STOVAX

High Output Boiler Stoves

MODELS:
STOCKTON 8/11/14

Instructions for Use, Installation and Servicing

For use in GB & IE (Great Britain and Republic of Ireland).

This appliance has been certified for use in countries other than those stated. To install this appliance in these countries, it is essential to obtain the translated instructions and in some cases the appliance will require modification. Contact Stovax for further information.

IMPORTANT

THE OUTER CASING, FRONT AND GLASS PANEL BECOME EXTREMELY HOT DURING OPERATION AND WILL RESULT IN SERIOUS INJURY AND BURNS IF TOUCHED. IT IS THEREFORE RECOMMENDED THAT A FIREGUARD COMPLYING WITH BS 8423:2002 IS USED IN THE PRESENCE OF YOUNG CHILDREN, THE ELDERLY OR INFIRM.

Do not attempt to burn rubbish in this appliance.

Please read these Instructions carefully before installation or use.
Keep them in a safe place for future reference and when servicing the fire.

The commissioning sheet found on page 3 of these instructions should be completed by the Installer.

PM240 Issue 5 (March 2012)

COVERING THE FOLLOWING MODELS:

STOCKTON 8/11/14

WARRANTY

Your Stovax retailer provides you with a Two Year Warranty for your new product. However, this specifically excludes naturally wearing parts or 'consumables' and the use of unauthorised fuels. Some Stovax products will also qualify for a Five Year Warranty on cast iron parts such as cast iron carcasses and cast iron doors of steel bodied stoves. Again, this excludes naturally wearing cast iron parts.

For these extended warranties to be valid your stove must have been installed in accordance with the manufacturer's instructions and the second and subsequent year's warranties are dependant on the appliance being serviced within 12 months of installation by an appropriately qualified engineer and annually thereafter. Please check the Warranty Statement on the Stovax web-site for up-to-date list of conditions.

APPLIANCE COMMISSIONING CHECKLIST

To assist us in any guarantee claim please complete the following information.
In the unlikely event of a problem, contact your installer or retailer for assistance:

Retailer appliance was purchased from

Name: .....

Address: .....

.....

Telephone number: .....

Essential Information - MUST be completed

Date installed: .....

Model Description: .....

Serial number: .....

Installation Engineer

Company name: .....

Address: .....

.....

Telephone number: .....

Commissioning Checks (to be completed and signed)

Is flue system correct for the appliance	YES ☐	NO ☐
Flue swept and soundness test complete	YES ☐	NO ☐
Smoke test completed on installed appliance	YES ☐	NO ☐
Spillage test completed	YES ☐	NO ☐
Use of appliance and operation of controls explained	YES ☐	NO ☐
Instruction book handed to customer	YES ☐	NO ☐
Hot water system commissioned	YES ☐	NO ☐
CO Alarm fitted	YES ☐	NO ☐

Signature: ..... Print name: .....

USER INSTRUCTIONS

1. GENERAL POINTS

IMPORTANT - DO NOT RUN THIS APPLIANCE WITHOUT ANY WATER IN THE SYSTEM.

1.1 **Before use of this appliance please read these instructions fully.**

The appliance must be fitted by a registered installer*, or approved by your local building control officer.

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

1.3 Only use for domestic heating. To achieve the optimum performance from this appliance it must be installed and operated according to these instructions burning the fuels recommended.

1.4 You must burn only approved fuels. Do not use with liquid fuels or as an incinerator.

1.5 Appliance surfaces become very hot when in use. Use a suitable fireguard if young children, elderly or infirm persons are present. Stovax offer firescreens, sparkguards and hearthgate systems for protection‡. Your Stovax retailer can advise you about these products.

1.6 Do not place photographs, TV's, paintings, porcelain or other combustible items on the wall or near the appliance. Exposure to hot temperatures will cause damage. Do not place furniture, or other items such as drying clothing, closer than 1m from the front of this appliance.

1.7 Extractor fans or cooker hoods must not be placed in the same room or space as this can cause appliance to emit fumes into the room.

1.8 Do not obstruct inside or outside ventilation required for the safe use of this appliance.

1.9 Do not make unauthorised changes to the appliance.

1.10 The chimney must be swept at least once a year (see Section 12).

1.11 **Do not connect, or share, the same flue or chimney system with another appliance.**

1.12 **Do not run the appliance without any water in the system.**

‡In the U.K. these products must conform to the latest edition of BS 8423, Fireguards for use with solid fuel appliances.
If appliance is operating unattended they must conform to the latest edition of BS 3248
*Registered on the Competent Persons Scheme (GB only) see page 11 / INFO (Republic of Ireland).

SERIAL NUMBER

1.13 This number is required when ordering spare parts or making warranty claims. It is found on the appliance data plate.

1.14 The data plate is found under the front of the stove ashlip (see Diagram 1).

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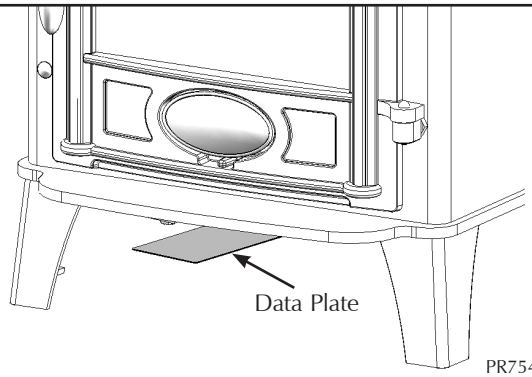


THERMOSTAT

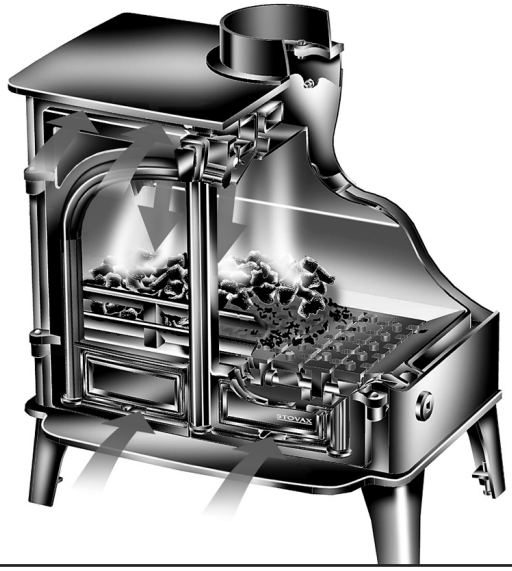
As an optional extra this stove can be controlled by a thermostat which regulates the rate at which the fuel is burned and the amount of heat produced. A trial and error approach will establish settings to suit personal preference.

AIR CONTROLS

Several Stovax appliances have air systems providing cleaner burning, and greater efficiency and control.

1) **Airwash** - air drawn over the window cleans the glass. The source of Primary Combustion air when burning wood.

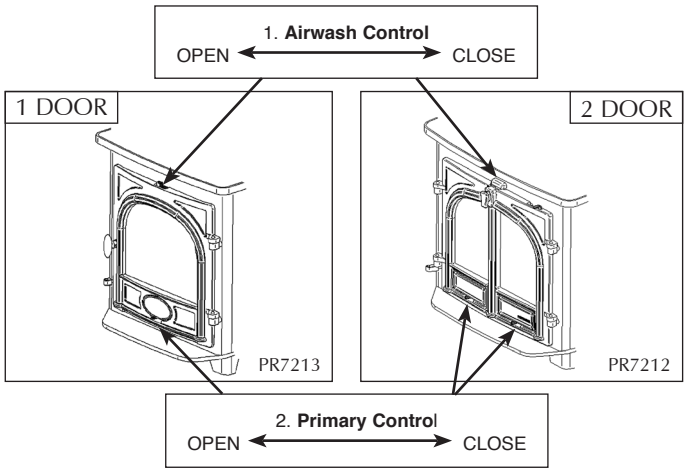
2) **Primary Air** - for use with solid fuel and when lighting wood fires.



USER INSTRUCTIONS

AIRWASH & PRIMARY AIR CONTROLS

1.15 Use a gloved hand to operate air controls.

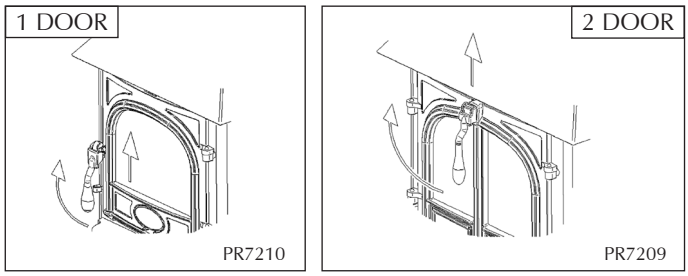


DOOR HANDLE

1.16 **Use a protected gloved hand to operate.**

DO NOT OPEN THE DOOR WITH BARE HANDS

To Open and Close
Drop tool over knob to fit. Lift and remove



1.17 **Never open the door with your bare hands.**

1.18 Closing the door is the reverse of the previous.

HEATING SYSTEM CONTROLS

CONTROLS, GENERAL

1.19 The controls fitted to the system will provide two functions:

— To control the comfort level in the house.

— To maintain safety in the event of misuse or mechanical failure.

COMFORT CONTROLS

1.20 A programmable timer switches the pump on when heat is required and off when it is not.

The timer, when combined with a room thermostat and / or thermostatic radiator valves, enhances the comfort levels in the house.

Some room thermostats combine the function with the timer and can be programmed to reduce the room temperature rather than turning the system off. This is effective in not allowing rooms to become too cold and speeding up recovery time.

1.21 The hot water cylinder can also be fitted with a thermostatic valve which turns off the flow when the cylinder has reached the desired temperature, but the heat leak radiator will have to be bigger to cope with the extra load when the tank is isolated.

SAFETY CONTROLS

1.22 A high limit thermostat is fitted to the gravity flow pipe set at 80°C. This thermostat should be connected to the pump so that the pump is turned on if the temperature exceeds 80°C. This will prevent accidental boiling in the gravity circuit.

1.23 It is also recommended to fit a low limit thermostat on the central heating return set at 45°C. This thermostat will turn the pump off if the return temperature falls below 45C. This will prevent corrosion and condensation within the stove.‡

‡**NOTE** – Further information on solid fuel central heating systems can be found in the HETAS engineers training manual.

WARNING

Properly installed, operated and maintained this appliance will not emit fumes into the room.

Occasional fumes from de-ashing and refuelling may occur.

Persistent fume emission is potentially dangerous and must not be tolerated.
If fume emission does persist:

— Open doors and windows to ventilate the room.

— Allow fire to burn out or safely dispose of fuel from the appliance.

— Check for chimney blockage and clean if required.

— Do not attempt to relight until the cause of the emission has been identified and corrected.

If necessary seek expert advice.

USER INSTRUCTIONS

—All open flued appliances can be affected by temporary atmospheric conditions which may allow fumes to enter the house. **Because of this an electronic carbon monoxide detector conforming to the latest edition of BSEN50291 must be fitted in the same room as the appliance. The existence of an alarm must not be considered a substitute for ensuring regular servicing and maintenance of the appliance and chimney system.**

If the alarm sounds follow the instructions given under Warning above.

2. USING THE APPLIANCE FOR THE FIRST TIME

2.1 To allow the appliance to settle and fixing glues and paint to fully cure:

—Operate the appliance at a low temperature for first few days.

2.2 **Do not touch the paint during the first period of use**.

2.3 During this time the appliance may give off some unpleasant odours:

—Keep the room well ventilated to avoid a build-up of fumes.

CONDENSATION

CAUTION WHEN FILLING

2.4 When filling the boiler with water for the first time, the cold water entering the water jacket can cause condensation to form on the surfaces of the appliance (inside and outside).

2.5 In certain conditions this condensation could result in a considerable amount of water, in some cases enough to fill the bottom of the appliance. This could be even worse if the house has recently been re-decorated, wet plastered or any other work has been undertaken which could result in high humidity.

2.6 Precautions must be taken to ensure that this build up of condensate does not overflow from the appliance onto any surrounding fabric of the room e.g. carpets.

NOTE - THIS CONDENSATION IS NORMAL DURING FILLING AND DOES NOT INDICATE A FAULTY OR LEAKING STOVE.

NORMAL RUNNING

2.7 During normal running this condensation should be minimal if the system is fitted with the low limit thermostat as detailed in 1.22 (above). This low limit thermostat prevents the system pump from running until the stove has reached temperature.

SEASONAL USE

2.8 If this appliance is unused for lengthy periods of time it should be periodically checked to ensure that condensation is not building up within the stove.

NOTE – THIS CONDENSATION IS NORMAL AND DOES NOT INDICATE A FAULTY OR LEAKING STOVE.

If the stove is going to be unused for very long periods of time it is recommended to drain the system.

3. RECOMMENDED FUELS

3.1 **Wood Logs:**

Burn only seasoned timber with a moisture content of less than 20%. To ensure this allow cut wood to dry for 12 to 18 months.

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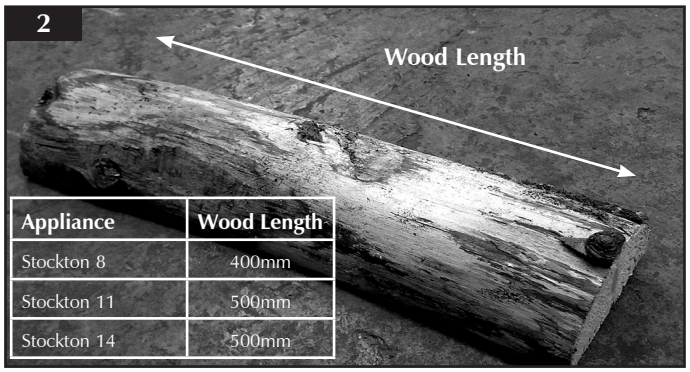

Appliance	Wood Length
Stockton 8	400mm
Stockton 11	500mm
Stockton 14	500mm

Poor quality timber:

—Causes low combustion efficiency.

—Produces harmful condensation.

—Reduces effectiveness of the airwash and life of the appliance.

Do not burn construction timber, painted, impregnated / treated wood, manufactured board products or pallet wood.

3.2 **Solid fuel:**

Burn only anthracite or manufactured briquette smokeless fuels listed as suitable for use with closed heating appliances.

Do not burn bituminous coal, 'petro-coke' or other petroleum based fuels as this will invalidate the product guarantee.

3.3 **Fuel consumption**:
As tested at nominal heat output to the requirements of EN 13229: 2001 for intermittent operation.

USER INSTRUCTIONS

Description	Fuel Consumption Kg/hour	
	Wood	Briquette Smokeless fuel
Stockton 8	4.8	2.1
Stockton 11	5.5	3.2
Stockton 14	6.6	4.5

3.4 For advice on suitable solid fuels contact your local approved coal merchant*.

A number of factors can affect the performance of the appliance (see *User Instructions, Section 6*).

4. LIGHTING THE APPLIANCE

4.1 For best results:

— Set air controls (see Diagram 3).

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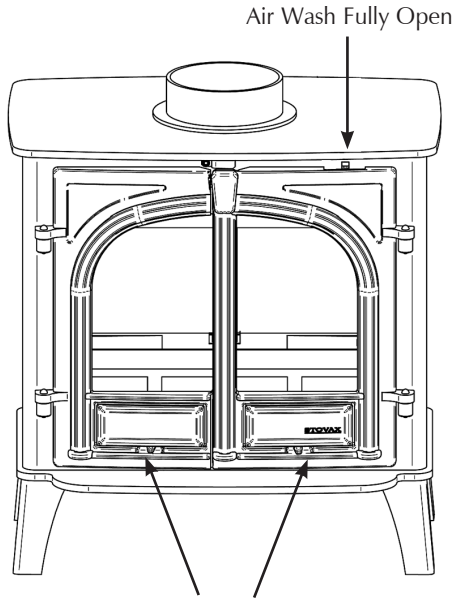

— Place firelighters or paper and dry kindling wood on the grate.

— Light the paper or firelighters (see Diagram 4).

*In the U.K:

- Ring the Solid Fuel Association advice line on 0845 6014406 for details
- Visit their web site at www.solidfuel.co.uk

4

— Leave the door slightly open as the fire establishes and the glass warms to avoid the build-up of condensation.

— Add larger pieces of solid fuel once the fire is established. Do not add too much fuel initially as this may smother the fire.

Do not load fuel above the log guard or the base of the baffle (see Diagram 5)**.**

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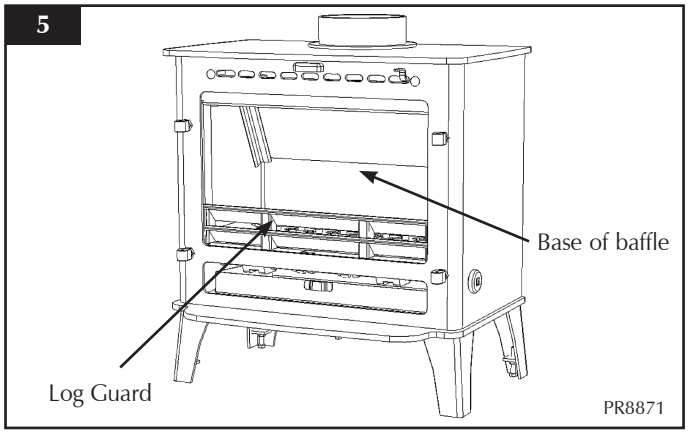

— Close the door.

Do not leave the door open as this may cause over-firing which can damage the appliance.

5. RUNNING THE APPLIANCE

BURNING WOOD:

5.1 This appliance gives out its heat in two ways:

— Directly into the room in which it is fitted through convection and radiation.

— Hot water to heat radiators and domestic hot water. The output to hot water varies depending on how quickly the fuel is being burnt. Fore more detail see the graph on page 16.

USER INSTRUCTIONS

5.2 Only for use with recommended fuels, see *Section 3* for full details.

— Close the Primary Air control and use the Airwash to control the burn rate when the appliance is at optimum operating temperature (see Diagrams 6 & 7).

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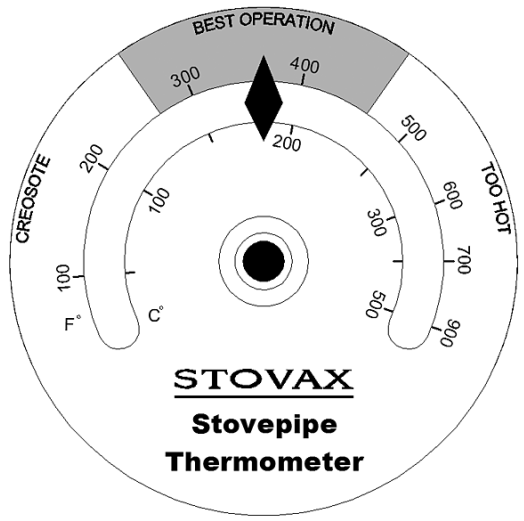

Thermometer supplied separately Stovax part no. 3046 PR8855

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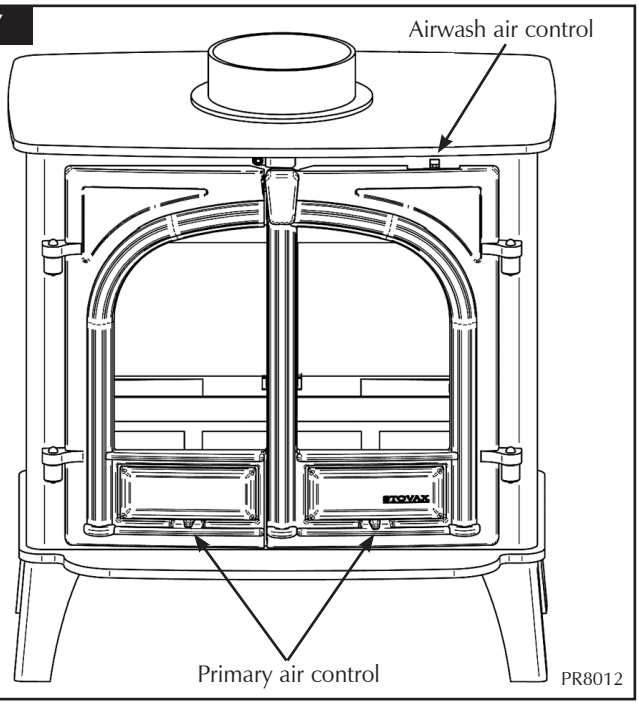

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— Wood burns best on a bed of ash (approx. 25mm (1") deep).

— Rake the embers evenly over the firebed and open the **Airwash** control fully for a few minutes before re-fuelling.

Do not refuel when a large amount of flames are present in the firebox as this could cause smoke or flames to spill into the room.

Close the doors immediately after refuelling.

5.3 Burn new logs at a high temperature for a few minutes before adjusting the **Airwash control**. Refuel little and often for clean, efficient burning.

Do not load above the log guard or base of baffle.

5.4 Do not burn large amounts of fuel with the **Airwash** control closed for long periods of time. This reduces the glass cleaning effect of the Airwash and causes tars and creosotes to build-up in the appliance and flue system.

5.5 When in use, running the appliance at a high temperature for a short period reduces tars and creosotes.

5.6 Experience establishes settings to suit personal preference.

Do not burn construction timber, painted, impregnated / treated wood, manufactured board products or pallet wood.

BURNING SOLID FUEL

5.7 To burn smokeless fuels a cast iron multi-fuel kit must be fitted. Set air controls as shown in Diagram 7.

5.8 De-ash the firebed before re-fuelling (see *User Instructions, Section 7*).

Open the **Primary Air Control** fully to establish a glowing bed before adding new fuel.

Burn new fuel at a high temperature (see Diagram 6) for a few minutes before adjusting the **Primary Air Control** to the desired setting.

Refuel little and often for clean, efficient burning.

5.9 Experience establishes settings to suit personal preference.

5.10 Do not burn large amounts of fuel with the **Primary Air Control** on a low combustion setting for long periods of time. This reduces the glass cleaning effect of the Airwash and causes tars and creosotes to build-up in the appliance and flue system.

5.10 When in use, burning the appliance at a high temperature for a short period reduces tars and creosotes.

5.11 **Only anthracite or smokeless fuels suitable for use in closed appliances must be burned in this appliance**.

5.12 **Do not burn bituminous coal, 'petro-coke' or other petroleum based fuels as this invalidates the product guarantee**.

5.13 **Do not load fuel above the log guard and the Secondary Air Inlets at the back of the firebox** (see Diagram 5).

USER INSTRUCTIONS

REFUELLING

5.14 De-ash the fire bed before refuelling, see Ash Removal

— Open the **Primary air control** fully to establish a glowing bed before adding new fuel.

— **Do not refuel when a large amount of flame is present in the firebox as this could cause smoke or flames to spill into the room.**

— **Close the doors immediately after refuelling.**

— Burn new fuel at a high temperature for a few minutes before adjusting the **Primary air control** to the desired setting.

— Refuel little and often for clean, efficient burning.

5.15 Do not re-fuel the stove above the level of the log guard or the base of the baffle.

THERMOSTAT OPERATION

5.16 This appliance can be fitted with a thermostat kit to control the temperature of the boiler. See the instructions included in the kit for operation details.

6. BURNING TIPS

6.1 **Fuel Quality (Wood)**
Use wood with a moisture content of less than 20%. Seasoned logs have the bark beginning to lift and peel away and cracks radiating from the centre. They feel lighter than fresh cut wood of a similar size and sound hollow when struck against each other. Logs should not feel damp or have moss or fungal growths.

Symptoms related to wet wood:
— Difficulty starting and keeping a fire burning well.
— Smoke and small flames.
— Dirty glass.
— Rapid creosote build-up in the chimney.
— Low heat output.
— Short burn times, excessive fuel consumption and blue/grey smoke from the chimney.

Burn at a high temperature for a short period each day to avoid large build-ups of tars and creosotes within the appliance and the flue system.

Use Stovax Protector chimney cleaner to reduce this problem.

6.2 **Fuel Quality (Solid Fuel)**
Use recommended solid fuels approved for use with closed appliances.

Symptoms related to unsuitable fuels include:
— Difficulty starting and keeping a fire burning well.
— Smoke and small flames.
— Dirty glass and/or fire bricks.
— Short life span for grate and baffle.
— Permanent staining of glass.

6.3 **Air inlets puffing smoke**
Combustion gases can build up in the firebox and ignite as small explosions, causing smoke to puff out of the air inlets and other openings. This occurs if the air controls are shut soon after adding new fuel to a very hot fire. Stop by opening the air controls to increase combustion air and burning rate.

6.4 **Flue Draught**
The chimney has two main functions:

1) To safely remove the smoke, gases and fumes from the house.
2) To provide a sufficient amount of draught (suction) in the appliance ensuring the fire keeps burning.

Draught is caused by the rising hot air in the chimney when the appliance is lit.

Symptoms of poor performance related to flue draught include:
— Excessive fuel consumption (high flue draught).
— Poor burning control and/or overheating (high flue draught).
— Wind noise from air controls (high flue draught).
— Difficulty getting a fire going and keeping it burning well (low flue draught).
— Low heat output (low flue draught).
— Smoke entering room when doors are opened (low flue draught).

The construction, position, size and height of the chimney all affect the performance of the flue draught.
Other factors effecting the flue draught include:
— Nearby trees or buildings causing turbulence.
— Outside temperature.
— Outside weather conditions.
— Incorrect additional ventilation to building.
— Blocked flue or chimney.

For advice on the correction of persistent flue problems consult a qualified heating engineer before continuing to use the appliance.

6.5 **Weather conditions**

The weather conditions outside the building can effect the burning performance of the appliance. These could include:

Weather Conditions	**Problem**	**Effect**
Windy days	Buildings/obstacles cause turbulent air around chimney	Smoky appliance
Calm days	Oversized chimney	Smoky appliance
Damp / Rainy days	Flue temperature not hot enough / rain water in chimney	Lighting and burning problems

USER INSTRUCTIONS

To reduce these problems:

— Use good quality kindling wood to start the fire.
— Burn initially at a high temperature for a short period.
— Fit a rain cowl to the chimney.

Your installer should advise you on possible solutions.

If the appliance emits smoke into the room continuously:
— Close the air controls and allow the appliance to go out.
— Ventilate the room to clear the fumes.

Do not re-light the appliance until the problem is solved.

7. ASH REMOVAL

Warning: Ash can remain hot long after appliance has been in use.

7.1 **Wood:**

— Open Doors (see Section 1.14)

— Leave a layer of ash to start the new fire on. Wood burns best on a bed of ash (approx. 25mm (1") deep).

— Remove ash with a small shovel and place into a Stovax Ash Caddy (Stovax Part No. 4227) or other suitable container.

Do not place hot ash in any container made from plastic or any other combustible material.

— De-ash at least once a week.

7.2 **Multi-fuel:**

De-ash the appliance before filling with new fuel. Do not allow ash to build up on the underside of the grate as this can cause premature failure.

— Insert the Riddling Tool into the socket as shown in Diagram 8.

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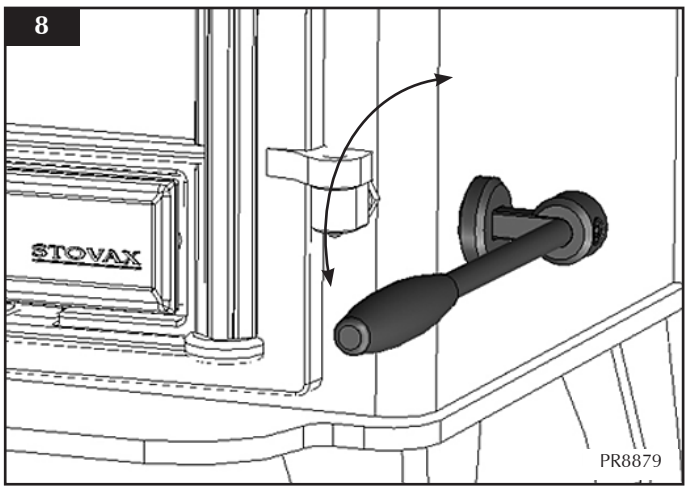

— Rotate the Riddling Tool backward and forward 3 or 4 times to remove the ash. Do not force the handle beyond its natural stop point. The ash will fall into the ashpan.

— Open door(s).

Warning: Ash can remain hot long after appliance has been in use.

— Using gloves, carefully remove ashpan (see Diagram 9).

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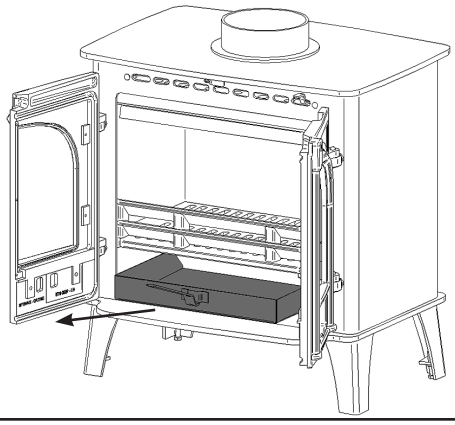

— Place the ash into a Stovax Ash Caddy (Stovax Part No. 4227) or other suitable container.

— Check and remove ash as often as required when burning solid fuel.

— De-ash at least once a week.

— Do not place hot ash in a container made from plastic or any other combustible material.

8. WOOD BURNING TRAY

8.1 In order to burn wood continuously in this appliance a Wood Burning Tray should be fitted (see Diagram 10).

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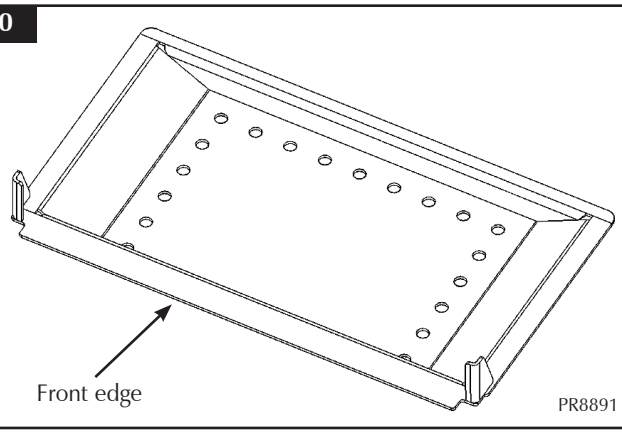

8.2 Remove the multi-fuel grate from the appliance (see Installation Instructions, Section 4).

USER INSTRUCTIONS

8.2 To fit the Wood Burning Tray:

— Remove the log bar and ashlip,

— Hold the tray flat with the front edge pointing forwards (see Diagram 10).

— Tilt diagonally and insert through the front of the stove (see Diagram 11).

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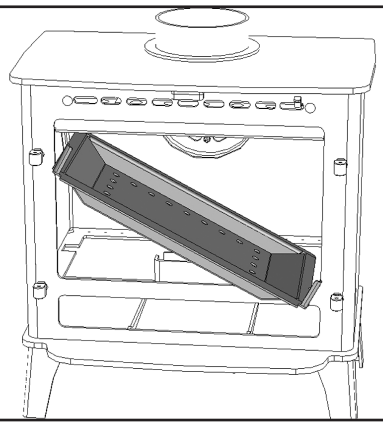

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— Place tray flat on the fixings on the firebed (see Diagram 12).

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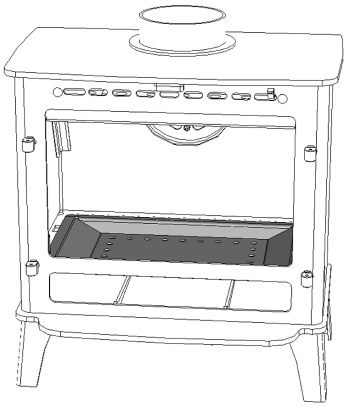

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— Fit the plug supplied into the hole where the riddling mechanism is normally located and secure with bolt and clamp (also supplied, see Diagram 13).

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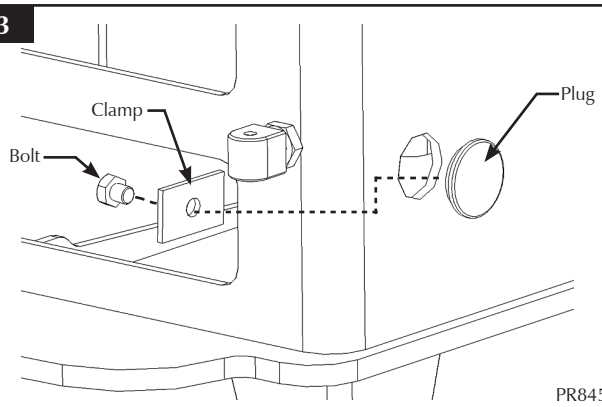

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— Replace the log bar and the ashlip.

9. EXTENDED BURNING

9.1 It is possible to get the appliance to burn for extended periods. In order to do this:

— De-ash prior to final refuelling.

— Set air controls to low combustion settings. This will blacken the glass over night but it will clear when operated at high output for a short period.

— Use smokeless fuel or small, thick logs depending on fuel desired.

10. OVER-FIRING

10.1 Do not over-fill with fuel or use at maximum output for long periods or over-firing can occur. If the flue pipe, flue collar or top plate glow red the appliance is over-firing.

— Close the air controls to reduce the output.

10.2 Over-firing can cause permanent damage to the appliance.

11. CHIMNEY FIRE

11.1 If a chimney fire occurs:

— Shut all air controls immediately.

— Evacuate the building.

— Call the fire brigade.

— Do not re-enter the building until it is confirmed safe.

11.2 **Do not use the appliance after a chimney fire until:**

a) **It has been inspected by a registered installer, confirming the appliance is safe to use*.**

b) The chimney system inspected and swept by a chimney sweep, confirming the system is structurally sound and free from obstruction before re-use**.

c) **It is repaired as required before re-use.** Use only genuine Stovax replacement parts to keep your appliance in safe and efficient working order.

* Registered on the Competent Persons Scheme (UK only) see page 14 / INFO (Republic of Ireland).
**This should be done by a HETAS Approved Chimney Sweep (UK only) see page 14 / INFO registered (Republic of Ireland only) who will issue you with a certificate.

USER INSTRUCTIONS

12. GENERAL CLEANING

12.1 Clean and inspect the appliance regularly, especially in periods of heavy use. Regular cleaning and maintenance will help give many years of safe use.

Allow appliance to cool thoroughly to avoid risk of burns.

Clean regularly, according to level of use.

— Remove the ash completely (see *User Instructions, Section 7*).

— Check the internal components for damage (grate, baffle and log guard). Do not use the appliance if any parts are broken or damaged. Replace damaged parts with genuine Stovax replacement parts to keep the appliance in safe, efficient working order.

— Check for obvious build up of soot, ash or debris above the flue baffle(s) (these can be found in the upper part of the firebox). Use a torch if necessary.

— If there are any signs of a build up of debris above the flue baffle(s) either:

— Arrange for the chimney to be swept (see *User Instructions, Section 13*).

— Remove the baffle and clear the debris (see *Installation Instructions, Section 4*).

— Clean matt black appliances using Stovax Colloidal black or Stovax Grate Polish.

— To refresh painted finishes use Stovax Thermolac paint.

— Clean enamel finishes using warm soapy water and a soft clean cloth.

— Wipe dry with a soft clean cloth be fore relighting. Always dry appliance to avoid rust.

— **Do not use abrasive cleaner or cleaning pads.**

— Check that the door shuts properly and creates an effective seal. Leaking door seals prevent the appliance working properly.

— **Do not use aerosol sprays near an operating appliance or when it is still hot.**

13. CLEANING GLASS

13.1 Keep the glass clean with correct use of the Airwash system and good quality fuel. Sometimes additional cleaning may be required. This can be done as follows:

— Allow appliance to cool fully. Do not clean hot glass.

— Use a soft cloth and suitable cleaner.

— **Do not use cleaning agents that have a high alkaline content, for example Stovax Gel Cleaner, on appliances with painted glass. These are abrasive cleaning agents that are designed to be used with heavily stained clear glass. Use Stovax Glass Cleaner (Stovax No.4103) on more delicate surfaces**.

Do not use acidic cleaners on printed glass.

13.2 Before re-lighting the appliance:

— Dry the glass fully.

13.3 **Do not use abrasive cleaner or cleaning pads or when the appliance is still hot**.

14. CHIMNEY SWEEPING

14.1 To maintain safe and efficient use of the appliance the chimney/flue must be inspected and swept at least once a year by a qualified chimney sweep**.

If the appliance is used continuously throughout the year or it is used to burn wood or smokeless fuel, more frequent sweeping is recommended.

The best time to have the chimney swept is at the start of the heating season.

The above applies even if burning smokeless fuels.

14.2 The chimney, any connecting flue pipe and the appliance flue ways if incorporated, must be regularly cleaned.

14.3 Ensure adequate access to cleaning doors where it is not possible to sweep through the chimney.

14.4 If the appliance is believe to have previously served an open fire the chimney must be swept a second time within a month of regular use after installation.

In the U.K:

** This should be done by a HETAS registered chimney sweep, who will issue you with a certificate.

USER INSTRUCTIONS

15. CARE OF STOVE

Stovax has a range of cleaning and maintenance products and accessories to keep your appliance in good working order. Your Stovax retailer can advise you on suitable items for your stove and provide genuine spare parts such as replacement glass, door sealing rope and firebricks. View the extensive range at www.stovax.com by clicking on *Accessories*. In addition, an annual service by a competent engineer is recommended to keep your stove in the best possible condition.

16. SEASONAL USE

16.1 Clean and service the appliance if it is not used during the warmer periods of the year as detailed in the *Maintenance and Servicing* section.

16.2 Set the air controls 50% open to keep the appliance ventilated and stop the build-up of any moisture inside.

16.3 Before re-lighting the appliance:

— Remove the baffle.

— Clear any debris that may have accumulated.

— Check the flue is clear of any blockages.

16.4 If this appliance is unused for lengthy periods of time it should be periodically checked to ensure that condensation is not building up within the stove.

NOTE – THIS CONDENSATION IS NORMAL AND DOES NOT INDICATE A FAULTY OR LEAKING STOVE.

16.5 If the stove is going to be unused for very long periods of time it is recommended to drain the system.

17. TROUBLESHOOTING TIPS

17.1 **Stove glass blackening**
This has four possible causes:

1. **Incorrect use of Airwash**
See *User Instructions, Sections 1, 4 and 5* for the correct use of the air controls.
2. **Burning unseasoned wood**
See *User Instructions, Section 3* to identify when wood is ready for burning.

3. **Stove operated at too low a temperature**
A stove pipe thermometer can identify this problem (Stovax part no. 3046). **The ideal working temperature range** is 130°C - 250°C (270°F - 480°F). Failing to close down the Primary Air Control once the appliance has heated up to this range may cause the appliance to exceed the ideal temperature range and to over-fire. Over-firing can cause permanent damage to the appliance and invalidates your warranty. Burn with the Airwash Control fully open for approximately 20 minutes to cure this.

The problem may be caused by damping down the appliance during periods of extended burning.

4. **Problems with the flue,** in particular insufficient air pull.
If the flue is not working efficiently the glass can blacken. A flue which has too much downdraft may be too short, needs lining, or has too many bends. This can also cause blackening of the stove glass. Contact the installer or a flue specialist for advice.

17.2 **Riddling mechanism jamming**
This occurs when fine ash builds up under the riddling bars preventing movement. To prevent this:

— Follow a regular cleaning routine for the inside of your appliance.

— Lift out the riddling mechanism and remove all ash.

— Replace riddling mechanism when cleaning is complete

17.3 **Glass cracking**
Do not over tighten the screws on the glass clips when replacing the glass. This causes stress and the intense temperature changes can cause the glass to crack. For replacement glass contact your local Stovax retailer.

17.4 **Appliance is producing tar**
This can be identified by:

— A very strong pungent smell shortly after the appliance is lit and heats up.
— Glass blackening.
— Thick, brown, sticky tar oozing from the pipe joints.

This is caused by burning damp wood and running the appliance at too low a temperature.

USER INSTRUCTIONS

Use well seasoned wood and operate the appliance within the ideal temperature range.

Tar is a major cause of chimney fires. If the appliance experiences problems with tar build up consult a chimney sweep before continued use of the appliance.

17.5 **All or some of the radiators do not get hot**

Burning wood	Wood is burning too slowly	Open up the airwash to make a hotter fire
		If fitted set the thermostat to a higher setting
		Burn dryer wood
		Burn better quality wood
		Reduce ashbed to 1" thick
Burning Solid Mineral fuels	Fuel is burning too slowly	Open up the primary air to make a hotter fire. If fitted, set the thermostat to a higher setting
		The fire needs riddling to remove ash. De-ash the fire
		Empty the ash pan.
All Fuels	Stove is not producing much heat.	Not enough fuel.
	System faults	Bleed the radiators to ensure there are no air locks.
		Incorrect system design seek professional assistance
		Too many radiators in the system exceeding the stoves capabilities.

17.6 **In the unlikely event of a problem that cannot be solved by these tips contact your installer or retailer for help.**

Organisations authorised to certify competence in the installation of domestic solid fuel appliances (Competent Persons Scheme):

APHC - Association of Plumbing and Heating Contractors (Certification) Ltd.
www.aphc.co.uk

BESCA - Building Engineering Services Competence Accreditation Ltd.
www.besca.org.uk

HETAS - Heating Equipment Testing and Approval Scheme Ltd.
www.hetas.co.uk

NAPIT - National Association of Professional Inspectors and Testers Ltd.
www.napit.org.uk

NICEIC - NICEIC Group Ltd.
www.niceic.org.uk

HETAS Approved Chimney Sweeps:

NACS - The National Association of Chimney Sweeps
www.chimneyworks.co.uk

APICS - The Association of Master Chimney Sweeps Ltd.
www.apics.org

The Guild of Master Chimney Sweeps
guildofmasterchimneysweeps.co.uk

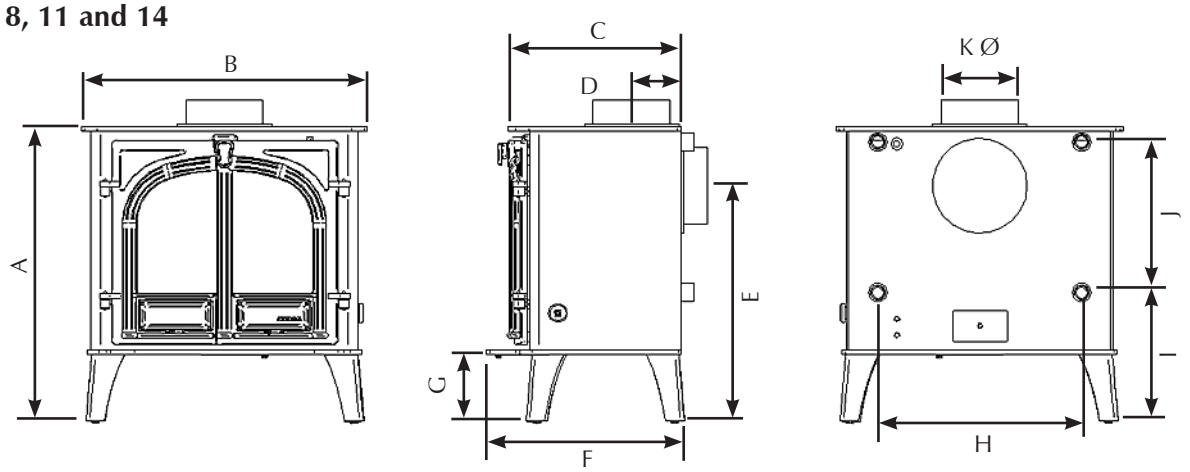
TECHNICAL SPECIFICATION

STOCKTON

Model Stockton 8 Stockton 11 Stockton 14			Stockton 8	Stockton 11	Stockton 14
Nominal Heat Output to Room	Solid Fuel	kW	5.0	7.0	9.0
Nominal Heat Output to Water		kW	8.0	11.0	14.0
Flue Draught at Nominal Heat Output	All Fuels	mm Wg	1.25	1.25	1.25
		inch Wg	0.05	0.05	0.05
Flue Outlet Size (Top or Rear option)		mm	150	150	150
		inch	6	6	6
Clearance to Combustible Materials	Back	mm	300	400	500
	Side	mm	300	400	500
Minimum Hearth Type Required	Constructional = CH 12mm hearth = 12mm		CH	CH	CH
Weight		kg	135	172	235
Recommended Fuels	Solid Fuels	Briquette smokeless fuel suitable for closed appliances. (Ancit - Phurnacite - Taybrite - Homefire ovals)			

STOCKTON DIMENSIONS

Stockton 8, 11 and 14



PR8242

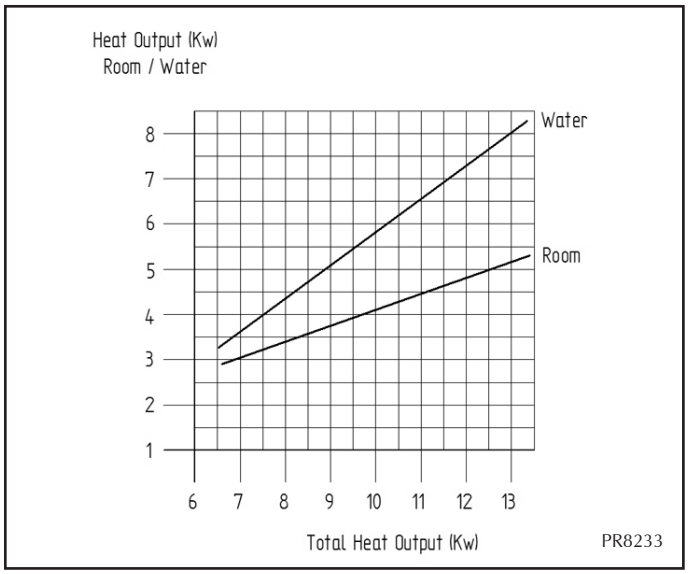
Description	A	B	C	D	E	F	G	H	I	J	K (dia)
Stockton 8	620	603	366	105	496	418	151	430	271	317	150
Stockton 11	682	723	411	117	560	474	172	550	292	357	150
Stockton 14	723	803	458	120	601	518	173	630	293	397	150

Additional information covering the installation of the Stockton stove may be found in the following British Standard: BS8303

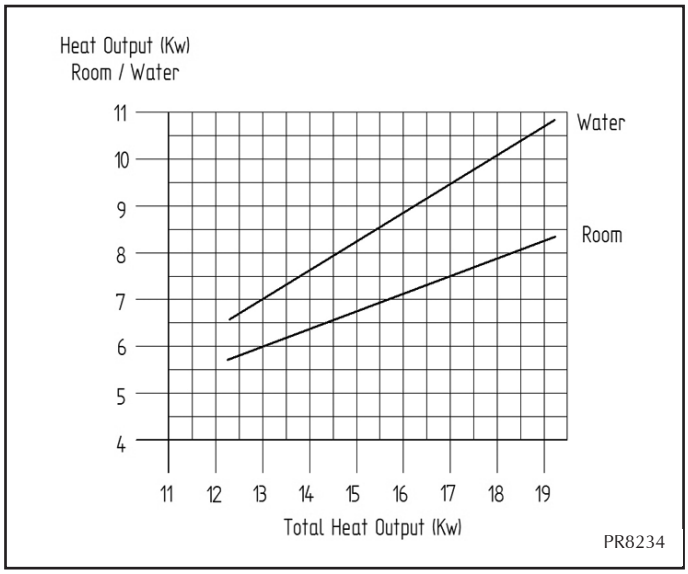
TECHNICAL SPECIFICATION

BOILER OUTPUT CHARTS

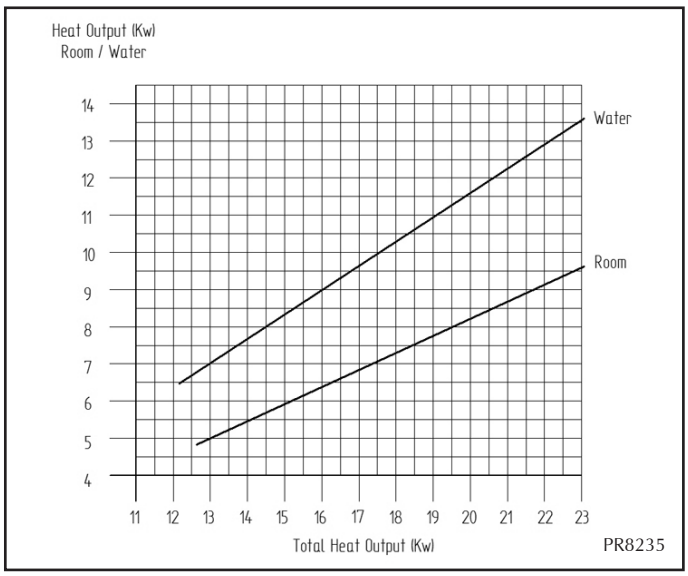
STOCKTON 8



STOCKTON 11



STOCKTON 14



1. STANDARD FEATURES

- Primary air (under grate air for full multi-fuel use)
- Airwash (for wood burning / clean glass)
- Riddling grate system for clean de-ashing (when fitted with multi-fuel kit)
- Removable door handle tool
- Top or rear flue exit option

2. PACKING LIST

- User Instructions
- Installer Instructions
- Guarantee card
- Pair leather gloves
- Door handle tool
- Fire bricks
- Ashpan (MF Only)
- Riddling tool (MF Only)

SITE REQUIREMENTS

1. FLUE OR CHIMNEY

1.1 The flue or chimney system must be in good condition. It must be inspected by a competent person and passed for use with the appliance before installation.

Products of combustion entering the room can cause serious health risks.

1.2 The following must be checked:

— The construction of the masonry chimneys, flue block chimneys and connecting flue pipe system must meet the requirements of the Building Regulations†.

— A flexible flue liner system can be used if certified for use with solid fuel systems and installation complies with manufacturer's instructions and Building Regulations†. The flue liner must be replaced when an appliance is replaced, unless proven to be recently installed and in good condition.

— If it is necessary to fit a register plate it must conform to the Building Regulations†.

— The minimum height of the flue or chimney must be 4.5m from the hearth to the top of the flue, with no horizontal sections and a maximum of 4 bends. Bends must have angles of less than 45 degrees from the vertical.

— Ensure the connecting flue pipe is kept a suitable distance from any combustible material and does not form part of the supporting structure of the building.

— Make provision to remove the appliance without the need to dismantle the chimney.

— Any existing flue must be confirmed as suitable for the new intended use as defined in the Building Regulations†.

— The flue or chimney systems must be inspected and swept to confirm the system is structurally sound and free from obstructions**.

— If the chimney is believed to have previously served an open fire it must be swept a second time within a month of regular use after installation to clear any soot falls that may have occurred due to difference in combustion levels.

— The flue exit from the building must comply with local building control rules†.

— Do not connect or share the flue or chimney system with another heating appliance.

1.3 Do not connect to systems containing large voids or spaces over 230mm square.

1.4 Suitable access must be provided to enable the collection and removal of debris.

1.5 The flue must be swept and inspected when the appliance is installed.

1.6 The flue draught must be checked with all windows and doors closed and any extraction fans in this, or adjoining rooms, running at maximum speed (see next section for additional ventilation requirements).

Max. Draught = 2.0mm Wg
Min. Draught = 1.0mm Wg

FLUE SYSTEM

If this appliance is to be used in conjunction with a twin wall flue system then Stovax recommend the use of their Professional XQ range. Details of this product are available from your Stovax retailer.

In the U.K.

*The design of the flue and chimney systems and products used should meet the requirements of ADJ along with any other relevant, National or European standards that may apply. Products should be specified with regard to the type of appliance, position within the building, fuels to be used and appliance operating temperatures.

**This should be done by a HETAS Approved Chimney Sweep (UK only) see page 14 / INFO registered (Republic of Ireland only) who will issue you with a certificate.

† Building Regulations Document J

Flue Plate:
Where a hearth, fireplace, flue or chimney is provided or extended (including cases where a flue is provided as part of refurbishment work) information essential to the correct appliance and use of these should be permanently posted in the building, to meet Requirement J4 of the Building Regulations (England and Wales) F3.12 (Scotland).

Additional:
A new factory made system that complies to EN 1856; Part 1 can be used providing installation is to the requirements of:
i) BS 7566 Parts 1 - 4
ii) the manufacturer's instructions
iii) Building Regulations.

For a guide containing information on Chimneys and Flues contact:

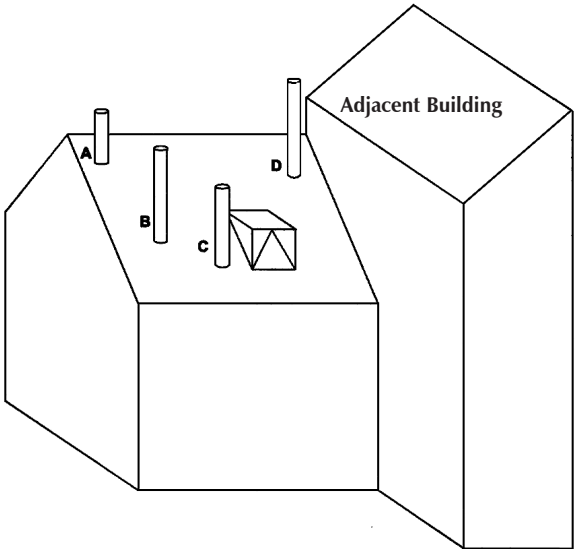
The British Flue & Chimney Manufacturers' Association,
FETA
2 Waltham Court
Milley Lane
Hare Hatch
Reading
Berkshire RG10 9TH

Tel: 0118 9403416 e-mail: info@feta.co.uk

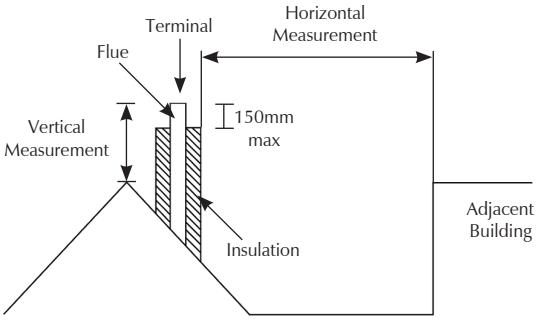
SITE REQUIREMENTS

2. FLUE OUTLET POSITIONS

These positions are defined by Document J of the Building Regulations.



IMPORTANT: Seek specialist advice if installing in a dwelling with a thatched roof

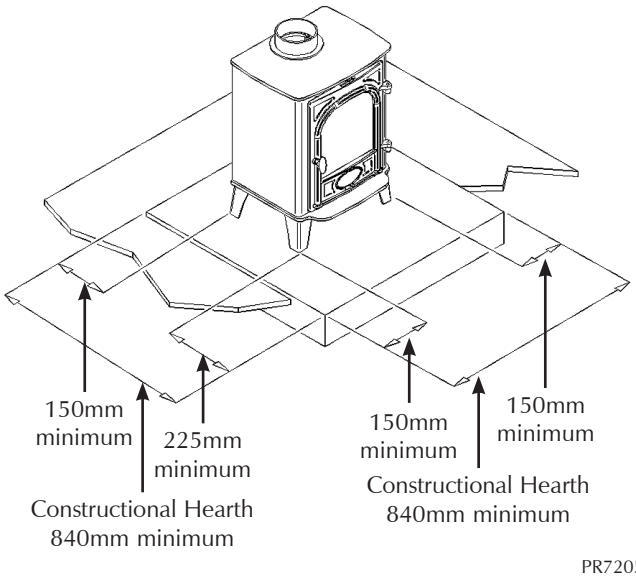


The datum for vertical measurement is the point of discharge of the flue from either the point of discharge of the flue or 150mm above insulation, whichever is the lower.

	Point where the flue passes through weather surface (Notes 1 & 2)	Clearances to flue outlet
A	At or within 600mm of the ridge	At least 600mm above ridge
B	Elsewhere on roof (whether pitched or flat)	At least 2300mm horizontally from the nearest point on the weather surface and: a) at least 1000mm above highest point of intersection of the chimney with and the weather surface; or b) at least as high as the ridge
C	Below (on a pitched roof) or within 2300mm horizontally to openable rooflight, dormer window, or other opening (Note 3)	At least 1000mm above the top of opening
D	Within 2300mm of an adjoining or adjacent building, whether or not beyond the boundary (Note 3)	At least 600mm above any part of the adjacent of building within 2300mm

1) The weather surface is the building external surface, such as it's roof tiles or external walls.
2) A flat roof has a pitch less than 10°.
3) The clearance given for A or B, as appropriate, will also apply.
4) A vertical flue fixed to an outside wall should be treated as equivalent to an inside flue emerging at the nearest edge of the roof.

3. HEARTH DIMENSIONS



3.1 The appliance must stand on a non-combustible constructional hearth which is at least 125mm thick with the minimum dimensions as shown in diagram.

3.2 The building must have a suitable load-bearing capacity for the hearth and appliance. **Consult a structural engineer for advice before proceeding.**

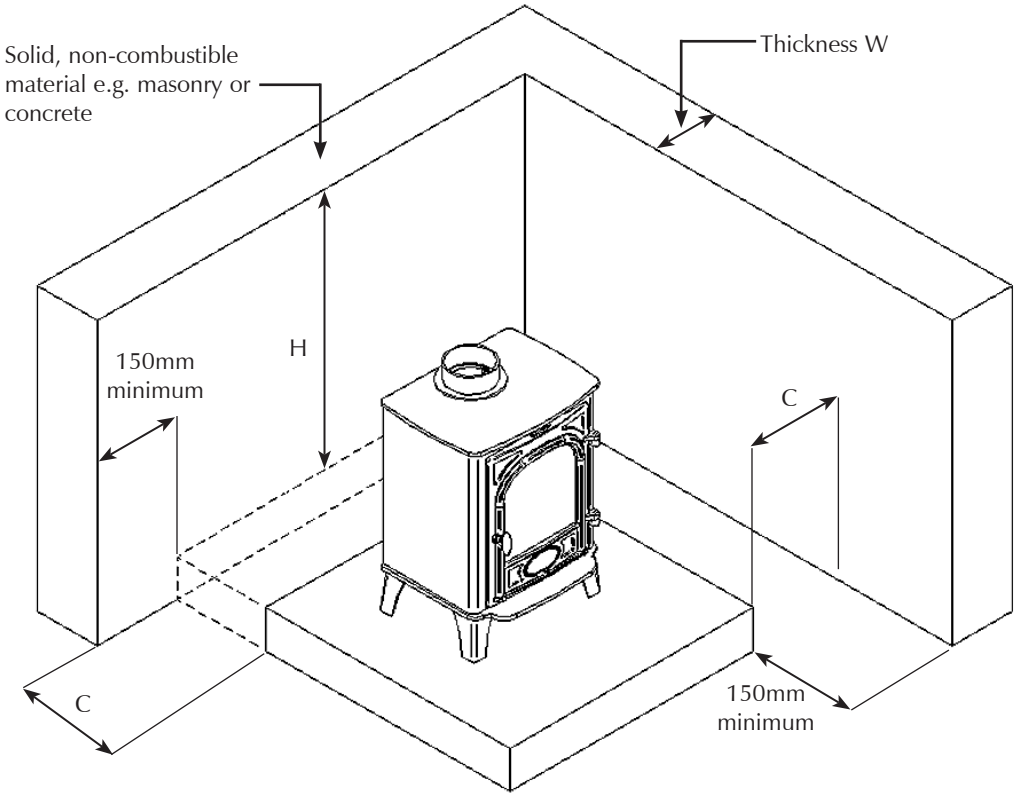
3.3 When fitting into an existing hearth check that the appliance complies with current construction regulations and is at least the minimum sizes shown.

3.4 If there is no existing fireplace or chimney it is possible to construct a suitable non-combustible housing and hearth setting. The flue must be installed in accordance with all local and national regulations and current rules in force .

3.5 Check if adding a new chimney to your property requires planning permission.

SITE REQUIREMENTS

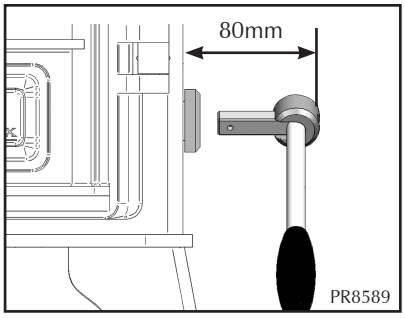
4. WALLS NEXT TO A HEARTH



Position of Appliance & Hearth in relation to walls		Requirement for the walls	
Distance of hearth from wall 'C'	**Distance of Appliance to wall**	**Min thickness of Wall 'W'**	**Min height of wall 'H'**
0mm	0mm - 50mm	200mm	Height of appliance + 300mm Or 1200mm from the hearth (take largest dimension)
0mm	51mm - 300mm	75mm	
0 - 150mm	150mm +	75mm	1200mm
150mm +	300mm +	No Minimum Requirement	

Suitable clearance should be allowed around the stove to enable the correct fitting and maintenance of the appliance.

Any clearances should be confirmed by making a site survey and a physical check of wall thickness and dimensions.



Note:
When installing a Multi-fuel appliance a minimum gap of 80mm must be left on the Right Hand Side so that the riddling tool can be comfortably engaged in the socket.

PRE-INSTALLATION CHECKS

1. FLUES

Model Stockton 8 Stockton 11 Stockton 14			Stockton 8	Stockton 11	Stockton 14
Flue / Chimney Size	Without Liner System (round) Diameter	mm	150	150	150
		inch	6	6	6
	Without Liner System (square) Minimum Dimension	mm	135	135	135
		inch	5½	5½	5½
	With Liner or Factory Made System (diameter)	mm	150	150	150
		inch	6	6	6
Flue / Chimney minimum height*		m	4.5	4.5	4.5
		feet	15	15	15
* When measured from the top of the flue, with no horizontal sections and a maximum of 4 bends with angles of less than 45°					

2. VENTILATION

2.1 This appliance requires a constant supply of air to maintain proper combustion and effective flue performance.

2.2 An inadequate air supply can result in poor combustion and smoke entering the room which is potentially dangerous.

2.3 This supply of air can come from either:
— The natural leakage of air into the room in which the product is fitted.
— Purpose provided ventilation.
— Some Stovax appliances can also be fitted with an optional outdoor air kit which allows air to be drawn in from the outside.

2.4 The amount of air required must comply with local building regulations and the rules in force.

2.5 If spillage is detected during commissioning then there may be insufficient natural ventilation and an additional air supply will be necessary.

2.6 Many older buildings are sufficiently ventilated by natural leakage of air to provide suitable air supply for an appliance of 5kW output or less.

Modern building techniques have reduced the amount of air that leaks in or out of a house. A modern construction with an air tightness of less than 5m^3 per hour per m^2 requires an air vent for **ALL** solid fuel appliances including those with a rated heat output of less than 5kW.

NOTE: The air leakage of a modern house is tested at the completion of construction and a certificate issued confirming this.

2.7 Ventilation requirements in the UK are as shown in the table below:

A) Traditionally Built Homes
• Where the leakage is greater than 5m^3/hour/m^2.
• Ventilation normally required = 550mm^2 per kW output over 5kW

Output (kw)			4	5	6	7	8	9	10
A	Additional ventilation	mm^2	None	None	550	1100	1650	2200	2750
		cm^2	None	None	5.50	11.0	16.5	22.0	27.5
		in^2	None	None	0.89	1.77	2.66	3.55	4.40

PRE-INSTALLATION CHECKS

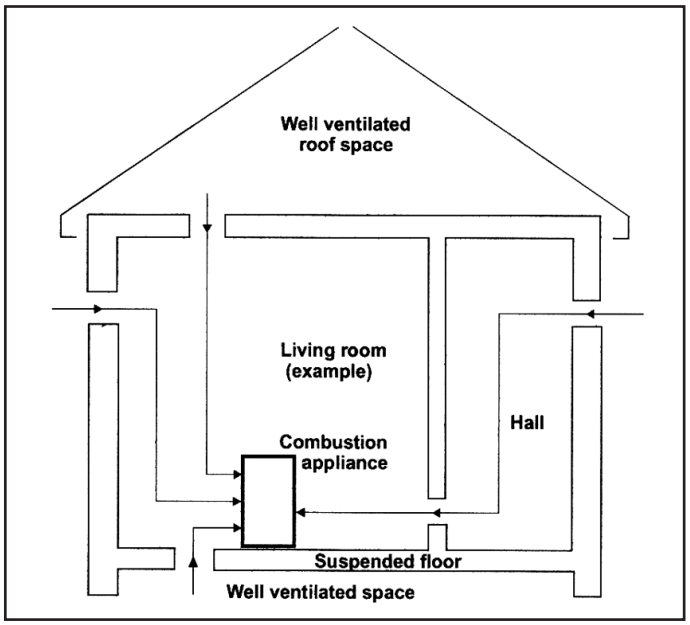
B) Modern Construction Homes
- Where the leakage is less than 5m³/hour/m².
- Ventilation normally required = 550mm² per kW

Output (kw)			4	5	6	7	8	9	10
B	Additional ventilation	mm^2	2200	2750	3300	3850	4400	4950	5500
		cm^2	22.0	27.5	33.0	38.5	44.0	49.5	55.0
		in^2	3.55	4.40	5.32	6.21	7.10	7.99	8.87

2.8 Permanent air vents should be non-adjustable and positioned where they are unlikely to be become blocked.

2.9 If vents open into adjoining rooms or spaces there must be an air vent of at least the same size direct to the outside.

2.10 Site the vents where cold draught is unlikely to cause discomfort. This can be avoided by placing vents near ceilings or close to the appliance, see diagram.



2.11 Extractor fans or cooker hoods must not be placed in the same room or space as this can cause the appliance to emit fumes into the room.

2.12 Increase air supply provisions where a room contains multiple appliances.

2.13 **If any checks reveal problems do not proceed with the fitting of the appliance until they have been rectified.**

3. FITTING APPLIANCES ON A BOAT

3.1 If an appliance is to be fitted in a boat it must be done in accordance with the latest edition of BS 8511 (Code of Practice for the Installation of Solid Fuel Heating Appliances on Boats). The Code covers the design, installation and operation of solid fuel heating appliances that are suitable for fitting into inland waterway boats, and gives guidance on product selection, design considerations, installation requirements, inspection and testing, as well as maintenance and safe use tips.

3.2 Consideration should also be given to the requirements of the Boat Safety Scheme (BSS) to ensure the boat's insurance remains valid.

3.3 The appliance should only be installed by a competent person with experience of the latest edition of BS 8511 and the Boat Safety Scheme (BSS).

3.4 Secure the product to a suitably constructed non-combustible hearth.

3.5 All open flued appliances can be affected by temporary atmospheric conditions which may allow fumes to enter the boat. An electronic carbon monoxide detector conforming to the latest edition of BSEN50292 must be fitted and maintained.

3.6 Failure to safely install the appliance could endanger the boat and persons on board.

INSTALLATION INSTRUCTIONS

LEGAL REQUIREMENTS

Before installation and/or use of this appliance please read these instructions carefully to ensure that all requirements are fully understood.

The appliance must be fitted by a registered installer*, or approved by your local building control officer.

It is very important to understand the requirements of the national Building Regulations† and standards‡, along with any local regulations and working practices that may apply. Should any conflict occur between these instructions and these regulations then the regulations must apply.

Your local Building Control Office can advise regarding the requirements of the regulations.

The appliance must be fitted by a registered installer* or approved by your local building control officer.

Works must be carried out with care to meet the requirements of Health and Safety** and comply with the Health and Safety rules**, and any new regulations introduced during the lifetime of these instructions. Particular attention should be drawn to:

— **Handling**: The appliance is heavy. Adequate facilities must be available for loading, unloading and on site handling.
— **Fire Cement**: Some fire cement is caustic and must not come into contact with the skin. Protective gloves must be worn. Wash hands thoroughly with plenty of water after contact with skin.
— **Asbestos**: This appliance contains no asbestos. If there is the possibility of disturbing any asbestos in the course of installation seek specialist guidance and use appropriate equipment.
— **Metal Parts**: Take care when installing or servicing the stove to avoid personal injury.

A faulty installation can cause danger to the inhabitants and structure of the building.

For users of this appliance:
Your building insurance company may require you to inform them that a new heating appliance has been installed on your property. Check that your cover is still valid after installing the appliance.

1. INSTALLING THE APPLIANCE

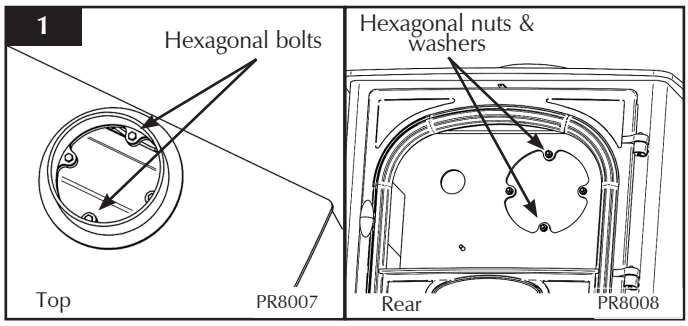
Each installation is unique to the property so it is not possible to give details to suit every setting. The installation must comply with Building Regulations and be made using "best practice" construction methods.

Many fireplace openings have a supporting lintel. Do not remove without supporting the remaining structure of the building. **Do not support the structure with the appliance or the flue system**.

The flue system must be fully installed and supported according to the manufacturers instructions BEFORE the appliance is installed.

1.1 **Take care when installing the appliance. Careless handling and use of tools can damage the finish and/or area**.

— Choose top or rear flue exit:

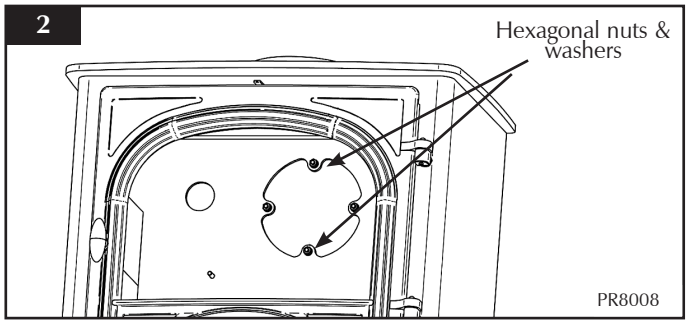


— Fit flue collar and blanking plate to suit.

— Attach flue collar to top or rear with hexagonal bolts (see Diagram 1).

— Seal with fire cement if desired.

— Secure blanking plate with hexagonal bolts (see Diagram 2).



1.2 **Top flue pipe installation**

— Lift appliance into position taking care not to damage the hearth finish.

— Level the appliance.

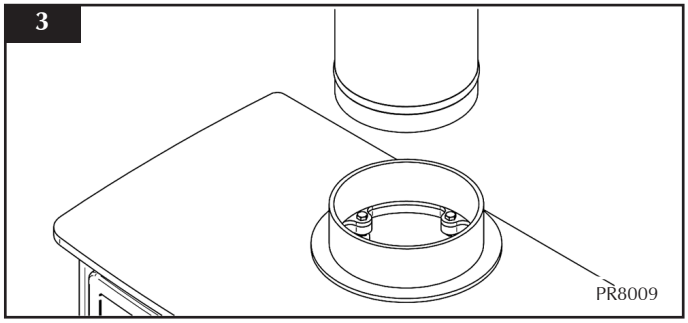
— Connect appliance to the chimney using flue pipe.

— Secure with self tapping screw.

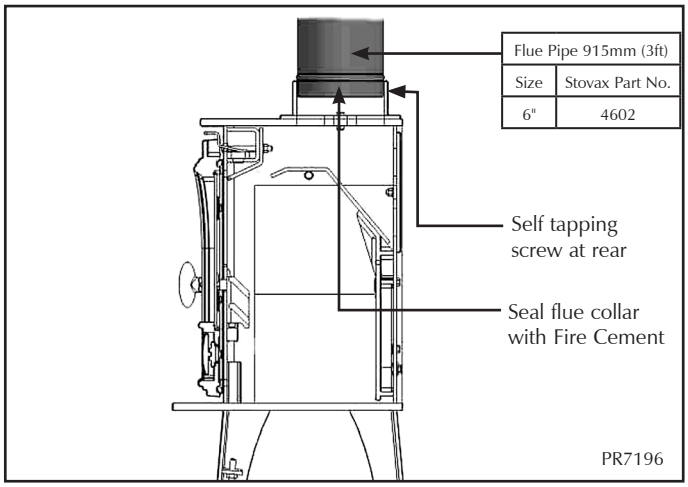
— Seal the connecting joints.

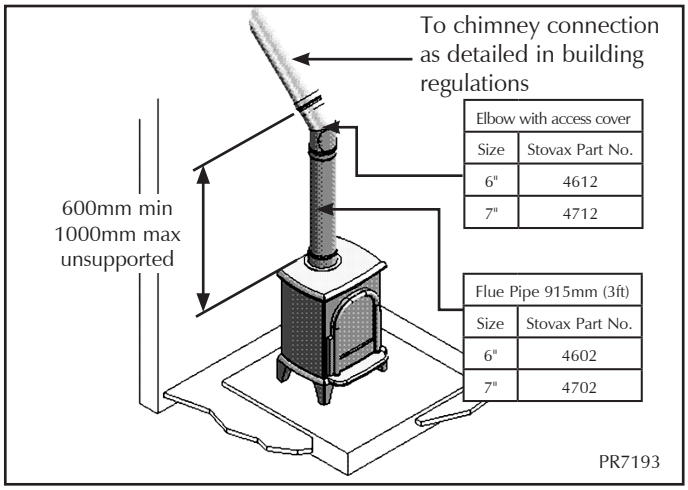
† England and Wales – Document J / Scotland - Part F/ Document J (Republic of Ireland only)
‡ the latest edition of BS 8303, BS EN 15287, BS 7566
*Registered on the Competent Persons Scheme (GB only) see page 11 / INFO (Republic of Ireland).
**Health and Safety at Work Act 1974

INSTALLATION INSTRUCTIONS



The Flue must be installed in accordance with manufacturers instructions.





1.3 **Rear flue pipe installation**

— Insert a tee into the flue collar. The tee piece is used as cleaning access.

— Lift appliance into position taking care not to damage the hearth finish.

— Level using adjustable bolts (see Diagram 1).

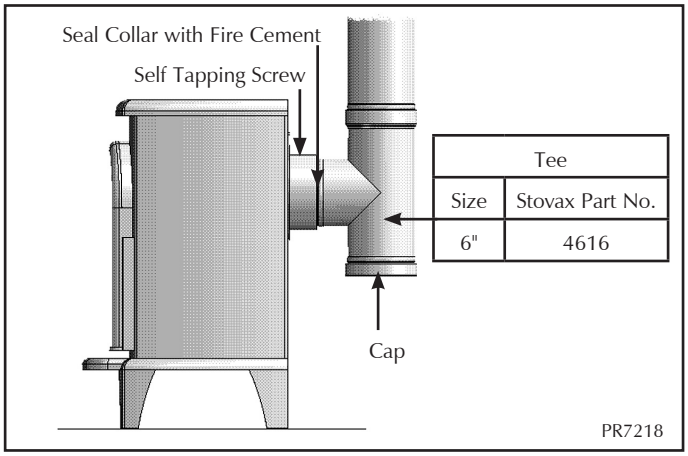
— Connect tee to the chimney using flue pipe.

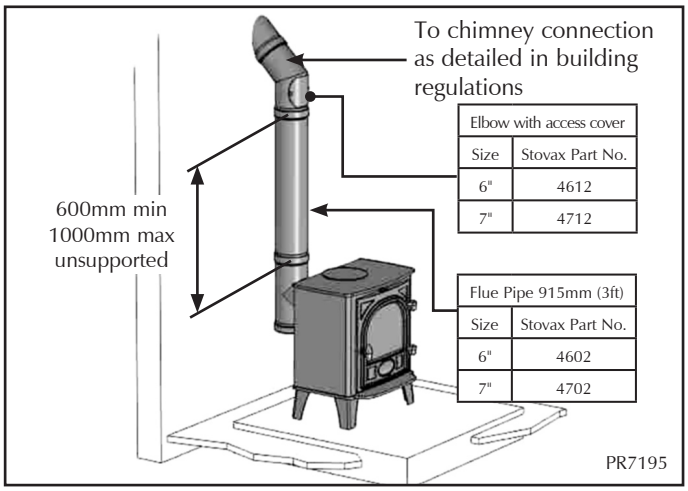
— Secure with self tapping screw.

— Seal the connecting joints.

Do not use a 90° elbow to make this connection.

The Flue must be installed in accordance with manufacturers instructions.





2. REMOVAL OF THE LOG GUARD

To remove the Log guard:

2.1 Lift Log Guard clear of the supporting brackets.

2.2 Rotate to clear the sides of the door opening.

2.3 **Do not use appliance without the log guard in position.**

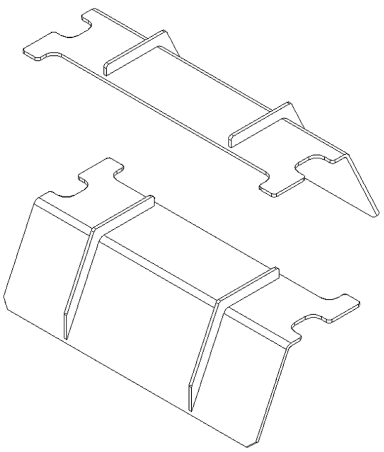
INSTALLATION INSTRUCTIONS

3. FITTING AND REMOVAL OF THE BAFFLE

No tools are required.

3.1 To maintain efficient combustion the appliance is fitted with a baffle system that allows for secondary combustion (see Diagram 4).

4

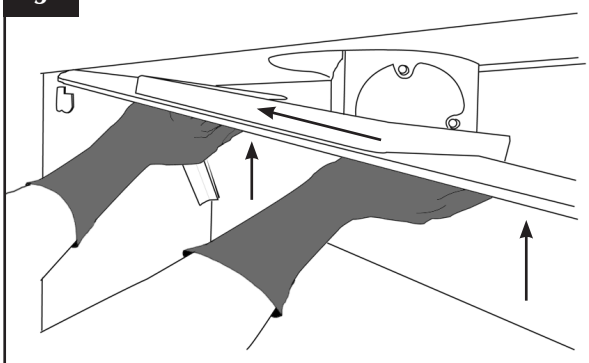


PR8885

3.2 First remove the log guard from the stove to give access to the firebox.

3.3 Use both hands to lift the baffle vertically and slide to one side (see Diagram 5). Always wear gloves when handling appliance parts.

5

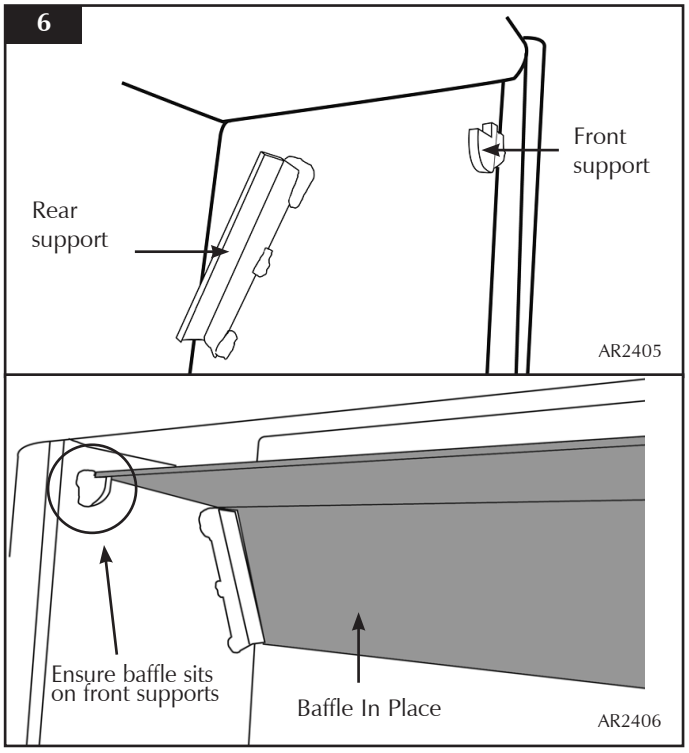


AR2404

— Using both hands rotate the baffle to remove from the firebox through the door opening.

3.4 To replace the baffle repeat the above steps in reverse, ensuring the baffle fits over the supports on the sides of the interior (see Diagram 6).

6



Do not modify the baffle system.

4. FITTING AND REMOVAL OF THE MULTI-FUEL GRATE

4.1 The Multi-fuel grate can be removed for cleaning to maintain good working condition.

To remove the grate:

— Remove the baffle (see Section 3).

— Remove the log guard to enable access (see Section 2).

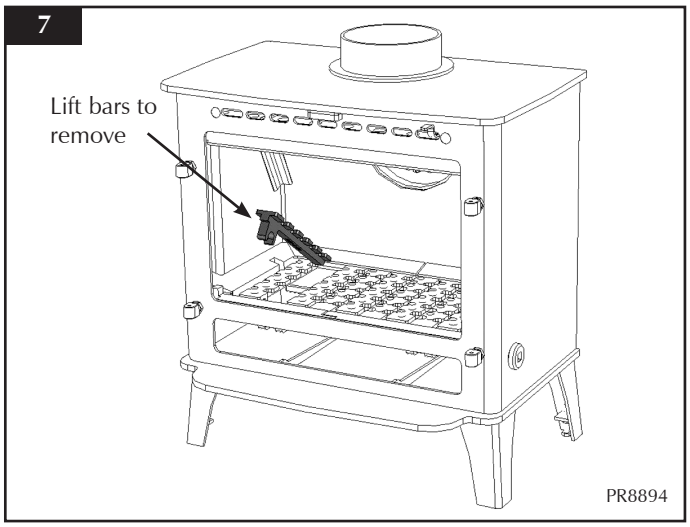
— Remove the ashpan.

— Remove the riddling bars (see Diagram 7).

FOR CLARITY, THE FOLLOWING DIAGRAMS DO NOT INCLUDE ILLUSTRATIONS OF THE DOORS.

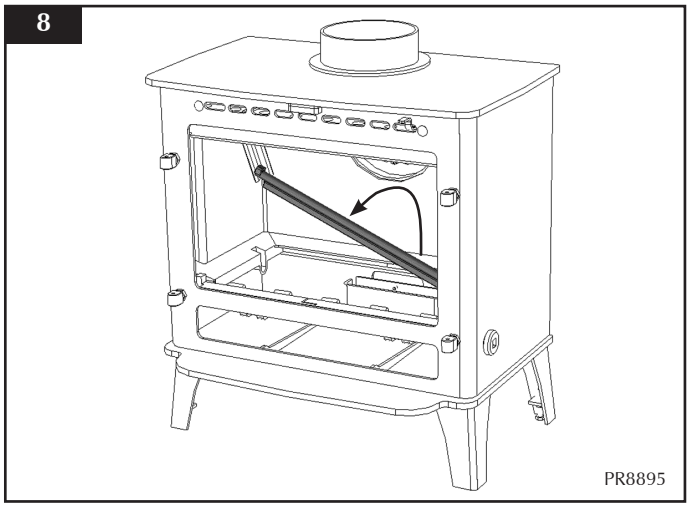
INSTALLATION INSTRUCTIONS

7



— Remove Rear Bar (see Diagram 8).

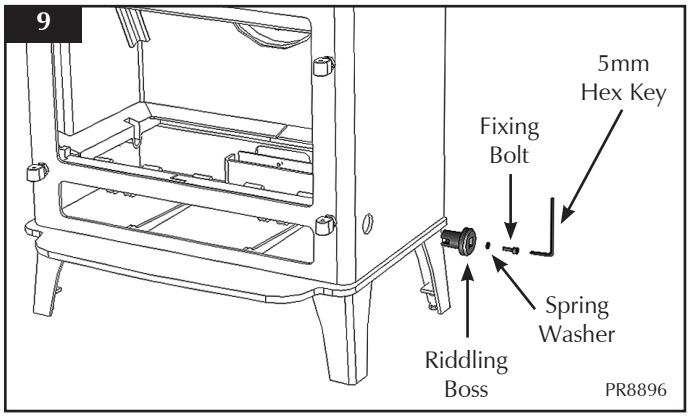
8



To remove the Riddling Boss:

— Use the 5mm hex key as shown in Diagram 9.

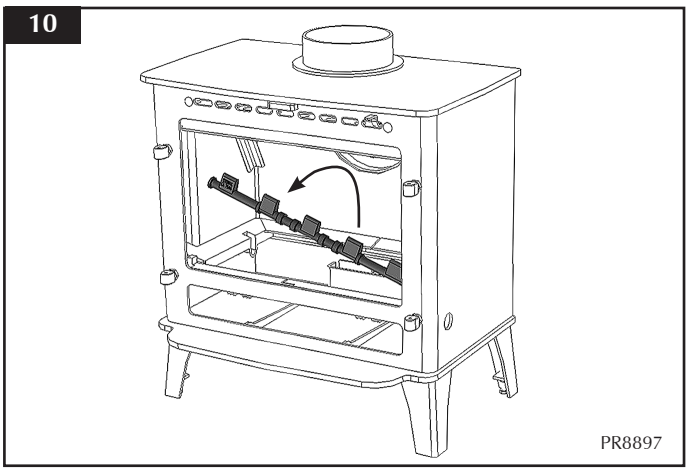
9



— Unscrew the boss.

— Remove Riddling Cam Bar (see Diagram 10).

10



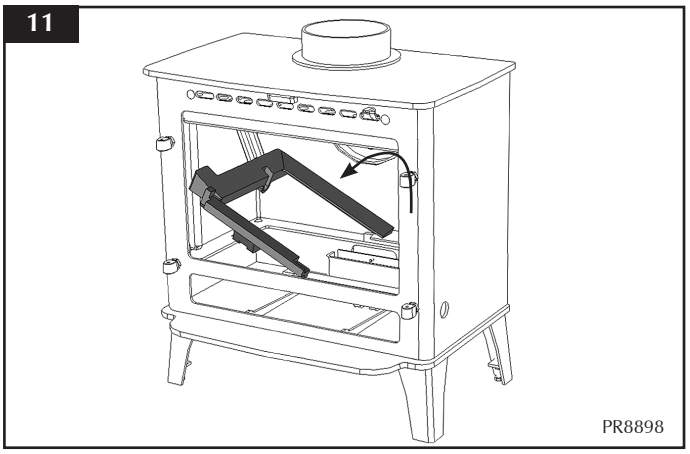
To remove Multi-fuel frames:

— Lift frames from the front.

— Remove right hand side first through the front of the stove.

— Repeat for the left hand side.

11



— Replace in reverse order.

5. CO ALARMS

All open flued appliances can be affected by temporary atmospheric conditions which may allow fumes to enter the house. **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 the latest edition of BS EN 50292 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.

INSTALLATION INSTRUCTIONS

CENTRAL HEATING SYSTEM

1. General

This appliance gives out heat in two ways:

— Directly into the room in which it is fitted through convection and radiation.

— Hot water to heat radiators and domestic hot water.

The installation must comply with building regulations and use best practice advice.

2. Boiler Sizing

2.1 It is very important to determine the correct size of appliance for the house:

— Too big a boiler will run too hot and will not be efficient.

— Too small a boiler will not maintain the desired temperature.

2.2 Size the boiler correctly by calculating the following heat loads:

RADIATORS - the amount of heat required to run the radiators efficiently. The correct size of radiator depends on the required temperature for the room, the room heat losses and the radiator manufacturer's guides.

HOT WATER - the amount of heat required to provide the desired amount of domestic hot water.

LOSSES – the amount of heat lost in pipe work - typically 10% of the combined radiators and hot water loads. There are national guidelines for calculating these figures*.

2.3 Careful consideration must be given to where the appliance is fitted. It must be sized correctly for the heat load required and the size of the room. These requirements can be found in the *Technical Specifications*.

2.4 All Stovax appliances are thermostatically controlled. The burning rate is adjusted to the demands of the connected heat load. If the radiators do not require heat then the thermostat will act to shut down the appliance and the direct heat output to the room where it is fitted will reduce (see heat output graph on page 15 to show the ratio between direct heat output and water heat output). To prevent the room becoming too cold, fit a thermostatically controlled radiator as well as the appliance.

3. Hot Water Cylinder

3.1 The domestic hot water cylinder must be an indirect vented double feed type to meet national standards** and should have a minimum capacity of 117 litres. Houses with more than one bathroom or a separate shower will need a bigger tank.

Fully insulate the tank.

The water draw off pipes to the taps should be in a dead leg connection from the vent pipe.

4. Open Vent And Cold Feed System

4.1 This system must be fitted with a minimum of 22mm diameter open vent discharging into a heat resisting feed and expansion tank. There must be at least 25mm air gap between the end of the pipe and the water level. The cistern tank should have an overflow with a minimum diameter of 22mm

The cold feed must be a minimum 22mm and enter the system as the last connection on the common boiler return.

The open vent and cold feed must not be fitted with any valves, manual or automatic.

Do not use plastic pipe in any part of the flow and return.

5. Heat Leak Radiator

5.1 A heat leak radiator must be fitted in the gravity circuit to dissipate any excess heat produced from the boiler when connected demand is low. The domestic hot water cylinder may not be able to disperse heat at all times due to modern insulation. This radiator is commonly fitted in the bathroom and should be rated at 2kW (6500 btu) or 10% of the total boiler output.
This radiator ensures that the appliance is not shut down completely for long periods resulting in the fire going out.

Fit the heat leak radiator in the gravity circuit using 22mm pipe reducing to 15mm for no more than 300mm before the radiator.

Fit the radiator with two 'lock-shield' valves that are set in the fully open position and cannot be shut down. Use diagonal connections. Do not fit thermostatic valves or manually adjustable valves to the heat leak radiator.

In the UK:
* See BS 5449:1
** See BS1566 Part 1 grade 3 minimum

INSTALLATION INSTRUCTIONS

6. Pump

6.1 Where a pump is fitted into the circuit it should be adjustable so that the flow can match the system requirements. Fit isolation valves to enable removal for servicing. The pump must have at least 1.5 meters of static head.

7. Electrical Supply

7.1 Electrical connections must meet the requirements of national Building Regulations* and standards**, along with any European, local regulations and working practices that may apply. Should conflict occur between these instructions and these regulations then the regulations must be followed.

The connection to the mains supply should allow complete electrical isolation and only serve the heating circuit pump.

All water connections should be completed by a competent person to meet the requirements of local water authority by-laws.

CONVENTIONAL PIPE WORK SYSTEMS

All pipe work must be able to operate at above 100 degrees Celsius. Any pipe work installed in an exposed position e.g. loft space must have provision to prevent freezing.

Ensure the pipe work system has sufficient drain points to enable the complete removal of water for the purposes of servicing.

8. Gravity Pipe Circuit

8.1 To prevent the risk of boiling it is essential to arrange the pipe work and position the hot water cylinder and heat leak radiator so that gravity circulation can take place when the pump is not running. Position the cylinder and the radiator vertically above the boiler with sufficient height to encourage gravity flow.

8.2 Horizontal pipe work in a gravity system must have an incline of at least 5mm in every 1000mm and a minimum diameter of 28mm. Vertical pipe must have a minimum diameter of 22mm.

8.3 Any motorised valves fitted in this circuit must return to the fully open position when the power is interrupted.

9. Pump Assisted Central Heating

9.1 The most common arrangement is to have a pumped central heating circuit combined with a gravity hot water circuit. This arrangement requires careful balancing of the two in order to avoid the gravity circuit being starved when the pump is running.

To overcome this problem it is common practice to fit an injector tee where the pumped central heating return re-joins the gravity return from the hot water cylinder. This injector tee induces a much stronger gravity flow when the pump runs.

Only use proprietary injector tees, homemade ones are difficult to get right.

9.2 When installing a system that has pumped central heating and gravity hot water it is recommended to use all 4 boiler tappings. Each flow and return should be diagonally opposite each other.

10. Fully Pumped System

10.1 In many installations (especially new build) a fully pumped system is the best choice to give increased control.

WARNING - To prevent the risk of boiling it is essential to arrange the pipe work and position the hot water cylinder and heat leak radiator so that gravity circulation can take place when the pump is not running. Any motorised valves fitted in this circuit must return to the fully open position when the power is interrupted.

11. Sealed (Pressurised) System

11.1 Do not fit this appliance to sealed or pressurised systems or an unvented hot water cylinder.

12. Pipe work Diagrams

12.1 See over for a typical layout of a pumped central heating and gravity hot water circuit.

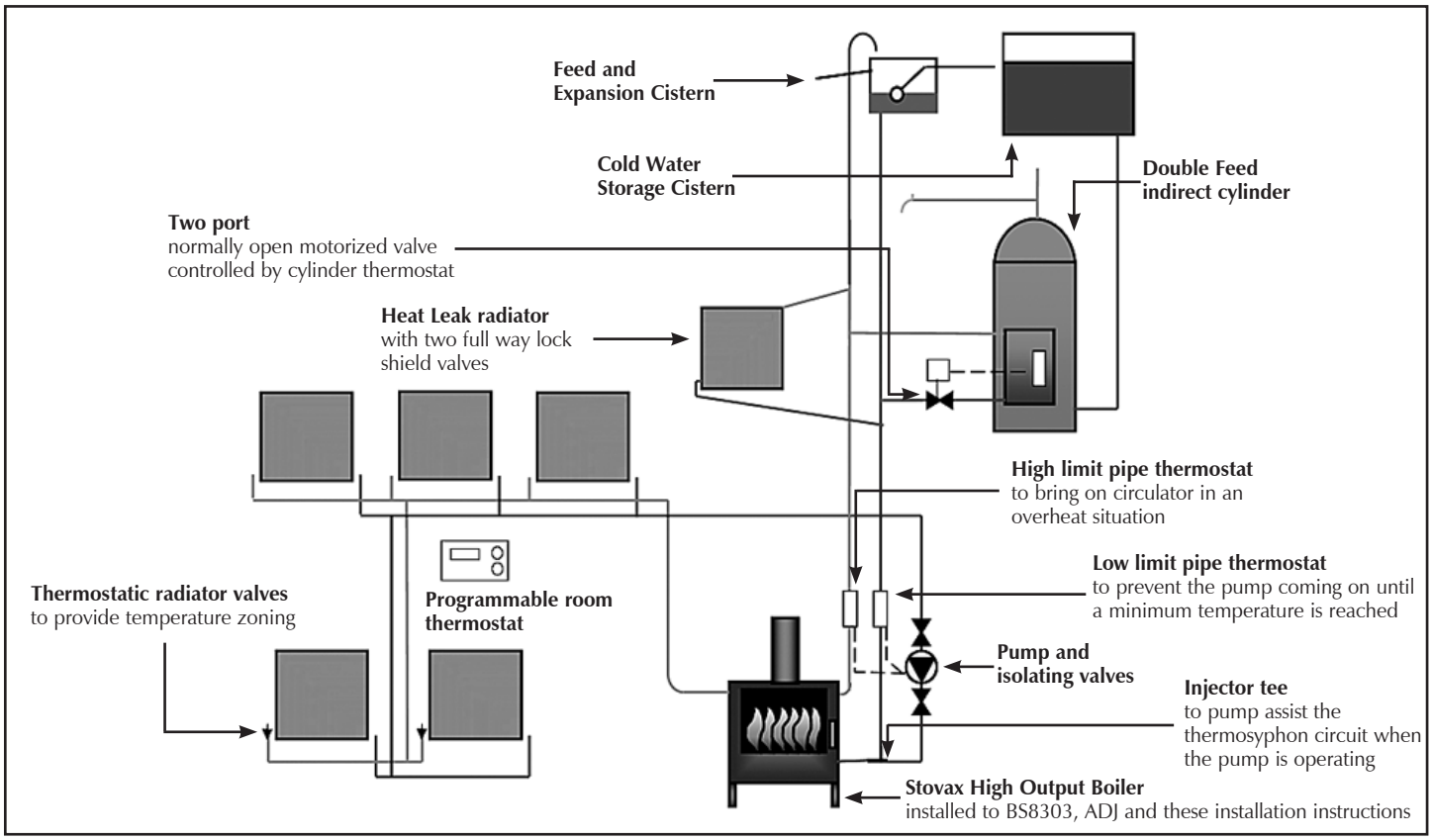
In the U.K:

* England and Wales – Document P / Scotland - Part N, Building Regulations,

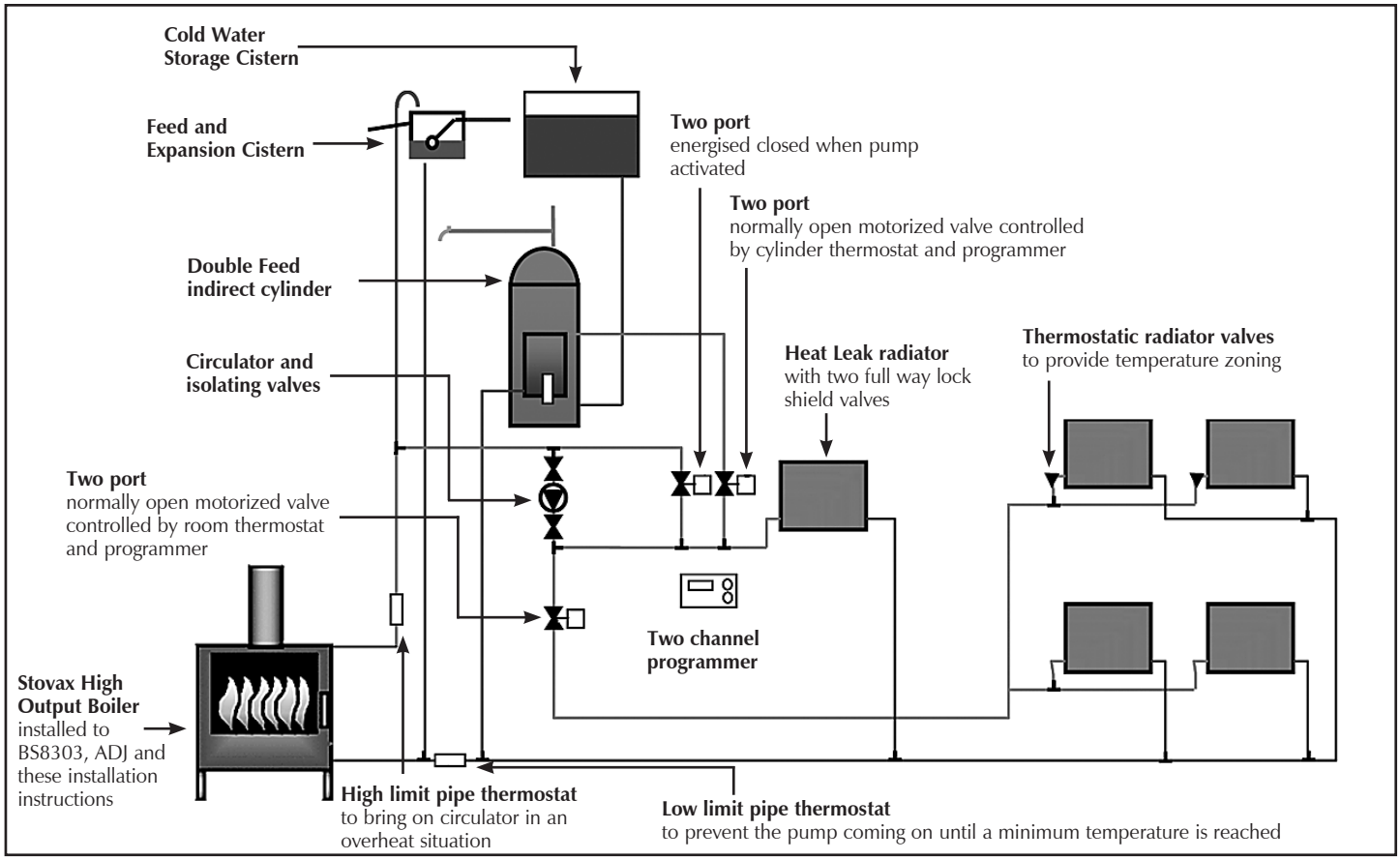
** Registered body: HETAS (GB only)/INFO (Eire)

INSTALLATION INSTRUCTIONS

See below typical layout of a pumped central heating hot water circuit with gravity:



See below typical layout of a fully pumped central heating and hot water circuit:



INSTALLATION INSTRUCTIONS

HEATING SYSTEM CONTROLS

CONTROLS GENERAL

1.1 The controls fitted to the system will provide two functions:

— To control the comfort level in the house.
— To maintain safety in the event of misuse or mechanical failure.

COMFORT CONTROLS

1.2 This primarily consists of a time clock wired into the pump. The pump is switched on when heat is required and when it is not, the pump is switched off.

The time clock, when combined with a room thermostat and or thermostatic radiator valves, enhances the comfort levels in the house.

Some room thermostats combine the function with the time clock and can be programmed to reduce the room temperature rather than turning the system off. This is effective in not allowing the rooms to become too cold and speeding up recovery time.

1.3 The hot water cylinder can also be fitted with a thermostatic valve which turns off the flow when the cylinder has reached the desired temperature but the heat leak radiator will have to be bigger to cope with the extra load when the tank is isolated.

SAFETY CONTROLS

1.4 This primarily consists of a high limit thermostat fitted to the gravity flow pipe set at 80˚C, this thermostat should be connected to the pump so that the pump is turned on if the temperature exceeds 80˚C. This will prevent accidental boiling in the gravity circuit.

1.5 It is also recommended to fit a low limit thermostat on the central heating return set at 45˚C, this thermostat will turn the pump off if the return temperature falls below 45˚C. This will prevent corrosion and condensation within the stove.

CONDENSATION

1.6 When filling the boiler with water for the first time, the cold water entering the water jacket can cause condensation to form on the surfaces of the appliance (inside and outside).

1.7 In certain conditions this condensation could result in a considerable amount of water, in some cases enough to fill the bottom of the appliance. This could be even worse if the house has recently been re-decorated, wet plastered or any other work has been undertaken which could result in high humidity.

1.8 Precautions must be taken to ensure that this build up of condensate does not overflow from the appliance onto any surrounding fabric of the room e.g. carpets.

NOTE - THIS CONDENSATION IS NORMAL DURING FILLING AND DOES NOT INDICATE A FAULTY OR LEAKING STOVE.

NORMAL RUNNING

1.9 During normal running this condensation should be minimal if the system is fitted with the low limit thermostat as detailed in 1.22 (above). This low limit thermostat prevents the system pump from running until the stove has reached temperature.

SEASONAL USE

1.10 If this appliance is unused for lengthy periods of time it should be periodically checked to ensure that condensation is not building up within the stove.

NOTE – THIS CONDENSATION IS NORMAL AND DOES NOT INDICATE A FAULTY OR LEAKING STOVE.

If the stove is going to be unused for very long periods of time it is recommended to drain the system.

NOTE – Further information on solid fuel central heating systems can be found in the HETAS engineers training manual.

LINK UP SYSTEMS

For information on how to link solid fuel boilers to other heating appliances see Information For Dual System Link Up Methods (PM286). This can be obtained through Stovax.

Call (01392) 474011, email info@stovax.com or visit www.stovax.com for details.

Always seek the advice of a competent person* before linking another heating system to a solid fuel boiler.

In the U.K:
* Registered body: HETAS (GB only)/INFO (Eire)

COMMISSIONING

COMMISSIONING

1.1 To commission:
— Replace the log retainer.
— Check the door alignment and catch operation, adjust if required, see Installation Instructions, Section 6, Adjusting Door Hinges.
— Check the soundness of door seals, castings and joints.
— Check the operation of the air controls.
— Ensure the system has been filled with water and includes a suitable inhibitor.

1.2 Now carry out a final smoke draw test:
— First warming the flue with a blowlamp, or similar, for about 10 minutes.
— Place a smoke pellet on the centre of the grate, with the air controls open.
— Close the door. Smoke should now be drawn up the flue and be seen to exit from the flue terminal.
— Complete test with all doors and windows closed in the room where the appliance is fitted.
— If there are any extractor fans in adjacent rooms, the test must be repeated with the fans running on maximum and interconnecting doors open.
— Check the effect of ceiling fans during the test.

If the test fails, re-check the suitability of the flue system and ventilation. An inadequate air supply to the room is potentially dangerous.

— Light the appliance and slowly increase the temperature to operating levels.
— Ensure no combustion products enter the room.
— Open the main fire door when the appliance reaches operating condition and carry out a spillage test with a smoke match or pellet around the door opening.
— Run the system up to temperature.

BALANCING THE SYSTEM

It is essential to balance the central heating system in order to achieve an even heating performance across all of the radiators in the house. Balanced means each radiator having a 10˚C difference in temperature between the flow and the return, ideally 80˚C flow and 70˚C return.

Have the system running and adjust the appliance thermostat so that the flow temperature measured near the appliance is approximately 80˚C. Ensure that all valves including lock-shield valves are in the fully open position and the pump is at its estimated correct speed. If there are thermostatic radiator valves, have these on maximum setting and ensure that they do not activate.

Ensure that the radiators have been bled of air.

Write down the return temperature of each radiator in turn and its difference to the flow temperature at the appliance. Make sure that the flow temperature remains constant.

The radiator with the greatest difference (the index radiator) and any other radiator within 1 degree should be left with the lock-shield fully open. The remainder of the lock-shield valves should be closed to about 1/3 open. Leave the system to stabilise, this could take some time.

When the system has stabilised, write down the new difference between the flow and return temperatures and any which differ from the index radiator by more than 1 degree will need further adjustment, some valves will have been closed too much and others not enough, usually the adjustments need to be only a fraction of a turn at a time. Leave sufficient time for the system to stabilise after each adjustment.

When the radiator temperatures are starting to become consistent, but before final adjustments, the index radiator needs to be considered, if the return temperature of this radiator is not near 70 degrees then the pump will need to be adjusted to either provide more (to increase the temperature) or less flow to decrease the temperature. Again, sufficient time will need to be left to allow the system to stabilise after adjusting the pump speed.

When the radiator flow and return temperatures are correct the final adjustments can be made and the lock-shield covers replaced.

Knowing how far to shut down a valve to get the desired change in flow and return temperature, and knowing how long to wait for the system to stabilise, takes a little time and practice.

1.3 If excessive spillage occurs:

— Allow the appliance to cool and re-check the flue system and ventilation.

1.4 **Finally:**

— Explain the safe operation of the appliance and the use of the controls to the user and the importance of only using suitable fuels.

— Ensure that a CO alarm has been fitted and make the user aware of its operation and importance, referring them to the Warning section on page 5 of the User Instructions.

— Explain the cleaning and routine maintenance requirements.

— Explain the requirement to use a suitable fireguard when children, elderly or infirm persons are near the appliance.

— Record dealer/supplier and installer details in *Appliance Commissioning Checklist* (page 3, Instructions for Use).

— Record serial number in *Appliance Commissioning Checklist* (page 3, Instructions for Use). This number is required when ordering spare parts and making warranty claims.

— Give the copy of the *Instructions* to the customer.

MAINTENANCE and SERVICING

For a complete list of spare parts and accessories contact your Stovax retailer or call 01392 474011

1. ANNUAL SERVICE

1.1 Before the start of the heating season strip, inspect and clean the appliance as detailed:

— Allow appliance to cool.

— Remove all internal parts; baffle, log guard and, for multi-fuel versions, grate system and ashpan (see *Installation Instructions, Sections 2, 3 & 4*).

— Sweep the flue at this point if necessary.

— Vacuum clean any remaining ash and debris from the inside of the appliance. Stovax offer a filter/collection attachment for vacuum cleaners to protect them from fire ash: Ash Clean (Stovax Part No. 2091).

— Clean the internal surfaces of the appliance using a wire brush and scraper as required. Vacuum and brush the resulting debris from the appliance.

— Clean the grate parts with a wire brush, and check the parts for any damage. Replace any damaged parts using genuine Stovax replacements parts (see below for details).

— Re-fit cleaned internal parts.

— Remove glass from door, discard all old rope seals and fit new (see *Maintenance and Servicing, Section 4*).

— **Do not use cleaning agents that have a high alkaline content, for example Stovax Gel Cleaner, on appliances with painted glass such as the View. These are abrasive cleaning agents that are designed to be used with heavily stained clear glass. Use Stovax Glass Cleaner (Stovax No.4103) on more delicate surfaces**.

Do not use acidic cleaners on printed glass.

— Fit new door rope seal (see *Maintenance and Servicing, Section 6*).

— Lightly oil the door catch mechanism and hinge pins. Avoid getting oil onto the door seals and glass.

— To refresh painted finishes use Stovax Thermolac paint.

1.2 Use genuine Stovax replacement parts to keep the appliance in safe, efficient working order.

This is a list of the maintenance products that may be required:

Task	Product name	Stovax Code Number
Glass cleaning	Stove glass cleaner (spray on)	4103
Preventing build-up of creosote in flue	Protector (15 sachets)	7002
	Protector (1kg tub)	7025
Sealing flue pipe joints	Fire Cement (500g tub)	2020
	Fire Cement (600g cartridge)	2021
Re-painting	Thermolac Black (400ml aerosol)	2019
	Thermolac Black (200ml brush-on)	2057
Cleaning matt black Appliances	Colloidal black (85ml)	7000
Protecting your hands	Heat resistant leather gloves	4008
Door sealing rope	14mm Black rope seal (handy pack)	5700
Glass sealing tape	3mm Black rope seal (handy pack)	4975
Thermic seal glue	(50ml bottle)	5037
Soft rope	10mm diameter	4965
Ash Clean	Vacuum Cleaner Attachment	2091

These products, available from your local Stovax retailer, along with regular maintenance and use of correct fuels, will keep the appliance in the best possible condition.

1.3 For more information about the Stovax Group products please visit our web site at **www.stovax.com**

1.4 Burn at a low temperature for the first day of use after any maintenance. This allows the seals, fixing glues and paint to fully cure.

1.5 During this time the appliance may give off some unpleasant odours. Keep the room well ventilated to avoid a build-up of fumes.

1.6 Your Stovax retailer can carry out service and maintenance.

MAINTENANCE and SERVICING

2. REMOVAL OF THE LOG GUARD

To remove the Log guard:

2.1 Lift Log Guard clear of the supporting brackets.

2.1 Rotate to clear the sides of the door opening.

2.3 **Do not use appliance without the log guard in position.**

3. FITTING AND REMOVAL OF BAFFLE

3.1 It is important to remove and clean the baffle system to ensure the flue ways are clear of soot and debris and to ensure the safe and efficient operation of the stove. The frequency of cleaning will depend on the stove operating conditions. See Installation Instructions, Section 4, Fitting & Removal of Baffle.

3.2 The baffle system is designed to give safe and efficient operation of the stove. **Replace any damaged baffle immediately.**

3.4 **Do not modify the baffle system.**

4. RIDDLING GRATE

4.1 See Installation Instructions, Section 4, Fitting and Removal of Grate.

5. FITTING A NEW DOOR GLASS

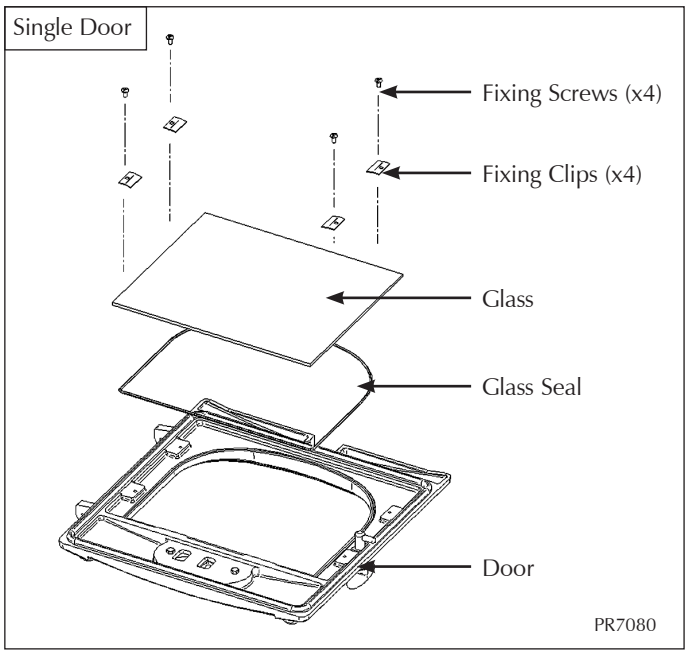
5.1 To maintain the safe use of your stove you may need to replace a damaged door glass.

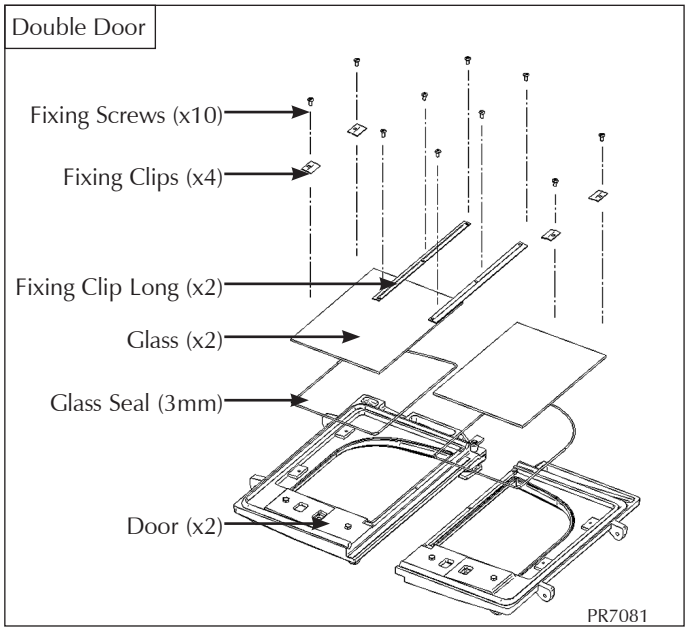
5.2 To complete this operation:

— Open the door.

— Lift it free of the hinge blocks.

— Lie the door face down on a soft flat surface, to protect the paintwork and glass.





— Remove the 4 x glass clip fixing screws.

— Lift the old glass can then be lifted clear of the door. (Note how the 3mm sealing rope is placed between the glass and the door.)

— Dispose of the old glass safely.

— Clean and re-paint the rear of the door if required.

— Clean the screws with light oil.

— Coat with high temperature anti-seize grease to aid future removal.

— Fit new sealing rope between the new glass and the door.

— Place the glass into position in the door.

— Place the glass fixing clips into position.

— Re-fix with the clean fixing screws.

— Tighten the screws evenly until the clips hold the glass. Do not over tighten the clips as this could break the glass.

5.3 Fit only Stovax ceramic glass, which is suitable to use in high temperature applications.

5.4 Using the appliance with damaged door glass could allow dangerous fumes to enter the room, or the appliance to over-fire and cause damage.

6. FITTING A NEW DOOR SEAL

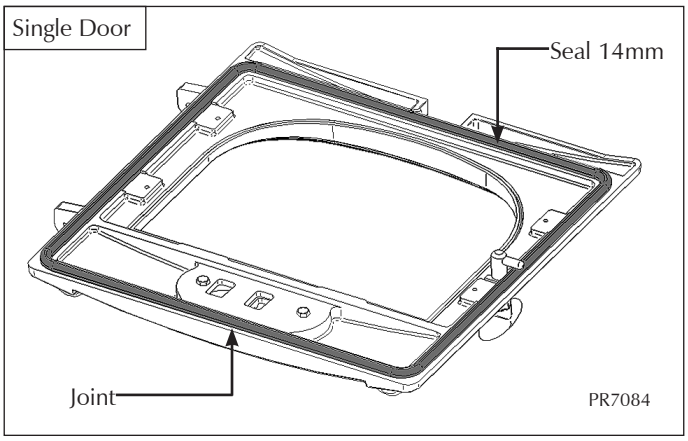
6.1 To maintain the safe use of your appliance you may need to replace a damaged or worn door sealing rope.

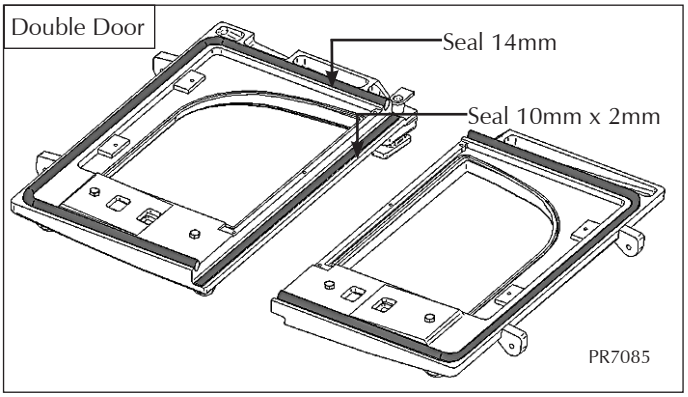
6.2 To complete this operation:

— Open the door.

— Lift it free of the hinge blocks.

— Lie the door face down on a soft flat surface to protect the paintwork and glass.





— Remove the old rope.

— Scrape old glue from the locating groove.

— Clean the locating groove with a clean dry cloth removing all dust and debris.

— Apply Stovax Thermic Seal glue (Stovax Part No. 5037) into the rope locating groove.

— Press the new Stovax rope into the locating groove placing the joint in the middle of the lower edge of the door.

— Refit the door.
— Close to apply pressure on the new rope.

— Leave the appliance closed for at least 12 hours before lighting the stove.

— Use at a low output for approximately one day.

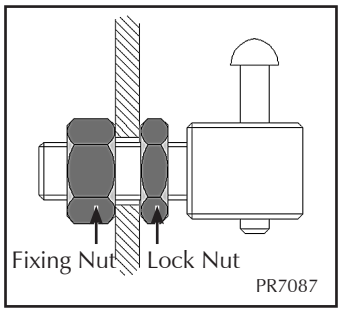
6.3 Using the stove with a damaged door seal could allow dangerous fumes to enter the room, or the appliance to over-fire and cause damage.

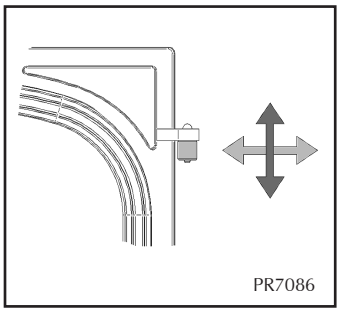
7. ADJUSTING DOOR HINGES

7.1 To maintain the safe use of your appliance, you may need to adjust the door hinges to ensure the door closes safely and correctly.

7.2 To complete this operation:

— Open the door to give access to the fixed part of the door hinge as shown.



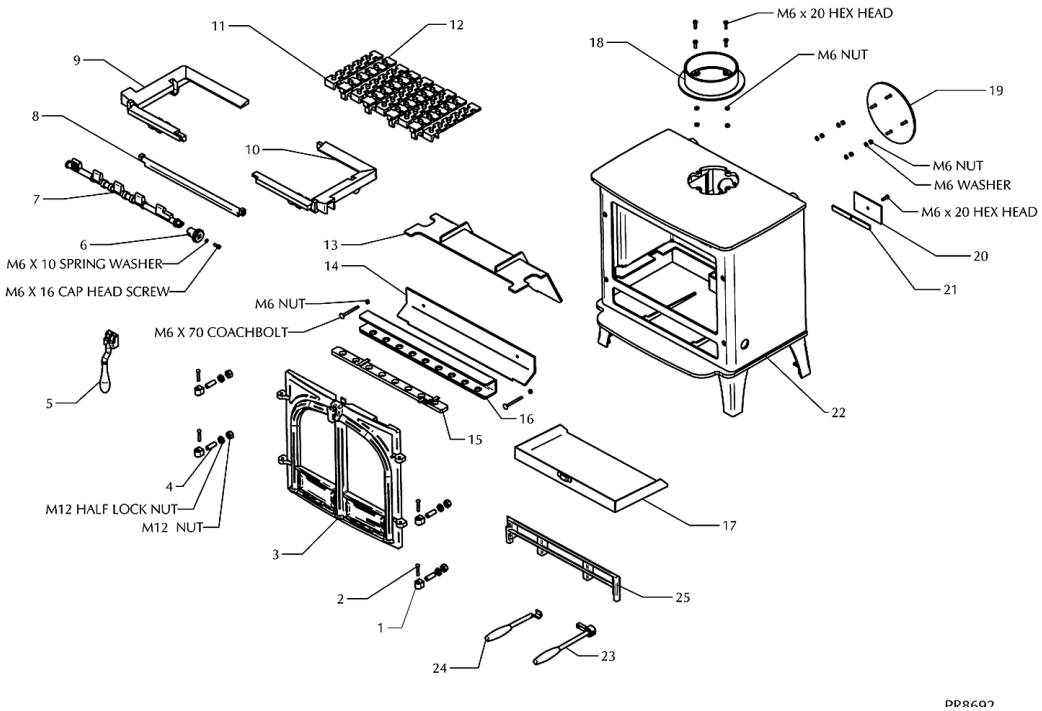


— Use a 19mm A/F spanner to loosen the fixing nuts.

— Reposition the hinge blocks to achieve a correct fit This may require several adjustments to find the correct position.

SPARE PARTS LIST

STOCKTON 8

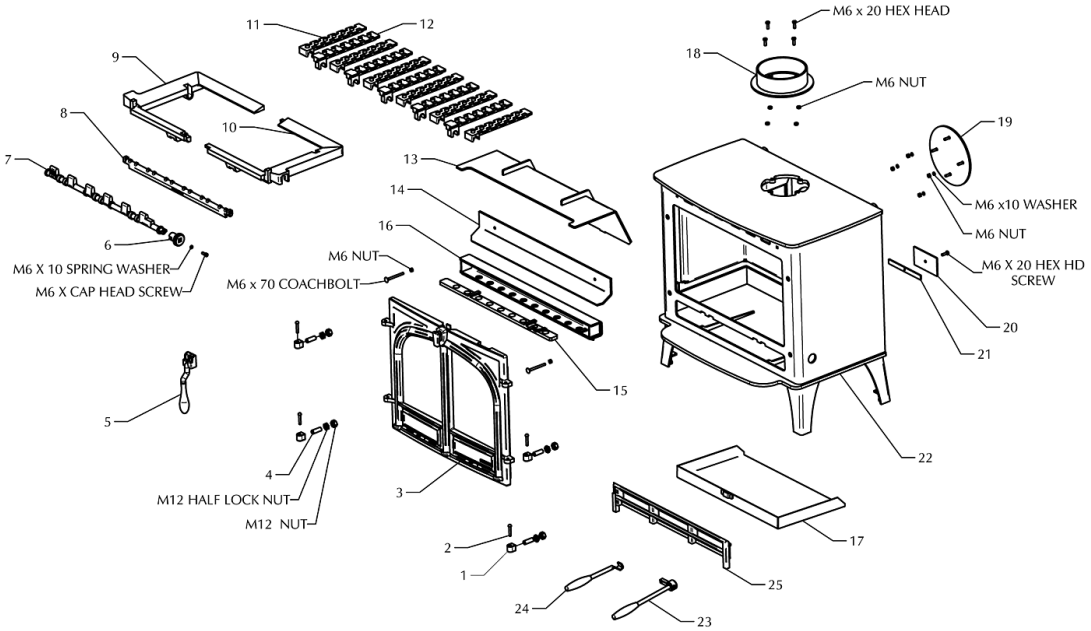


PR869

Ref.	Description
1	HINGE BLOCK
2	HINGE PIN
3	STOCKTON 8 2 DOOR ASSEMBLY
4	HINGE BLOCK STUD
5	TOOL HANDLE
6	MULTI-FUEL RIDDLING SOCKET
7	RIDDLING BAR
8	BACK RIDDLING BAR
9	MULTIFUEL INFILL LEFT HAND SIDE
10	MULTIFUEL INFILL RIGHT HAND SIDE
11	GRATE BAR - MOVING
12	GRATE BAR - FIXED
13	BAFFLE ASSEMBLY
14	SECONDARY AIR DEFLECTOR
15	SECONDARY AIR CONTROL ASSEMBLY
16	SECONDARY AIR DUCT ASSEMBLY
17	ASHPAN ASSEMBLY
18	6" FLUE COLLAR
19	6" FLUE BLANKING PLATE
20	THERMOSTAT BLANKING PLATE
21	THERMOSTAT BLANKING BAR
22	BODY FABRICATION
23	RIDDLING TOOL ASSEMBLY
24	ASHPAN TOOL ASSEMBLY
25	LOG GUARD

STOCKTON 11

Ref.	Description
1	HINGE BLOCK
2	HINGE PIN
3	2 DOOR ASSEMBLY
4	HINGE BLOCK STUD
5	DOOR TOOL
6	MULTI-FUEL RIDDLING SOCKET
7	RIDDLING BAR
8	BACK RIDDLING BAR
9	MULTIFUEL INFILL LEFT HAND SIDE
10	MULTIFUEL INFILL RIGHT HAND SIDE
11	GRATE BAR - MOVING
12	GRATE BAR - FIXED
13	BAFFLE ASSEMBLY
14	SECONDARY AIR DEFLECTOR
15	SECONDARY AIR CONTROL
16	SECONDARY AIR DUCT ASSEMBLY
17	ASHPAN ASSEMBLY
18	6" FLUE COLLAR
19	6" FLUE BLANKING PLATE
20	THERMOSTAT BLANKING PLATE
21	THERMOSTAT BLANKING BAR
22	BODY FABRICATION
23	RIDDLING TOOL ASSEMBLY
24	ASHPAN TOOL ASSEMBLY
25	LOG GUARD



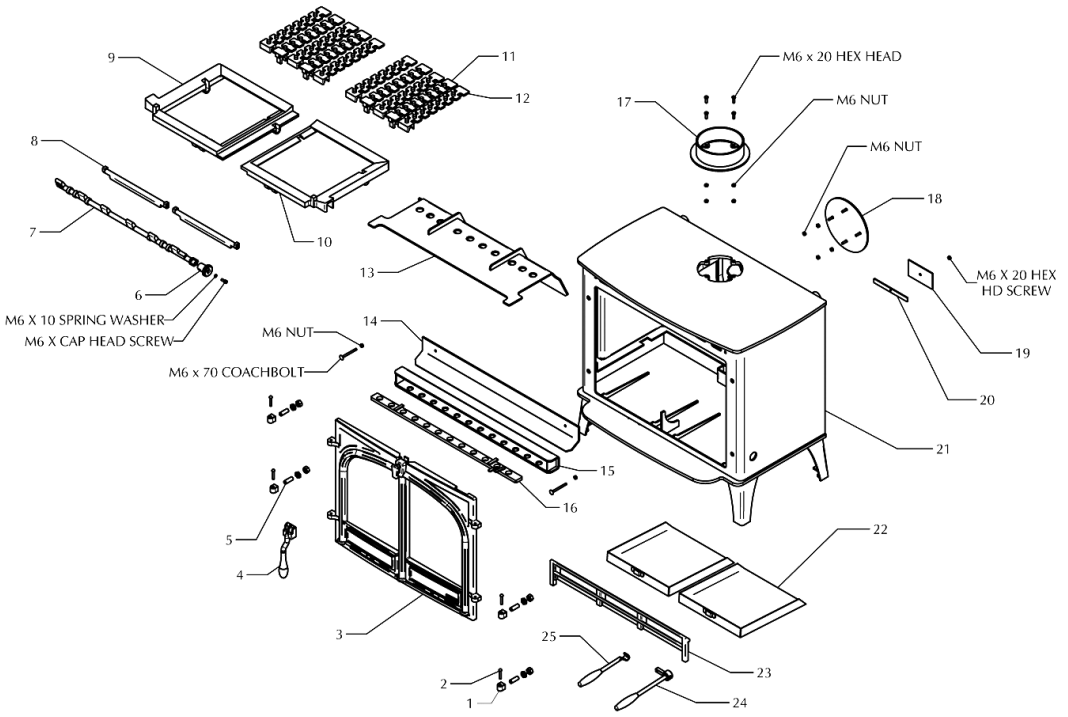
PR869

Due to continual technical improvements please check the online spares shop at www.stovax.com for the most up to date parts lists.

SPARE PARTS LIST

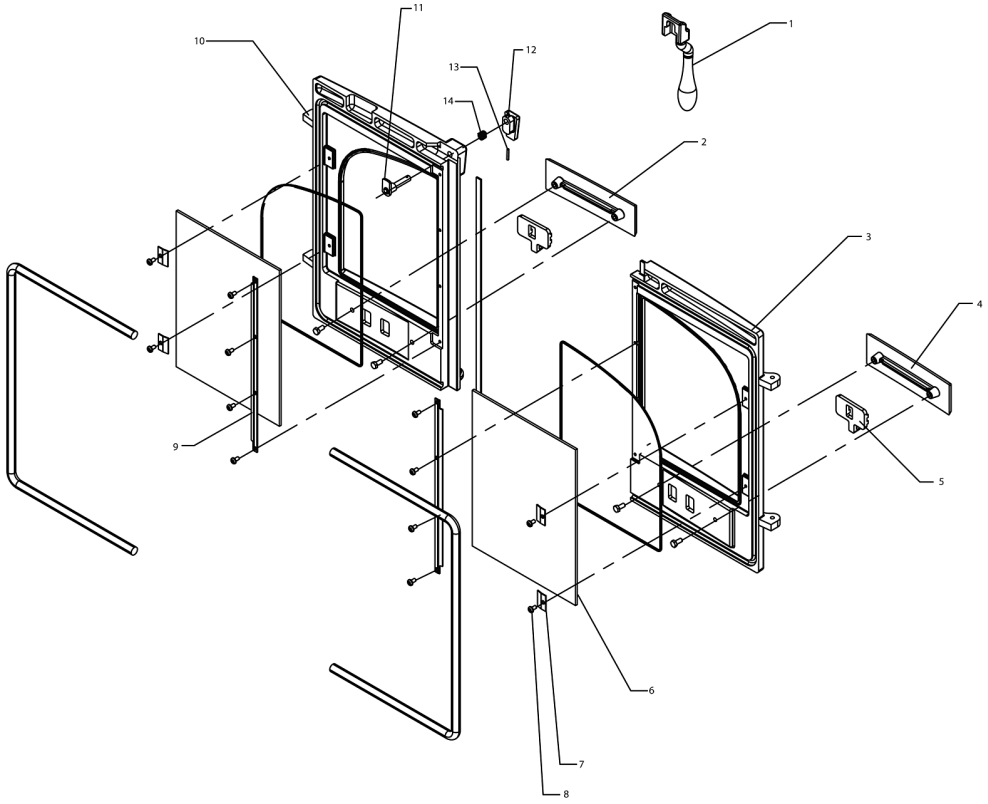
STOCKTON 14

Ref.	Description
1	HINGE BLOCK
2	HINGE PIN
3	2 DOOR ASSEMBLY
4	DOOR TOOL
5	HINGE BLOCK STUD
6	MULTI-FUEL RIDDLING SOCKET
7	RIDDLING BAR
8	BACK RIDDLING BAR
9	MULTIFUEL INFILL LEFT HAND SIDE
10	MULTIFUEL INFILL RIGHT HAND SIDE
11	GRATE BAR - FIXED
12	GRATE BAR - MOVING
13	BAFFLE ASSEMBLY
14	SECONDARY AIR DEFLECTOR
15	SECONDARY AIR DUCT ASSEMBLY
16	AIR SLIDE ASSEMBLY
17	6" FLUE COLLAR
18	6" FLUE BLANKING PLATE
19	THERMOSTAT BLANKING PLATE
20	THERMOSTAT BLANKING BAR
21	N /A
22	ASHPAN ASSEMBLY
23	LOG GUARD
24	RIDDLING TOOL ASSEMBLY
25	ASHPAN TOOL ASSEMBLY



PR8694

DOOR ASSEMBLY



Ref. No.	Description
1	DOOR TOOL
2	RIGHT HAND AIR CONTROL COVER
3	LEFT HAND DOOR CASTING
4	LEFT HAND AIR CONTROL COVER
5	DOOR AIR CONTROL
6	DOOR GLASS
7	GLASS CLIP
8	M5 X 10 PAN HEAD SCREW
9	GLASS CLIP
10	RIGHT HAND DOOR CASTING
11	2 DOOR SPINDLE
12	2 DOOR KNOB
13	SPIROL PIN Ø3 X 18 LG
14	SPRING

Due to continual technical improvements please check the online spares shop at www.stovax.com for the most up to date parts lists.

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1ST SERVICE
Date of Service:.....
Next Service Due:.....
Signed:.....
Retailer's Stamp/HETAS Registration Number

2ND SERVICE
Date of Service:.....
Next Service Due:.....
Signed:.....
Retailer's Stamp/HETAS Registration Number

3RD SERVICE
Date of Service:.....
Next Service Due:.....
Signed:.....
Retailer's Stamp/HETAS Registration Number

4TH SERVICE
Date of Service:.....
Next Service Due:.....
Signed:.....
Retailer's Stamp/HETAS Registration Number

5TH SERVICE
Date of Service:.....
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6TH SERVICE
Date of Service:.....
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Signed:.....
Retailer's Stamp/HETAS Registration Number

7TH SERVICE
Date of Service:.....
Next Service Due:.....
Signed:.....
Retailer's Stamp/HETAS Registration Number

8TH SERVICE
Date of Service:.....
Next Due:.....
Signed:.....
Retailer's Stamp/HETAS Registration Number

9TH SERVICE
Date of Service:.....
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Retailer's Stamp/HETAS Registration Number

10TH SERVICE
Date of Service:.....
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