WOODWARM STOVES (Est. 1974)
Metal Developments Ltd
Victor House, Greenham Business Park, Wellington, TA21 0LR
Tel: 01884 35806
Email: sales@woodwarmstoves.co.uk
www.woodwarmstoves.co.uk

25.01.21 Version EPHX FS

WOODWARM STOVES

Phoenix

A new era in cleaner, efficient stoves

Freestanding Stove Range

Installation and Operating Instructions

Serial Number M____:_____

Woodwarm Stoves (Est. 1974)
Metal Developments Ltd
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Contents

Covering the following models:

M114E FireWren - M106E FireGem - M107E FireBlaze - M104E FireBug

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Metal Developments Ltd reserve the right to change sizes and specifications without notice. E&OE

Useful Contacts

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Unit 5, Newtown Trading Estate
Green Lane
Tewkesbury
GL20 8HD
Tel: 01684 278170
Email: info@hetas.co.uk
www.HETAS.co.uk

OFTEC Oil Renewable Heating Technologies
Foxwood House
Dobbs Drift
Kesgrave
Ipswich
IP5 2QQ
Tel: 01473 626298
Email: enquiries@oftec.org
www.oftec.org.uk

Defra
Defra Correspondence Section
Area 4C Ergon House
c/o Nobel House
17 Smith Square
London
SW1P 2AL
Tel: 03459 335577
Email: correspondence.section@defra.gsi.gov.uk
https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs

Stove Industry Alliance (SIA)
The Barn
Old Shire Horse Centre
Clifford Lane
Stratford-upon-Avon
Warwickshire
CV37 8HW
Tel: 01789 415640
Email: info@stoveindustryalliance.com
www.stoveindustryalliance.com

Clear Skies
Email: info@clearskiesmark.org
www.clearskiesmark.org

WOODSURE Ready To Burn
Severn House,
Unit 5 Newtown Trading Estate
Green Lane, Tewkesbury
GL20 8HD
Tel: 01684 278188
Email: info@woodsure.co.uk
www.woodsure.co.uk
www.readytoburn.org

Solid Fuel Association
7 Swanwick Court
Alfreton
Derbyshire
DE55 7AS
Tel: 01773 835400 or 0845 6014406
Email: sfa@solidfuel.co.uk
www.solidfuel.co.uk

National Energy Foundation (NEF)
Tel: 01908 665555

Association of Professional Independent Chimney Sweeps Ltd (APICS)
Bryallen Henger Road
St Tudy
Bodmin
Cornwall
PL30 3PL
Tel: 0845 604 4327
Email: admin@apics.org.uk
www.apics.org.uk

The Guild of Master Chimney Sweeps
Ocean Deck
Clifford Road
Grays
Essex
RM16 6QL
Tel. 01375 414003
Email: info@guildofmasterchimneysweeps.co.uk
www.guildofmasterchimneysweeps.co.uk

The National Association of Chimney Sweeps (NACS)
Unit 14 -15
Emerald Way
Stone Business Park
Stone
Staffordshire
ST15 OSR
Tel: 01785 811732
Email: nacs@chimneyworks.co.uk
www.nacs.org.uk

The National Association Of Chimney Engineers (NACE)
PO Box 849
Metheringham
Lincoln
Lincolnshire
LN4 3WU
Tel: 01526 322555
Email: info@nace.org.uk
www.nace.org.uk

Sweep Safe
64 Tor Hill Road
Torquay
TQ2 5RY
Tel: 01803 390087
Email: admin@sweepsafe.com
www.sweepsafe.com

Chimney Skills Training
74 Swift Road
Abbeydale
Gloucester
GL4 4HX
Tel: 01452 521732
www.chimneyskillstraining.co.uk

British Flue & Chimney Manufacturers Association (BFCMA)
2 Waltham Ct
Milley Lane
Hare Hatch
Berks
RG10 9TH
www.bfcma.co.uk

The Woodwarm Stove Guarantee

Metal Developments Ltd offer a ten year guarantee which covers the main structure of the stove, including the construction and quality of workmanship.
If you do not fill in your guarantee form and return it to us, you will still have, Under the Consumer Rights Act 2015, a one year manufacturers guarantee, but not the full ten year entitlement .

In the unlikely event of any failure, we will replace any defective part free of charge, labour cost excluded.

This guarantee is invalid if the stove is not assembled, installed or operated as per these instructions, or does not comply with current building regulations and any regional legislation in force at the time.

Metal Developments Ltd does not guarantee the onsite assembly, installation or operation of the stove. Please seek advise from your stove supplier / installer for any relevant guarantees applicable to the installation.

Metal Developments Ltd will not be held liable for any consequential or incidental loss, damage or injury, however caused.

Claims under this guarantee should be first made through your Woodwarm Stove retailer.

This guarantee is only applicable in the UK.

Nothing in this guarantee shall effect your statutory rights.

Exclusions

The following consumable parts are not covered by this guarantee :

- **Swivel Fire Bars**
- **Log guard**
- **Operating Tool**
- **Fireboards (including baffle)**
- **Glass Panels**
- **Door Seals**
- **Paint** is also excluded from the guarantee as it will eventually deteriorate due to the normal working of the stove

Your assistance is requested by filling in and returning the product Registration and Guarantee Form. This will help maintain our records and assist us in identifying your stove in the unlikely event of any problem occurring, and also when you need to order any spare parts.

General Specifications

CE **Class 1: BS EN 13240:2001 + Amd 2:2004** **For Intermittent use only**

Model		FireWren	FireGem	FireBlaze	FireBug
Nominal Heat Output kW		4	5	6	8
Space Heating kW		4	5	6	8
Efficiency (wood)	%	79.6	77.6	79.7	78.4
Efficiency (solid fuel)	%	79.7	81.1	78.3	79.9
CO (wood)	%	0.07	0.10	0.04	0.04
CO (solid fuel)	%	0.04	0.08	0.05	0.05
OGC (wood)	Nmg/m3	37	63	32	30
OGC (solid fuel)	Nmg/m3	2	10	12	20
NOx (wood)	Nmg/m3	101	104	93	96
NOx (solid fuel)	Nmg/m3	87	76	67	61
PM (wood)	Nmg/m3	16	19	18	32
PM (solid fuel)	Nmg/m3	6	7	11	13
Minimum Clearance From Combustibles		Std. (Convector)	Std. (Convector)	Std. (Convector)	Std. (Convector)
Rear - Single Wall Flue		750 (400)	750 (350)	600 (400)	800 (500)
Rear - Twin Wall Flue		600 (150)	700 (200)	550 (200)	750 (300)
Side - Single Wall Flue		650 (400)	550 (450)	550 (450)	650 (450)
Side - Twin Wall Flue		500 (400)	500 (400)	550 (400)	600 (400)
3x Flue Diameter If From Rear Flue Adaptor.		If Top Flue, Outlet shield must be used to obtain distances in blue			
Test Period In Hours - (wood / solid fuel)		0.75	0.75	0.75	0.75
Maximum Log Length (mm)		310	400	440	440
Overall Height (mm)		635	635	635	635
Overall Width (mm)		422 (472)	552 (602)	552 (602)	552 (602)
Overall Depth (mm)		380 (391)	317(328)	380 (391)	405 (411)
Flue Outlet Size (mm)		127	127	127	150
Height to Centre of The Rear Flue (mm)		480	480	480	480
Top Flue - Centre Line To Rear (mm)		111 (122)	111 (122)	111 (122)	118(129)
Stove Fire Boards					
Baffle Board		350 x 320	480 x 269	480 x 320	480 x 320
Side Board(mm) (2 Required)		263 x 399	200 x 399	263 x 399	288 x 399
Rear Board (mm)		321 x 200	450 x 200	450 x 200	450 x 200

Regulations

All local regulations, including those referring to national and European Standards including BS EN 15287, BS 6999, BS 8303 must be complied with when installing this appliance.
A carbon monoxide alarm must be fitted to BS EN 50292.

Health and Safety at Work
It is the responsibility of the installer to comply with current Health and Safety Regulations, and particular attention should be given to the following:-
Asbestos
This stove contains 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.
Handling
This stove is heavy! Adequate facilities must be available for all handling operations and its final manoeuvre into position. In order to lighten the stove, the main door may be removed. The grate bars can also be removed.
Glass
Care should be taken when handling the door that the glass is not knocked. The door is double glazed.
Fire Cement
Some types of Fire Cement are caustic and should not be allowed to come into contact with the skin. In cases of contact, wash off with plenty of water.
Electrical
If any electrical components are used in the installation they should be installed in accordance with the manufacturers installation instructions. All wiring must comply with the current I.E.E regulations and the by-laws of the local water authority.

Air Supply

All appliances of this nature require an adequate supply of air to perform safely and cleanly.
Building Regulations dictate that an air vent of some type (usually an air brick) must be fitted into an exterior wall to allow sufficient flow of air into the fire. **Air Inlet grills must be non adjustable and positioned where they are not liable to blockage.**
Extractor fans must not be placed within the same room as the appliance, as this can cause flue reversal and fumes to be emitted.

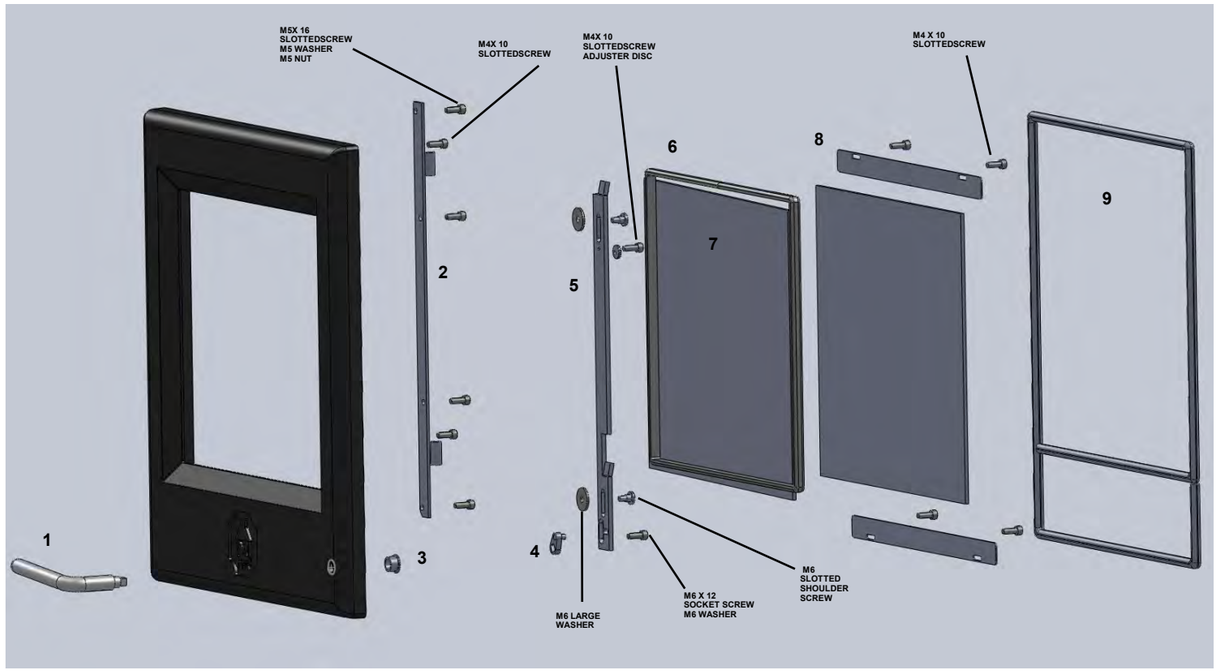
Older properties may have enough natural inwards air leakage (air permeability) to allow appliances of 5kW or less, a suitable air supply.

Modern properties built to a high level of airtightness (less than $5m^3$ per hour per m^2 air permeability), require an air vent for **All** appliances including those below 5kW. Such properties now have a certificate stating the level of air leakage found during completion.

In all cases, the current requirements should be met and suitable measures taken to satisfy each installation, bearing in mind recent and likely alterations.

More information is available by following this link:
www.hetas.co.uk/wp-content/mediauploads/Ventilators2.pdf

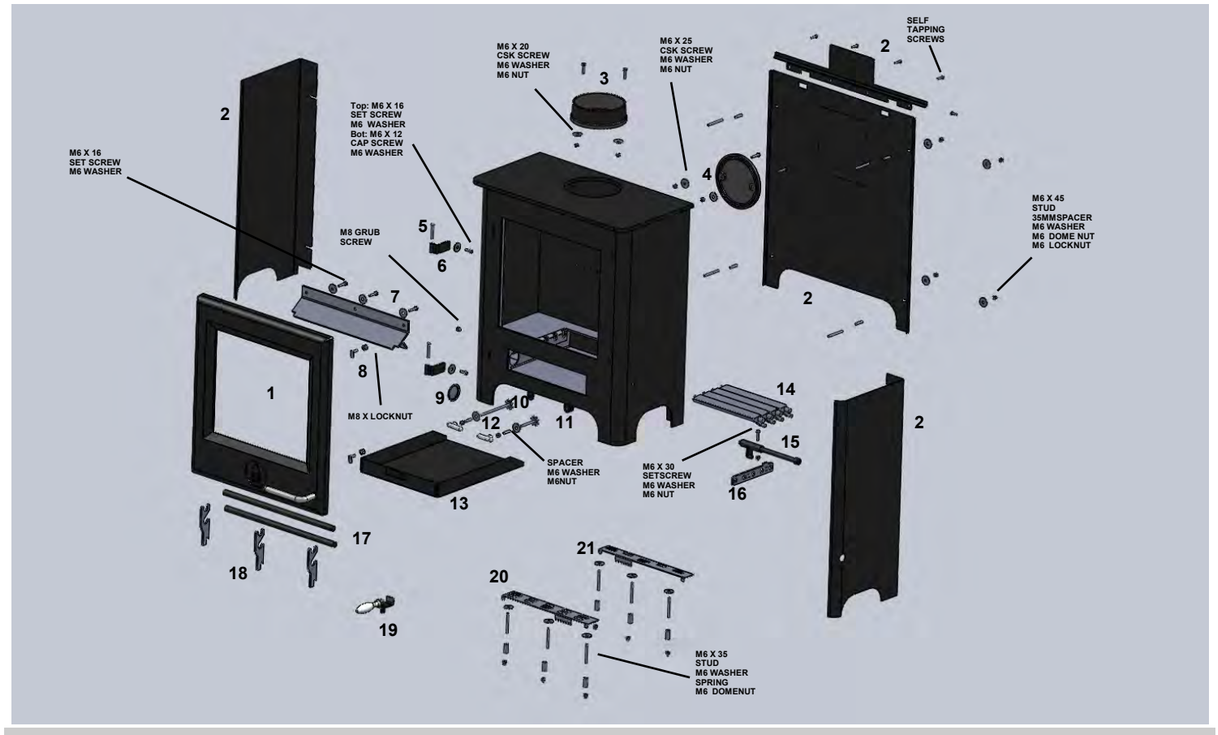
Spare Parts - Door Assembly



Ref.	Description	No
1	DOOR HANDLE	1
2	HINGE STRIP	1
3	DOOR HANDLE BUSH	1
4	CAM	1
5	LOCK PLATE	1
6	GLASS LADDER ROPE (WREN 1020MM / GEM, BLAZE, BUG 1280MM - STATE MODEL)	1
7	GLASS PANEL (WREN 230 x 315MM / GEM, BLAZE, BUG 350 x 315MM - STATE MODEL)	2
8	GLASS RETAINER (STAINLESS STEEL - STATE MODEL)	2
9	MAIN DOOR ROPE 14MM DIA (WREN 1510MM / GEM, BLAZE, BUG 1900MM - STATE MODEL)	1

All spares and accessories are available to purchase on our website www.woodwarmstoves.co.uk/shop

Spare Parts - Main Assembly



Ref.	Description	No
1	DOOR ASSEMBLY (STATE MODEL)	1
2	HEAT SHIELD ASSEMBLY (4 PARTS INCL. TOP OUTLET SHIELD - STATE MODEL & HEIGHT)	1
3	FLUE OUTLET CASTING (5” OR 6” DEPENDING ON MODEL)	1
4	HOT PLATE CASTING (5” OR 6” DEPENDING ON MODEL)	1
5	HINGE PINS (STAINLESS STEEL)	2
6	STOVE HINGE	2
7	AIR DEFLECTOR (STATE MODEL)	1
8	DOOR CATCH	2
9	BLANKING PLATE (ASH PIT)	1
10	BOTTOM AIR CONTROL SPINDLE	1
11	TOP AIR CONTROL SPINDLE	1
12	AIR CONTROL KNOB CASTING (STAINLESS STEEL)	2
13	ASHPAN (STATE MODEL)	1
14	RIDDLE BAR CASTING (C305 GEM 4NO / WREN, BLAZE ,BUG 6NO)	4,6
15	RIDDLE CONTROL (WREN 140MM / GEM, BLAZE ,BUG 200MM - STATE MODEL)	1
16	GRATE LINK BAR (GEM 5 HOLE / WREN,BLAZE,BUG 7 HOLE - STATE MODEL)	1
17	LOG GUARD BARS (WREN 260MM LONG / GEM, BLAZE, BUG 390MM LONG)	2
18	LOG GUARD SUPPORT CLIPS (WREN 2NO / GEM, BLAZE, BUG 3NO)	2,3
19	STOVE TOOL	1
20	TOP AIR CONTROL SLIDER ASSEMBLY	1
21	BOTTOM AIR CONTROL SLIDER ASSEMBLY	1

Hearth

The stove must stand on a fireproof hearth, which must be at least **127mm thick and constructed of a non-combustible material**. The positioning of the stove and the size of the hearth is governed by Building Regulations for Class 1 Appliances. These regulations state that the hearth must extend at least **225mm** in front and **152mm** to the side of the stove**.** This can be covered with decorative tiles, so long as these are also non-combustible. This stove is suitable for a superimposed hearth please see below.

Superimposed Hearth

In certain circumstances, Building Regulations allow for a Super imposed hearth. **This must be a minimum 12mm non-combustible material** e.g. slate, glass or steel. These stoves are approved for use wherever this hearth type is applicable.

Stove Site and Minimum Clearances

There must be **no combustible** material (i.e. plaster board, wooden wall panels, skirting boards, beams etc) **within a specified distance to the rear and sides of the stove. These can be found on table 1, page 3.** The clearance between the stove and any non-combustible surface is recommended as **not less than 152mm from**
the side or rear and 300mm from above.

Chimney and Flue

The chimney should be thoroughly swept and examined for soundness. If the chimney is not lined, then we strongly recommend that before use, it is fully lined with a **Class 1 Liner and insulated (we recommend no more than 600mm single skin flue from the appliance). It is not advisable to only partially line a chimney, as this will only create further problems where the lining finishes.** If there are even the smallest air breaks in the mortar, the chimney is not suitable for a wood stove. When hot flue gases rise up the chimney, it will pull cold air through any small break. This cools the flue gases at that level, causing wood tar to precipitate at that point on the chimney wall. Soon, this will accumulate across the chimney and constrict it, stopping the fire burning properly. Eventually, this will not only lead to a chimney fire, but will further rot the chimney structure. If the chimney is not lined and was previously used for an open fire, then there is a possibility that the higher temperatures produced by this closed appliance will loosen deposits. It will be necessary to have the flue swept and inspected by a registered sweep one month after the initial installation.

In the absence of a chimney, one of the following must be used either internally or externally:- a prefabricated block chimney, a conventionally constructed chimney with a Class 1 liner, or a twin walled insulated flue to BS 4543. **The internal diameter must not be less than that of your particular appliance.** Flues must be fitted in accordance with the manufacturers' instructions and according to local Building Regulations. If there is any doubt over the flue connection or the installation, consult your nearest professional installer, or the Building Inspector at your local council.
The minimum flue size for these stoves varies according to the model. Refer to the specification sheet (table 1 page 3) for the minimum flue diameter. **If possible, line the chimney with a flue liner that is at least 25mm (1") larger than that of your particular stove and avoid long lengths at minimum diameter.**
At no point in the flue should it be below the minimum flue diameter.
When the stove is to be connected to an existing fireplace, this will need sealing to the flue by a register plate, which can be mounted horizontally or vertically.

This appliance is unsuitable for use in a shared flue system. If elsewhere in the house another fireplace feeds into the same chimney, this **must** be sealed, otherwise flue gases or air may be drawn into, or escape from, the other chimney or fireplace. This would contravene Building Regulations as it is potentially very dangerous.

Whichever flue option you choose to use, **Do not forget to position a cleaning access** (if applicable) in your flue and chimney that is easily accessible for sweeping. **Note:** Clay liners can create a cool upper internal temperature which can lead to condensation problems, especially if the liners are not back insulated. If a clay liner is already in place we recommend lining with Class 1 liner.

! This appliance must be fitted by a registered installer or the installation approved by your local building control officer

Glass Panels

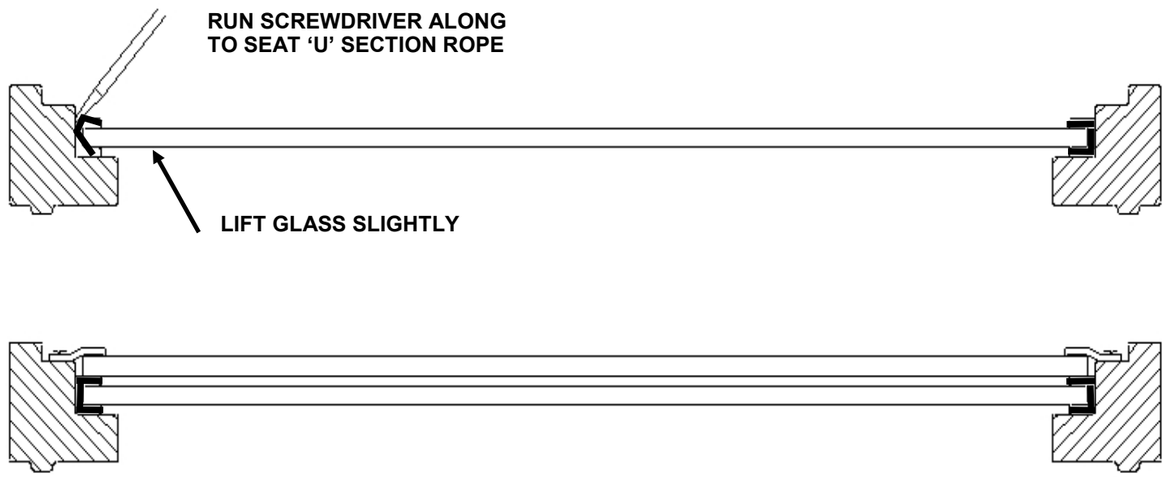
There are two panels of glass in each door. They are made of a heat resistant ceramic product which will not break with the heat of the fire. It is, however, important to maintain some movement of the glass within the door, in order to avoid cracking due to expansion or contraction. To achieve this, the glass is surrounded by a fibreglass ladder rope, which should be replaced if it is showing signs of deterioration.

CLEANING

The glass is best cleaned when cold. Light deposits can be removed with a dry cloth, and more stubborn deposits removed with a proprietary stove glass cleaner.

REPLACEMENT

Carefully lift the fire door from its hinge pins and lay it down - preferably on a soft surface, being aware of the door fastening catch. The outer glass panel (furthest from the fire) is mounted within a 'U' section fibre glass ladder rope which should surround all the edges. When replacing this glass panel, the ladder rope may slip out of position as the glass is fitted. A screwdriver can be slid along this area whilst lifting the glass slightly, in order to roll the rope seal back in. The second or inner panel fits directly on top of the outer, and is held by a top and bottom glass retainer with (M4 x 10mm) machine screws.
It is recommended to apply some heat resistant copper grease or graphite grease to the screws and **DO NOT OVER TIGHTEN THEM** as the glass panels will crack.
The stove requires both of these glass panels to be in place in order to achieve a clean burn state, being as they act in a similar way to double glazing in a domestic window.



Maintenance

Daily Routine

DAILY

Ensure that the stove door is attached correctly and will shut safely before use.
Check on the amount of ash in the ashpan and empty if necessary.
Run the stove hot for a period to ensure optimum temperature is reached. This will assist in cleaning any marginal deposits of tar from the door glass, stove, flue and chimney internally.

WEEKLY

Check any rope or fire cement for soundness. Lubricate the door catch if needed with a high temperature or graphite based lubricant.
Ensure that any Tertiary air holes (Row of holes in the rear fireboard) are unobstructed by ash / soot. These can be hoovered out when the stove is cold or the rear board removed and cleaned (see Pre installation section - Fire board removal).

Ensure that the ash pit is clear of ash all the way to the rear, by removing the ashpan and checking. Also, clear any clinker or nails from the grate bars, link bar and supports.

TWICE YEARLY

Check the condition of the fireboards / seals and replace if deteriorated. Remove and clean over the baffle and clear flue ways, (more often if burning solid fuel). A visit from the chimney sweep will remove the small amount of ash dust which forms in the chimney. (see page 35 for contact details).

If the stove is to be left unlit for any period of time ensure, the air vents are left open, and that the controls and door catches are well lubricated and treated with rust preventative. Maintain the paint surface solely with a soft dry cloth and nothing more. The paint used is both durable and heat proof but is porous and therefore not waterproof. Before lighting the stove after a long period out of use, check that all flue ways are clear of obstructions.

The Clean Air Act 1993 and Smoke Control

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).

In England appliances are exempted by publication on a list by the Secretary of State in accordance with changes made to sections 20 and 21 of the Clean Air Act 1993 by section 15 of the Deregulation Act 2015. In Scotland appliances are exempted by publication on a list by Scottish Ministers under section 50 of the Regulatory Reform (Scotland) Act 2014. Similarly, In Northern Ireland appliances are exempted by publication on a list by the Department of Agriculture, Environment and Rural Affairs under Section 16 of the Environmental Better regulation Act (Northern Ireland) 2016. In Wales appliances are exempted by regulations made by Welsh Ministers.

Further information on the requirements of the Clean Air Act can be found here:
https://www.gov.uk/smoke-control-area-rules
Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements.

The Fire Wren (M114E), Gem (M106E), Blaze (M107E) and Bug(M104E) appliances, have been recommended as suitable for use in smoke controlled areas when burning Smokeless fuel or dry wood.

Each of the above models are supplied from the factory, with an Air control closure 'limiting screw' which Must not be removed when the appliance is installed within a Smoke Control Area.

Fume Emission

Warning Note

When properly installed, operated and maintained this stove 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, then the following immediate action should be taken:

(a) Open doors and windows to ventilate the room and then leave the premises.

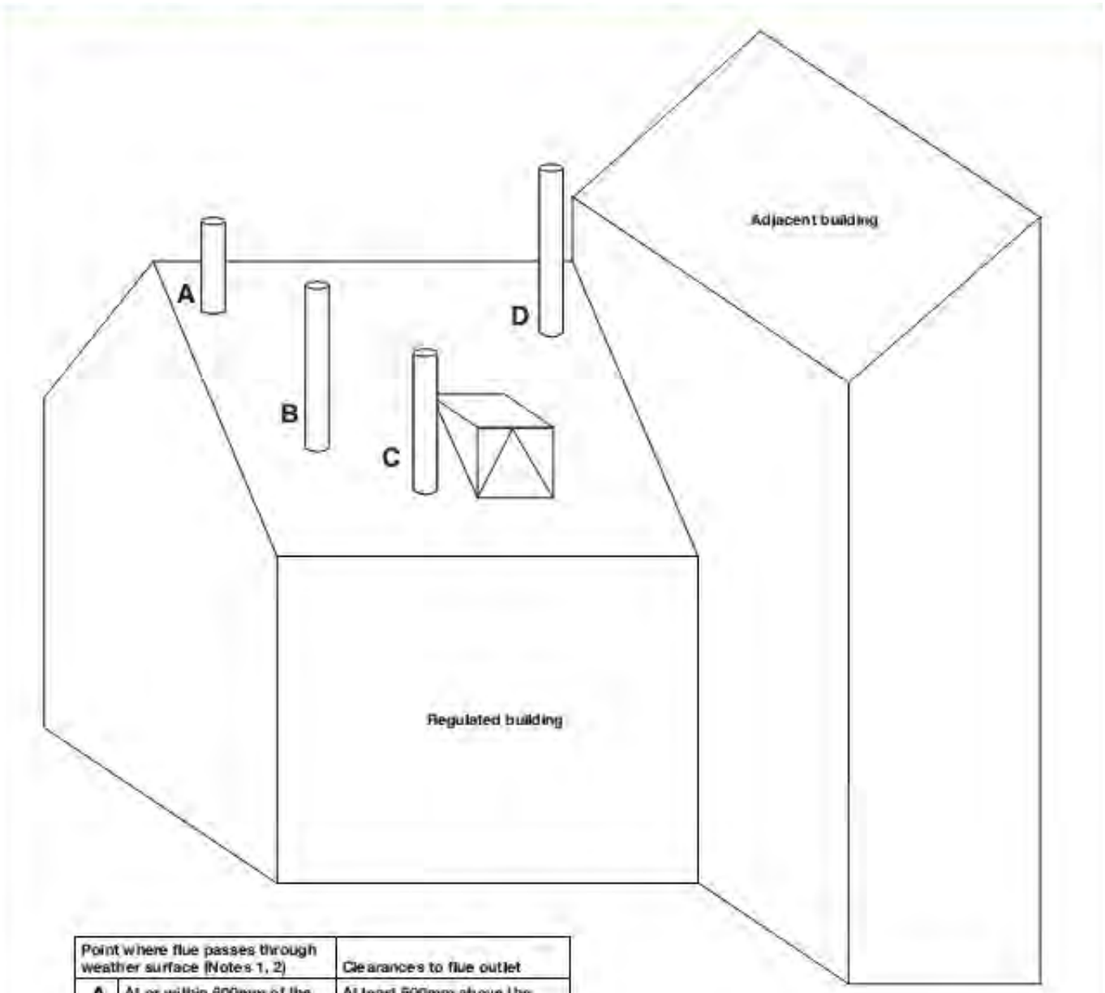
(b) Let the fire go out.

(c) Check for flue or chimney blockage and clean if required

(d) Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean at all times.

Flue Outlet Configuration



Point where flue passes through weather surface (Notes 1, 2)		Clearances to flue outlet
A	At or within 600mm of the ridge	At least 600mm above the ridge
B	Elsewhere on a roof (whether pitched or flat)	At least 2300mm horizontally from the nearest point on the weather surface and: a) at least 1000mm above the highest point of intersection of the chimney and the weather surface; or b) at least as high as the ridge.
C	Below (on a pitched roof) or within 2300mm horizontally to an openable rooflight, dormer window or other opening (Note 3)	At least 1000mm above the top of the opening.
D	Within 2300mm of an adjoining or adjacent building, whether or not beyond the boundary (Note 3)	At least 600mm above any part of the adjacent building within 2300mm.

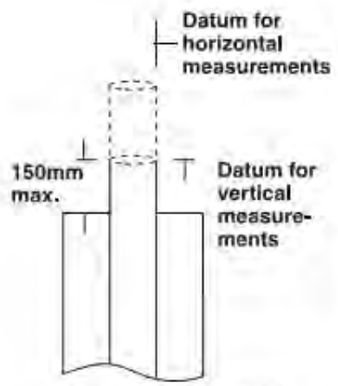
Notes

1) The weather surface is the building external surface, such as its roof, tiles or external walls.

2) A flat roof has a pitch less than 10°.

3) The clearances given for A or B, as appropriate, will also apply.

4) A vertical flue fixed to an outside wall should be treated as equivalent to an inside flue emerging at the nearest edge of the roof.



The datum for vertical measurements is the point of discharge of the flue, or 150mm above the insulation, whichever is the lower

Appliance Continued

Symptom	Cause	Solution
Strong smell after lighting	Paint coat is curing on stove	This does occur on initial lightings. Ventilate the room during curing
	Creosote is being produced in the flue due to wood moisture level above 20% or continuous use at a low temperature	Use wood with less than 20% Moisture Use at higher temperature for at least short periods each time the stove is lit in order to bake off deposits
	Twin wall flue insulation has become damp inside If this smell disappears quickly, it may be only atmospheric moisture. If not the flue/ chimney may be leaking in water	If continuous, have flue/ chimney system examined.
Chimney Fires	Tar has formed due to burning wet wood or appliance run at low temperature General lack of chimney cleaning	In all cases Close the appliance air controls right down and ensure the door is closed in order to help starve the chimney fire of air After a chimney fire Chimney or flue will need inspecting / sweeping Consult your installer

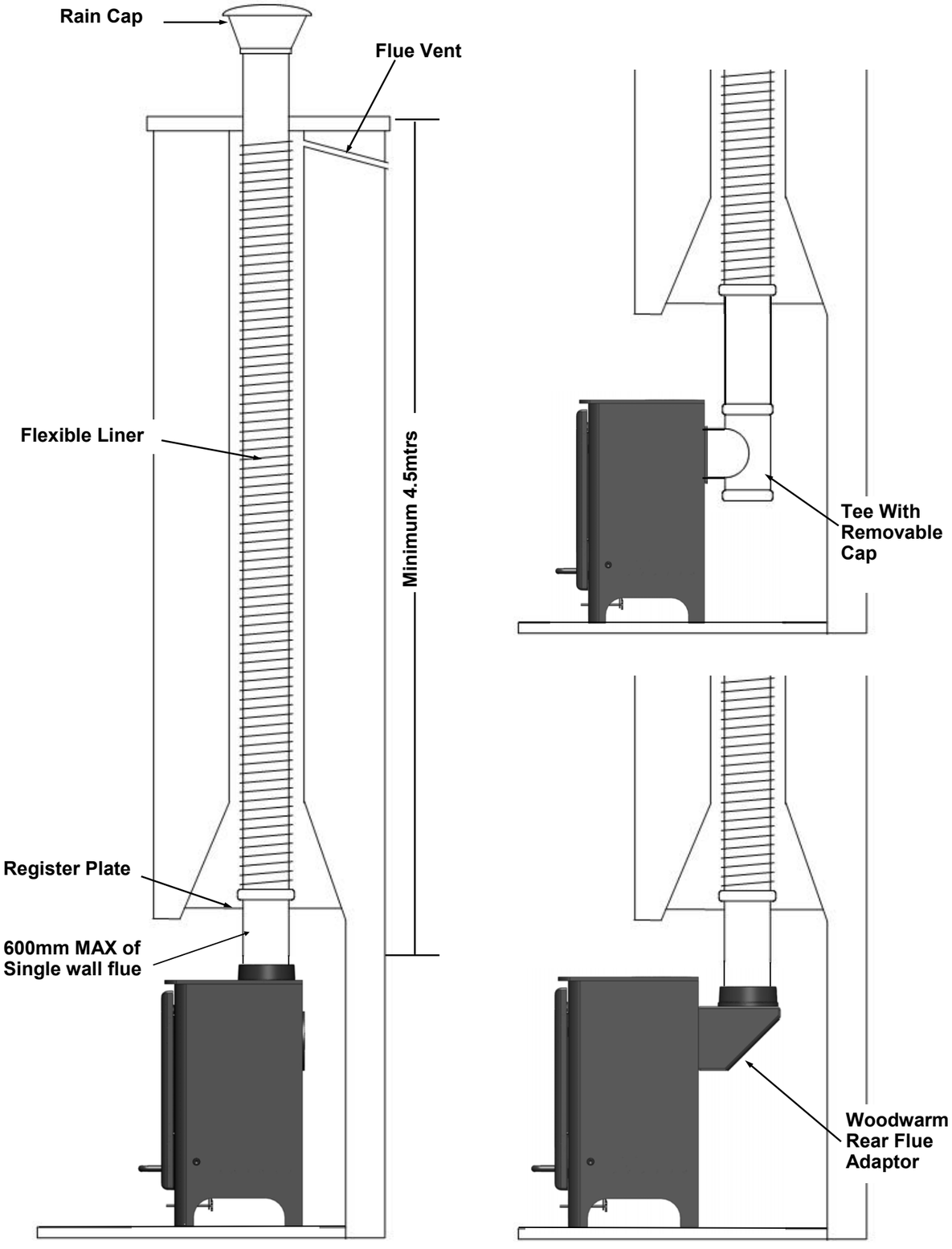
Smoke Emissions Continued

Symptom	Cause	Solution
	Blocked air vents or extractor fans creating negative room pressures	In all cases Ventilate room and allow fire to go out. Unblock vents / turn fans off
Continuous smoke spillage into room during running with door closed	Vents sited in unsuitable places can add to negative room pressure problems	Have Chimney/ stove Inspected If problem persists Consult your installer
(continued)	Weather conditions or flue terminal position can effect performance	Consult your installer
	Down draught condition caused by nearby trees, buildings	Consult your installer

Appliance

Symptom	Cause	Solution
Inside of stove and glass dirty	Wood moisture level above 20%	Use wood with less than 20% Moisture
	Appliance run at low temperature which promotes tar and smoke (this is common with overnight burning and should be avoided)	Use at higher temperature for at least short periods each time the stove is lit in order to bake off deposits Avoid loading the stove up when firebox temperature is too low or starving a fuel load of air

Flue Outlet Configuration



Pre - Installation

! Care must be taken not to damage the underside Air controls when moving the stove on trucks.

General

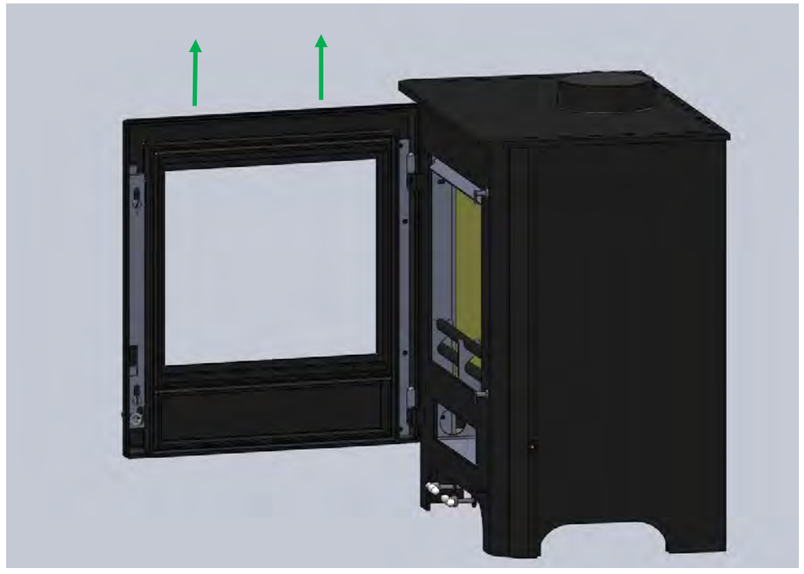
Installation is best performed with the door and internal components removed prior.

PACKING LIST

- Instruction Booklet (with stove registration form)
- Leather Glove (necessary for handling stove when hot)
- Stove Tool (for grate riddle, air control operation and ashpan carrying)
- Wall / Floor Brackets (supplied with tall models)
- Log Guard (bars sat on supports -help retain fuel when door is opened)
- Grate Infills (plates that direct ash towards the grate)
- Fire Board Set (material that lines the firebox – take care this is easily damaged)
- Ash Pan (aids removal of burned fuel waste)

Door Removal

Once opened, grasp the door top with both hands and swing the door gently whilst lifting.
This will allow the door and hinge pins to slide upwards, then come away from the stove body.



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Smoke Emissions

Symptom	Cause	Solution
Excessive smoke produced from Chimney	Refuelling onto a cold fire bed and or adding too much fuel	Ensure that good embers exist prior and reduce size of and amount added
	Operation with the door left open	The appliance door must be closed except when refuelling
	Air control/s too far open	Reduce settings but note: (Starving a fuel load of air can result in poor / dirty combustion)
Excessive smoke spillage into room at lighting stage	Wood moisture level above 20% causing excessive smoke	Use wood with less than 20% Moisture
	Low flue draught (blocked flue)	Have Chimney swept / inspected
	Insufficient initial fuel load means constant door opening when flue is cold, flue draught is low and fire is creating more smoke	Use plenty of kindling / intermediate fuel and allow to burn away well prior to refuelling
	Opening door at high fire when long flames exist	Allow time for flame length to reduce and fire to settle prior to refuelling.
Continuous smoke spillage into room during running with door closed	Poor, blocked flue Flue leaking in air, reducing draught Stove seals/ parts missing or damaged Baffle board incorrectly placed or blocked Flue size too large or not tall enough	In all cases Ventilate room and allow fire to go out Have Chimney / stove Inspected & swept If problem persists Consult your installer

Troubleshooting

Operation

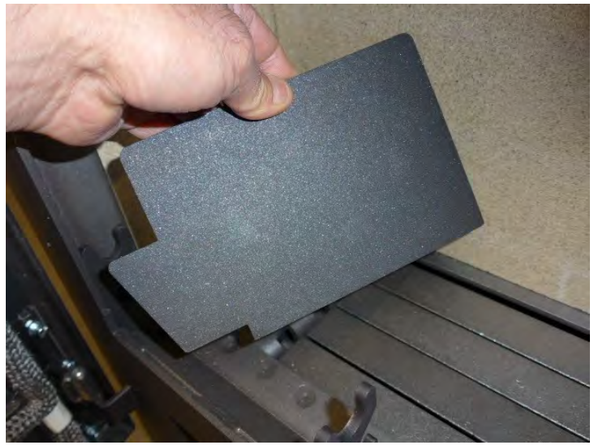
Symptom	Cause	Solution
Difficulty lighting	Wood moisture level above 20% (blue smoke seen from chimney)	Use wood with less than 20% Moisture (Short, well split logs stored under cover with sides open dry the quickest)
	Large fuel added too quickly	Use intermediate size of wood prior to full logs
	Low flue draught	Have Chimney swept / Inspected If problem persists Consult your installer
Low heat output Or Excessive fuel consumption	Wood moisture level above 20%(blue smoke seen from chimney) or poor quality fuel	Use wood with less than 20% Moisture Change fuel type for higher quality
	Wood too dry (always measure moisture level in the centre of a log)	Avoid wood that is below 10% moisture. It burns too quickly and un-cleanly
High heat output and excessive fuel Consumption Likely damage !	Air control/s too far open	Reduce settings but note: (Starving a fuel load of air can result in poor / dirty combustion)
	Fuel load too large	Do not overload as heat damage can occur
	Flue draught too high	Consult your installer

Log Guard Removal

The Log guard bars can be removed, and the support clips lifted out from their slots.

Grate Infill Removal

These can simply be lifted away from either side of the stove.

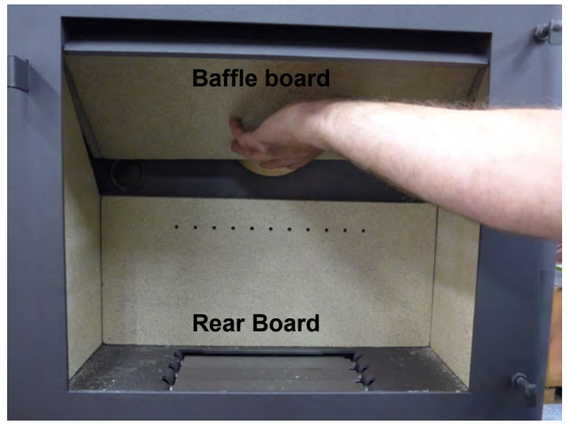


Fire Board Removal

The interior of the fire chamber is lined with 30mm Mica based fire resistant board. This helps protect the stove and maintain efficiency. There are four pieces comprising of 2no side boards, a rear board and a baffle board.
They are very fragile and require **handling with care**, especially when refuelling the stove.
These are considered a consumable product and as such, are not covered by warranty.

Step 1

With all internals removed (including Log clips), lift the Baffle board in order to remove the Rear board.



Step 2

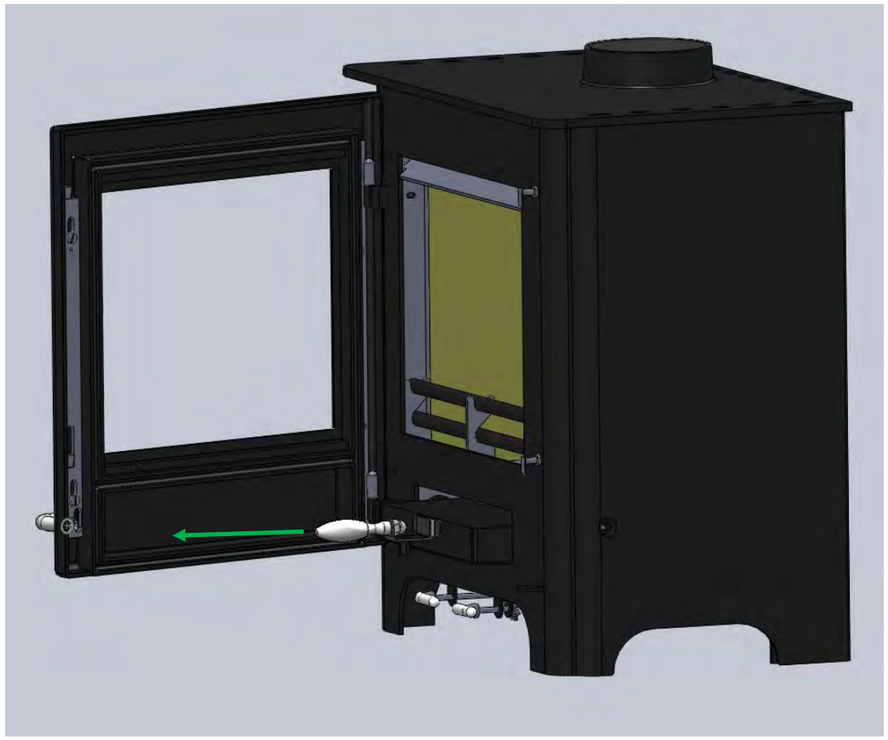
With the Baffle board supported, remove a Side board by pulling the bottom out, as shown.

Step 3

The Baffle board is then removed as shown, followed by the final Side board.

! It is beneficial to leave a good bed of ash within the stove. This also offers extra protection to the grate and fireboards.
Do not allow ash to build up below the grate. This can cause the grate to overheat.

When full, the ashpan can be removed by opening the door and inserting the lifter part of the tool into the ashpan, forming a handle.



! Fire Risk - Only dispose of ash into a non-combustible container and remove from inside the building.

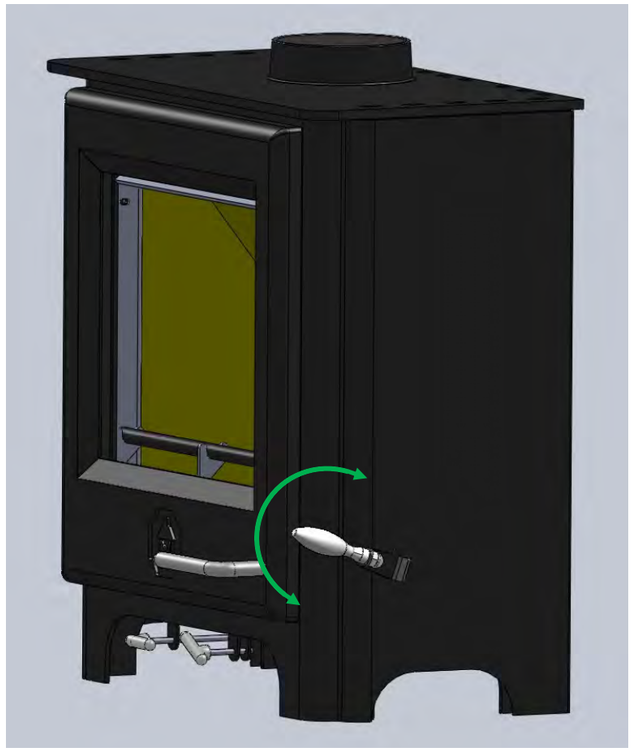
Fuel Consumption

The table below is a guide to the volume of fuel required per hour, for the output of various models.
It must be realised that these figures are approximate and do not allow for variables such as fuel quality, flue or atmospheric conditions.

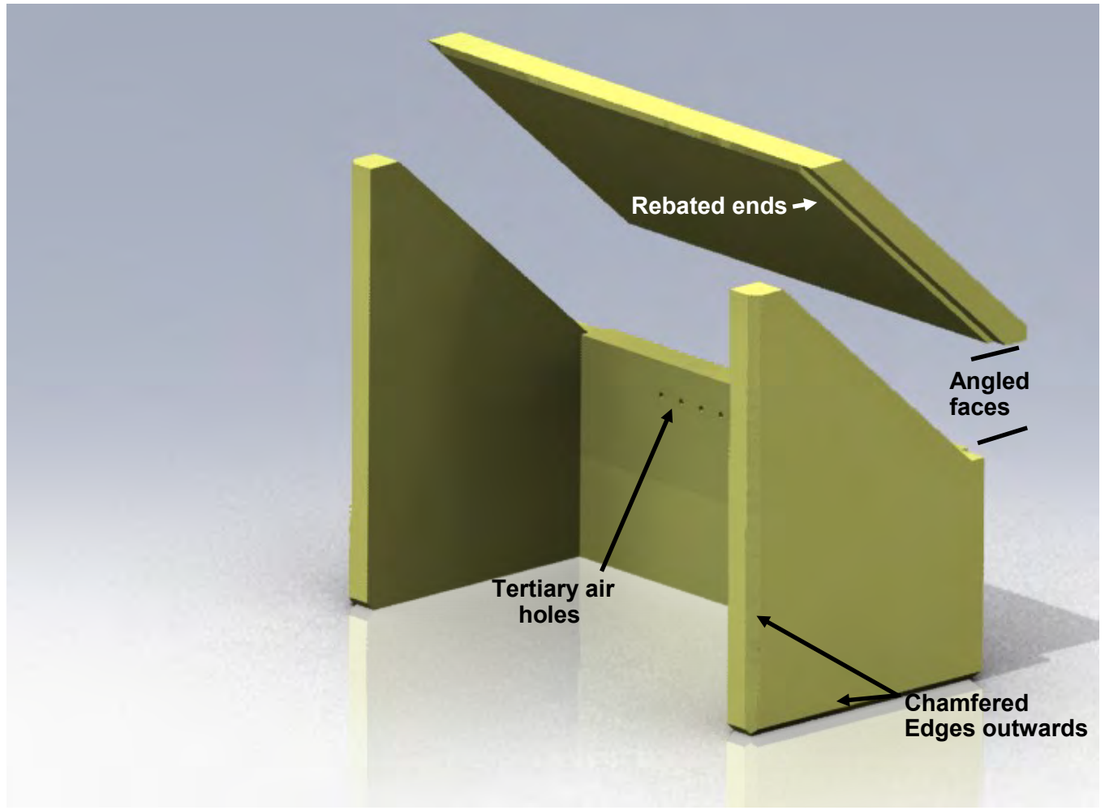
Appliance type	Kg/hour Wood	Kg/hour Smokeless Fuel
Wren 4kW	1.2	0.6
Gem 5kW	1.5	0.7
Blaze 6kW	1.8	0.9
Bug 8kW	2.4	1.3

De-ashing

With the door closed, the ash can be riddled down into the ashpan below the grate. The Riddle control is operated with the tool supplied. If rotated in a light shaking motion, ash can be removed, leaving larger solid deposits behind, rather than jamming the grate operation. These can be further burned or removed accordingly.



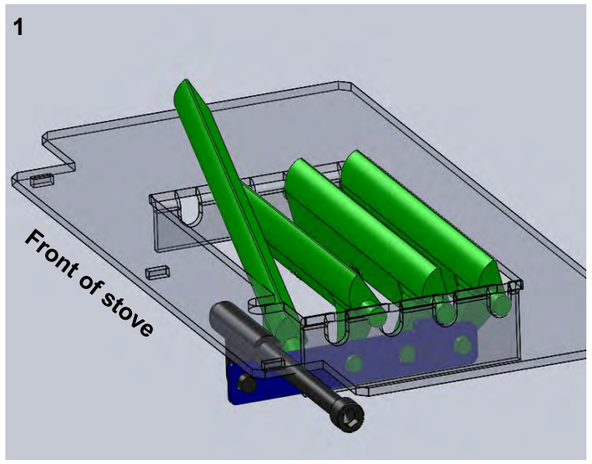
Fire Board Assembly



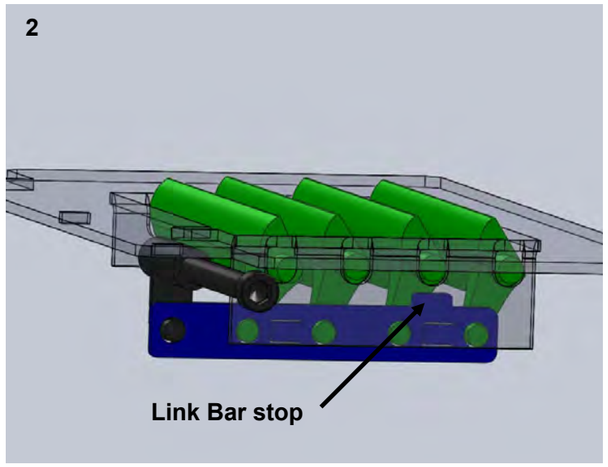
Grate Bar Removal

The Grate bars (green) can be removed individually by opening the grate to the position shown in diagram 1 & 2.
The left hand end of each bar can now be lifted to disengage the remaining end from the Link bar (blue).

1



2



Installation Instructions

Positioning And Levelling The Stove

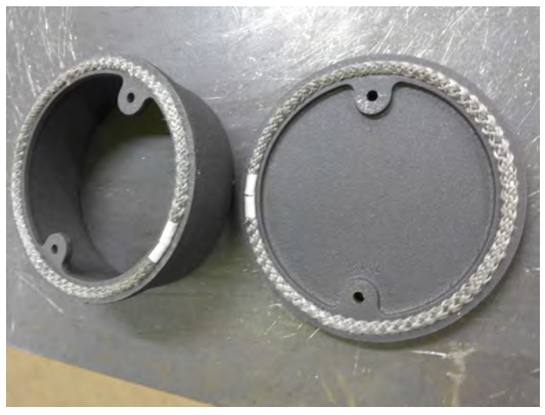
! Extractor fans or cooker hoods must not be situated within the same room as the appliance, as these can cause the appliance to emit fumes.

! This stove should not share a flue with another appliance.

Level the stove on the hearth by adjusting the hex screws on the base. Ensure that the stove position satisfies any required distances to combustibles (table on page 3), and advice on pages 4 & 5 where relevant. Tall models are supplied with wall brackets to assist

Flue Collar And Hot Plate Position

The flue collar and hot plate position can be changed, according to the installation requirements. Both have a rope seal and are bolted on with 2no slotted screws, washers and hex nuts.

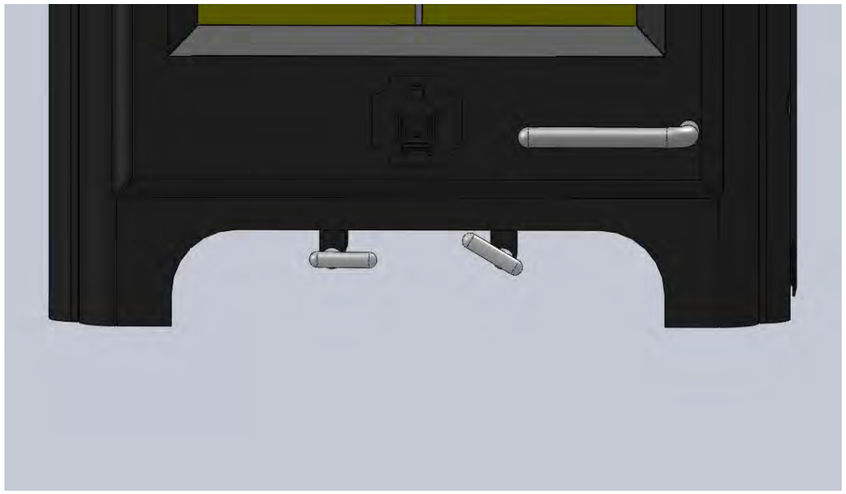


Connecting The Flue

Connect the flue pipe to the stove making sure to seal all joints.
Reinforce with stainless steel self-tapping screws to prevent connections opening with heat expansion.

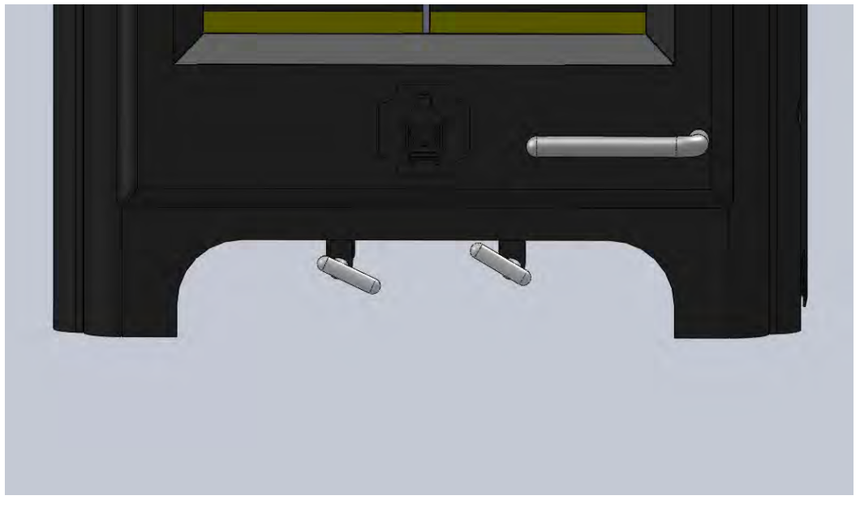
Wood Burning

As the flue draught increases, reduce the air settings and add intermediate sized fuel. The Airwash alone can often be used at this stage, as extra air can serve to push heat up the flue rather than increase firebox temperature.
Only add fuel when the existing load has reduced to a short flame length.



Solid Fuel Burning

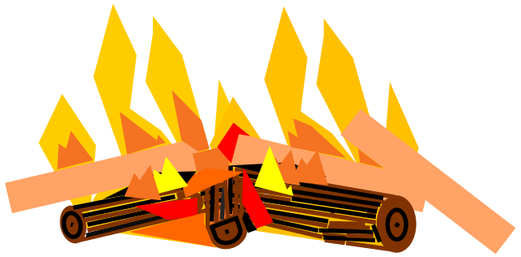
Solid fuel often requires a little bottom air to permeate up through the fuel, in addition to that supplied by the Airwash. Certain wood fuel loads can at times benefit from the same settings, in order to give a quick boost.



Lighting

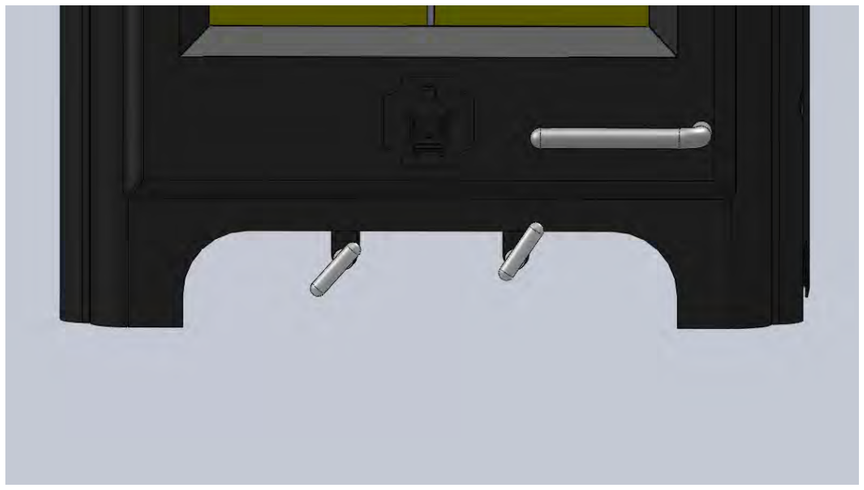
Step 1

Place firelighters on the grate and arrange small dry kindling above small dry logs in the manor shown.
This ‘Top Down’ lighting method is a cleaner way to light a stove, and the initial volume of larger fuel will help reduce the need for constant attention.



Step 2

Open both air controls fully and light the paper or firelighters at the base of the fuel.
Strong flue draughts may only require the right hand (Airwash) control for lighting.
Close the door and allow the fuel to catch and burn down well.



Re-assembly

Replace the relevant internal components in reverse order of removal in the Pre-Installation section (detailed in pages 10 -13).
Ensure that the Rear board has the Tertiary air holes uppermost, and chamfered edges outwards at the bottom.
Also ensure that all connections and seals are made sound.

Door Adjustment

Rehang the door ensuring that the door catches operate correctly and that the door rope seal is good. A good rope seal is achieved when a piece of paper can be very lightly gripped between the closed door and stove body, when tried in various places.
A rope that is not brittle can be plucked out of it’s groove to remake the seal, particularly if over compressed in certain areas.
Although factory set, the catches can be adjusted if required by first slackening the lock nut, and then turning each catch a full turn. Retighten the lock nut before closing the door.

Commissioning

CO Alarm

All open flued appliances can be affected by atmospheric conditions, which can give rise to fumes entering the house. Building regulations require that a carbon monoxide alarm is fitted in the same room as fixed solid fuel or wood burning appliance, whether it be a replacement or new stove.
The alarm should be fitted according to the manufacturer's instructions. Further guidance is available in the latest edition of BS EN50292.

Flue Draught Test / Smoke

For efficient stove operation, it is important to make sure that there is an adequate draw on the chimney. These readings can be taken by removing the blanking screw and using the test hole (opposite side to riddle control). The test should be performed with both the fire door and air controls closed.

A minimum flue draft reading of 0.1mbar (0.04"wg) when warm, increasing to 0.2mbar (0.08"wg) when hot, should be obtained.

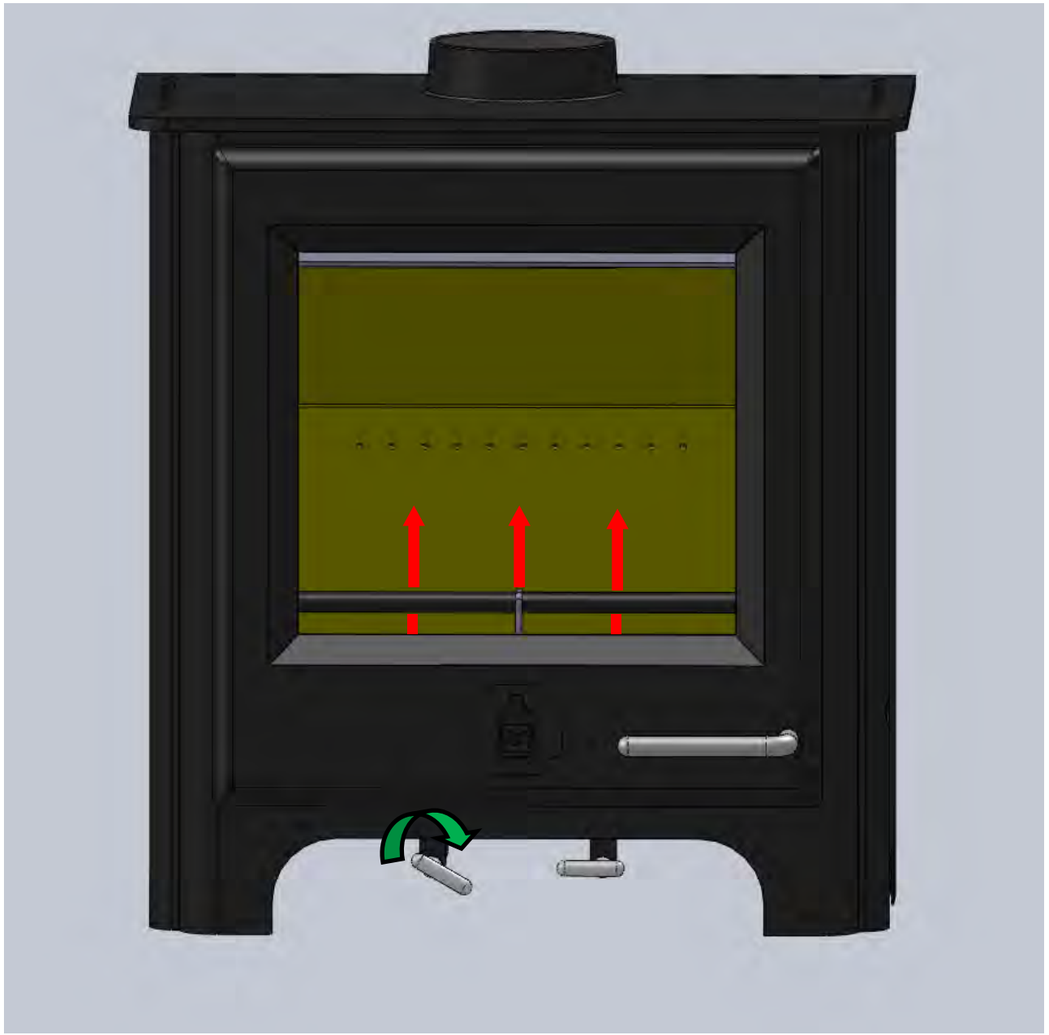
An alternative means of testing the suitability of the flue system is the Smoke test as follows:

- Warm the flue with a blowlamp for 10 minutes
- Place a smoke pellet centrally on the grate with the air controls open
- With the door closed, smoke should be seen to be drawn up the flue and exiting the flue terminal
- The test should be undertaken with all doors and windows closed within the room containing the appliance
- Repeat the test with extractor fans in adjacent rooms running at maximum, and interconnecting doors open
- With a small fuel load, the appliance should now be lit and allowed to reach operating temperature. **During this period, the paint will become soft and cause a haze as it cures. It is advisable to ventilate the room and observe from a distance as this occurs.**
- Once a good temperature is reached and the fire has settled to low flames, open the fire door and check for excessive spillage around the door opening with a smoke match or pellet

! **If excessive spillage occurs, allow the appliance to cool then re-check the flue and ventilation provided**

For more advice
Refer to Troubleshooting on pages 27, 28

The control on the left (Bottom Air) introduces air upwards, through the grate. It opens in the direction arrowed.



! **Large air settings can produce damaging temperatures to the stove and push wasted heat up the flue. This will be apparent if you look at the speed, colour and ferocity of the fire.**

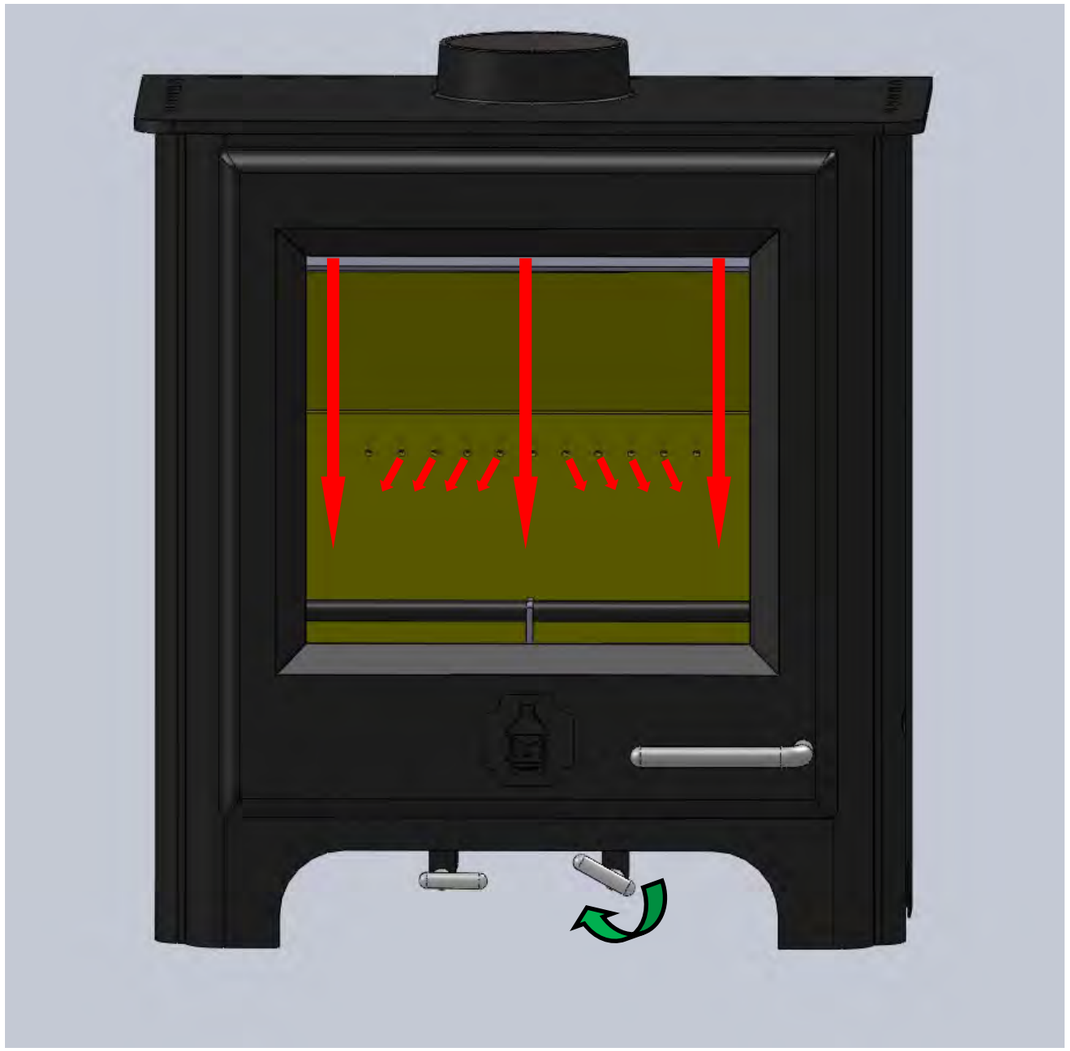
DOOR OPERATION

The stove door is opened by lifting the handle upwards to disengage the catch, and pulling the door by the handle to open it.

! It is advisable to use the glove supplied, as all parts will be hot.

AIR CONTROLS

The stove has two air controls. The control on the right (Airwash) introduces air down the glass, as well as through holes in the rear. This is the main running control and opens in the direction arrowed.



Commissioning Checklist

! Please complete and leave with the customer for future reference

Stove Details

Model number and serial number of stove M E ---
(Found on the data plate located on the inside of the door - also on the front of this booklet)

Date of Purchase……..

Date of Installation ……..

Supplier Details

Suppliers Invoice Number.....

Name.....

Address.....

.....

.....

Phone Number.....

Installer Details

Name.....

Address.....

.....

.....

Phone Number.....**…Installer Registration Number**……..

Commissioning Checklist

Flue system correct for the appliance……YES….☐……NO...☐

Flue clean and soundness checked…….. YES….☐……NO...☐

Spillage test undertaken……YES….☐……NO...☐

Adequate clearance to combustibles checked……..YES....☐……NO...☐

CO alarm present and working correctly…….YES….☐……NO...☐

Controls and operation explained to customer……...YES...☐…….....NO...☐

Instruction book handed to customer……YES...☐…….....NO...☐

Signature.....**Print name**.....

Installation notes for future reference

Flue System Used …….

Pascal / mbar Reading ……

Hearth Material ……..

Wall Material Around Appliance……

Service / Sweep Information Record

Year 1 Date ……**Done By**……

Year 2 Date ……**Done By**……

Year 3 Date ……**Done By**……

Year 4 Date ……**Done By**……

Year 5 Date ……**Done By**……

Year 6 Date ……**Done By**……

Year 7 Date ……**Done By**……

Year 8 Date ……**Done By**……

Year 9 Date ……**Done By**……

Year 10 Date …… **Done By**……..

User Instructions

! This appliance must only be used with the door closed

Choosing The Correct Fuel

The quality of fuel that you choose has a massive effect on stove performance and fuel efficiency. We therefore recommend that you consider the following:

- Dry Wood means no more than 20% moisture. Above this level, heat is wasted to create steam. Wood burned at 65% moisture could take three logs to produce the heat of one dry log, if it burned at all. Wood at 35% moisture could waste one log out of every three burned. Damp wood will ruin both the flue and appliance quickly, wasting even more money.

- Burn only Anthracite or manufactured smokeless fuels approved for closed appliances. **Do not burn Petro-coke or bituminous coal as this will invalidate the guarantee.**

Please refer to page 35 for contact details for Woodsure and Solid Fuel Association.

General

- **This appliance will become very hot when used, avoid touching with bare skin, always use the operating tool and/or glove where supplied.**
- **Use a fireguard to keep children and/or old or infirm people safe, the fireguard should be manufactured in accordance with BS 8423:2002.**
- **Fuel should not be stored on, under or near the lit appliance as this could result in a fire. This includes stoves with a ‘Log store style’ base, Plinth or Pedestal**
- **Do not use aerosols near or on the appliance whilst under fire.**
- **Do not obstruct any ventilation required for the appliance.**

THE WOODWARM STOVE SERIAL NUMBER CAN BE FOUND ON THE DATA PLATE FIXED TO THE REVERSE FACE OF THE DOOR.
QUOTE THIS NUMBER WHEN ORDERING PARTS.