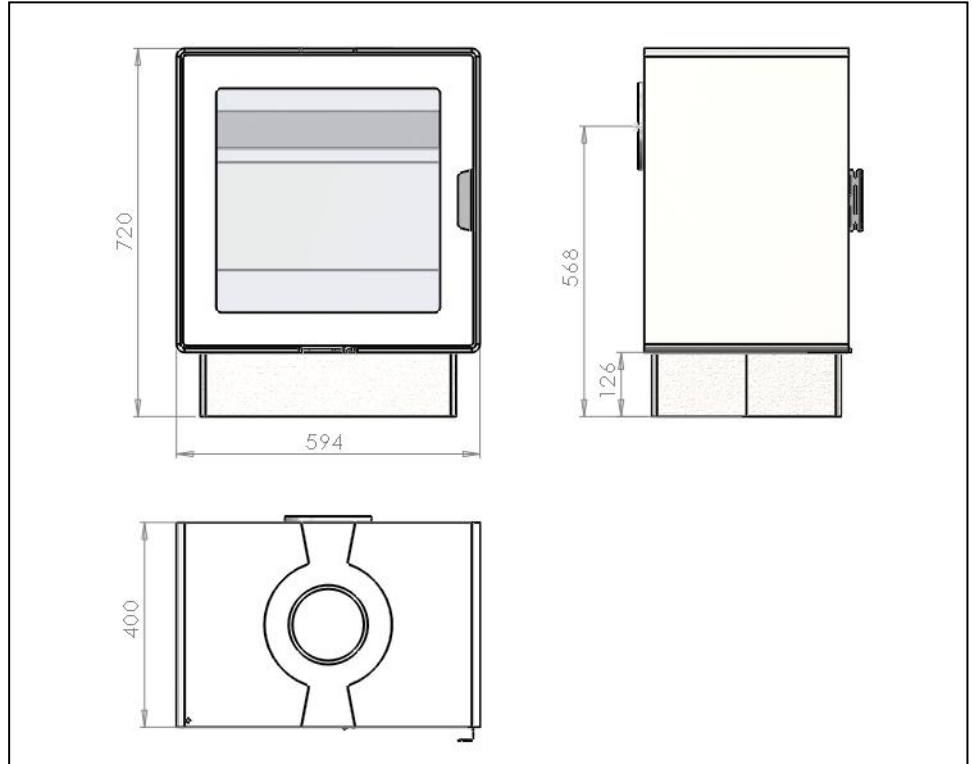




Model	LF10
Weight	160kg
Nominal Heat Output	10kW

This stove is designed for intermittent use and is tested and CE approved as a closed appliance for burning wood to BSEN13240 standard. LogFire Stoves & Flue Ltd recommend that this appliance is installed by a HETAS registered Installation engineer or competent person. Failure to comply will invalidate the manufacturer's warranty.

Installation & Operating Instructions



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## Operating Instructions

### Lighting the stove

Before lighting the stove for the first time please ensure all firebrick linings and other internal components are in position (**fig 1**) and that all packaging has been removed.

When lighting your stove for the first time it should not be stoked excessively as all materials must be given time to adapt to the effects of heat. Your stove has been painted with specialist HT paint and oven cured within our manufacturing process, however upon initial lighting of the stove further curing may occur and a slight smell may be evident. We recommend that windows and doors are left open during this time, as airing the room will allow this to disappear.

**Step 1** Open the air control fully using the tool (**fig 2**)

**Step 2** Place rolled up crumpled newspaper at the back of the stove. Place small tinder/kindling on top of the newspaper and then a few larger pieces of wood on top of this. Light the newspaper and close the door. **NEVER USE FLAMMABLE LIQUIDS**

**Step 3** Allow the fire to burn until all the pieces of wood are alight and burning. More and larger pieces of wood can now be added. Never add so much wood that it is in danger of coming over the fuel bar.

**Step 4** Once the fire is established the air control can be reduced to maintain a steady burn rate. **Do not run the stove with door open**

All parts of the stove become hot when in operation. Use the tool provided to operate the air control and the glove to open the door handle.

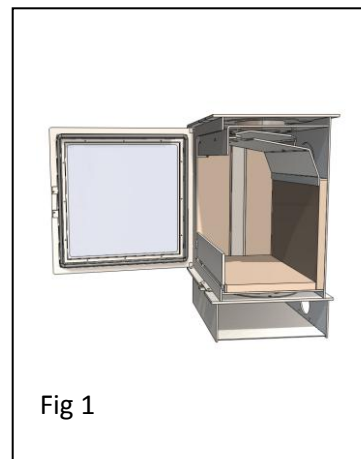


Fig 1

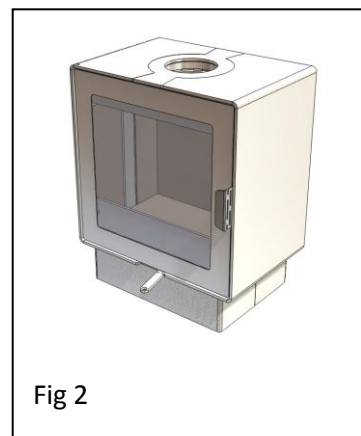


Fig 2

### Notes on Wood burning

The first stage of the fire, just after lighting, is usually the smokiest because the cold wood and cold stove take heat away from the flames. During this stage ensure the air inlet is fully open to increase the flame temperature. It may appear that this initial hot burn allows too much heat straight into the flue system however this is a necessary part of an efficient fire. The additional heat primes the chimney to produce a strong draft and also helps keep the chimney/flue clean by loosening creosote that may have been deposited by a previous fire. The hot initial burn also drives moisture from the firewood and gives an ignition source for the smoke that is released from the wood.

Only make small changes. Do not try to add too much fuel at once. Adding fuel gradually will help maintain a steady optimum temperature and burning rate so that the stove burns efficiently and cleanly. Adding too much fuel will dramatically reduce the temperature inside the firebox. After adding large pieces of wood/logs it is recommended to increase the air opening slightly until the new fuel begins to burn and the stove returns to temperature.

This also applies to the air control. Adjusting it gradually will help maintain a steady combustion rate. In most instances you will arrive at the **best combustion air settings** yourself, as the height and diameter of the chimney as well as the quality of the firewood are decisive factors in determining how your stove is best set.

Use a piece of newspaper to wipe the inside of the window glass before lighting the stove each time to prevent the gradual build-up of deposits.

Small, hot fires are more efficient than large slumbering fires. Most of the energy in burning wood is released as a bright flame. The turbulence in the flames creates good mixing between the combustion air and the gases that are released from the wood as it heats up. The heat of the fire ignites and burns these gases. In contrast, the dense smoke from a slow, smouldering fire is potential heat energy that escapes up the chimney and either clings to the chimney flue as creosote or pollutes the atmosphere. To gain the most heat from each burn the wood should be flaming throughout the burn cycle until it is reduced to ash.

Should any regular slow burning occur it is good practice to burn a good, hot stove at regular intervals to keep the chimney clean and dry. When refuelling, place wood towards the back of the stove where it will burn at a higher temperature.

As a guide, the appliance will achieve an output of 10 kW when the air control is positioned so that about 3kg (i.e. 3 medium sized logs) burn down to hot embers in about 1 hour.





## Running Temperature

Thermometers are available that attach to the flue pipe directly above the stove and provide an aid to running the stove at the correct temperature.

### **320°C-380°C**

The flue gases should be in this temperature band for the safest, most efficient and most economical operation of your stove.

### **Below 250°C**

This may cause the condensation of wood gases and the build-up of tar in the chimney, dirty the stove glass and result in the inefficient burning of fuel.

### **Above 400°C**

Too hot. Heat will be wasted up the chimney. Excess heat may damage the stove or ignite an existing accumulation of tar resulting in a chimney fire.

## Over Heating

Should the stove be allowed to get too hot and is overheating, close the air control fully using the tool. Keep the fire door closed and allow the fire to burn down.

## Chimney Fire

In the event of a chimney fire dial 999 and ask for the Fire Service. Fully close the air control and keep the stove door closed. Move any combustibles away from the stove and chimney. Check any other rooms that the chimney passes through and move any combustibles away from the chimney. Before using the stove again after a chimney fire, the chimney should be cleaned and inspected by a qualified person.

## Cleaning the glass

We recommend wiping the glass after a fire to prevent any build-up of deposits. This is best done using a paper towel or newspaper to avoid scratching the glass.

## Types of fuel

Wood needs to be well seasoned before it is burnt. There are many types of wood available for fuel and they take varying amounts of time to season. As a general guide wood should be cut to length, split and then stacked under cover with sides open to air for at least 12 months. Wood is ready for burning when radial cracks appear in the end of the logs and moisture content is no more than 20%. It is then good practice to store the wood in a log basket inside your property for a few days prior to its use. The internal width of the firebox of the LFS 10 is 495mm therefore the firewood should be no longer than this.

**DO NOT** burn unseasoned wood in your stove. **DO NOT** burn particle board, lacquered, painted or treated wood, plastics, rubber or liquid fuels. Should the stove burn any of these materials the warranty will be void. The stove is not suitable for burning solid fuel such as briquettes/coal/coke or smokeless fuel. The stove should not be used as an incinerator.





### Ashes

The ashes should only be removed when the fire is out and has been left to cool completely. The log retaining bar can be removed for easier access (fig 3). Wood burns well on a thin layer of ash and leaving this when cleaning also provides protection for the base insulating bricks.

### Maintenance & Cleaning

Any maintenance of the stove should only be carried out when the stove is cold. Daily maintenance should be limited to vacuum cleaning the stove externally, or brushing down with a soft brush. Never use spirits to clean the stove, as this will remove the paint. Regularly check the flue exit from the stove to make sure there is no build-up of deposits that will restrict the exit of the flue gases.

**Note:** The stove must not be modified in any way. Any changes will invalidate your warranty. Any replacement parts must be official LogFire Stoves parts. The stove and the installation should be maintained regularly by a competent engineer.

### Chimney Sweeping

The chimney should be swept a minimum of once per year. This must be carried out by a registered competent person. If the stove is used more regularly the chimney should be swept more often. Your stove should also be given a visual inspection every time the chimney is swept. These checks should include the rope seals, door handle, firebricks and baffle. Any build of soot and ashes within the stove should be removed.

### Fire bricks

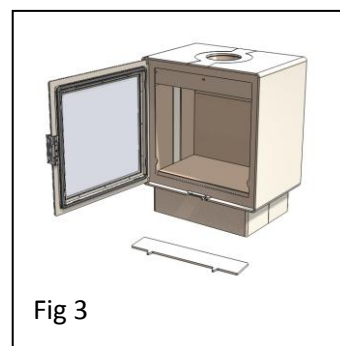
The fire bricks are manufactured from vermiculite. Vermiculite is a non-combustible, fire resistant board with excellent thermal insulation properties. As vermiculite is a porous material it may over time become worn and damaged. Please handle with care especially when re-fuelling the stove. The insulation only needs replacing when it has deteriorated to an extent that the insulation is no longer protecting the steel body of the stove from the flames. The insulation is not covered by the manufacturer's warranty.

### Glass

If the glass is blackened by soot it can be easily cleaned using one of the many specialist stove glass cleaning products available. Our technical department can offer advice on these products.

### Surface

The high temperature paint finish should require no further treatment. Any damage or wear on small areas of the paint finish may be remedied using our high temperature aerosol paints. Please read the instructions on the aerosol carefully before applying.





## Installation

### Building Regulations

Installation of your LogFire Stove must comply with all local building regulations, including those referring to national and European standards. We advise prior to any installation a full site survey is conducted by an installation engineer recognised within an industry standard such as NACS or HETAS to check the suitability of your chimney and appliance. Document J of the building regulations contains further information regarding the installation of solid fuel appliances and can be viewed at [http://www.planningportal.gov.uk/uploads/br/BR\\_PDF\\_ADJ\\_2010.pdf](http://www.planningportal.gov.uk/uploads/br/BR_PDF_ADJ_2010.pdf) or by following the link from our website.

### Ventilation

The appliance requires fixed ventilation supplying a minimum of 2750mm<sup>2</sup> free air. Any air inlet grilles should be positioned so that they are not liable to blockage. An air extraction device shall not be used in the same room as the appliance unless adequate additional ventilation is provided. Other heating appliances requiring air for combustion shall not be used in the same room as the appliance unless adequate additional ventilation is provided.

Stoves need a supply of air for combustion, and to evacuate the flue gases otherwise they will not work. Without an air supply the stove will not light and smoke is likely to pour out into the house. The smoke will not be able to be drawn up the chimney as this requires air movement up through the chimney which is not possible if there is no source of air. If your stove smokes or does not burn very keenly, but this improves when you open a window then this is a sign that you need to install some ventilation. We recommend you discuss your ventilation requirements with your local LogFire Stove authorised retailer/installer. Any airbricks or grilles fitted should be positioned so that they are not liable to blockage. If other appliances requiring ventilation operate within the vicinity of the stove there must be adequate ventilation provided for both appliances running simultaneously. **NOTE** Extractor fans when operating in the same room or space as the stove may cause problems.

### Load-bearing capacity of the floor

Before installing the stove, you must ensure that the load-bearing capacity of the floor can withstand the weight of the stove and any flue pipes and connections. The weight of the stove is **160Kgs**.

### Hearth

The stove should be installed on a non-combustible hearth. The hearth should extend to a distance of 225mm in front of the stove and 150mm to each side measured from the door of the combustion chamber. Please refer to document J of the building regulations for further information on hearth requirements. Please note this stove has a certified maximum hearth temperature of 42°C.

### Clearances

The minimum clearance to combustible materials is 400mm to the sides of the stove, 700mm to the rear of the stove and 450mm to the 6" flue pipe. Adjacent walls should be of suitable non-combustible construction, preferably brickwork.. A minimum of 80mm clearance should be left at the back and sides of the stove to allow free air movement and for heat from the stove to enter the room, and there should be a minimum clearance around the 6" flue pipe of 225mm.

### Chimney Requirements

An existing chimney or a new flue or chimney installation should be given a visual inspection to check that it is in good order, clear of obstructions and is of suitable size and type for the stove. It may be necessary to sweep the flue – which should always be done prior to fitting a stove or lining a chimney. We also recommend a smoke test is carried out to check for gas tightness and chimney draft. We recommend lining and insulating your chimney. There should be access to the chimney to allow for sweeping.

### Air Damper

It is recommended that chimneys with a strong updraft be fitted with a flue damper or draught stabiliser to allow the chimney draught to be regulated. No damper should close the flue way completely, 20% of the total opening of the chimney or flue pipe must remain open at all times.

### Carbon Monoxide Alarm

An approved carbon monoxide alarm with a 7 year life sealed battery must be installed when any Solid Fuel appliance is installed. Carbon Monoxide alarms need to meet European safety standards and must be audible. They must be fitted in accordance to the manufacturer's instructions. **Please Note:** an alarm is no substitute for regular maintenance and chimney sweeping.



## Flue

The minimum flue draught required for nominal heat output is 12 Pascals. At nominal heat output the flue gas temperature will be in the region of 350°C and the flue gas mass flow will be 8.9 g/s. The appliance should not be connected to a shared flue. The design of the flue installation should allow access for sweeping.

The stove has both rear and top flue connections. The figure on the right shows the flue connection options. Seal the flue connections with fire cement or a high temperature rope seal. The flue blanking plate should be positioned over whichever outlet is not being used.

**Figure 5 below shows a typical installation for which you would need:**

- A register plate – this plate is used to seal off the throat of the fireplace and has a hole for the flue pipe, access for sweeping and if required a bracket to support the flue.
- The 6" (150mm) flue pipe required from the stove to the register plate.

## Operational Problems

### Blackened Glass

- The wood is too damp. Only use wood that has been stored for at least 12 months under cover and ideally with a moisture content less than 20%
- Insufficient intake of air from the air control. Open the air control further.
- Insufficient ventilation
- The stove is being run at too low a temperature

### Smoke in the room when refuelling

- Poor chimney performance – consult chimney sweep or Installation engineer
- Check the position of any fitted flue damper to make sure it is in the open position
- Never open the door when there are high flames on the wood

### Uncontrollable Combustion

- Damaged door seal. Fit new seal
- If there is excessive chimney draft – fit a draft stabiliser in the flue pipe – consult a chimney sweep or the Installation engineer

### Adverse Weather

Very occasionally, the weather conditions may be such that the stove does not function properly because of a downdraught in the chimney causing smoke into the room. When this occurs the stove should not be used.

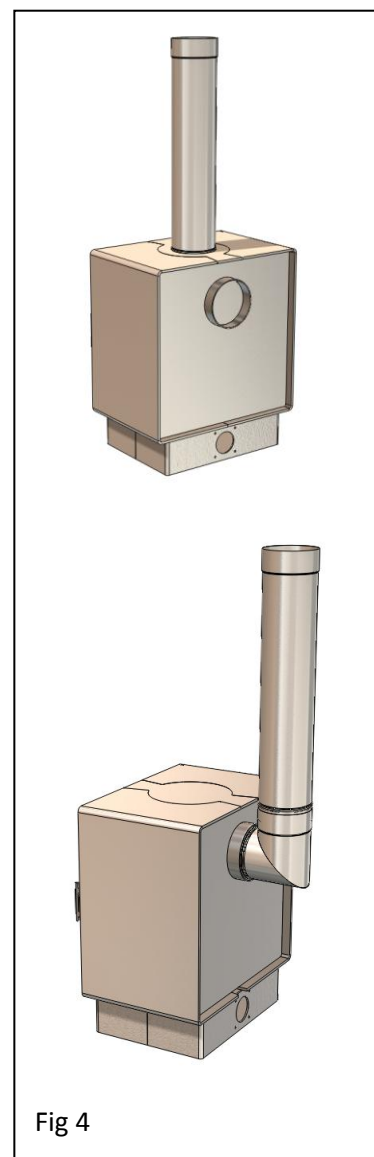


Fig 4

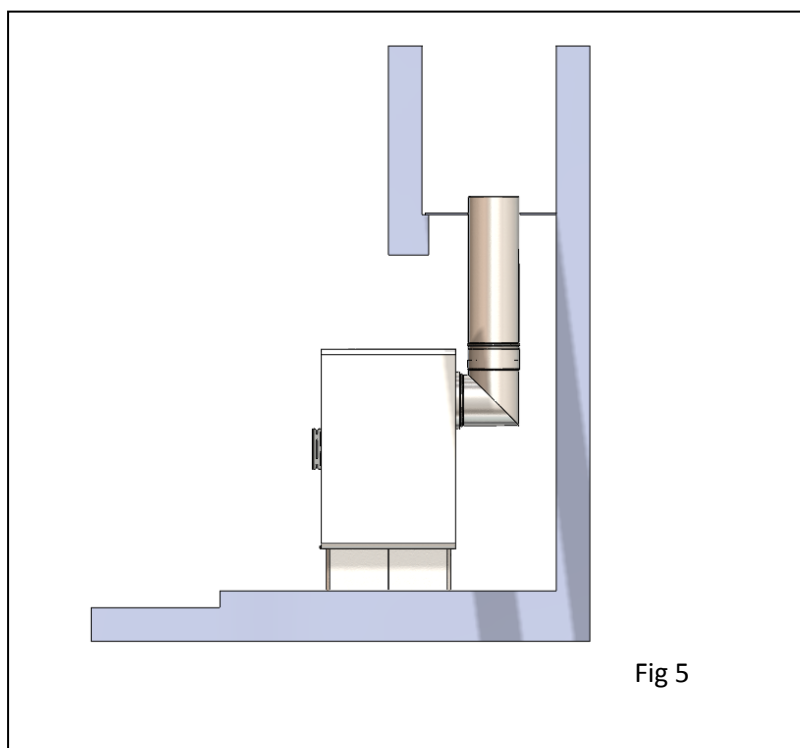


Fig 5