



BIRCHLEY 5.0kW

Ecodesign Wood Stove

USER GUIDE

PLEASE RETAIN THIS GUIDE FOR FUTURE REFERENCE

Please read this user guide carefully when you assemble, install, operate and maintain your stove.

If you have any more questions, please contact your local dealer.

READ THE INSTRUCTION BOOKLET AND THESE SUPPLEMENTARY INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

These instructions together with those in the instruction booklet cover the basic principles to ensure the satisfactory installation of the stove, although detail may need slight modification to suit particular local site conditions. In all cases the installation must comply with current Building Regulations, Local Authority Byelaws and other specifications or regulations as they affect the installation of the stove.

It should be noted that the Building Regulations requirements may be met by adopting the relevant recommendations given in British Standards BS 8303, BS EN 15287-1:2007 as an alternative means to achieve an equivalent level of performance to that obtained following the guidance given in Approved Document J. Should any conflict apply between these instructions and the original manufacturer's instructions then the most stringent advice must apply.

Please note that it is a legal requirement under England and Wales Building Regulations that the installation of the stove is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at www.hetas.co.uk.

CO 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 alarm must be fitted in the same room as the appliance. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm 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.

1. INSTALLATION INSTRUCTIONS

APPLIANCE LOCATION

The appliance must be located at specific distances from its surroundings. This is to prevent damage to products & furnishings within the vicinity of the appliance. Adequate space should be provided for servicing the appliance.

We recommend furnishings be always kept 1.1m away to avoid heat degradation over time. There must be a minimum clearance of 75mm each side & back of the appliance, this is to non-combustible material only, with 350mm clearance above and in front of the appliance, to provide sufficient space for heat to dissipate to room space. See below for suggested distance to combustible materials.

Distance to Combustibles	Front	Side	Back	Hearth Temp
Birchley	1100mm	500mm	275mm	>100°C

VENTILATION

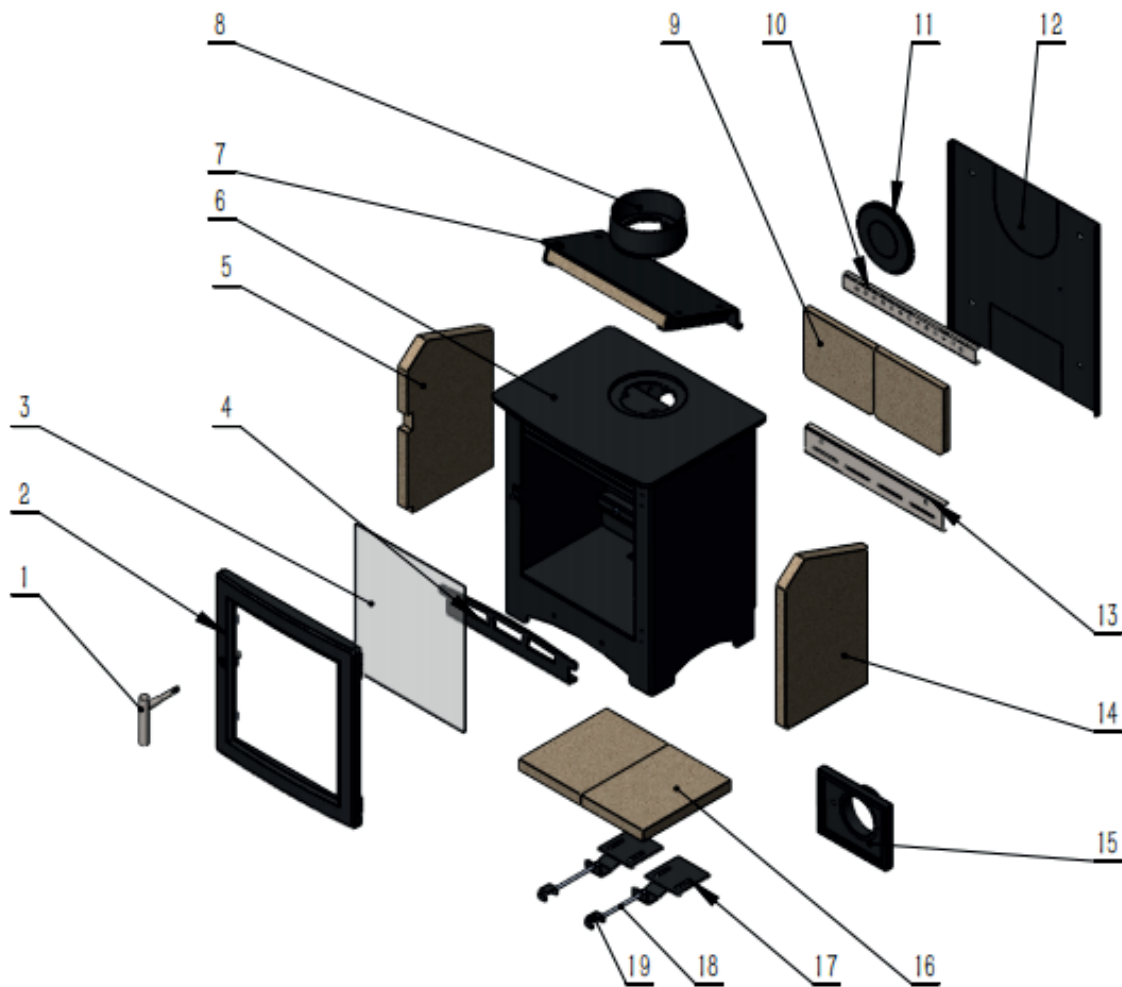
Your stove requires ventilation to supply it with air for combustion. Ventilation is also required to ensure the proper operation of flues and chimneys to ensure that the products of combustion are safely dispersed to the outside air. Please ensure the stove has sufficient ventilation for operation.

Extraction fans lower the pressure in a building which can cause spillage of combustion products from an open-flued appliance. This can occur even if the appliance and the fan are in different rooms. If mechanical extraction is unavoidable in the same room as your stove, then seek specialist advice to ensure safe operation of the appliance

COMPONENT SPARE PARTS

Please see below the list of spares available for your stove. Only the approved manufactures spare parts must be used. Any attempt to fabricate a replacement or to modify any parts of the stove will invalidate the warranty and may render the stove dangerous.

This could also have a detrimental effect on the environment.



Item	Description	Item	Description
1	Handle	11	Flue Blanking Pkate
2	Door	12	Rear Heat Shield
3	Glass	13	Primary Air
4	Log Retainer	14	Right Brick
5	Left Brick	15	Outer Air Box
6	Stove Body	16	Bottom Heat Shield
7	Baffle Plate	17	Air Control Slide
8	Flue Collar	18	Air Control Lever
9	Rear Brick	19	Air Control Knob
10	Tertiary Air		

1. Safety Advice

1.1. Handling

Necessary facilities must be available for loading, unloading and site handling.

1.2. Metal Parts

Be careful of personal injury when installing or maintaining this appliance.

1.3. Other possible injuries

The stove contains no harmful materials, but if there is a possibility of using any dangerous materials in the course of installation then please seek specialist guidance and use appropriate protective equipment.

1.4. Important Warning

This appliance **MUST NOT** be installed into a chimney that is shared with any other heating appliance. 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.

1.5. Warranty

We provide a five-year warranty for the stove body. The internal accessories of the stove body are vulnerable parts and the warranty is six months. Fragile glass is not covered by the warranty.

1.6. 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.

1.7. Use of fireguard

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with BS 8423:2010.

1.8. Aerosol sprays

Do not use an aerosol spray on or near the stove when it is alight.

1.9. Periods of Prolonged Non-Use

If the stove is to be left unused for a prolonged period of time, then it should be given a thorough clean to remove ash and unburned fuel residues. To enable a good flow of air through the appliance to reduce condensation and subsequent damage, leave the air controls fully open.

2. Installation

2.1. Chimney

The chimney must be fitted in accordance with manufacturer's instructions and the relevant part of the Building Regulations. The chimney height and the position of the chimney terminal should conform to Building Regulations and all local regulations, including those referring to national and European standards. The chimney must be in good condition, any cracks and obstructions are not permitted. The diameter of the flue should not be less than 125mm and not more than 200mm. If any of these requirements are not met, the chimney should be lined by a suitable method.

The chimney must be swept and examined for soundness and suitability before the appliance is installed. Remedial action should be taken if required, seeking expert advice if necessary. Where the chimney is believed to have previously served an open fire installation it is recommended that the chimney be swept a second time within a month of regular use after installation. If you have any doubts about the suitability of your chimney, consult a local installer.

The chimney height and the position of the chimney terminal should conform to Building Regulations. Minimum chimney height is 4.5m and the recommended minimum diameter is 150mm wherever possible for safety margin and performance. Check that the chimney is in good condition, dry and free from cracks and obstructions. The diameter of the flue should not be less than 125mm (spigot diameter) at any point and not greater than 200mm. If any of these requirements are not met, the chimney should be lined by a suitable method. The chimney must be swept before connection to the stove. When using a liner, a 5" (125mm) flexible flue liner is permitted to be used on these appliances providing that the users only burn, well-seasoned or kiln dried wood logs with the air limiter fitted in full accordance with the wood burning instructions. A 6" 150mm liner is always better where it is possible to use one.

Where the chimney is believed to have previously served an open fire installation, it is possible that the higher flue gas temperature from the stove may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney be swept a second time within a month of regular use after installation.

If you have any doubts about the suitability of your chimney, consult your local dealer or chimney specialist. If there is no existing chimney then either a solid fuel compatible prefabricated block chimney or a twin-walled insulated stainless steel flue to BS 4543 can be used. These chimneys must be fitted in accordance with the manufacturer's instructions and Building Regulations.

We need to do the following steps if in the event of a chimney fire, close off the air supply to the stove move any combustible materials well-away from the stove. Get everyone out of the building and call 999

2.2. Flue Draught (Working range 12-25 Pascals)

On commissioning the Stove, a flue draught reading must be taken and documented on the commissioning certificate this reading ensures the stove is operating within its designed parameters and its optimum efficiency. Adding the flue draught reading to the commissioning report, this report will be completed by the installer. A sample point has been included on this appliance and is located on the top right-hand side of the stove. Care should be taken when proceeding with the test as all stove parts will now be hot.

Remove the screw from the test point and insert (as Shown on page 6) the hose or test probe of the manometer or draught gauge. Record the reading in pascals (Pa). The optimum reading should be in the range of 12-15Pa. A flue draught may exceed 15Pa but must not exceed 24Pa. Anything above 24Pa may result in the over-firing of the stove. As a direct consequence of this the fuel consumption will be excessive which may result in a chimney fire. Remove the hose or test probe and replace the screw confirming the test point is sealed. If the flue draught is outside the specified range for the appliance, remedial action is necessary to correct the problem and allow the chimney to operate at the correct draught. This might typically include adding a draught stabilizer to reduce too high a draught or lining and insulating an overly large chimney if the draught is too low.

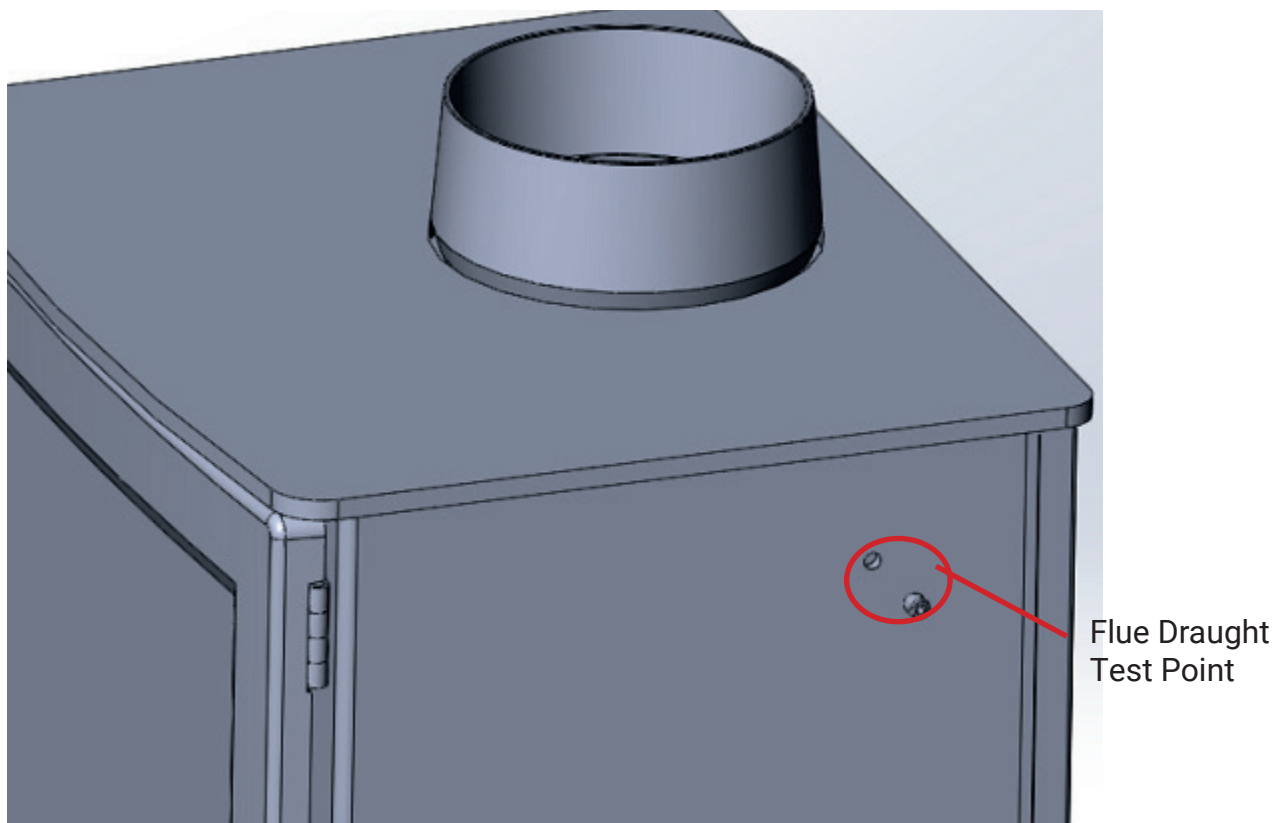
The chimney must be swept before fitting a liner to the stove and it is a condition of the warranty that it must be swept every twelve months thereafter, but not limited to depending on use. If used regularly, it is recommended that your chimney is swept every six months.

2.2.2. WARNING NOTE

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.



2.3. Chimney Connection

You should brick up or seal an existing fireplace opening with a register plate. A short length of flue pipe of a minimum 125mm internal diameter may then be used to connect the stove to the chimney. This flue pipe should conform to Building Regulations. Ensure that the pipe end is no closer than 76mm to the side or rear chimney walls.

Ideally, the old fireplace should be filled in so that there is a smooth streamlined entry into the flue way. The length of any horizontal run of flue pipe must not exceed 125mm.

It is essential that all connections between the stove and chimney-flue are sealed and made airtight. This appliance is not suitable for installation in a shared flue system.

Both the chimney and flue pipe must be accessible for cleaning and if any parts of the chimney cannot be reached through the stove (with baffle removed), a soot door must be fitted in a suitable position to enable this to be done.

2.4. Air Supply

A permanent, unobstructed air opening is essential for the room or space containing this appliance. The air opening should be at least 3625mm² when a draught stabilizer is equipped. Due care for air requirements will need to be taken if any other appliances are permitted to work in the same room and space.

2.5. Air Inlet

Your stove requires air to function, this enters at the bottom rear of the appliance. A direct supply air kit is included as standard as a connection point for direct supply/duct installation requirements.

2.6. Material Clearances

It is workable for the appliance to be recessed in a prepared fireplace, but a suitable free air gap must be left around the sides, top and back of the appliance to reach maximum heat output and for access to the rear of the stove.

In all instances the back wall of the fireplace recess and the hearth should be made of non-combustible material.

The hearth on which the stove is to be placed should not be less than 25-30mm thick and should be in accordance with the current building regulations.

Care should be taken to level the stove using the adjusting screws in the feet.

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

2.7. Commissioning and Handover

You should leave an appropriate period of time for fire cement and mortar to dry out upon completion of the installation. In order to ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to atmosphere, a small fire should be lit first. Do not run the stove at full output for at least 24 hours.

Finishing the installation and commissioning, the operating instructions and tools for your stoves should be kept in hand. It is also important to know how to use the stove properly and use only the recommend fuels for this appliance. The user should know how to have smoke or fumes emitted properly from the stove and be warned to prevent injuries in case of the presence of children, aged or infirm persons.

3. Operating Instructions

Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open except as directed in this user guide.

Operation with the air controls or appliance dampers open can cause excess smoke. The appliance must not be operated with air controls, appliance dampers or door left open except as directed in this user guide.

3.1. Important Information

All local regulations, including those referring to national and European Standards need to be complied with when installing the appliance.

This appliance is not suitable for installation in a shared flue system.

The firebox and ash pit cover shall be kept closed except during ignition, refuelling and removal of residue material to prevent fume spillage. It is important to use this appliance correctly to achieve best results.

3.1.1 The Clean Air Act 1993 and Smoke Control Areas

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 unauthorized 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 Similarly in Scotland appliances are exempted by publication on a list by Scottish Ministers under section 50 of the Regulatory Reform (Scotland) Act 2014.

In Wales and Northern Ireland these are authorized by regulations made by Welsh Ministers and by the Department of the Environment respectively.

Further information on the requirements of the Clean Air Act can be found here at: <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.

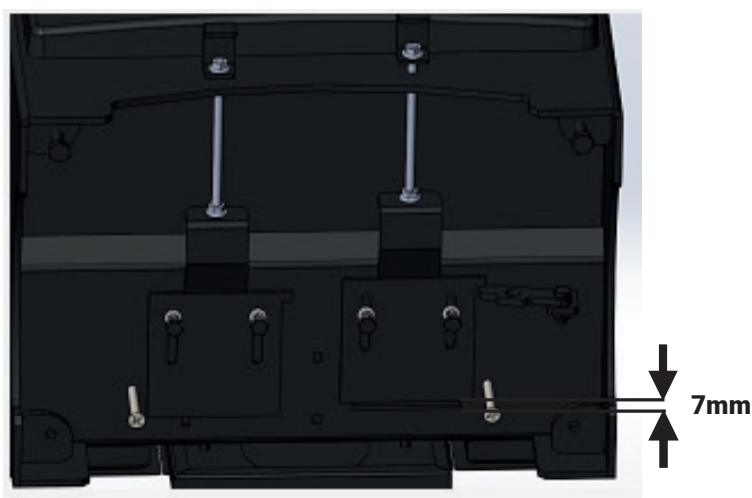
The Birchley 5.0kW Multi-fuel stove have been recommended as suitable for use in smoke control areas when burning wood logs. The Birchley 5.0kW Multi-fuel stove must be fitted with a permanent stop to prevent closure of the combustion air controller beyond 7mm open.

3.2. Air Controls

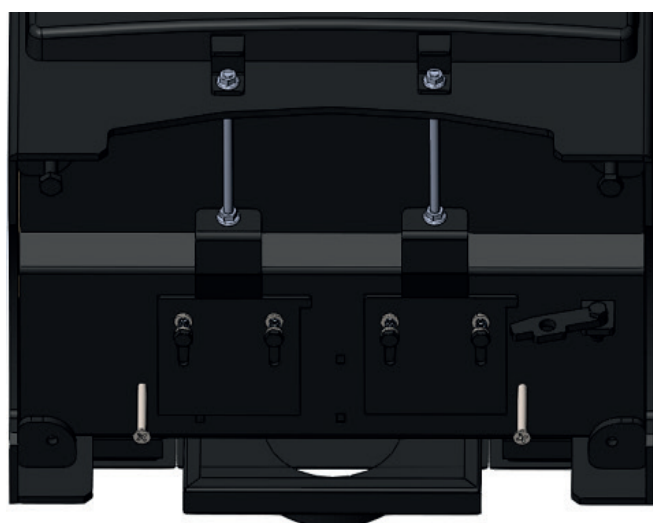
Warning! Parts of the appliance, especially the external surfaces will be hot when in operation and due care need to be taken e.g. Protective gloves should be given in operation.

It is essential for the appliance to have sufficient air supply for combustion and ventilation.

If the stove is to be installed in a designated Smoke Control Area (further information can be found via <https://www.gov.uk/smoke-control-area-rules>) then the secondary air lever must be fitted with a restrictor plate to prevent total closure of the secondary air control. The restrictor is the bottom secondary intake as shown.



Restrictor Open



Restrictor Closed

3.2.1. Primary Air

Primary air is controlled through the air slider underneath the door. This provides a conventional air draught which passes through the fuel bed. The primary air intakes can be adjusted to control the fire in combustion chamber.

3.2.2. Secondary Air/Tertiary Air

The appliance is fitted with an air wash system which can keep the heat-resistant glass of the fire door clean. This secondary air is controlled through the fittings on the bottom of the stove.



3.2.3. Tertiary Air

The tertiary air supply is bled into the stove from the rear panel. Its function is to ignite unburned gasses helping provide a clean burn. This tertiary air supply is permanently open and allows a small amount of air into the stove.

3.3. Burning Wood

The refuelling intervals at nominal heat output will be approximately 1.5 hours. You may load wood higher in the stove than solid mineral fuel, but wood or logs are not permitted to touch the baffle plate.

Wood burns most efficiently with the primary air controls closed and the secondary control partially open. Moving the secondary control will control the burn rate of the stove.

Wood burns best with a layer of ash on the fuel bed, and care should be taken to only remove surplus residue from the stove timely.

We recommend you only use dry, seasoned wood as fuels; the wood should have been cut, split and stacked for at least one year in a circulating air surround to dry out. Otherwise, wet or unseasoned wood will cause tar deposits in the stove and unsatisfactory heat output will occur.

We recommend the use of wood logs with a moisture content of less than 20%.

Burning wet or unseasoned wood will create excess smoke emissions, tar deposits in the stove and chimney and will not produce a satisfactory heat output. Wood fuel purchased from an approved source may still require some drying out to remove surface water before use.

3.5. Refuelling 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 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.

3.6. Fuel overloading

The maximum amount of fuel specified in this user guide should not be exceeded, overloading can cause excess smoke. We suggest that you refuel every 45 minutes to 1 hour, dependent on fuel.

The recommended maximum dimensions of wood logs are as specified below:

Model	Max Fuel Load	Max Log Length
Birchley	2.8kg	290mm

4. Lighting the stove

1. Open the door and ensure the secondary/ air-wash control lever is opened fully. It's the control on the right.
2. On first lighting, we recommend using 2 - 3 firelighters along with wood kindling built in a pyramid above the firelighters to obtain a good fire bed. Ignite the firelighters then close the stove door and allow the firelighters and wood kindling to ignite to the point where the embers are glowing.
3. Add your fuel of choice and control the stove as advised. Burn small loads initially in your new appliance before full fires are used, to allow paint & fitting cement to cure.

Controlling Stove

4.1.1 Burning wood

- Air-wash/secondary air lever (The control to the right) - Use this to control the fire when burning wood.
- Primary air control lever (The control to the left) – This should be closed as wood does not need air from below to burn effectively.
- Avoid overloading your appliance as this may cause damage to the product and cause unstable burn conditions. See max fuel load stated in 'Refuelling Wood' section for more info.

4.1.2. Recommended Fuels

- Split and dried logs properly seasoned with less than 20% moisture content (max fuel load on page 10 should not be exceeded).
- Eco Logs.

4.3 Multi Fuel Kit Optional Accessories

4.3.1 Riddling the firebox

To riddle the grate, the main fire door will need to be open, carefully open the fire door. Multi Fuel Kit Optional Accessories mounted riddle lever, using the glove, move the lever left to right, repeatedly, until the ember/ ash bed has been reduced.

- **Note:** if this procedure is performed vigorously then ash maybe discharged from the firebox, care should be taken to avoid this from happening.



4.3.2 Ash Removal

The ash pan should be emptied when the level of ash reaches the top of the ash pan. On no account should the ash be allowed to build up to touch the underside of the grate, as this will greatly reduce the life span of the grate.

To remove the ash pan ALWAYS USE the glove & operating tool-

- Open the door of the stove, pausing briefly when ajar so as to allow the fire to adjust to the increased air supply.
- Insert the fork end of the operating tool into the ash pan
- Carefully withdraw the ash pan from the ash pit chamber.
- Empty the ash into a suitable metal container. Replace the ash pan into the stove, reversing the above procedure and close the fire door.



WARNING: Ash can be very hot!! Care must be taken not to burn hands or house-hold objects with falling embers-ALWAYS USE THE GLOVE.

Empty only into a metal container. Even if the ash appears cold, red hot embers may be concealed and could easily start a fire or cause an injury.

5. Maintenance

5.1. Stove body

Use a soft brush to clean the stove; cleaning must **ALWAYS** be done after it has cooled down. The finish can be renewed with proprietary stove paint.

5.2. Baffle plate

Remove and clean the baffle plate once a month to avoid soot or fly ash. Block the flue ways and produce dangerous fume emission.

5.3. Fireproof glass

Use a proprietary glass cleaner to clean the glass when cool. Any material that may damage the glass should not be used to clean the panel. Wet logs on heated glass, a badly aimed poker or heavy slamming of the doors could crack the glass panels and care should be taken.

5.4. Ceramic rope

Ceramic or fiberglass rope is used on the stoves. Inspect the rope around the door and glass. If rope is becoming detached, use a proprietary rope glue to reattach it. Ensure you replace the rope in the case of it being in poor condition.

5.5. Flue & Chimney

Keep the chimney, flue way and any connection flue pipe swept regularly.

For users of smokeless fuels, sweep at least once a year; for wood and other fuels, at least twice a year. If the stove is 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 an open fire.

6. Troubleshooting

Problem	Probable Cause	Recommended Action
Fire Difficult to Light	Green/Wet Wood	Use Recommended Fuel
	Insufficient Air	Open Air Controls
	Insufficient Draft	Check flue is not obstructed, sweep if needed
	Fuel Too Large	Use kindling/small logs to start fire
Fire Burns Too Quickly	Too Much Air	Reduce Air Controls
	Excessive Draft	Install Draft Stabilizer/Damper
	Insufficient Seal	Check condition of rope seal around glass
Smokes Upon Initial Lighting	Cold Flue Pipe	Burn firelighters/small fuel loads to preheat flue prior to using larger fuel
Smokes While Burning	Insufficient draft	Check flue is not obstructed
Glass Blackening	Insufficient Air	Open air-wash control
	Damp Fuel	Use Recommended Fuel
	Insufficient Seal	Check condition of rope seal around glass
Glass Crazing (Minute Splinter Marks On Glass)	Cold liquid hitting warm glass	Replace Glass
Low Heat Output	Poor Quality Fuel	Use recommended fuels
	Insufficient Seal	Check condition of rope seal around glass

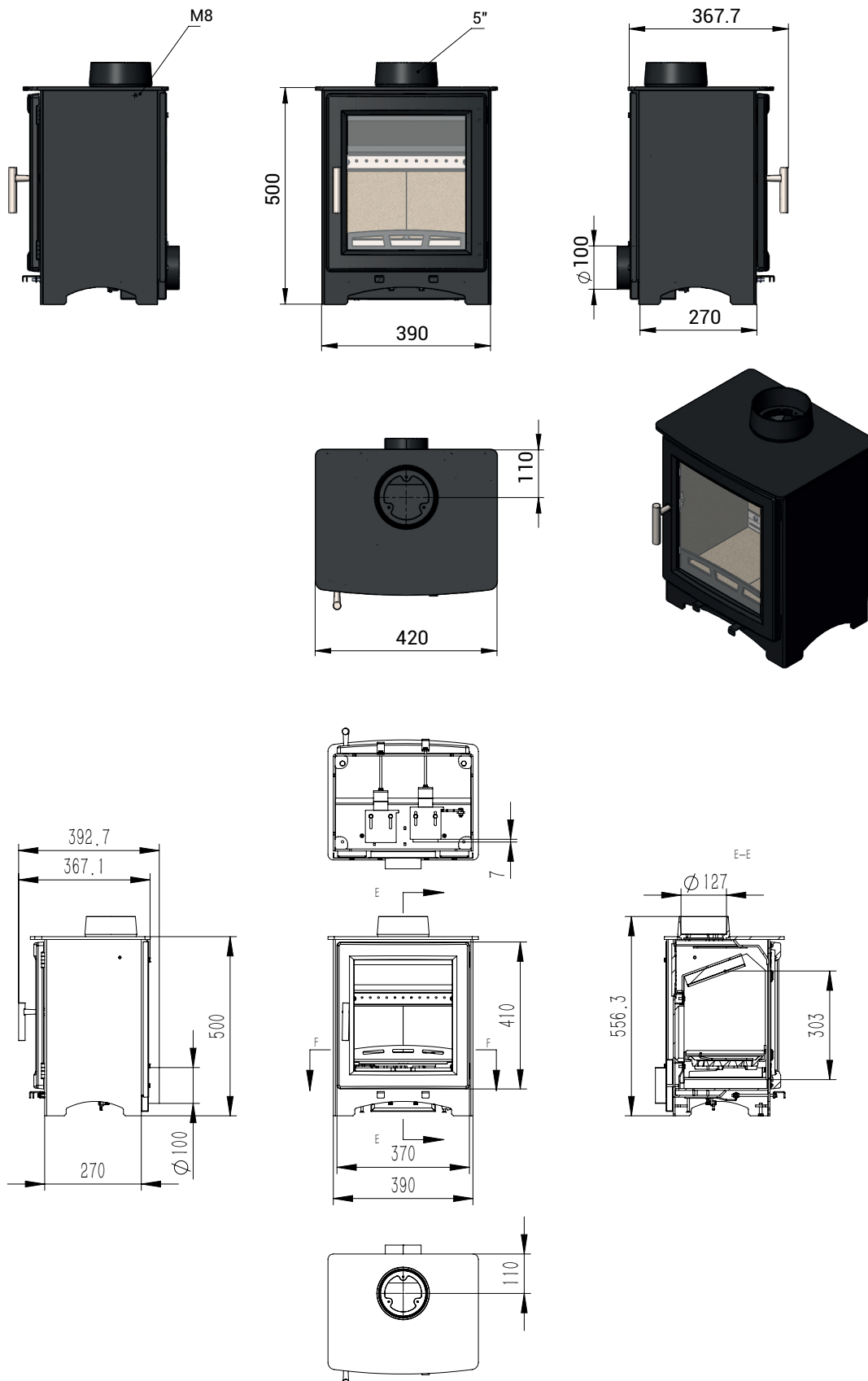
7. Technical information

Appliance	Farrow
Fuel Type	Beech
Output kW (nominal)	5.0
Efficiency (%)	84.4
CO Emissions at 13% O2 (vol%)	0.08
NOx Emissions at 13% O2 (mg/m03)	94
CxHy (OGC) Emissions at 13% O2 (mg/m03)	63
Dust (PM) Emissions at 13% O2(mg/m03)	23
Flue gas temp. (oC)	249
Flue gas mass flow mean (g/s)	3.3

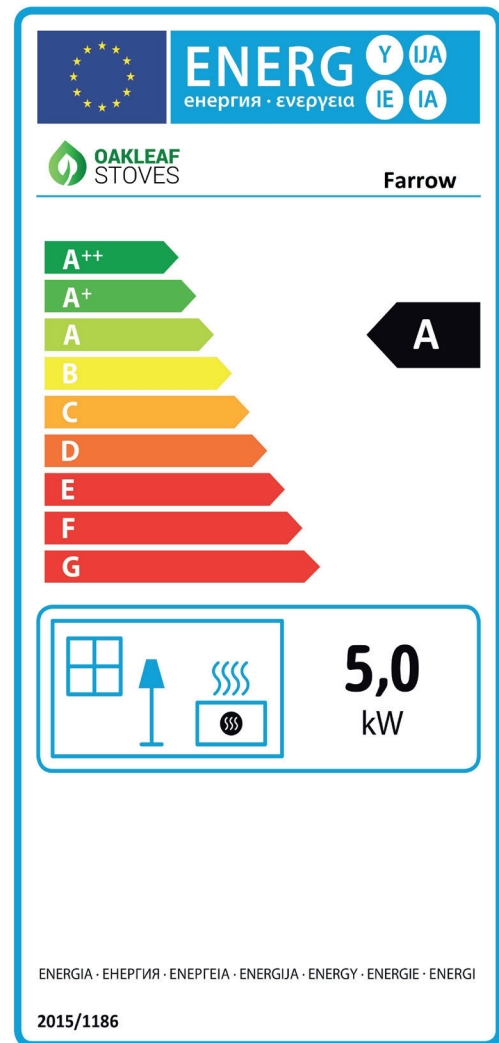
8. Dimensions

Appliance	Height (mm)	Width (mm)	Depth(mm)	Weight (kg)	Collar (mm)	Maximum Log Length (mm)
Birchley	500	390	386	65	5" /130	290 x 290

9. Technical Drawings



Product Fiche	
Commission Delegated Regulation (EU) 2015/1186 Energy Labelling of Local Space Heaters	
Manufacturer Name:	Flue Supplies
Model Name:	Birchley
Energy Efficiency Class:	A
Energy Index	100.0
Nominal Heat Output to Room	5.0
Net Efficiency:	84.4
Comments/Installation/Handover Instruction: <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	



10. Disposal After Product Life Expired

To Dispose of the stove after the product life has expired, please observe the following information:

- Dispose of the items correctly i.e., separate the parts to be disposed of in material groups
- Always dispose of the items in a way that is as sustainable as possible and that is in line with the current environmental protection, reprocessing/recycling and disposal technology

