

skye E700D

charnwood

Operating & Installation Instructions

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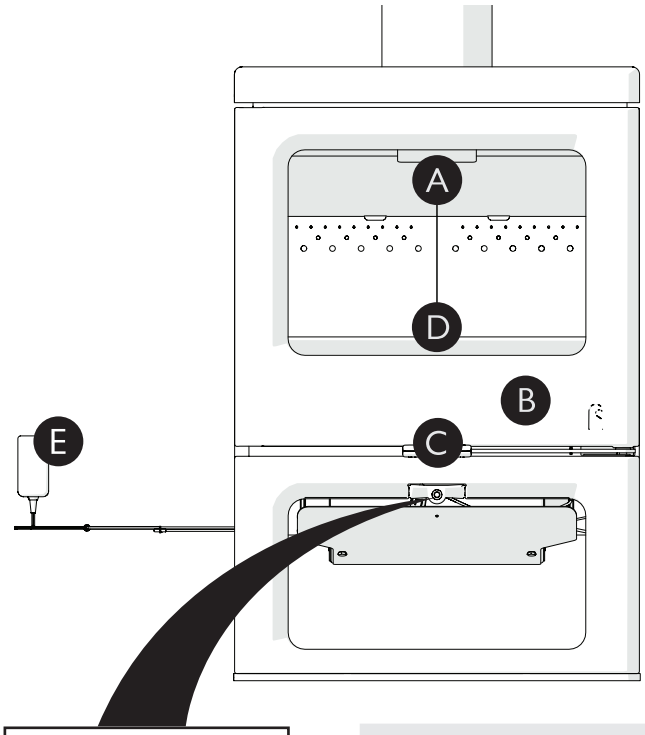
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QUICK GUIDE



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 **Fuel retainer**
Ensure fuel does not protrude beyond retainer

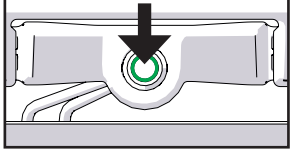
E **9V AC/DC power adapter**
Supplies power to the air control

AIR CONTROL

Blue light - Automatic mode
Green light - Room Temperature mode
Red light - Test mode

The intensity of the light displayed indicates the burn level. There are 5 levels in each mode, indicated by increasing light intensity.

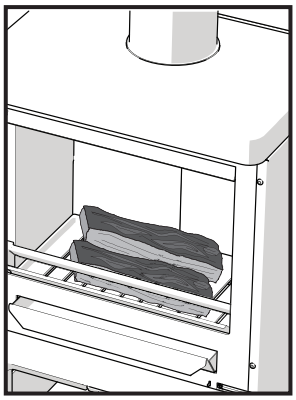
PRESS



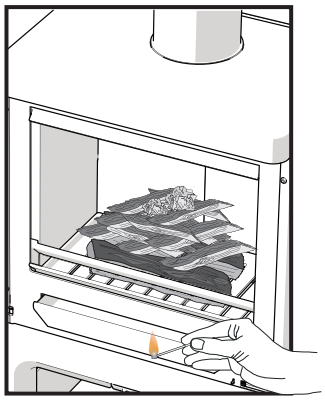
MAINTENANCE AND CLEANING

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. Avoid damaging the temperature sensor, located on the right hand side, above upper baffle.
SERVICING	Stove should be serviced by a professional at least once a year.

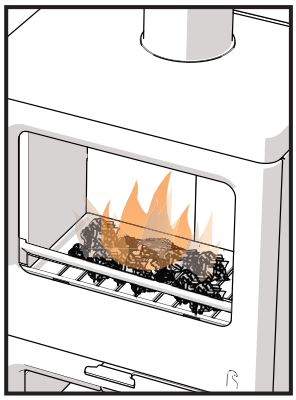
LIGHTING AND CONTROLLING THE FIRE



Place two dry, well seasoned logs *(approx. 250mm long)* left to right on the grate.



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 inital fuel load has burnt down and a bed of hot embers has been established place one or two logs *(approx. 250mm long)* 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 Skye E700D Stove. Your stove has been approved in smoke controlled areas to burn wood logs if it is used in accordance with these instructions. 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 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-fueling and when removing the ashpan.

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 fireguard must be used to prevent accidental contact with the stove. The fireguard 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 Skye E700D has been recommended as suitable for use in smoke control areas when burning wood logs. The Skye E700D has an automated control system that does not allow the air control to fully shut down until the fire has reached the charr stage where smoke is no longer produced.

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:

2 x 250mm *(10inch)* long x 80mm *(3inch)* diameter logs

Max log length:

400mm (16in)

Log moisture content:

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

This stove is not designed to burn household waste.

HETAS Ltd Appliance Approval only covers the use of Wood Logs on this appliance.

DOOR OPERATION

The door handle has been carefully designed to be cool to touch. However, if you need to open the door when the fire is running at maximum then the additional use of a glove may be required. 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.

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

GRATE

Your Charnwood Skye E700D is fitted with a fixed grate to enable wood to be burned and ash to be removed with ease.

LIGHTING

Before lighting, ensure that the stove is connected to a power supply via the 9V AC/DC adapter which connects to the DC extension cable at the back of the stove. Ensure that the stove is in automatic mode (blue light on air control). 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.

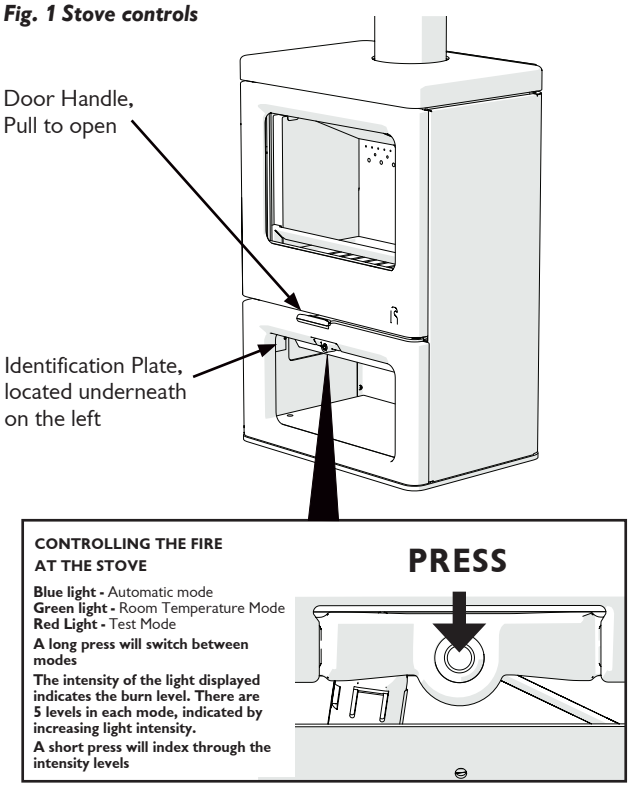
First, start by placing two dry, well seasoned logs onto the grate. On top of this build a stack of 6-8 kindling sticks. This can be in grid shape or a pyramid, be sure to leave a space between the pieces to allow the air to circulate around and through them. Ensure that the assembled wood does not protrude over the fuel retainer. Place a natural firelighter amongst the kindling near the top, light the firelighter and close the stove door. In Room Temperature or Automatic modes, the stove automatically ensures thorough lighting and then transitions to the burn rate set by the user on the app or the air control on the stove itself. The user can leave the stove unattended during lighting if this method is used. 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

There are two ways to control the fire - using the air control button on the stove (see Fig.1) or by using the app (see Fig.2) . The air control button on the stove allows the user access to step through the 5 intensity burn levels of the Automatic mode, the 5 preset temperatures in Room Temperature Mode and the 5 preset manual settings in Test Mode, whereas the App offers intermediate settings in Room Temperature or Test modes as well as oversight of performance data. The rate of burning and hence the output is controlled by the burn intensity (see Fig.1) or the mobile device app (see Fig.2)

The stove has two main modes of control - Automatic and Room Temperature Mode. In Automatic Mode there are five intensity levels and the stove will give the most efficient and clean burn at each level over the refuelling cycle (intensity level 2 or 3 gives a pleasing fire for most users). In Room Temperature mode, the stove selects the most appropriate intensity level to achieve the set room temperature. Test Mode allows the user to vary the air control from fully closed to fully open like a manually controlled stove. Test Mode should be used when servicing the stove in order to verify the operation of the air controls. When operating in Test Mode the stove will revert back to Automatic Mode the next time the stove door is opened.

Fig. 1 Stove controls



AUTOMATIC MODE	ROOM TEMP MODE	TEST MODE
Blue light	**Green Light**	**Red Light**
Intensity 1	16 °C / 61°F	Shut Down
Intensity 2	20 °C / 68°F	25%
Intensity 3 (default)	23 °C / 73°F	50%
Intensity 4	26 °C / 79°F	75%
Intensity 5	30 °C / 86°F	100%

When running in Automatic Mode the air control will endeavour to burn the fuel loaded in the best way possible and so the output will vary depending on how much fuel is loaded. The typical burn cycle is Lighting, where the fuel is quickly lit and bought under control, Early Burn, where the burn is stabilised, before entering Steady State Efficient where a sustained clean burn at the user defined setting is achieved. Finally, in Char, the control system maintains a healthy firebed for as long as possible before refuelling occurs and the cycle restarts. The stage of the burn is graphically represented by the quadrant line on the inside of the thumb wheel on the control screen of the app and explicitly stated on the dashboard screen.

The stove mounted air control button is easily accessible and the first short press (< 1.5 secs) will illuminate the button in a colour denoting the current mode and at a brightness that represents the current intensity level out of the 5 different levels available (see table in Fig. 1). Subsequent short presses of the button, whilst it is illuminated, loop through the 5 levels in the current mode. A long press (>1.5 secs) loops through the 3 modes, at the lowest intensity level in the new mode. An extra long press (> 5 secs) allows selection of the two emergency modes, denoted by a flashing red light. A short press is used to choose either red flashing light (complete air shutdown in the event of a chimney fire) or green flashing light (nominal air setting allowing manual operation during a power cut). A long press then selects the chosen emergency mode and it is recommended that the power to the stove is turned off after approximately 30 seconds, when the air controls will have reached their appropriate setting, where they remain until normal operation is resumed by cycling the main power.

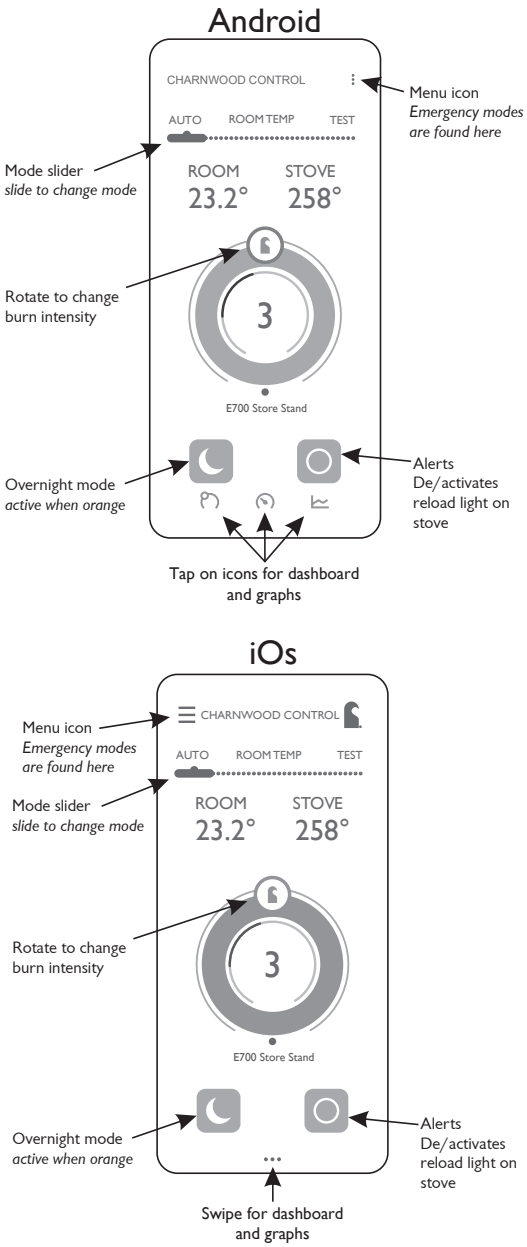
At other times, the light on the air control can show that the door is open (flashing red), it is time for a reload (pulsing blue), a factory reset has been invoked by depressing the button before and during power up (flashing white light) or a mobile device is trying to pair with the stove (flashing blue light).

CONTROLLING THE FIRE DURING A POWER CUT

If the power is cut, the air controls maintain their current position. In order to ensure that an adequate combustion can be achieved until power is restored, the DC adapter can be separated from the 9V AC/DC adapter at the intermediate jack connection (between the stove and the power outlet) and replaced with the 9V battery power supply *(battery not supplied with stove)*. This will supply up to 30 minutes of operation, however it is recommended that it is used to put the stove into the power cut mode described above, where the air controls will adopt a position suited to a nominal 7kW burn.

The battery power supply may then be removed and the stove used manually. To initiate good combustion after reloading with logs it may be necessary to crack the door open for a few minutes before closing it and running at nominal. *(see page 18 / Fig.19)*

Fig.2 Charnwood App



CONTROLLING THE FIRE WITH THE APP

The stove can also be controlled by the Charnwood app, which gives more refined controls and feedback to the user. This can be downloaded from the Apple App or Google Play stores and more details about its functions can be found on the Charnwood website.

CONNECTING THE DEVICE

The device communicates with the stove via Bluetooth, so it is necessary to pair the stove with the device in order to use the app. A further option to connect the stove to your home WiFi router enables the graphing data to be viewed on the device and also gives the ability to update the stove firmware if Charnwood issue new programs through the website.

Up to three devices can be connected at any one time. Paired connections are stored on the stove but new connections will replace the oldest stored connections that are not currently in use (These devices will need to re-pair on connection).

Initial pairing is made by pressing 'Setup Stove'. Scan the QR code on the inner left side of the the stove store stand (torch icon helps to illuminate the code if required). Press OK after a successful QR scan. Rename the stove, select °C or °F and set the number of days that the stove performance data will be retained on the device. Press 'Next'. Near the stove, click 'Connect' and press stove button when it flashes blue, then press 'Pair' on the pop-up window that appears on the device. On iOS the Bluetooth icon should light blue, on the Android the dot between the buttons should turn orange; click 'Next' to complete the bluetooth pairing process. Please note that the stove requires a 2.4GHz network and will not work over a 5GHz network. If the WiFi capabilites are required, and have not already been set up on the stove, click 'Yes'. Firstly, connect the device to the same network that the stove will be connected to, then enter the Network Name and Router Password into the app, press 'Save' and then 'OK'. If successful connection is made to the router, the WiFi icon in the top right hand side of the screen will illuminate. Press 'close' and return to the Main Menu, where the 'Control Stove' button will allow the user to take control.The orange mode slider is used to change between the 3 Modes:

Auto Mode – User defines burn intensity (1-5) once good combustion has been established. The stove controls the air to maximise the efficiency and minimise the emissions and once it has ensured that the fuel is properly lit, it will burn at the rate defined by the user (1 – 5).

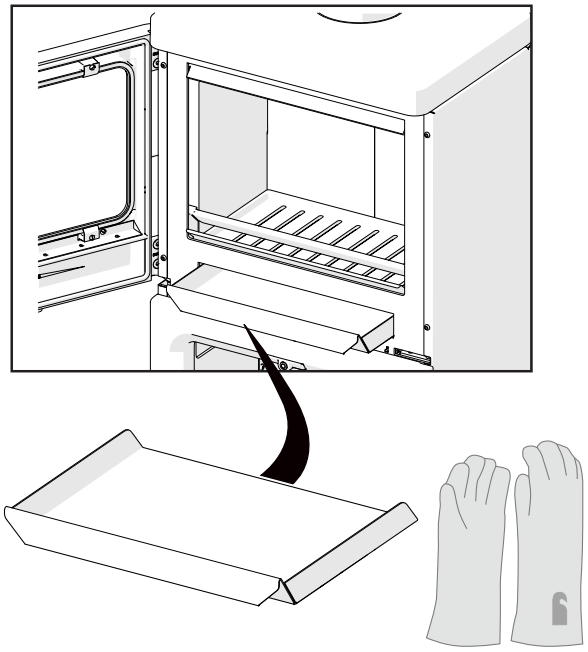
Room Temp Mode – User defines a set room temperature (61 – 90F/16 – 30C) that the stove tries to achieve once good combustion has been established.

The Overnight mode button is active when orange. In this mode, the stove will shut down to preserve char firebed for as long as possible, once the fire is no longer producing smoke. The stove returns to its original mode when stove is reloaded.

If the Alerts button is activated, the light on the stove pulses blue when it is time to reload.

The stove title shows which stove the App is currently communicating with.

Fig. 3 Ashpan



The room temperature displayed in the top left of the screen is actually measured from the sensor attached to the DC extension cable behind the stove. The room temperature at the sensor may be a little different than the room at a distance from the stove, however the set temperature is made in relation to this temperature, which allows the user to make an informed choice. *(see page 9/ Fig. 4)*

The stove temperature displayed in the top right of the screen is the firebox temperature in the stove and indicates how hot it is running.

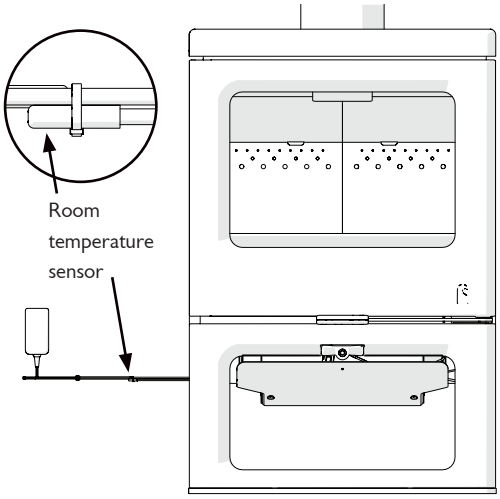
When the door is open, an icon appears at the bottom of the screen indicating that the door is open. The button on the stove will also flash red.

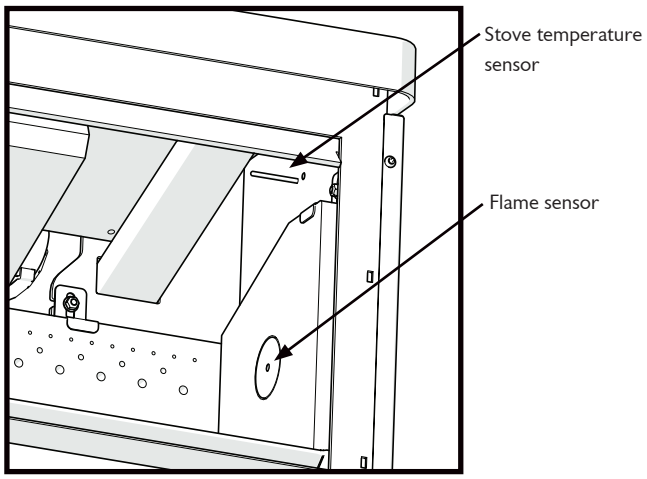
When the fire needs refuelling, a log icon flashes in between the overnight and alert buttons and this disappears upon refuelling.

To switch from the Control Screen (see Fig. 2) swipe left on iOs, or use the icon buttons at the bottom of the screen on Android. This will give access to the dashboard and graphing information. The menu icon at the top of the screen can be used to access the Emergency Modes and other app functions that are described on the

Charnwood website.

Fig. 4 Sensors





REFUELLING

Logs should be evenly distributed and are best placed from side to side, but not touching either side of the firebox or the glass in the door. Logs must not be loaded above the bottom row of holes in the back firebricks. **The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.** It is best to refuel onto a hot bed of embers and the App will notify you when this is required. Automatic and Room Temperature Modes will keep a charr firebed active for as long as possible. In normal operation the stove door should be shut imediately after refuelling and the stove will light the fuel. If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers so that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed add suitable kindling to prevent excess smoke.

ASH CLEARANCE

Before removing ash ensure that it has cooled down, The ashpan is handled using the gloves provided (Fig. 3). When carrying the ashpan, it should be kept horizontal. Please avoid emptying hot ash into plastic liners or bins.

The ashpan should be emptied regularly before it becomes too full. **NEVER ALLOW THE ASH TO ACCUMULATE IN THE ASHPAN SO THAT IT COMES IN CONTACT WITH THE UNDERSIDE OF THE GRATE AS THIS COULD SERIOUSLY DAMAGE THE GRATE AND WILL EFFECT STOVE PERFORMANCE.** Ashes should be placed outside in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible 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.

REDUCED BURNING

For reduced burning, the fire door must be closed. Automatic mode should be selected and the burn rate set at level 1. In addition, the overnight button on the App should be active. This will ensure that once the fuel has thoroughly lit, it will burn steadily and slowly to reduce smoke emissions and then maximise the time for which the char firebed is active, before shutting down further to maintain an active firebed for as long as possible.

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.

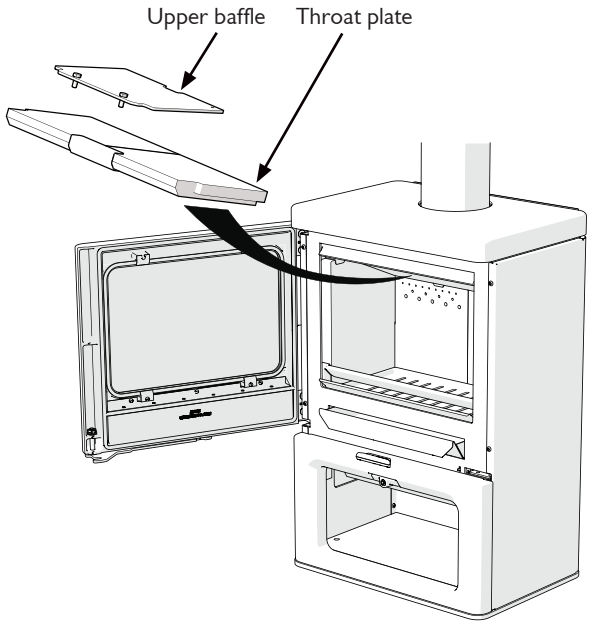
When Not in Use

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, open the door, then turn off the power and turn it back on again, wait 30 seconds whilst the motors move, then turn off the power. The fire door should be left ajar. It Is also advisable to sweep the chimney and clean out the fire. 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.

Fig. 5. Throat Plate Location

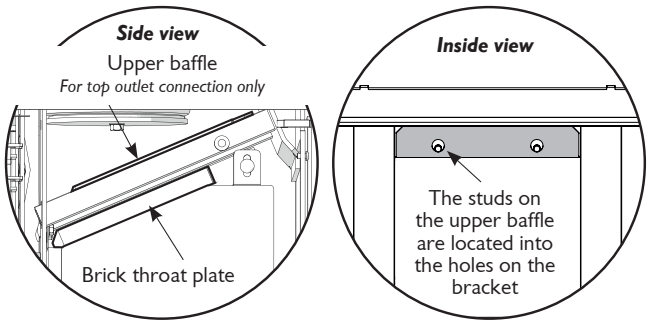


Servicing

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. The following simple checks verify that the electronic control system is working. With the app connected, check that the room temperature changes when you hold the chrome sensor attached to the DC extension cable behind the stove (see Fig. 4). If the throat plate bricks are removed (see Fig 4), the stove temperature sensor can be seen protruding 50mm inside the firebox on the right hand side. The stove temperature displayed on the device should change when the sensor is held for a minute. With the app on the Dashboard screen, shine the light of a torch, halogen if possible, directly into the flame sensor, in the glass lens at the centre of the circular firebrick on the right hand side of the inside of the firebox; over a period of a minute, the flame intensity indicator should increase. Finally, switch the stove off and back on again, listening for the hum of the motors calibrating and verifying that no error message appears in the app. Check that the door seals are in good condition and that the door seals correctly. A servicing guide is available on request. If glass replacement is required, it should be fitted in accordance with TIS. 145. Repairs or modifications may only be carried out by the Manufacturer or their approved agents.

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

Fig. 6. Throat Plate Location



CREOSOTE FORMATION AND NEED FOR REMOVAL

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire.

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 - see Emergency Modes description (page 12).

THROAT PLATE AND FLUEWAY CLEANING

It is important that the throat plate and all the stove flueways 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 throat plate is made up of two bricks and a bracket that slides over the front and holds the two bricks together (Fig. 5).

To remove the throat plate, first carefully remove the joining bracket at the front of the throat plate and then lift the two pieces down from the top of the stove. Sweep any sooty deposits from the top of the throat plate into the fire.

Lift up the upper baffle plate so the studs clear the holes at the front, slide to the left or the right and tilt down. Clean any deposits.. (See Fig. 6.) If the rear flue connection is used then the upper baffle is not required.

The upper baffle plate is positioned on top of the air wash tubes and is located with studs in the two holes on the bracket attached to the air wash manifold. To re-fit the throat plate, fit each half so that it rests on the side and back brick, then, making sure the two halves are fitted closely together, slide the joining clip back onto the front edge, making sure that it is central on the join.

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 right hand side of the firebox above the brick throat plate, when sweeping the chimney.

First remove the fuel retainer, throat plate and upper baffle. Then 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. 5/6) and the fuel retainer.

Different types of sweep's brushes are available to suit different flueways. 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) an extractor fan is not fitted in the same room as the stove.

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.

g) The power to the stove control unit is turned on and plugged in. Check that the App can connect and receive stove and room temperatures, indicating that the control unit has power. Check that no error messages have been received by the app.

h) The flame sensor is clean.

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, logs overhanging the front fence or wood that is not positioned side to side 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, provide sufficient kindling wood to adequately light the logs.

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. Do not stack wood above the level of the tertiary air holes in the back firebox bricks.

d) Do not completely close the air control (dial at 0) if burning in Test mode.

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 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.

Fume Emission

Warning Note:

If 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 control unit is working by putting it into Test mode and adjusting the burn level to 0.

c) A suitable fuel is being used.

d) Door seals are intact.

e) The control unit is plugged in, turned on and that the device is connected and there are no error messages displayed.

Chimney Fires

If the chimney is thoroughly and regularly swept, chimney fires should not occur. However, if a chimney fire does occur close the stove door, then press and hold the air control button until a flashing red light appears. Release the air control button and press again until the light goes out and the motors close all the air controls. Disconnect the power supply to the stove. Leave the stove until the fire 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” (page 11).

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.

DO NOT CONNECT TO OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCTWORK UNLESS SPECIFICALLY APPROVED FOR SUCH INSTALLATIONS

UNPACKING THE STOVE

The stove arrives bolted and strapped to a pallet. There must be adequate facilities for unloading and manoeuvring into position. The wrapping is first removed, then the stove released from the pallet by removing the 4 wood screws. The pallet brackets can now be removed 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.**

HEALTH AND SAFETY PRECAUTIONS

The stove should be installed in compliance with local, national, and European standards.

Please take care when installing the stove that all local, national and European standards and the requirements of the health and safety at work are met.

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 please use appropriate protective equipment.

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. The combustion air supply must be via a permanently open vent. 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 5.0m³/(h.m²), but in some modern properties it may be less. The vent must be positioned such that it is not liable to blockage. Minimium areas are given in the following table:

AIR PERMEABILITY $m^3/(h.m^2)$	MINIMUM VENT AREA $cm^2(in^2)$
	Skye E700D
>5.0	*11 (1.76)*
<5.0	*38.5 (6.0)*

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 80mm 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.

SPECIFICATION

SPECIFICATION	SKYE E700D		
Fuel	*Wood logs*		
Rated Heat Output kW (BTU/hr)	7.4		
Stove Weight kg (Packed)	*157 (Low stand)* *177(store stand)*		
Flue Temperature °C	211		
Minimum Flue Draught	*12Pa*		
Flue gas Mass Flow g/s	*4.7*		
Hearth Temperature	<100		
Minimum distance from combustibles mm	**SKYE 700D**		
	SIDE	**REAR**	**FRONT**
With Uninsulated Flue	300	250	1100
With Insulated Flue and rear Heat shield	300	100	1100

The outputs in the table are based on a 45 minute re-fuelling cycle burning seasoned hardwood logs. These figures were achieved sampling after the first metre of flue. All tests are carried out in accordance with EN 16510.

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 150-200 mm (6"- 8") either square or round and MUST NOT BE LESS THAN 150 mm (6").

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 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 (see specification table - Page 29) to the front, sides or rear above hearth level unless adequately fireproofed in accordance with local building regulations. The hearth must be of fireproof material and at least 12mm (1/2in.) thick. The positioning of the stove and the size of the hearth are governed by building regulations for Class 1 appliances. These building regulations state that the hearth must extend in front of the stove by at least 225mm (9 in.) and to the sides of the stove by at least 150mm (6 in.). When the fire door is open, it extends beyond the flat front of the stove by 480mm - Skye E700D.

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") each side and 300mm (12") above the appliance should give sufficient air circulation. If a wooden mantelpiece or beam is used in the fireplace it should be a minimum of 460mm (18"), and preferably 600mm (24") from the appliance. In some situations it may be necessary to shield the beam or mantelpiece to protect it.

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.)

CONNECTIONS TO FLUES

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

150mm (6") diameter - Skye E700D

This may be stainless steel, cast iron, or thick wall steel pipe. Straight lengths of Charnwood Pipe to match the stove are available if 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 connector is used then the chimney may be swept through the appliance.

A spacer (part 54 page 21/ part 52, page 22) is required to attach the optional vertical rear flue connector to the Skye E700D.

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

The stove comes with the blanking plate (fig. 11) fitted to the rear flue outlet. The seal for the rear outlet is a length of adhesive backed fibre webbing supplied with instructions (ref: **TIS093)**. This is applied to the flue collar or the Vertical Rear Flue adapter for rear outlet

Fig.7. Vertical register plate with bricked up fireplace

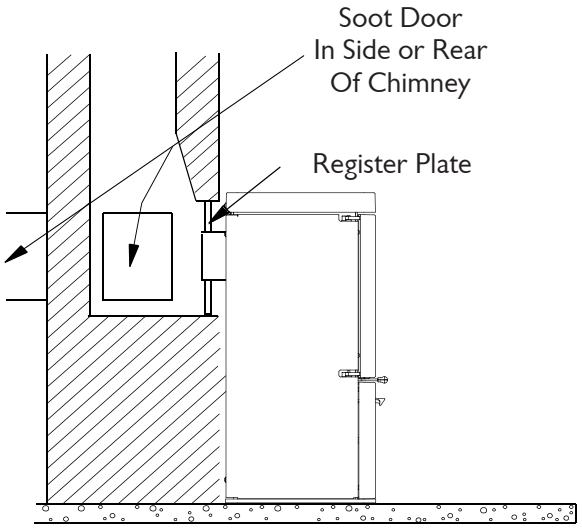


Fig.8. Horizontal register plate with rear flue connection

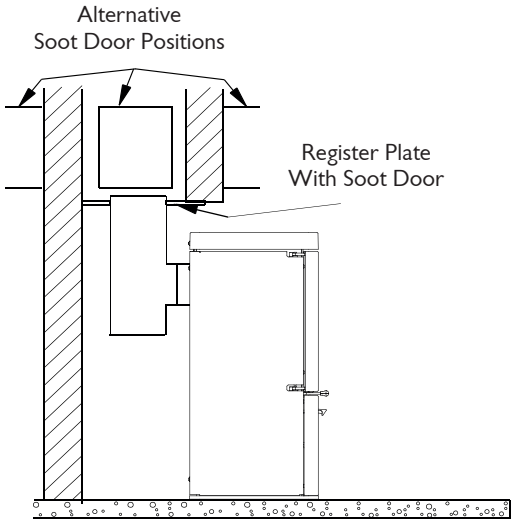


Fig. 9. Horizontal register plate with top flue connection

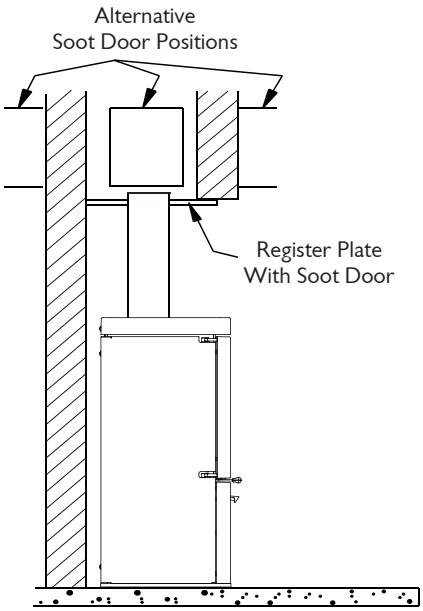
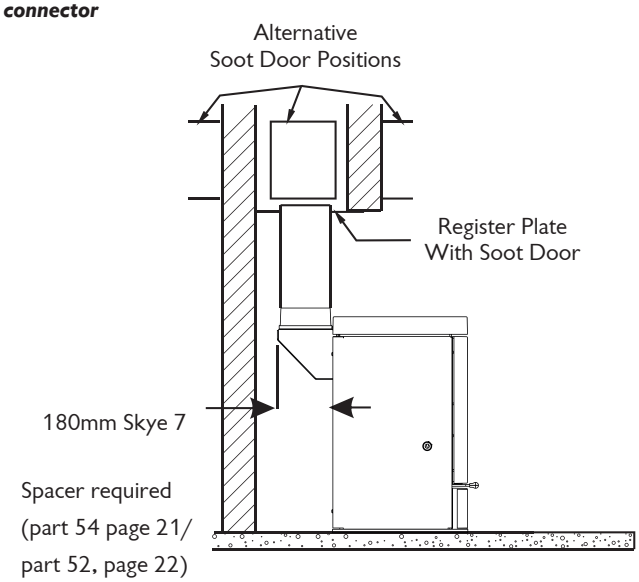


Fig. 10. Horizontal register plate with optional vertical rear flue connector



installations. The top outlet connection is made directly into the stove top, the Skye is supplied with a flue collar for rear outlet installations. To seal the top flue outlet see fig. 12. **All flue connections must be well sealed.**

SOOT DOORS

It is possible to pass a 6 inch diameter sweeps brush through the appliance but in most rear outlet installations it will be necessary to have a soot door to enable the chimney to be swept. The optional vertical rear flue connector 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.

Fig. 11. Rear Flue Blanking Plate

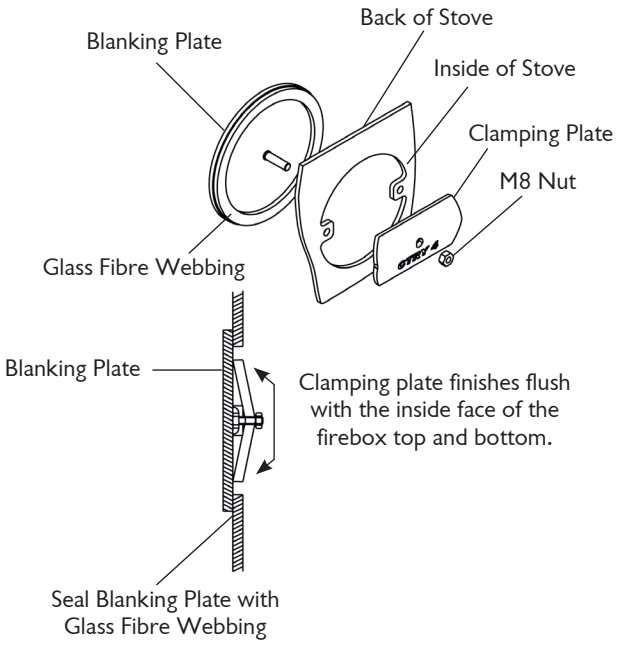
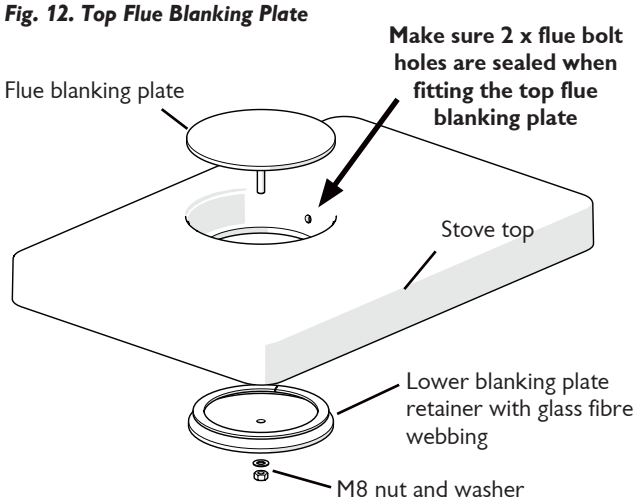


Fig. 12. Top Flue Blanking Plate



PRE LIGHTING CHECK

Ensure that upper baffle plate *(top flue outlet connection only)* and the throat plate are fitted in the roof of the appliance. The location and positioning of the throat plate and baffle is shown in Fig. 5 and 6.

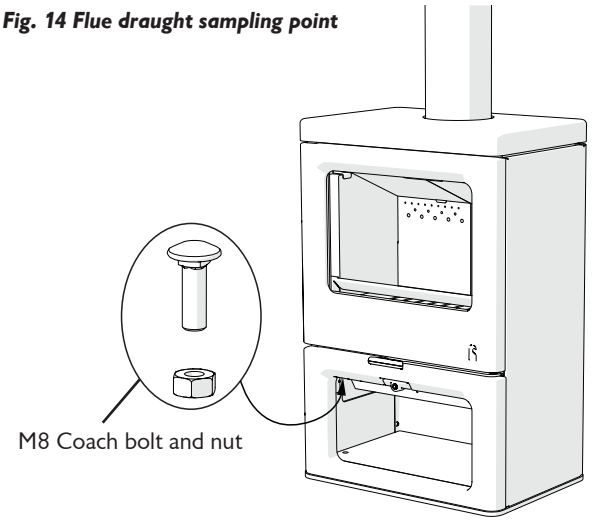
Check that the fuel retainer is fitted correctly and that the door closes properly.

COMMISSIONING

On completion of the installation allow a suitable period of time for the fire cement and mortar to dry out before lighting the fire. Check to ensure that smoke and fumes are taken 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 bolt underneath the front left hand side (Fig. 14). Make sure bolt is replaced after test.

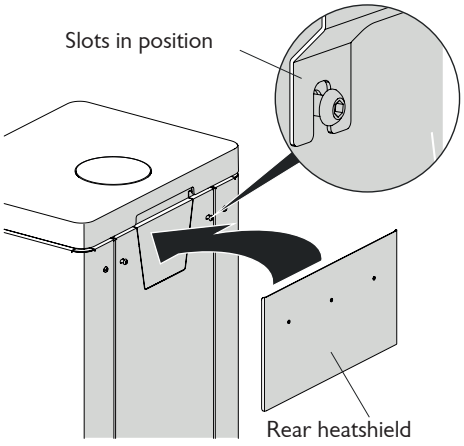
Fig. 14 Flue draught sampling point



FITTING THE REAR HEAT SHIELD

The Skye E700D is supplied with a rear heat shield. The rear heat shield must be fitted when installing the stove with a top outlet flue. To fit the rear heat shield, loosen the button head allen screws and slide the heat shield on so that the slots on the back of the heat shield fit over the screws. Tighten the screws once in place. (fig. 13)

Fig. 13. Fitting the rear heat shield



AIR CONTROL CONNECTIONS

On installing the stove, the 9V AC/DC power supply will need to be connected to the DC power extension lead at the back of the stove and then plugged into a power source.

The power supply and extension lead should be routed to the power outlet at the same height or lower than the point at which it exits the appliance, preferably going straight back, away from the appliance, until outside the safe distance to combustible materials. Care should be taken that there is no risk of damage by hot ash or any other hazards. Local and national building standards must be respected regarding any electrical installations.

Other air control connections will already be made and should not be accessed unless there is a problem. To gain access to the air control connections: loosen the cable tray fixing bolts, slide forwards and remove.

Fig. 15 Cable tray removal

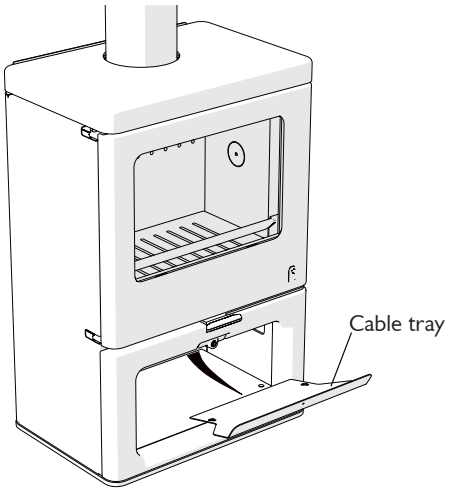


Fig. 16 Power supply

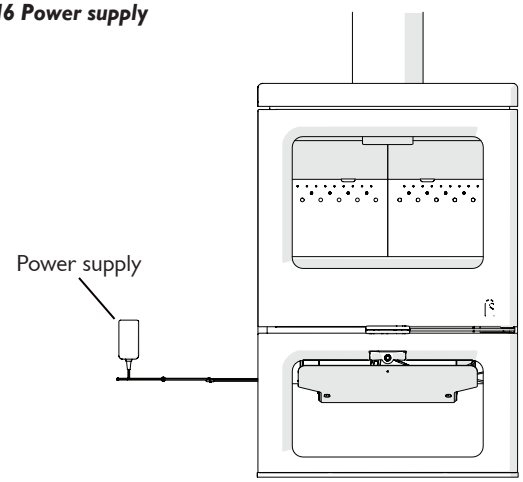


Fig. 17 Power and sensor plugs

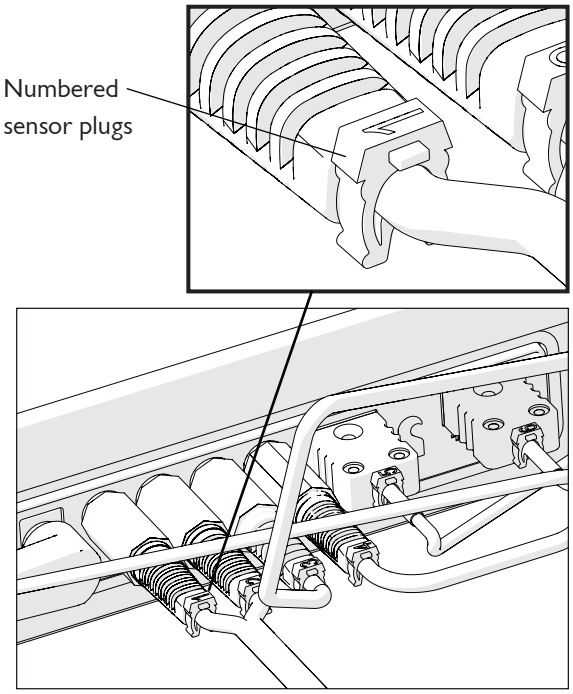


Fig. 18 Socket interface

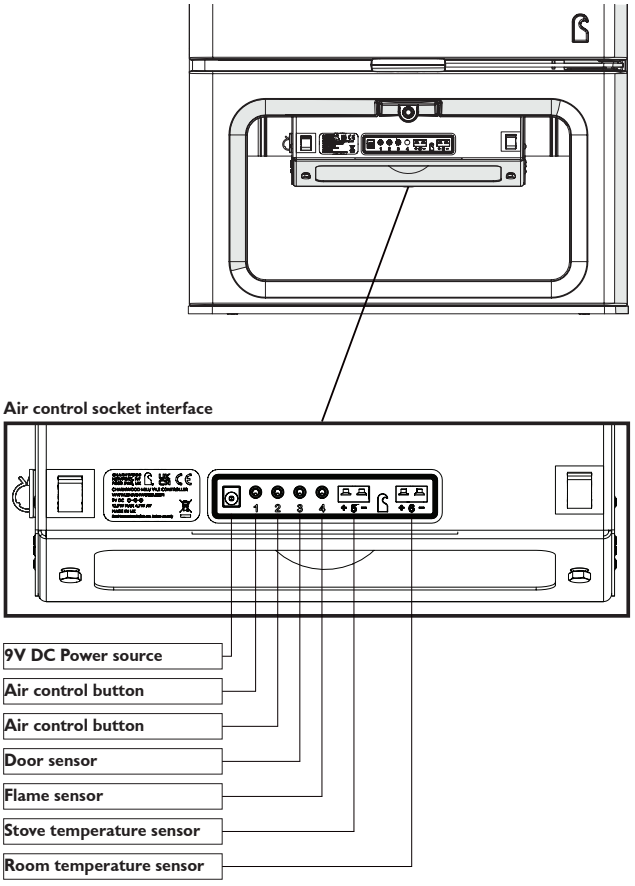
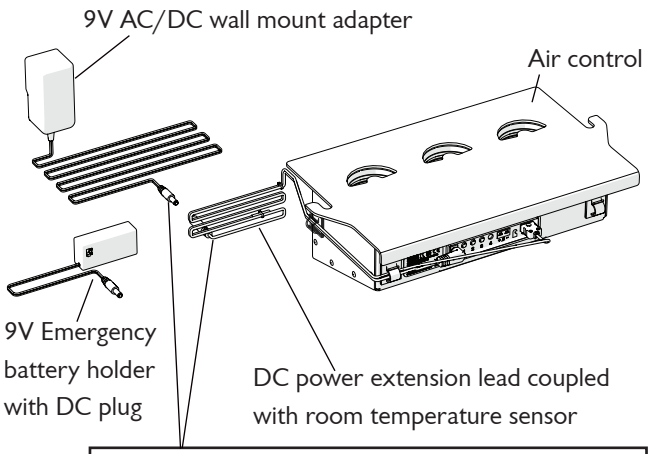


Fig. 19 Power connections



In normal operation the 9V AC/DC wall mount adapter should be connected to the DC power extension lead supplying power to the Air control.

ELECTRONIC COMPONENT END OF LIFE CONSIDERATIONS.

UK & Europe

The Waste Electrical and Electronic Equipment (WEEE) Regulations 2013/2015 (update), Section 7b, states that the regulations do not apply if the electronics is 'specifically designed and installed as part of another type of equipment that is excluded from, or does not fall within the scope of this directive, which can fulfill its function only if it is part of that equipment'.

UK Gov Guidance 'Electrical and electronic equipment (EEE) covered by the WEEE Regulations', updated 18 January 2021, states : Exempt products are: "a piece of equipment that's designed for and installed in another type of equipment ", "Where electrical energy is only used for support or control functions, the equipment is not covered by the regulations. Equipment that only needs a spark to start it (electronic ignition) and does not need electricity to fulfill its basic function includes: petrol lawn mowers, gas stoves".

The electronic control system on the Skye E700 stove is considered exempt from these regulations on this basis.

Canada

The Canadian Government website provides an inventory of recycling programs across Canada and it is recommended that this resource is used to responsibly recycle the electronic components of the Skye E700 when they reach the end of their life. A description of how to remove all the electrical components from the body of the stove, can be found below.

USA

The EPA website provides links to other sites that summarise the state specific legislation concerning electronic waste and also the recycling programs that are able to process the waste. It is recommended that these resources are used to responsibly recycle the electronic components of the Skye E700 when they reach the end of their life. A description of how to remove all the electrical components from the body of the stove, can be found below.

Australia

The ANZRP website is an example of the provision of a safe and responsible collection of e-waste. It is recommended that this kind of resource is used to responsibly recycle the electronic components of the Skye E700 when they reach the end of their life. A description of how to remove all the electrical components from the body of the stove, can be found below.

Electronic Component Removal

The air control assembly containing most of the electronics is easily removed, by removing the cable tray, unplugging the seven cables from the front, then loosening the bolts on either side of the assembly, before sliding it forwards and lowering it away from the stove.

The cover can then be removed by removing the four nuts holding it on and lifting it up, rear first. The front fascia can be unclipped from the board and the three daughter boards can be unplugged from the mother board, then the mother board can be carefully prised away from its mount at each corner and the daughter boards can be removed from the air control disks.

The remaining electronics on the stove consist of the button, which can be removed from the stove in its plastic moulding via the two nuts on the reverse of the lower front casting, the door switch, accessed by removing the lower casting and the room and stove temperature sensors and flame sensor, which can be accessed by removing the right hand panel of the stove.

MARKET SURVEILLANCE

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

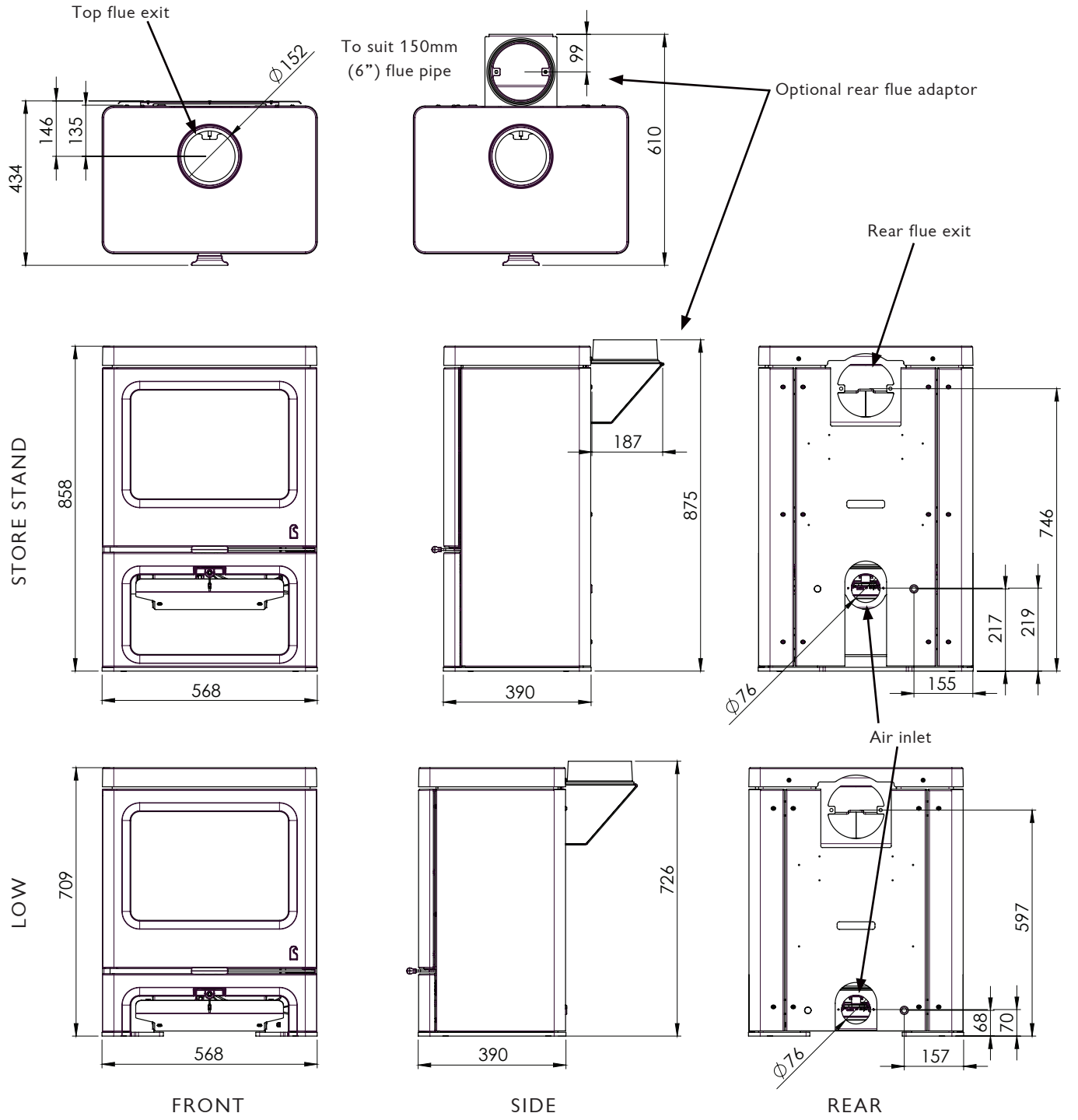
Flue:	1m single wall stainless steel flue fitted to the appliance.
Mode:	Automatic
Setting:	level 2
Basic firebed:	0.23kg

Kindling: 2kg / 32 x 200mm long sticks stacked in 5 layers of 4 pieces

Pretest / main test: 1.6kg / 2 x 250mm long logs arranged from side to side.

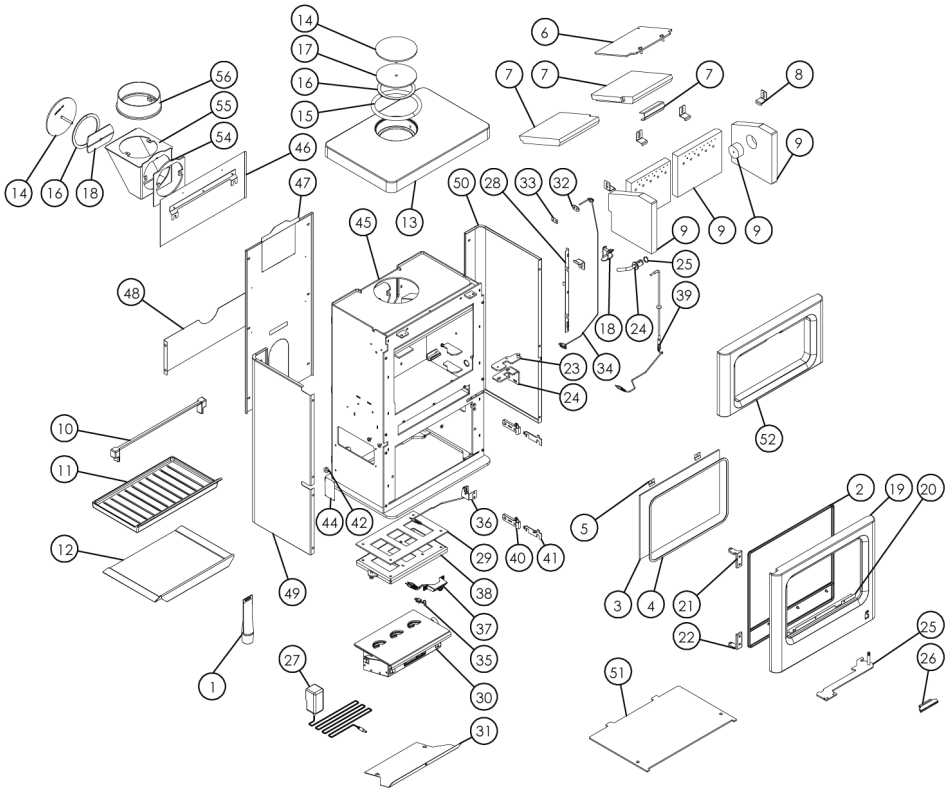
Recharging criterian: Weight measured by scale

SKYE E700 DIMENSIONS



Charnwood Skye E700d Store Stand Parts List

Issue D



Item	Part No.	Description
1	008/TH085	Door Seal Adhesive
2	008/AU035S	Rope Door Seal Inc Adhesive
3	006/AU018	Glass
4	008/EW45	Glass Seal
5	004/KV23	Glass Retainer
6	010/DU032	Upper Throat Plate
7	011/AU031S	Set of Throat Plate Bricks Inc. Bracket
8	004/XV30	Brick Bracket
9	011/DU029S	Set of Firebricks
10	002/DU008	Deepening Bar
11	002/DU022	Grate
12	004/DU017	Ashpan
13#	003/CU006	Cast Top
14	010/KZ132	Blanking Plate
15	008/KZ136	Flue Fixing Rope Seal
16	008/KS134	Blanking Plate Seal
17	010/KZ133	Blanking Plate Retainer
18	010/AY51	Clamping Plate
19#	003/CU001A	Door Assembly
20	004/AU050	Rope Seal Channel
21	002/BU041	Upper Hinge
22	002/BU042	Lower Hinge
23	010/CU063	Door Latch
24	010/CU064	Door Latch Bracket
25	010/CU060	Door Catch Arm
26	008/BU049	Door Handle
27	008/EL307	9V Power Supply
28	004/CU161	Light Optic Guard
29	008/CU109	Air Control Gasket

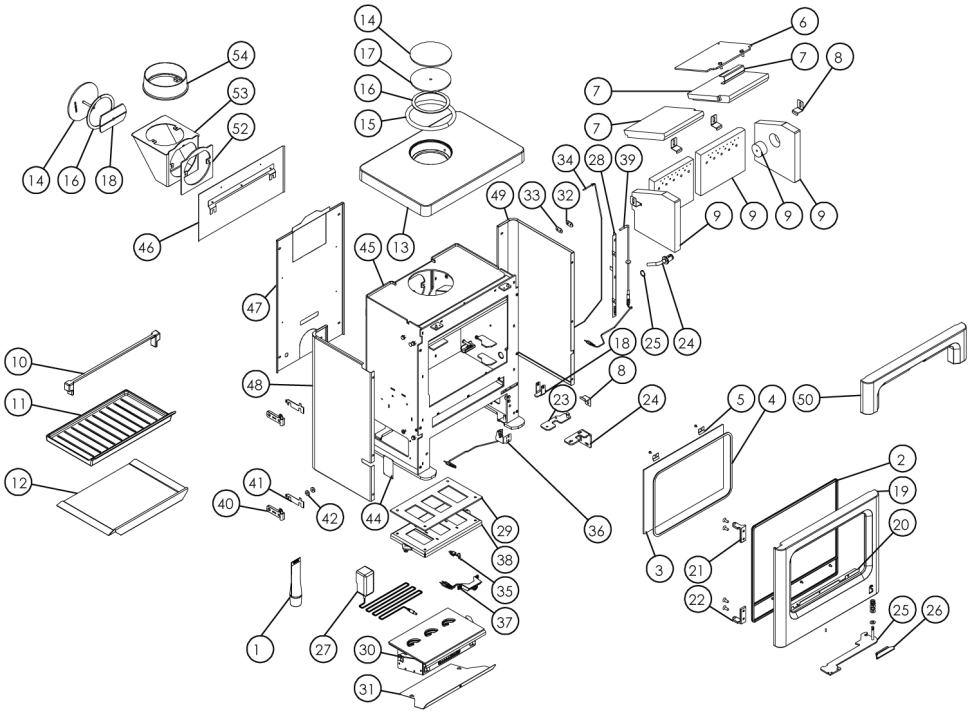
Item	Part No.	Description
30	010/CU135	Air Control Assembly
31	004/CU042	Cable Tray
32	004/NH700	Thermocouple Retainer
33	004/NH701	Thermocouple Retainer Spacer
34	008/CU260	Firebox Thermocouple Assembly
35	008/CU261	Room Thermocouple Assembly
36	010/CU066	Switch and Bracket Assembly
37	010/CU250	Manual Control Button Assembly
38	010/CU230	Upper Airbox
39	010/CU160	Glass Rod Assembly
40	002/BU040	Door Hinge Bracket
41	004/BU039	Door Hinge Shim
42	010/DY24	Spacer
43*	012/DU012	Compliance Label
44	012/DU011	Serial No. Label
45#	001/DU010	Firebox
46#	005/AU081	Rear Heatshield
47#	005/AU080	Rear Panel
48#	005/AU059	Rear Lower Panel
49#	005/AU093L	Left Side Panel
50#	005/DU093R	Right Side Panel
51#	010/AU058	Base Plate
52#	003/CU072	Front Casting
53*	010/EW51	Ash Carrier (Optional Extra)
54	010/AU021	Vertical Rear Flue Adapter Spacer
55#	010/TW33	Vertical Rear Flue Adapter (Opt'l Extra)
56#	002/XS14	Flue Collar
57*	008/EL308	DC Power Extension Lead

*These items are not shown on the drawing.
Please specify colour when ordering.

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 Skye E700d Low Stand Parts List

Issue D



Item	Part No.	Description
1	008/TH085	Door Seal Adhesive
2	008/AU035S	Door Seal Inc Adhesive
3	006/AU018	Glass
4	008/EW45	Glass Seal
5	004/KV23	Glass Retainer
6	010/DU032	Upper Throat Plate
7	011/AU031S	Set of Throat Plate Bricks Inc. Bracket
8	004/XV30	Brick Bracket
9	011/DU029S	Set of Firebricks
10	002/DU008	Deepening Bar
11	002/DU022	Grate
12	004/DU017	Ashpan
13#	003/CU006	Cast Top
14	010/KZ132	Blanking Plate
15	008/KZ136	Flue Fixing Rope Seal
16	008/KS134	Blanking Plate Seal
17	010/KZ133	Blanking Plate Retainer
18	010/AY51	Clamping Plate
19#	003/CU001A	Door Assembly
20	004/AU050	Rope Seal Channel
21	002/BU041	Upper Hinge
22	002/BU042	Lower Hinge
23	010/CU063	Door Latch
24	010/CU064	Door Latch Bracket
25	010/CU060	Door Catch Arm
26	008/BU049	Door Handle
27	008/EL307	9V Power Supply
28	004/CU161	Light Optic Guard

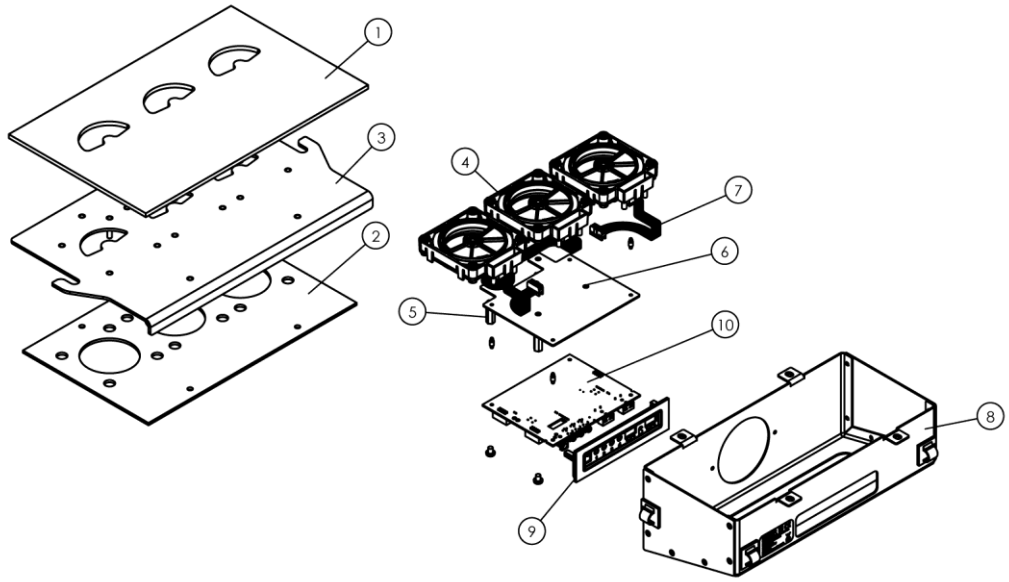
Item	Part No.	Description
29	008/CU109	Air Control Gasket
30	010/CU135	Air Control Assembly
31	004/CU042	Cable Tray
32	004/NH700	Thermocouple Retainer
33	004/NH701	Thermocouple Retainer Spacer
34	008/CU260	Firebox Thermocouple Assembly
35	008/CU261	Room Thermocouple Assembly
36	010/CU066	Switch and Bracket Assembly
37	010/CU250	Manual Control Button Assembly
38	010/CU230	Upper Airbox
39	010/CU160	Glass Rod Assembly
40	002/BU040	Door Hinge Bracket
41	004/BU039	Door Hinge Shim
42	010/DY24	Spacer
43*	012/CUL012	Compliance Label
44	012/DUL011	Serial No. Label
45#	001/DUL010	Firebox
46#	005/AU081	Rear Heatshield
47#	005/AUL080	Rear Panel
48#	005/AUL093L	Left Side Panel
49#	005/AUL093R	Right Side Panel
50#	003/AUL072	Front Casting
51*	010/EW51	Ash Carrier (Optional Extra)
52	010/AU021	Vertical Rear Flue Adapter Spacer
53#	010/TW33	Vertical Rear Flue Adapter (Opt'l Extra)
54#	002/XS14	Flue Collar
55*	008/EL308	DC Power Extension Lead

*These items are not shown on the drawing.
Please specify colour when ordering.

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 Skye E700 Air Box Assembly Parts List

Issue B



Item	Part No.	Description
1	008/CU110	Air Control Gasket
2	008/CU242	Airbox Cover Gasket
3	010/CU231	Lower Plate Assembly
4	010/NH580	Disk Assembly
5	008/FFM087	Hex Spacer M5x25

Item	Part No.	Description
6	004/CU235	Circuit Board Mount
7	008/EL325	Ribbon Cable Connector
8	004/CU040	Airbox Cover
9	008/CU239	Socket Surround With Gasket
10	008/NH590	Motherboard

*These items are not shown on the drawing.
Please specify colour when ordering.

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.

CE CERTIFICATE - SKYE E700D

charnwood

CE 25

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UK CA

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

ROOMHEATER

Model:	SKYE E700D
EC Certificate of conformity no:	DU11-CPD-2024 & DUL11-CPD-2024
Fuel type:	WOOD LOGS
Rated space heating thermal output:	7.4kW
(2) NOX (mg/Nm3)	100
(1) OGC (mg/Nm3)	35
(2) CO (mg/Nm3):	650
Mean flue gas temperature:	211°C
Energy efficiency* :	89%
(2) Particles (mg/m^3)	15
Minimum distance to combustible materials with uninsulated flue Side: Rear:	 300 250
Minimum distance to combustible materials with insulated flue & rear heat shield Side: Rear:	 300 100
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. BlmSchV 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

** Note: These figures were achieved sampling after the first metre of flue.*

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