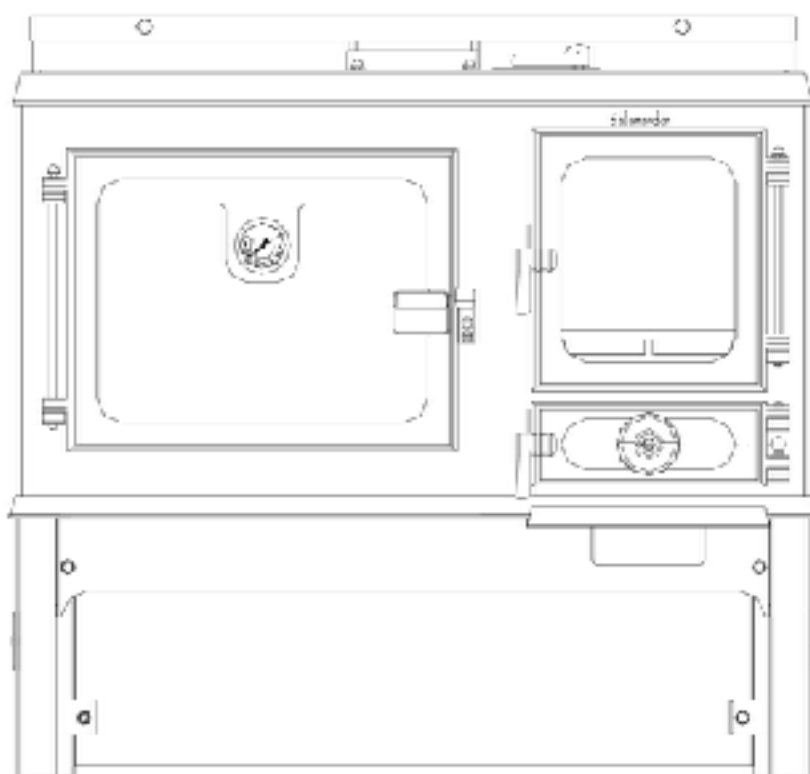


Installation and Operating Instructions



Salamander Range Model 1701 SE

Section	Contents	Page
1	Important information about installing and using the Salamander Range	3
2	Unpacking the Salamander Range	4
3	Assembly of the Salamander Range	5
4	Components of the Salamander Range	6
5	Installation of the Salamander Range	7
6	Operating instructions	8
	6.1 Fuel	
	6.2 Before lighting	
	6.3 Lighting a wood fire	
	6.4 Refuelling a wood fire	
	6.5 De-ashing the Range	
	6.6 Cooking on the Range	
	6.7 Using the Range Oven	
	6.8 Maintaining the correct flue temperature	
7	Guidance on safe operation	14
8	Maintenance	15
9	Fault finding	16
10	Spare parts	16
11	Specification	17

PLEASE READ THESE INSTRUCTIONS CAREFULLY

For your safety it is very important that your range is correctly installed. Take care when assembling and moving the range. It is made of cast iron and is very heavy (90kg).

1 - Important information about installing and using the Salamander Range

The Clean Air Act 1993 and Smoke Control Areas

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

In England, appliances are exempted by publication on a list by the Secretary of State in accordance with changes made to sections 20 and 21 of the Clean Air Act 1993 by Section 15 of the De-regulation Act 2015. In Scotland appliances are exempted by publication on a list by Scottish Ministers under Section 50 of the Regulatory Reform (Scotland) Act 2014. Similarly, In Northern Ireland appliances are exempted by publication on a list by the Department of Agriculture, Environment and Rural Affairs under Section 16 of the Environmental Better Regulation Act (Northern Ireland) 2016. In Wales appliances are exempted by regulations made by Welsh Ministers.

Further information on the requirements of the Clean Air Act can be found here:

<https://www.gov.uk/smoke-control-area-rules>

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements.

The **Salamander Range model 1701 SE** has been fitted with modified primary and secondary air controls to ensure that the requirements of the clean air act are met.

- All national and local regulations, including those referring to national and European standards need to be complied with when installing the Range.
- The Range must be installed by a registered installer or approved by your local building control officer.
- Use for domestic heating purposes only.
- Burn only approved fuels (Wood or smokeless fuel). Do not use petroleum based products or use as an incinerator.
- This Range will become very hot whilst in operation and due care should be taken. Use only the tool provided to operate the door handles, air controls, riddling control and ash pan.
Always use a fireguard in the presence of children, the elderly or the infirm.
Do not place flammable objects on or near the Range.
- The Range must NOT be installed into a chimney that serves any other appliance and is suitable for intermittent burning.
- There must be a suitable air supply into the room where the Range is installed and care should be taken so it is not possible to block the front or back air inlets to the Range.
- There must NOT be an extractor fan in the same room as the stove as this may cause fumes to be emitted into the room.
- Do not make unauthorised changes or modifications to the Range and use only recommended spare parts.
- The Range and chimney flue must be regularly cleaned . It is especially important to check for blockages following a prolonged shutdown period. It is recommended

2 – Unpacking the Salamander Range

TAKE CARE

Remember the Range is made of cast iron and is very heavy.

Carefully open the firebox door and remove the packing. Inside the Range will be the following items

Packing list for the Salamander Range 1701

- 1 Grate and grate centre installed.
- 2 Back air box
- 3 Left Air Box
- 4 Right Air Box
- 5 Baffle Plate
- 6 Fire bars
- 7 Ash pan
- 8 Salamander multipurpose tool
- 9 Dustpan and brush
- 10 Magnetic stove thermometer

3 – Assembly of the Salamander Range

3.1 Check that the grate and grate centre is located correctly and sitting horizontal in the stove. Check the riddling mechanism operates and moves freely.

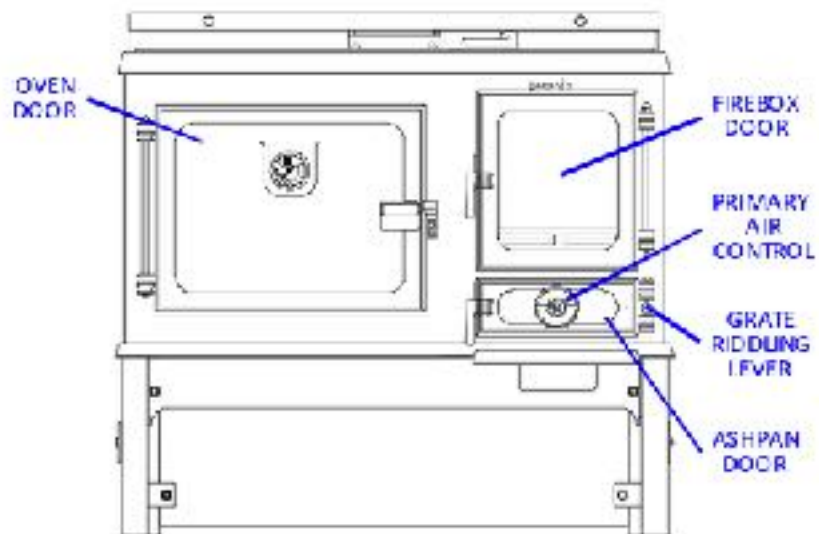
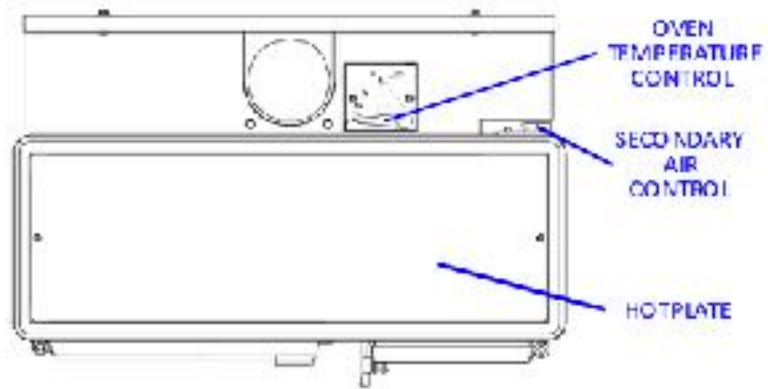


3.2 Picture shows how the back and side air boxes and baffle locate together when installed in the firebox.



3.3 Build the firebox inside the stove by locating first the rear air box, then the baffle, then the left air box, followed by the right air box. The weight of the baffle holds the assembly together.

4 – Components of the Salamander Range



5 – Installation of the Salamander Range

PLEASE READ THESE INSTRUCTIONS CAREFULLY
For your safety it is very important that your Range is correctly installed.
Salamander Stoves cannot accept any responsibility for any fault arising through incorrect installation or use.

5.1 Regulations

All national and local regulations, including those referring to national and European standards need to be complied with when installing the Range.

5.2 Installation

The Range must be installed by a registered installer or approved by your local building control officer.

5.3 Safety clearances

The Range must be installed with the following minimum safety clearances from combustible materials.

Without shielding option Side 550mm, Rear 700mm

With shielding option installed
on sides and rear Side 300mm, Rear 100mm

If the Range is to be installed in a non-combustible recess it is recommended that 100mm clearance is left at the back and sides for maintenance and to allow air to circulate around the Range.

Note that any connecting flue (whether single skin or insulated) used in the installation should be installed in accordance with the requirements of the applicable national and local regulations and the applicable safety distances applied to the flue. (In the UK this is the Building regulations part J)

5.4 Floor

National and local building regulations must be complied with when considering the floor or hearth where the Range is to be installed. The floor must be capable of bearing the weight of the Range (90kg).

5.5 Access for cleaning

Although access to the flue can be gained by removing the Flue box cover plates on the Range, consideration must be given to installing extra access in the flue system to ensure all sections can be cleaned and maintained.

6 – Operating Instructions

6.1 Fuel

Wood

Use only seasoned timber with a moisture content of less than 20%. Typically this means wood which has been cut and stored in an open dry shelter for between one and two years. Logs up to a maximum length of 200mm (8 inches) are suitable for use in the Range.

DO NOT BURN wet or unseasoned wood, construction timber, painted or treated wood, driftwood or manufactured board products. Doing so will result in the wood burning inefficiently and excess smoke, soot and tar will be produced. This will coat and damage the internal components of the Range and flue and could result in a chimney fire.

Solid Fuel

Use only Anthracite or manufactured smokeless fuel listed as suitable for use on closed heating appliances.

DO NOT BURN bituminous coal, any petroleum based products or any liquid fuels.

6.2 Before lighting

If using for the first time, or following a long period out of use check that the flue is clear and unobstructed.

Check that the riddling control is free to move and is pushed fully in towards the Range.

Check that the ash pan is empty, in position and the ash pan door is closed

WARNING

During the first few times the Range is used, the heat resistant paint will be curing, and may give off small amounts of smoke and odours. This is completely normal for this type of appliance, and the room should be well ventilated.

To aid this process and prevent damage to the Range finish, the first few times a new Range is used the fire should be kept to a moderate size, and not fired vigorously.

6.3 Lighting a wood fire

- Open the primary air control approx 1cm by turning anti-clockwise. (The circular wheel in the centre of the bottom door)
- Open the secondary air control fully by moving the lever fully to the left (Top right back of the Range)
- Turn the oven temperature control to "0" , (All flue gasses will go directly up the chimney and reduce the time required to heat it to working temperature)
- Place 2 or 3 firelighters or screwed up newspaper onto the fire grate with about 1 kg of kindling and light the fire with a taper.
- When the firelighters or newspaper are burning, leave the door ajar about 1 to 2 cm to achieve a good draw and avoid condensation. Allow the burning kindling to warm up the chimney.
- After 2 to 5 minutes the chimney should be warm enough create a good draw and the door can be closed.
- Once the kindling has formed a good bed of glowing embers the Range can be refuelled with 2 or 3 pieces of wood, (do not be tempted to overfill the firebox and risk fuel falling onto the glass or out of the fire as the door is opened. As a guide the firebox should only be half filled with fuel to allow enough space above the fire for efficient combustion)
Close the door, and once the new fuel is burning fully close the primary air control (on the ash pan door) then just slightly open about half a turn.

If required, the bottom door can be opened 1cm for a short while until the new fuel is alight.

When opening the door always open gently for the first 2 to 3 cm to allow the pressure to equalise and stop smoke from escaping.

The Range should not be operated with either door left open for long periods. The stove door should never be left open when the stove is in use.

Adjust the secondary air control to achieve the desired burning rate.

6.4 Refuelling a wood fire

Under normal chimney draft conditions expect to refuel the stove every 45 to 60 minutes.

Refuelling onto a low fire bed.

If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

Fuel overloading

The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.

Operation with door left open

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

Dampers left open

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

Remember

Wood that is smouldering and producing smoke with no flame, is burning very inefficiently and producing unburnt gases and soot that deposit on the inside of the Range, flue and the door glass.

Wood burns best when lying on a bed of about 1cm of ash.

Burning the Range too slowly (with the secondary air valve closed for too long) is not recommended as this is very inefficient and produces unburnt gases and deposits in the Range and flue. It is therefore not recommended that the Range is left lit overnight.

After refuelling, increase the amount of air to get the wood lit as quickly as possible. Once lit, reduce the air again.

It will take time to get to know your Range and how best to operate it under different conditions. The type and condition of the wood, chimney draught, weather, wind and outside temperature will all slightly change the way the wood burns and therefore how you should use the Range.

When in use, burning the Range vigorously for a short period will remove any build up of

Use only Manufactured Smokeless fuel

WARNING
Do not load with solid fuel above
the level of the front bars.

The lighting procedure is the same as for wood, but remember.....

As a rule of thumb....

Wood requires an air supply from the top. When burning wood efficiently, open and control the fire with the secondary air control at the back of the stove and just crack open the primary air control on the bottom door.

Solid fuel requires an air supply from underneath. When burning solid fuel efficiently, control the fire with the primary air control at the bottom of the Range and just crack the secondary air control to keep the glass clear.

The action of riddling the grate will allow ash to fall from bed of the fire into the ash pan underneath.

To riddle the grate place the forked end of the tool in the slot in the riddling lever located between the hinges of the bottom door.

Pull and push the lever backwards and forwards and ash will fall through the grate into the ash pan.

Remember

When burning wood it is good to maintain a bed of ash on the grate about 1cm thick.

When burning solid fuel the air is being supplied through the grate therefore it should not be allowed to get completely blocked with ash.

Do not be tempted to over riddle the grate, as hot or burning fuel may fall through into the ash pan.

Do not let the ash level in the ash pan get higher than the sides of the pan. This will reduce airflow to the fire through the grate.

To remove the ash pan use the rounded end of the tool as shown.

WARNING
Take great care when removing and emptying the ash pan. It may be very hot and still contain burning or smouldering embers and is a fire risk.

6.6 Cooking on the Range

- Once the firebox section of the Range is up to working temperature it is possible to cook on the hotplate.

- The temperature of the hotplate will vary across its length. The coldest section is to the left, and the hottest section in front of the oven control.
- Adjust the position of pans from left to right to achieve low (warming), medium (simmer) or high (boil) temperatures.

6.7 Using the Range oven

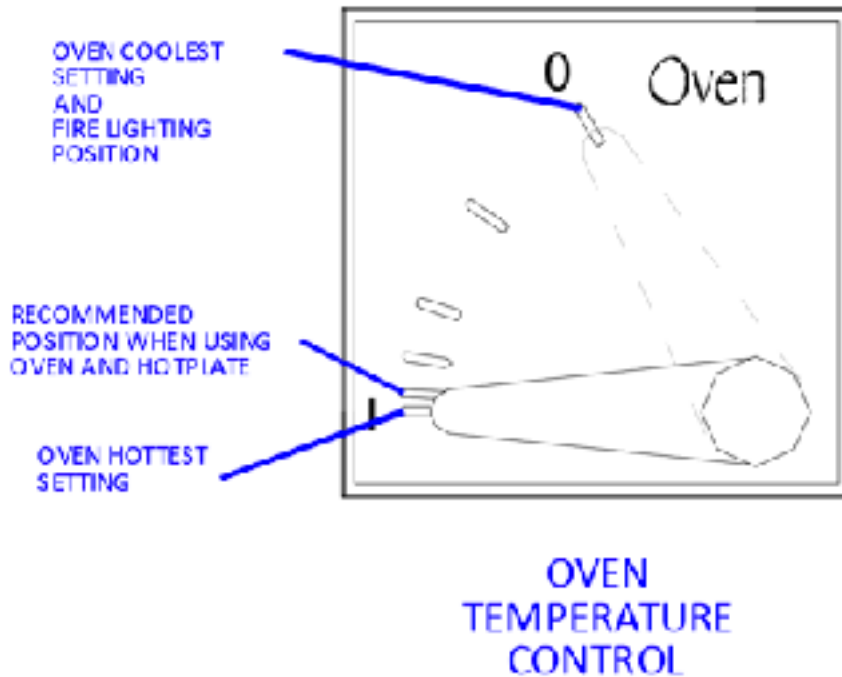
- The oven is opened by lifting the handle on the left hand side of the door. When in use the oven handle will become very hot and the Range multipurpose tool should be used to open and close the door.
- The oven door houses a temperature gauge which will give an indication of the oven temperature. Note that if the door is left open the temperature gauge will cool down and the oven may be hotter than indicated.
- The oven temperature is controlled by a combination of adjusting
 - 1** The burn rate in the fire box
 - The type of fuel
 - The amount of fuel
 - The primary air control
 - The secondary air control
 - 2** The position of the oven temperature control
 - Position "0"
Lower oven temperature
(Flue gases go straight up the chimney)
 - Position "1"
Highest oven temperature
(Flue gases circulate past the oven)
- Note that when the oven is in use the left hand side of the hotplate will increase in temperature as the flue gasses pass directly underneath the hotplate.

6.8 Maintaining the correct flue temperature for efficient, economical and safe operation

- It is very important that the flue temperature is maintained above 115 deg C (240 deg F) when operating the Range. Below this temperature tar may build up in the flue or chimney, increasing the risk of a chimney fire.
- The magnetic stove thermometer supplied with the Range should be installed on the flue and a temperature of 115 deg C (240 Deg F) or above maintained when in use.

WARNING

It is recommended that the Oven Temperature control is used in the "1" Position (Hottest) for limited periods only. If the Range is on low fire there is an increased risk that the flue temperature may drop below 115 Deg C and tar may form in the chimney.



7 – Guidance on safe operation

Fire can be very dangerous

During operation, the Range and all the fittings (door handles and controls) get very hot.

Do not overfire the Range

It is possible to fire the Range to such an extent that damage may occur. Look out for parts of the Range or flue glowing red hot. If such a situation occurs adjust the air supply accordingly to reduce the burning rate.

Chimney fire

In the event of a chimney fire

Shut all air controls immediately

Raise the alarm and evacuate the building
Call the fire brigade
Do not re-enter the building

Fumes

If installed, operated and maintained correctly the Range will not emit fumes into the room other than occasionally very small amounts when re-fuelling or de-ashing.

If fumes are being emitted during normal operation

Ventilate the room by opening all doors and windows.

Let the fire burn out

Leave the room

Check the stove, flue and chimney for blockages

Do not re-use the Range until the cause of the problem has been identified and rectified.

If required seek expert help.

Adverse weather conditions

In a small number of installations, very occasionally in specific weather conditions (direction of wind) the draw of the chimney may be affected causing a downdraught and fumes to be emitted into the room.

If this is the case the Range should not be used and advice sought from a professional flue installer who would be able to advise on possible solutions such as an anti-downdraught cowl.

Smoke and Carbon Monoxide detectors

Both smoke and carbon monoxide detectors should be installed in all buildings where any solid fuel appliance is installed. The number and position of detectors required will vary depending on the design and layout of the building and manufacturers recommendations should be carefully followed.

Maintenance should only be carried out when the Range is cool

Before use

Between burns in the Range it is good practice to keep ash and debris to a minimum. Especially empty the ash pan and ash pan section. Remember that if only burning wood it is recommended to keep a bed of ash about 1cm thick on the grate.

Cleaning the Range

Clean the outside of the Range with a soft brush.

Regularly remove and clean the baffle and back and side air boxes of soot and debris. Also clean the internal surfaces of the Range. The frequency will be dependant on how vigorously the Range has been fired and what fuel has been used.

Any deposits allowed to build up in this area could reduce the lifespan of the Range.

Note that if required the flue can be accessed for cleaning from inside the Range.

Gaskets

The rope gaskets in both doors will need regular inspection to check the condition and ensure that the doors seal and full control of the air supply to the fire can be maintained.

Firebox glass

Clean the firebox glass only when cool with a specialist glass cleaner. Use of any abrasive cleaner will scratch the glass and make subsequent cleaning more difficult.

Chimney

It is important to have the chimney cleaned at least once a year.

Regular inspection and cleaning of the internal components of the Range can indicate if the chimney requires more frequent cleaning.

If the Range has been unused for an extended period (during the summer) the chimney should be checked by a competent person before use.

Note

All parts that are in direct contact with the fire (grate, baffle, back and side air boxes) are considered as normal wear parts. Their life will be dependant on how vigorously the Range is operated and they must be inspected and maintained on a regular basis. If they become worn, damaged or not positioned correctly, the top, sides or back of the Range will be exposed to excessive heat and may be damaged.

Remember

If the Range is not to be used for an extended period, set both air controls to half open to allow an airflow through the stove and avoid condensation.

9 – Fault Finding

Fire will not burn

- The fuel is too wet and not suitable
- Air inlets to the Range are blocked
- The flue is blocked or restricted
- Inadequate air supply into the room

Soot build up on glass

- Fuel is too wet
- Fuel pieces are too large and "smouldering" rather than burning.
- The Range operating temperature is too low
- The Range is being run too "slow" with not enough air
- Poor chimney draft
- Too little secondary air washing over the window

Excessive wear on internal parts

- Range fired too vigorously
- Too little air passing through the bottom grate
- Use of wood that is too dry (eg wood from old furniture)

10 – Spare Parts

A full range of products are available to maintain your Range including :-

Rope
Rope Glue
Glass cleaner
Stove paint

All individual components of the Range are available as spares.

For the complete list of available spares with prices go to Salamanderstoves.co.uk

16

11 - Specification

Copy of the CE plate attached to the stove



EN 12815
Residential Cooker Fired By Solid Fuel

Salamander Range Model 1701
Cooker Fired By Solid Fuel

Fuel types	Wood, Manufactured Smokeless Fuel	
Nominal Heat Output		
Wood	4.5 kW	
Manufactured Smokeless Fuel	4.1 kW	
Total net energy efficiency		
Wood	85.7%	
Manufactured Smokeless Fuel	81.3%	
Distance to adjacent combustible materials (Without heat shields)		
Side	550 mm	
Rear	700 mm	
Distance to adjacent combustible materials (With heat shields)		
Side	300 mm	
Rear	100 mm	
Emission of CO in combustion products		
Wood	0.7 %	
Manufactured smokeless fuel	0.5-1 %	
Flue gas temperature	Dry Temp	Oven Temp
	Min (0)	Max (1)
Wood	258 °C	134 °C
Manufactured Smokeless Fuel	287 °C	126 °C

The appliance is capable of intermittent operation.
The appliance cannot be used in a shared flue.
Follow the user manual and only use recommended fuel.

Salamander stoves Ltd
Roxesmount, Canada Hill
Ogwell, Devon, TQ12 6AP

Test refuelling interval	Wood	1 hour
	Manufactured smokeless fuel	2 hours
Flue mass gas flow g/s	Wood	4.8
	Manufactured smokeless fuel	5.5
Total efficiency	Wood	85.7%
	Manufactured smokeless fuel	81.3%

Tests conducted by Kiwa UK Group at 12pa flue draught