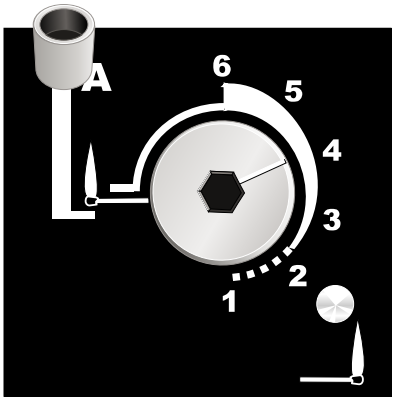
No under grate air supply.

Ignition overide button

Normal Operating Setting

Volume set between 2 and 6.

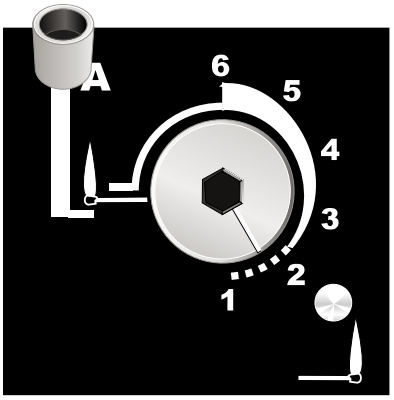
No under grate air supply.

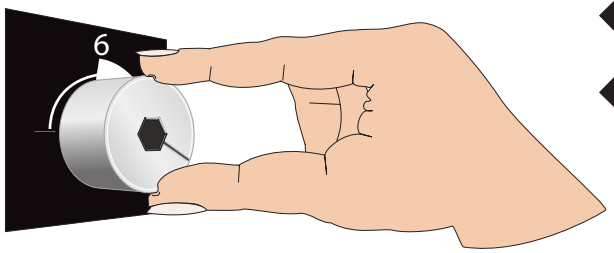


Slumber Setting

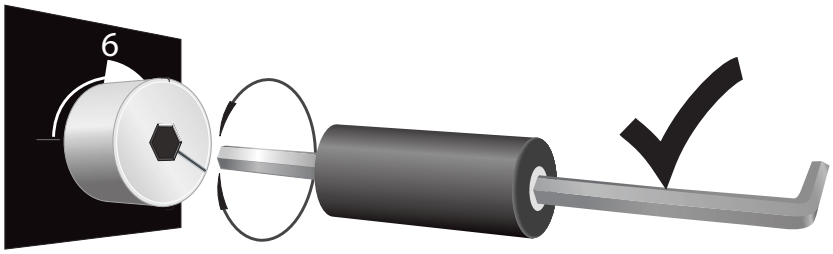
Volume set between 1 and 2.

No under grate air supply.



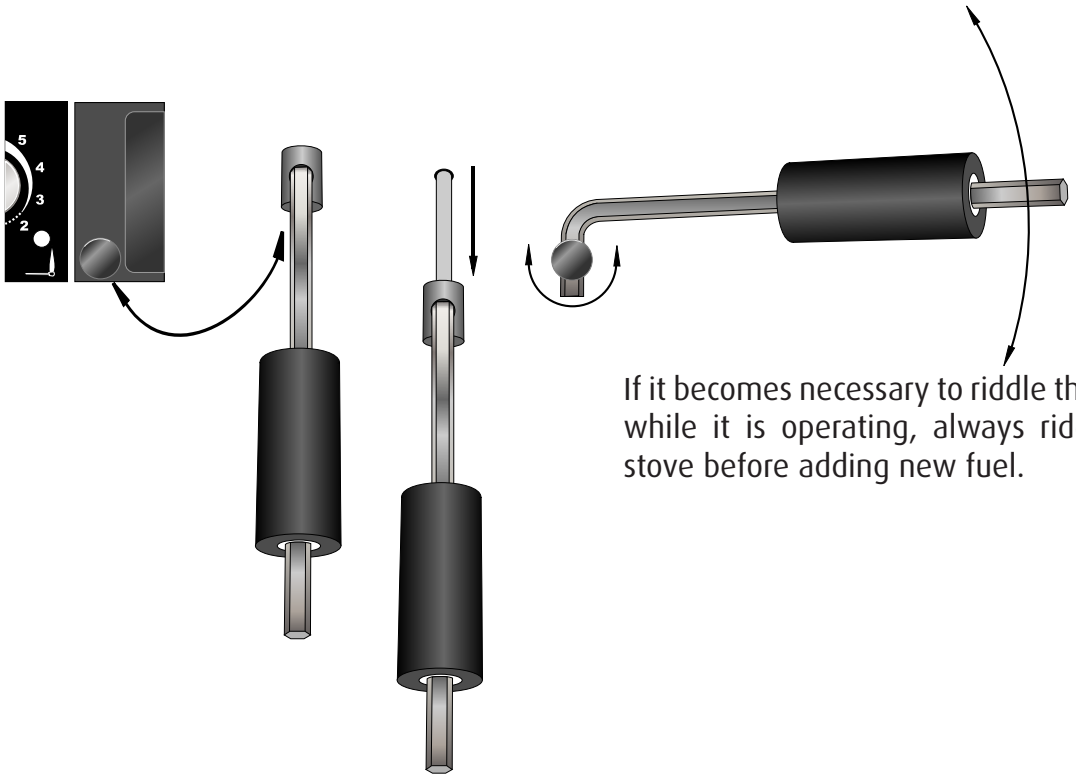


This control knob may be hot. Always use the stove tool to make air volume adjustments.



Ash Collection

The grate can be riddled to encourage ash to fall into the ash pan by locating the right angled end of the stove tool into the riddling actuating rod end, located between the Plexus facia panel and the ash pit door. Pull the rod outwards and turn the tool to facilitate oscillating the rod end. The movement required to move the grate bars is small and requires very little effort. Do not use force.

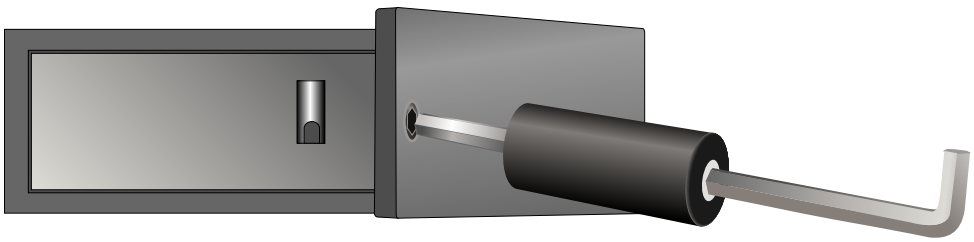


If it becomes necessary to riddle the stove while it is operating, always riddle the stove before adding new fuel.

As well as being used to rearrange the fire bed, the poker is designed to be used for clearing ash through the grate slots and this will be found to be the most effective way of clearing ash when the fire has burned out.

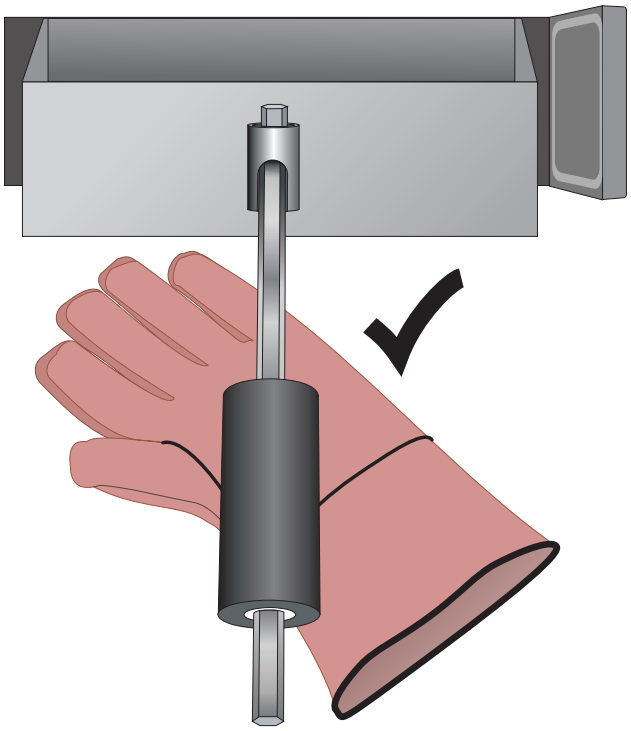
Ash Pan Removal

- Always use the tool to open and close the door.



- Never leave the stove unattended without both its doors being securely closed.
- Always check, meticulously, that no embers have been spilled whenever any stove door has been opened.
- Always use gloves when carrying the ash pan, even when you think the ash is cold.
- Do not empty ash into a plastic waste bin or any bin containing combustible waste.
- There will be hot embers in the stove, long, even days, after the fire appeared to extinguish.
- Never clean out ashes onto paper, never use a plastic bristled brush or a vacuum cleaner to remove ash.
- Never let children “help” with the stove in any way.

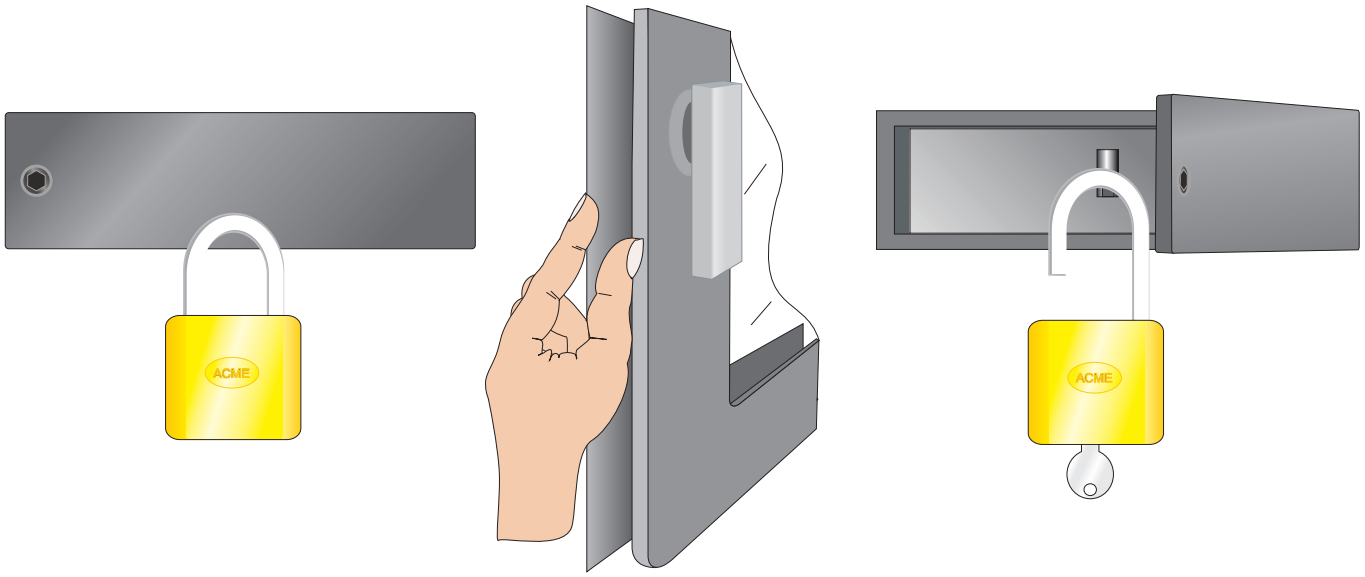
The stove tool right angle end is used to engage the ash pan socket. Care should be taken to ensure the tool is fully engaged before removing the ash pan. The glove should always be worn on the hand not operating the stove tool so that the ash pan can be securely held. Do not carry the ash pan with the tool alone. Do not put the ash into, or with, anything combustible; even seemingly cold ashes may contain small glowing embers capable of igniting items they come in contact with.



The ash pit door should be closed before lighting a fire in the stove and it should remain closed whilst the stove is operating. Opening the ash pit door when the stove is operating may cause flames to be directed fiercely at the glass and the intense heat will turn the areas of glass hit by the flames, irrevocably, opaquely white.

The stove is capable of continuous operation and if it is being operated continuously it will therefore be necessary to empty the ash pan whilst the stove has a burning fire. If the ash pit door is to be opened and the ash pan removed safely the following procedure should be followed.

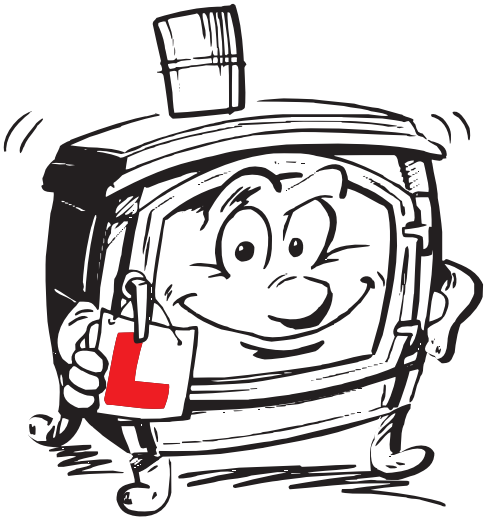
Preparation must be made for the safe handling and disposal of the burning embers in the ash pan before beginning this operation. Good practice would be to have an empty metal container brought to the stove so the ash pan can be emptied directly into it.



Allow the fire to burn down as low as practicable and check that no embers will fall from the stove when the door is opened. Wearing the glove, open the stove door, turn the handle to its closed position, and gently push the door back until the latch just touches the stove body. Take care to do so gently, especially if your stove is enamelled. This will let air into the stove above the fire and limit air being drawn in through the grate but prevent smoke from spilling into the room.

The ash pit door can now be opened and the ash pan removed. The ash pit door must be closed immediately the ash pan is removed and the stove door must also be closed securely. When re-installing the empty ash pan the stove door must again be opened before opening the ash pit door.
Never open the ash pit door without the stove door being ajar and never leave either the stove door or the ash pit door open for longer than absolutely necessary.

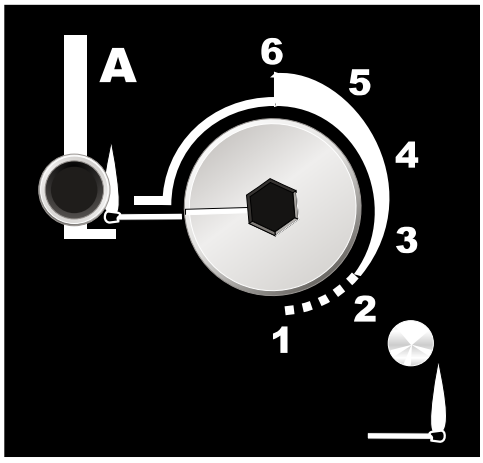
Getting Started



Having learned where to find the controls, you are now ready to light a wood fire in the stove, without filling the stove or neighbourhood with smoke. You will need two pieces of newspaper, a small bundle of kindling wood and several split logs. All of these should be as dry as possible; never use wet wood, it will cause smoke, deposit tar in the stove and flue to become a potential fire hazard.

Remember that your stove needs the help of a gentle push start in the right direction until it warms. Do not expect it to be on auto pilot until it reaches its operating temperature.

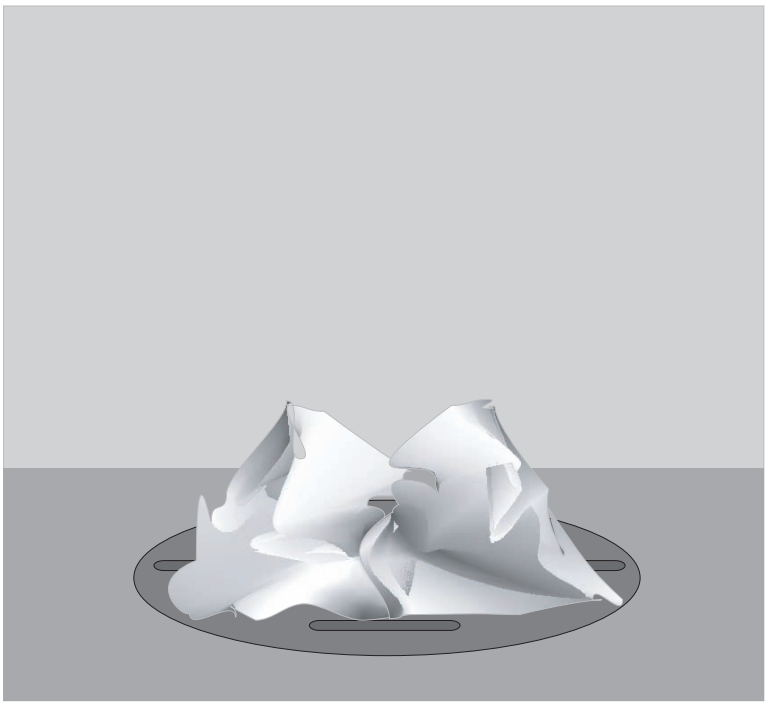
Ensure the the grate is clear of ash, the ash pan is fitted and empty, then securely close the ash pit door.

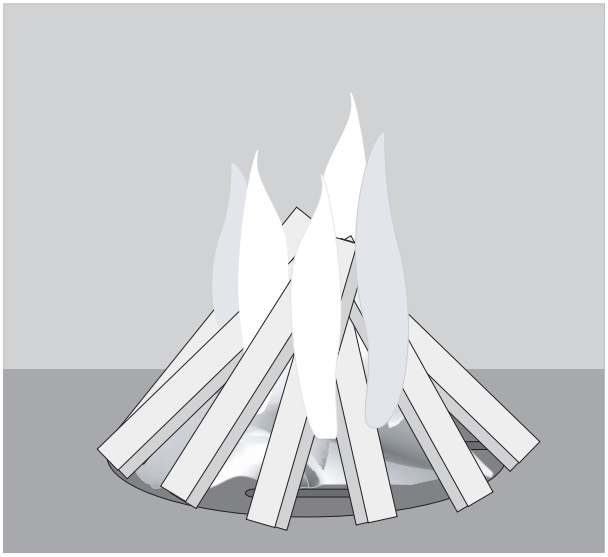


Set the air volume control to maximum air volume and the air direction lever to mid position, supplying air above and below the grate.

Lightly crumple two tabloid sized pieces of newspaper and lay them in the middle of the grate.

Resist the temptation to use more paper than this, or to crumple it too tightly; doing either will prevent the rapid development of flames and will cause smoke to be produced.

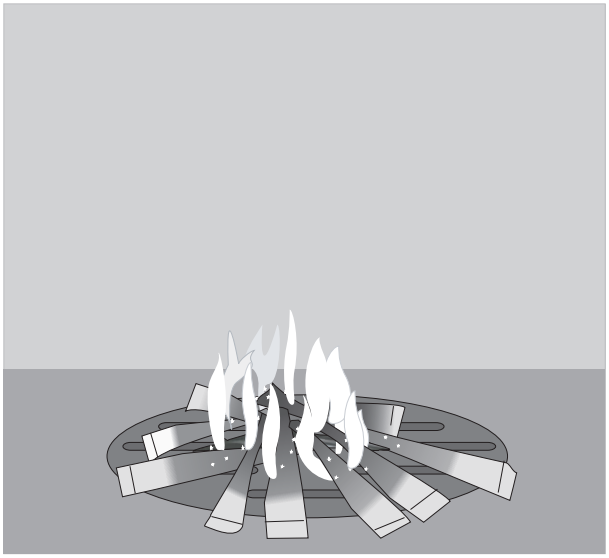




The kindling wood should be placed over the paper so as to rest against each other in a conical formation, leaving space between each piece.

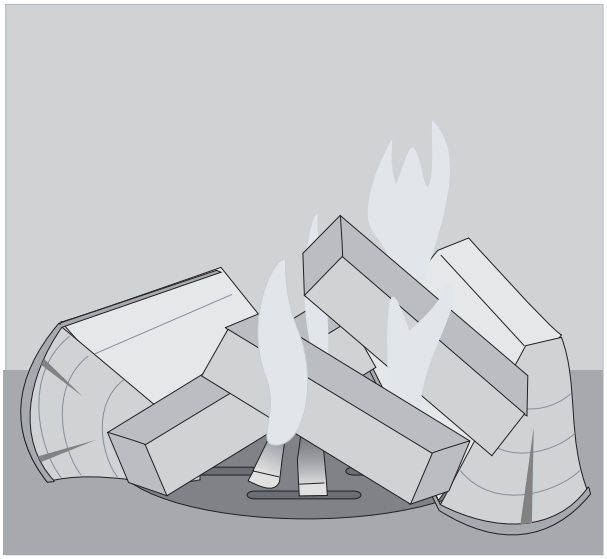
Light the paper using a long match or spill and close the stove door.

The lightly crumpled paper will begin burning rapidly and the space between the kindling will allow the long bright flames to pass between and over the wood raising it to its ignition temperature.



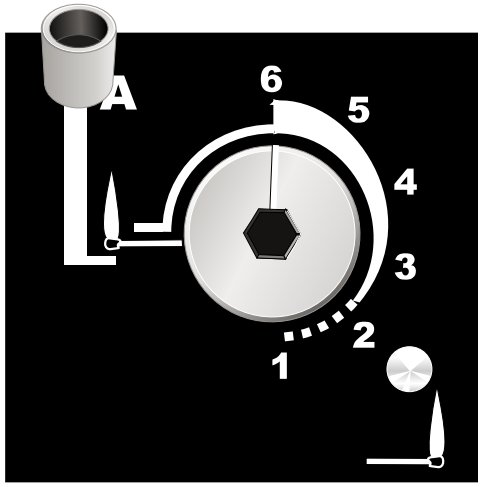
As the cone of kindling burns it will collapse and the inner ends of the wood will begin to char and glow.

Wait until a substantial amount of the kindling is charring before moving onto the next stage.

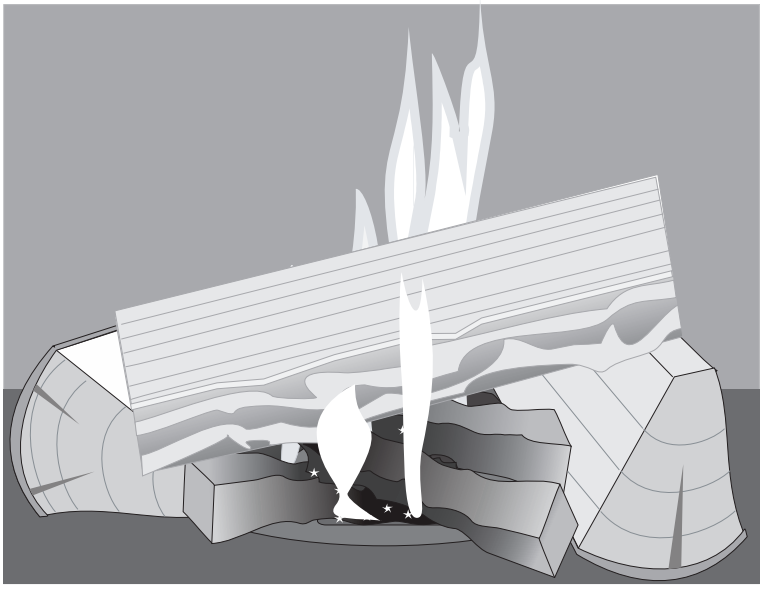


Wearing the stove glove place a log to either side of the burning kindling and larger than kindling wood over, but not smothering, the kindling.

If the wood size permit it will be possible to put a log either side of the kindling before lighting the fire.

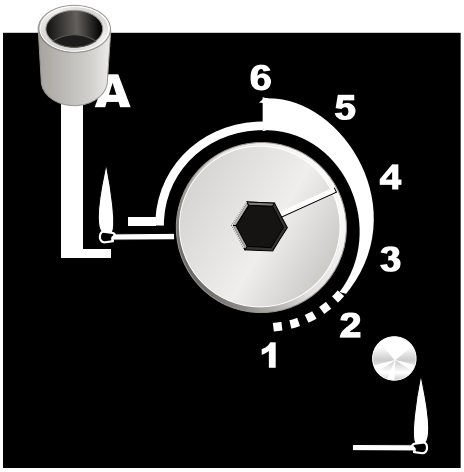


Move the air direction lever to its uppermost position and do not be alarmed if the fire appears to die, or be tempted to move it back to its middle position.

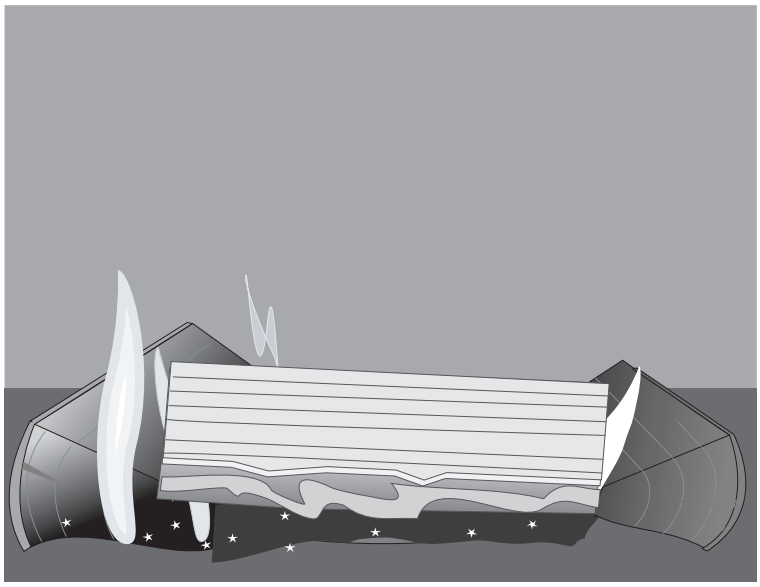


When the previous loading of wood is burning brightly add another log to bridge the fire. Always avoid putting wood directly onto wood burning with flame because the new, cold, log will tend to cool the flame allowing the gasses to fall below their ignition temperature.

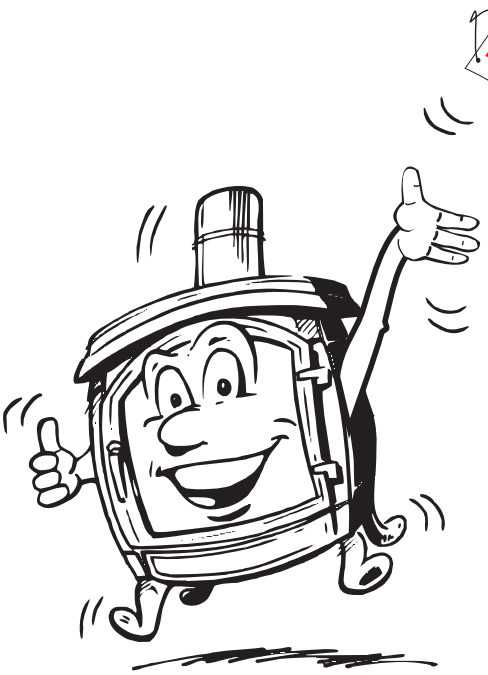
.



Reduce the air volume control when the fire is established. Never leave it in its lighting position for too long because the air flow into the stove will be too high when the flue warms up and mch of this air will be wasted.



Putting new logs, bark side down, towards the front of the grate will give you both maximum efficiency and best visual effect as it begins to burn.
Never put more than a layer of wood on at a time as the logs will become unstable and may roll against the glass, making it difficult to open the door.



If you lit your fire in the stove cleanly and you are now feeling it becoming hot, congratulations, you have passed the lighting test and are no longer a total novice. You can throw away your "L" plates and move on to become an advanced driver.
See page 15.

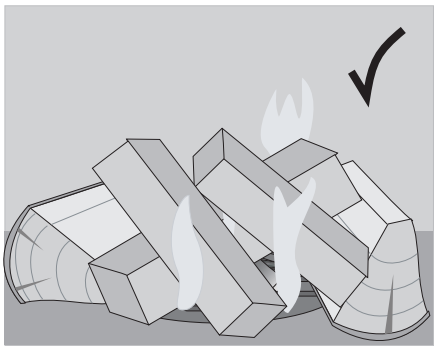
Why Did You Fail?

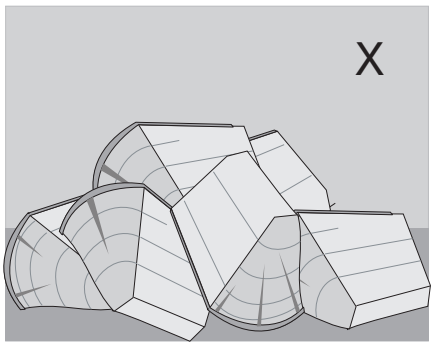
Not everyone will pass with flying colours at the first attempt, indeed even some experienced stove users will fail their test because producing smoke and tar was historically acceptable.

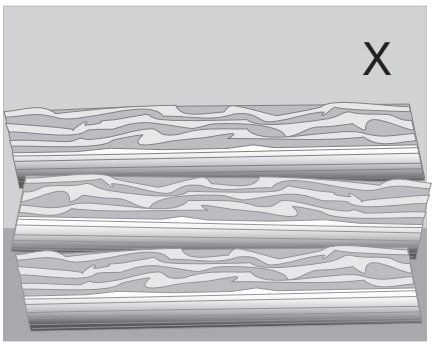
Before checking your technique, make absolutely certain that the wood you are using is dry, not "seasoned", "barn stored" or "ready for burning". It must be dry if you want to burn it successfully, cleanly and efficiently. (see the Euroheat document Number —'IN1172' for further information

The Fire Went Out

Do not put wood onto the kindling too soon or without allowing vents for the flames. The quality of the wood will determine how much fuel can be loaded at one time but remember you are lighting the stove and wanting it to reach its operating temperature as quickly as possible; all smoke is a pollutant and wasted fuel.

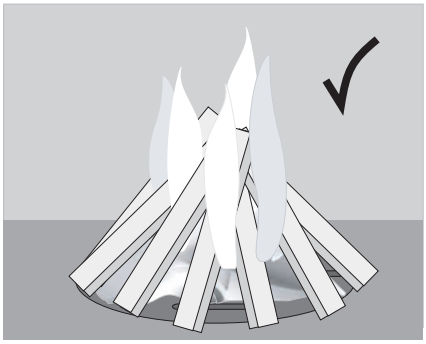


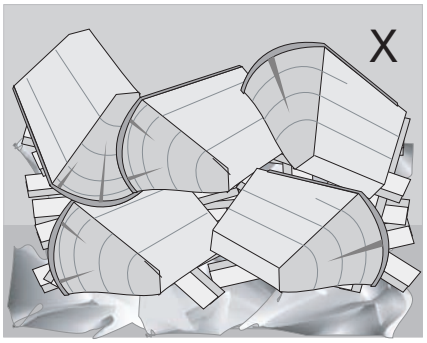


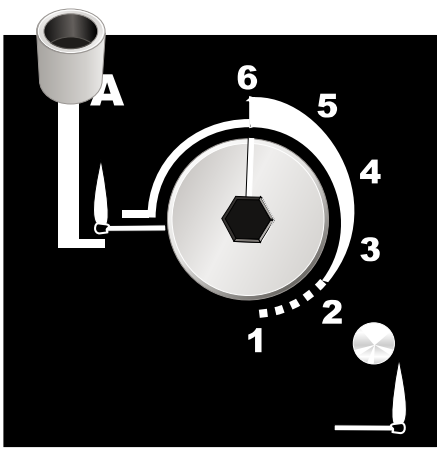


The Glass Blackened

See the above. The fire may not have extinguished, but smoke and staining are unburned fuel gasses from the wood. Until the flue has warmed, air supply to the stove will be limited and only allow the complete combustion of limited amounts of wood. Too much wood, too soon, will only serve to cool the gasses below their ignition temperature.



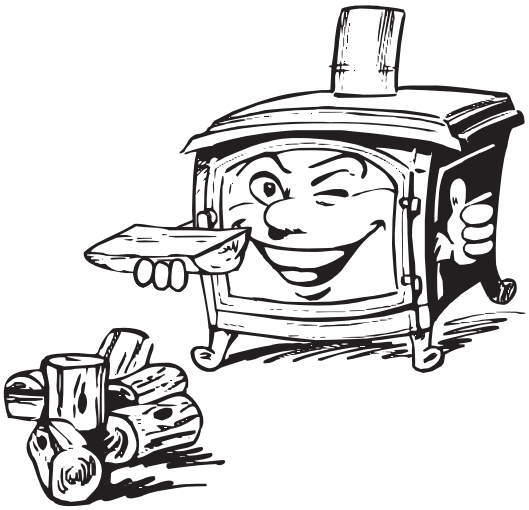




The Fire Never Developed Enough Size or Became Hot Enough

Once the fire is well alight the air volume must be reduced from its lighting position; leaving it at this position will allow too much air into the stove. Air which is not needed will only serve to cool the stove, air travelling too quickly will blow some of the flames out.

Advanced Driving with Wood



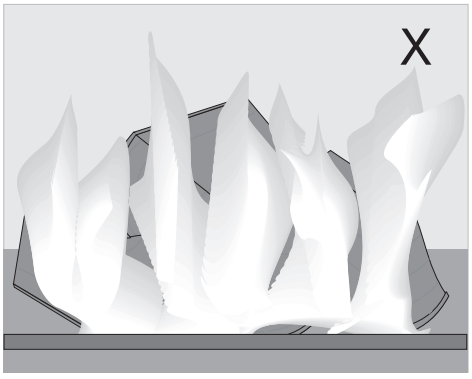
Once the stove is at its operating temperature it is capable of burning cleanly and efficiently with little or no intervention from you beyond periodic loadings of wood.

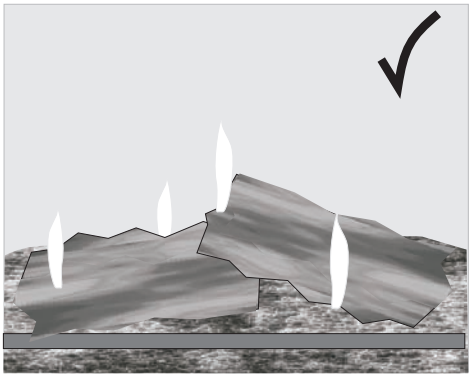
Two reasons for a stove failing to operate cleanly and efficiently make all other reasons virtually insignificant. One is the use of wet wood and the other, which we will be discussing now, is the inappropriate intervention by an operator failing to understand a few simple principles.

When to Put On more Wood

When the fire in the stove has become established you will find that the stove seems to consume wood quite quickly. This is because the stove was designed to burn off the wood's volatile matter first, leaving the charcoal to form a hot bed above the grate. The charcoal helps maintain a constant heat output from the stove between loadings of wood and aids the rapid ignition of new loadings, thus minimizing smoke emissions. The depth to which the charcoal should be let to accumulate will depend upon the length of time you are expecting to operate the stove for and the heat output you need.

Putting new wood on immediately the flames of the previous loading have almost extinguished will result in a very hot stove with a deep charcoal bed capable of being controlled to burn very slowly, without staining the glass, for many hours. If only a low heat output or limited burning time is required the charcoal will be producing much of the heat with an occasional log being loaded for interest. Letting the bed become too small, or putting on a new log when all the flames from a previous loading have extinguished will cause smoke as the new loading struggles to ignite. Always add wood before the flames from previous loading extinguish, If there are no flames, only glowing embers, add a small amout of kindling wood and set the stove to its ignition setting. Never put logs onto a fire without flames, they will simply smoulder and produce smoke.



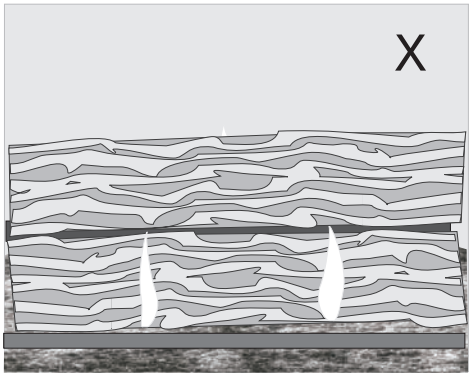


How To Put On Wood

Wood needs not only heat but also air to burn and putting an enormous amount of logs on at one time or interlocking them like bricks will both stifle the existing fire, causing it to cool, and it will limit the air available for the new wood. This will result in delayed ignition of the loading and unacceptable levels of smoke emission.

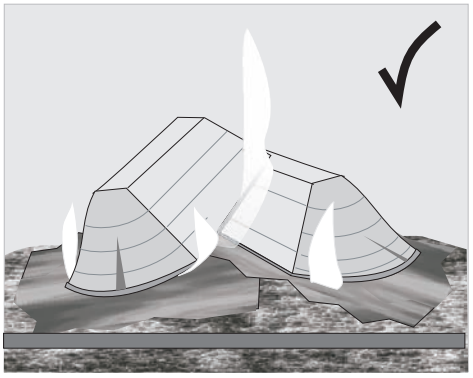
Always try to keep ends of logs away from the combustion chamber walls so that gasses emanating will have good access to air. If you are having to burn unsplit logs, that issue most of their initial gasses only from their ends, it is important to rake embers so that the log ends are over the charcoal bed to heat the gasses to

Always try to position new logs so that they are in the path of existing flames by bridging the flames where possible. Do not over fill the stove with wood expecting it to burn for an extended time, it will produce little but smoke and tar. If the stove is running with a low air volume setting turning up the volume for a few minutes whenever you load new logs will encourage them to ignite faster. Do not be afraid to put logs towards the front of the fire, the glass will stay clean and the visual interest will be increased.



Log ends too close to stove walls. No space between the logs.

Too many logs. Too little space between the logs.



Correctly loaded

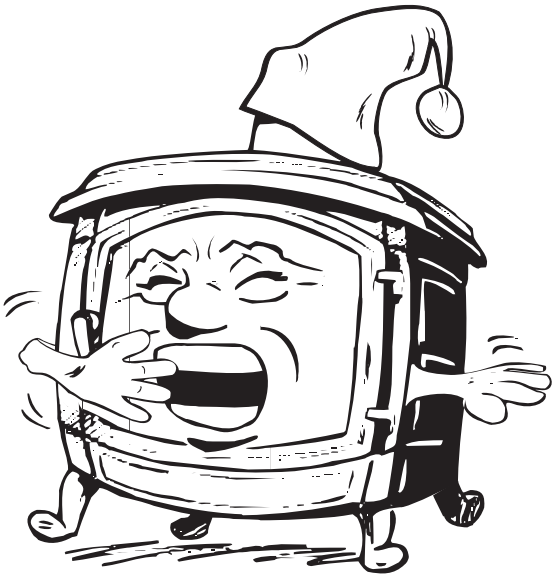
Setting the Burning Rate.

Setting the air volume rate on the air volume control should always be done with reference to the condition of the fire. You cannot expect to turn the air to maximum and the stove increase its heat output if the fire in the stove is ash with a few glowing embers. Neither should the stove be expected to shut down a huge fire immediately the air supply was restricted, without producing copious amounts of smoke. Unlike driving a car that accelerates and brakes, wood burning should be regarded as something that gathers and losses momentum gracefully, and all adjustments to the burning rate should be made accordingly.

Putting a large quantity of wood into the stove with a low volume air setting will inevitably result in smoke as the wood is heated with insufficient air to burn with. Always wait until the wood is producing flames before turning down the air volume in stages. If the fire has become very lethargic after a long period of slow burning, or has no flames, set the air controls to their lighting position and place a few pieces of dry kindling onto the bed to ensure rapid ignition. Once the kindling has ignited the air direction lever should be set to its uppermost position and the volume control set to position "6" before adding one or two logs. Never allow wood to smoulder, it wastes heat and pollutes the atmosphere

If you have fitted a remote control to the stove, please read Technical Guides IN1117 Multi Function Remote (pictured) and IN1124 for Single Function Remote, for advice on making the most of its facilities.

Slow, Overnight Burning

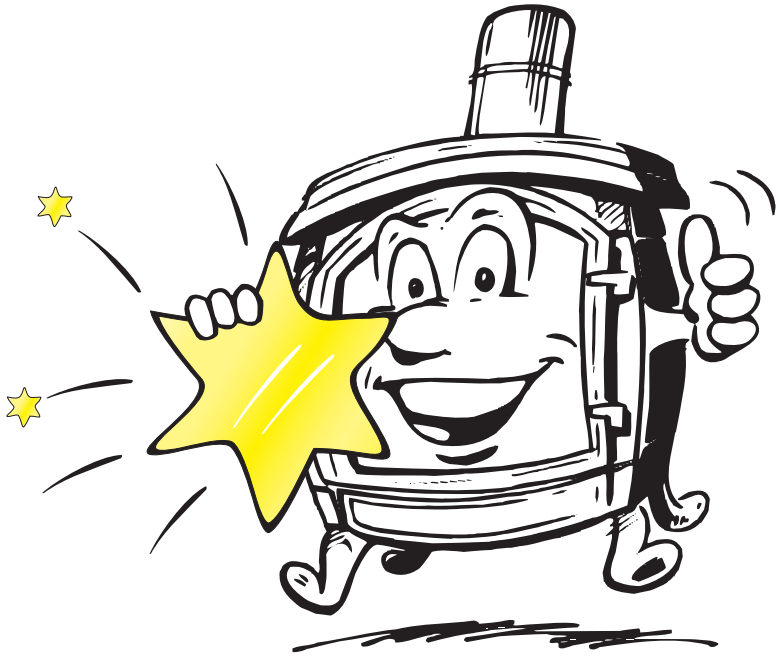


Wood releases its volatile gasses when heated, if insufficient air is available, or the temperature is below the ignition temperature of these gasses, they will deposit themselves as tar and other undesirable substances on the stove body, glass and in the flue. Filling the stove with wood and restricting the air supply may be the only option available to many who want to keep the stove warm for extended periods but it is not necessary for you to adopt this ant-social practice.

Your stove has been designed to burn all the gasses from the wood as a priority, leaving the charcoal to burn later. Good quality charcoal, which is what the stove will produce, has the ability to burn slowly and cleanly with a restricted air supply, and by allowing the charcoal to build up in the stove it will provide many hours of clean gentle heat. The amount of charcoal needed to burn for any length of time is surprisingly small but the quantities can be increased by putting new loadings of wood to the front of the stove. This limits the air available to the charcoal in the fire bed and maximises the air to the new loading and the burning of its volatiles.

Of great importance is that the stove's air is not reduced to a very low setting if flames are still visible; reducing the air to a minimum will extinguish any flames and cause tar and smoke to be produced. Always wait until no more flames are evident before you can safely turn the air volume to a minimum setting without fear of staining the glass. The actual setting needed will depend upon the performance of your flue. By raking the ashes through the grate in the morning it will reveal either no charcoal remains which means the setting was too high, or a cold stove and an abundance of charcoal indicating the setting was too low. If any charcoal remains never assume it not to be burning. If you rake any charcoal over the grate, close the stove door and set the air controls to their lighting position it will almost always begin to glow even when it gave no sign of burning. Placing wood, whose size is in proportion to the amount of charcoal remaining, over the burning charcoal will rapidly produce a good fire because the stove and flue will have retained some residual heat. This technique of using only the charcoal to burn should be used whenever the stove is to be left unattended for long periods.

If you have managed to run your stove overnight, without staining the glass, you have achieved the highest achievement possible as a stove operator and you should award yourself an enormous gold star.



Choice of Logs

Never burn burn wood that is not dry or wood that has been subject to a manufacturing process, such as chipboard, as these contain resins of uncertain toxicity when burned. For the same reasons, wood that has been painted or treated with a preservative should never be burned.

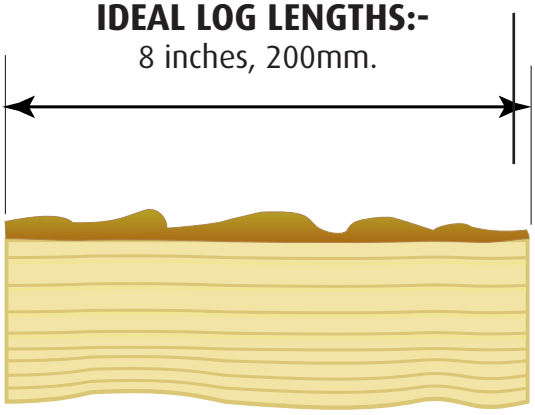
Natural wood is described as being either “hardwood” or “softwood”. Typically all broadleaf trees that lose their leaves in the winter are called hardwoods, and the evergreen conifers are called softwoods. Whilst the wood from the two groups have structural differences, the terms do not define the density or hardness of the wood. Balsa, one of the softest and lightest of woods is classified as being a hardwood and Hemlock, a softwood, is extremely hard.

The less density wood has, the more its structure is made up of open spaces meaning it will season faster and because of these voids it will burn faster because it will expose more surface area as it disintegrates. This makes light woods suitable for kindling or a rapidly developing fire but unless you enjoy putting wood onto a fire every few minutes it is unsuitable for burning over long periods. Although there is a difference in the speed at which woods burn, equal weights of wood will give very similar amounts of heat.

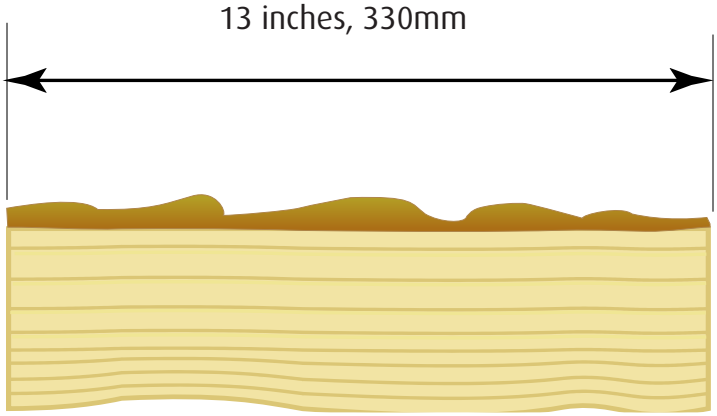
Because logs are concentric tubes of cells they season faster if they are split, halving the tubes and allowing the moisture to evaporate more easily. Similarly it also allows the volatile gasses given off when the wood is heated in a stove to be emitted along its full length rather than at the log’s ends. This helps the gasses to be distributed more evenly within the stove and improves not only the efficiency, and emission reduction of wood burning but gives a more attractive fire.

Putting logs onto the fire, bark side down and laying them , well spaced, in random orientation, rather than uniformly horizontally, will also help to increase the efficiency and attractiveness of the fire. To make this easier the ideal log length will be the length the stove’s combustion chamber can accommodate in all directions, and of proportionate cross-section, to allow you to load wood in a “higgledy-piggledy” manner.

IDEAL LOG LENGTHS:-
8 inches, 200mm.



MAXIMUM LOG LENGTHS:-
13 inches, 330mm



Cleaning The Stove

Cleaning The Glass

Properly operated, with the correct fuel, your glass will remain clean. Slight staining may appear when the stove is lit and below its operating temperature. This will normally clear as the stove's temperature rises.
If it becomes necessary to clean the glass by hand do not attempt to do so unless the stove is cold. Proprietary glass cleaning agents are available but they must specifically state its suitability for stove or ceramic glass before being used because the glass in you stove is not ordinary glass and may be damaged with an unsuitable cleaner.
Newspaper moistened with water to which a little vinegar has been added will normally remove most staining, but for really stubborn marks, gentle polishing with fine steel wool lubricated with a few drops of dish washing detergent will need to be employed. Great care must be taken not to clean the glass too vigorously as particles of grit may have adhered with the stain and these could cause scratching if dragged across the glass. However well the stove burns it will eventually become necessary to clean the glass, but if cleaning becomes necessary too often we advise you to review your operating procedures to determine whether cleaner and more efficient combustion can be achieved.

The Stove Body

Dusting the stove may be carried out when the stove is at its minimum heat output temperature, using light strokes of a real bristle paint brush. Thorough cleaning, or any attempt to remove marks on the stove body must only be done when the stove is cold. Stoves with an enamel finish should be cleaned with a damp cloth, or very gentle use of a cleaner recommended for enamel finishes. It should be noted that even approved cleaners will damage the highly polished finish of the stove if used too vigorously. All traces of the cleaner must be removed before the stove is lit and no finishing polishes must ever be used as these will leave unsightly streaks on the stove when it becomes hot.
Stoves with a cast black finish should never be cleaned with a cloth as the texture of the paint will abrade and collect lint from the cloth which will be almost impossible to remove. Vigorous brushing with a stiff real bristle paint brush will remove all dust, but where the paint is marked, the stains are better obliterated with a spray of suitable stove paint rather than attempts made to clean them off. Suitable paint may be purchased from a stove shop or direct from Euroheat.

Brass Fittings (if fitted)

Any proprietary brass cleaner may be used to clean the brass on the stove, but care must be taken to ensure the polish does not come into contact with the stove enamel or the black cast finish, where it will leave a stain.

The Flue

Even if your flue is correctly lined it is advisable to run your stove at a high setting to thoroughly warm the flue periodically and ensure it is swept regularly. If the stove has not been used for some time it will be necessary to ensure the flue has not been blocked with twigs from home building birds or blocked with other obstructions before the stove is lit. Lighting a small piece of paper within the stove will determine the flue's ability to remove any products of combustion. The chimney to be swept thoroughly to its full length, in accordance with British Standard 6461 in compliance with the NACS Code of Practice, once a year or as often as your use of the stove and fuel dictate.

National Chimney Sweeps Association. Telephone: 01785 811732
The Solid Fuel Association. Telephone: 0845 6014406 .

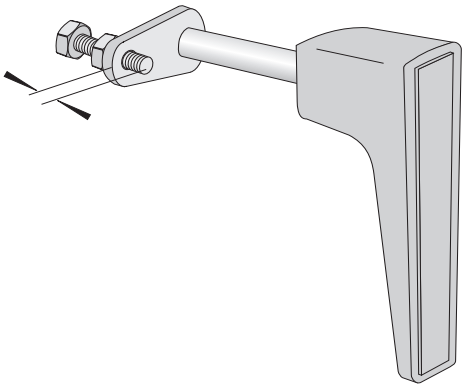
HAVE YOUR STOVE FITTED AND MAINTAINED BY EXPERIENCED PROFESSIONALS.

Simple Maintenance

The stove must be cleaned of ash and any tarring as often as your use of the stove and fuel dictate. All deposits on the stove interior will insulate the stove body from the fire and will reduce the stove's efficiency. Flue ways which become choked will not only reduce the stoves performance but can become a serious health risk if the flue is not taking away all the products of combustion. Do not use a vacuum cleaner unless it is fitted with an additional hot ash filter bin

Door Adjustments

It is very important for correct operation of the stove that both the furnace door (glass door) and ash pit doors are air tight when closed, is air tight.

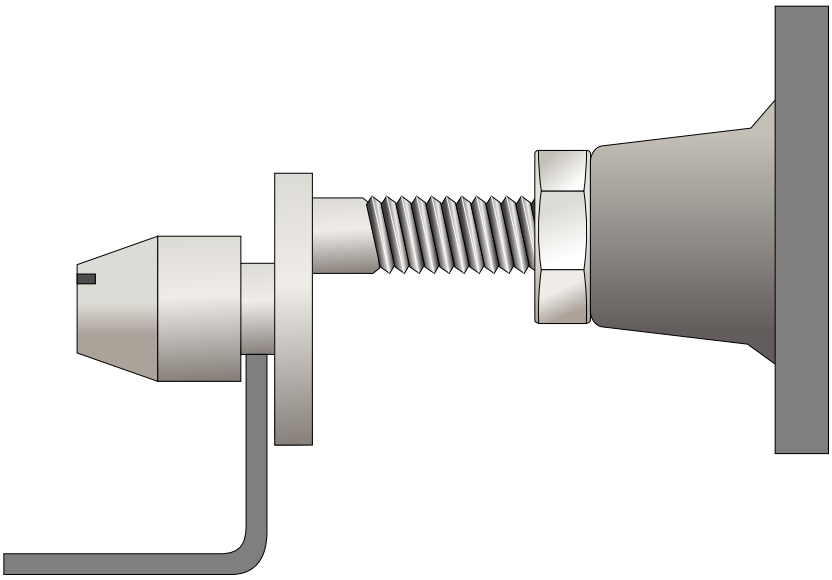


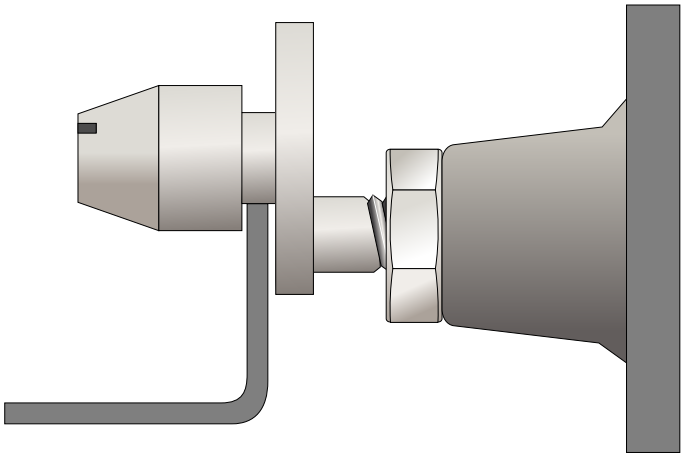
Furnace door adjustment (front door)

To adjust the furnace door handle latch, loosen the locking nut and adjust the bolt as required. Retighten the locking nut. The adjustment should be made so that when the handle is in its closed position the door is air tight.

Lower Door Adjustment

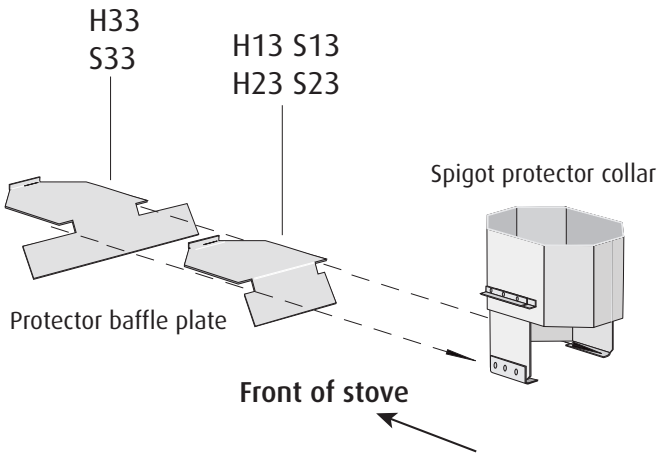
The door can be adjusted by loosening the not securing the eccentric latch pin and screwing the pin in or out to adjust the horizontal and vertical closing position.





Top Flue Outlet Baffle

Stoves with a top flue outlet may have an additional stainless steel baffle vane. This can be removed by pulling the tab at the front towards the front of the stove to remove the baffle from its locating rails, giving access to the flue way.



Other Maintenance

The stove must be cleaned of ash and any tarring as often as your use of the stove and fuel dictate. All deposits on the stove interior will insulate the stove body from the fire and will reduce the stove's efficiency. Flue ways, especially that of the vermiculite baffle in the top of the stove, which become choked will not only reduce the stoves performance but can become a serious health risk if the flue is not taking away all the products of combustion. It is important that all the stove seals are replaced when any signs of wear are apparent or they become degraded and that only parts approved by Euroheat must be fitted.

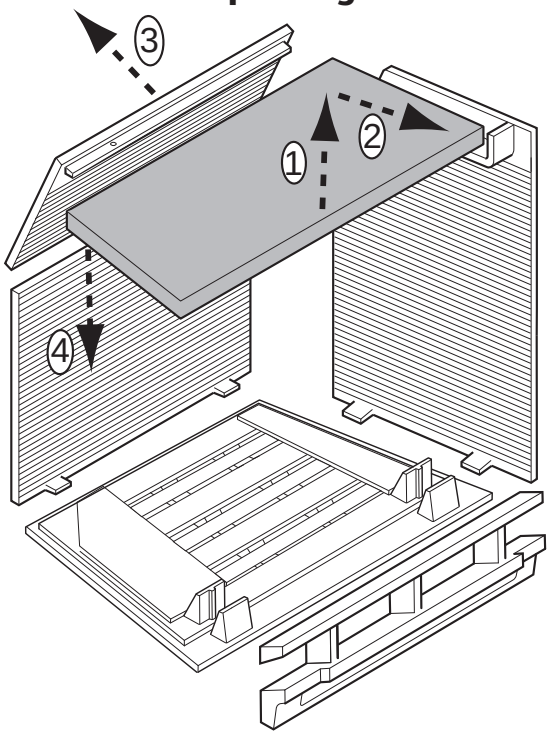
Summer Shut Down

At the end of each heating season the entire installation should be thoroughly cleaned and examined for soundness, this should include having the flue examined by a registered sweep. The stoves interior should be coated with a moisture repellent such as WD40. All operating mechanisms should be lubricated with oil or WD40; this applies particularly to the door handle shafts and latching blades.

Always check for any flue blockage before lighting the stove after a prolonged shut down

Removing Baffle

The stove has a vermiculite baffle at the top of the fire box which requires cleaning as often as your use of the stove and fuel dictate. With the baffle removed all ash deposits in the stove's flue ways can be removed.



The top vermiculite baffle is located in the top of the fire box where it sits on the L shaped baffle support lugs which are part of the casting of the left and right side protection plates.
For easier access remove the front fuel guard.

To remove (1) lift the front of the baffle board upwards above the height of the locating lugs (2) whilst lifting the front of the board, slide it towards the front of the fire box. The rear edge of the baffle does not quite fully pass the front edge of the upper rear protection plate. (3) This should be pushed back at the top to allow the rear of the baffle to be dropped down, (4) allowing the baffle to be pulled down into the main body of the fire box. It can then be angled to withdraw it through the door.

Faulty Operation

If poor fuel and haphazard operating procedures can be ruled out, excess or poor flue draught are the most likely cause of a badly performing stove. A flue draught manometer will identify these quickly, but the actual causes of things such as an unreliable flue draught may take some considerable time, even by an experienced engineer to identify. However, if the stove has never performed correctly, call back the installation engineer. If its performance has deteriorated, examine the stove and the flue for soot and debris accumulation, ensure the door and glass seals are sound before contacting the engineer.

Typical Refuelling Intervals at Nominal Heat Output, Intermittent Operation		
Model	**Heat Output Nominal Wood**	**Refuelling Interval Wood**
Harmony 23	5.9kW	45 minutes
Stanford 23 & SP23	5.9kW	45 minutes
Nestor Martin R23	5.9kW	45 minutes

Declaration

The information provided for the room heater fuelled, has been measured as specified in EN13240:2001 and EN 13240-A2:2004.

Warranty

Thank you for choosing a Euroheat/Nestor Martin stove. It has been constructed with the utmost care and with the finest materials; we hope it gives you many years of pleasurable warmth. If your stove has an enamel finish you will notice, after the stove has been used several times, it develops what is called a "crackle" pattern in the enamelling. This is caused by the different expansion rates between the enamel and the cast iron, it is normal and should not be regarded as a fault or indicating that the stove is beginning to shed its finish.
Any modification to the appliance, or the fitting of non approved parts, will cancel any warranty and may make it unsafe.

Warranty Registration

Please ensure this is fully completed by your installing engineer with details of your approved Euroheat supplier and returned to Euroheat **within 28 days of installation.** The free 10 year technical telephone help can only be authorized, if the stove is registered, fitted by an approved enginner and the registration form returned to Euroheat. Euroheat reserve the right to reject the extended support if the requirements are not met.
Euroheat & Nestor Martin have a policy of continual research and development and reserve the right to modify its appliances without prior notice. We make every effort to ensure that the information provided in this document is correct and accurate at the time of printing, but continued updates occur to adapt documents to appliance changes and customer feedback. For the latest editions of all Euroheat documentation visit our web site www.euroheat.co.uk.

We would welcome any comments or information which you feel is not provided in this document which would assist other users in the future. E-mail tech@euroheat.co.uk

Welcome to the world of real Stoves

Euroheat Technical Team