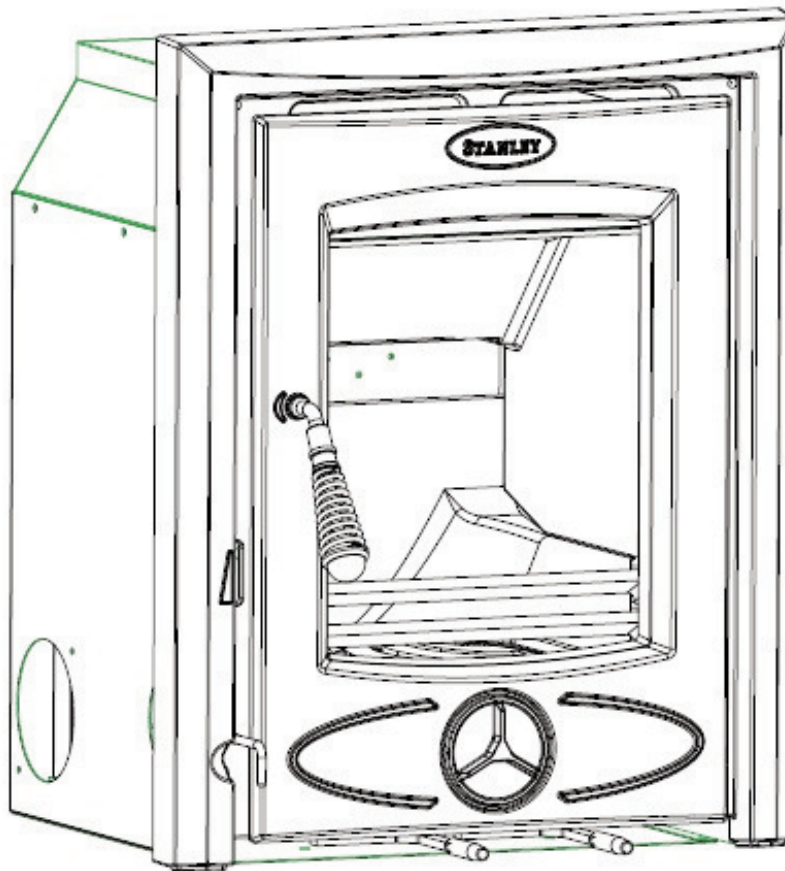

PLEASE RETAIN

STANLEY™

Cara Non Boiler Insert MK III OSA Stove



INSTALLATION AND OPERATING INSTRUCTIONS

This appliance is hot while in operation and retains its heat for a long period of time after use. Children, aged or infirm persons should be supervised at all times and should not be allowed to touch the hot working surfaces while in use or until the appliance has thoroughly cooled.

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

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STANLEY SOLID FUEL STOVE WARRANTY

CONDITIONS OF WARRANTY

Your Stanley Solid Fuel Stove is guaranteed against any part that fails (under normal operating conditions) as detailed in the following table with timelines specified from the date of installation of the appliance. If the unit is not installed within six months of date of purchase, the warranty will commence six months from the date of purchase.

Warranty Period	Parts Covered (Parts & Labour unless Stated)
Up to 1 Year	<ul style="list-style-type: none">• Refractory materials (supply only)• Rope seals, glass seals and cement seals.• Surface Finish on Seno models.• Grates and fire bars.• Ceramic glass is covered for Thermal breakage (supply only).• Rust (if reported before installation)• Aesthetic Damage (provided reported on date of receipt)
Up to 5 Years	<ul style="list-style-type: none">• All external castings & enamel finishes (excluding impact damage or damage caused by overfiring). Pictures of damage must be submitted to WS Service Department.
Up to 3 Years	<ul style="list-style-type: none">• Boiler - A Leaking Boiler Report must be conducted by an Authorised Stanley Service Engineer and submitted to WS Service Department for review.

All warranty claims must be reported to the Waterford Stanley Service Department and must be submitted with the product serial number (located on the front casting), date of purchase, proof of purchase (if requested) and details of the specific nature of the problem.

The warranty is given only to the original consumer/purchaser only and is non-transferable. The appliance must be installed by a suitable qualified person and installed as per the requirements of the manual. Failure to comply with the Installation requirements or Building Regulations will void your warranty. Waterford Stanley reserve the right to replace any part due to manufacturing defect that fails within the warranty period under the terms of the warranty. The unit must be used for normal domestic purposes only and in accordance with manufacturer's operation instructions.

LIMITS OF LIABILITY

The warranty does not cover:

- * Special, incidental or consequential damages, injury to persons or Property, or any other consequential loss.
- * Any issue caused by negligence, misuse, abuse or circumstances beyond Waterford Stanley's control.
- * Any issue with wear and tear, modification, alteration, or servicing by anyone other than an authorized service engineer.
- * Installation and operational related problems such as draught related issues external to the stove, inadequate venting or ventilation, excessive flue offsets, negative air pressure caused by insufficient burning of improper fuel.
- * Damage caused to the unit while in transit.
- * Enamel discolouration due to over firing, enamel damage caused by impact, damage to baffles caused by over firing and fading of surface finish on casting.
- * Stress fractures on bricks.
- * Rust on cast iron parts unless reported prior to unit being installed.
- * Aesthetic damage, rust & missing parts on units purchased off display.

Note: Adequate clearance must be maintained around the appliance to ensure the ease of part removal in the possible event of their damage/failure. Waterford Stanley are not responsible for any costs incurred in the removal of items installed in the vicinity of the appliance that have to be moved to facilitate a part replacement.

INSTALLATION CHECK LIST

Flue System

Tick



1. Minimum Flue Height of 4.6 metres (15 feet).
2. Appliance should be connected to a 125mm (5") flue pipe within a metre and then the flue size increased to a minimum of 150mm (6") diameter.
3. The horizontal flue run should not exceed 150mm (6")
4. All flue pipework passing through walls must be sleeved & adequately insulated in line with current Building Regulations.
5. Appliance should be connected to a chimney of less than 200mm (8") in diameter (otherwise the chimney must be lined with a 6" flue liner).
6. The chimney/ flue termination must be located in accordance with building regulations part J.
7. The chimney serving this appliance should not serve any other appliance.
8. Access should be provided to the chimney serving the appliance to allow for cleaning.
9. It is a requirement by Building Regulations to have a carbon monoxide alarm fitted to any room with a solid fuel appliance.

Location

10. Clearance to combustible materials must be adhered to as described in the Clearance to Combustible section.
11. The stove must be installed on a floor protector that covers the area under the stove and extends 14" to the front and 14" to the sides.
12. Clearance must be maintained to allow for maintenance and part replacement.

Ventilation & Combustion Air Requirements

13. The room in which the appliance is located should have an air vent of adequate size to support correct combustion (see Ventilation & Combustion Air Requirement Section for specific details).
14. The stove must not be installed in the same room as an extractor fan.



IMPORTANT OPERATION / MAINTENANCE NOTES

Now that your Stanley Solid Fuel Stove is installed and no doubt you are looking forward to many comforts it will provide, we would like to give you some tips on how to get the best results from your stove.

1. We would like if you could take some time to read the operating instructions/hints, which we are confident, will be of great benefit to you.
2. Do not burn fuel with a high moisture content, such as a damp peat or unseasoned timber. This will only result in a build up of tar in the stove and in the chimney.

FUEL CALORIFIC VALUES - SOLID FUELS		
Anthracite 25-50mm	C.V.: 8.2kW/Kg	14,000 BTUs/lb
House Coal 25-75mm	C.V.: 7.2kW/Kg	12,000 BTUs/lb
Timber - Firebox size	C.V.: 5.0kW/Kg	8,600 BTUs/lb
Peat Briquettes	C.V.: 4.8kW/Kg	8,300 BTUs/lb

3. **IMPORTANT:** The first few fires should be relatively small to permit the refractory to set properly and season the stove. During these firings it is recommended to ventilate the room as an unpleasant (not toxic) odour may be emitted as the paint is completing curement.
4. **Inspect the flue-ways of the stove weekly and ensure that there are no blockages. Check flue ways before lighting especially after a shut down period. Please see chimney cleaning section.**
5. Before loading fresh fuel into the firebox, riddle fully to remove all ashes. This will allow better and cleaner burning. See Re-Fuelling section.
6. Never allow a build up of ashes in the ash pan, as this will cause the grate to burn out prematurely. Empty the ashpan when refuelling.
7. Avoid slow burning of damp or unseasoned fuel as this will result in tarring flue ways and chimney i.e. peat or timber.
8. Allow adequate air ventilation to ensure plenty of air for combustion.
9. Do not burn rubbish/household plastic.
10. Clean the chimney at least twice a year.
11. Burning soft fuels such as timber and peat will stain the glass. Regular cleaning will prevent permanent staining. Clean with soapy water when cool.
12. Keep all combustible materials a safe distance away from unit, please see section for clearances to combustibles.
13. Never use aerosol spray near the appliance when it is in operation.
14. For safety reasons never leave children or the elderly unaccompanied while stove is in use. Use a fire guard.
15. Avoid contact with the appliance when in use as stove reaches very high operating temperatures.
16. This appliance should be regularly maintained by a competent service engineer.

THE CARA SOLID FUEL NON BOILER STOVE INSTALLATION & OPERATING INSTRUCTIONS

GENERAL

When installing, operating and maintaining your Cara Stove respect basic standards of fire safety. Read these instructions carefully before commencing the installation. Failure to do so may result in damage to persons and property. Consult your local Municipal office and your insurance representative to determine what regulations are in force. Save these instructions for future reference.

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

Special care must be taken when installing the stove such that the requirements of the Health & 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 with the skin 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.

“IMPORTANT WARNING”

This stove must not be installed into a chimney that serves any other heating appliance.

<p>The complete installation must be done in accordance with current Standards and Local Codes. It should be noted that the requirements and these publications may be superseded during the life of this manual.</p>

Please refer to the current standards, BS EN 15287-1:2007 Design, Installation and Commissioning of chimneys. BS EN 14336:2004: Heating Systems in Buildings. Installation & Commissioning of Water Based Heating Systems. BS EN 12828: 2003; Heating Systems in Buildings. Design of Water Based Heating Systems. BS EN 12831: 2003; Heating Systems in Buildings. method for calculation of the design heat load.

Your Cara stove is supplied with the following items:

- Door Handle
- Ashpan
- Operating Tool
- Glove
- Floor Fixing Screws
- Side Bricks

PRE-INSTALLATION

After removing the stove from the packaging, open the fire door and remove the loose packing. Prior to installation all the internal components of the stove are removed to gain access to fixings and to make it lighter for installation.

Remove the refractory fire bricks, these bricks are loose and just need to be lifted clear of the grate support plate before they can be removed.

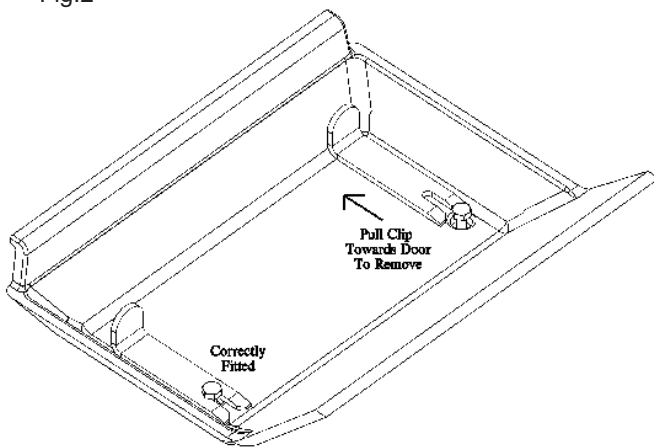
To remove the loose baffle, lift on right side and move this up and to the right to give maximum clearance at the opposite side to allow the baffle be lowered clear of the supporting ledge on the left hand side casting.

Next, remove the grate by pushing it from underneath, the riddling bar is not fixed to the grate.

The cast iron side liners must be removed prior to the fixed baffle, to remove the side liners lift the bottom edge clear of the grate support and slide the bottom edge towards the opposite side of the stove, when the casting is moved to a diagonal position it will be free to be lifted from the stove.

To remove the fixed baffle, loosen the two roof bolts, support the baffle with one hand while removing the L shaped brackets with the other hand, see Fig.2.

Fig.2



Do not overtighten the roof bolts when refitting the baffle. It is adequate to leave them in a position where the L shaped bracket has just enough room to be removed.

Remove the flue spigot and gasket by removing the four bolts.

To remove the insert stove from the external casing, lift out the grate support, this will allow access to two M6 fixings which attach the stove to the outer casing. Remove the 2 fixings, allowing the insert stove to be removed from the external casing.

FLUES

Flues should be vertical wherever possible and where a bend is necessary, it should not make an angle of no more than 45° with the vertical. Horizontal flue runs should be avoided in order to minimise flue resistance and to make sweeping easier it is recommended to use 2 x 45° bends rather than a 90° bend.

CHIMNEY

Do not connect to a chimney serving another appliance.

The stove is a radiant room heater and must be connected to a chimney of the proper size and type. The chimney must have a cross-sectional area of at least 30 square inches 19350sq. mm or a diameter of at least 6" (150mm). It is best to connect to a chimney of the same size, as connection to a larger size may result in a somewhat less draught.

A flue that has proved to be unsatisfactory, particularly with regard to down draught should not be used for venting this appliance until it has been examined and any faults corrected. An existing masonry chimney should be inspected and if necessary repaired by a competent mason or relined using an approved lining system.

The stove must be connected to a chimney with a minimum continuous draught of 0.06 w.g. Poor draught conditions will result in poor performance.

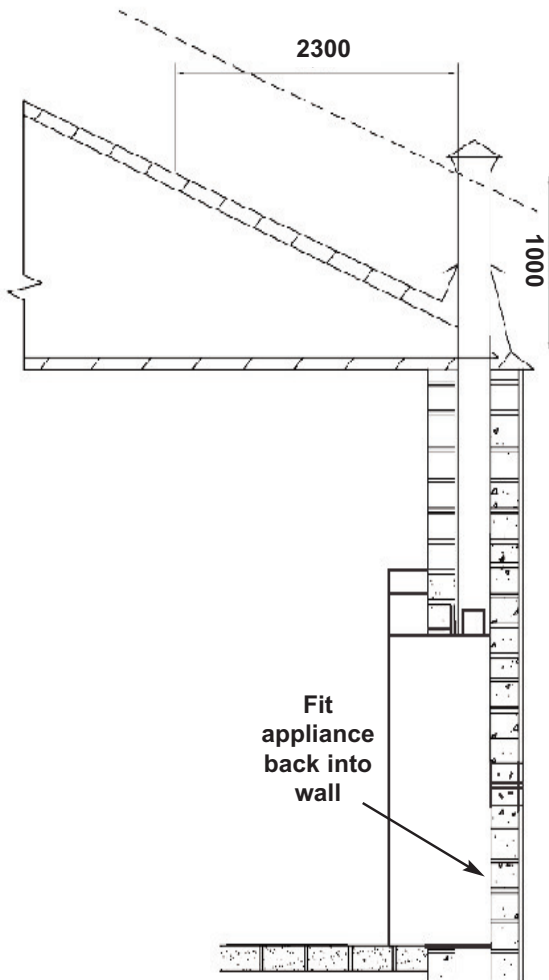
All register plates, restrictor plates, damper etc., which could obstruct the flue at a future date should be removed before connecting this appliance.

If connecting to an existing chimney with a flue diameter of more than 8" it is recommend to line the flue using a suitable stainless steel flue liner.

Where a masonry chimney is not available a proprietary type of 6"/150mm - twin wall, fully insulated pipe may be used.

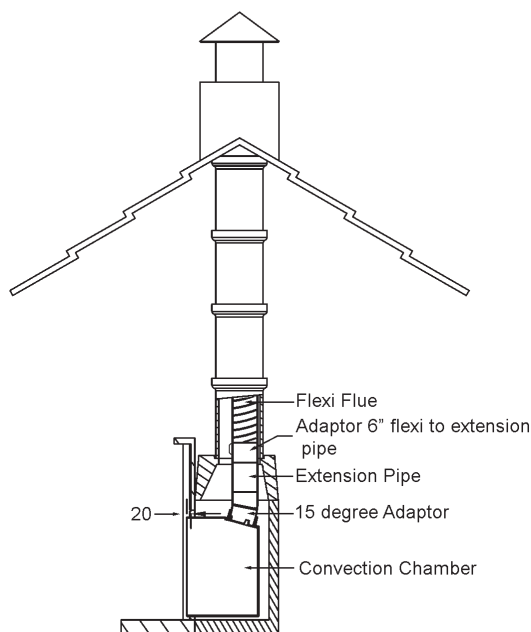
A chimney / flue termination must be located to minimise wind effects, a basic guide is that the distance from the termination to the roof should be at be at least 2300mm when measured horizontally and at least 1000mm when measured vertically, (see Fig.3). In circumstances where there are adjoining buildings/ structures/ roof openings there are additional requirements, please refer to building regulations part J.

Fig.3



The liner should be approved for use with solid fuel. (See Fig. 4)

Fig.4

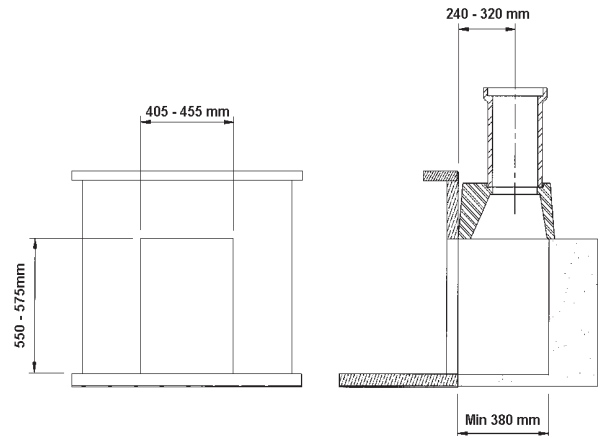


FITTING INSTRUCTIONS

Fully Lined Chimney

Step 1

Prepare the fireplace area with milner brick removal. Ensure the opening is suitable for fitting of the insert stove opening required, i.e. remove fire surround trim if fitted. See Fig.5.



Step 2

Ensure the floor area is level with the hearth, this area needs to be level as the insert fire is screw fixed to the floor. Remove all internal parts as per pre-assembly instructions.

Step 3

Drop the flexi flue liner down through the chimney and into the fireplace. Fit the adaptor (not supplied available to order) to the end of the flexible flue liner along with the extension pipe which is supplied.

Step 4

Lay the external casing into the opening and position it so that the front edge protrudes 20mm past the front edge of the opening.

Step 5

Mark the drill locations and drill the holes using a 5.5mm drill bit. Fix the casing to the floor using the self tapping screws provided.

Step 6

Lift the stove into the casing approximately 75mm first and then it can be pushed into the final position while taking care to lift the front edge to preserve the hearth.

Step 7

Lay the sealing gasket on to the flue spigot, then fit the flue spigot to the end of the 15 degree adaptor. Fix the 15 degree adaptor to the flue spigot using the grub screws provided. Then pass the 15 degree adaptor through the flue opening and connect it to the extension pipe.

Step 8

Then using the M6 bolts secure the stove to the convection chamber. Push the insert stove against the fireplace before fully tightening these bolts.

Step 9

Pull the flue liner back up through the flue outlet until the flue spigot is in position. Fix the flue spigot using the M8 bolts provided. It may be necessary to cut a prop to hold the spigot in place while the fixings are being attached.

Step 10

Complete the installation of the flexi flue at the top of the chimney in accordance with the manufacturers instructions.

NOT FULLY LINED CHIMNEY (Using Closure Plate & Pipe Extension)

Fig.6 Chimney Connectors

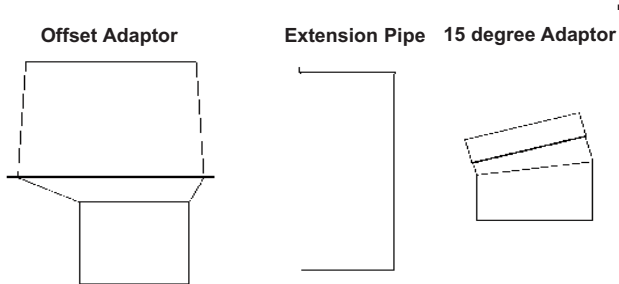
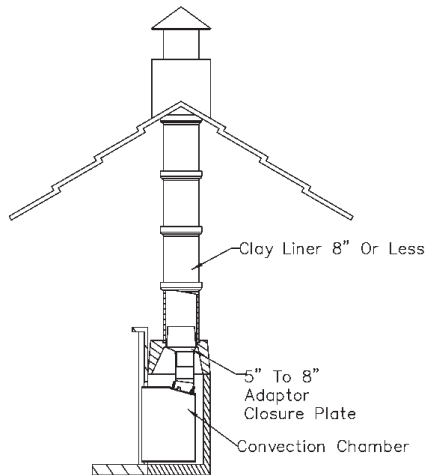


Fig.7



Step 1

Prepare the fireplace area with milner brick removal. Ensure the opening is suitable for fitting of the insert stove opening required, i.e. remove fire surround trim if fitted. See Fig.5.

Step 2

Ensure the floor area is level with the hearth, this area needs to be level as the insert fire is screw fixed to the floor. Remove all internal parts as per pre-assembly instructions prior to lifting it.

Fig.8

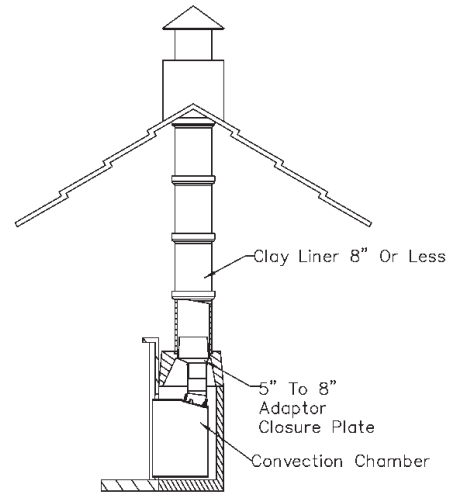


Fig.8a

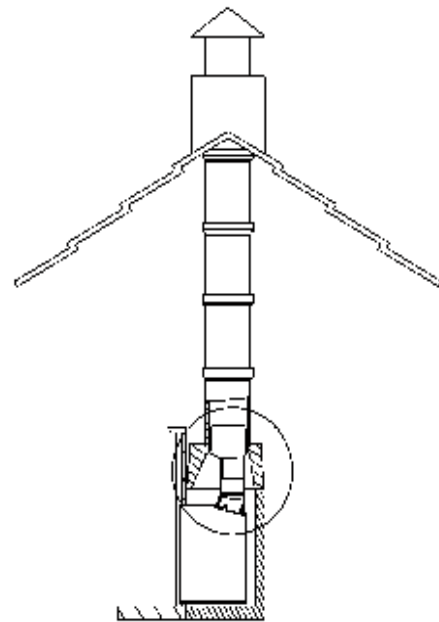
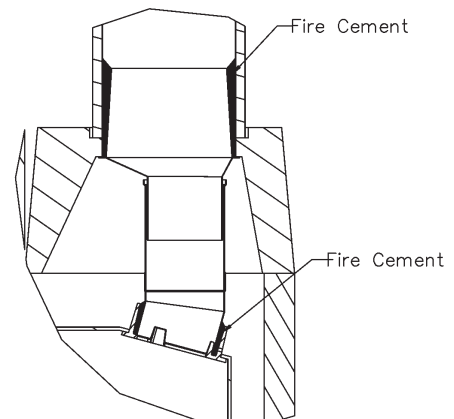


Fig.8b



Step 3

Measure the distance to the flue outlet of the stove and compare to the chimney, decide on best orientation of the offset adaptor.

Step 4

Push the offset adaptor into position and make a seal using approved fire cement between the adaptor and the clay liner. The seal should be tapered to allow any condensation that may occur in the chimney flow back into the flue. See Fig.8b.

Step 5

Mark the drill locations and drill the holes using a 5.5mm drill bit. Fix the casing to the floor using the self tapping screws provided.

Step 6

Lift the stove into the external casing. The stove can be lifted into the casing approximately 75mm first and then it can be pushed into the final position while taking care to lift the front edge to preserve the hearth.

Step 7

Then using the M6 bolts secure the stove to the convection chamber. Push the insert stove against the fireplace before fully tightening these bolts.

Step 8

Temporarily fit the flue spigot and the 15 degree adaptor. Measure the required length for the extension pipe.

Step 9

Measure and cut the extension pipe at the straight end to the required dimension using the guide collar provided.

Step 10

Lay the flue gasket onto the flue spigot and then fit 15 degree adaptor and extension pipe to the spigot using the grub screws to fix the 15 degree adaptor provided and seal using fire cement.

Step 11

Fit the spigot adaptor and extension pipe so that it completes the flue installation between the stove and adaptor (closure plate).

Step 12

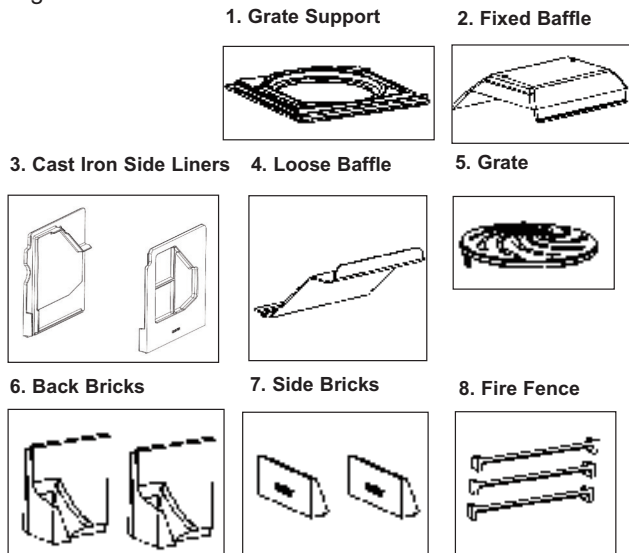
Bolt the spigot to the stove and re-apply fire cement to the seals where it may have been disturbed during the installation.

NOTE: THE CAVITY AROUND THE STOVE MUST NOT BE FILLED WITH ANY FORM OF INSULATION OR VERMICULITE.

Fit the individual components in the following order:

1. Grate Support
2. Fixed Baffle
3. Cast Iron Side Liners
4. Loose Baffle
5. Grate
6. Back Bricks
7. Side Bricks
8. Fire Fence

Fig 9



1. Grate Support

Tilt the grate support up on one side and pass it carefully through the door opening, it should then rest on three supports approx 100mm from the floor of the stove.

2. Fixed Baffle

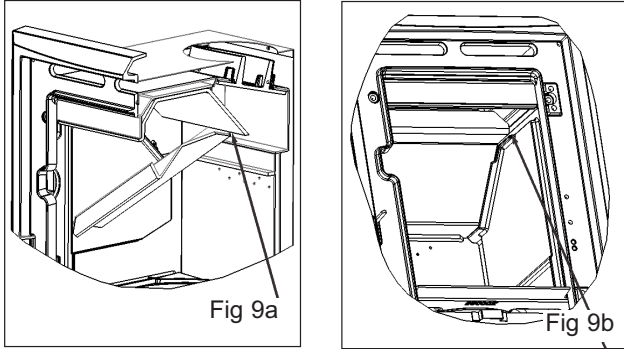
The baffle fits to the roof of the stove using the two M6 bolts and L shaped stainless steel clips. The bolts should be still in place following removal of the baffle, simply lift the baffle into place with the hex head bolts passing through the holes in the baffle, then fit the L shaped clip over the head of the bolt to hold the baffle in place. It is best to leave the bolts half a turn loose to allow for ease of removal.

3. Cast Iron Side Liners

To insert the side liner, place the casting diagonally into the stove with the top edge to the side it is intended, then push the bottom edge across while making sure the top edge passes inside the fixed baffle. The casting should fall into its final location at the side where the bottom edge is located by the grate support.

4. Loose Baffle

To fit the bottom baffle, place it into the stove as shown in fig. 9a with the bend in the baffle aligned with the bottom edge of the top baffle. Slide the baffle up to one side as far as possible until it can be lifted past the support ledge on the opposite side panel, then lower the baffle into its correct position centrally in the stove with the rear edge in contact with the rear of the stove and resting on the support ledges of the side panels and with the chamfer located in the top corner as per fig. 9b



5. Grate

The grate simply lays into the grate support but care needs to be taken that the riddling bar will rest in the middle of the fork.

6 & 7. Side & Back Bricks

Lay the side and back bricks in as shown in Fig.10. It may be necessary to lift the LHS linerto fit the LH Back Brick into position.

8. Fire Fence

Lay the fire fence into the slots provided ensuring that they slope from front to back so that no embers can fall out through the fire fence.

DOWN DRAUGHTS

However well designed constructed and positioned, the satisfactory performance of the flue can be adversely affected by down draught caused by nearby hills, adjacent tall buildings or trees. These can deflect wind to blow directly down the flue or create a zone of low pressure over the terminal.

A suitable terminal or cowl will usually effectively combat direct down blow but no cowl is likely to prevent down draught due to a low pressure zone. (See Fig.11).

VENTILATION AND COMBUSTION AIR REQUIREMENTS

It is imperative that there is sufficient air supply to the stove in order to support correct combustion. The air supply to this appliance must comply with current Building Regulations Part J, Heat Providing Appliances. If another appliance is fitted in an adjacent room it will be necessary to calculate an additional air supply.

Fig 10

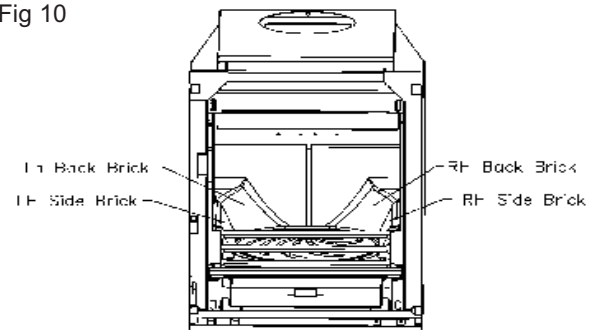


Fig 11



The minimum effective air requirement for this appliance is 66cm². When calculating combustion air requirements for this appliance use the following equation: 550mm² per each kW of rated output above 5 kW should be provided, where a flue draught stabiliser is used the total free area shall be increased by 300mm² for each kW of rated output. If there is another appliance using air fitted in the same or adjacent room, it will be necessary to provide an additional air supply.

Note:

There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit smoke and fumes into the room.

All materials used in the manufacture of air vents should be such that the vent is dimensionally stable, corrosion resistant, and no provision for closure.

The effective free area of any vent should be ascertained before installation. The effect of any grills should be allowed for when determining the effective free area of any vent.

Air vents should be positioned so that they are not liable to blockage.

Air vents direct to the outside of the building should be located so that any air current produced will not pass through normally occupied areas of the room.

An air vent outside the building should not be located less than the dimensions specified within the Building Regulations and B.S. 8303: Part 1 from any part of any flue terminal. These air vents must also be satisfactorily fire proofed as per Building Regulations and B.S. 8303: Part 1.

Air vents in internal walls should not communicate with bedrooms, bedsits, toilets, bathrooms or rooms containing a shower.

Air vents traversing cavity walls should include a continuous duct across the cavity. The duct should be installed in such a manner as not to impair the weather resistance of the cavity.

Joints between air vents and outside walls should be sealed to prevent the ingress of moisture. Existing air vents should be of the correct size and unobstructed for the appliance in use.

If there is an extraction fan fitted in adjacent rooms where this appliance is fitted, additional air vents may be required to alleviate the possibility of spillage of products of combustion from the appliance/flue while the fan is in operation. Refer to B.S. 8303 Part 1.

Where such an installation exists, a test for spillage should be made with the fan or fans and other appliances using air in operation at full rate, (i.e. extraction fans, tumble dryers) with all external doors and windows closed.

If spillage occurs following the above operation, an additional air vent of sufficient size to prevent this occurrence should be installed.

Especially Airtight Properties:-

If the stove is being fitted in a property where the design air permeability is less than $5\text{m}^3 / (\text{h.m}^2)$ (normally newer properties built from 2006), then a permanent ventilation must be fitted to provide 550mm^2 of ventilation for each kW of rated output. If a draught stabiliser is also fitted then the requirement is 850mm^2 per kW of rated output.

'HETAS product approval covers this appliance when installed in accordance with the manufacturer's instructions and relevant standards. As there is currently no standard for Ducted Combustion Air Supply this does not fall within the remit for HETAS product approval. Responsibility for the specification of this and for appropriate manufacturer's instructions is carried by the appliance manufacturer, as allowed for under the Building Regulations.'

To supply the minimum air requirement, an outside air connection (4" Pipe) can be connected to either side of the appliance direct to the outside of the building using the optional OSA Kit. After securing the convection chamber in position, pass the 4" pipe thru the cut-out on the side of the chamber, secure the OSA spigot (see Fig 12) to the pipe and screw the spigot to the inner face of the chamber using the screws provided. Fit the OSA blanking plate to the other face of the chamber using the screws provided (see Fig 13).

Fig 12

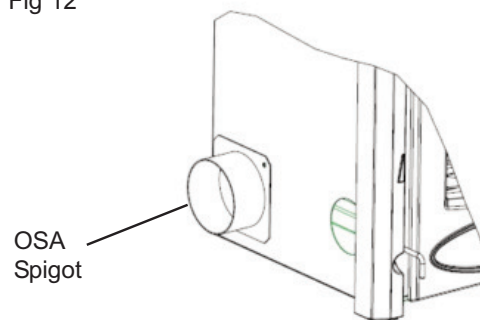
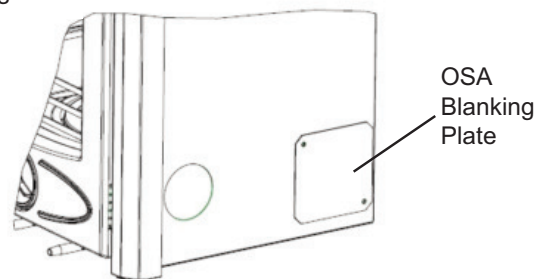


Fig 13



LOCATION

There are several conditions to be considered in selecting a location for your Stanley Cara NB Stove.

- Position in the area to be heated, central locations are usually best.
- Allowances for proper clearances to combustibles.
- Allowances for proper clearances for maintenance work.

CLEARANCES TO COMBUSTIBLES

This appliance must be installed in a recess, the recess should not contain any combustible material. Wood battens and plaster board should not be used within the clearance to combustibles. the minimum clearance to combustibles required is as follows:

Fig.14

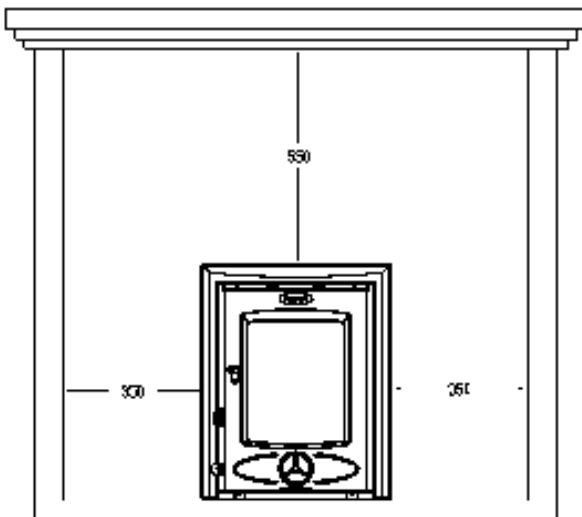
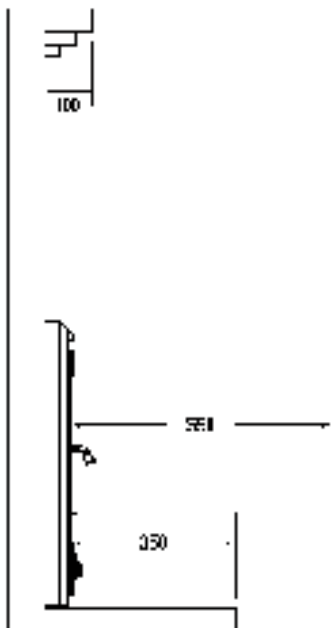


Fig.15



To the Top	550mm (22")
To the Front	550mm (22")
From the Sides	350mm (14")
To Combustible Flooring	350mm (14")

If the mantelpiece protrudes further than 100mm from the fireplace, then it will be necessary to have further clearance to the top of the stove. The distance the mantle protrudes past the 100mm should be added to the clearance.

For example, if the mantle protrudes 200mm, the clearance to the mantle should be 650mm. (See Figs 14 & 15).

If there is a studded wall surrounding the fireplace as in Fig.16, ensure the clearances in this Fig are adhered to.

FLOOR PROTECTION

It is recommended that the appliance is installed on a solid, level, concrete base of non combustible hearth conforming to the current Building Regulations must extend 350mm in front of the unit and 350mm from the sides of the front edge. This will provide protection from sparks and embers which may fall out when stoking or refuelling.

Fig.16

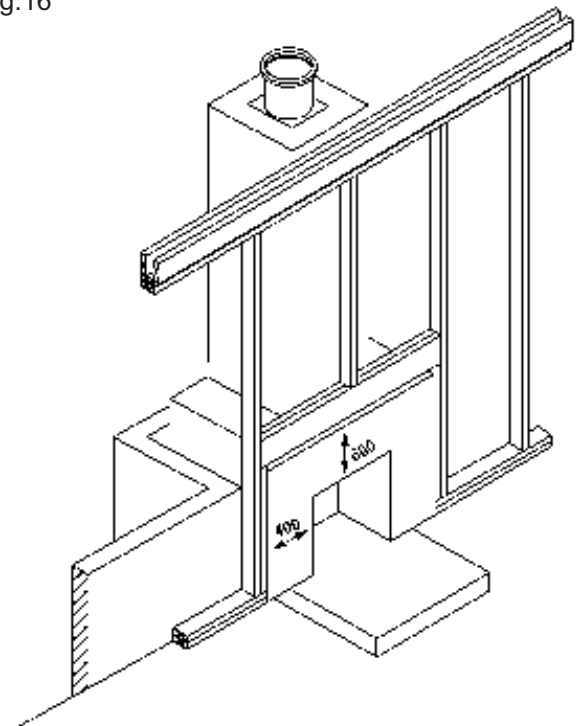
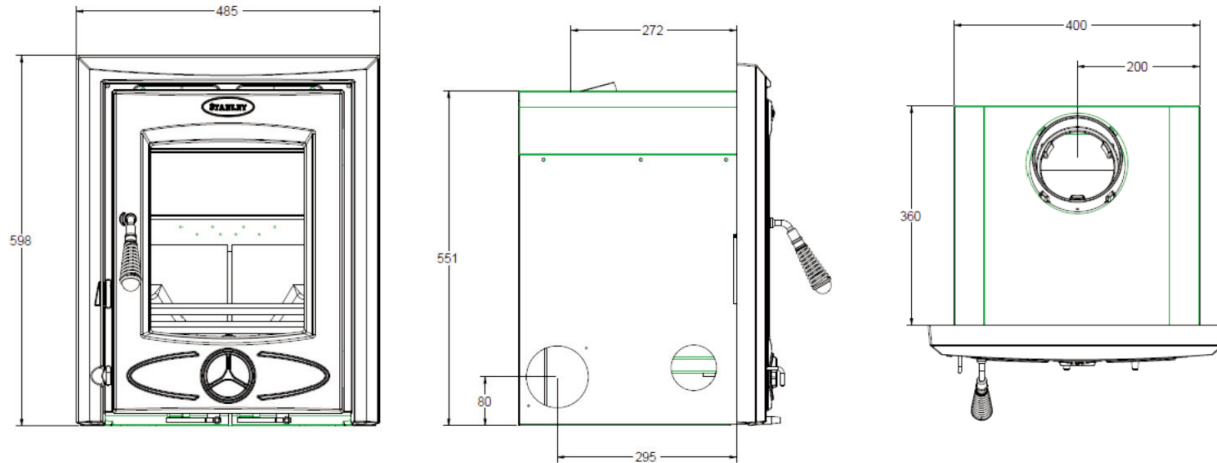


Fig.17

STOVE DIMENSIONS



WARNING: DO NOT OBSTRUCT PRIMARY AIR SUPPLY TO THE STOVE

Note: Dimensions stated are in millimetres unless otherwise stated and may be subject to a slight +/- variation.

COMMISSIONING AND HANDOVER

On completion of the installation allow a suitable period of time for any fire cement and mortar to dry out, when a small fire may be lit and checked to ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to the atmosphere. **Do not run at full output for at least 24 hours.**

Ensure that the operating instructions for the stove are left with the customer. Ensure to 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 what to do should smoke or fumes be emitted from the stove. The customer should be warned to use a fireguard to BS 8432: 2010 in the presence of children, aged and/or infirm persons.

OPERATION

Check that all dampers and catches are operating correctly and ensure that all flue connections are thoroughly sealed.

AIR CONTROLS

The Stanley Cara Insert has two independent air controls.

1. The primary air control is the left hand lever under the fire door. Slide left to close and right to open.
2. The secondary air control is the right hand lever under the fire door. Slide left to close and right to open.

Note: The controls may be hot when the stove is in operation, use the glove provided to adjust the controls when the stove is hot.

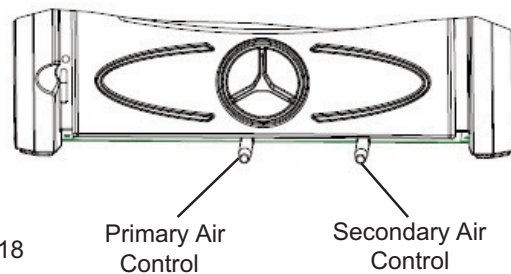


Fig.18

RECOMMENDED FUELS

All fuels should be stored under cover and kept as dry as possible prior to use.

This appliance has been tested using seasoned wood logs and manufactured briquetted smokeless fuel (Ancit) for closed appliances, sized between 20g and 140g. Other fuels are commercially available and may give similar results. Wood logs up to 340mm long are suitable. All fuels should be stored under cover and kept as dry as possible prior to use. Do not use fuels with a Petro-coke ingredient as this may cause the grate to overheat, causing damage. Reduced outputs will result when fuels of lower calorific values are used. Never use gasoline or gasoline type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or freshen up a fire in this heater. Keep all such liquid well away from the heater at all times. Operate the stove only with the fuelling door closed except for re-fuelling. This stove has obtained HETAS Ltd approval for burning natural and manufactured smokeless fuels only as detailed in recommended fuels below. HETAS Approval does not cover the use of other fuels either alone or mixed with the recommended fuels listed, nor does it cover instructions for the use of other fuels.

TECHNICAL DATA

	MANUFACTURED SMOKELESS FUEL	WOOD
Max Output: (kW) Nominal Output: (kW)	Room 6.5 kW 5.0 kW	Room 5.0 kW 5.0 kW
Typical refuelling intervals to obtain nominal outputs:	MSF 1 hour	WOOD 0.8 hour
Mean Flue Gas Temperature °C	288	316
Flue Gas Mass Flue	3.6	4.0
Gross Weight:	100 kgs	
Flue Outlet:	125 mm	
Efficiency	80.0%	78.1%
Flue Draught:	12 Pa	12 Pa
Log Length:	-	310

Model	Energy Efficiency Class	Heat Output to Room	Heat Output to Water	Energy Efficiency Index	Preferred Fuel	Nominal Heat Output	Net Efficiency
Cara NB SF Stove	A	5	N/A	104.25	Wood	5	78.1

LIGHTING

Before lighting the stove check with the installer that the installation work and commissioning checks described previously have been carried out correctly and that the chimney has been swept clean, is sound and free from any obstructions. As part of the stoves commissioning and handover the installer should demonstrate how to operate the stove correctly.

LIGHTING THE STOVE

1. Open the firebox door and remove all debris from the grate and ashpan.
2. Open the primary air control fully.
3. Set the secondary air controls to the required position depending on the fuel being burned i.e. open when burning wood and closed when burning coal/ anthracite.
4. Place pieces of paper and kindling on top of the grate and add a small quantity of fuel. Light the fire and close the firebox door.
5. When a good fire is established, open the fire door and load the fuel as required.
6. Adjust the primary and the secondary air control as required depending on the fuel type being used and the heat output required (see table below). Both controls should be adjusted in conjunction with each other to get the appropriate burn rate with exact settings on each control depending on the draught conditions of the chimney to which the unit is connected.

FUEL	PRIMARY AIR	SECONDARY AIR
Anthracite	Adjust for Desired Heat Output	Fully Closed
Coal	Adjust for Desired Heat Output	Fully Closed
Turf/ Wood	Maximum Opening of 50%	Adjust for Desired Heat Output

WARNING: DO NOT LEAVE BOTH AIR CONTROLS FULLY OPEN AS THIS CAN CAUSE THE STOVE TO OVERHEAT, DAMAGING THE INTERNAL COMPONENTS.

REFUELLING

Before opening the door, open the primary air control fully as this will help to eliminate any smoke or fly ash resident in the combustion chamber. Add fuel to fire, close fire door and re-set the air controls to the required setting.

SLOW BURNING

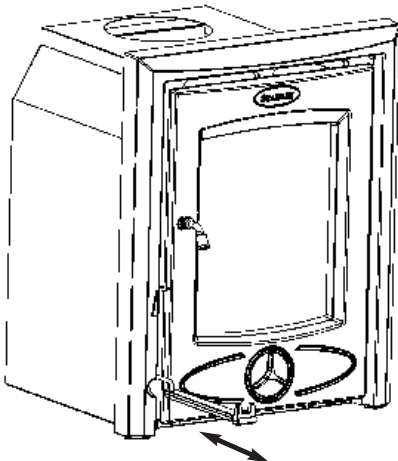
To achieve slow burning when burning wood close the secondary air control and open a few millimetres. Slow burning will cause the window glass to blacken and should not be used for a long period as it will leave sooty deposits in the flueways. Opening the secondary air control will increase the heat output and will clear the glass.

To obtain slow burning when burning coal, close the secondary air control fully and open the primary air control a few millimetres.

DE-ASHING

Never allow the ashpan to over fill as it will cause damage to the grate. Empty the ashpan before lighting. Always ensure that ashes have thoroughly cooled before removing the ashpan. Open the fire door and remove ashpan using the operating tool. Close the fire door. When the ash is disposed of, replace the empty ashpan. Do not leave the fire door open, even for a minute.

Fig.19



DISPOSAL OF ASHES

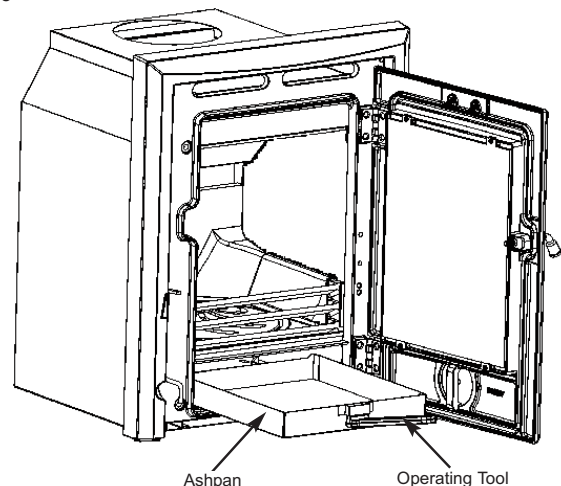
Your stove is provided with a steel ashpan. This ashpan should be emptied every day.

If ashes are allowed to build to grate level you could damage the firebars by overheating. We recommend that you remove ashes after you have riddled the fire when the stove is thoroughly cooled.

Ashes should be placed in a metal or other non-combustible container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible material, pending final disposal. If ashes are buried in soil, or otherwise dumped they should be retained in the closed container until they are thoroughly cooled.

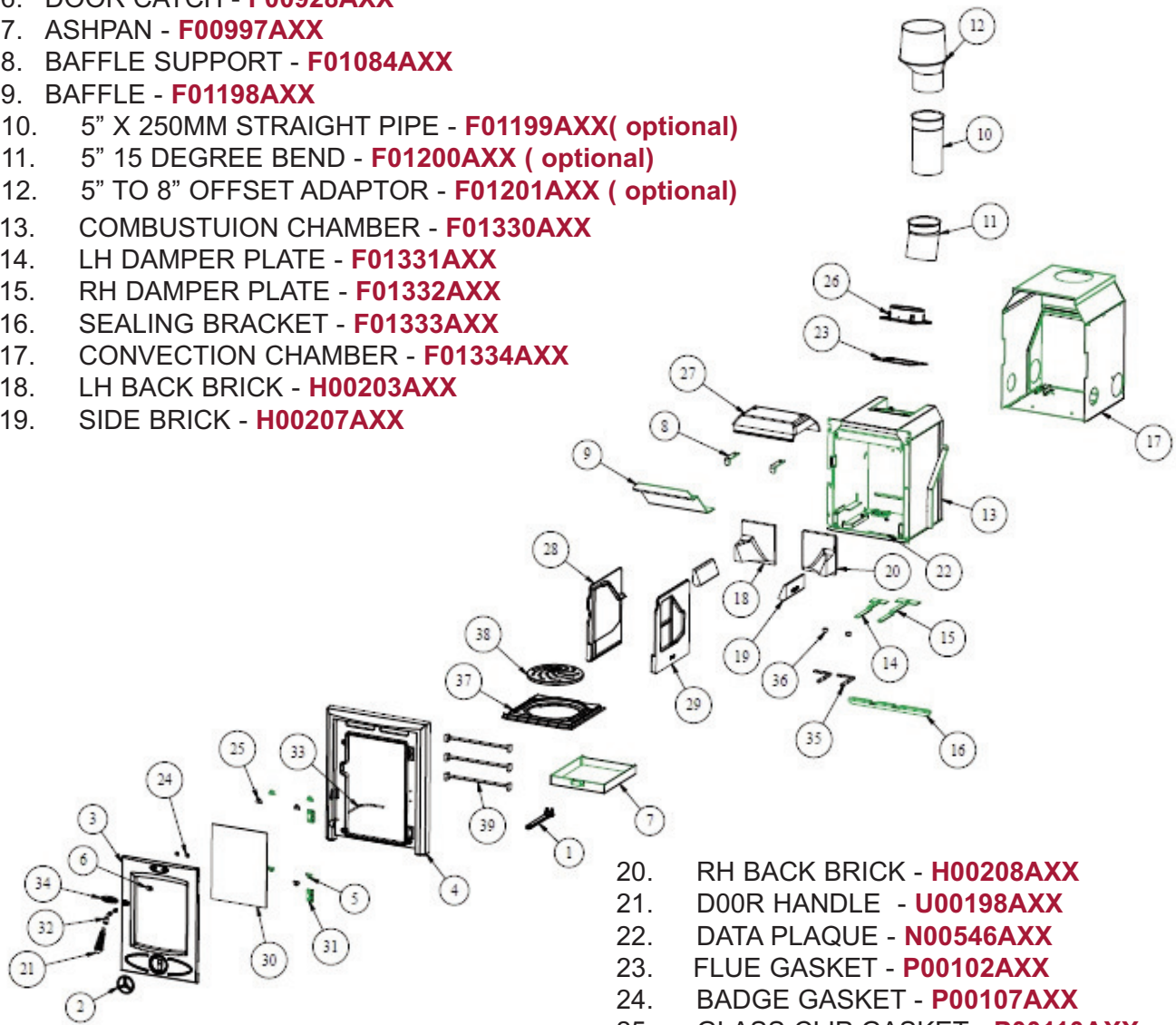
Open the fire door and remove the ashpan using the tool provided, see Fig 20. Close the ash door. When the ash is disposed of replace the ashpan.

Fig.20



CARA INSERT STOVE EXPLODED VIEW

1. OPERATING TOOL - **B00009DZZSE**
2. SPIN VALVE - **B00032AZZ**
3. FIRE DOOR - **B00587AZZ**
4. FRONT - **B00588AZZ**
5. WINDOW CLIP - **CA1101**
6. DOOR CATCH - **F00928AXX**
7. ASHPAN - **F00997AXX**
8. BAFFLE SUPPORT - **F01084AXX**
9. BAFFLE - **F01198AXX**
10. 5" X 250MM STRAIGHT PIPE - **F01199AXX(optional)**
11. 5" 15 DEGREE BEND - **F01200AXX (optional)**
12. 5" TO 8" OFFSET ADAPTOR - **F01201AXX (optional)**
13. COMBUSTUION CHAMBER - **F01330AXX**
14. LH DAMPER PLATE - **F01331AXX**
15. RH DAMPER PLATE - **F01332AXX**
16. SEALING BRACKET - **F01333AXX**
17. CONVECTION CHAMBER - **F01334AXX**
18. LH BACK BRICK - **H00203AXX**
19. SIDE BRICK - **H00207AXX**



20. RH BACK BRICK - **H00208AXX**
21. D00R HANDLE - **U00198AXX**
22. DATA PLAQUE - **N00546AXX**
23. FLUE GASKET - **P00102AXX**
24. BADGE GASKET - **P00107AXX**
25. GLASS CLIP GASKET - **P00110AXX**
26. 5" FLUE - **Q00752AXX**
27. TOP BAFFLE - **Q00761AXX**
28. LH SIDE PLATE - **Q00790AXX**
29. RH SIDE PLATE - **Q00791AXX**
30. 16" DOOR GLASS - **T00098AXX**
31. HINGE - **U00153AXX**
32. DOOR AXLE - **V00857AXX**
33. PULL ROD - **V00911AXX**
34. BADGE - **V00912AXX**
35. OPERATING LEVER - **V01075AXX**
36. BUSH - **V01080AXX**
37. GRATE SUPPORT - **Z00035AXX**
38. GRATE - **Z00036AXX**
39. FIRE FENCE - **Z00037AXX**

To adapt the product for external air supply use Part code **AOSACAGL**
Contents , banking plate , 100mm spigot and screws.

For external air supply use **AOSAVKIT**
Contents , 100mm diamater aluminium flexible pipe, stainless steel terminal for external wall, rubber adaptor.

MONTHLY MAINTENANCE

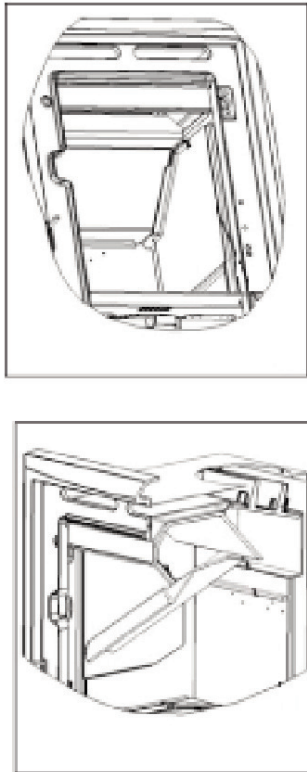
Cleaning Stove Flue Pathways

It is recommended that the flue pathways in the stove are cleaned on a monthly basis (or less depending on the soot build-up created by the fuel being used) and the chimney cleaned annually. To access the chimney pathways, use the following procedure:

Remove the firebars and firebricks.

Remove the bottom baffle by lifting up a side of the baffle and allowing the opposite edge down into the firebox area. Turn the baffle at an angle to remove it through the door opening (see Fig. 21).

Fig.21



GRATE REMOVAL & CLEANING

Over time fuel deposits, clinker & ash can lodge between the grate and grate support which can cause difficulties when moving the grate during de-ashing. To help reduce this occurrence, it is recommended that the grate is cleaned on a monthly basis when undertaking the general cleaning of the flue pathways using the following procedure:

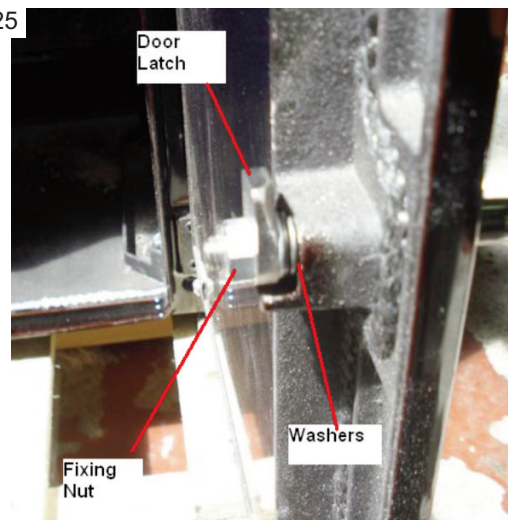
1. The grate is removed by removing the ashpan and then lifting the grate out of the grate insert from underneath the grate.
2. When replacing the grate, ensure that the fork on the underside of the grate is located over the grate pull rod and pull the grate pull rod to check that the grate is riddling.

PERIODIC MAINTENANCE

ADJUSTING THE DOOR CATCH

Over time, the fire door latch can loosen due to the continual compression and hardening of the rope seal between the door and the front casting. The position of the latch can be easily adjusted (in order to tighten the door closure) by removing the nut holding on the door latch and repositioning the washers between the latch and the door casting to allow the latch to be positioned closer to the back of the door casting (see Figure 25). The tightness of the door seal should be checked after each adjustment is made. It is recommended that the rope seals on the stove are changed at least every two years or sooner if the seal loses its integrity.

Fig.25



CHIMNEY CLEANING

The chimney should be cleaned twice annually or if the stove is not used for a prolonged period during the summer period, it should be cleaned prior to commencement of usage. The chimney can be cleaned through the stove depending on the flue configuration and the flue liner should be cleaned in accordance with manufacturer's instructions. Always use a brush with plastic bristles that is the correct size to reach all areas of the flue.

GLASS CLEANING

The stove glass will self-clean when there is sufficient heat generated by the burning fuel i.e. when the unit is operated at the maximum air settings. If a build-up of creosote occurs on the glass it may be due to low draft conditions, poor quality fuel or operating the stove at the minimum air settings for long periods of time. The glass should be cleaned when cool and cleaned with a non-abrasive cloth using warm soapy water. For stubborn deposits, a grade 0 steel wool can be used whilst taking care not to scratch the glass with any coal/ash deposits.

VITREOUS ENAMEL CLEANING

General cleaning must be carried out when the stove is cool.

If this stove is finished in a high gloss vitreous enamel, to keep the enamel in the best condition observe the following tips:

1. Wipe over daily with a soapy damp cloth, followed by a polish with a clean dry duster.
2. For stubborn deposits a soap impregnated pad can be carefully used on the vitreous enamel.
3. Use only products recommended by the Vitreous Enamel Association, these products carry the Vitramel label.

A detailed list of the approved cleaners can be found on their website www.vea.org.uk/enamel-care/

DO NOT USE ABRASIVE PADS OR OVEN CLEANSERS CONTAINING CITRIC ACID ON ENAMELLED SURFACES. ENSURE THAT THE CLEANSER MANUFACTURERS INSTRUCTIONS ARE ADHERED TO.

NOTE: Small impact marks on the enamel finish can be repaired using an appropriate enamel touch up (a touch up bottle is included with the stove packaging) but it should not be used to cover marks greater than $\varnothing 10\text{mm}$ or multiple marks on the same casting/area.

CLEANING A MATT BLACK/ SENOTHERM STOVE

Cleaning should be done when the stove is cold by removing any dust or dirt using a dry cloth. Do not use any water on the matt black/senotherm finish as this will cause it to rust.

PROLONGED PERIODS OF NON USE

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

It is important that the flue connection, any appliance baffles or throat plates and the chimney are swept prior to lighting up after a prolonged shutdown period.

WARNING NOTE:

Properly installed, operated and maintained this stove will not emit fumes into the dwelling. Occasional fumes from the de-ashing and re-fuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate action should be taken:

- (a) Open doors and windows to ventilate room.
- (b) Let the fire out or eject and safely dispose of fuel from the stove.
- (c) Check for flue or chimney blockage and clean if required.
- (d) Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

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

FIRE SAFETY

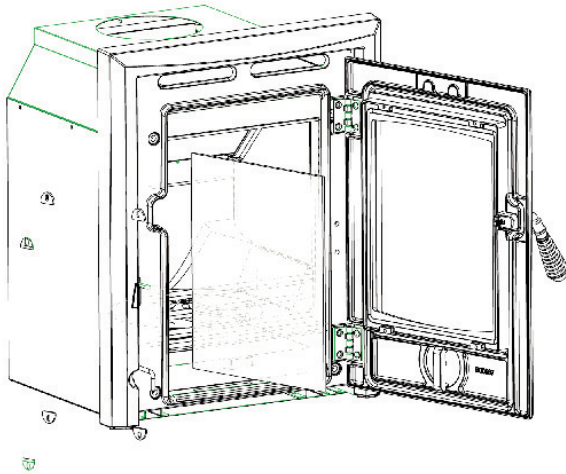
To provide reasonable fire safety, the following should be given serious consideration.

1. Do not over fire the stove.
2. Over-firing will also damage painted or enamel finish.
3. Install a smoke detector in the room.
4. A conveniently located class A fire extinguisher to contend with small fires resulting from burning embers.
5. A practical evacuation plan.
6. A plan to deal with a chimney fire as follows:-
 - (a) Notify the fire department.
 - (b) Prepare occupants for immediate evacuation.
 - (c) Close all openings into the stove.
 - (d) While awaiting the fire department watch for ignition to adjacent combustibles from overheated flue pipe or from embers or sparks from the chimney.

GLASS REPLACEMENT

- (a) Open the door fully.
- (b) Remove the clips and carefully remove the broken glass.
- (c) Clean the glass recess in the door.
- (d) Place the glass into the door recess and replace the four corner clips.
- (e) Replace the sealing rope in the door if necessary
- (f) Tighten screws.
- (g) Replace glass only with ceramic glass 5mm thick. (See Fig. 26).

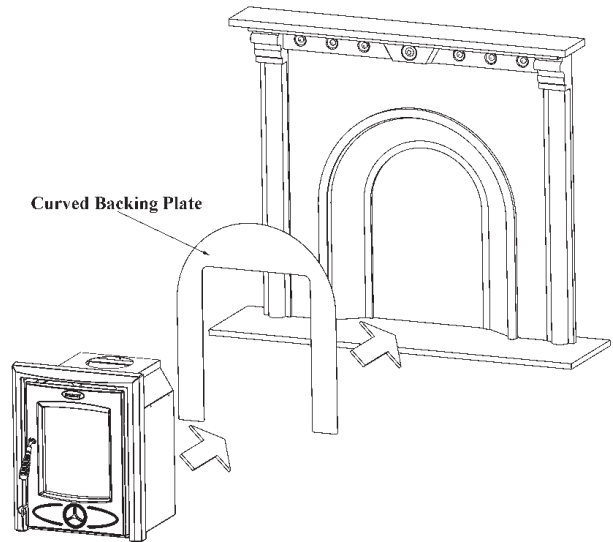
Fig 26



WARNING:-

If the CO Alarm sounds unexpectedly:-

1. Open Doors and windows to ventilate the room and then leave the premises.
2. Let the fire go out.



CURVED BACKING PLATE

This is available as an optional extra from your local stockist.

CO ALARM

The fitting of CO Alarms in the same room as the appliance is a compulsory requirement under current Building Regulations. For ROI an additional CO Alarm must be fitted either inside each bedroom or within 5 metres of the bedroom door, refer to Building Regulations Part J. Further guidance on the installation of a carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturers 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.

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