

CLOCK



WOODBURNERS



OWNER MANUAL

includes Installation Instructions
and User Guide

(Edition 2)

Please make a note of your model and serial number prior to installation:

Model:

Serial No:

The serial number is on a data plate fixed to the rear or base of the stove.

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Welcome to your stove

All Clock stoves are hand-made in the UK from start to finish: a claim very few can make.

Please note that it is a legal requirement under England, Wales and European building regulations that the installation of the stove is carried out under local authority building control approval or installed by a competent person registered with a government approved scheme.

Clock Woodburners are CE approved, Defra exempt and can be used in smoke-controlled zones only when *stop* is in place and installed in accordance with the current building control regulations.

Do not make any unauthorised modifications to the appliance.

WARNING: the stove surfaces can reach extremely high temperatures so please take care

It is recommended that a suitable guard is used to protect children, the elderly or infirm.

You can find videos of how to use the stoves and change parts on the Clock Woodburners YouTube page.

List of Materials used in construction: Cast iron, stainless steel, mild steel, vermiculite, ceramic glass, ceramic rope, high temp silicone and high temperature stove paint.

Pre-Installation

This appliance must be fitted in accordance with the current building regulations and by a competent registered person.

Health and Safety Precautions

Special care must be taken when installing the stove that the requirements of the Health and Safety at Work Act are met. **This appliance is heavy and must be handled with care.** Adequate facilities must be available for loading, unloading and site handling. The door and internal parts can all be removed to reduce the weight during installation. Due to the proliferation of **metal parts**, care should be taken to avoid the possibility of personal injury when installing or servicing the stove.

The stove is supplied fully assembled for a top flue arrangement. Clock stoves must be connected to a suitable chimney. Clock strongly recommends using a complete and compliant chimney lining system. The paint is soft and vulnerable to marking. Our appliances contain no asbestos. If there is a possibility of disturbing any asbestos in the course of installation, then please seek specialist guidance and use appropriate protective equipment.

Ventilation

Document J of the Building Regulations states that purpose provided ventilation is not required in England and Wales unless the appliance nominal rated output is greater than 5kW. If over 5kW, then 5.5 cm² of ventilation (550mm²) is required for every kW output above 5. For example, 6.5kW requires 8.25 cm² and 8kW needs 16.5cm². In any case, if difficulty in starting the fire or any excessive fuming is experienced, then ventilation must be put in place as required to eliminate any flue problems. If a flue draught stabiliser is fitted, then extra ventilation is required. A specifically designed direct outside air connection may be used with these stoves to provide appropriate levels of ventilation (significantly in excess of the above requirements) directly to the stove and chimney.

NOTE: As of early 2014 an ADJ vent is still required even if using an outside air connection.

Always ensure air vents are positioned where they cannot be blocked. See Document J of the Building Regulations for detailed guidance, especially in new build properties.

Extractor Fan - Warning

There must not be an extractor fan fitted in the same room as the stove, as this can cause the stove to emit fumes into the room. If unavoidable the appliance must be checked with Approved Document (A.D.) 1.21 and necessary action taken. Action may have to be taken if other heating appliances are in the same dwelling to make sure that the correct ventilation applies.

Flue Requirements

The chimney must be swept before installation and checked for soundness and suitability. The chimney must also be free from cracks and blockages. If you find the chimney is in a poor condition then expert advice should be sought.

If the stove was fitted in place of an open fire then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

The chimney and connecting flue pipe must not narrow to less than the size of the outlet socket of the stove at any point. This appliance must not be used in a shared flue system.

The minimum flue draft is 12 pascals at nominal output.

Minimum flue height required is 5 metres.

The 125mm diameter flue models may be increased to 150mm diameter.

A 130mm diameter flue should be increased to 150mm in most cases. A 130mm flue may be used when the stove is fitted in the smoke control mode, i.e., with the smoke tab removed.

If the appliance is fitted in an area that has another flue (mechanical or otherwise), then a flue interference test must be completed and recorded.

The appliance must be checked with reference to ADJ 1.21, and necessary action taken.

Installation

In addition to these instructions, the requirements of BS 8303 and BS EN 15287 must be fulfilled. Local authority byelaws and building regulations regarding the installation of solid fuel burning appliances, flues and chimneys must also be taken into account. The installation is a notifiable building work as defined in the Building Regulations and that it is a legal requirement under England and Wales Building Regulations that the installation is either carried out under local authority Building Control approval or is installed by a competent person registered with a government-approved competent person scheme. Therefore, this appliance and installation must comply with the following regulations:

British Standards BS 8303, BS EN 15287-1:2010
Building Regulation Approved Document J for England and Wales
Building Regulations Part F for Scotland
Building Regulations/1997 Technical Guidance Approved Document J - Heat Producing Appliances for the Republic of Ireland
Registered Body: HETAS (GB only), INFO (Ireland)

This appliance must be fitted by an approved installer or inspected and signed off by a Building Control Officer.

This appliance must be fitted on a top hat connector and the stove must be removable without affecting the lining of the chimney.

Hearths

Clock freestanding stoves do not require a constructional hearth beneath them as they do not cause the floor temperature to exceed 100° Celsius.

Hearths must be generally level. In all instances a non-combustible superimposed hearth, extending fully underneath the stove and forming an apron of at least 300mm at the front of the stove and 150mm on either side, must be provided. A superimposed hearth must not be less than 12mm thick and must have a clearly defined edge (change of level) to discourage placing of any combustible materials on or partially over it.

The appliance shall be installed on a floor with adequate load-bearing capacity. If the existing construction does not meet this requirement, suitable measures (e.g. load distributing plate) should be provided to achieve it.

The Clean Air Act 1993 and Smoke Control Areas

Under the Clean Air Act, local authorities may declare the whole or part of the district of the authority to be a **smoke control area**. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an “unauthorised fuel” for use within a smoke control area unless it is used in an “exempt” appliance (“exempted” from the controls which generally apply in the smoke control area). The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore, it is a requirement that fuels burnt or obtained for use in smoke control areas have been “authorised” in regulations and that appliances used to burn solid fuel in those areas (other than “authorised” fuels) have been exempted by an order made and signed by the Secretary of State or Minister in the devolved administrations. The smoke control must be set for use in a smoke control area by the HETAS installer.

Clock Woodburners range of wood burning and multi-fuel stoves have been recommended as suitable for use in smoke control areas when burning <20% moisture wood logs and smokeless fuel only. Further information on the requirements of the Clean Air Act can be found at: smokecontrol.defra.gov.uk/appliances.

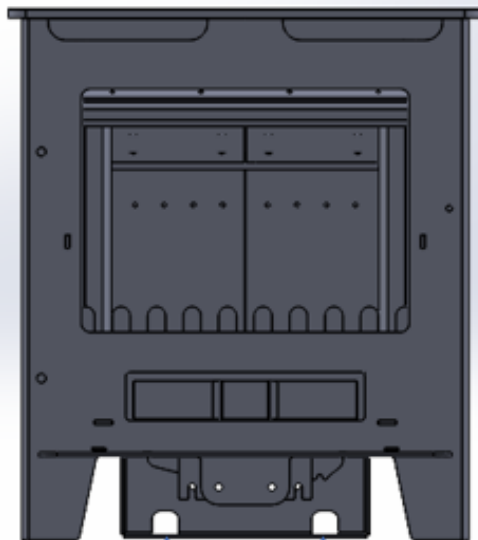
Your local authority is responsible for implementing the Clean Air Act 1993, including designation and supervision of smoke control areas. You can contact them for details of Clean Air Act requirements.

Inset Stove installation instructions

Remove the stove from the outer box.

You will need to undo the collar from inside, to access these you will need to remove the fire bricks.

Undo the two nuts located on the rear leg of the stove, then slide the stove out of the box.



Rear leg locator bolts

Bring the liner down to just above where the box will be and attach an MA Adapter to the liner.

The prepared opening should allow for at least 50mm of insulation around the sides, rear and top of the cassette. This is necessary to achieve the correct heat output. Ceramic fire blanket slabs are an easy solution.

Do not use loose fill around the box.

Ensure the box is fixed in place using the holes in the bottom of the box to prevent it moving out of the opening.

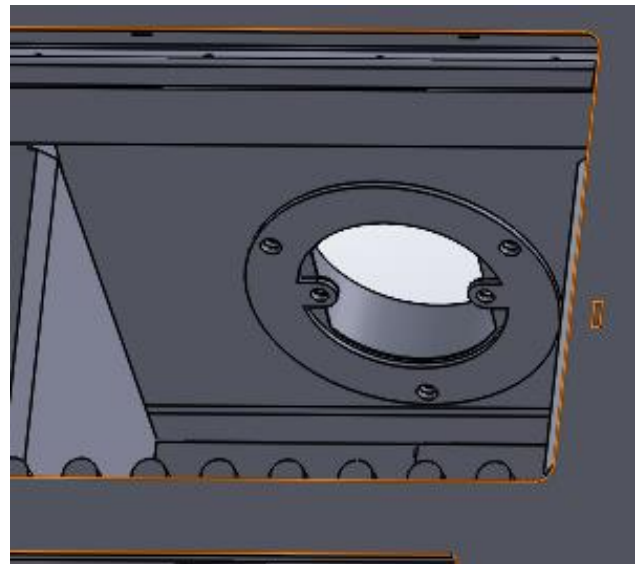
Once the box is in place:

Slide the stove into the box on to the locator studs.

Bring the liner/MA through into the stove and attach the collar using a self-tapping screw with a shallow head. You may want to drill the collar to match the size of your screws.

Once attached to the collar, push the liner and collar back up over the three studs, put the nuts and washers back on and tighten up.

Once done, tighten the nuts on the locating studs on the rear leg. The stove is now locked into place. Leg adjusters for the front can be located behind the front legs.



Carbon Monoxide Alarms

Building Regulations require that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling, a carbon monoxide (CO) alarm must be fitted in the same room as the appliance. Further guidance is available in BS EN50292:2002 and from the manufacturer's instructions. Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

WARNING If the CO Alarm sounds unexpectedly:

1. Leave the premises immediately and contact your installer.
2. Let the fire go out.

Commissioning

Check that all internal parts (ash pan, 15mm steel grate, log retainer, rear and side firebricks, and baffle) are fitted correctly, that there are no gaps between the firebricks and baffle, and that the log retainer is secure. Check that all the dials are operating fully and freely.

On completion of installation, and after allowing any fire, cement and mortar to dry out, the stove should be checked so that all seals and joints are sound. The flue should also be checked by lighting a small fire and checking that fumes are taken from the appliance up the chimney and emitted safely.

The Curing Process

We recommend that you have two or three small fires before you operate your stove to its maximum heat output. This is to allow the paint to cure in steadily and to give a long service life of the paint finish. During this curing process you may notice an unpleasant smell whilst the paint finally cures. It is non-toxic, but for your comfort we would suggest that during this period you *leave all doors and windows open*.

First, fully open the single air control. Then load the firebox with plenty of starting fuel, such as dry kindling sticks and firelighters. A crib lattice pattern or wigwam pattern tend to work well. If using smokeless briquetted fuel, place a layer of briquetted fuel into the firebox as well. Light the fire at the base, leaving the air control fully open. Leave the door ajar for 5-10 minutes to enhance

initial starting and reduce smoke emission, **but DO NOT leave the stove unattended if the door is ajar**. Allowing the fuel to reach a steady glow, build the fire up gradually by adding a few small well split logs or Maxibrite briquettes at a time. Once you have a good fire bed established across the grate, further fuel can be added step by step as required. Don't be tempted to overload the fire bed with fuel all at once, or to close down the air controls, until the fire has been well established for some time. Once the ignition period is well under way, gradually reduce the air control opening to establish the burning intensity that you require.

First Lighting and Operation

This appliance is not to be used as an incinerator. Only HETAS approved wood logs and smokeless fuels are recommended by Clock for use in this appliance. This appliance is designed to operate with the door closed, except for lighting and reloading. Failure to close the door during operation can result in fume spillage.

Warning Note:

If correctly installed, operated and maintained this appliance will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, the following immediate actions should be taken:

Open doors and windows to ventilate the room, then leave the premises. Let the fire burn out or eject and safely dispose of fuel from the appliance. Check for flue or chimney blockage, and clean if required. Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary, seek expert advice.

Before lighting, please note the following points: Clock stoves must only use HETAS approved wood fuels and smokeless coal. Do not use any liquid fuels. Do not overload your stove. Never empty the ash when the fire is alight. Do not burn solid fuel and wood at the same time. Wood burns from the top down, whereas solid fuel burns from the bottom up, therefore there is a conflict of air supply for complete combustion of your fuel. Always use the gloves provided to operate the handle and controls. This appliance will get very hot, so fireguards must be used when appropriate.

Important Information for Wood Burning

With a full load of wood, and burning near nominal output, the stove will need to be re-fuelled on average every 60-90 minutes (one or two large logs will burn longer than several smaller logs). Wood can usually be stacked higher in the stove than solid mineral fuel, but care must be taken that logs do not touch the baffle or the glass panel. Do not stack logs above the level of the tertiary air inlet in the rear ceramic firebox liners at the back of the stove. Always make sure that flames are visible above the wood after re-fuelling for cleanest burning. Burning without flames above the fuel will create unnecessary smoke. After re-fuelling, open the single air control fully to the left (marked 'Wood') side for three minutes, or until the logs are fully blackened, to achieve full flames above the fuel. Wood burns best on a bed of ash, and it is therefore only necessary to remove surplus ash from the stove occasionally. Burn only dry, well-seasoned wood, which should have been cut, split and stacked - under cover from rain - for at least 12-24 months with free air movement around the sides of the stack to enable it to dry out. Burning wet or unseasoned wood will create tar deposits in the stove and chimney and will not produce a satisfactory heat output. Wood that is not properly dry (considered to be less than 20% internal moisture content) uses up energy from the burn process to evaporate the water inside the wood, thus creating very poor conditions for combustion. The main cause of burning problems with wood stoves is due to excessively damp wood. Wood can appear perfectly dry on the outside but still contain 40-50% water content on the inside. A moisture meter can be purchased from stove and equipment suppliers if you wish to check that your wood source is correct. Split a log in order to check the inside as well as the outside.

Re-fuelling on to a low fire bed: If there is insufficient burning material in the fire bed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash so that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

Fuel overloading: The maximum amount of fuel specified in this manual should not be exceeded, as overloading can cause excess smoke. Never load fuel above the bottom edge of the tertiary air profiling in the back ceramic firebox liner or allow them to touch the glass.

All models max log diameter = approx. 150mm. Max length = 300mm for 5kW, 400mm for 5kW Wide, 400mm-650mm (taper firebox) for 8.5kW models. One log is acceptable ONLY if loading onto a hot, well-established, fire bed.

Operation with door left open: Operation with the door open can cause excess smoke and spillage into the room. The appliance must not be operated with the appliance door left open.

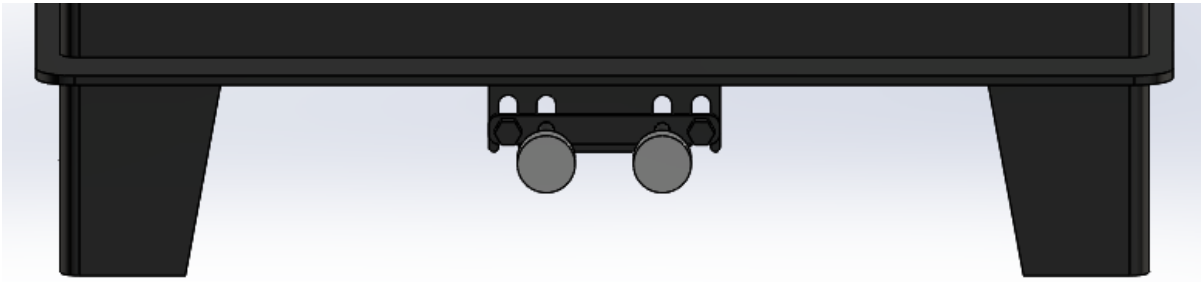
De-ashing: Never let the ash pan overflow or build up to the underside of the grate. When burning wood, it is a good idea to allow a 10mm build-up of ash on top of the grate. When burning smokeless briquetted fuel, always clean out after use when cooled. Be aware that there may still be hot material within the ash.

Information on Burning Smokeless Briquetted Fuel

Smokeless and coal-type fuels require very different burning conditions to log burning, and the single air control has been designed to allow for this. Use the control on the right side of its travel (marked 'Coal') for best efficiency on these types of fuel. Maxibrite and other smokeless briquetted fuels can burn with very little primary air and stay in for many hours to be revived after an overnight burn, for example.

Controls

Controls for the large 8kw, standard 5kw, compact 5kw and Inset Blithfield stoves



The right-hand dial is the primary and the left-hand dial is the secondary (air wash) control. Turn the dials clockwise to open, and anticlockwise to close.

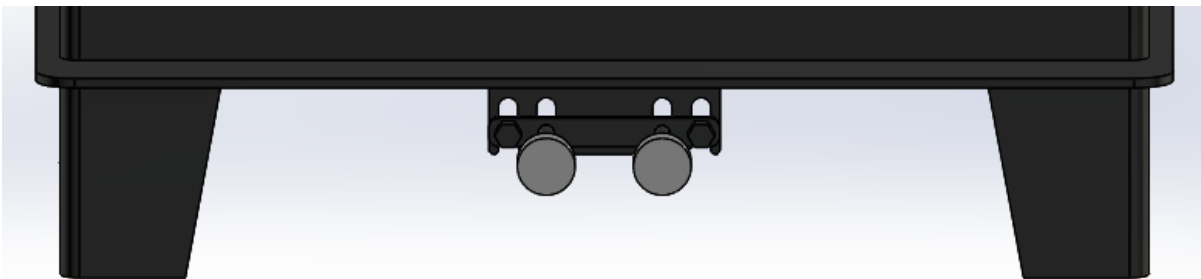
Wood burning

When starting the fire, open the secondary control to about 70%. Open fully if draw is low. The primary may be used if there isn't sufficient draw; if this is the case open this to maximum. After about 20-25 minutes the stove will be up to temperature. Then shut the right-hand dial (primary) and control with the secondary (air wash) dial.

Solid fuel

When starting the fire, open the secondary control to about 70%. Open fully if draw is low. The primary may be used if there isn't sufficient draw; if this is the case open this to maximum. After about 20-25 minutes the stove will be up to temperature. Have the right-hand dial (primary) slightly open and control with the secondary (air wash) dial.

Blithfield double-sided 10kw stove controls



The right-hand dial is the primary and the left-hand dial is the secondary (air wash) control. Turn the dials clockwise to open, and anticlockwise to close.

Wood burning

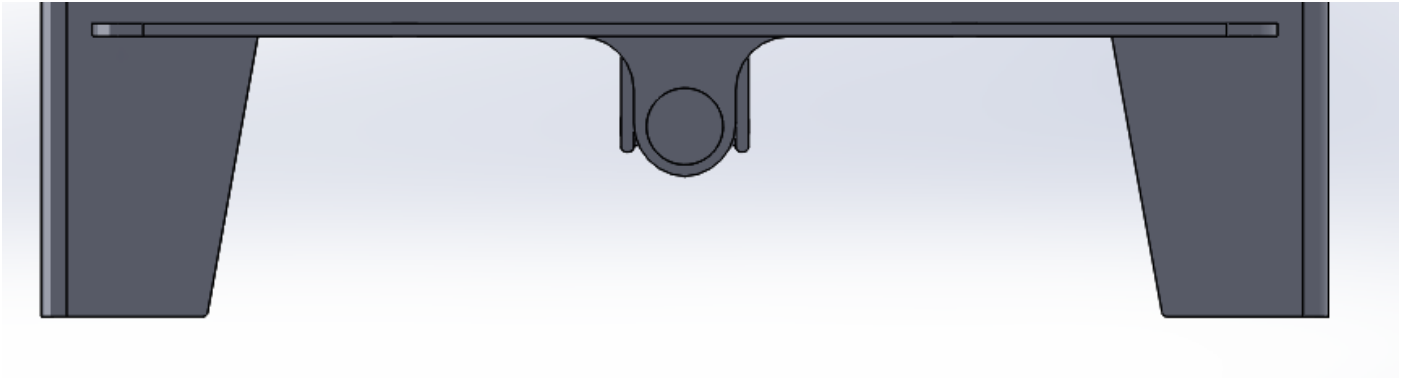
When starting the fire, open the secondary control to maximum. Open fully if draw is low. The primary may be used if there isn't sufficient draw; if this is the case open this to maximum. After about 20-25 minutes the stove will be up to temperature. Then shut the right-hand dial (primary) and control with the secondary (air wash) dial.

Solid fuel

When starting the fire, open both the primary and secondary controls to maximum. After about 20-25 minutes the stove will be up to temperature. Have the right-hand dial (primary) slightly open and control with the secondary (air wash) dial.

Controls

Controls for the Sudbury and Sudbury compact 5kw stoves



The dial is the primary (air wash) control. Turn the dial clockwise to open, and anticlockwise to close.

Wood burning ONLY

When starting the fire, open the control to maximum.

After about 20-25 minutes the stove will be up to temperature.

Then control with the dial to your preferred operation (air wash)

Controls for the Brocksford contemporary stove



Wood burning ONLY

To light the stove, slide the control towards the front of the stove. Position sticks in a 'jenga' type structure. Place two firelighters on top, light them and then shut the door. Once the sticks have sufficiently caught fire, add logs.

Leave the control in this position for about 30 minutes. After this, slide the control away to manage the burn of the stove.

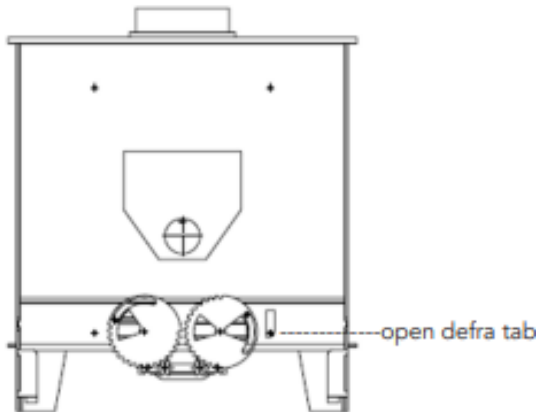
On refuel, slide the control forwards for three minutes, then back to control the burn rate.

Videos of all our stove operations can be found on YouTube

DEFRA Settings

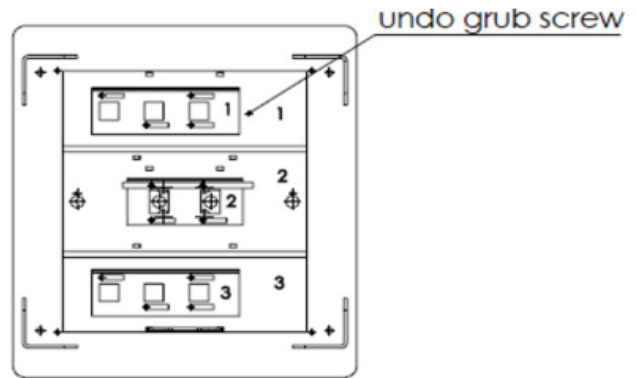
Blithfield 5kw, Compact and 8kw Stoves

Open to engage Defra stop.



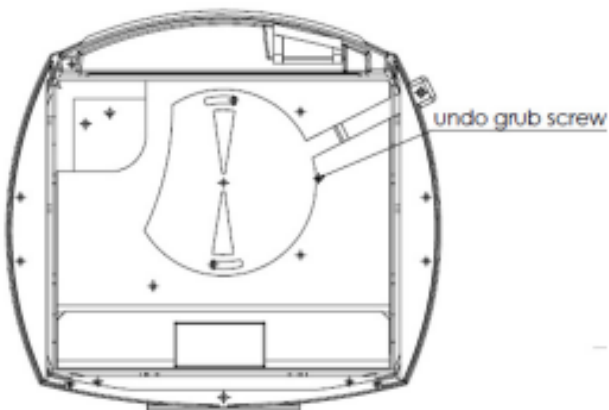
Blithfield Double-Sided 10kw Stove

Undo grub screw to remove Defra stop if you are not in a smoke-controlled area.



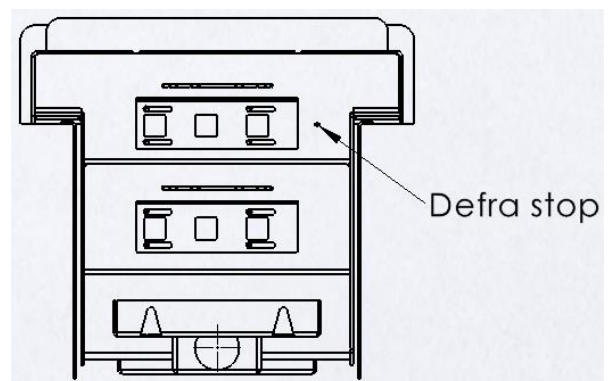
Brocksford Contemporary Stove

Undo grub screw to remove Defra stop if you are not in a smoke-controlled area.



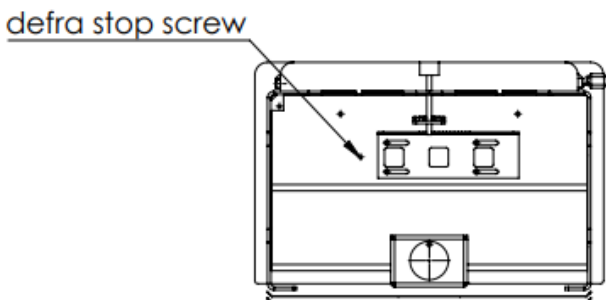
Blithfield Inset Stove

Undo grub screw to remove Defra stop if you are not in a smoke-controlled area.



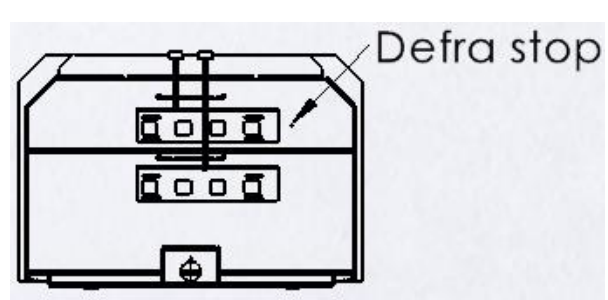
Sudbury and Sudbury Compact Stoves

Undo grub screw to remove Defra stop if you are not in a smoke-controlled area.



Somersal Bolier Stove

Undo grub screw to remove Defra stop if you are not in a smoke-controlled area.



Cleaning

Outer body

The outer body simply needs to be dusted or wiped with a dry clean cloth from time to time. DO NOT use any furniture polish or cleaning agent other than your stove supplier's recommended paint.

Inner firebox

Brush the inside of the firebox clean from time to time to check the integrity of the plates and liners etc. It is not normally necessary to re-paint inside the firebox due to the high temperatures that mean that the paint does not have much effect before being burnt off. Steel and high-quality cast ceramic liners are very resilient firebox materials and will give reliable service without major cleaning or work on the firebox. The ceramic liner boards are very durable but may require replacing occasionally depending upon fuels and the type of usage experienced. As firebox linings are a wearing consumable part, they are not covered by warranty.

Baffle

It is essential to check the top of the baffle for build-up of soot and ash regularly (once a month) when in use and after a long period of disuse, such as in summer. From time to time remove the baffle if to ensure that the flue way entrance is clear.

Blithfield and Sudbury: Remove the ash pan, then the log retainer and grate (for the Sudbury remove the base bricks). Remove one side brick by putting your finger in the bottom front corner and pulling towards the centre of the stove. Repeat for the second side brick while holding the baffle up. Then drop the baffle front down and remove.

Blithfield DS: Remove ash pans, log retainers and the grate (take care as the grate is heavy). Remove the bolts that hold the baffles together and then remove one side brick by putting a finger in the bottom front corner and pull towards the centre of the stove. Hold the baffle up while removing the second side brick. Drop the baffle front down to remove, then repeat for the opposite side.

Brocksford: Remove the ash pan and grate, then remove the back bricks by the bottom towards the centre of the stove. Remove the side brick while holding the baffle, remove the second side brick and drop the baffle down. Then remove the secondary baffle by undoing the bolts.

Repeat the instructions in reverse to restore baffles.

Glass

Despite the advanced air wash system provided, the glass will still need cleaning from time to time depending on the fuel quality and burning rates used. Never clean glass when the stove is hot. Always use stove glass cleaner or ceramic hob cleaner, which is available from your stove retailer or supermarket. As an alternative, use a wet cloth with some of the wood ash if burning wood but be careful to use very clean ash so as not to scratch the glass. DO NOT use coal ash to clean the glass.

Air Supply

It is essential to check the air supply grille on the outside of the property if the direct outside air connection is installed. Regularly brush or vacuum out any debris, cobwebs or similar materials to ensure that the air supply is not restricted. Ensure the air intake chamber, visible underneath the ash pit section with the stove door open, is kept free of excessive ash or debris.

Also, for helpful tips:



Learn how to burn right with Burnright!

Want to save money, stay safer and help the environment? For free information including articles and videos, visit burnright.co.uk

Following a few simple steps can really help you to get the best out of your appliance. They include:

- Only burn seasoned or kiln dried logs with moisture content less than 20%.
- **Never** burn house coal in a stove - instead opt for smokeless fuel.
- Don't burn offcuts such as treated/painted woods or pallet wood.
- Learn how to use this stove's air controls - this will make a big difference to your burning experience.
- Always get your chimney swept regularly by a professional, registered chimney sweep.

Performance Characteristics using Wood Fuel

Stove	Blithfield 5kw Compact	Blithfield 5kw Standard	Blithfield 8kw Large	Blithfield 10kw Double	Brocksford 5kw CS5	Sudbury 5kw Standard	Sudbury 5kw Compact	Blithfield 5kw Inset
Approximate kW Output Range	3.5-7	3.5-7.5	6.5-10	8.0-12.0	4.0-6.0	3.5-7	3.5-6	4-7
Total Efficiency	82.3%	84.3%	81.7%	75.3%	81.5%	80.8%	83%	82.6%
Output to room	5kW	5kW	5kW	10.5kW	5kW	5kW	5kW	5kW
Nominal output (Declared)	5kW	5kW	8kW	10.5kW	5kW	5kW	4.9kW	5kW
(Tested)	5kW	5kW	8.3kW	10.5kW	5kW	5.1kW	4.9kW	5kW
Tested wood re-fuelling interval	0.85 hr	0.86 hr	0.76 hr	0.75 hr	4.96 hr	0.78 hr	0.81 hr	0.81 hr
Flue gas mass flow	4 g/s	3.7 g/s	5.7 g/s	8 g/s	0.75 g/s	4.3 g/s	3.9 g/s	3.6 g/s
CO emission*	0.1%	0.11%	0.9%	0.08%	0.09%	0.07%	0.08%	0.1%
CnHm emission*	45	72	57	65	65	61	59	104
NOx emission*	107	101	72	76	75	68	87	83
DIN+ particulates*	24	11	23	13	21	10	17	21
Mean Flue Temperature	243°C	227°C	280°C	365°C	246°C	252°C	239°C	257°C
Approximate Max Log Length: (mm)	250	300	350	300 x2	250	300	250	250

Performance Characteristics using Smokeless Fuel

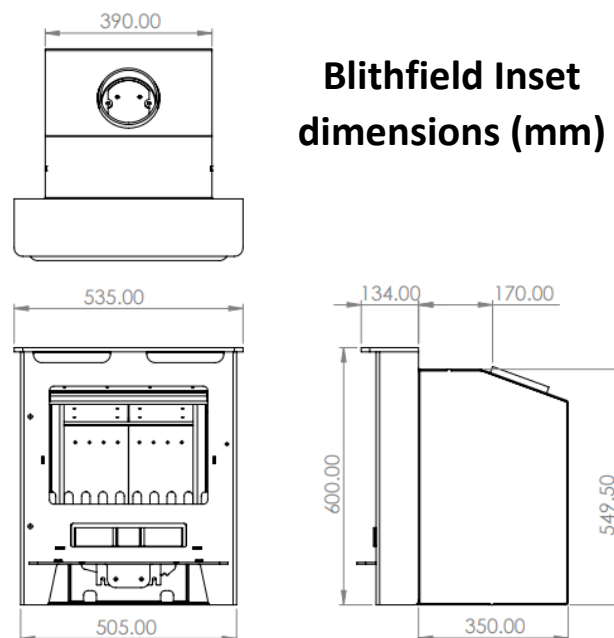
Stove	Blithfield 5kw Compact	Blithfield 5kw Standard	Blithfield 8kw Large	Blithfield 10kw Double	Brocksford 5kw CS5	Sudbury 5kw Standard	Sudbury 5kw Compact	Blithfield 5kw Inset
Total Efficiency	77.7%	80.3%	78.5%	78%	N/A	N/A	N/A	78.7%
Output to room	5kW	5kW	8kW	10.6kW	N/A	N/A	N/A	5kW
Nominal output (Declared)	5kW	5kW	5kW	10.5kW	N/A	N/A	N/A	5kW
(Tested)	5kW	5kW	5kW	10.6kW	N/A	N/A	N/A	5kW
Tested re-fuelling interval	1.03 hr	1.01 hr	1.01 hr	1 hr	N/A	N/A	N/A	1.03 hr
Flue gas mass flow	3.5 g/s	4.1 g/s	5.7 g/s	7.7 g/s	N/A	N/A	N/A	3.8 g/s
CO emission*	0.08%	0.06%	0.05%	0.11%	N/A	N/A	N/A	0.09%
CnHm emission*	50	10	44	79	N/A	N/A	N/A	36
NOx emission*	147	107	116	65	N/A	N/A	N/A	163
DIN+ particulates*	21	9	14	17				22
Mean Flue Temperature	279°C	288°C	313°C	327°C				275°C

*Emissions are mean values and measured in Nmg/m³ @13% O₂

All stoves meet the test requirements of the harmonised EN European Standard (hEN): EN13240: 2001 +A2: 2004

Stove dimensions (mm)

Stove	Blithfield 5kw Compact	Blithfield 5kw Standard	Blithfield 8kw Large	Blithfield 10kw Double	Brocksford 5kw CS5	Sudbury 5kw Standard	Sudbury 5kw Compact	Blithfield 5kw Inset
Height (with log box)	600 (845)	600 (845)	640 (910)	600	970	610	610	600
Width	430	535	590	535	480	535	435	535
Depth	335	390	390	600	430	355	355	484
Flue Collar	125	125	150	150	125	125	125	125
FC back to centre	90	90	100	300	150	95	95	100
Outside Air Height (with log box)	166 (410)	166 (410)	166 (435)	N/A	320	110	110	N/A
Weight (with log box)	85 kg (119 kg)	116 kg (158 kg)	136 kg (180 kg)	170 kg	120 kg	93 kg	78 kg	115 kg



All models must be placed on a hearth with a minimum thickness of 12mm

Distances to combustible materials (mm)

Stove	Blithfield 5kw Compact	Blithfield 5kw Standard	Blithfield 8kw Large	Blithfield 10kw Double	Brocksford 5kw CS5	Sudbury 5kw Standard	Sudbury 5kw Compact	Blithfield 5kw Inset
Above	375	375	450	550	750	375	375	375
Sides	600	600	650	850	250	500	500	500
Back	500	600	600	N/A	150	500	500	N/A

Distances to non-combustible materials (mm)

Above	375	375	375	375	375	375	375	375
Sides	100	100	100	200	100	100	100	100
Back	100	100	100	N/A	100	100	100	N/A

Somersal boiler stove Installation Instructions

Boiler requirements It is the responsibility of the installation engineer that the appliance is installed correctly and safely and that the relevant installation requirements are met.

Do not under any circumstances connect the stove to a sealed (pressurised) heating system or unvented hot water cylinder.

Do not link the stove into a heating or hot water system with an existing boiler without the use of suitable equipment such as a neutraliser. When fitting this type of system, the neutraliser manufacturer's instructions must be followed.

Do fit an open cold feed and expansion cistern with separate cold feed and vent pipes. The cold feed and vent pipes must be unvalved. The open vent pipe should have a diameter of 22mm and rise continuously from the boiler. It is common practice to form the vent pipe from an extension of the primary flow (see diagram).

Do connect the stove to a double feed, indirect hot water cylinder via 28mm copper flow and return pipework, rising continuously from the boiler to the cylinder. The cylinder and heat leak radiator must be sited higher than the stove.

Semi pumped systems should be used on heating and hot water systems with gravity circulation to the hot water cylinder and one unvalved 2 KW radiator to act as a heat leak when the central heating is switched off.

All four tappings on wraparound boilers should be used for systems incorporating separate gravity and pumped heating loops. Each flow and return should be taken from diagonally opposite sides of the boiler.

If a common flow and return is used, these should also be taken from diagonally opposite sides of the boiler boiler, and plugs inserted into the sockets not used.

Systems using a common flow and return to the boiler should incorporate an injector tee on the primary return connection from the central heating pump (see diagram).

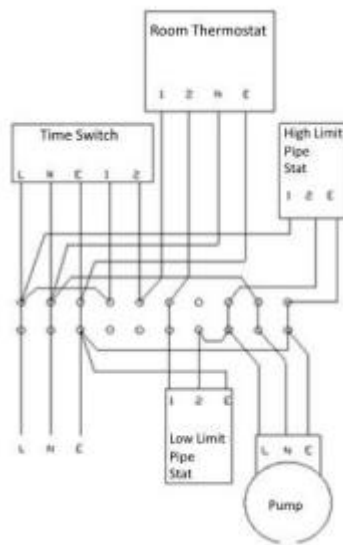
A HIGH LIMIT thermostat should be fitted to the gravity flow pipe close to the boiler and set at 90°C. This should override any pump control, switching the pump on and dissipating any excess heat around the radiator circuit.

To prevent boiler corrosion due to condensation it is necessary to maintain the return water temperature above 45°C. This can be achieved by the use of a LOW LIMIT thermostat on the return pipe from the hot water cylinder, close to the boiler. The thermostat should make on temperature rise, preventing the circulating pump from operating until the gravity circuit is up to temperature.

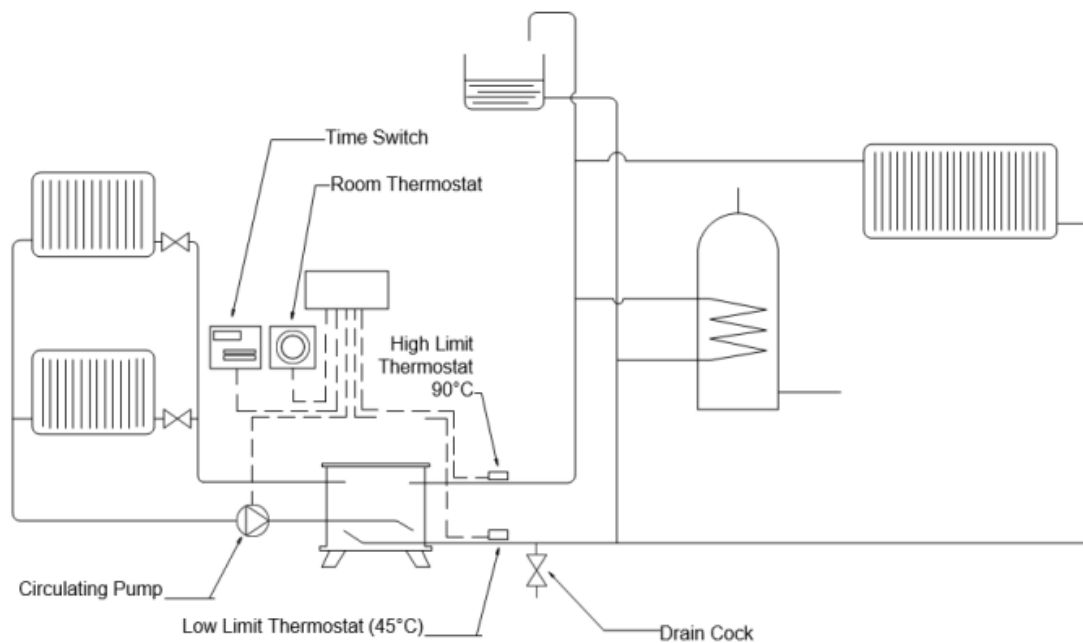
A corrosion inhibitor should be added to the system to ensure satisfactory performance and long system life.

Boiler Diagrams

Wiring diagram for general guidance only All electrical work must be carried out by a competent electrician in accordance with the rules in force and the instructions provided by the circulating pump and heating controls manufacturer.



Four tapping system



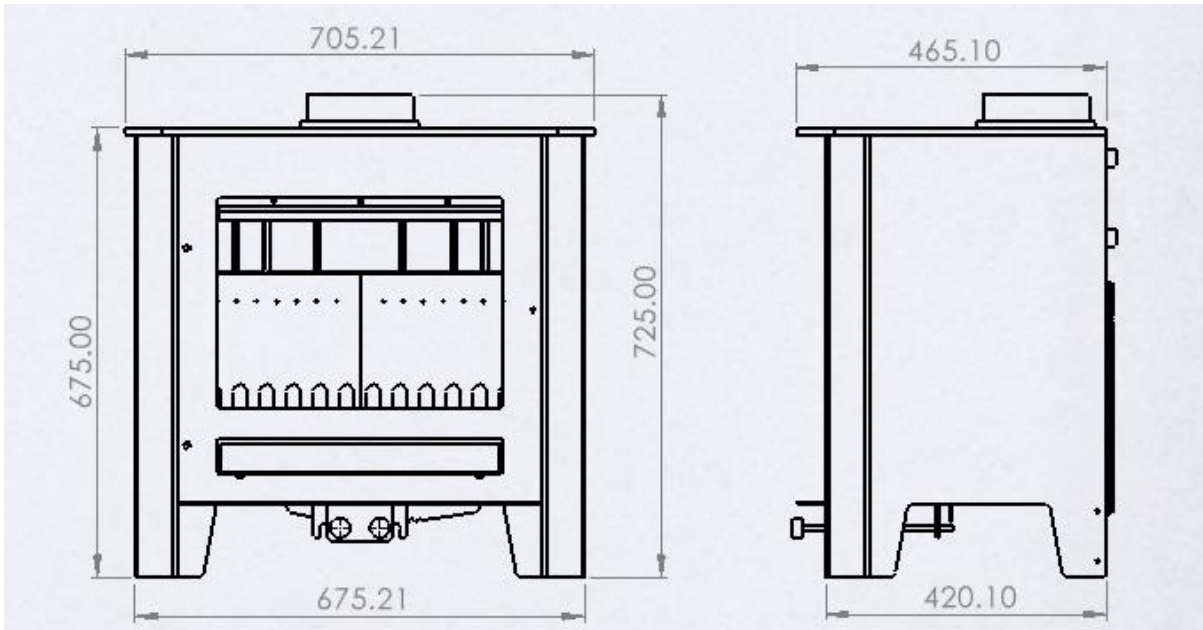
Performance Characteristics: Somersal Boiler Stove

Model	somersal boiler stove
Appliance weight (packed/unpacked) (Kg)	172kg
Approximate Output Range: (kW)	12
Harmonised EN European Standard (hEN)	EN13240: 2001 Amd 2: 2004
Additional Characteristics Test Standard	DIN +
Performance Characteristics using Wood Fuel	
Total Efficiency: (%)	81.6
output to room (kw)	8.9
output to water (kw)	3.1
Declared nominal output: (kW)	12.1
Tested nominal Output: (kW)	12.1
Tested wood re-fuelling interval: (h)	0.77
Flue gas mass flow: (g/s)	10.5
Mean CO emission (@13% O ₂): (%) (Nmg/m ³)	0.09
Mean CnHm emission (@13% O ₂): (Nmg/m ³)	90
Mean NOx emission (@13% O ₂): (Nmg/m ³)	89
DIN+ particulates (@13% O ₂): (Nmg/m ³)	31
Mean Flue Temperature: (Deg C)	237
Approximate Max Log Length: (mm)	400
Performance Characteristics using Maxibrite Briquetted Smokeless Fuel	
Total Efficiency: (%)	81.1
output to room (kw)	9.5
output to water (kw)	3.3
Declared nominal output: (kW)	12.8
Tested nominal output: (kW)	12.8
Tested re-fuelling interval: (h)	1.01
Flue gas mass flow: (g/s)	10.1
Mean CO emission (@13% O ₂): (%) (Nmg/m ³)	0.05
Mean CnHm emission (@13% O ₂): (Nmg/m ³)	56
Mean NOx emission (@13% O ₂): (Nmg/m ³)	123
DIN+ particulates (@13% O ₂): (Nmg/m ³)	27
Mean Flue Temperature: (Deg C)	625
Safety Distances From Combustibles	
Side Wall: (mm)	300
Rear Wall: (mm)	250
front wall mm	1000

*Emissions are mean values and measured in Nmg/m³ @13% O₂

All stoves meet the test requirements of the harmonised EN European Standard (hEN): EN13240: 2001 +A2: 2004

Somersal boiler stove Dimensions



Installer Commissioning Check List

	YES	NO
Stove level		
Distances from combustibles check		
Fitted to current Building Regulations		
Drawing well		

Installer Signature

Customer Signature

Notes on installation:

Annual Service Record

Annual Service Record Year 1

Chimney swept	
Ropes checked	
Bricks in good condition	
Any water ingress?	
Air controls checked	
Baffle check	
Grate	
Fuel used	

Annual Service Record Year 2

Chimney swept	
Ropes checked	
Bricks in good condition	
Any water ingress?	
Air controls checked	
Baffle check	
Grate	
Fuel used	

Annual Service Record

Annual Service Record Year 3

Chimney swept	
Ropes checked	
Bricks in good condition	
Any water ingress?	
Air controls checked	
Baffle check	
Grate	
Fuel used	

Annual Service Record Year 4

Chimney swept	
Ropes checked	
Bricks in good condition	
Any water ingress?	
Air controls checked	
Baffle check	
Grate	
Fuel used	

Annual Service Record Year 5

Chimney swept	
Ropes checked	
Bricks in good condition	
Any water ingress?	
Air controls checked	
Baffle check	
Grate	
Fuel used	

Annual Service Record Year 6

Chimney swept	
Ropes checked	
Bricks in good condition	
Any water ingress?	
Air controls checked	
Baffle check	
Grate	
Fuel used	

Annual Service Record Year 7

Chimney swept	
Ropes checked	
Bricks in good condition	
Any water ingress?	
Air controls checked	
Baffle check	
Grate	
Fuel used	

Warranty Information

All Clock stoves are covered by a standard 12-month warranty, which is valid from the date of purchase.

Clock Woodburners will extend the standard warranty on the stove body to **7 years** if a warranty registration form is completed on our website **within 60 days** of purchase from an authorised dealer.

The 6-year extension **only** applies to stoves purchased through our **approved dealer showroom network** and installed by a registered HETAS or OFTEC installer. If you are planning a self-install, then you must provide a copy of your Building Control Certificate sign-off sheet when registering your stove to qualify.

Any Clock stove purchased via a third party, such as an unauthorised dealer or online, will carry a statutory 12-month warranty and call out charges will apply.

To maintain your warranty, you must undertake and keep regular records of a yearly service carried out by a recognised and qualified professional. The warranty will not cover faults occurring due to poor maintenance or appliance abuse. Clock Woodburners reserve the right to fix any problems on site.

**Register your stove within 60 days on our website:
www.clockwoodburners.co.uk**

We suggest that you record the following details here and keep the receipt as proof of purchase. This information may be asked for when you contact the helpdesk. **You must fill this in online as well**, as this manual is for reference only. The serial number is on the data plate fixed to the rear or base of the stove. **The retailer details, plus your installer's information, is required to register for the extended warranty.**

Model:		Serial Number:	
Retailer name:			
Retailer address:			
Installer name:			
Installation date:			

Spares

Consumable parts of the appliance that are NOT covered under warranty are:

Grate, Glass, Log retainer, Paint, Rope and Fire bricks.

Replacement items of these parts can be purchased from the Spares and Accessories section of our website **www.clockwoodburners.co.uk**

To receive the right parts, please ensure that you select the correct stove model when ordering spares.

Parts may vary or change due to development of products.