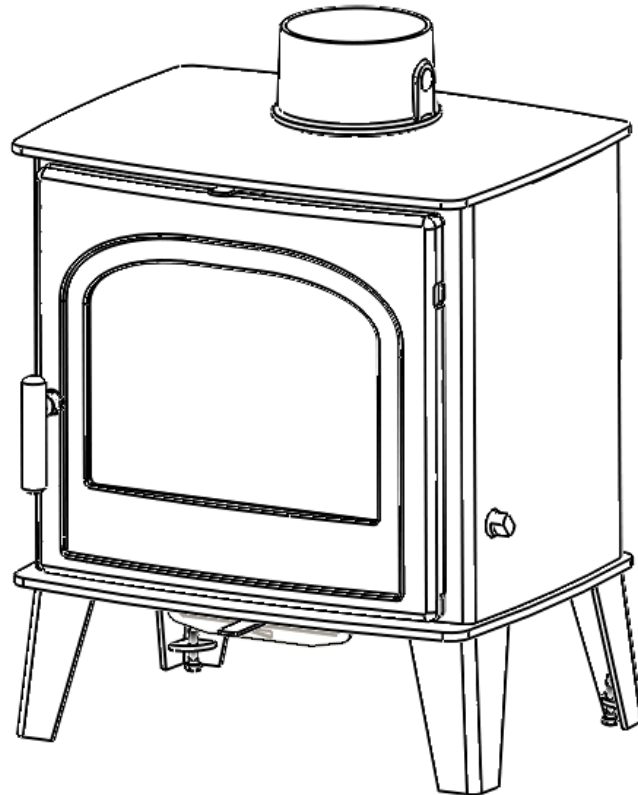


eco-ideal



**eco 5**

Clean Burn Stove

Installation and Operating Instructions

# eco 5

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## Technical Specification

Appliance Mass	108 kg
Total Efficiency	73.5 %
Nominal Heat Output	4.4 kW
Mean CO Emission (@13% O <sub>2</sub> )	0.17 %
Mean Flue Gas Temperature	311 °C
Flue Gas Mass Flow	4.6 g/s

*This appliance is not for use in a shared flue*

*This appliance is suitable for intermittent burning*

### **IMPORTANT**

***This stove has been designed and assembled so that it may be used to burn wood logs in a Smoke Control Area.***

***Find out if you are in a Smoke Control Area by contacting your Local Authority.***

***The eco5 has been fitted with a permanent stop that prevents full closure of the secondary air control. Any adjustment or modification to the stop will lead to the appliance potentially causing smoke emissions. Without the permanent stop in place the appliance is not an exempt appliance and so may leave the householder liable for a fine of up to £1000***

# General Guidance

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It is important that your stove is correctly installed as Hunter Stoves cannot accept responsibility for any fault arising through incorrect use or installation.

These instructions cover the basic principles to ensure satisfactory installation of the stove, although detail may need slight modification to suit particular local site conditions.

The installation must comply with current Building Regulations, national and European standards, Local Authority byelaws and other specifications or regulations as they affect the installation of the stove.

The Building Regulations requirements may also be met by adopting the relevant recommendations in the current issues of British Standards BS 8303 and BS EN 15287-1.

## Competent Persons Scheme

Hunter Stoves recommend that this stove is installed by a member of an accredited competent persons scheme e.g. HETAS.

If the installer is not a member of a competent persons scheme, it is a legal requirement to notify your local building control body in advance of any work starting.

## Health and Safety Precautions

Special care must be taken when installing the stove such that the requirements of the Health and Safety at Work Act are met.

## Handling

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

## Fire Cement

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

## Asbestos

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment.

## Metal Parts

When installing or servicing this stove, care should be taken to avoid the possibility of personal injury.

## Modification

No unauthorized modification of this appliance should be carried out.

# SAFETY

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**WARNING** – This appliance will be hot when in operation and due care should be taken. The supplied operating tool or gloves may be used to open the door and operate the air controls.

## Aerosols

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

## Fireguards

Always use a fireguard in the presence of children, the elderly or the infirm. The fireguard should be manufactured in accordance with BS8423 – Fireguards for use with solid fuel appliances.

## Do not Over-Fire

It is possible to fire the stove beyond its design capacity. This could damage the stove so watch for signs of over-firing.

If any part of the stove starts to glow red, the stove is in an over-fire situation and the controls should be adjusted accordingly.

Never leave the stove unattended for long periods without first adjusting the controls to a safe setting.

Careful air supply control should be exercised at all times.

## Fume Emission

Properly installed and operated, this appliance will not emit fumes. Occasional fumes from de-ashing and refuelling may occur. Persistent fume emission must not be tolerated.

### **This appliance should not be operated with the door open**

If fume emission does persist then the following action should be taken immediately –

- ▶ Open doors and windows to ventilate room.
- ▶ Let the fire out, or eject and safely dispose of fuel from the appliance.
- ▶ Check for flue/chimney blockage and clean if required.
- ▶ Do not attempt to relight the fire until the cause has been identified and corrected.

- ▶ If necessary seek professional advice.

## Adverse Weather

In a small number of installations, occasional local weather conditions (e.g. wind from a particular direction) may cause downdraught in the flue, causing the stove to emit fumes.

In these circumstances the stove should not be used. A professional flue installer can advise on solutions to this problem.

**Do not fit an extractor fan in the same room as this appliance.**

## In the Event of a Chimney Fire

- ▶ Raise the alarm
- ▶ Call the Fire Brigade
- ▶ Close appliance air controls
- ▶ Move furniture, ornaments etc away
- ▶ Place a fireguard in front of stove
- ▶ Check the chimney breast for signs of excessive heat.

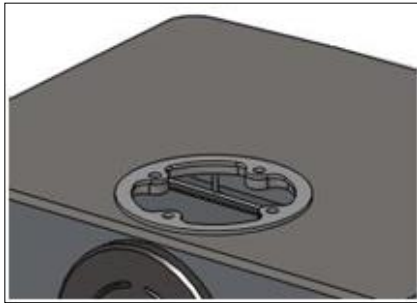
Ensure the Fire Brigade can gain access to your roof space in order to check for fire spread.

# Assembly Instructions

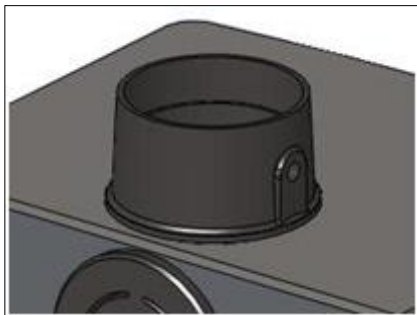
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## Flue Collar and Blanking Plate

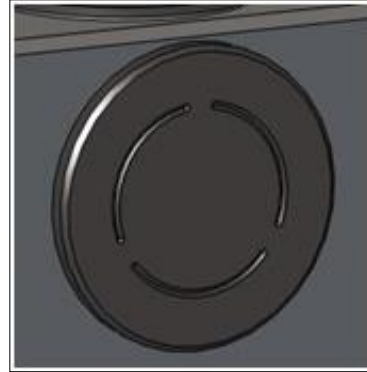
Wind the eight M6 studs supplied into the fixing holes in the flue collar and blanking plate until finger tight.



Place a flue gasket in position on the top plate of the stove and lower the flue collar or blanking plate (as required) on to the stove top, taking care to line up the studs with the fixing holes.



Secure in place using the M6 nuts and washers. Slide the remaining gasket on to the studs of the flue collar or blanking plate and secure in place on the back plate. Unless the optional flue damper is being fitted, blank off the damper handle holes in the flue collar using the two M8 coach bolts.

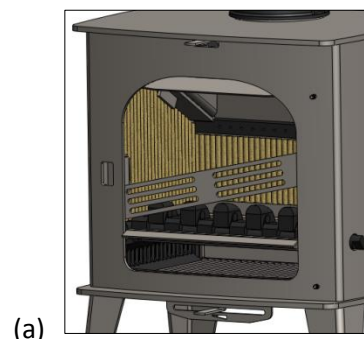


## Removing Internal Parts

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This set of instructions explains the removal sequence that you will need to employ when servicing your Hunter stove.

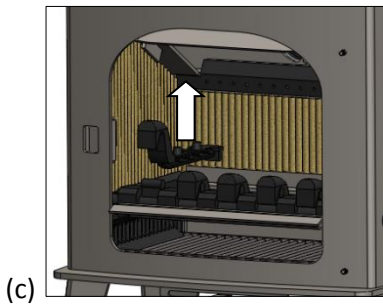
1. Open the stove door and remove the ash pan.
2. Remove the fuel retainer by lifting the right side up and sliding out from under the door catch cover (a)



3. Remove the baffle by pulling it forwards and sliding it to the left until the right side of it clears the baffle support and then lowering it into the firebox and removing it (b).



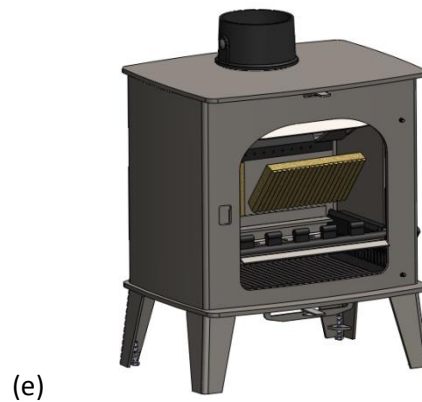
4. Remove the grate bars by lifting them out in pairs (c).



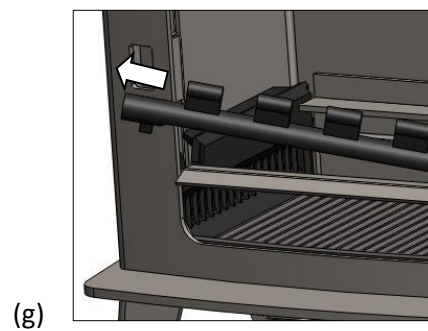
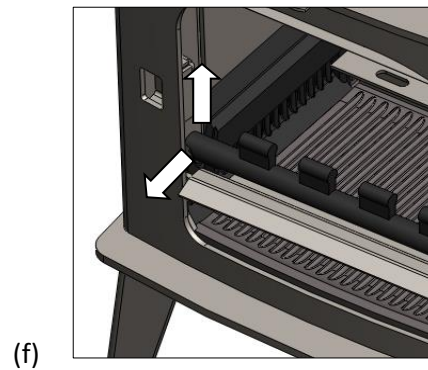
5. Remove the side bricks by lifting them up and swinging the bottom towards the centre of the stove (d).

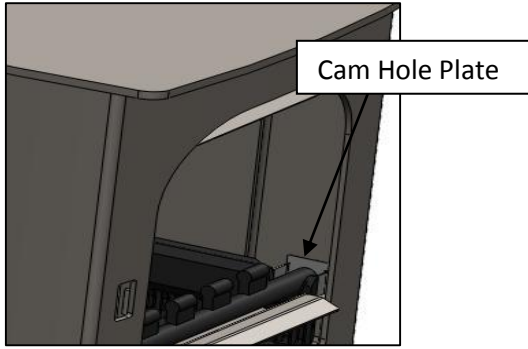


6. Remove the rear bricks (e).

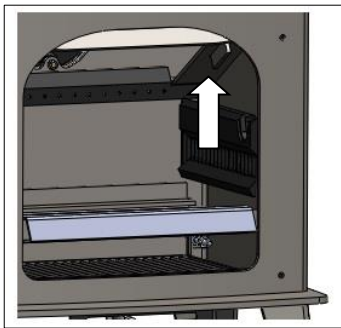


7. Remove the cam bar by lifting the left-hand end out of the side casting (f) and sliding the right-hand end from the hole in the side of the stove (g), taking care to retrieve the cam hole plate (h).

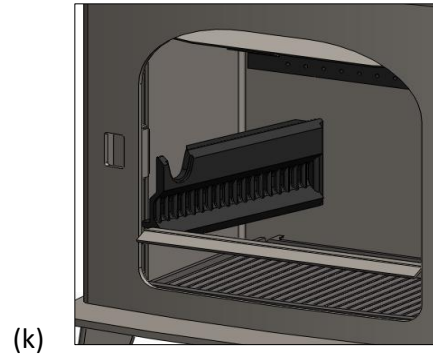
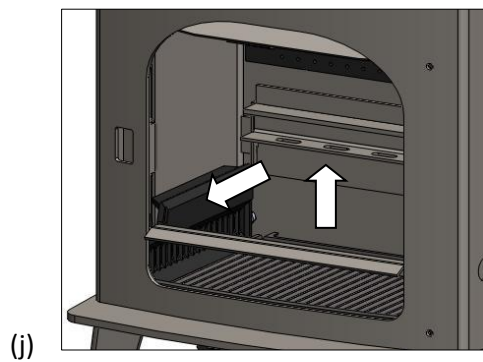




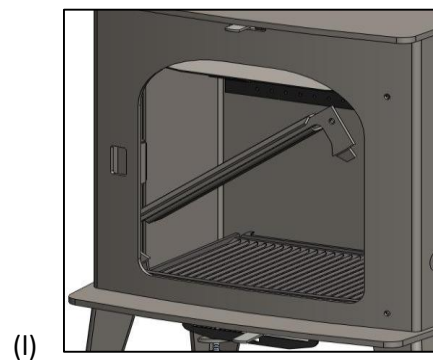
8. Remove the right hand side casting by moving it upwards and out (i).



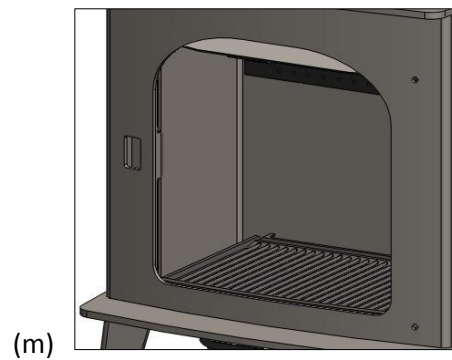
9. Remove the rear grate support by lifting it upwards and out (j). This will allow you to remove the left hand side casting (k).



10. Remove the catch bar (l).



11. Remove the base casting (m).



# Installation Instructions

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## Chimney

The chimney height and the position of the chimney terminal should conform to Building Regulations.

Check that the chimney is in good condition, dry, free from cracks and obstructions.

The diameter of the flue should not be less than 125mm and not more than 230mm.

If any of these requirements are not met, the chimney should be lined by a suitable method.

If there is no existing chimney then either a prefabricated block chimney in accordance with Building Regulations Approved Document J, or a twin-walled insulated stainless steel flue to BS EN 1856 can be used. These chimneys must be fitted in accordance with the manufacturer's instructions and Building Regulations.

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

If you have any doubts about the suitability of your chimney, consult your local dealer/stockist.

## Connection to the Chimney

The chimney must be swept before connection to the stove.

An existing fireplace opening can be bricked up or sealed with a register plate.

A short length of flue pipe of minimum 125mm internal diameter may then be used to connect the stove to the chimney. This flue pipe should be made of 316 grade stainless steel or vitreous enamelled steel, nominal thickness 1.2mm.

Ensure that the pipe end is no closer than 76mm to the chimney walls.

The length of any horizontal run of flue pipe must not exceed 125mm.

It is essential that all connections between the stove and chimney-flue are sealed and made airtight.

Both the chimney and flue pipe must be accessible for cleaning and if ANY part of the chimney cannot be reached through the stove (with baffle removed), a soot door must be fitted in a suitable position.

## Flue Draught

If the draught exceeds the recommended maximum, a draught stabiliser must be fitted so that the rate of burning can be controlled and to prevent over firing.

If the reading is less than the recommended minimum then the performance of the appliance will be compromised.

The flue draught should be checked under fire at high output.

**Minimum Draught – 1.2mm Water Gauge**

**Maximum Draught – 2.5mm Water Gauge**

## Air Supply

The room or space containing this appliance should have purpose provided ventilation (where necessary) in accordance with Building Regulations.



Due consideration should be given to air requirements for any other appliance in the same room or space.

Any air opening must be kept clear from blockage or obstruction.

## Hearth/ Material Clearances

Your stove must be installed on a floor with adequate load-bearing capacity, otherwise suitable measures should be taken.

Use the adjusting screws in the feet to level the stove.

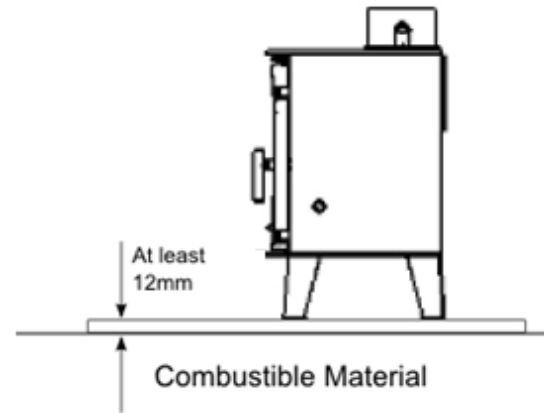
The stove can be recessed into a suitably sized fireplace. Ensure there is a free air gap of at least 150mm above and 50mm around the sides and rear of the stove.

*Where possible it is recommended that a free air gap of 150mm or more is left around the sides of the stove to obtain maximum heat output and to gain access to the rear of the stove.*

The hearth should extend at least 300 mm from the front of the stove.

If the stove is to stand in an appliance recess, it should stand wholly above a solid, non-combustible hearth, at least 125 mm thick (this may include the thickness of a solid floor).

If the stove is not to stand in an appliance recess, it may stand wholly above a hearth made of non-combustible board / sheet material or tiles, at least 12mm thick.



The hearth should extend at least 150 mm from the sides and rear of the stove, and at least 300 mm from the front of the stove.

All non-combustible walls closer than 300mm to the stove should be at least 75mm thick.

### Minimum Distances to Combustible Material

Behind the stove	450mm
At the side of the stove	400mm
In front of the stove	700mm

Note: combustible material refers to any material that will degrade when subjected to heat e.g. plaster.

No combustible material must be stored underneath the stove.

## Commissioning & Handover

Upon completion of the installation, allow a suitable period of time for any fire cement and mortar to dry out.

A small fire may then be lit and checked to ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to atmosphere.

Do not run the stove at full output for at least 24 hours.

On completion of the installation and commissioning, ensure that the operating

instructions and operating tools for the stove are left with the customer.

Advise the customer on the correct use of the appliance with the fuels likely to be used on the stove and warn them to use only the recommended fuels for the stove.

Advise the user on what to do should smoke or fumes be emitted from the stove.

The user should be warned to use a fireguard to BS 8423 in the presence of children and/or infirm persons.

# Operating Instructions

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This appliance is **not** suitable for use in a shared flue

Operation with the door open can cause excess smoke. This appliance must **not** be operated with the door open

## Aerosol Sprays

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

## Air Controls

This stove has been designed to burn far more efficiently than a traditional stove, with the obvious notable feature of clean glass.

However, for this product to work properly it must be used correctly. To prevent excess smoke emissions, the air controls of this appliance must only be operated as directed in the instructions.

It is essential that the stove has an adequate air supply for combustion and ventilation.

JINECO05 revB 20/06/14

## Primary Air

Primary air is controlled via the slider at the bottom of the stove, under the door. The amount of air can be increased by moving the slider to the right.

This provides a conventional air draught to the bed of the fire.

## Secondary Air

Secondary air is controlled via the slider above the door; it is this "Airwash" that keeps a clean and uninterrupted view of the fire. The amount of air can be increased by moving the slider to the right.

## Tertiary Air

Tertiary air aids in good secondary combustion of the fuel and reducing emissions into the chimney and environment.

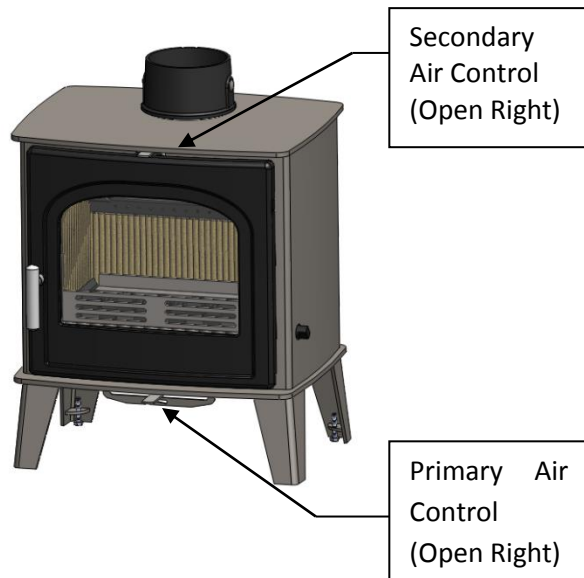
Tertiary air is fixed and enters the stove through the base plate.

**Warning!** - This appliance will be hot when in operation and due care should be taken.

We advise that suitable gloves are used when operating the Primary and Secondary air controls, and when opening the door.

## Dampers Left Open

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



## Riddling Grate

Your Hunter Stove is fitted with a locomotive type grate. So that de-ashing can be carried out cleanly and easily, it is riddled from the outside of the stove with the doors closed.

**To burn wood**, push the operating tool up and away from you. When left in this position, air is restricted through the bed of the fire providing a solid base to build up a bed of ash. Surplus ash can be removed either by gentle riddling or with a shovel. It might prove beneficial when burning more reactive fuels to leave the grate in a “neutral” position, thus directing some under fire air and some over fire air to the firebed.

## Notes on Wood burning

With a full load of wood, the stove will need to be refuelled approximately once every hour.

Wood can be stacked in the stove, but care must be taken that logs do not touch the baffle. Overloading the stove can cause excess smoke to be emitted.

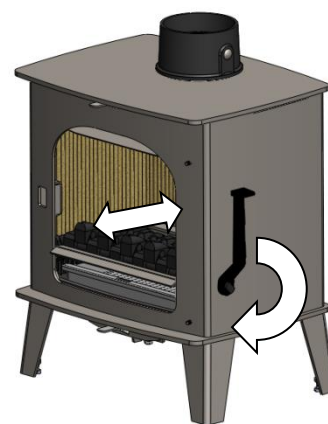
Wood burns most efficiently with the secondary air valve lever approximately 50% open and the

primary control closed. Moving the secondary control will adjust the burn rate of the stove.

Note - primary and secondary air is needed to light the stove, see section entitled ‘Lighting the Stove’

Wood burns best on a bed of ash and it is therefore only necessary to remove surplus ash from the stove occasionally.

Refuelling must be carried out with a sufficient quantity of glowing embers and ash, so that the new fuel charge will ignite quickly. If there are too few embers, add some kindling to prevent excessive smoke.



## Lighting the Stove

We recommend that you have two or three small fires before you operate your stove to its maximum heat output.

This is to allow the paint to cure in steadily and to give a long service life of the paint finish.

During this curing in process you may notice an unpleasant smell. It is non-toxic, but for your comfort we would suggest that during this period you leave all doors and windows open.

To light the stove open the primary and secondary air controls by pushing both levers

fully to the right. Light one or two firelighters placed centrally on the grate, allowing the flames to become established before placing several pieces of small dry kindling in a criss-cross fashion above the firelighters, taking care not to smother the fire. Close the stove door. Once the kindling is well alight open the door and build the fire by gradually adding slightly larger pieces of wood, closing the door afterwards.

Once you have a good fire established across the grate bed, further fuel can be added as required and the air controls set to the correct position (see 'Notes on Wood burning').

Should the fire fail to light correctly open the door and use a poker to spread the fuel across the grate. Close the door and allow the fuel and stove to cool before attempting to relight the fire.

N.B. Leaving the air controls in the closed position, adding too much fuel or using wood that is wet or too large will prevent the fire from establishing correctly and may result in smoke emission from the stove.

## Reduced Combustion

In order to shut down the stove, close the primary control, then close the secondary air slider by moving the handle all the way to the left. If you want to revive the fire it is recommended that the primary air control is open first, and then open the secondary air slider.

**Warning!**- The stove will remain **hot** for a considerable time after the fire has been extinguished.

## The Clean Air Act 1993 and Smoke Control Areas

Under the Clean Air Act 1993 local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "authorised" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

Further information on the requirements of the Clean Air Act can be found here: <http://smokecontrol.defra.gov.uk/>

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 eco 5 has been recommended as suitable for use in Smoke Control Areas when burning wood logs.

## Recommended Fuels

Hunter Stoves recommend that wood logs are burnt in this appliance.

The maximum recommended log length is 250mm (10") and the maximum recommended log diameter is 100mm (4").

The maximum number of logs that can be added to the firebed if at maximum size is two.

Otherwise two or three smaller logs can be added.

Burn only dry, well-seasoned wood, which should have been cut, split and stacked for at least 12 months, with free air movement around the sides of the stack to enable it to dry out.

The maximum recommended log moisture content is 20%.

Burning wet or unseasoned wood will create tar deposits in the stove and chimney and will not produce a satisfactory heat output.

Only wood logs and authorised smokeless fuels may be legally burnt on this appliance in smoke control areas.

**Warning!** - Petroleum coke fuels or household waste must not be burnt on this appliance.

This appliance should not be used as an incinerator.

No liquid fuels should be burnt on this appliance.

Should any difficulties arise over fuel quality or suitability, consult your local approved coal merchant or:

HETAS Ltd – Telephone 01242 673257 – [www.hetas.co.uk](http://www.hetas.co.uk)

Solid Fuel Association – Telephone 0800 600 000 – [www.solidfuel.co.uk](http://www.solidfuel.co.uk)

## GENERAL MAINTENANCE

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This appliance requires regular maintenance by a competent person.

### Baffle

This should be removed and cleaned at least once a month to prevent any build up of soot or fly ash that could lead to blocked flueways and dangerous fume emission.

If the baffle is removed the chimney/flueway can be swept through the appliance.

### Stove Body

The stove is finished with a heat resistant paint and this can be cleaned with a soft brush.

Do not clean whilst the stove is hot.

The finish can be renovated with Hunter Stoves paint.

### Glass Panel

Clean the glass panel when cool with Hunter Stoves glass cleaner.

Highly abrasive substances should be avoided as these can scratch the glass and make subsequent cleaning more difficult.

Wet logs on heated glass, a badly aimed poker or heavy slamming of the door could crack the glass panel.

The glass will not fracture from heat.

## Firebricks

In normal use, these can last for many years. It is possible however, to crack them if logs are continually jammed against them or if they are frequently struck with a poker.

Check periodically for seriously cracked bricks, which can be replaced with new, available from your dealer.

## Door Catch

The door catch may require adjustment to maintain the door seal.

To adjust the catch:

- ▶ Loosen the M6 grub screw.
- ▶ Rotate the catch shaft one complete turn to achieve the correct door operation.
- ▶ Tighten the grub screw.

## Rope

Check the rope around the door. If rope is becoming detached, use Hunter Stoves rope glue to reattach it. If the rope is in a poor condition, a replacement rope kit may be ordered from the Hunter Stoves spares range.

## Chimney and Flueways

It is important that the chimney, flueways and any connecting flue pipe are swept regularly. This means at least once a year for smokeless fuels and at least twice a year for wood and other fuels.

The baffle will need to be removed from its supports in order to sweep the chimney (see assembly instructions).

Only wire-centred sweeps' brushes fitted with a guide wheel should be used.

If it is not possible to sweep all parts of the chimney through the appliance, ensure there is adequate access to cleaning doors.

## Seasonal Use

If the appliance has been unused for a long period of time, such as during the spring and summer months, the chimney should be checked for potential obstructions by a competent person before lighting the stove.

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

## Gaskets

All gaskets used on this appliance are produced from a heat resistant material called Manniglas.

The glass gasket will have to be replaced when a new piece of glass is fitted as the gaskets become brittle after firing the stove.

Over time you may also find that the gasket changes colour. This is due to a reduction in the pigment used in the manufacture of the product and no cause for concern.

# Troubleshooting

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## Fire will not burn

Check that:

- ▶ The air inlets are not obstructed in any way.
- ▶ Chimneys and flueways are clear.
- ▶ A suitable fuel is being used.
- ▶ There is an adequate air supply into the room.
- ▶ An extractor fan is not fitted in the same room as the stove.
- ▶ Flue draught is above minimum level (see installation instructions).

## Fire blazing out of control

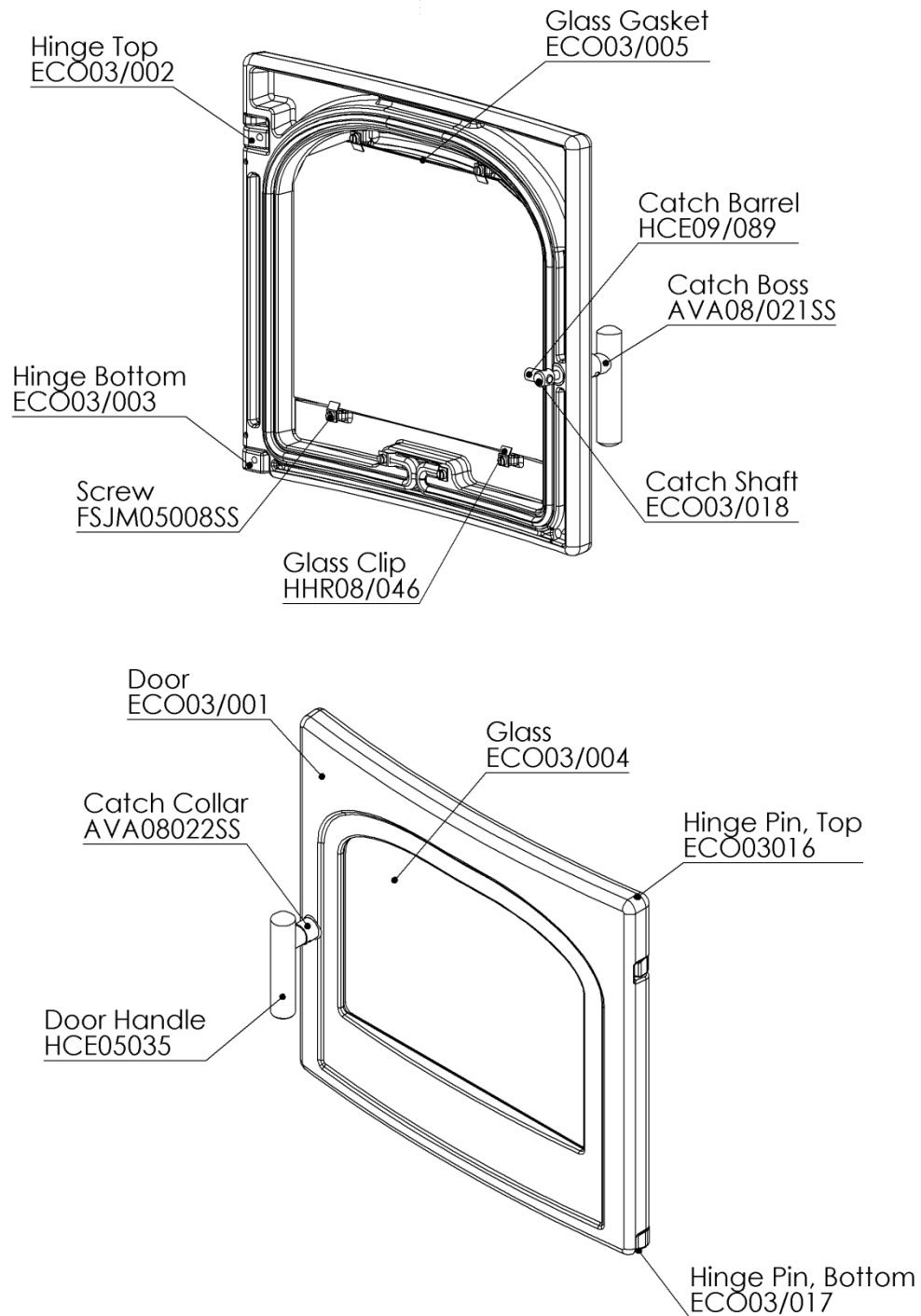
Check that:

- ▶ The doors are tightly closed.
- ▶ The air controls are all in the closed position.
- ▶ A suitable fuel is being used.
- ▶ The glass retaining clips are not loose.
- ▶ The door rope seals are in good condition
- ▶ Flue draught is below maximum level (see installation instructions).

# Spares Information

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## Door spares





## Body Assembly Spares

