



aire

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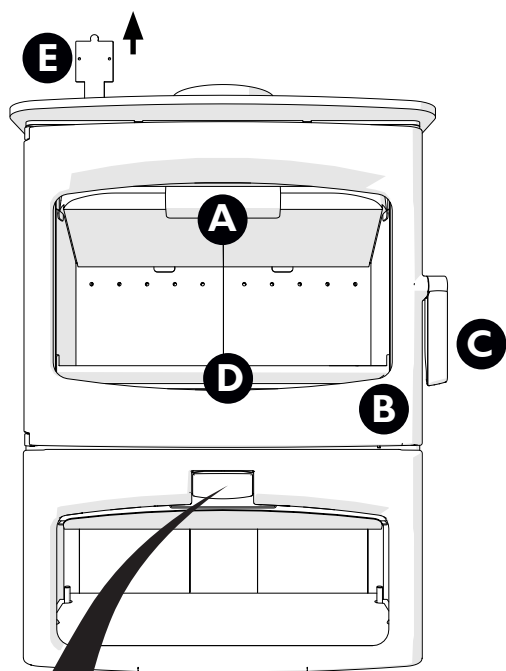
charnwood

Operating & Installation Instructions

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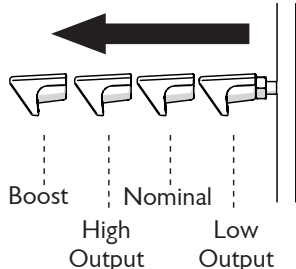
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QUICK GUIDE



- A Throat plate**
Improves efficiency of stove by slowing down flue gases
- B Door**
Keep closed when stove is in use
- C Door handle**
Pull to open
- D Front fence**
Ensure fuel does not protrude beyond front fence
- E Serial label**
Lift to view / scan QR code

AIR CONTROL



MAINTENANCE AND CLEANING

GLASS

Wipe with damp, lint free cloth. Any stubborn deposits on the glass may be removed with a proprietary stove glass cleaner or ceramic hob cleaner.

THROAT PLATE & UPPER BAFFLE

Take down once a month and clean. Sweep sooty deposits into fire.

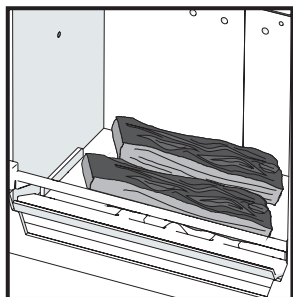
CHIMNEY

Have chimney swept twice a year. Chimney can be swept through stove.

SERVICING

Stove should be serviced by a professional at least once a year.

LIGHTING AND CONTROLLING THE FIRE



Place two dry, well seasoned logs horizontally left to right on the base of the firebox / on top of the primary air ducts.



Build a stack of 6-8 kindling sticks on top of the logs and place a firelighter amongst the sticks. Leave space between the sticks to allow the air to circulate around and through them. Light the firelighter. Close the door.



After the initial fuel load has burnt down and a bed of hot embers has been established place one or two logs on top of the embers and shut the door.

Suitable fuel for your Charnwood:

Wood logs

Unsuitable fuels:

Petroleum coke

Liquid fuel

Household waste

Coal singles

Small nuts or coal dust

Wet or unseasoned wood

OPERATING INSTRUCTIONS



Congratulations on becoming the owner of a Charnwood Aire 4 stove. **It is very important that you read and understand these instructions before using the stove.** All local regulations and, if applicable, national and European standards must be complied with when installing and operating this appliance.

Before lighting the stove check with the installer that the work and checks described in the installation instructions have been carried out correctly and that the chimney has been swept, is sound and free from any obstructions. **This stove is not suitable for use in a shared flue system.**

Remember that the stove will be hot and that it is made from hard materials – ensure that you have good balance before operating the fire. Always use the gloves provided when re-fuelling and when removing ash.

Do not use or store any flammable liquids, substances or gases near the stove whilst it is in use as this could result in explosion or flash ignition.

When using the stove in situations where children, aged and/or infirm persons are present a fire-guard must be used to prevent accidental contact with the stove. The fire-guard should be manufactured in accordance with BS 8423:2002.

This stove is suitable for intermittent operation.

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).

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 authorised 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 Aire 4 has been recommended as suitable for use in smoke controlled areas when burning wood logs. The stove includes a factory-fitted modification to the air control to prevent complete closure of the air supply.

WOOD LOGS

Only dry, well seasoned wood should be burnt on this appliance as burning wet unseasoned wood will give rise to heavy tar deposits in the stove, on the glass and within the chimney. For the same reason hard woods (such as Ash, Beech and Oak) are better than soft woods (such as Pine and Spruce). Burning wet unseasoned wood will also result in considerably reduced outputs. The wood should be cut and split and then left to season in a well ventilated dry place for at least one but preferably two years before use.

Recommended fuel load:

Aire 4 - 1 x 300mm long x 80mm diameter log

Log moisture content:

Less than 20% (*ideally less than 17%*)

This stove is not designed to burn household waste..

DOOR OPERATION

It is recommended that a heat proof glove (supplied with the stove) is worn when operating the door handle. Do not slam or strike the door.

Take care not to touch the door as it will be hot when the fire is burning. Pull the door handle to open, and push to close. For normal operation, the door must be closed. 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 the instructions.

DO NOT USE THIS STOVE IF THE DOOR GLASS IS BROKEN.

LIGHTING

On initial lighting, the stove may smoke and give off an odour as the silicon paint with which the firebox is painted reacts to the heat. This is normal and will cease after a short time, but meanwhile the room should be kept well ventilated.

At first only light a small fire and burn it slowly for two hours to allow any residual moisture in the chimney to evaporate.

First, start by placing two dry, well seasoned logs onto the base of the stove/ on top of the primary air ducts. On top of this build a stack of 6-8 kindling sticks, this can be in grid shape or a pyramid, be sure to leave a space between the pieces to allow the air to circulate around and through them. Ensure that the assembled wood does not protrude over the fuel retainer. Place a natural fire-lighter amongst the kindling near the top, light the fire-lighter and open the air control fully (see Fig. 1) The door may be left cracked open for a few minutes to assist the combustion and heat up the firebox more quickly. Maintain the air control at maximum at this stage. Once the fire is up to temperature the airwash system will begin to work, so allow the fire to become hot before adjusting the air control to the required setting. After the initial fuel load has burnt down and a bed of hot embers has been established place one or two logs on top of the embers and shut the door. During the lighting period, do not leave the stove unattended. Do not leave the door open except as directed above to avoid excessive smoke.

When relighting the stove, leave the ash on the base, unless it is becoming too deep, in which case some of it may be removed.

A stove can reasonably be expected to make some ticking noises during heating and cooling cycles caused by metal expansion and contraction in the firebox, this is entirely normal and will not cause damage to the stove or adversely affect its performance. Do not build the fire too close to the glass.

CONTROLLING THE FIRE

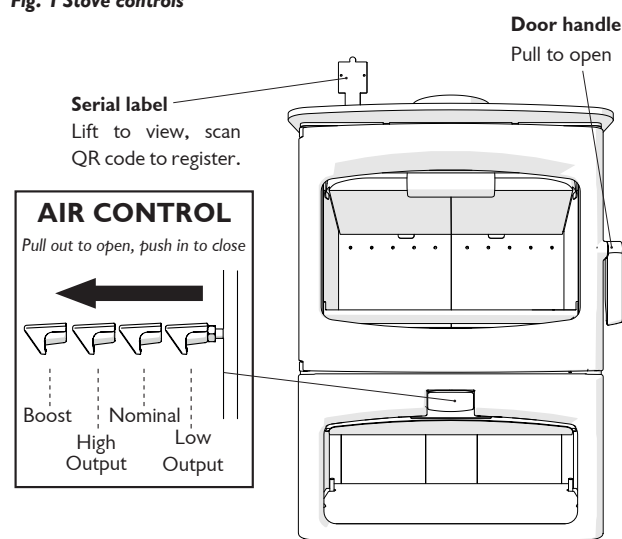
The rate of burning and hence the output is controlled by the air control (see Fig.1)

Open the air control fully (boost position) when lighting or when rapid burning is required. It should not be left fully open for long periods as this can cause over-firing or excessive smoke production. For high output move the air control to the 'click position' or for low burning to the fully closed position.

When the fire is burning normally the air control gives enough airwash to keep the glass clean. However, it will not always be possible to keep the glass clean with the air control fully closed. For correct firing we recommend the use of a stove pipe thermometer which may be purchased from your supplier or from Charnwood.

The Charnwood Aire 4 is fitted with an air control stop for use in a smoke control area. This stops the stove from burning too slowly.

Fig. 1 Stove controls



REFUELLING

Keep the firebox well filled but do not allow fuel to spill over the top of the fuel retainer.

Logs should be evenly distributed, filling the firebed to give the most pleasing flame pattern. The air control must be fully opened after refuelling until the flames are established above the fire. It is best to refuel on to a hot bed of embers. If at this point the fire starts to die, the door must be cracked open until the fire is revived. If the fire has started to die down before refuelling, then more kindling wood must be added, the air control opened fully and the door cracked open to re-establish the firebed before adding larger logs (see suitable log sizes in Fuel section). This will avoid excessive smoke emission.

Care should be taken, especially when burning wood, that fuel does not project over the fuel retainer or damage to the glass may be caused when the door is closed. It can also cause the glass to blacken up. Maximum filling height is such that logs cannot fall from the fire when the door is opened.

In smoke controlled areas do not fill the stove above the level of the

OPERATING INSTRUCTIONS



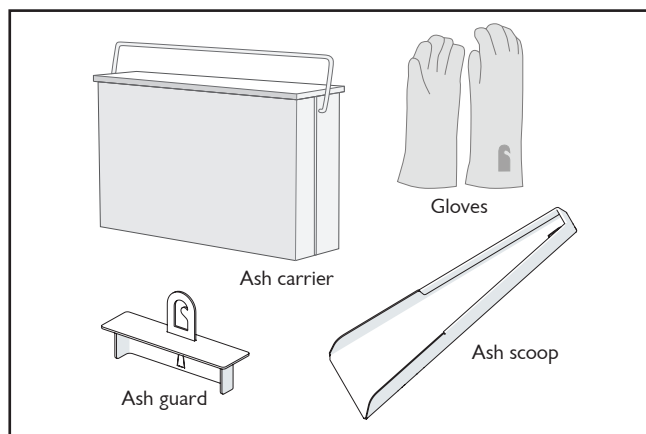
air holes in the back bricks, as overloading can cause excess smoke.

Do not operate with the door open except as directed by the instructions as this can cause excessive smoke.

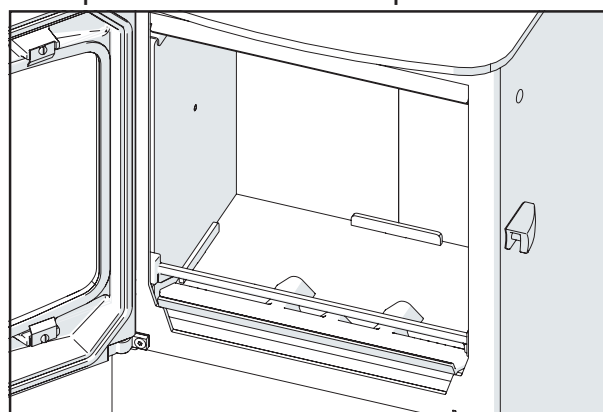
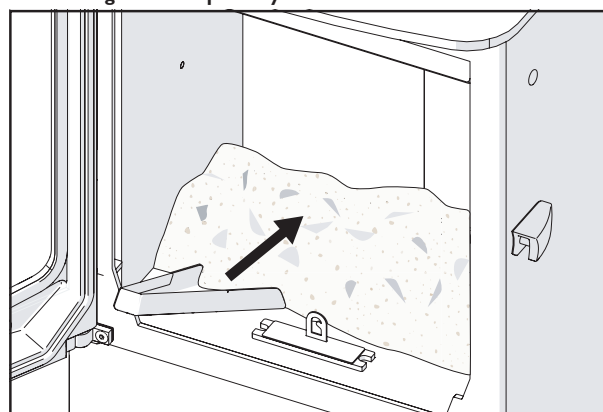
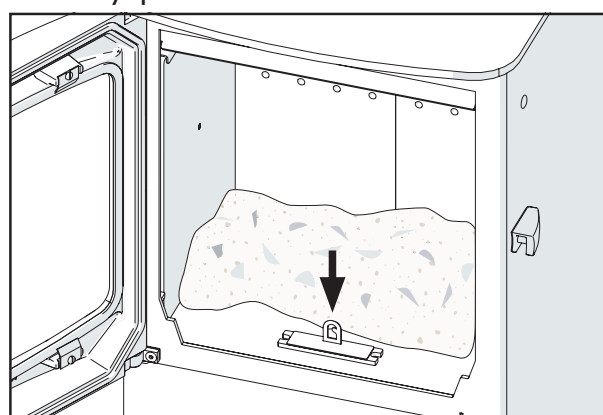
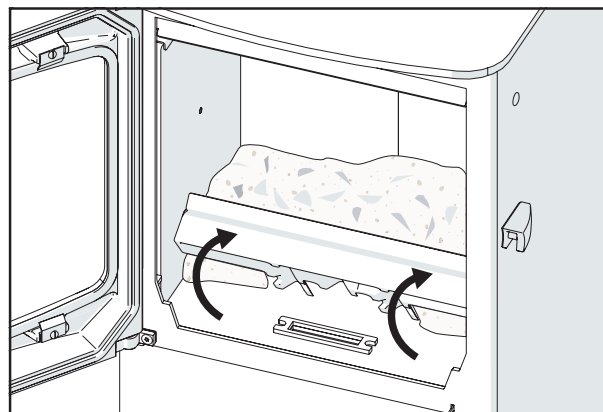
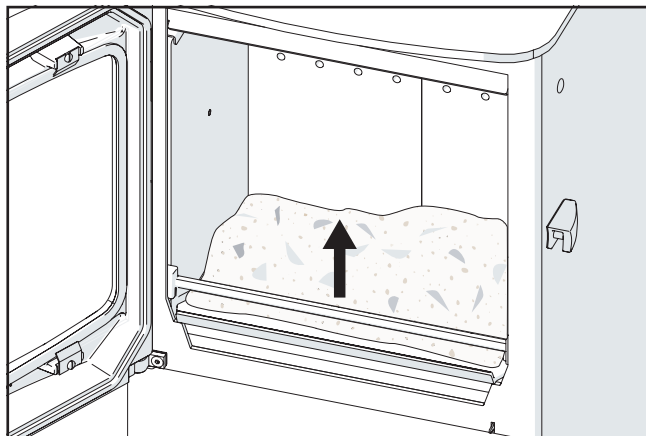
ASH CLEARANCE

Before removing ash ensure that it has cooled down. Please avoid emptying hot ash into plastic liners or bins. Use gloves.

Ashes should be placed outside in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained outside in the closed container until all cinders have thoroughly cooled. To make ash disposal easier there is a special ash container available - the Charnwood ash carrier. This may be purchased from your supplier or, in case of difficulty, from Charnwood.



1. Select tools.





REDUCED BURNING

For reduced burning the fire door must be closed.

When burning wood in areas that are not smoke controlled, load some large logs on the fire and allow to burn for half an hour before closing the air control (this will help to reduce tar deposits in the chimney). Some experimentation may be necessary to find the setting most suitable for the type of fuel being used and the draw on the chimney.

MAINTENANCE

Cleaning

The stove is finished with a high temperature paint which will withstand the temperatures encountered in normal use. This may be cleaned with a damp lint-free cloth when the stove is cold; do not clean the stove when it is hot. Should re-painting become necessary, high temperature paints are available from your supplier or from stove shops.

Cleaning the Glass

Most deposits on the glass will be burnt off simply by running the stove. If it becomes necessary to clean the glass then allow the stove to cool before opening the door, do not clean when hot. Clean the glass using a damp cloth and then wipe over with a dry cloth. Any stubborn deposits on the glass may be removed with a proprietary stove glass cleaner or ceramic hob cleaner. Do not use abrasive cleaners or pads as these can scratch the surface which will weaken the glass and cause premature failure.

When Not in Use

If the fire is going to be out of use for a long period (for instance in the summer) then to prevent condensation, and hence corrosion, the air control should be left fully open and the fire door left ajar. It is also advisable to sweep the chimney and clean out the fire. Spraying the inside of the door with a light oil, such as WD40, will also help to keep all internal parts working well. After long periods where the fire has been out of use, the chimney and appliance flueways should be cleaned before lighting.

Door Seals

For the fire to operate correctly it is important that the door seals are in good condition. Check that they do not become worn or frayed and replace them when necessary.

Servicing

It is recommended that the fire is serviced once a year to keep it in first class working order. After cleaning out the firebox thoroughly, check that all internal parts are in good working order, replacing any parts that are beginning to show signs of wear. Check that the door seals are in good condition and that the doors seal correctly. A servicing guide is available on request. Repairs or modifications may only be carried out by the Manufacturer or their approved agents. Use only genuine Charnwood replacement parts.

USE ONLY GENUINE CHARNWOOD REPLACEMENT PARTS, DO NOT USE SUBSTITUTE MATERIALS.

CREOSOTE FORMATION AND NEED FOR REMOVAL

When wood is burned slowly, it produces tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. If the creosote is allowed to build up excessively it can ignite and make an extremely hot fire. This can cause damage to the chimney and supporting structure.

The chimney connector and chimney should be inspected at least once every two months during the heating season to determine if a creosote build up has occurred.

If creosote has accumulated (3mm, (1/8in.) or more) it should be removed to reduce the risk of a chimney fire.

Establish a routine for the fuel, wood burner and firing technique. Check daily for creosote build-up until experience shows how often you need to clean to be safe. Be aware that the hotter the fire the less creosote is deposited, and weekly cleaning may be necessary in mild weather even though monthly cleaning may be enough in the coldest months. Contact your local municipal or provincial fire authority for information on how to handle a chimney fire. Have a clearly understood plan to handle a chimney fire.

THROAT PLATE AND FLUEWAY CLEANING

It is important that the throat plate and all the stove flue-ways are kept clean in order to prevent potentially dangerous fume emission. They should be cleaned at least monthly, and more frequently if necessary. It is necessary to let the fire burn out and for the stove to be cold to carry out these operations.

The brick throat plate is made up of two bricks, a bracket that slides

over the front and holds the two bricks together (Fig. 4/5).

To remove the throat plate first carefully remove the joining bracket between the bricks and then lift the two pieces down from the top of the side/ back bricks. Sweep any sooty deposits from the top of the throat plate into the fire.

To remove the upper baffle, lift up the upper baffle plate so the hole clears the hook at the front of the firebox, slide to the left or the right and tilt down. Clean any deposits. (See Fig. 4/5.) The upper baffle plate is positioned on top of the air tubes in the top of the firebox and is held in place by a hook at the front.

To re-fit the throat plate bricks, fit each half so that they rest on the side and back bricks, then, making sure the two halves are fitted closely together slide the joining clip onto the front edge making sure that it is central on the join. Slide the throat plate brick back so that it rests on both side bricks and the back bricks (see Fig 5).

Fig. 4. Throat Plate Location

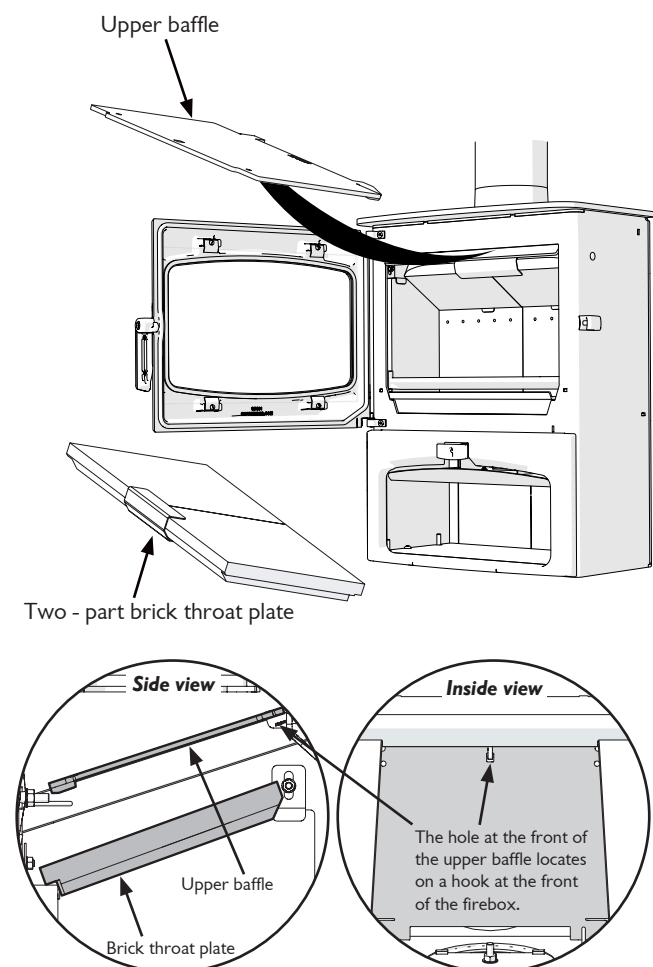
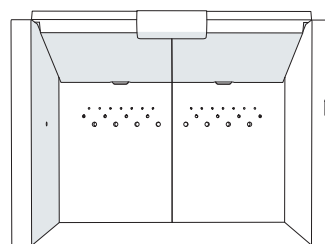


Fig. 5. Brick throat plate fitted correctly



Aire 4

CHIMNEY SWEEPING

Where the chimney previously served as an open fire, it is possible that the higher flue gas temperature from a stove may loosen soot deposits 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.

The chimney should be swept at least twice a year. Where the top outlet or vertical rear flue connector is used it will generally be possible to sweep the chimney through the appliance. Be careful not to damage the stove temperature sensor that protrudes 50mm into the back of the firebox on the right hand side when sweeping the chimney.

First remove the front fence and ash retainer and fit the ash guard into the primary air outlet (see page 7). **Fitting the ash guard is essential to avoid soot and other debris getting into the primary air outlet and damaging the air control.** Remove the brick throat plate and upper baffle. Sweep the chimney ensuring that soot is removed from all horizontal surfaces after sweeping.

In situations where it is not possible to sweep through the appliance the installer will have provided alternative means, such as a soot door. After sweeping the chimney the appliance flue outlet and the flue pipe connecting the stove to the chimney must be cleaned with a flue brush.

After clearing any soot from within the stove, replace the upper baffle and throat plate (see Fig. 4/5), the fuel retainer and fence.

Different types of sweep's brushes are available to suit different flue-ways. For prefabricated insulated chimneys the manufacturers instructions with regard to sweeping should be consulted.



TROUBLE SHOOTING

Fire Will Not Burn

Check that:

- a) the air inlet is not obstructed in any way,
- b) chimneys and flueways are clear,
- c) a suitable fuel is being used,
- d) there is an adequate air supply into the room,
- e) If an extractor fan is fitted, that it is not causing lack of flue draft when operating.
- f) there is sufficient draw in the chimney. Once the chimney is warm a draught reading of at least 1.25 mm (0.05 in.) water gauge (12Pa) should be obtained.

Blackening of Door Glass

Differences in chimney draughts mean that the best settings of the air controls will vary for different installations. A certain amount of experimentation may be required, however the following points should be noted and with a little care should enable the glass to be kept clean in most situations:

- a) Wet or unseasoned wood, or logs overhanging the front fence will cause the glass to blacken.
- b) The airwash relies on a supply of heated air to keep the glass clean, therefore, when lighting the stove allow the firebed to become well established before closing the air control. This may also be necessary when re-fuelling the stove.
- c) When re-fuelling keep the fuel as far back from the front fence as possible, do not try to fit too much fuel into the firebox
- d) Do not completely close the air control.

It is always more difficult to keep the glass clean when running the stove very slowly for long periods.

If blackening of the glass still occurs check that all flue connections and the blanking plate are well sealed. It is also important that the chimney draw is sufficient and that it is not affected by down-draught. When the chimney is warm a draught reading of at least 1.25 mm (0.05 in.) water gauge (12Pa) should be obtained. Some blackening of the glass may occur below the level of the fuel retainer. This will not obscure the view of the fire or affect its performance.

Fume Emission

Warning Note: Properly installed and operated this appliance will

not emit fumes. Occasional fumes from de-ashing and re-fuelling may occur. Persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate actions should be taken:

- a) Open doors and windows to ventilate the room and then leave the premises.**
- b) Let the fire out and safely dispose of the fuel from the appliance.**
- c) Check for flue or chimney blockage, and clean if required.**
- d) Do not attempt to re-light the fire until cause of fuming has been identified, if necessary seek professional advice.**

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

Fire blazing out of control

Check that:

- a) The door is tightly closed.
- b) The air control slider is fully closed.
- c) A suitable fuel is being used.
- d) Door seals and air slide are intact.

Chimney Fires

If the chimney is thoroughly and regularly swept, chimney fires should not occur. However, if a chimney fire does occur close the air control, and tightly close the door of the appliance. This should cause the chimney fire to go out in which case the controls should be kept closed until the stove has gone out. The chimney and flueways should then be cleaned. If the chimney fire does not go out when the above action is taken then the fire brigade should be called immediately. After a chimney fire the chimney should be carefully examined for any damage. Expert advice should be sought if necessary.

CO ALARM

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" above.

IF YOU NEED FURTHER HELP

If you need further help with your Charnwood then your Installer will be able to provide the answers to most questions. Your Local Charnwood Premier Dealer has a great deal of experience and will also be able to provide helpful advice. Further help is available from the Charnwood Customer Services department who will be pleased to give advice, if necessary.



UNPACKING THE STOVE

The stove arrives bolted and strapped to a pallet. There must be adequate facilities for unloading and manoeuvring into position. First remove the banding and the cardboard wrapping, then remove the screws holding the fixing brackets to the pallet. Remove the pallet brackets from the stove by tilting it and using a 13mm spanner to remove the bolts. The pallet is intended to be cut up and used for kindling fuel. Replace the bolts to be used for levelling the stove. **The stove is a very heavy appliance, take care when handling.**

Do not install with the stove flame sensor in direct sun, halogen or incandescent light as these light sources can affect the operation of the controller.

HEALTH AND SAFETY PRECAUTIONS

The stove should be installed in compliance with local, national, and European standards. The requirements of the health and safety at work act must be met (UK).

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash with plenty of water.

If there is a possibility of disturbing any asbestos in the course of installation then appropriate protective equipment must be used.

If room air is used for combustion, then there should not be an extractor fan fitted in the same room as the stove as this can cause the appliance to emit fumes into the room.

There must be an adequate air supply into the room in which the appliance is installed to provide combustion air. A permanently open vent may be required for the Aire 4 depending on air permeability. The requirement for minimum free area is partly dependent on the design and air permeability of the house. In older properties the air permeability will be above $5.0\text{m}^3/(\text{h.m}^2)$, but in some modern properties it may be less. The vent must be positioned such that it is not liable to blockage. Minimum areas to meet the guidelines in the Approved Document J for UK Building Regulations based on certificate GC11-CPD-UK-2025, GCL11-CPD-UK-2025, are given in the following table:

AIR PERMEABILITY $\text{m}^3/(\text{h.m}^2)$	MINIMUM VENT AREA $\text{cm}^2(\text{in}^2)$
	Aire 4
>5.0	No requirement
<5.0	27 (4.2)

Alternatively a fixed ducted air supply method can be used. One end of the air supply ducting is connected to the stove and the other is terminated outside. The ducting must be a minimum 63mm dia, non-combustible, less than 5.5m long and must not have more than five 90° bends and two 45° elbows. It must be sleeved where it passes through the external wall. The inlet must be permanently open and the duct free of any constrictions. The inlet must have a suitable grill to prevent entry by vermin, and should be positioned so that blockage by leaves or other debris will be avoided. Ensure that rain or flood water will not enter the duct. A spillage test must be carried out during commissioning to verify adequate air supply for combustion.

External air supply kits are available, please contact Charnwood for more information.

This stove is capable of intermittent operation, and is not suitable for use in a shared flue system.

CO AND SMOKE 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.

CHIMNEY

In order for the appliance to perform satisfactorily, the chimney height must not be less than 4 metres measured vertically from the outlet of the stove to the top of the chimney.

The internal dimensions of the chimney should preferably be:

- 127mm (5 inch) – 150mm (6 inch) – Aire 4

Chimneys may be either square or round and **MUST NOT BE LESS THAN:**

- 127mm (5 inch) – Aire 4

If an existing chimney is to be used it must be swept and checked, it must be in good condition, free from cracks and blockages, and should not have an excessive cross sectional area. If it was previously

INSTALLATION INSTRUCTIONS



used by 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 temperatures between the stove and the open fire. If you find that the chimney is in poor condition then expert advice should be sought regarding the necessity of having the chimney lined. If it is found necessary to line the chimney then a lining suitable for Solid Fuel must be used.

If there is no existing chimney then a prefabricated block chimney or a twin walled insulated stainless steel flue to BSEN 15287-1:2007 can be used either internally or externally. It might be appropriate to prove the chimney function to EN13384-2:2015+A1:2019. National installation and building regulations should be met, often T400 G is required.

Single wall flue pipe is suitable for connecting the stove to the chimney but is not suitable for using for the complete chimney. If it is found that there is excessive draw in the chimney then a draught stabiliser should be fitted.

It is important that there is sufficient draw in the chimney and that the chimney does not suffer from down-draught. When the chimney is warm the draw should be not less than 1.25mm (0.05") water gauge (12 Pa). If in doubt about the chimney seek expert advice.

HEARTH AND FIRE SURROUND

The stove must stand on a fireproof hearth and must not be situated closer than the minimum distance from combustible materials to the front, sides or rear above hearth level unless adequately fireproofed in accordance with local building regulations. For the Store Stand models a 12mm (1/2 inch) fireproof hearth is sufficient. Low Stand models require a constructional hearth due to the higher hearth temperatures that are generated. The positioning of the stove and the size of the hearth are governed by British building regulations for Class 1 appliances in the UK. These building regulations state that the hearth must extend in front of the stove by at least 225mm (9 inch) and to the sides of the stove by at least 150mm (6 inch). When the fire door is open, it extends beyond the front of the stove by 448mm - Aire 4. See Fig. 6 for distance to combustible materials figures.

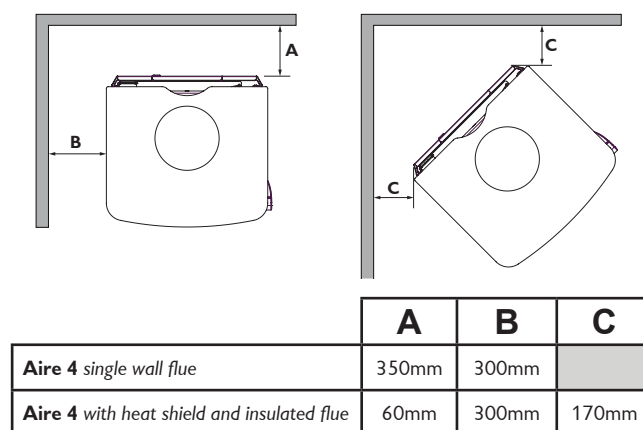
If in doubt as to the positioning of the stove, expert advice should be sought either from the supplier or the local building inspector. The fireplace must allow good circulation of air around the appliance to ensure that maximum heat is transferred to the room and also to prevent the fireplace from overheating. A gap of 150mm (6 inch) each side and 300mm (12 inch)

above the appliance should give sufficient air circulation. Combustible materials above the stove, for example a wooden mantelpiece or beam, should be a minimum of 460mm (18 inch) above the front of the stove and 490mm (19 1/4 inch) above the body of the stove. In some situations it may be necessary to shield the beam or mantelpiece to protect it. For non-combustible materials the distances above can be reduced within reason, provided there is sufficient space around the appliance for servicing access. Where possible, it is better to allow sufficient space, rather than relying on having to remove the stove for servicing.

In order for the fire to operate correctly and to allow for access, there must be an air gap behind the appliance of at least 50mm, but be aware that this distance will need to be greater in some cases to meet Building Regulation requirements.

The appliance should be installed on a floor with adequate load-bearing capacity. If an existing construction does not meet this requirement then please take suitable measures to achieve this. (e.g. load distributing plate.)

Fig. 6. Distances to combustible materials



CONNECTIONS TO FLUES

The stove must be connected to the flue using flue pipe of the following size:

127mm (5 inch) diameter - Aire 4

This may be stainless steel, cast iron, or thick wall steel pipe. Straight lengths of Charnwood Pipe to match the stove are available if

INSTALLATION INSTRUCTIONS



required. If using twin wall flue, the flue spigot must be shielded to protect exposed combustible material. This can be done with a shielded starter length of flue.

There are several ways of connecting the stove to the flue. These are illustrated in Figs. 7 to 10.

If the top flue connection or optional vertical rear flue adaptor are used then the chimney may be swept through the appliance.

Horizontal lengths of flue must be kept to a minimum and should not be longer in length than the flue diameter.

The stove comes with a blanking plate (See Fig. 11) fitted to the rear flue outlet. The seal for the rear outlet is a length of adhesive backed glass fibre webbing. This is applied to the flue collar or the Vertical Rear Flue adaptor for rear outlet installations. A top outlet connection is made by fitting the flue collar directly onto the stove top outlet using 10mm glass rope to seal the connection (see Fig 12).

All flue connections must be well sealed.

SOOT DOORS

It is possible to pass a 5 inch diameter (Aire 4) sweeps brush through the appliance but in most rear outlet installations it will be necessary

Fig.7. Vertical register plate with bricked up fireplace

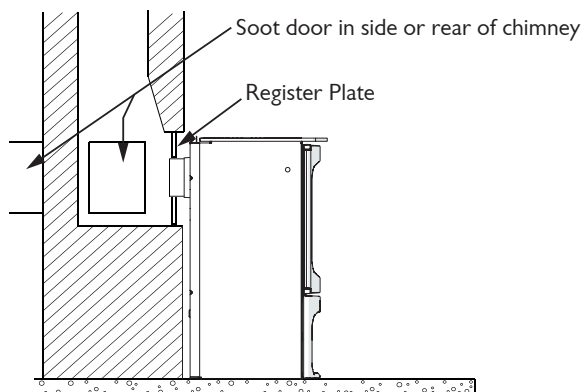


Fig.8. Horizontal register plate with rear flue connection

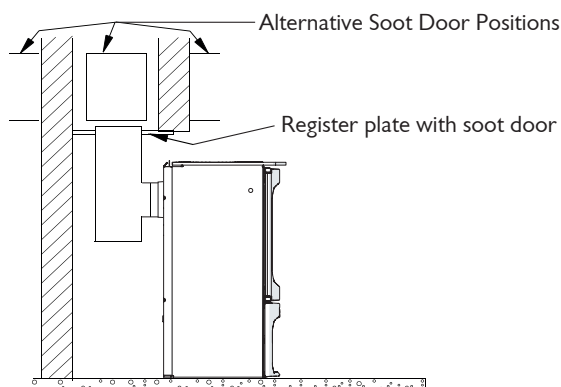


Fig. 9. Horizontal register plate with top flue connection

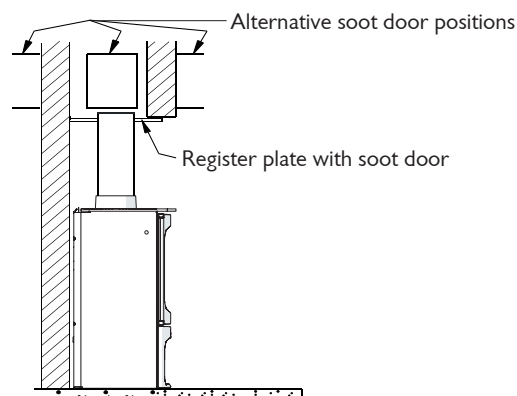
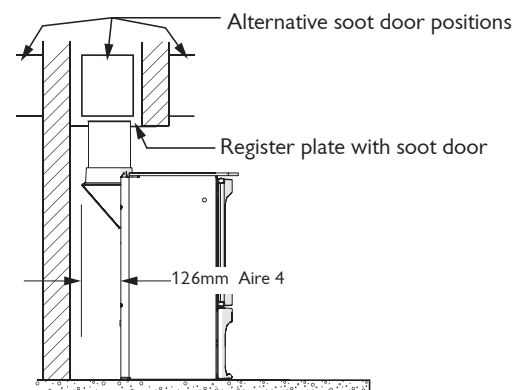


Fig. 10. Horizontal register plate with optional vertical rear flue adaptor



to have a soot door to enable the chimney to be swept. The optional vertical rear flue adaptor does allow the chimney to be swept through the stove. Soot doors may either be in the actual brickwork of the chimney or in the register plate. Various positions of soot doors are shown in Figs. 7 to 10.

PRE LIGHTING CHECK

Ensure that upper baffle plate (Aire 4) and the throat plate bricks are always fitted in the top of the appliance. The location and positioning of the brick throat plate and upper baffle is shown in Fig. 4 and Fig. 5 (page 9). If a vertical flue adaptor is connected, ensure that the upper baffle is removed before lighting.

Check that the ash retainer and front fence are fitted correctly and that the door closes properly.

COMMISSIONING

On completion of the installation allow a suitable period of time for any fire cement and mortar used in the installation to dry out before lighting the fire. Check to ensure that smoke and fumes are taken

INSTALLATION INSTRUCTIONS



from the appliance up the chimney and emitted safely. Also check all joints and seals. On completion of the installation and commissioning please leave the operating instructions with the customer and advise them on the use of the appliance.

Flue draught can be checked by removing the 13mm (M8) bolt behind the heatshield at the back of the stove on the right hand side. (Fig. 13). Make sure the bolt is replaced after draft test.

Fig. 11. Flue blanking plate

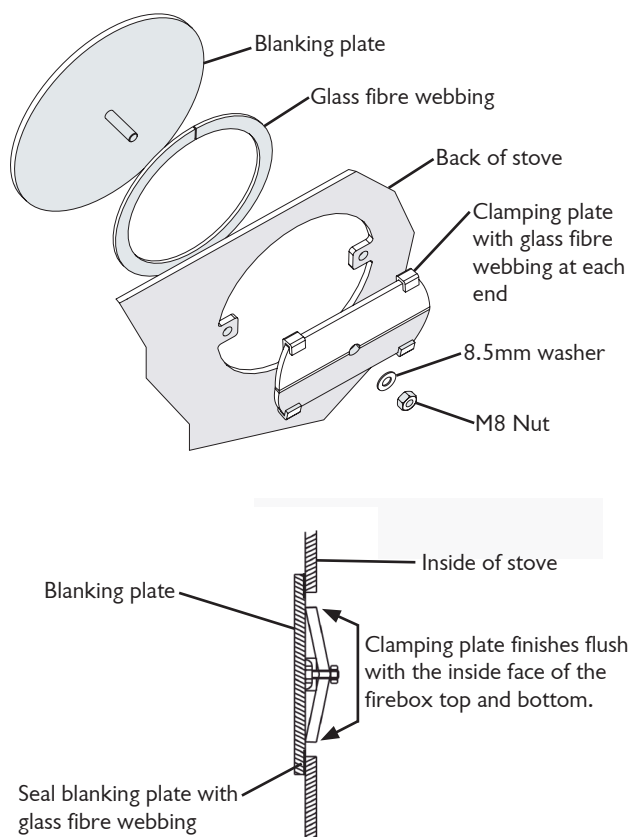


Fig. 12. Top flue collar fitting

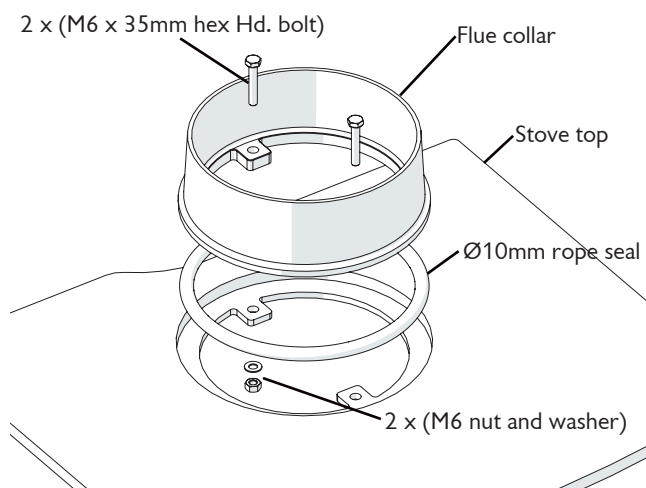
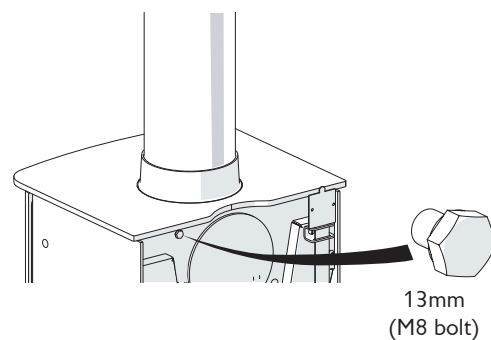


Fig. 13 Flue draught sampling point



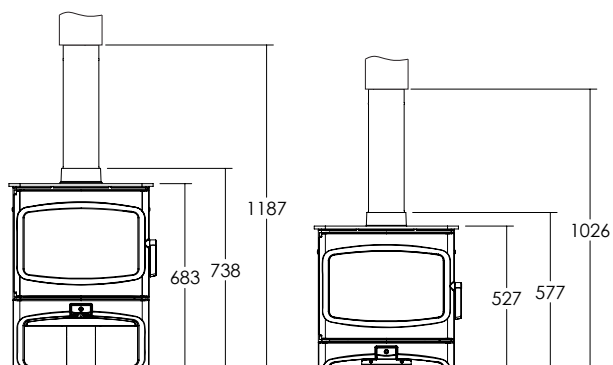
To replicate the nominal performance results obtained in the type test, the following parameters must be used.

Aire 4

Flue:	I.D. Ø125mm x 500mm single wall stainless steel flue fitted to the appliance in the top outlet.
Setting:	Nominal
Basic firebed:	0,10kg
Kindling:	1.kg (300mm long sticks - boost setting)
Pretest	0.95kg (2 x 300mm long logs)
Main test:	0.95kg (1 x 300mm log)

Recharge criterion: Weight measured by scale

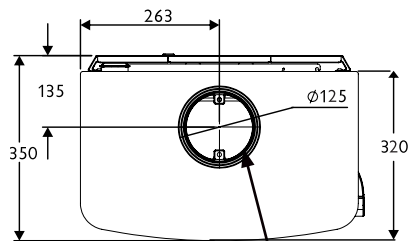
Stove height dimensions as tested with 500mm uninsulated stainless steel flue fitted before measurement section.



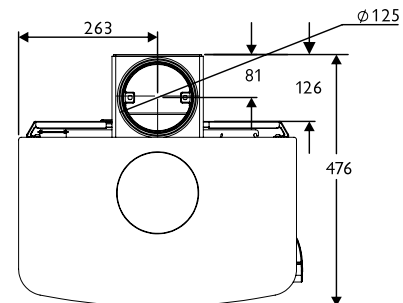
AIRE 4 DIMENSIONS



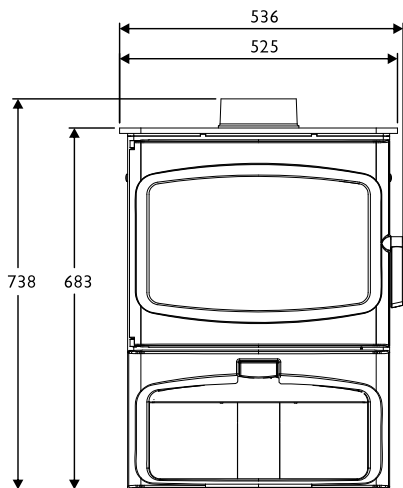
To suit 127mm (5 inch) flue pipe



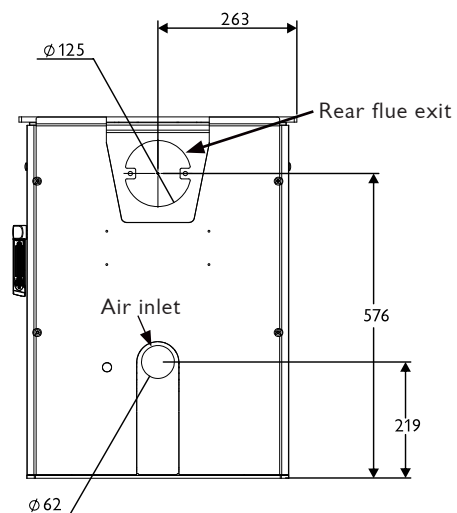
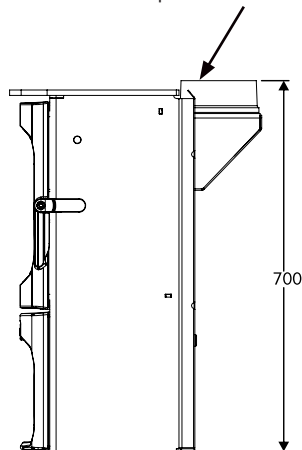
Top flue outlet



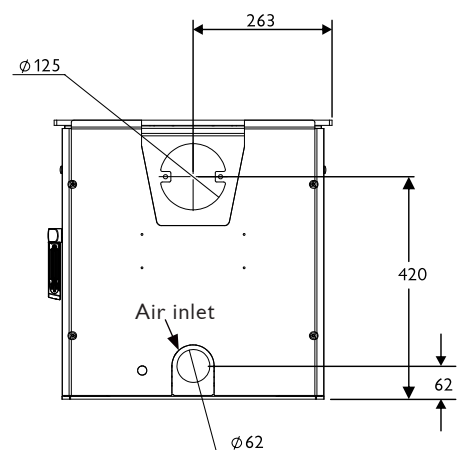
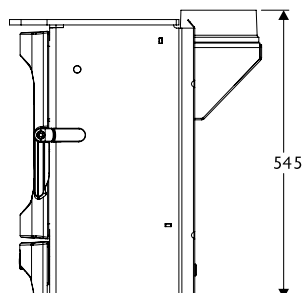
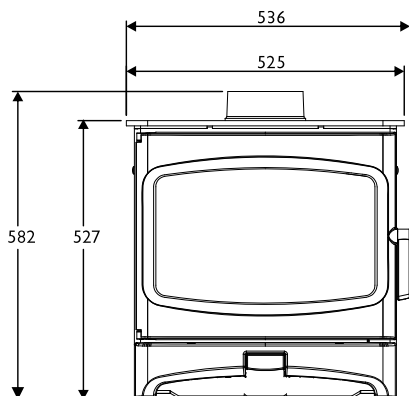
STORE STAND



Optional rear flue adaptor



LOW STAND



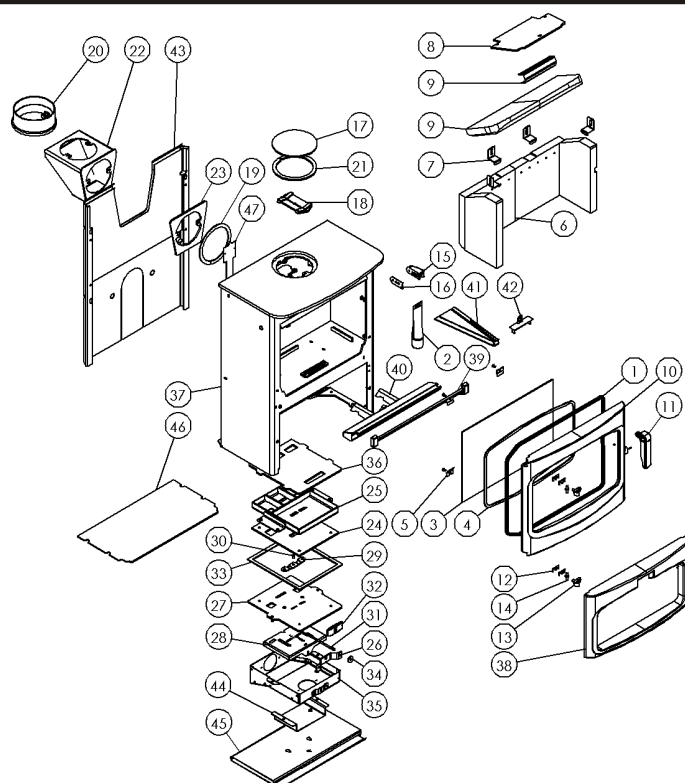
FRONT

SIDE

REAR

Charnwood Aire 4 Store Stand Parts List

Issue A



Item	Part No.	Description
1	008/AB035	Door Seal (Inc Adhesive)
2	008/TH085	Door Seal Adhesive
3	006/GB018	Glass (Inc Seal)
4	008/AY45	Glass Seal
5	004/KV23	Glass Retainer
6	011/GC029S	Set of Fire Bricks
7	004/XV30	Brick Bracket
8	010/GB032	Upper Throat Plate
9	011/GB031S	Throat Plate Brick Set Inc Bracket
10	003/GB001A	Door Assembly
11#	003/AB012A	Door Handle
12	004/BR021	Hinge Shim
13	002/AC020	Hinge
14	008/ST073/2	Hinge Pin Set
15#	003/AB055A	Latch Receiver
16	004/AB013	Latch Receiver Shim
17	012/PV09	Blanking Plate
18	010/EY51	Clamping Plate
19	008/KS134	Sealing Gasket (Flue)
20	002/PV12B	Flue Collar
21	008/EY38	Flue Fixing Rope Seal
22	010/BU034	Vertical Rear Flue Adapter (Optl. Extra
23	010/AA081	Vert Rear Flue Adaptor Spacer
24	008/GC109	Air Control Gasket

Item	Part No.	Description
25	010/GC230	Air Splitter
26	004/GC014	Air Control Guide Plate
27	010/GC130	Air Control Plate
28	004/GC115	Air Control Slider
29	004/BR015	Clicker Retainer Plate
30	008/ES36/01	Brass Ball Catch
31	004/AA084	Control Rod
32	008/EZ105	Air Control Handle
33	008/DB108	Air Control Cover Gasket
34	008/BR052	Felt Washer
35	004/GC040	Airbox Cover
36	008/AJL109	Splitter Box Gasket
37	001/GB010	Firebox
38#	003/AL072	Front Lower Casting
39	002/AC008	Front Fence
40	002/ALL007	Ash Retainer
41	004/AGL088	Ash Scoop
42	004/AGL089	Ash Guard
43**	010/GB080	Heat Shield
44	004/GC083	Heat Shield Bracket Assembly
45	010/GB082	Store Stand Heat Shield
46	012/GC011	Serial No. Label
47#	010/GB058	Store Stand Base Plate

*These items are not shown on the drawing.

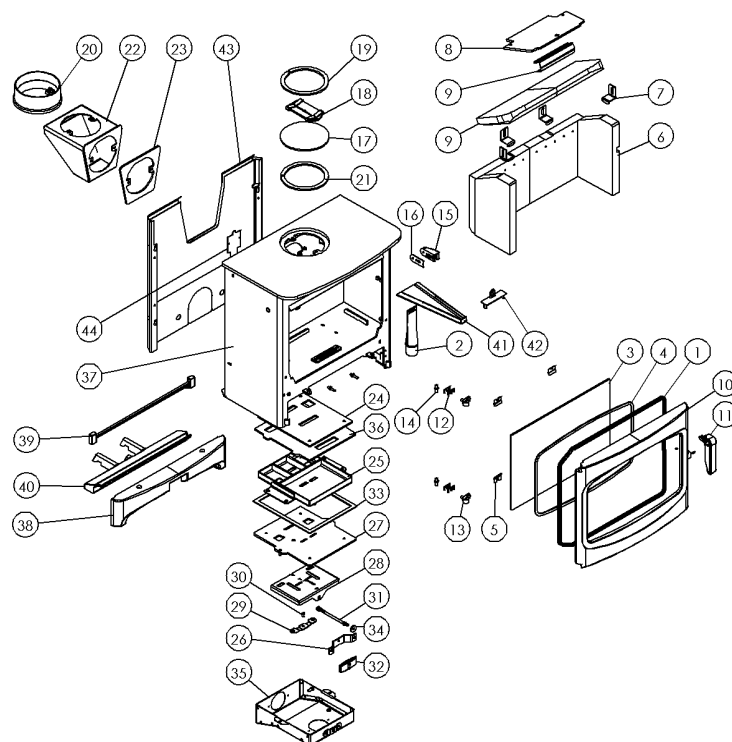
**Optional Extra

Please specify colour when ordering. Prices are shown in pounds sterling with vat at 20% They are correct at the date shown but may be subject to change without notice. E. & O.E These prices

To obtain spare parts please contact your local stockist giving Model, Part No. and Description. In case of difficulty contact the manufacturer at the address shown. This drawing is for identification purposes only.

Charnwood Aire 4 Low Stand Parts List

Issue A



Item	Part No.	Description	Item	Part No.	Description
1	008/AB035	Door Seal (Inc Adhesive)	23	010/AA081	Vert Rear Flue Adaptor Spacer
2	008/TH085	Door Seal Adhesive	24	008/GC109	Air Control Gasket
3	006/GB018	Glass (Inc Seal)	25	010/GC230	Air Splitter
4	008/AY45	Glass Seal	26	010/GC014	Air Control Guide Plate
5	004/KV23	Glass Retainer	27	010/GC130	Air Control Plate
6	011/GC029S	Set of Fire Bricks	28	004/GC115	Air Control Slider
7	004/XV30	Brick Bracket	29	004/BR015	Clicker Retainer Plate
8	010/GB032	Upper Throat Plate	30	008/ES36/01	Brass Ball Catch
9	011/GB031S	Throat Plate Brick Set Inc Bracket	31	004/AA084	Control Rod
10#	003/GB001A	Door Assembly	32	008/EZ105	Air Control Handle
11#	003/AB012A	Door Handle	33	008/DB108	Air Control Cover Gasket
12	004/BR021	Hinge Shim	34	008/BR052	Felt Washer
13	002/AC020	Hinge	35	004/GC040	Airbox Cover
14	008/ST073/2	Hinge Pin Set	36	008/AJL109	Splitter Box Gasket
15#	003/AB055A	Latch Reciever	37#	001/GBL010	Firebox
16	004/AB013	Latch Receiver Shim	38#	003/ALL072	Front Lower Casting
17	012/PV09	Blanking Plate	39	002/AC008	Front Fence
18	010/EY51	Clamping Plate	40	002/ALL007	Ash Retainer
19	008/KS134	Sealing Gasket (Flue)	41	004/AGL088	Ash Scoop
20#	002/PV12B	Flue Collar	42	004/AGL089	Ash Guard
21	008/EY38	Flue Fixing Rope Seal	43**	010/GBL080	Heat Shield
22#	010/BU034	Vertical Rear Flue Adapter (Optl. Extra	44	012/GCL011	Serial No. Label

*These items are not shown on the drawing.

**Optional Extra

Please specify colour when ordering. Prices are shown in pounds sterling with vat at 20% They are correct at the date shown but may be subject to change without notice. E. & O.E These prices

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EN16510-1:2022 / EN16510-2-1:2022

ROOMHEATER

Model:	Aire 4
EC Certificate of conformity no:	GC11-CPD-2026 & GCL11-CPD-2026
Fuel type:	WOOD LOGS
Rated space heating thermal output:	4.9kW
(2) NOX (mg/Nm ³)	108
(1) OGC (mg/Nm ³)	67
(2) CO (mg/Nm ³):	1075
Mean flue gas temperature:	237°C
Energy efficiency:	86%
(2) Particles (mg/m ³)	32
Minimum distance to combustible materials:	Standard (without a heat shield fitted): Rear 350mm Side 300mm With insulated flue & heat shield: Rear 60mm Side 300mm
Fulfilled requirements: BStV of the City of Munich and the City of Regensburg FBStVO of the City of Aachen and the City of Düsseldorf 1.and 2. level of 1. BImSchV of Germany	✓

(1) Decision rule 1: A positive conformity statement is made for values within the specification (requirement) but also within the uncertainty range (measurement uncertainty for the respective value). The conformity statement was made without taking into account the measurement uncertainty.

(2) Decision rule 3: A positive conformity statement is made for values within the specification (requirement) as well as for values in the negative and positive tolerance range. A negative conformity statement is made for values out of specification and outside of the positive tolerance range. This means that the measurement uncertainty is only positively considered.

All product related data available here:

<https://www.charnwood.com/conformance-documentation>

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