fireline

## FGi, FXi & FPi 5, 5 Wide & 8 INSET STOVE RANGE - V2

5, 5 & 8 kW Nominal Outputs

# CEInstallation and Operating Instructions





Please hand these instructions to the stove user when the installation is complete. Leave the stove ready for operation and instruct the user in the correct use of the appliance and operation of controls.

Important: - Stoves must be installed by a qualified installer.

#### **Clean Air Act Exemption**

The FGi/FXi/FPi 5, FGi/FXi/FPi 5W and FGi/FXi/FPi 8 Inset stoves have been exempted under the Clean Air Act 1993 to burn seasoned wood logs in designated smokeless zones in the UK. This is subject to the correct fitting of the air control plate (part and fitting instructions are supplied with the stove) maintaining the air wash control above a minimum setting at all times. Instructions for wood burning MUST be followed in order to ensure compliance at all times.

This appliance is guaranteed for 12 months subject to conditions. The extended firebox warranty will only be valid if the annual service plus flue sweeping has been carried out and noted on the warranty card and the appliance has been registered online. **Register online today to activate warranty:** http://www.charltonandjenrick.co.uk/warranty

Fireline UK – A division of: **Charlton & Jenrick Ltd**, Unit D Stafford Park 2, Telford, Shropshire, TF3 3AR **T:** 0845 519 5991 **F:** 0845 519 5992

#### PLEASE READ ALL THESE INSTRUCTIONS CAREFULLY!

For safety reasons it is essential that your stove is correctly installed and operated. Fireline Stoves cannot accept responsibility for any fault or consequential problems arising through incorrect installation or operation.

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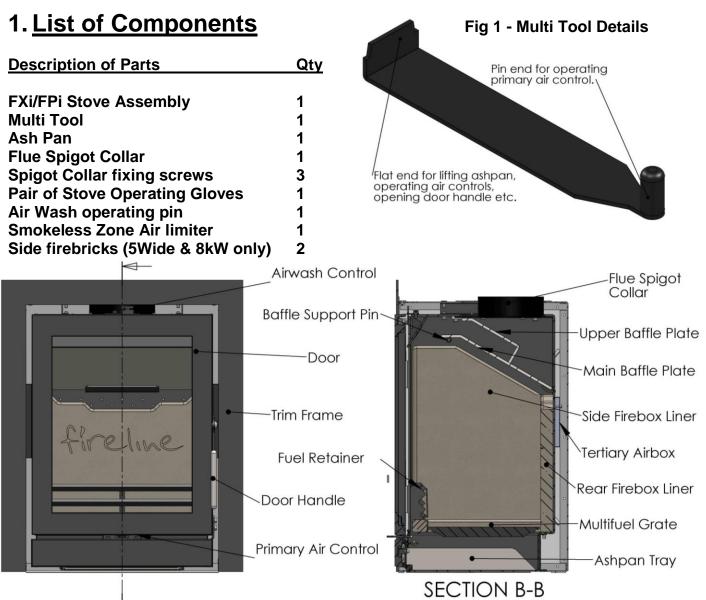


Fig 2 – FGi/FXi/FPi 5, FGi/FXi/FPi 5W, FGi/FXi/FPi 8 Stove Assembly and controls

## 2. Component Identification and Assembly

Your stove comes packed in a plywood crate. Carefully remove the straps and lift off the upper crate. Remove any plastic packaging, open the door and remove all the contents. See List of Components section and check contents carefully.

- 2.1 To remove the baffle plate, first remove the fuel retainer by lifting it up and out the front of the stove. Carefully remove the two side liners and the rear liner. Handle & store **very carefully** to one side where they will not get broken.
- 2.2 Now the baffle plate can be removed by lifting off its supports and bringing out through the firebox door opening.
- 2.3 It is sometimes useful to remove the door at this stage by opening and lifting up to slide the hinge pins out.
- 2.4 Screw the air wash control pin into the air wash slider control and secure using the locknut provided.
- 2.5 If installing within a smokeless zone, fit the smoke control zone air limiter bracket according to its instructions.
- 2.6 Proceed to install the stove according to these instructions and current installation standards or HETAS requirements. The internal parts of the stove can be reassembled as the reverse of the previous removal instructions.

## 3 Installation Instructions

#### 3.1 WARNINGS AND IMPORTANT SAFETY INFORMATION

#### 3.1.1 READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION!

These instructions cover the basic principles to ensure satisfactory installation of the stove, although detail may need slight modification to suit particular local site conditions. In all cases the installation must comply with current local regulations including Building Regulations, Local Authority Byelaws and other specifications or regulations including UK or EU standards referred to as they affect the installation of the stove. Approved Document J is particularly important for England and Wales and can be downloaded for no cost at:

http://www.planningportal.gov.uk/england/professionals/en/4000000000503.html Also of importance are Approved documents L1 A and B conservation of fuel and power. The Domestic Heating Compliance Guide will also be found useful.

In addition to these instructions the requirements of BS 8303 and BS EN 15287 must be fulfilled. The installation is a notifiable building works as defined in the building regulations and that it is a legal requirement under England and Wales Building Regulations that the installation is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at <u>www.hetas.co.uk</u>.

#### 3.1.2 Important Chimney Warning

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

#### 3.1.3 Extractor Fan Warning

There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room. If unavoidable the appliance must be checked with A.D. 1.21 and necessary action taken.

#### 3.1.4 Cleaning and Chimney Sweeping

The appliance, flue & chimney must be cleaned and checked internally and externally regularly in use and especially after a period of disuse (e.g. after summer). Remove the side liners and lift down the baffle at least weekly to check for build up of soot or debris on the top from the flue pipe. Remove the baffle and check the flue spigot and connector is fully clear at regular intervals. The chimney and flue connector must be swept at least annually, more often when used with sooty fuels or damp wood. A wire centred sweeps brush with guide wheel is recommended. Any loose, broken or leaking joints or flue ways MUST be repaired immediately.

#### 3.1.5 Fuels

Only use recommended fuels. The appliance can be damaged by burning petroleum coke, liquid fuels or general rubbish and this will invalidate your warranty and risk your personal safety. **The appliance must not be used as a rubbish incinerator**.

#### 3.1.6 Maintenance

Annual checking and servicing of the appliance and flue by a competent engineer is recommended.

#### 3.1.7 Ventilation

Adequate ventilation is ESSENTIAL for the safe and efficient operation of any solid fuel or wood burning appliance. Ventilation MUST be provided where required by the stove output or flue under-performance. Keep all ventilation clear and free of blockage. See VENTILATION section in INSTALLATION section.

#### 3.1.8 OVERFIRING WARNING

It is possible to over fire a stove by using too much air – having the air controls open too wide - during the combustion cycle. This will cause overheating and potential damage to parts such as the grate, baffle plates, firebox liners and fuel retainers. **IF ANY METAL PART OF THE STOVE GLOWS RED, INCLUDING THE BAFFLE PLATE OR FUEL RETAINER, IMMEDIATELY REDUCE THE AIR CONTROL SETTINGS UNTIL THE OVERHEATED PARTS OF THE STOVE COOL AGAIN.** Failure to do so will damage the stove and invalidate any warranty. Parts damaged by overheating, thermal cracking or even melting are **NOT** covered by any warranty.

#### Health And Safety Precautions

# Special care must be taken when installing this stove to meet all requirements of the Health & Safety at Work act.

#### 3.1.9 Handling

Adequate facilities must be available for unloading and site handling. Fireline Stoves are very heavily built so always ask for assistance when lifting and siting the stoves.

#### 3.1.10 Fire Cement

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

#### 3.1.11 Asbestos

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

#### 3.1.12 Metal Parts

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

## 4.0 Installation Information

#### 4.1 Chimney

The chimney height and the position of the chimney terminal should conform to Building Regulations. Minimum chimney height is 4.5m. Check that the chimney is in good condition, dry, free from cracks and obstructions. The diameter of the flue should not be less than 150mm and not more than 200mm. If any of these requirements are not met, the chimney should be lined by a suitable method. The chimney must be swept before connection to the stove.

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

If you have any doubts about the suitability of your chimney, consult your local dealer/stockist or chimney specialist. If there is no existing chimney then either a solid fuel compatible prefabricated block chimney or a twin-walled insulated stainless steel flue to BS 4543 can be used. These chimneys must be fitted in accordance with the manufacturer's instructions and Building Regulations.

#### 4.2 Ventilation

Purpose provided ventilation is not required in England and Wales unless the appliance rated output is greater than 5kW. Over 5kW 5.5 cm<sup>2</sup> of ventilation (550mm<sup>2</sup>) is required for every kW output above 5. For example 6.5 kW requires 8.25 cm<sup>2</sup> and 8 kW needs 16.5cm<sup>2</sup>. In any case, if difficulty in starting the fire or any fuming is experienced, ventilation must be put in place as required to eliminate these flue problems. If a flue draught stabiliser is fitted then extra ventilation is required. See Document J of the Building Regulations for detailed guidance especially in new build properties.

#### 4.3 Flue Draught

A flue draught of minimum 1.2mm to a maximum 2.5mm water gauge (12 to 25 Pascals) is required for satisfactory appliance performance. When this is measured at the flue spigot collar it equates to 22 Pascal's MINIMUM to approximately 35-40 maximum. The flue draught should be checked under fire at high output and, if it exceeds the recommended maximum, a draught stabiliser must be fitted so that the rate of burning can be controlled to prevent over-firing.

#### 4.4 Connection to the Chimney

This appliance is **<u>not</u>** suitable for use in a shared flue.

A suitable 5" flexible flue liner is permitted be used on Fireline inset stoves providing that they only burn smokeless fuel or seasoned wood logs with the air limiter fitted in in full accordance with the wood burning instructions.

This appliance requires a direct flue connection to the spigot. If practical, an existing fireplace opening can be bricked up or sealed with a register plate and a short length of flue pipe of a minimum 125mm internal diameter may then be used to connect the stove to the register plate in the chimney. This flue pipe should conform to Building Regulations. The stove must be insulated and properly fitted into the fireplace opening by back filling with 6:1 ratio vermiculite & cement mixture using minimal water through the top of the fireplace or flue spigot opening. The surface should be finished using 1:1:8 mix of cement, lime and sand. The connecting pipe is fitted with the spigot pushed up from **inside** the stove and rotated onto its keyhole slots to join to the pipe. Ensure that the pipe end is no closer than 76mm to the side or rear chimney walls.

If necessary a hole must be opened up into the flue way above the fireplace in order to fit the appliance to the flue correctly. Please consult HETAS for recommended fitting methods if in doubt. It is **essential** that all connections between the stove and chimney-flue are sealed and made airtight with sealing rope, clamping rings and/or fire cement or heat resisting cement where required.

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

#### 4.5 Fixing

Fix the stove to the back hearth using suitable non-combustible fixings through the base of the outer firebox. If necessary screw the outer firebox to the back-panel by fixing the top or sides of the firebox using suitable non-combustible fixings.

#### Safety Distances from Combustible Surfaces:

#### Model Shelf (4"/100mm) Side surround leg (100mm) Side Full Wall

		(to outer edge of trim)	(to outer edge of trim)
FGi/FXi/FPi 5	250mm	150mm	350mm
FGi/FXi/FPi 5W	400mm	150mm	350mm
FGi/FXi/FPi 8	400mm	150mm	350mm

In addition it is strongly recommended that any furniture or other combustible materials are kept at least 900mm clear from the front of the stove.

As a guideline, materials that are in 'line of sight' to the stove are more likely to overheat than materials that are not in 'line of sight' due to direct radiation from the stove body. Materials above the stove are more likely to overheat than materials alongside or below. A guideline limiting temperature for solid timber (not surface finishes) is approximately 80-85 degrees C with a normal ambient room temperature. Temperatures of combustible materials can be substantially lowered with a simple heat shield constructed of a non-combustible material (e.g. metal or fireproof board etc.) and a small air gap between the shield and combustible material.

#### **Distances from NON-combustible materials:**

The stove can be recessed in a suitable sized non-combustible fireplace that is just larger than the outer firebox. To conform to building regulations the fireplace recess walls should be at least 200mm thick or each rear leaf at least 100mm thick in the case of a cavity wall at the rear. If these dimensions are not met further protection for any combustible materials must be provided. The walls of the fireplace recess and the hearth must be made of non-combustible material.

#### 4.7 Hearths:

All FGi/FXi/FPi inset stoves require a 125mm thick non-combustible constructional hearth beneath them to protect the building; this can include any solid non-combustible floor. A non-combustible superimposed hearth forming an apron of at least 225mm at the front of the stove and 150mm on either side must also be provided. The superimposed hearth must not be less than 12mm thick and must have a clearly defined edge (change of level) to discourage placing of any combustible materials on or partially over it. Ensure the hearth is flat & level and the back panel and surround are at right angles to the hearth.

The appliance shall be installed on a floor with adequate load-bearing capacity. If the existing construction does not meet this requirement, suitable measures (e.g. load distributing plate) should be provided to achieve it.

#### 4.8 Commissioning and Handover

A CO detector must be fitted in the same room as the stove according to current standards or codes of practice. Advise the customer of the importance of this device and maintaining it.

Upon completion of the installation, allow a suitable period of time for any fire cement and mortar to dry out. A small fire may then be lit and checked to ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to atmosphere. Explain that any stove can provide much more or less than their rated 'nominal' heat outputs depending upon how they are burnt and fuels and fuel loads used. Warn the customer that using excessive air (having the air controls open too wide for too long) can over-fire and irreparably damage the stove. Damage caused by over firing is NOT covered by any warranty.

Left and right firebricks are provided for the FP/FGi5 Wide and FPi8 models for use when burning smokeless fuels only – see section on solid smokeless fuel burning. They are NOT required to be fitted for burning wood but MUST be fitted for burning smokeless fuels. Explain this to the customer and show them how to take them in and out of the firebox.

On completion of the installation and commissioning, check all parts of the appliance are correctly fitted and ensure that the operating instructions and operating tools (including gloves) for the stove are left with the customer. You must be sure to advise the customer on the correct use of the appliance with the fuels likely to be used on the stove and warn them to use only the recommended fuels for the stove.

Advise the user on what to do should smoke or fumes be emitted into the room from the stove – see **Safety Notes** section. The user should be warned that they **MUST** use a suitable fireguard in the presence of children, aged and/or infirm persons.

## 5.0 Technical Data - Declaration of Performance (DoP)

Manufacturer: Fireline UK Ltd, a Division of Charlton & Jenrick Ltd.

**Range Designation:** FG/FX/FP Inset Stoves.

Models: FG/FX/FPi5, FG/FX/FPi5W, FX/FPi8 with nominal outputs of 5kW, 5kW and 8kW.

Intended Use: Domestic heating appliances

Independently Performance & Safety tested by: Kiwa Gastec, Notified Body No: 0558

Constancy of Performance System: ISO9001

Model	FG/FX/FPi5	FG/FX/FPi5 Wide	FX/FPi8	Notes
Appliance weight (packed/unpacked) (Kg):	80/70	95/84	118/105	
Approximate Output Range: (kW)	4-6	4.3-6.5	5.5-11.0	
	EN13229:	EN13229:	EN13229:	
Harmonised EN European Standard (hEN):	2001 Amd 2:	2001 Amd 2:	2001 Amd 2:	
	2004	2004	2004	
Additional Characteristics Test Standard:	DIN +	DIN +	DIN +	
Additional Particulate Emission Test Standard:	PD6434	PD6434	PD6434	
Performance Chara	acteristics on	Wood Fuel		
Test Report Issue Date:	10/2009	03/2012	10/2009	
Total Efficiency: (%)	80.3	80.0	78.1	
Declared nominal output: (kW)	5	5	8	
Tested nominal Output: (kW)	5.3	4.9	8.0	
Tested wood re-fuelling interval: (h)	1	0.75	1.03	
Flue gas mass flow: (g/s)	3.6	4.3	6.6	
Mean CO emission (@13% O <sub>2</sub> ) : (%) (Nmg/m <sup>3</sup> )	0.36 (4500)	0.13 (1625)	0.17 (2125)	
PD6434 Particulate Emissions High output: (gh <sup>-1</sup> )	2.0	3.5	2.6	FPi8 07/12
PD6434 Particulate Emissions Low output: (gh <sup>-1</sup> )	1.8	1.6	1.6	FPi8 07/12
Optical Density Time > 0.2 High (Mins)	0.6	1.2	1.1	FPi8 07/12
Optical Density Time > 0.2 Low (Mins)	0.6	0.0	0.8	FPi8 07/12
Mean Flue Temperature: (Deg C)	261	262	291	Nominal
Approximate Max Log Length: (mm)	300	395	540	
Performance Characteristics of	on Ancit Briqu	etted Smoke	less Fuel	
Test Report Issue Date:	10/2014	10/2014	10/2014	
Total Efficiency: (%):	76.4	76.5	77.0	
Declared nominal output: (kW)	5	5	8	
Tested nominal output: (kW)	5.2	5.2	8.5	
Tested re-fuelling interval: (h)	1.05	1.02	0.97	
Flue gas mass flow: (g/s)	3.8	4.2	5.9	
Mean CO emission (@13% O <sub>2</sub> ) : (%) (Nmg/m <sup>3</sup> )	0.09 (1125)	0.09 (1125)	0.07 (875)	
Mean C <sub>n</sub> H <sub>m</sub> emission (@13% O <sub>2</sub> ): (Nmg/m <sup>3</sup> )	33	12	19	
Mean NOx emission (@13% O <sub>2</sub> ): (Nmg/m <sup>3</sup> )	91	144	115	
DIN+ particulates (@13% O <sub>2</sub> ): (Nmg/m <sup>3</sup> )	33	35	40	
Mean Flue Temperature: (Deg C)	275	253	297	Nominal
Safety Distance	s From Comb	ustibles		
Shelf: (mm)	250	400	400	
Side Full Combustible Wall	350	350	350	
Side Surround Leg: (mm)	150	150	150	
Signed:				

Peter Mintoft

Director September 2014

**NOTE:** Refuelling intervals for testing are chosen according to the standards concerned for performance testing and are comparative only. They **do not** relate directly to re-fuelling intervals that can/might/will be achieved on an installed product. Re-fuelling intervals of 1-1.5h for wood and 3-4+ hours for Ancit would be more usual. Under normal conditions on a low air control setting stoves should stay in overnight on suitable briquetted smokeless fuel.

## 6.0 **Operating Instructions**

This appliance is not designed for open operation and therefore should <u>**not**</u> be operated with the doors open.

This stove is designed to burn wood and smokeless fuels cleanly with high efficiency. However, for this product to work properly it must be used correctly. If used correctly this stove will burn with the very useful feature of clean glass.

It is **essential** that the stove has an adequate air supply for combustion and ventilation. The primary, secondary and tertiary air inlets and any room ventilation **must** be kept clear from obstruction.

**Warning!** This appliance will be very **hot** when in operation and due care should be taken when operating the controls. A tool and high quality pair of leather gloves is provided to assist safe operation.

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

#### 6.1 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).

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

# The Fireline FGi/FXi/FP5, FGi/FXi/FPi 5W and FGi/FXi/FPi 8 have been recommended as suitable for use in smoke control areas when burning wood logs. This is conditional upon fitting the supplied secondary air control (air wash) limiters and following the wood burning instructions precisely.

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

#### 6.2 Air Controls

#### Keep air controls clean and free from ash or debris at all times. Primary Air

Primary air is provided via the sliding air control at the bottom of the door. This provides a conventional air under draught to the bed of the fire. **IMPORTANT: It should be** 

closed when burning wood fuel, other than if absolutely necessary to maintain or restart combustion.

#### Secondary Air (Air Wash)

Fireline stoves are provided with a sophisticated patented "air wash" system. This secondary air supply to the stove is controlled through a slider assembly located on the top centre of the stove above the door. If you want clean glass, always leave this control open some way whilst burning unless the stove is being shut right down for a long period. Moving towards the + mark increases the burn rate whilst moving towards the – mark reduces it. The smoke control zone air restrictor will deliberately prevent full closure of this control. Set the secondary air wash control only about 4mm open for briquetted smokeless fuels, opening it further will just reduce efficiency. It may be opened almost fully (depending upon flue draught) for wood burning if a high burn rate/heat output required.

#### **Tertiary Air**

This appliance is also fitted with a draught controlled tertiary air system that burns otherwise uncombusted gasses in the products of combustion thereby improving efficiency, increasing heat output and decreasing unwanted atmospheric emissions. The Tertiary air supply to the stove is controlled entirely by the draught in the flue and firebox. At certain stages of burning you will notice "jets" of flame emerging near the air holes to the rear of the firebox.

#### Grate

This stove is fitted with a strong bar type multifuel grate. A build up of wood ash when burning wood will not harm the grate and indeed wood often burns better on a bed of wood ash. Excessive wood ash build up is not to be recommended. Smokeless fuel ash must be regularly removed and NOT allowed to build up under the grate.

#### **Primary Air Control**

The tab lever with a hole in it just below the main glass window controls the primary air supply to the under grate area for burning briquetted smokeless fuels only. The primary air supply will normally be around 50% open (100% open for 8kW version) for nominal output at average flue draughts but will vary from one installation to another. **The primary air control must be closed when burning wood under normal circumstances.** Opening the primary air control too wide can over-fire the stove and permanently damage it if left in operation. **Any such over-firing damage is NOT covered by any warranty.** 

#### Ashpan

The ash pan assembly has seals around it that must be well maintained for correct burning of wood with the primary air supply closed. If air leaks that may develop due to seal wear or damage are not corrected then wood burning may become difficult to control. Check and maintain the sealing of this area very carefully.

It is essential that you empty the stainless steel ash pan regularly. Use the flat end of tool to easily lift the ash pan out of the stove.

#### 6.3 Cleaning

**Glass:** Despite the advanced air wash system provided, the glass will still need cleaning from time to time depending on the fuel quality and burning rates used. Never clean glass when the stove is hot. Always use stove glass cleaner or ceramic hob cleaner, which is available from your stove retailer. As an alternative, use a wet cloth with some wood ash but be very careful to use very clean soft ash so as not to scratch the glass.

**Outer body:** The outer body simply needs to be dusted from time to time. DO NOT use any kind of furniture polish or cleaning agent other then your stove suppliers recommended paint or polish. The metal parts can be rubbed down and re-sprayed with matt black stove paint as required.

**Inner firebox:** Brush the inside of the firebox clean from time to time to check the integrity of the plates and liners etc. It is not normally necessary to re-paint inside the firebox due to the high temperatures that mean that the paint does not have much effect before being burnt off. Steel and ceramic firebox liners are resilient firebox materials and will give good service without major cleaning or work on the firebox. The ceramic firebox linings may require replacement from time to time during the life of the stove depending upon fuels and the type of usage experienced. Surface cracks on firebox liner boards are not detrimental to performance unless the steel firebox is exposed to any extent. Firebox linings are not covered by warranty, as they are a wearing consumable part. **Baffle:** It is essential to check the top of the baffle for build up of soot and ash regularly when in use and after a long period of no use. From time to time remove the baffle if necessary to ensure that the flue way entrance is completely clear.

#### 6.4 Fuels

The appliance has been tested and approved burning dry, well-seasoned logs or Ancit briquetted smokeless fuel. These are the recommended fuels. Briquetted smokeless fuels equivalent to Ancit may be used but for any other fuels please contact the manufacturer for advice.

The side firebricks supplied must be used for burning smokeless briquetted fuels on FPi5W and FPi8 models. The side firebricks are NOT required for wood burning.

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

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

#### 6.5 Important Notes for Wood burning

With a full load of wood and burning at a moderate rate, the stove will typically need to be refuelled approximately every 1 to 1.5 hours but this is entirely dependent on fuel quality and burn rate. Wood can be stacked in the stove but care must be taken that logs do not touch the baffle. Never stack fuel above the level of the tertiary air inlets at the back of the stove.

Wood burns most efficiently with the **primary air controls closed** and the **secondary** (air wash) controls open. Carefully adjusting the secondary air controls and fuel load will then control the burn rate of the stove. Typical air wash openings of 3-6mm are common for nominal outputs depending on fuel quality and draught from the chimney which will differ in each installation. Always make sure that flames are visible above the wood after re-fuelling for cleanest burning. Open the air wash fully for 3 to 5 minutes or until the logs are blackened all over to achieve full flames above the fuel.

Wood burns well on a bed of ash and it is therefore only necessary to remove surplus ash from the stove occasionally. Burn only dry, well-seasoned wood, which should have been cut, split and stacked - under protection from rain - for at least 12-24 months with free air movement around the sides of the stack to enable it to dry out. Burning wet or unseasoned wood will create tar deposits in the stove and chimney and will not produce a satisfactory heat output. Wood that is not properly dry ('dry' is considered to be less than 20% internal moisture content) uses up energy from the burn process to

#### evaporate the water inside the wood thus creating very poor conditions for

**combustion**. The main cause of burning problems with wood stoves is due to excessively damp wood. Wood can appear perfectly dry on the outside but still contain 40-50% water on the inside. A moisture meter can be purchased from some stove and equipment suppliers or online if you wish to check your wood source is correct.

The ash pan assembly has seals around it that must be well maintained for correct burning of wood with the primary air supply closed. If air leaks that may develop due to seal wear or damage are not corrected then wood burning may become difficult to control. Check and maintain the sealing of this area very carefully.

#### 6.5.1 Refuelling on to 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 so 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.

#### 6.5.2 Fuel overloading

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

#### 6.5.3 Operation with door left open

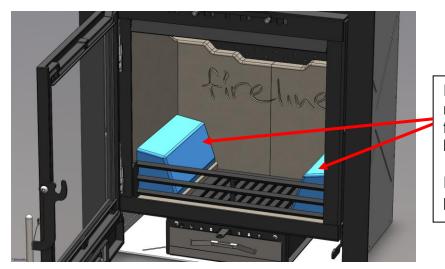
Operation with the door open can cause excess smoke and spillage into the room. The appliance must not be operated with the appliance door left open.

#### 6.5.4 Primary Air left open

Operation with the primary air controls left open can cause excess smoke when burning wood. The appliance must not be operated on wood with primary air controls or door left open.

#### 6.6 Notes on Smokeless fuel burning (Ancit)

The side firebricks supplied must be used for burning smokeless briquetted fuels on FPi5W and FPi8 models see diagram below. Ancit, briquetted smokeless and coal type fuels require very different burning conditions to log burning and the stove controls allow for this. Set the secondary airwash control at about 4mm maximum open (wider will reduce efficiency) and set the primary air control as required to adjust the burn rate. Once the initial charge of fuel is glowing well with full primary air, re-fuel with a deep bed of fuel but do not go above the rear firebox lining board or put excessive fuel on top of the side firebricks on the FPi5W and FPi8. Ancit and other smokeless briquetted fuels can burn with very little primary air and stay in for many hours to be revived after an overnight burn for example.



For FGi/FPi5W and FPi8 models place the side firebricks as shown prior to burning briquetted solid fuels.

FPi5W model shown, FPi8 parts are wider.

#### 6.7 Lighting the Stove

We recommend that you have two or three small fires before you operate your stove to its maximum heat output. This is to allow the paint to cure in steadily and to give a long service life of the paint finish. During this curing in process you may notice an unpleasant smell whilst the finishes finally cure. It is non-toxic, but for your comfort we would suggest that during this period you leave all doors and windows open.

First, open the secondary air wash control fully. Load the firebox with plenty of starting fuel, i.e. paper, dry sticks and/or firelighters. If using smokeless fuel add a layer of this fuel. Light the fire at the base leaving the secondary air control fully open. Leave the door slightly ajar for 5-10 minutes to enhance initial starting and reduce smoke emission – **DO NOT leave the stove unattended if the door is left ajar or the primary air controls are open**. Allow the fuel to reach a steady glow and build the fire up gradually by adding a few small sticks or well split logs or a part load of briquettes at a time. Once you have a good fire bed established across the grate, further fuel can be added step by step as required. A good indication of a well established smokeless fuel fire is the widespread coverage of grey ash on the black fuel pieces. Don't be tempted to overload the fire bed with fuel all at once or close down the air controls too much until the fire is really well established for some time. Once the ignition period is well under way, gradually reduce the secondary air wash control and primary air control for smokeless fuel to establish the burning intensity you require.

#### 6.8 Re-fuelling

When burning wood, the fire will die down as the fuel is consumed. When the flames disappear and the remainder is breaking down into glowing embers it is an appropriate time to consider re-fuelling. NOTE: If the flames disappear and there are still lumps of solid wood left this indicates excessive moisture content in the wood or insufficient air supply/flue draught.

**Note:** To eliminate unwanted smoke emission, after loading new logs on to the fire, open the air wash control up fully for 3-5 minutes or until the logs are blackened all over to boost the fire and get flames issuing from the top of the fuel as soon as possible. When flames are well established, reduce the air wash to the running setting required. Burning without flames above the fuel will create unnecessary smoke. Never load fuel above the tertiary air inlet holes at the back of the firebox.

Loading 3 to 4 medium sized logs will produce a good output with reasonable burn time, generally small logs will burn up quicker producing a high output for a short time and a large log will take longer to burn and produce less output over a given time. These appliances are approved for intermittent operation on wood (0.75 to 1.5 hour burn cycles) although longer burn times can be achieved by fully loading the firebox, getting the fuel burning well and then shutting the air controls down. The fire will then often need reviving by opening up the air controls and then using small pieces of wood and plenty of air to get flames issuing from the wood again. The glass will get dirty if closing the air wash control past the point where flames above the logs disappear – this is quite normal.

#### 6.9 Shutting Down

The stove will normally shut down by itself as the fuel is consumed. In order to shut down the stove for other reasons, close the primary air controls (if open), then close the secondary air control. If the controls are left in this position, the fire will eventually burn out. If you want to revive the fire open the secondary air controls fully followed by the primary air control.

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

#### 6.10 Shut down for prolonged periods

If the stove is to be left unused for a prolonged period of time then it should be given a thorough clean to remove ash and unburned fuel residues. To enable a good flow of air through the appliance to reduce condensation and subsequent damage, leave the air controls fully open. It is important that the flue connection, any appliance baffles or throat plates and the chimney are swept prior to lighting up after a prolonged shutdown period.

#### 6.11 Maintenance

Inspect the inside of the firebox and above the baffle plate every week during use. Where the chimney is believed to have previously served an open fire installation, it is possible that the higher flue gas temperature from the stove may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney be swept a second time within a month of regular use after installation. See chimney cleaning section in section 3.1 Warnings and Important Information. Inspect the inside of the stove and the flue ways and ensure they are 100% clear after a period of disuse (e.g. summer). Only use manufacturers recommended replacement parts on the appliance

## 7.0 Safety Notes for your guidance

**FIRES CAN BE DANGEROUS** – Always use a fireguard to BS 8423:2002 Fireguards for use with solid fuel appliances in the presence of children, the elderly or the infirm.

# DO NOT perform modifications to the appliance as this could seriously compromise safety in operation.

#### DO NOT OVERFIRE - it is possible to fire the stove beyond its design capacity,

this could damage the stove, so watch for signs of over firing – if any part of the stove starts to glow red, the fire is in an over fire situation and the controls should be adjusted accordingly. Never leave the stove unattended for long periods without first adjusting the controls to a reduced and safe setting – careful air supply control should be exercised at all times.

#### WARNING – FUME EMISSION

Properly installed and operated, this appliance will not emit fumes. Occasional fumes from de-ashing and refuelling may occur which is not normally of serious concern. **However, persistent fume emission is potentially dangerous and must not be tolerated.** If fume emission does persist, then the following immediate action should be taken: -

- 1. Open doors and windows to ventilate room
- 2. Let the fire out, or remove and safely dispose of fuel from the appliance.
- 3. Check for flue chimney blockage and clean if required.
- 4. Do not attempt to re-light the fire until the cause has been identified and corrected.

If necessary, seek professional advice from chimney or stove specialists.

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

#### IN THE EVENT OF A CHIMNEY FIRE

- Raise the alarm to let others in the house know.
- Call the Fire Service
- Reduce the appliance burning rate by closing all air controls fully.
- Move furniture and rugs away from the fireplace and remove any nearby ornaments.
- Place a fireguard or spark guard in front of the stove.
- Feel the chimneybreast for sign of excessive heat.
- Do not relight the fire until the chimney and flue ways have been examined by a professional.

If the wall is becoming hot, move the furniture away. Ensure that the Fire Service can gain access to your roof space in order to check this area for signs of fire spread.

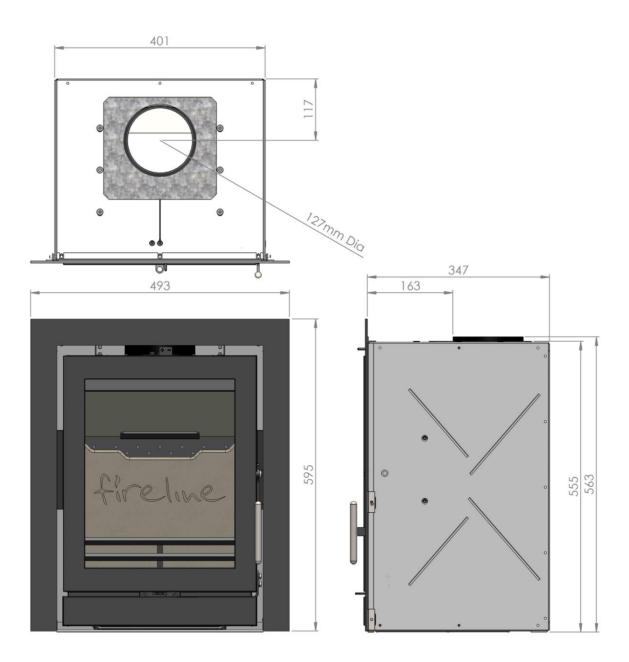
#### CO ALARMS

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" below. WARNING If the CO Alarm sounds unexpectedly:-

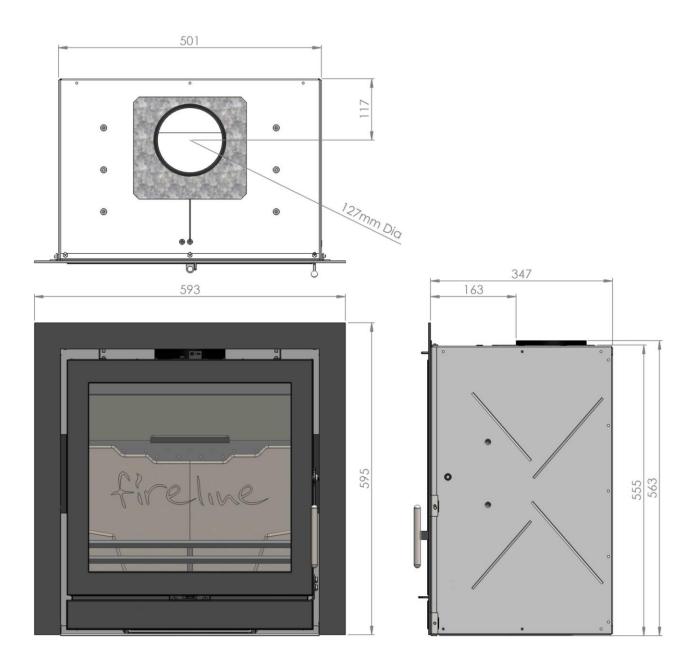
1. Open Doors and windows to ventilate the room and then leave the premises.

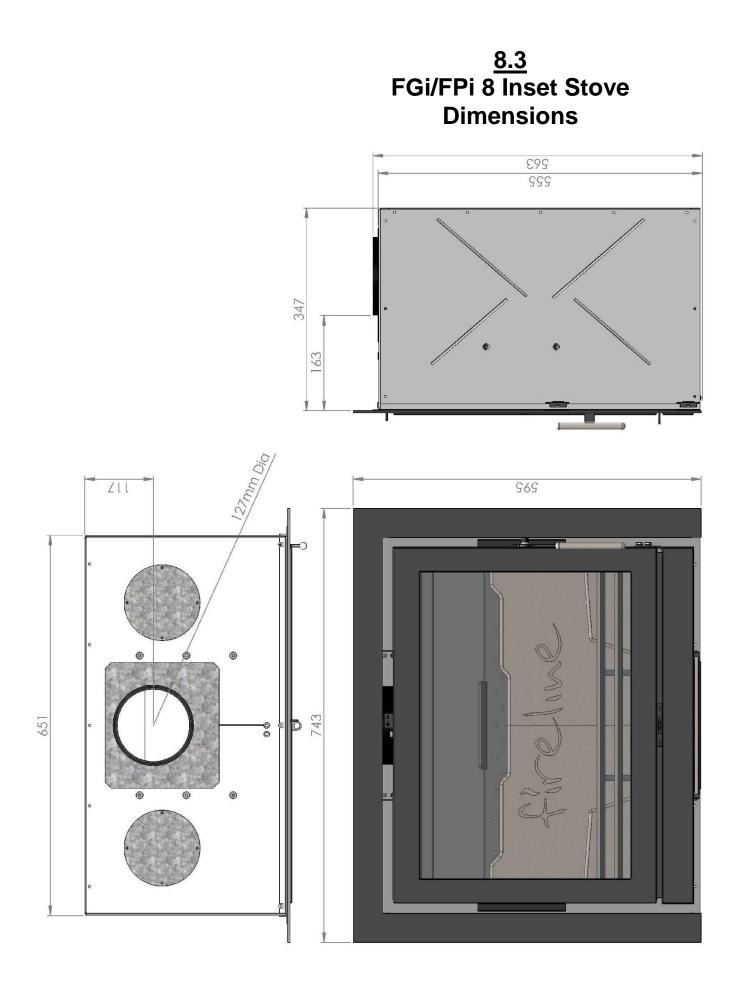
2. Let the fire go out.

## <u>8.1</u> FGi/FPi 5 Inset Stove Dimensions



## <u>8.2</u> FGi/FPi 5W Inset Stove Dimensions





#### 9.0 Frequently Asked Questions

**1** Do stoves require a chimney? All of our multi fuel and wood burning stoves require a suitable chimney or professionally installed flue system.

**2** How do I clean the chimney? You will require a chimney sweep to clean the chimney. It is essential to provide a dedicated chimney cleaning access door when installing the flue of the stove in some situations. In other situations the chimney can be swept through the firebox.

**3** *Who should install my stove?* Fireline want you to enjoy the maximum performance from your appliance. To ensure this, it is essential that they are installed correctly. We strongly recommend that your stove is installed by a suitably qualified installer e.g HETAS.

**4 How do I regulate the heat output?** Each stove has various air controls, which will allow you to easily regulate the heat output and re-fuelling rate.

**5** What warranty do I get? Fireline will replace, free of charge, any working part that fails (under normal operating conditions) within 12 months of purchase. Consumables such as glass, firebox lining boards or stove rope and adhesives are not guaranteed. A 7 yr extended body warranty is available – see pack inside stove. A call out charge will apply if our engineer attends any stove problem that is not related to product failure.

**6** Where can I get spare parts? Your local Fireline stove retailer will be pleased to supply spare parts and to provide any other information you require. Alternatively contact Fireline.

7 Can the doors be left open while burning? For safety and heat efficiency the doors should remain closed.

**8** Why is the stove smoking when lit? A flue with back draught problems is almost certainly the cause of a smoking stove. Also check adequate ventilation is present. A qualified fitter should complete both a smoke pressure and flow test prior to fitting the stove to ascertain the integrity of the flue.

**9** *Why should I "Run in" my stove?* To begin, light a series of small fires over a period of a few days to allow the paint finish to cure. The stove is finished with a highly heat resistant paint. The finish can be renovated with stove paint available from your local stove retailer. If the stove is not "run in" correctly, this may cause the paint to discolour and flake.

10 What is Over Firing? Your stove should never be used in a manner to cause over firing. Over firing can be caused by over loading the stove with fuel, and with primary controls too far open. If any part of stove glows "red" your stove is over firing and your draught control should be adjusted to restrict airflow to stove. Over firing can cause permanent damage to the appliance, which is not covered by warranty.

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