

# ESSE

## GAS FIRED IRONHEART COOKER.



### **Installation & Operating Instructions.**

### **VERY IMPORTANT.**

THIS APPLIANCE MUST BE INSTALLED BY A GAS SAFE REGISTERED INSTALLER.

THE WARRANTY CARD MUST BE RETURNED TO ENSURE GUARANTEE VALIDITY.

CE

## HEALTH & SAFETY AT WORK ACT 1974

### (AND AMENDMENTS)



The installer has a responsibility under this Act, to provide for the safety of person(s) carrying out the installation.

Attention is drawn to the following:

- 1) The appliance is heavy and requires care in handling. Lifting off the pallet and positioning may be carried out using the Lifting Jacks available from ESSE dealers. There may also be sharp edges on certain components.
- 2) Fire cement is caustic and hands must be washed thoroughly after use.

Although this appliance does not contain asbestos products, it is possible that asbestos may be disturbed in existing installations and every precaution must be taken.

\*Patent applied for.

#### IMPORTANT:

This cooker must be installed in accordance with regulations in force and only used in a well-ventilated space. Read these instructions before installing or using.

#### GAS CATEGORIES:

Natural Gas Models - 2nd Family - I2H

Propane Gas Models - 3rd Family - I3P

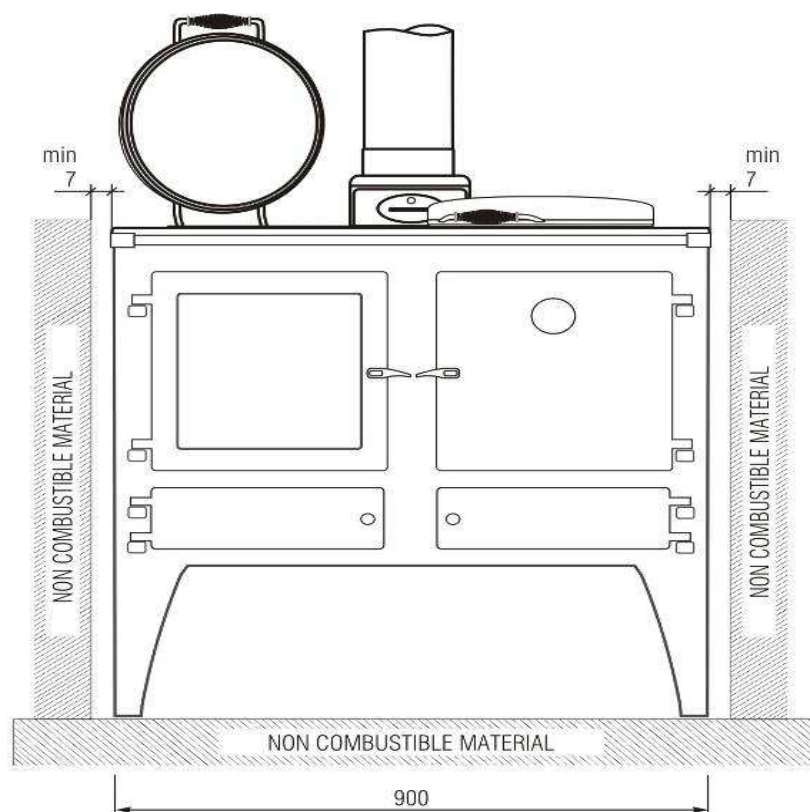
#### COUNTRY OF DESTINATION:

GB AND IE.

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**Fig 1**





## GENERAL INFORMATION

The installation of the cooker, the chimney, hearth and walls adjacent to the cooker must be in conformity with local or national regulations currently in force. In the United Kingdom, the appropriate sections of the Building Regulations must be conformed to.

The cooker weighs 300kg (662lbs) approx. The floor must be solid, level and constructed in accordance with any Building Regulations which apply to the particular site.

The cooker is supplied fitted for either Natural or Propane Gas, and the fuel type is marked on a data badge fixed to the inside of the lower right hand door.

Check the data plate specification corresponds to the available gas supply before starting installation.

### Ventilation

The cooker requires the room or internal space containing it, to have an air vent of minimum effective area of 9cm<sup>2</sup> (3½ in<sup>2</sup>). This air vent should be either direct to outside air, or to an adjacent room or internal space that itself has an air vent direct to outside air. (Reference current BS5440 Part 2).

It should be noted that the cooker will generate a certain amount of convected heat and ventilation arrangements should allow for this.

An extractor fan is not recommended, but where an extractor fan is provided to vent the room of cooking smells, steam etcetera, arrangements for ventilation must always comply with any local by-laws or Code of Practice relevant to the installation.

### Gas Service

Check that the gas meter and service pipe are both of adequate size to meet the requirements of the cooker and any other appliances that may be fitted on the system.

The maximum heat output, based on the gross calorific value of the fuel, is 8.8kW. For Propane this converts to 629g/h (1.39lbs/hr).

## FLUE SYSTEM

Refer to Figs 2&3.

An efficient flue system must be provided for the removal of products of combustion and reference should be made to current Codes of Practice (BS5440 Parts 1 and 2).

Use 500mm (20") minimum of vertical flue pipe from the boiler flue socket (Figs 2&3).

Run the flue in the most direct and vertical route practicable. Avoid horizontal or shallow runs but where a horizontal section is necessary; offset this by using twice its length of vertical flue.

To avoid condensation, all flues must be protected against undue cooling. Use internal flues whenever possible; external flues must be insulated and external brick stack lined.

Where condensation is likely, provide means of draining.

Terminate the flue to avoid downdraught or wind eddies.

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**NOTE:** The flue socket on the boiler is designed for 100mm (4") pipe to BS41 and this should not be decreased at any point on the flue run. The advice of a competent installer should be sought in cases of difficulty.

Fig. 2 - Connection to Brick Chimney Fig. 2 - Termination of Flue Roof.

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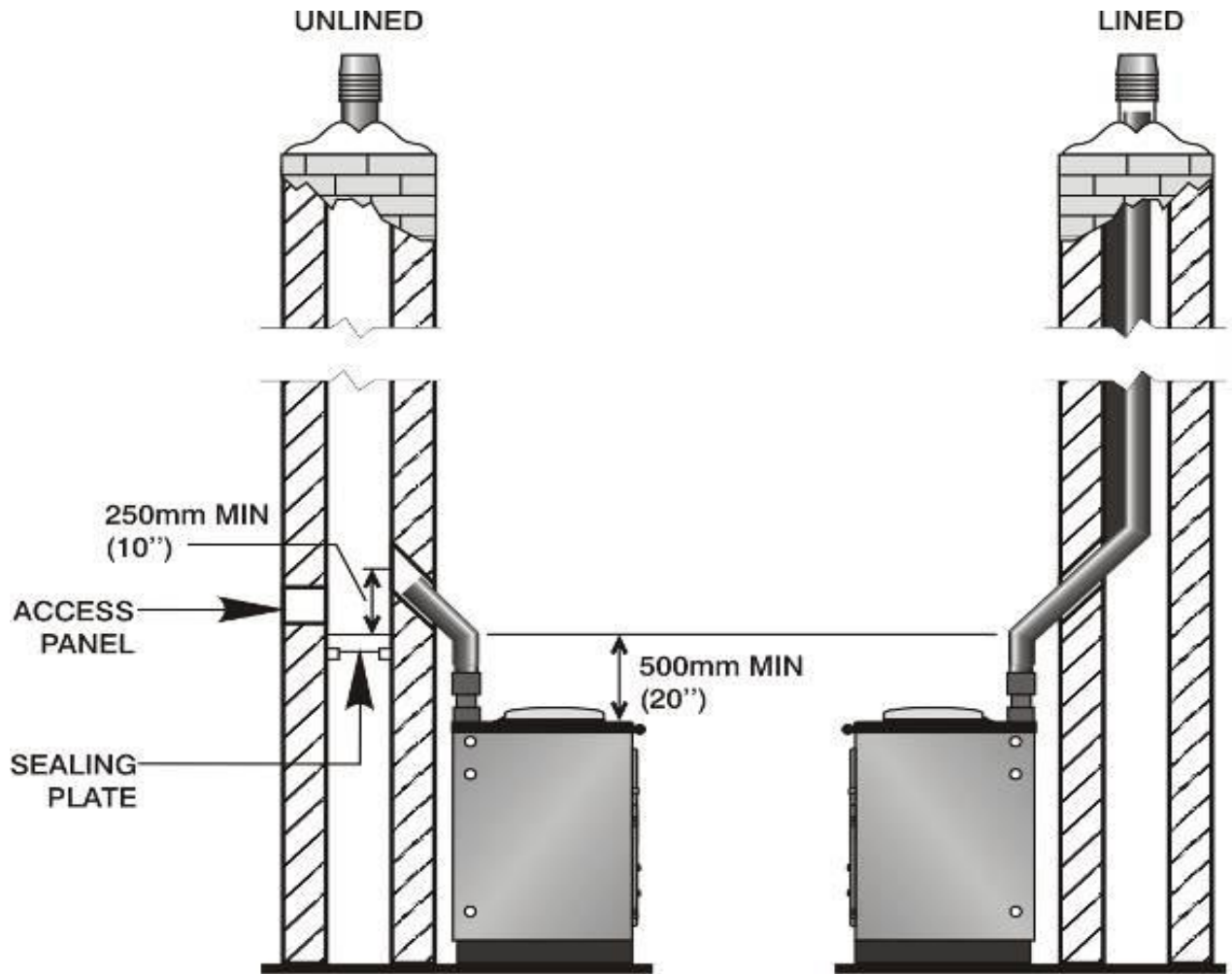
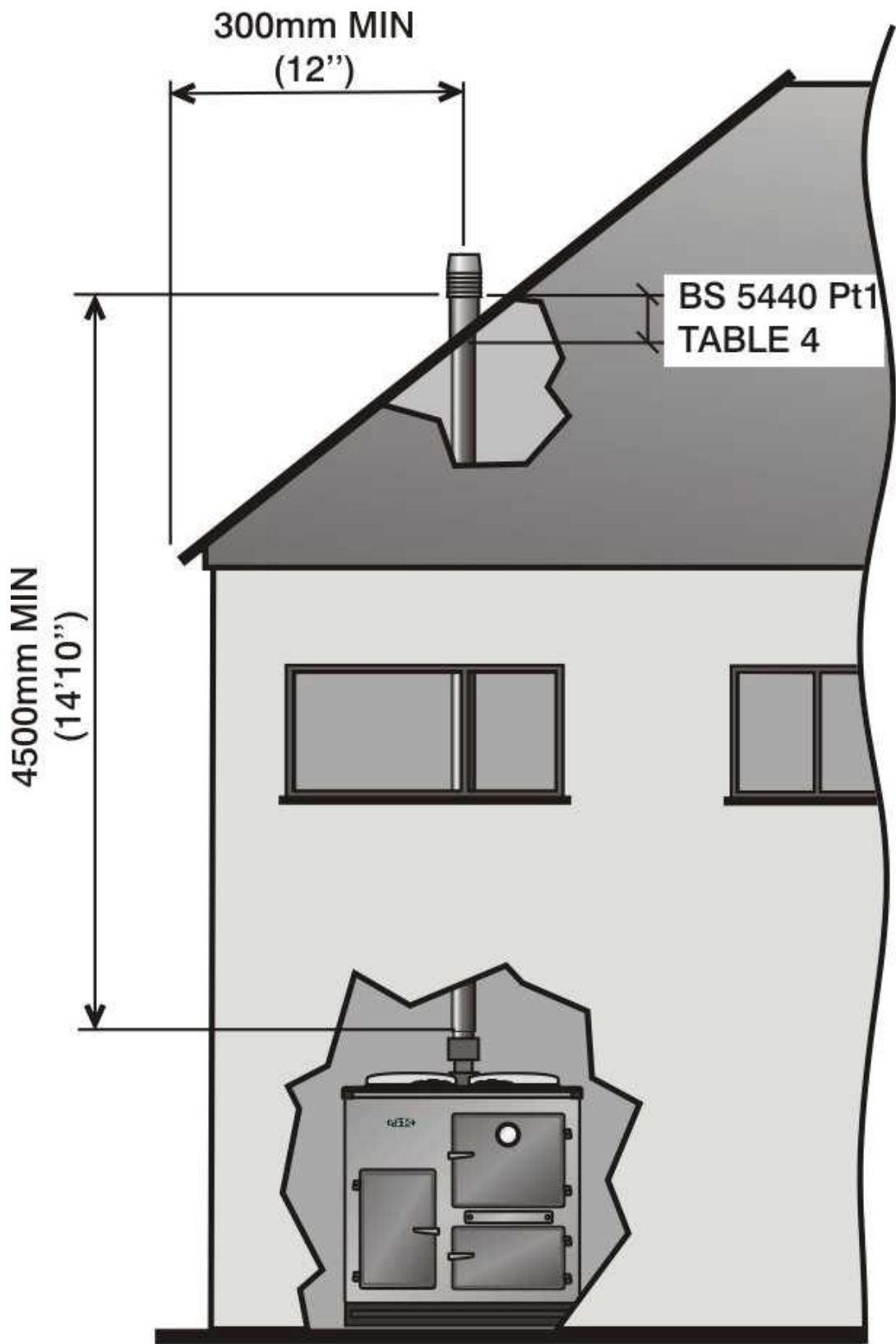


Fig 3



## BUILDING IN THE COOKER

### Space Requirements

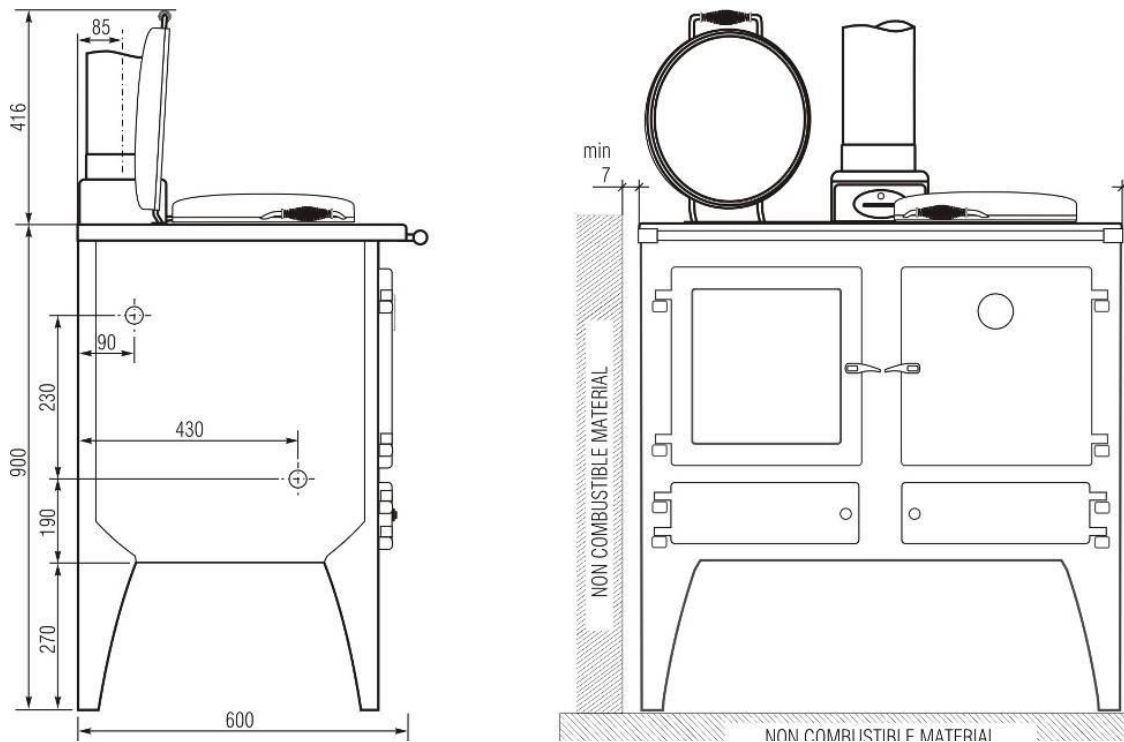
Refer to fig 4

The minimum recommended width of space required to take the cooker is 920mm (36").

Clearances are not necessary on either side or rear of the cooker for non-combustible material. For combustible material, ensure at least a 7mm ( $\frac{1}{4}$ ") gap on either side.

Where the rear wall is of combustible material, current regulations for the installation of heating and cooking appliances must be complied with. The cooker is supplied assembled and ready for connection to gas and water. The gas connection is a diameter 8mm isolation tap located at left hand side under the front casing adjacent to the burner.

Fig 4



**NOTE:** All dimensions are in millimetres.



## Procedure for Assembly

Unpack the cooker completely and check all loose parts against the checklist provided. Inspect for any transit or other damage. For ease of movement, the Esse bespoke lifting gear with Ironheart attachment should be used to move the cooker into its final position. Make the gas connection as necessary. Place the flue box/downdraught diverter loosely on the hob, make the flue connection and screw down ensuring the gasket is correctly positioned.

**IMPORTANT:** Flue pipe must rise 500mm (20") vertically before any 90 degree bend is fitted. This can be reduced to 300mm (12") if a more obtuse bend is used.

## DOOR HINGE ADJUSTMENT

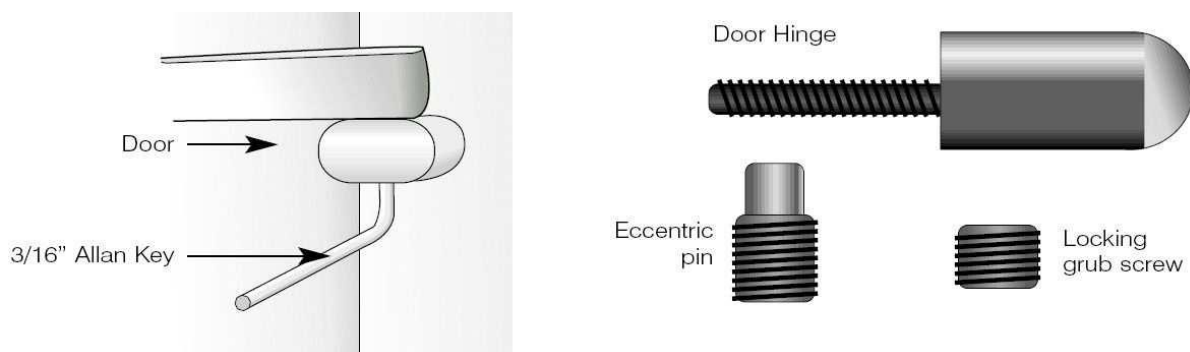
Fit the towel rail using the towel rail brackets supplied.

Refit all loose parts from the removed from the oven during moving the cooker. Check the hotplate is level. Check that the hotplate covers lift easily and stay in the upright position when raised.

Remove the plastic protection from the inside of the oven doors.

1. Remove upper & lower locking grub screws from hinges using the 5mm Allen key provided.
2. Using the same Allen key, adjust either or both eccentric pins in each door hinge to level the door.
3. Once the door is level, lock the eccentric pins in place using locking grub screws.

Fig.5 – Door Hinge Adjustment



## GAS CONTROL SYSTEM.

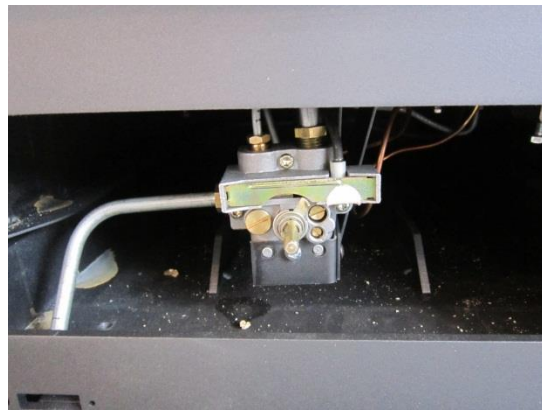
Gas enters at the left hand side of the cooker via an 8mm BSP connection. A gas tap is provided. It is **ON** when the isolation tap screw is fully wound out. Appliances are despatched from the factory with the cock in the **ON** position and must remain in that position unless it is required to turn it **OFF** for servicing etc.

### OVEN CONTROL

FIG 6.



FIG 7.



The oven control is accessed through the front left hand side door.

The control has four positions:- OFF, PILOT, LOW FLAME, HIGH FLAME these are established by turning the control knob anti-clockwise. The burner has an oxy-pilot system which includes a thermocouple, a pilot and an ignitor together as a whole assembly.

FIG 8.



NOTE: The cooker is despatched, set up for installation on the type of gas specified when ordered. The fuel type is marked on the data label.

Please see the gas technical data information in the table below.



Inlet pressure can be measured at the isolation/test point fitting under the burner at the left hand side of the cooker. Operating pressure high and low can be measured at the test point on the control valve.

## TECHNICAL DATA

### Gas Category I2H & I2E (G20) Natural Gas.

Setting	Maximum	Minimum
Inlet pressure (mbar)	20	20
Burner pressure (mbar)	16.2	1.5
Heat Input (Gross/Net) (kW)	7.4/6.7	2.1/1.9

### Gas Category I2E+ Belgium Gas.

Setting	Maximum	Minimum
Inlet pressure (mbar)	20/25	20/25
Burner pressure (mbar)	16.2/20.2	1.5/2.0
Heat Input (Gross/Net) (kW)	7.4/6.7	2.1/1.9

### Gas Category I2L (G25) Netherlands Gas.

Setting	Maximum	Minimum
Inlet pressure (mbar)	25	25
Burner pressure (mbar)	16.5	1
Heat Input (Gross/Net) (kW)	7.4/6.7	2.1/1.9



**Gas Category I3P (37) (LPG@37mbar) Liquid Propane Gas.**

Setting	Maximum	Minimum
Inlet pressure (mbar)	37	37
Burner pressure (mbar)	36.0	3.6
Heat Input (Gross/Net) (kW)	7.25/6.7	2.1/1.9

**Gas Category I3P (50) (LPG@50mbar) Liquid Propane Gas used in Europe.**

Setting	Maximum	Minimum
Inlet pressure (mbar)	50	50
Burner pressure (mbar)	44.8	3.6
Heat Input (Gross/Net) (kW)	7.25/6.7	2.1/1.9

**Burner Information.**

Gas Type	Oxy-pilot Assembly	Injector
Natural Gas	P441	
Belgium Gas	P412D	
Netherlands Gas	P412D	
LPG (Propane)UK	P451	
LPG (Propane) Europe	P451	

**SETTING THE FIREBED.**

FIG 9.

# ESSE



- 1). Fill the burner tray with Vermiculite granules to the height of the top edge of the burner tray and
- 2). Position the first log so that the flat edge of the log (hole end) sits against the back rail of the burner.

FIG 10.



- 3). Position the second log so that the larger end face is flush with the right hand side of the burner tray.

FIG 11.



- 4). Position the front left hand log so the large end face is against the left hand side of the burner tray and the small end is resting on the large log with the hole in.

FIG 12



- 5). Position the front right hand log so the double pronged end faces down into the vermiculite and the prongs sit against the burner tray edge whilst the other end rest on the diameter of the third log.

FIG 13.



Note the position of the pilot flame and do not allow vermiculite to be spilt in this area when filling the burner tray.

# ESSE



**WARNING:** This appliance must only be operated with the Fire door closed and locked for safety reasons. (See Fig 14)

FIG14



## ADJUSTING AND LOCKING THE FIRE DOOR CATCH.

Using the 3mm Allen key supplied, the fire door can be both adjusted and locked in the final closed position.

## COMMISSIONING THE COOKER.

The burner is fitted with a pilot light, which is also an oxygen depletion sensor (O.D.S), piezo spark, and flame sensing device. The control is located behind the front lower door on the cooker. The pilot light is located at the right hand side of the burner.

If the heater is extinguished for any reason wait 3 minutes before re-ignition is attempted. Pull the control valve plastic cover forward and remove (Fig.8). Slacken the pressure test point sealing screw and connect a suitable pressure gauge to the pressure test point (Fig.15)

### Lighting the Pilot.

Depress control knob fully. Whilst depressed turn knob slowly anti-clockwise to the 'PILOT' setting. A click will be heard and the spark should light the pilot, repeat until pilot is visibly lit. The operation of the spark can be viewed on the pilot assembly at the right hand side of the burner. Keep the knob depressed at this point for 10 - 15 seconds and release the knob. Preferably the pilot should be left to stabilise for approximately 5 minutes before igniting the burner.

## High Setting

If the pilot is not already lit, light the pilot as described above.

With control knob at 'PILOT' setting, depress and turn anti-clockwise to 'HIGH' setting and release the knob. After a few seconds the burner will light on high setting. Check that the high burner pressure is in accordance with that given in the TECHNICAL INFORMATION section. The pressure is factory set and should not require adjustment but if necessary adjust the HIGHFLAME SCREW (Fig.15).

## Low Setting

If the heater is not already lit on 'HIGH' setting, ignite the heater to 'HIGH' setting as described above. Turn the control knob until 'LOW' setting is reached. Check that the LOW burner pressure is set in accordance with that given in the TECHNICAL INFORMATION section. The pressure is factory set and should not require adjustment but if necessary adjust the LOW FLAME SCREW (Fig.15).

## Turning the Cooker OFF

From any heat setting, depress the control knob fully and turn clockwise to 'PILOT' position. Disconnect the pressure gauge, tighten the pressure test point sealing screw and test for gas soundness. Replace the control valve plastic cover.

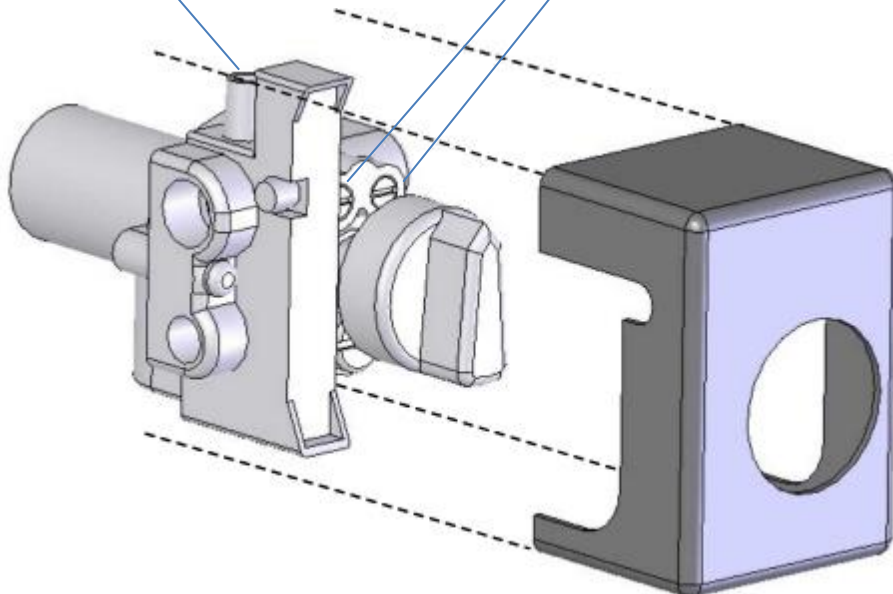
## Turning the Pilot OFF

From any heat setting or the 'PILOT' position, depress the control knob fully and turn clockwise to 'OFF' position.

Pressure test point.

High flame screw.

Low flame screw.



**FIG 15**





## Burner Removal.

Disconnect gas inlet and remove four clamps under the burner. Sweep back the vermiculite in the base tray at the four retaining screw positions, two at the front and two at the rear. Under the four screws and remove the front and back stainless baffles, the burner can now be lifting up and out of the firebox.

## Servicing & Maintenance

The cooker should be serviced annually by an authorised person; the following parts should be removed:-

The Hotplate, Care must be taken with the hotplate when removing or replacing as damage can occur to the enamelled surface.

Remove the two hotplate securing screws and lift out the hotplate using the two screwed tools supplied to the user. Brush the underside with a wire brush.

### The Burner

Remove burner/controls/pipework as previously described. Check top surface for any dust or debris. Brush down as necessary. On completion, replace all parts.

### The Cooker Interior

Sweep out any debris from the burner chamber; use a vacuum cleaner nozzle if necessary. At no time during servicing should the gas rate screws be disturbed.



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## IMPORTANT NOTES

### **WARNING**

The use of a gas appliance results in the production of heat and moisture in the room in which it is installed. Ensure that the room is well ventilated.

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### **WARNING**

The cooker must only be used in the manner described. Incorrect operation can lead to hazards.

The ventilation arrangements will be made by the installer. Never alter these arrangements by blocking off the permanent air vents provided by the installer.

Take care to avoid touching the viewing window or its immediate vicinity when the cooker is alight. These parts may be hot.

If the cooker is operated under conditions where the combustion products spill from the flue terminal i.e. if downdraught or flue blockage occurs, the special pilot fitted to the cooker will cause the burner to shut down. If this occurs, consult your installer for remedial action.

## YOUR COOKER

Your cooker is a combination appliance, providing hotplate and oven heat for cooking. There are two hinged covers to conserve heat losses when the hotplate is not in use.

FIG1



## Tools and Accessories

The following items are supplied with your ESSE cooker:

**Hotplate Lifting Tools** – For lifting off the hotplate.

**Oven Accessories** – Two Wire Shelves, Esse Oven glove, Wire brush, fire Guard and Operating Tool.

The hotplate lifting tools screw into the small holes near the end of the hotplate. To provide a lifting handle a lifting handle should it be necessary to remove the hotplate for any reason.

FIG 2



## BEFORE USING YOUR COOKER

Check that the plastic protection coating has been removed from each hotplate cover, and brackets. This should have been done during installation but if the plastic has been left on it will melt on firing the cooker and cause damage to the insulated covers.

The hotplate surface should be wiped with a dishcloth or similar, which has been soaked and a detergent liquid. Finally dry off the hotplate with an absorbent material.

### Nominal heat input

The nominal heat input, based on the gross calorific value of the fuel, is 8.8kW. For propane, this converts to 629 g/hour.

The cooker is controlled by the four position control positioned behind the left hand lower door. (See fig 1)

### Burner control.

The control system operates as follows:

- The knob is depressed and turned anti-clockwise to ignite the pilot, hold in the pilot for a slow count of ten seconds then release the knob. The pilot is now established.
- Turn the knob anti-clockwise again to establish the low flame setting.
- Turn the knob anti-clockwise again to establish the high flame setting.
- Turning the knob fully clockwise to the stop will extinguish the burner.

The pilot system contains a flame failure device that shuts off gas to the burner if the pilot is extinguished for any reason.





**IMPORTANT:** Should the burner and pilot go out at any time, or is turned off by accident, wait at least two minutes before attempting to relight the pilot flame. This period of time will ensure that the safety device within the gas pilot system has cooled and closed, preventing gas flowing to the burner.

**NOTE:** When lighting the burner for the first time or when the cooker is completely cold, there will be some steam or condensation due to the mass of cold metal. During this warm up period the hotplate covers should be in the upright position to prevent condensation entering the covers.

## THE HOTPLATE

The hotplate is surface ground and intended for use with machined base utensils. As heat passes from the hotplate to utensils almost directly by conduction, good contact is essential and a thin bottomed utensil will result in poor heating performance, especially if the bottom is uneven.

The hottest part of the hotplate is the left hand end. The temperature of the hotplate depends on the oven control setting. In general: the higher the oven temperature the higher the hotplate temperature.

Always keep hotplate covers down except when using the hotplate.

**IMPORTANT:** The hotplate must not be removed from the cooker, unless the controls are at OFF and the cooker isolated from the mains electricity supply.

## THE OVEN

The oven is fitted with anti-pull out stops to prevent shelf from being pulled out accidentally. To insert the shelf locate the open end of the shelf on the runners lift up slightly at the front and push to the rear to pass the stops, then fully back into the oven. To remove a shelf, pull forward until it stops, lift front end, pull forward to clear stop, lower shelf and pull out the oven.

The wire shelf is used when cooking a tray of food. Certain cooking operations can be carried out by placing dishes directly on the oven bottom. The oven temperature is controlled in accordance with the setting selected on the cooker control knob. A thermometer in the door gives an indication of the oven temperature, but since it is in the door itself, the thermometer will react if the door is opened and the thermometer reading may fall considerably.

When the door is closed, the thermometer will recover slowly to indicate the



oven temperature. A rapid fall in thermometer reading therefore does not indicate that the oven temperature has also done so.

## SERVICING.

Like any other gas appliance, the cooker must be regularly serviced by a qualified service engineer at least once a year. This will ensure that the cooker remains in a first class and safe condition. Your installer will normally be able to recommend where service can be obtained.

**NOTE:** On completion of the service, the engineer should give you a hard copy of the Gas Safe relevant document. You should ask to see the Gas Safe Identification of the service engineer.

## TIPS FROM THE ESSE KITCHEN

### Enamel Cleaning

Enamel is simply a coloured glass coating added to the metal to give a durable and hygienic finish. It can be damaged by scratching or by a sudden application of cold liquids onto its surface when hot.

Clean with a cloth and soapy water, preferably while cooker is still warm.

Propriety non-scratch liquid cleaners for enamelled surfaces may be used.

Spilled liquids should be removed as soon as possible.

Fruit juices and other acidic products can remove the gloss surface from the enamel if left for any length of time.

It is important to use pots and pans that have a ground base and are flat-bottomed on the hotplate.

Cookware made of stainless steel, cast iron, aluminium; glass and earthenware are all suitable for your ESSE.

### The Hotplate

The temperature versatility here is very important – the area of the hotplate over the left hand burner end is the hottest, while the area over the oven is cooler. Quick boil on the former and then transfer for simmering on the latter.

For deep fat frying, bring to temperature on the ‘right’ side. Introduce cold food and then return to temperature on the ‘hotter’ left side.

Cooking directly on the hotplate is another facility – griddle scones, burgers, sausages, steaks, and even Welsh rarebit can be cooked directly on the surface.

Meringues can be dried on a baking tray sitting on the hob overnight



Additionally, by using a barbecue grille you can produce your own toasted sandwiches on the oven top.

The hotplate can be rubbed down with a proprietary cleaning pad if necessary, but normally should need no attention unless spillage is allowed to harden on its surface.

Care must always be taken when handling foods in the home

Always follow the basic rules of hygiene to prevent bacterial and microbial growth and cross contamination when defrosting, cooking, cooling and freezing foods.



## **REPLACEMENT PARTS**

### UNIVERSAL

Burner

Valve

### PROPANE

Burner

Valve

Oxy-Pilot

Burner Injector

### NATURAL GAS ONLY

Burner

Valve

Oxy-Pilot

Burner Injector

### ROPES

Firedoor Rope

Oven Door Rope

Control Door Rope

Hotplate Rope

Bolster Rope

### OTHER

Hotplate Lifting Tools

Hot Plate Retaining Screws.

When ordering ESSE replacement parts, please quote the cooker model, serial number and gas type.



**ESSE Engineering Limited, Ouzledale Foundry, Long Inq, Barnoldswick,**  
**Lancashire BB18 6BN**

**Tel: 01282 813235 Fax: 01282 816876 e-mail: enquiries@esse.com**

**Website: http://www.esse.com On-line store: http://esseparts.com**



ESSE

Model: \_\_\_\_\_  
Serial Number: \_\_\_\_\_  
Colour: \_\_\_\_\_

## Guarantee

### Conditions of Guarantee

Your ESSE cooker is guaranteed against defects arising from faulty manufacture for three years, subject to the following express conditions:

- A suitable qualified person must install the cooker, and upon installation the details must be recorded on the Warranty Card and registered with ESSE by returning the correctly completed card.
- The cooker has been used for normal domestic purposes only, and in accordance with the manufacturer's instructions.
- The cooker is serviced annually by the ESSE Dealer or authorised HETAS engineer, and the Service record completed. The cooker must not be serviced, maintained, repaired taken apart or tampered with by any person not authorised by us.
- Any cooker or detective part replaced shall become the Company's property.

### EXCLUSIONS

This guarantee does not cover:

- Parts deemed to be replaceable in the normal usage of the cooker. These parts are listed herewith: all firebricks, gas valve, pilot assembly, burner assembly, fire door glass, all rope seals, oven accessories.
- Enamel damage; the vitreous coating on your cooker is in effect an extremely thin layer of glass and as such displays all the characteristics of glass. It can easily be damaged by impact, or by spillage of cold liquids onto a hot surface. Such damage cannot be covered under this guarantee. (See also intermittent use of your cooker, below).

This guarantee is personal to the original purchaser and is non-transferable

### INTERMITTENT USE OF YOUR COOKER

In the event of intermittent use and prolonged shutdown, it should be noted that in some circumstances enamel may be displaced due to ingress of damp.



Whilst this is rare, it is most likely to occur in situations where the unused cooker remains in an unheated property. There is a layer (known as the groundcoat) between the vitreous enamel surface and the cast iron. Groundcoat is porous and if exposed (e.g. after a chip in the vitreous enamel coat), may allow damp to penetrate behind the vitreous enamel and spread through the groundcoat. Surface oxidisation of the cast iron may thereafter occur, causing the vitreous enamel to fall off. Such damage will not be covered by your warranty. We recommend that a light coating of petroleum jelly be applied to any damaged areas when the cooker is not in use to help keep out the damp, in addition to following instructions in your manual.

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### CUSTOMER CARE

In the event you should require spare parts, please order through your ESSE dealer.

Should you have cause for dissatisfaction with your cooker, you should contact your ESSE dealer, who will, in most instances, be able to offer you immediate assistance. You will be required to give the following details.

- Your name, address and postcode.
- Your telephone/contact details.
- Clear and concise details of the fault.
- Model and serial number of the cooker (found on the inside panel of the control oven door).
- Purchase date (please note that a valid purchase receipt or guarantee documentation is required for in-guarantee service calls).

We will then check that we have an accurately completed warranty card, if not then any work carried out may be changed.

We will assess the nature of the complaint and either send replacement parts for your dealer to fit, send an engineer to inspect & report, or send an engineer to remedy. If the fault is not actually due to faulty workmanship but some other cause such as misuse or failure to install correctly, a charge will be made to cover the cost of the visit and any new parts required, even during the warranty period. Home visits are made between 08.30-17.00 hours Monday to Friday, and are arranged for either a morning or afternoon appointment.



**ESSE Engineering Limited**, *Ouzledale Foundry, Long Ing, Barnoldswick, Lancashire BB18 6BN*

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**Website:** <http://www.esse.com> **On-line store:** <http://eseparts.com>

# Topstak

Esse Woodburning and Multifuel stoves  
supplied by Topstak

[www.topstak.co.uk/stoves/stoves-by-brand/esse-stoves/](http://www.topstak.co.uk/stoves/stoves-by-brand/esse-stoves/)

We have an unrivalled range of chimneys, stoves, bespoke kitchens, flooring and handcrafted furniture manufactured to the highest quality.

## Cowbridge Showroom

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