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### *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.*

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

*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 Imperial, Essence, Principal and Qadrical stoves have been recommended as suitable for use in smoke control areas when burning dry wood and anthracite*

Flue Gas Temp at Spigot	Flue Gas Mass Flow	Flue Diameter	Ventilation Required Without Draught Stabiliser	Ventilation Required With Draught Stabiliser
402°C	3.9g/s (wood)	125mm	House built before 2008 None	1500mm <sup>2</sup>
	9.7g/s (ancit)	5 inches	House built after 2008	2750mm <sup>2</sup> 4250mm <sup>2</sup>

As tested to the requirements of EN13240 for intermittent use

Fuel	Output (kW)	Cycle (hours)
Anthracite	4.6	4
Wood Logs (below 20% moisture)	4.9	1
Coal (E)	4.3	4
Peat (E)	4.7	2
Closed Fire Briquettes	4.6	4

Outputs stated are under ideal test conditions. Variations will occur due to installation, atmospheric conditions and fuel quality

(E) - estimate calculated

Essential characteristics	Performance
Test Fuel	Beech
Fire Safety	Pass
Emission of combustion products related to 13% O <sup>2</sup>	CO:0.11 vol% Dust: 73mg/m <sup>3</sup> No <sub>x</sub> : 98 mg/m <sup>3</sup> C <sub>x</sub> H <sub>y</sub> : 183mg/m <sup>3</sup>
Surface Temperature	Pass
Thermal output	4.9kW
Efficiency	78.10%
Release of dangerous substances	Pass
	Anthracite
	Pass
	CO: 0.17 vol% Dust: 86 mg/m <sup>3</sup>
	Pass
	4.5kW
	73.40%
	Pass

STOVE	A	B	C	D	E	F	G
ESSENCE	405	542	195	125	101	425	359
QADRICAL	423	492	194	125	100	372	347
IMPERIAL	420	541	194	125	100	420	354
PRINCIPAL	423	492	194	125	100	372	347

\*all measurements in mm

Weight: Essence 81Kg Imperial/Principal/Qadrical (body only) 75Kg

Max Fuel Load: 5.33Kg (Anthracite)

Flue Draught: Min.12Pa, Max. 25Pa

Please refer to BS EN 15287-1:2007 Installation and commissioning of chimneys



### Sirius Stoves Lifetime Guarantee

All Capital Stoves are covered by a lifetime guarantee (valid for original purchases only) from date of sale. This guarantee excludes the following naturally wearing consumable items: Door Glass, Firebricks, Rope Seals, Baffle & Grate (including riddling system) In addition, the following criteria must be met.

- Sight of the data plate that should have been fitted by the approved installer.
- Proof of installation by HETAS or other approved body, or letter from Building Control confirming that the installation was installed in accordance with the Building Regulations
- Proof of purchase from one of our "APPROVED SUPPLIERS"
- Proof of annual sweeping of chimney, at which time an inspection as to the condition of the chimney should be carried out to allow for necessary maintenance to be performed.

The use of unauthorized fuels such as petro-cokes will also invalidate the warranty.

Capital Fireplaces Ltd will accept no responsibility for installations which have been carried out that are not in accordance to the Building Regulations or if the conditions stated in the manufacturer's instructions are not adhered to.

Guarantee applies to parts only and excludes labour costs.

In no event shall Capital Fireplaces Ltd be liable for special, incidental or consequential damages, injury to persons, damage to property or any other consequential loss.

Capital Fireplaces Limited

Unit 12-17, Henlow Trading Estate, Henlow Camp, Beds. SG16 6DS

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15MAY13/EQIP/V1.1



## Imperial, Essence, Principal & Qadrical (Clean Burn) Stoves

APPROVED FOR BURNING WOOD AND SMOKELESS COAL IN A SMOKE  
CONTROLLED AREA  
CE APPROVED.



Clean burn cast iron multi fuel stove  
Installation & operating instructions. To be left with user.

This appliance must be installed by a competent person and must comply with all building regulations including those referring to local authority by-laws, National and European Codes of Practice. Unless the installer is qualified to approve the installation, then approval must be sought from your local building control officer. It is an offence under UK law not to comply with this advice. After installation the appliance should be ready for use and instruction as to use and control given. The customer should be advised to only use recommended fuels and also given advice on what to do should smoke or fumes be emitted from the stove.

## Parts List

Part No	Essence	Imperial	Principal	Quadrical	Description	qty
1	FFX008 CB	FFX008 CB	FFX008 CB	FFX008 CB	Flue Collar	1
2	FFX009	FFX009	FFX009	FFX009	Flue Blanking Plate	1
3, 5, 6,	FFX001	FFX001	FFX001	FFX001	Stove Body (Rear, Right, Left Panel)	1
4	ST6201TP	ST6101TP	ST6101TP	ST6101TP	Stove Top	1
7	FFX002 CB	ST6101BP	ST6101BP	ST6101BP	Stove Base Panel	1
8	FFX005 CB	FFX005 CB	FFX005 CB	FFX005 CB	Grate Support Plate	1
9	FFX006 CB	FFX006 CB	FFX006 CB	FFX006 CB	Grate	1
10	ST6301BPL	ST6301BPL	ST6301BPL	ST6301BPL	Stove Baffle Plate	1
11, 12	ST6201VS	ST6201VS	ST6201VS	ST6201VS	Set (2x sides, 1x back)	3
13	FFX010 CB	ST6101LG1	ST6101LG2	ST6101LG3	Leg Set (Essence only 4 pcs)	1
14, 15	ST6201DFP	ST6101DFP	ST6101DFP	ST6101DFP	Stove Door + Front Panel	1
16	ST6301AP	ST6301AP	ST6301AP	ST6301AP	Ash Pan	1
17	ST6101FB	ST6101FB	ST6101FB	ST6101FB	Fret/Front Bar	1
18	FFC024	FFC024	FFC024	FFC024	Secondary Air Duct	1
19	ST6101GL	ST6101GL	ST6101GL	ST6101GL	Door Glass	1
20	FFX027	FFX027	FFX027	FFX027	Glass Panel Seal	1
21	FFX026	FFX026	FFX026	FFX026	Door Seal	1
22	ST6201SAS	ST6101SAS	ST6101SAS	ST6101SAS	Secondary Air Slide	1
23, 26, 30	ST6101KBS	ST6101KBS	ST6101KBS	ST6101KBS	Primary Air + Riddling Knob Assembly Set	1
25	FFX020 CB	ST6101PAS	ST6101PAS	ST6101PAS	Primary Air Slide	1
27	FFS029	FFS029	FFS029	FFS029	Operating Tool	1
28	ST4201GV	ST4201GV	ST4201GV	ST4201GV	Heat Resistant Glove	1
29	FFS4015	FFS4015	FFS4015	FFS4015	Grate Riddling Rod	1
31	ST6101HDA	ST6101HDA	ST6101HDA	ST6101HDA	Door Handle Assembly	1
32	FFX019	FFX019	FFX019	FFX019	Door Glass Retaining Tabs (not shown)	4
33	FFX028 CB	FFX028CB	FFX028CB	FFX028CB	Hinge Pin	2

## Installation Diagrams

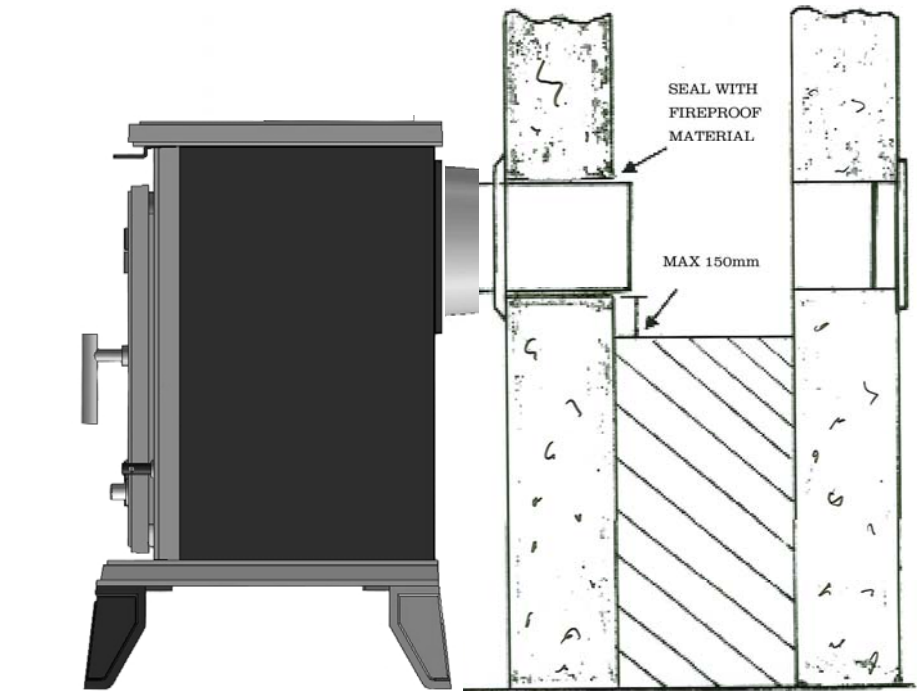
Where the chimney is believed to have previously served an open fire installation it is possible that the higher flue gas temperature from a closed appliance may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney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

### Typical Rear Flue Installation with clean out door.

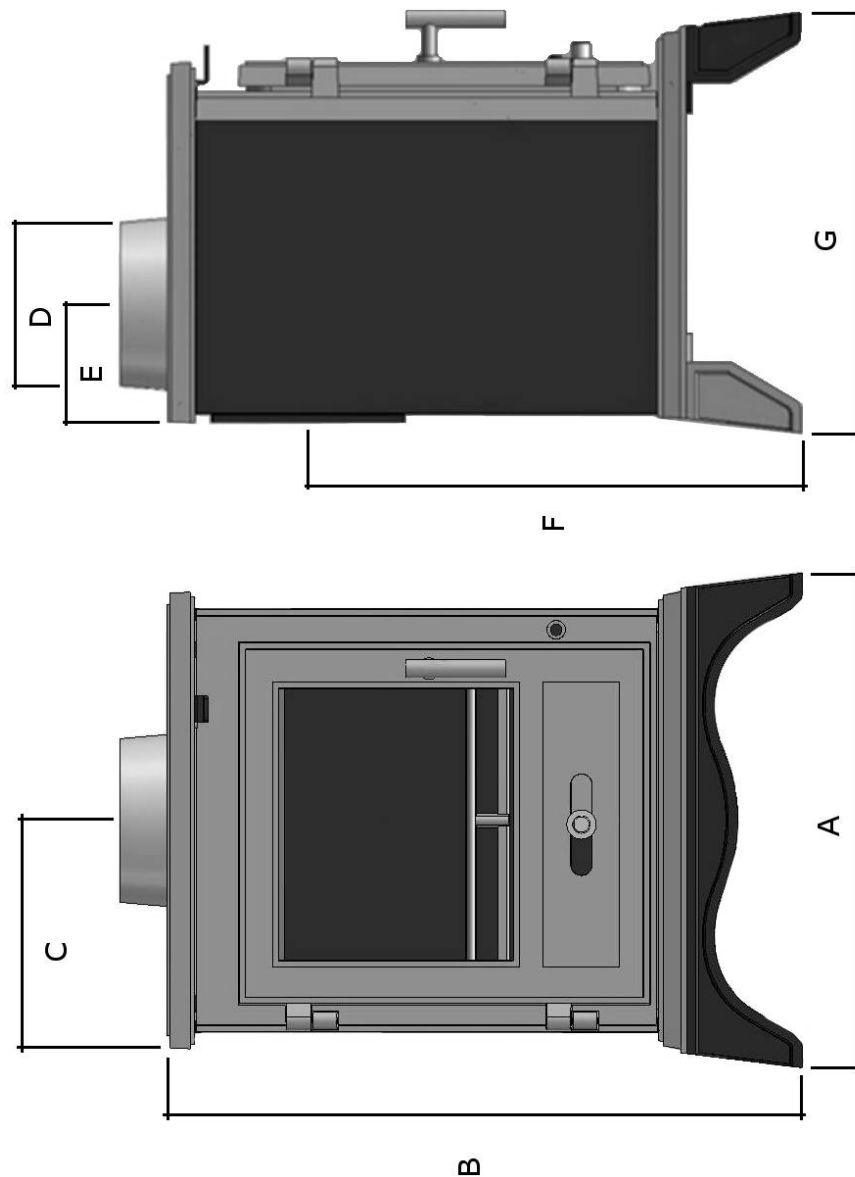
Ideally, the old fireplace should be filled in so that there is a smooth streamlined entry into the flue.

All of the installation must be in accordance with BS 8303 -1994. As long as only approved clean burn fuels are to be used and the flue draw is recorded as a minimum of 12 Pascals then a maximum horizontal length of 450mm is permissible. It is essential that all connections between the stove and chimney flue are sealed and made airtight.

Both chimney and flue pipe must be accessible for cleaning and if ALL parts of the chimney cannot be reached through the stove, a soot door must be fitted to enable this to be done.



## Specifications



Dimensions may vary slightly. The manufacturer reserves the right to adjust them without notice.

## Health & Safety

- Special care must be taken when installing the stove such that the Health and Safety at Work Act are met
- Adequate facilities must be available for loading, unloading and site handling
- All these stoves are free from 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
- When installing or servicing this stove care should be taken to avoid the possibility of personal injury
- Do not use in a shared flue.
- Do not use this appliance as an incinerator.
- Use only the recommended fuel – do not use liquid fuels.
- The surfaces, glass panel, and stove pipe reach very high temperatures. All persons in the vicinity of the stove must be warned of the potential dangers
- Fire cement contains caustic material, avoid contact with skin. In case of contact wash immediately with plenty of water
- Do not make any unauthorised modifications to this appliance.
- If replacement parts are required, use only parts recommended by manufacturer.

**Fires can be dangerous** - the Imperial, Essence, Principal and Qadrical stoves operate at very high temperatures. Always use with a fire guard to BS8423:2002 specification in the presence of children, the elderly or the infirm. Inform all persons of the dangers of high temperatures during operation of appliance including the stove pipe and use the operating tools provided. The glove provided is a tool.

**Do not over fire** - 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 adjusting the controls to a safe setting. Careful air supply control should be exercised at all times. We recommend that a stove thermometer should also be used to monitor the burning rate of the appliance.

**Warning- Fume emissions** - properly installed and operated, this appliance will not emit fumes. Occasionally fumes from de-ashing and refuelling may occur. Persistent fume emission must NOT be tolerated.

If fume emission does persist, then following immediate action should be taken-

1. Open doors and windows to ventilate the room.
2. Let the fire out, or eject and safely dispose of fuel from the appliance.
3. Check for flue chimney blockage, and clean if required.

Do not attempt to relight the fire until the cause has been identified. If necessary seek professional advice.

## Installation

Your stove has been recommended as suitable for use in smoke control areas when burning dry wood and anthracite. It is supplied with a small kit in a blister pack which must be fitted if you intend to burn dry wood in a smoke control area.

Check 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 230mm. If any of these requirements are not met, the chimney should be lined by using a suitable method.

A 125mm flue liner may be used in accordance with the building regulations as long as the stove is to be used only with clean burn fuels and the clean burn kit is installed. The chimney and connecting flue pipe should not narrow to less than the size of the outlet socket (collar) of the stove at any point.

The chimney height and the position of the chimney terminal should conform to Building Regulations.

A flue draught of minimum 12 Pascals is required for satisfactory appliance performance. The flue draught should be checked under fire at high output and if it exceeds the recommended maximum of 25 Pascals, a draught stabiliser must be fitted so that the rate of burning can be controlled, and to prevent over firing.

If you have any doubts about the suitability of your chimney, consult your local dealer/stockist.

The chimney must be swept before connection to the stove and swept every six months thereafter. If there is an excessive build up of soot, then the chimney must be swept and the reason for build up investigated.

An existing fireplace opening can be bricked up or sealed with a register plate, 2.5mm steel sheet or concrete. A short length of flue pipe no smaller in diameter than the stove flue outlet or the manufacturer's stated flue size may then be used to connect the stove to the chimney. This flue pipe should be of cast iron, 316 grade stainless steel or vitreous enamelled, nominal thickness 1.2mm. Ensure that the pipe end is no closer than 76mm to the side or rear chimney walls.

Ideally, the old fireplace should be filled in so that there is a smooth streamlined entry into the flueway.

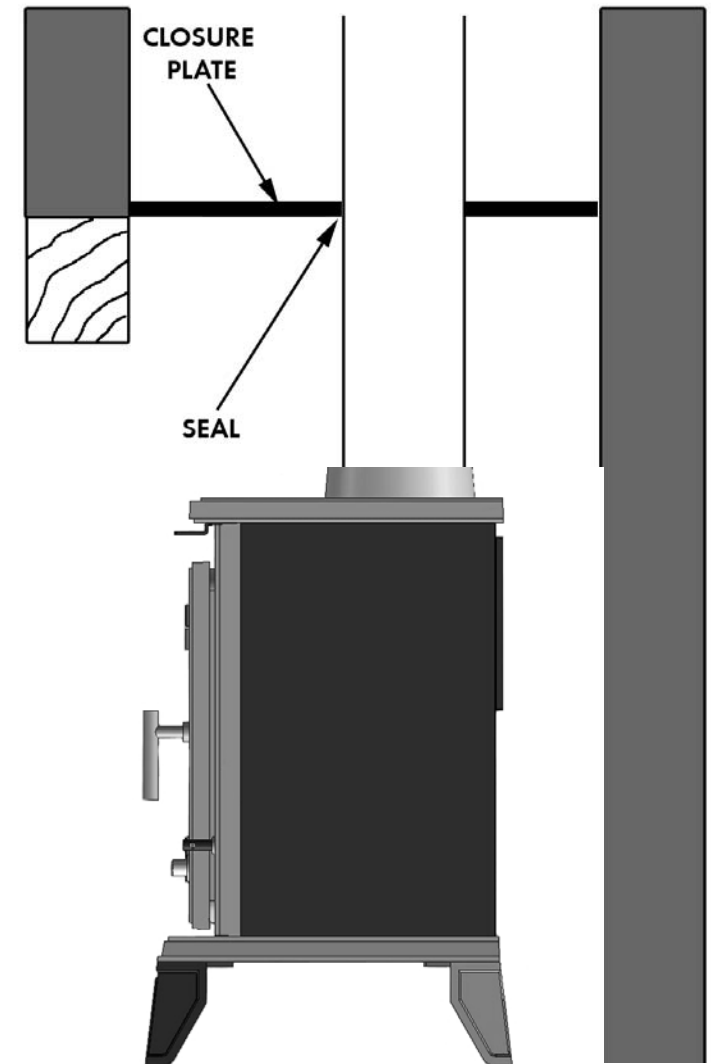
It is essential that all connections between the stove and chimney-flue are sealed and made airtight.

Both chimney and flue pipe must be accessible for cleaning and if ALL parts of the chimney cannot be reached through the stove, a soot door must be fitted to enable this to be done.

If a change in direction is required in the pipe work then it should be no less than 45°. If a 90° bend is required then a swept elbow should be used, or 2 x 45° elbows. A clean out point at every change of direction is recommended.

## Installation Diagrams

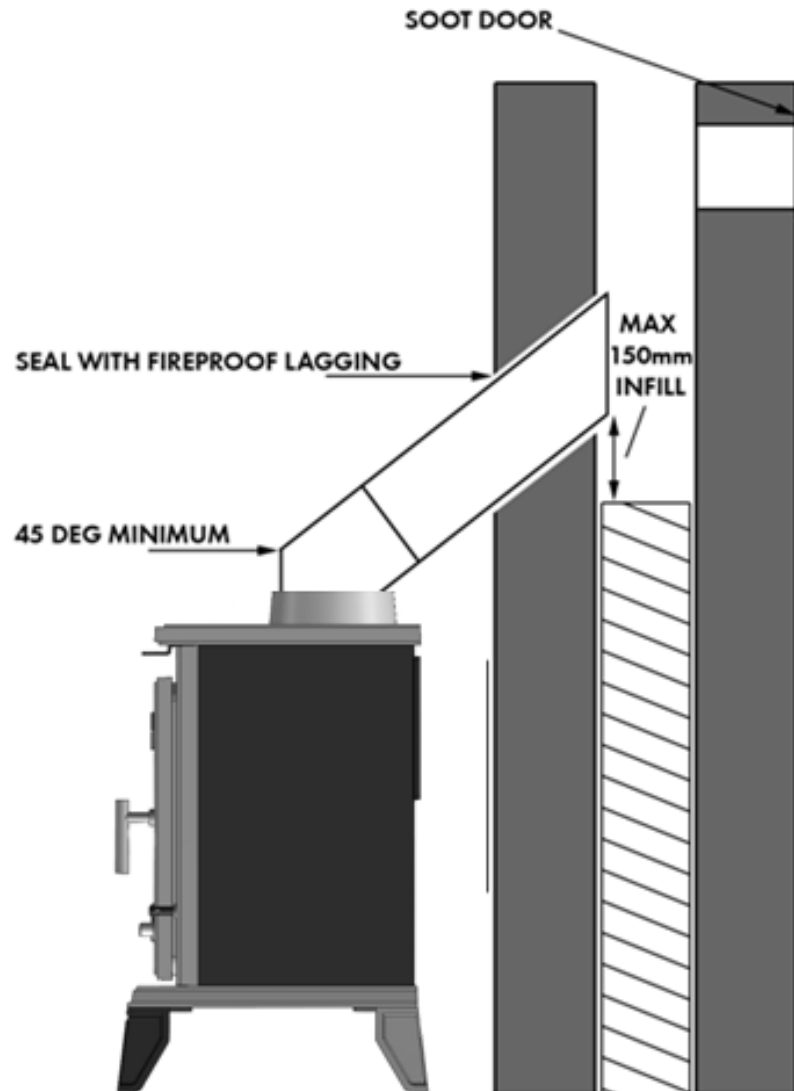
Typical Installation For Inglenook Fireplaces



Inglenook fireplaces can have very large bore chimneys. Check with your installer – you may need stainless steel flexible liner for solid fuel fitting.

## Installation Diagrams

Typical Installation Into In Filled Masonry Fireplaces



## Parts & Assembly

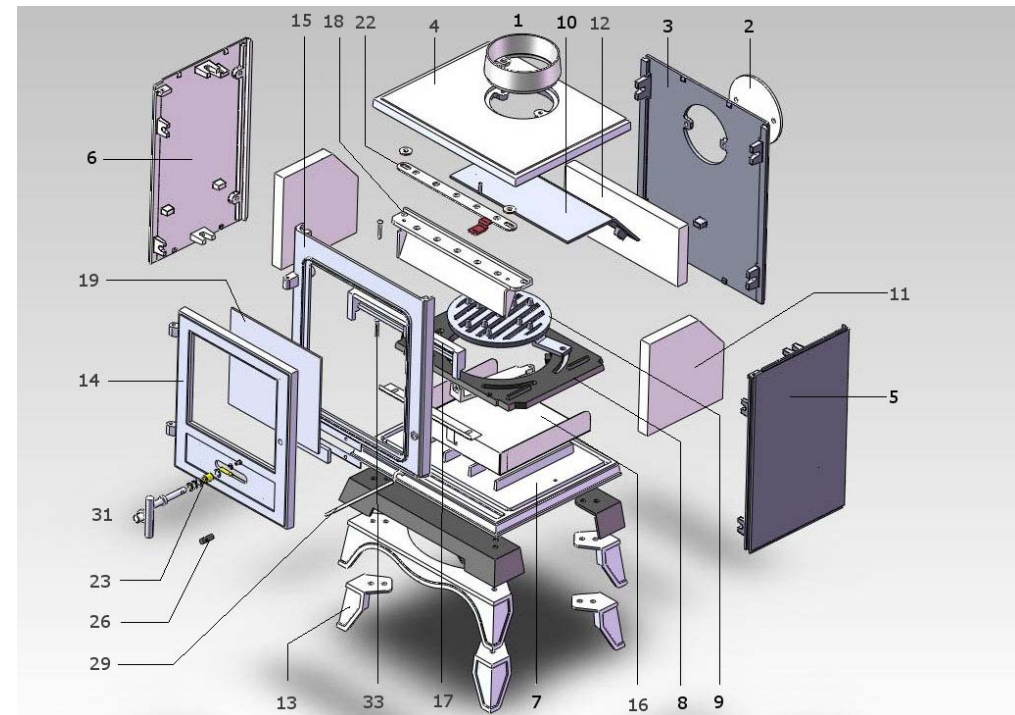
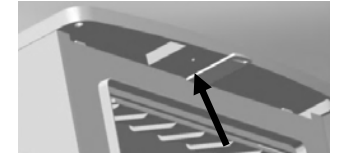
### Stove Assembly

Imperial/Principal/Qadrical – Legs will be packed in a separate box to the body,  
 Essence - The stove legs will be found inside the stove, they will require fitting. The two front legs have optional positions either at front of ash lip or rearward inline with body panels. Two of the legs have holes for hearth fixing fit these in desired position.

**Fitment of legs** - lean stove backwards and prop under base panel, fit studs supplied in desired position for legs, locate legs, fit washers and nuts and tighten. Lean stove forwards and prop under base panel, fit rear legs using studs washers and nuts provided. **Note** - the Imperial, Essence, Principal and Qadrical Stoves are heavy take care when handling.

### Clean Burn Kit Installation INSTRUCTIONS FOR INSTALLER ONLY

1. Open the stove door.
2. Slide the secondary air control completely to the right.
3. Remove the small screw under the top of the stove positioned to the left of the secondary air control
4. Fit the screw from the blister pack and ensure it is screwed in tightly.



\*Door catch © Hughes Design Ltd

## Operating Instructions

The Imperial, Essence, Principal and Qadrical stoves have been extensively tested and meet all the requirements necessary to burn wood and smokeless coal in a smoke controlled area. If the stove is installed, operated and regularly serviced correctly it will offer many years of reliable service.

Primary air is controlled by the sliding vent in the bottom of the door. It is open when slid to the right allowing more air into the stove, and shut when slid to the left, allowing less air into the stove. When the slide is fully open, the stove will achieve its maximum heat output. When the slide is fully closed, the stove is in a high efficiency tick-over mode.

Secondary air is controlled via the sliding vent above the door, it is this "airwash" that keeps a clean uninterrupted view of the fire, also aiding in secondary combustion of fuel and reducing emissions into the chimney and environment. To adjust the secondary air intake simply move the slider left for less air or right for more air.

These Clean Burn stoves have a pre-determined amount of fixed air on the secondary air slider. This position is factory set (refer to page 3) and should not be adjusted or altered. To operate as designed it is important that the flue draught requirements are adhered to, ideally minimum = 12 Pascals, maximum = 25 Pascals. If the flue draught exceeds the maximum requirements then over firing can occur so suitable measures to control the draught must be adopted.

**Note** - When the stove is in high output mode, more fuel will be consumed. It is necessary to establish a good ash bed and generate heat to the combustion chamber and flue (chimney), before significant restriction of primary air.

Chimney type, atmospheric conditions and fuel quality will affect the efficiency of the stove so some practice will be required to get the stove running correctly in your particular environment.

**Warning** - Do not load with excessive amounts of fuel, the clean burn efficiency will be affected, and internal panels could be dislodged.

### 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 and castings to relax and consolidate location. We recommend this 'running in' procedure after long shutdowns to preserve the life of the stove. During the initial phase you may notice an unpleasant smell. It is not toxic, but for your comfort we would suggest that during this period you leave all doors and windows open.

Although screwed up paper can be used to light the fire in the stove, we recommend the use of firelighters. Place one firelighter at the back of the grate in front of the flue throat and ignite. Place kindling wood on closed grate in front of the firelighter, then place one firelighter in front of kindling wood. Leave the stove door ajar for 10 minutes as the fire establishes. Close stove door and open primary air supply at bottom of door.

**Note** - Don't forget to close stove door after approximately 10 minutes. When kindling is well alight, place medium sized logs on grate and allow to ignite gradually then build up to maximum size logs and or anthracite.

## Trouble Shooting

### POOR HEAT OUTPUT

A) Stove too small for a room. Seek advice from a Qualified Heating Engineer as to (KW) output required for room size as a guideline the volume of the room in cubic feet divided by 500 i.e. room 15'x15'x8' would require 3.6kw approx.

B) Chimney and/or flue pipe restricted, room ventilation restricted. On installation these will have been checked but regular maintenance is necessary as conditions can change i.e. soot build up, birds nesting, masonry fall, dust build up or furniture blocking vents.

C) Poor quality fuel. Only burn dry seasoned timber, soft woods have a lower heat output than hard woods per hour. Solid fuels vary in heat value check with your coal merchant as to suitability.

D) Door not sealing well – over time the rope seal may compress and need changing. A simple adjustment to the handle may be required to establish a better seal

E) Improper use of air controls

### DIRTY GLASS PANEL

A) Generally caused by poor fuel quality, see (1c)

B) Fire burning too low, open air vents on stove create hot fire this may 'burn' glass clean.

C) If glass requires cleaning use glass cleaner recommended by your supplier, only use glass cleaner or cold glass. DO NOT USE any abrasives or scrapers as these will scratch glass causing tar build up harder to remove.

### UNBURNT FUEL IN FIREBOX

Insufficient air reaching fuel. Open primary air slide, this will supply combustion air to burn fuel fully (unless it has reached a 'point of no return'). Check if the ash pan is full, empty if required, grate may be blocked, de-ash with riddler. Check for jammed clinker or nails in grate when fires out and cold.

### SMOKE AND FUMES ENTERING ROOM

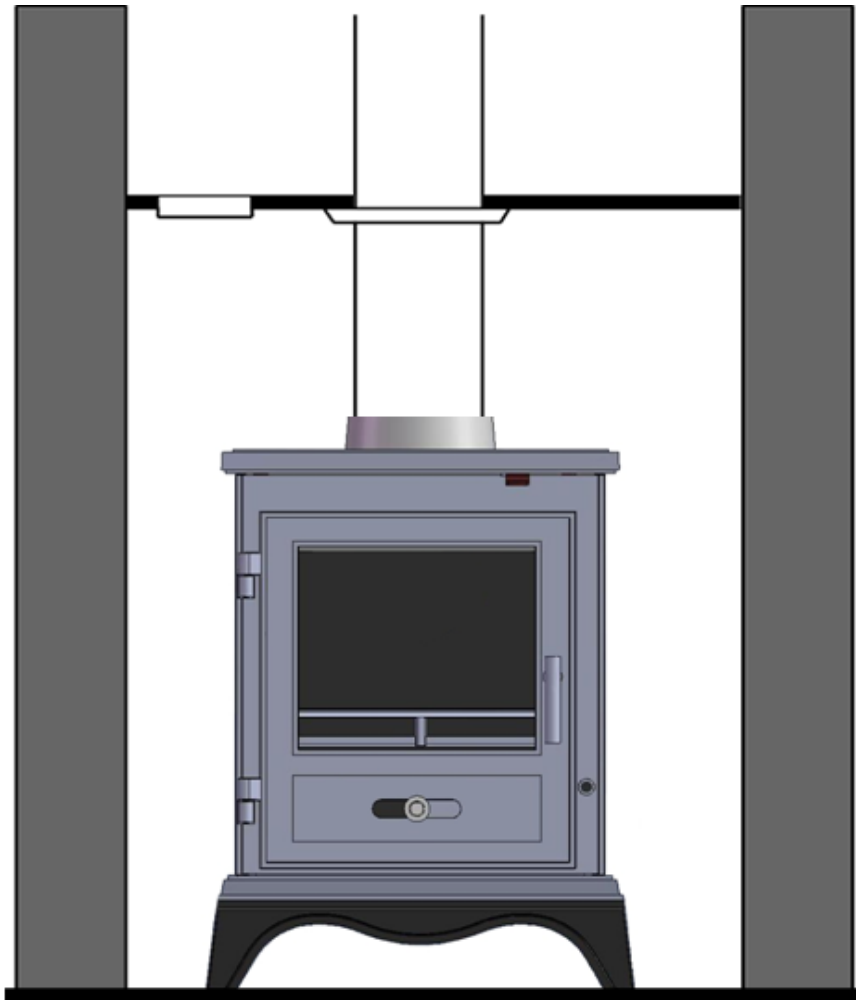
These are very dangerous and must NOT be tolerated. Open window and allow fire to burn out, seek expert advice immediately. DO NOT USE stove until the problem is solved.

### CHIMNEY FIRE

Identified by loud roaring sounds, dense smoke and sparks emitting from chimney. Shut down the air supply by closing the air vents, close the stove door fully and call the fire brigade immediately. Regular chimney maintenance will prevent chimney fires. Seek advice from a qualified chimney sweep

## Installation Diagrams

Typical Top Flue Installation using steel closure plate incorporating clean out door for chimney sweeping.



Imperial shown

## Installation Continued

The stove can be recessed in a suitable sized fireplace but a permanent free air gap of at least 100mm must be left around the sides and top to obtain maximum heat output and for access to the rear of the stove. There should not be any combustible material within a distance of 450mm from any surface of the stove. Furniture and general soft furnishings should not be within 900mm of any stove surfaces including the stove pipe. In all instances the stove should be positioned on a non-combustible hearth. Allow an apron of at least 300mm at the front of the stove and 150mm on either side. The hearth on which the stove is to be placed must not be less than 125mm thick if the floor is made of combustible material, and care should be taken to level the stove and secure the hearth. If existing floors do not have adequate load bearing capacity then suitable modifications i.e. load bearing plates must be adopted.

When the stove is in the desired position, mark hearth through holes in feet, remove stove, then drill and plug hearth for securing stove and levelling.

Upon completion of installation, the appliance should be checked under fire for soundness of joints and seals, and also that all smoke and fumes are taken from the appliance, up the chimney and emitted safely.

Care should be taken that all flues, hearths, and combustion air supplies are in accordance with the current Building Regulations, Local Authority Bye-Laws, British Standards and Codes of Practice. The Imperial, Essence, Principal and Qadrical stoves have no ventilation requirement (in houses built before 2008) but a fixed vent is advisable as this will enhance the pull of the chimney and reduce unwanted draughts. Care should be taken that these openings cannot become obstructed. Considerations and provisions must be made for any other appliances requiring ventilation. An extractor fan should not be used in the same location as the appliance. This appliance is not to be used with a shared chimney.

For solid fuel appliances: avoid installing extract ventilation in the same room. If mechanical extraction is unavoidable then seek specialist advice to ensure the installation is tested for the safe operation of the appliance.

A suitable test would be to check for spillage when appliances are subjected to the greatest possible depressurisation. A prerequisite for this condition is that all external doors, windows and other adjustable ventilators to outside are closed. The depressurisation at the appliance will depend on the particular combination of fans in operation (fans in the room containing the appliance and fans elsewhere in the building) and the pattern of open internal doors, hatches etc. which is established at the time of the test (when fans should be on their maximum useable setting), and the specific combination causing the greatest depressurisation at the appliance depends upon the circumstances in each case. Several tests (which should include a test with the door leading into the room of installation closed and all fans in that room switched on) may therefore be necessary to demonstrate the safe operation of the appliance with reasonable certainty. The effect of ceiling fans should be checked during the tests. Extra ventilation should be supplied if tests show that this is necessary.



## Operating Instructions

### **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.

### **De-ashing**

De-ashing is only required when excessive amounts of ash have built up.

The grate has two positions, open or closed. The open position is for de-ashing only. To de-ash open grate with control knob, scrape ash through grate opening with tool provided.

**IMPORTANT - MAKE SURE ANY ASH BLOCKING THE FLUE THROAT (BOTTOM REAR OF THE FLUE BOX) IS REMOVED.**

### **Recommended Fuels**

Seasoned wood - moisture content less than 20%.

Solid Fuel – Anthracite large nuts, briquette smokeless fuel i.e. Ancit, Phurnacite, Taybrite, Homefire Ovals suitable for closed appliances. All coals must be listed as exempt for use in clean burn areas.

Please note that when refuelling with solid fuel do not pile fuel higher than 30 degrees from the front bar rearwards – overfuelling can produce temperatures beyond the designed rating of the appliance causing damage of internal parts.

We recommend the majority of approved manufactured smokeless fuels. Household coal (bituminous coal), which is “Smokey” fuel, can be burned in areas that are NOT smoke controlled but the clean burn function will not be applicable. The use of household coal is not recommended. Use as an incinerator is not recommended as fumes from plastics etc will cause pollution to the atmosphere and will damage stoves internals. Should any difficulties arise over fuel quality or suitability consult your local supplier or the solid fuel advisory service.

**PETROLEUM COKE FUELS OR HOUSEHOLD WASTE SHOULD NOT BE BURNT IN THIS APPLIANCE**

### **Safety Notes For Your Guidance**

**FIRES CAN BE DANGEROUS** – Always use a fire guard to BS8423:2002 specification in the presence of children, the elderly or infirm. Inform all persons of the dangers of high temperatures including the stove pipe and the use of operating tools provided.

**DO NOT OVER FIRE** – It is possible to fire the stove beyond its design capacity, this could damage the stove, so watch for signs of overfiring – **if any part of the stove starts to glow red, the fire is in a overfire situation and the controls should be adjusted accordingly. Never leave the stove unattended for long period without adjusting the controls to a safe setting – careful air supply control should be exercised at all times.**

## Operating Instructions

### **Warning – Fume Emissions**

Properly installed and operated, this appliance will not emit fumes. Occasional fumes from de-ashing and refuelling may occur. Persistent fume emission must not be tolerated.

If fume emission does persist, then the following immediate action should be taken –

1. Open doors and windows to ventilate the room.
2. Let the fire go out, or eject and safely dispose of fuel from the appliance.
3. Check for flue chimney blockage and clean if required

Do not attempt to relight the fire until the cause has been identified. If necessary, seek professional advice.

It is essential that the fire has adequate air supply for combustion and ventilation.

Apertures provided for this purpose shall not be restricted or blocked

Never use an aerosol spray near the appliance under fire

## General Maintenance

Basic maintenance can be carried out by the appliance operator, i.e. removal of baffle plate, bricks, grate, and glass replacement, must be done when the appliance is cold. Any structural repairs, i.e. panel or stove pipe replacement must be carried out by a suitably qualified engineer.

### **Cleaning**

It will be necessary to clean fly-ash off baffle plate in the top of the stove at least once a month. When in regular use and after long shut down periods. To gain access to baffle lift top brick and slide it side and backwards, remove right hand side brick. Now top brick can be manipulated out of the stove door. You can now gain access to the baffle plate. This can be removed, cleaned off and replaced. The top brick is manipulated back into position and side brick replaced. Make sure top brick has located all round.

### **Stove Body**

The stove is finished with a heat-resistant paint and this can be cleaned with a soft brush. Do not clean whilst the stove is hot; wait until it has cooled down. The finish can be renovated with a suitable brand of paint.

### **Glass Panels**

Clean the glass panel when cool with a proprietary glass cleaner. Highly abrasive substances should be avoided as these can scratch the glass and make subsequent cleaning more difficult. Wet logs on heated glass, a badly aimed poker or heavy slamming of doors could crack the glass panels. The glass will not fracture from heat.

### **Chimney**

Check your chimney each year before starting to use your stove for the winter. Birds may have nested in the chimney or the masonry may have cracked. Both chimney and flue pipe must be swept at least once a year.

### **Grate Removal**

To remove the centre grate, un-screw control knob from riddling rod, rotate grate anti-clockwise until rod passes out of guide hole. Now, manipulate grate out of stove door opening. Note the position of the hook on the end of the riddling rod as it connects to the grate. If it becomes disconnected then re-connect by passing the hook under and up through the grate arm.

## General Maintenance

### Seasonal Maintenance

If the appliance is not used for any length of time e.g. summer months then it is recommended that the appliance is cleaned out thoroughly. Air slides, hinge pins and door catches should be lightly oiled. Regular monitoring of internals will highlight condensation problems or water ingress. If these problems occur then the appliance needs drying and the cause of the problem investigating. It is advisable that after a seasonal shut down the appliance is re-cleaned. Remove baffle plate, brick linings and operation of grate. Check flue for any possible blockages. It is advisable to have the chimney swept at least once or twice a year if the appliance is in constant use. The use of poor quality wood makes flues soot or tar up more frequently.

### Maintenance Log

It may be useful to log each time you thoroughly clean out your stove to know when your stove is next due maintenance

DATE	NOTES	DATE	NOTES

## Operating Instructions

This stove is designed to be operated with the door closed. Except for establishing a fire and refuelling it is unsafe to operate with the door open.

**Notes on Wood Burning-** Wood burns best on a bed of ash and it is therefore only necessary to remove surplus ash from the grate occasionally. Removal of ash from the throat is advisable and can be just dragged forwards. Burn only dry, well seasoned wood, which should have been cut, split and stacked for at least 12 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 produce unsatisfactory heat output. The clean burn function will be compromised if: the maximum fuel load is exceeded; the fuel is not dry/seasoned correctly; the fuel is contaminated i.e. paint, tar resins; or if the flue draught is insufficient. Once a wood fire is established, **about every 40 minutes, load one log of no larger than 250mm long with a cross-section where no dimension is greater than 75mm.** It is best to manage your stove with the primary air slide closed and by using only the secondary air inlet for the highest efficiency and cleanest burn.

**Notes on Anthracite Burning -** Anthracite burns best when the burnt fuel is removed by riddling periodically. If ash is allowed to build up, it will stifle the air flow through the grate and fuel and eventually cause the fire to die. Do not let the ash build up to the underside of the grate bars – this will severely reduce the life of the grate and prevent efficient burning. With some solid fuels a residue of burnt fuel or clinker will accumulate on the grate, allow the fire to go out and cool down to remove this. Once established and for the best results from your stove, load about 1 kg of anthracite or equivalent per hour with the primary air control about half to three quarters open and the secondary air control fully closed. Do not overload.

**Caution** – only empty the ash pan when the stove is cool.

### **Re-Fuelling**

The stove will stay hot for sometime after the volatiles in the wood or anthracite have been consumed. When more fuel is added it will ignite quickly, and air inlet settings need not be adjusted. If the stove has cooled down too much but red embers are still visible then the primary air will require opening fully to ignite the new fuel added. When refuelling with wood or anthracite, the primary air control should be fully opened for approximately 1 minute or until ignition is well established, then close to the desired setting.

### **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 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 emissions. Once the fire is established again, begin to refuel with your chosen fuel and set the air controls as noted above.