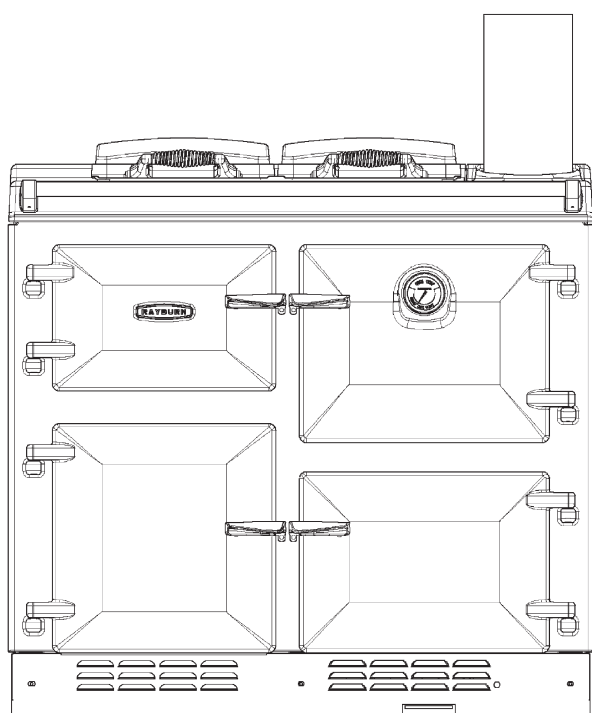


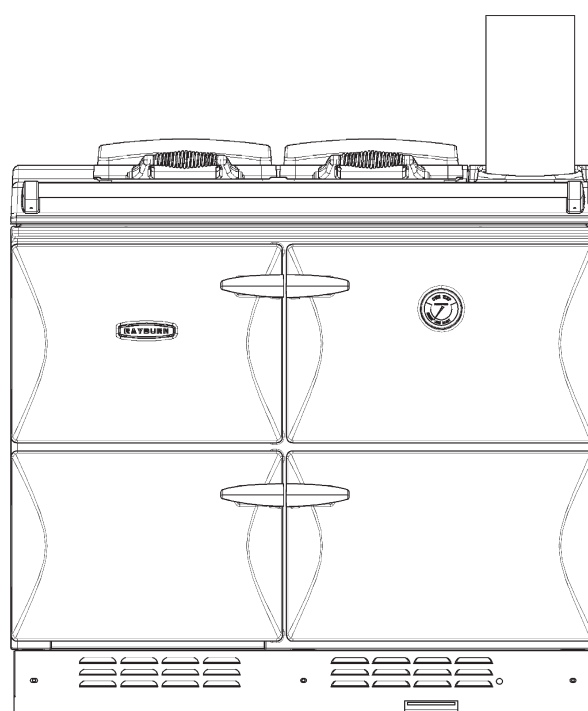


from **AGA**

# 600K/700K



DESN 515618



DESN 516825

## ***Installation Instructions***

REMEMBER, when replacing a part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by AGA.

**PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLING THIS APPLIANCE**

**For use in GB & IE**

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## Consumer Protection

As responsible manufacturers we take care to make sure that our products are designed and constructed to meet the required standards when properly installed and used.

### **IMPORTANT NOTICE: PLEASE READ THE ACCOMPANYING WARRANTY**

Any alteration that is not approved by AGA could invalidate the approval of the appliance, operation of the warranty and could affect your statutory rights.

### **Health & Safety**

This appliance may contain some of the materials that are indicated. It is the Users/Installers responsibility to ensure that the necessary personal protective clothing is worn when handling where applicable, the pertinent parts that contain any of the listed materials that could be interpreted as being injurious to health and safety, see below for information.

#### **Firebricks, Fuel beds, Artificial Fuels**

When handling use disposable gloves.

#### **Fire cement**

When handling use disposable gloves.

#### **Glues and Sealants**

Exercise caution - if these are still in liquid form use face mask and disposable gloves.

#### **Glass Yarn, Mineral Wool, Insulation Pads, Ceramic Fibre**

Maybe harmful if inhaled. May be irritating to skin, eyes, nose and throat. When handling avoid contact with skin or eyes. Use disposable gloves, face-masks and eye protection. After handling wash hands and other exposed parts. When disposing of the product, reduce dust with water spray, ensure that parts are securely wrapped.

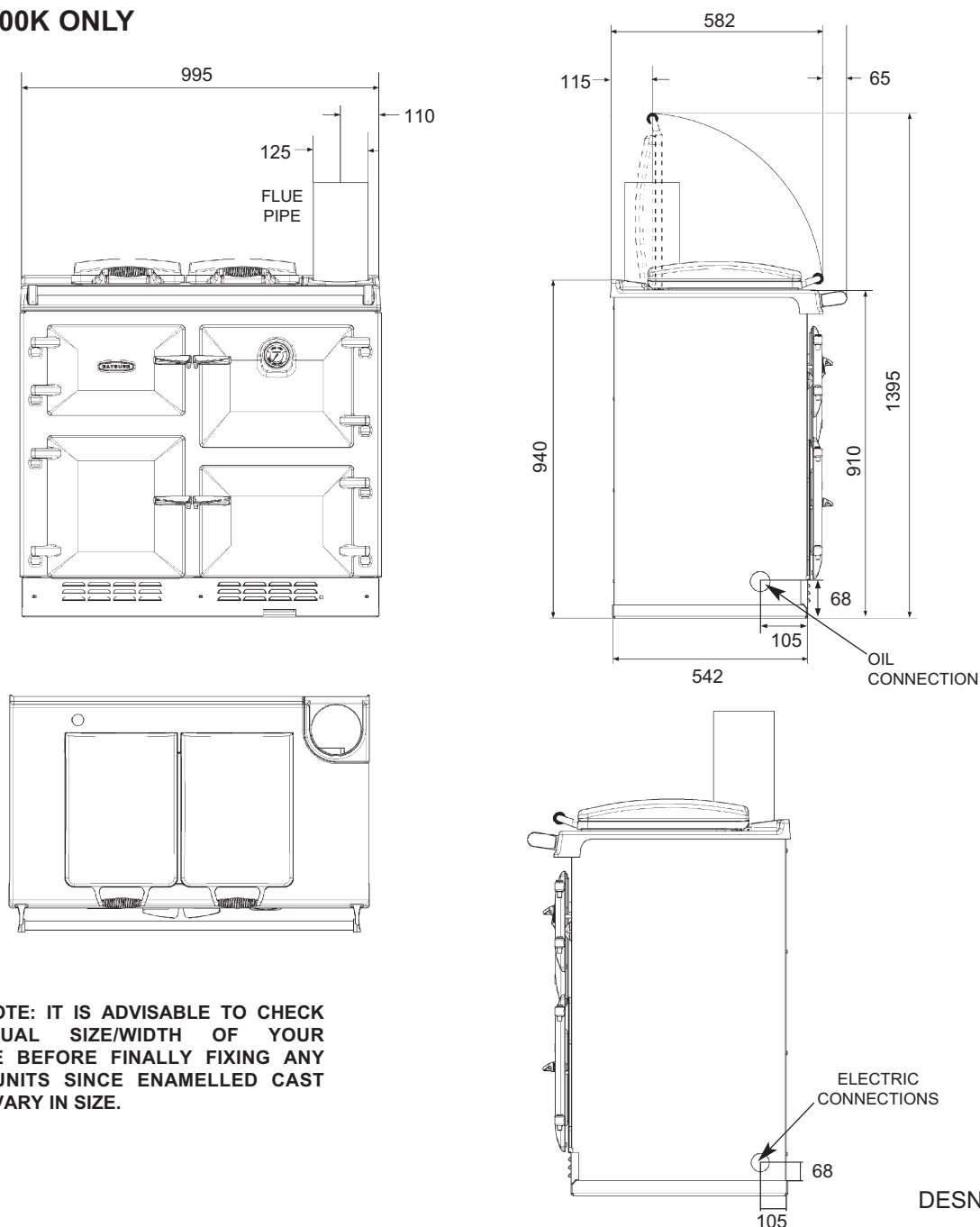
#### **Kerosene and Gas Oil (Mineral Oils)**

1. The effect of mineral oils on the skin vary according to the duration of the exposure.
2. The lighter fractions also remove the protective grease normally present on the surface of the skin. This renders the skin dry and more prone to damage caused by cuts and abrasions.
3. 'Oil acne' is recognised by the presence of skin rashes. The arms are most often affected, but may occur where there is contact with oil or oily clothing.
  - Seek medical attention for any rash.
  - Avoid skin contact with mineral oil or clothing contaminated with mineral oil.
4. Inhalation of mineral oil vapours must be avoided. Never fire the burner in the open as unburnt oil vapours are likely to occur.
5. Use a suitable barrier cream which will give protection against mineral oil, lanolin based hand creams are usually very effective.
6. Never syphon mineral oil by use of the mouth. If accidentally swallowed, call a doctor, do not induce vomiting.

#### **NOTE: SMOKE/SMELL EMITTED DURING INITIAL USAGE**

Some parts of the cooker have been coated with a light covering of protective oil. During initial operation of the cooker, this may cause smoke/smell to be emitted and is normal and not a fault with the appliance, it is therefore advisable to open doors and or windows to allow for ventilation. Lift the lids to prevent staining the linings.

## RAYBURN 600K ONLY



PLEASE NOTE: IT IS ADVISABLE TO CHECK THE ACTUAL SIZE/WIDTH OF YOUR APPLIANCE BEFORE FINALLY FIXING ANY KITCHEN UNITS SINCE ENAMELLED CAST IRON CAN VARY IN SIZE.

DESN 515892

### GENERAL SPECIFICATIONS

|                          |                                                |                            |                      |
|--------------------------|------------------------------------------------|----------------------------|----------------------|
| <b>Oil Inlet</b>         | 10mm copper<br>To connect to the LH side panel | <b>Flue</b>                | Outlet 125mm         |
| <b>Electrical Supply</b> | 230V~50Hz 270W<br>3 Amp Fused                  | <b>CO<sub>2</sub>%</b>     | - COOKER 11.0 - 11.5 |
|                          |                                                | <b>Weight of Appliance</b> | 350kg                |
|                          |                                                | <b>Fuel</b>                | Kerosene C2          |

### TECHNICAL DATA

| 600K                   | COOKER BURNER |
|------------------------|---------------|
| BURNER NOZZLE (US g/h) | 0.35 @ 80°S   |
| OIL PRESSURE Bar (psi) | 10 (145)      |
| OIL BURNING RATE cc/m  | 24            |
| HEAT INPUT kW          | 15            |

RAYBURN 700K ONLY

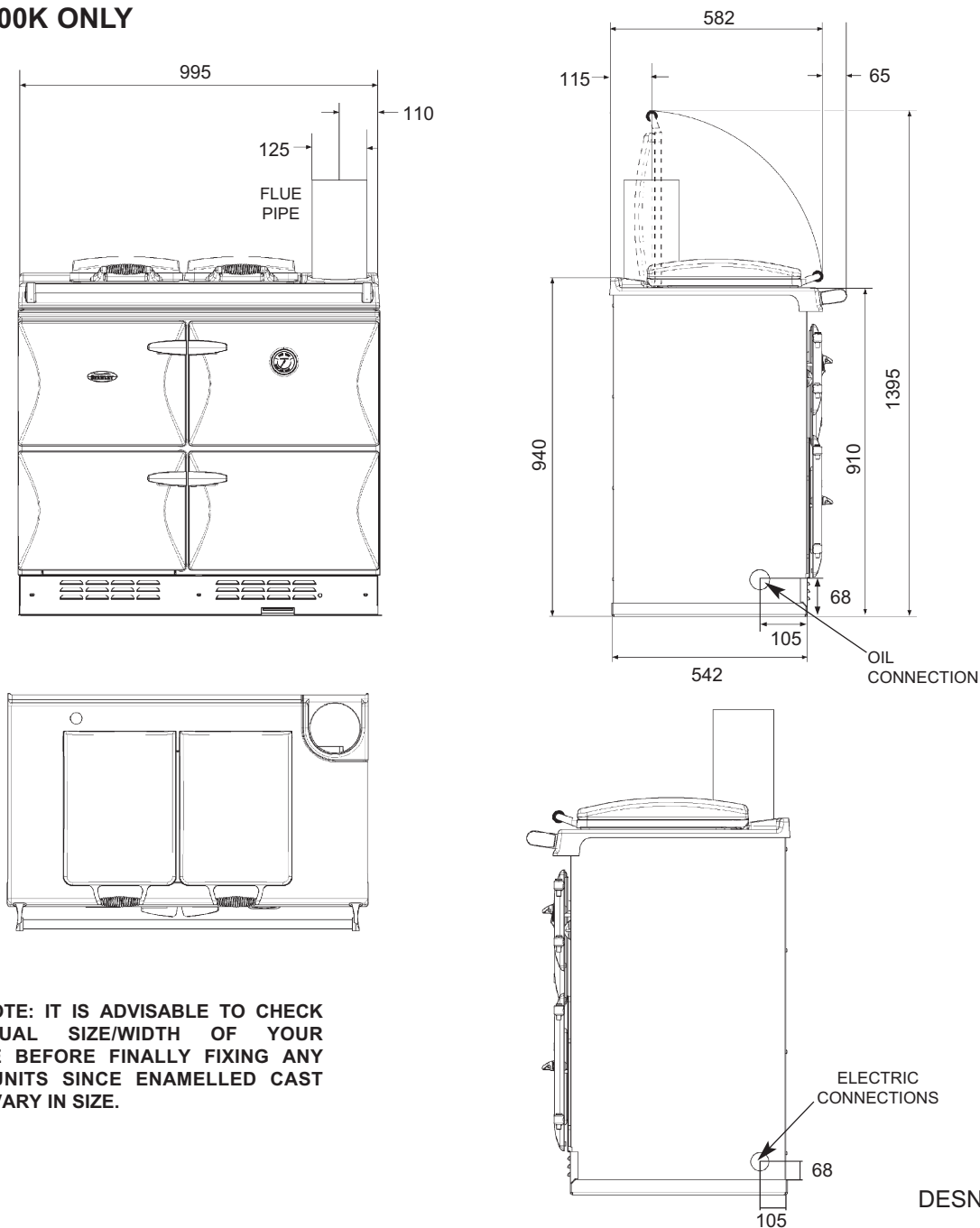


Fig. 1B

DESN 516826

GENERAL SPECIFICATIONS

|                   |                                                |                     |                      |
|-------------------|------------------------------------------------|---------------------|----------------------|
| Oil Inlet         | 10mm copper<br>To connect to the LH side panel | Flue                | Outlet 125mm         |
| Electrical Supply | 230V~50Hz 270W<br>3 Amp Fused                  | CO <sub>2</sub> %   | - COOKER 11.0 - 11.5 |
|                   |                                                | Weight of Appliance | 350kg                |
|                   |                                                | Fuel                | Kerosene C2          |

TECHNICAL DATA

| 700K                   | COOKER BURNER |
|------------------------|---------------|
| BURNER NOZZLE (US g/h) | 0.35 @ 80°S   |
| OIL PRESSURE Bar (psi) | 10 (145)      |
| OIL BURNING RATE cc/m  | 24            |
| HEAT INPUT kW          | 15            |

## INTRODUCTION

The Rayburn is a floor standing cooker. The appliance is fired by a pressure jet oil burner.

### IMPORTANT

- This appliance must only be used with Kerosene C2 to BS 2869.
- An OFTEC approved Fire Valve **MUST** be fitted in the oil supply line.
- The supplied in line filter **MUST** be fitted.
- Permanent ventilation must be provided.

## REGULATIONS

**THIS APPLIANCE IS A CONTROLLED SERVICE BY DEFINITION AND REQUIRES EITHER FITMENT UNDER THE REMIT OF BUILDING CONTROL OR INSTALLATION OF AN OFTEC REGISTERED 105 TECHNICIAN (CLASSED AS A COMPETENT PERSON) WHO CAN SELF-CERTIFY HIS OWN WORKS.**

The appliance must be commissioned by a competent or OFTEC approved engineer.

The installation of the appliance must be in accordance with the relevant requirements of the current Building Regulations in force and the bylaws of the local Water Undertaking, it should also be in accordance with the relevant current British Standard Codes of Practice.

**Building Regulations England and Wales.** Part J. Heat producing appliances.

**Building Standards Scotland - Technical Standard Part F.** Heat producing appliances and storage of liquid and gaseous fuel.

**Building Regulations - Technical Booklet to Part L.** Heat producing appliances.

**The Control of Oil Pollution (Oil) Regulations.**

## LOCATION

**Appliance Hearth:** The surface temperature of the floor below the appliance does not exceed 100°C. The constructional hearth described in Section J does not apply. However, this appliance must be installed on a solid floor of incombustible material which is capable of supporting the total weight.

The location chosen for the appliance must permit the installation and the provision of a satisfactory flue and an adequate air supply. The location must also provide adequate space for servicing and for air circulation around the appliance. See "Installation of Appliance".

The space in which the appliance is to be fitted must have the following minimum dimensions.

Between wall or unit and LH side of - 4mm  
appliance top plate

Between wall or unit and RH side of - 4mm  
appliance top plate

**SHOULD THE WALL PROJECT BEYOND THE FRONT OF THE APPLIANCE , IT MUST BE INCREASED TO 50mm, SEE FIG. 1C. To allow oven door to open enough to change oven and shelf positions.**

Above the raised insulating covers - 60mm

In addition, adequate clearance must be available at the front of the appliance to enable it to be operated and serviced. Flue pipes and fittings must not be closer than 25mm to combustible materials and where passing through a combustible partition such as a ceiling or roof, must be enclosed in a non-combustible sleeve providing an air space of at least 25mm.

Space around the flue pipes passing through walls or floors should be sealed against the passage of smoke and flame. A fire stop valve must be provided where the flue passes through a ceiling.

Where the cooker is to stand in a recess or against a wall which is to be tiled, **in no circumstances should the tiles overlap the cooker top plate.**

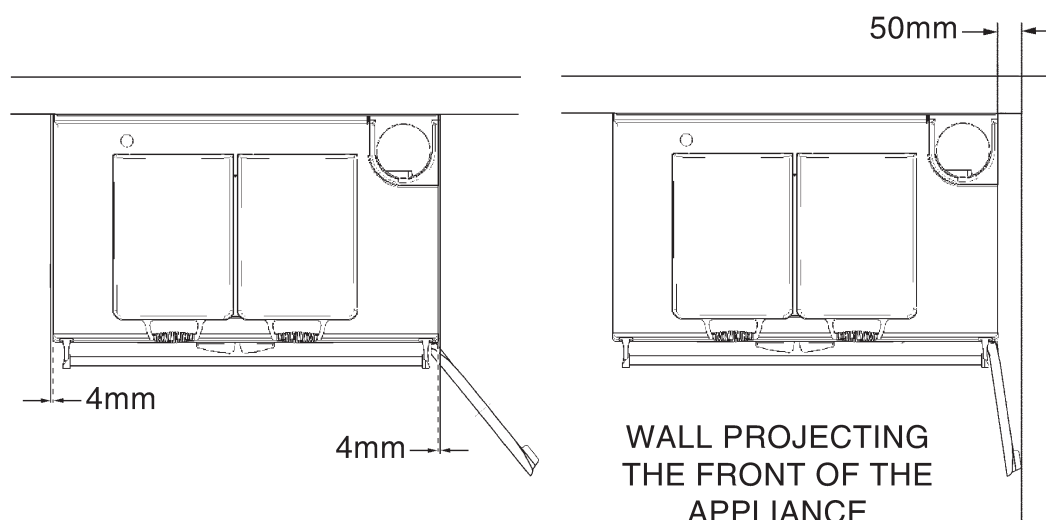


Fig. 1C

## Site requirements

### OIL PIPE LINE

The oil supply connection between the storage tank and the oil pipe should be run in copper pipe with a minimum diameter of 10mm. Galvanised pipes and fittings should not be used. Annealed copper pipe is preferred with a flare type manipulative fittings. Capillary fittings with soft solder should not be used. Steel pipes should be joined using taper threads.

All pipework and fittings must be completely air tight. Only oil resistant compounds and PTFE tape should be used when making joints. Pipework must be protected against damage whether fitted above or below ground.

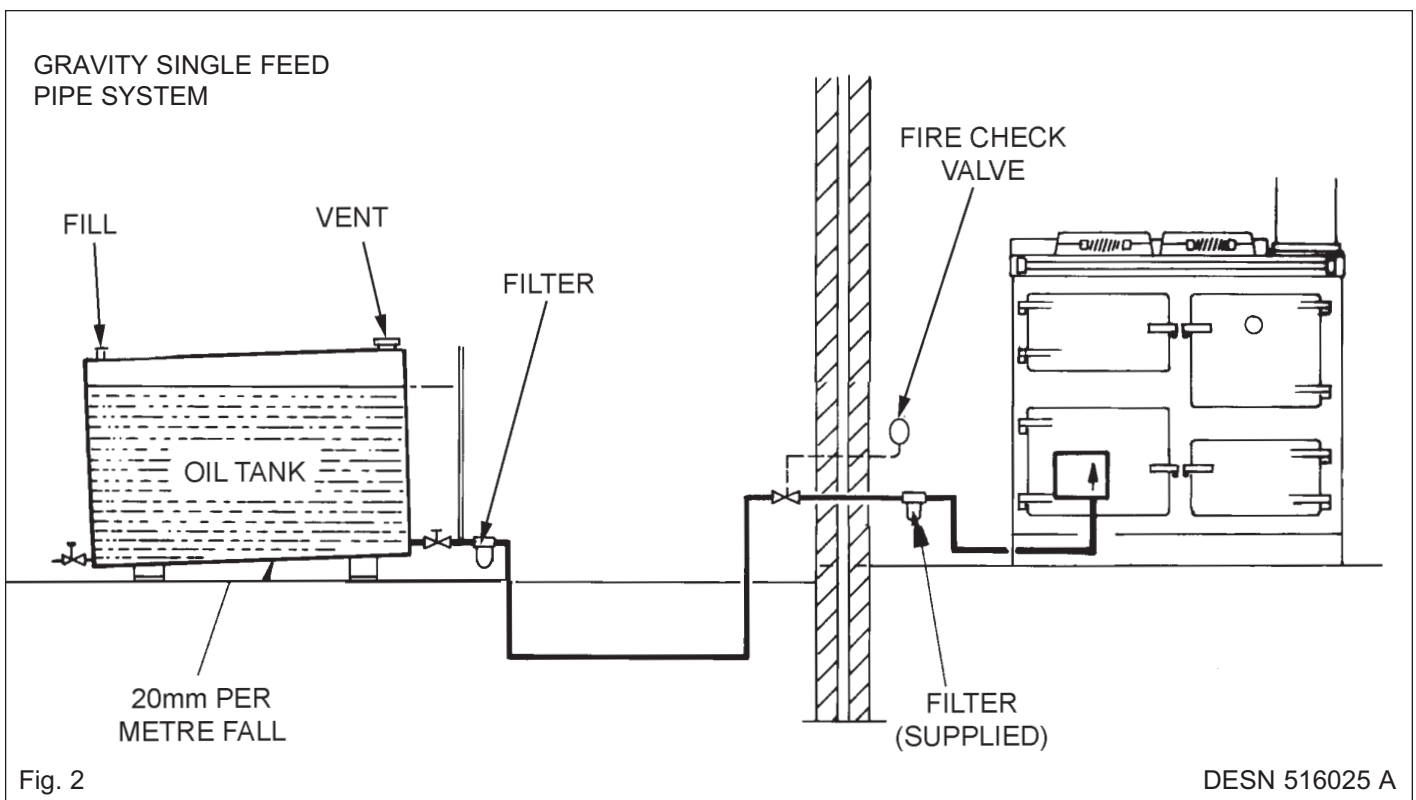
The size and arrangement of pipework will depend upon the distance and height of the oil storage tank in relation to the oil pump inlet.

**The oil line from the storage tank to the appliance must be fitted with a remote acting OFTEC approved fire valve operating at 150°F (65°C), fitted with an appropriate length of capillary to enable the valve body to be located externally at the point where the oil line enters the building.**

The 5-10 micron oil filter supplied with the appliance must be fitted in the oil pipe and stop valve must be fitted as close to the cooker as possible in an accessible position. A flexible pipe connection, approximately 1000mm long, is supplied to fit between the oil supply pipe and the oil pump for ease of burner removal. This must be contained within the appliance.

### OIL STORAGE

The minimum recommend oil tank size is 1400 litres and the code of practice governing its installation are covered by BS: 5420: Part 1. Mild Steel Tanks should be to BS 799: Part 5 and plastic tanks to OFTEC Standard OFS T100.



## FLUE SYSTEM

The flue system must be installed with the regulations in force.

### Information

Maximum flue gas temperature 250°C.

The appliance requires a minimum chimney draught of 1.0mm (0.04 WG) with the burner on.

Maximum chimney draught 6.0mm (0.23"WG) draughts in excess of this figure will require a draught stabiliser, fitted either in the chimney or flue pipe and in the same compartment.

Detailed recommendations for flueing in England and Wales are given in Part J of the Building Regulations. For Scotland in Technical Standard F to the Building Standards and in Northern Ireland in Technical Booklet L to the Building Regulations. Guidance is also given in BS 5410: Part L.

Due to the range in flue gas temperature a brick chimney should be fitted with a suitable multi-fuel stainless steel flexible liner. Where it is necessary to avoid condensation, such as an exposed gable end, the lining may be wrapped with a proprietary insulating blanket.

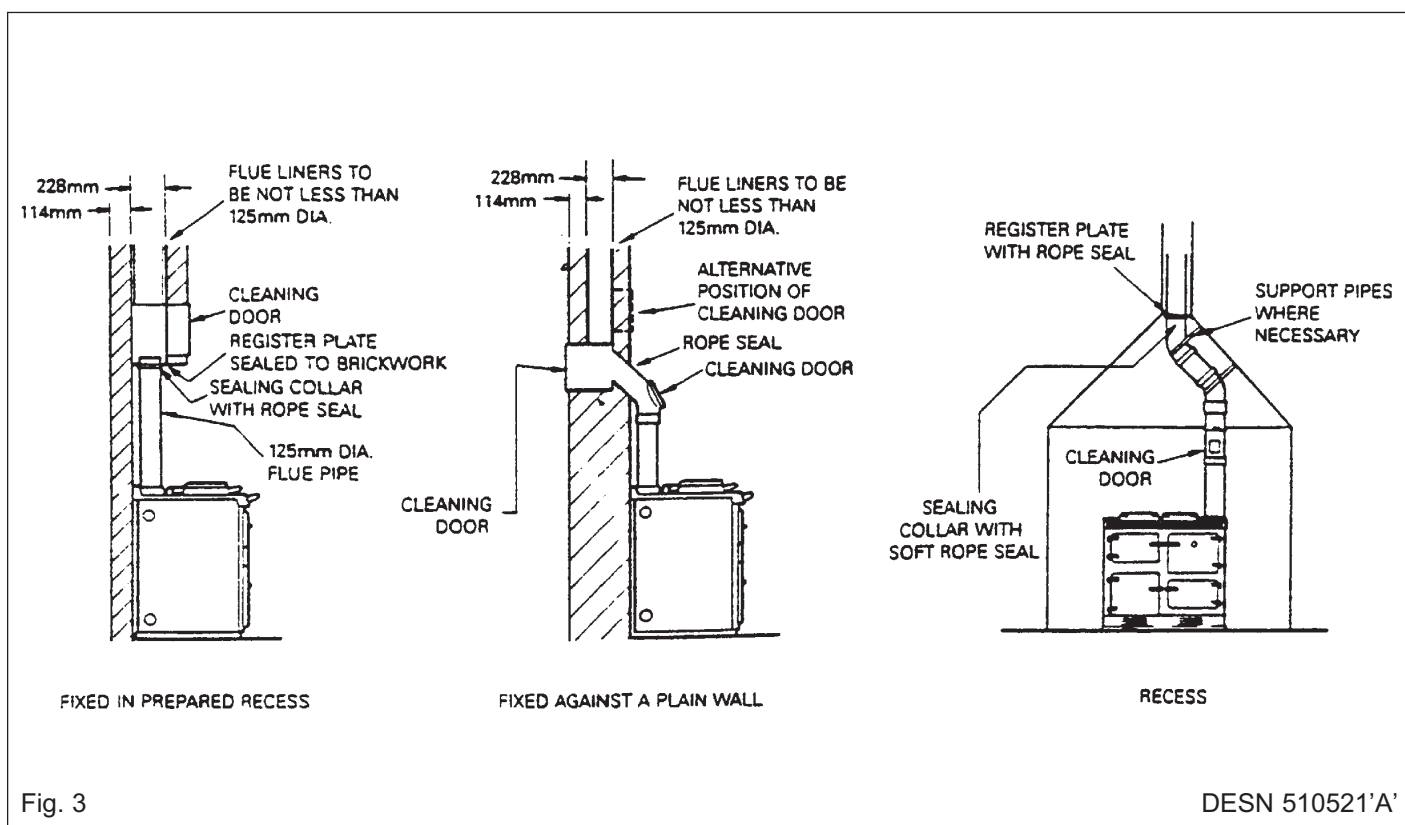
**NOTE: TO ACHIEVE THE OPTIMUM OPERATIONAL SOUND LEVELS FROM THE APPLIANCE IT IS RECOMMENDED THAT CAST IRON FLUE PIPE IS USED WHERE POSSIBLE.**

### Chimney Terminations

All chimneys should terminate at least 600mm above the roof level in accordance with current Building Regulations and statutory requirements as outlined in BS 5410: Part 1, BS 6461: Part 1 and BS 7566 Parts 1 to 4.

### Chimney Cleaning

Ensure there are accessible airtight flue cleaning doors in order to obtain cleaning access to the complete chimney. Providing the appliance is operating correctly, an annual chimney flue cleaning will suffice, but if in doubt arrange for a half yearly clean, preferably at the beginning/end of the heating season.



## Site requirements

### AIR SUPPLY

The appliance can only be installed in a room which meets the ventilation regulations in force. But, in any event the room must have a permanent vent of minimum free air area, see below:

| MODEL | MIN. AIR REQUIREMENT |
|-------|----------------------|
| 600K  | 61cm <sup>2</sup>    |
| 700K  | 61cm <sup>2</sup>    |

**IMPORTANT: THE LOUVERED AIR INTAKE AT THE BOTTOM FRONT OF THIS APPLIANCE MUST BE KEPT CLEAR OF ANY OBSTRUCTIONS.**

Detailed recommendations for air supply are given in the Building Regulations and in BS 5410: Part 1. The following notes are intended to give general guidance.

1. Combustion and ventilation air supply to oil fired appliance has to comply with the Building Regulations and with BS 5410. Part 1. The air supply requirement for oil fired appliances is 550mm<sup>2</sup> per kW of maximum rated output above 5 kW. These requirements are illustrated in OFTEC Technical Book No. 3.
2. The combustion air supply to open flued appliances should normally be provided at high level into a room where it will not cause discomfort by creating a cold draught across the floor.
3. If combustion air is supplied through an under floor duct the grilles at each end should be positioned in the vertical plane to reduce the risk of blockage. Ducts should be sized so as to reduce the resistance to air flow.
4. The ventilation requirement for kitchen in Part F of the Building Regulations (England & Wales) is for mechanical extract at the rate of 80 litres per second or 30 litres if the fan is incorporated in a cooker hood. The amount can be reduced if the spillage of flue gases may be caused by the outflow of air from the room.

Background ventilation is also required, either by producing a constant rate of one air change per hour or by having ventilation openings of not less than 4000m<sup>2</sup>.

5. Extract fan should be positioned as far away from the open flue as possible and should have a sufficient dedicated air supply. To undertake a test the oil fired appliance should be set in operation and the doors and windows of the room containing it should be closed.

The extract fan should then be run at its maximum setting. The oil fired heating appliance should be observed to operate satisfactorily both before and after the fan is switched on.

6. It is preferable for the air supply for an extract fan to be located where it can serve the fan without the air stream passing close to the oil fired appliance.

7. Oil fired appliances must not draw the combustion air from a garage.

### Carbon Monoxide Detector/Alarm

It is recommended that a Carbon Monoxide Detector/Alarm should be fitted in the same area as the cooker.

### ELECTRICAL SUPPLY

Wiring external to the appliance must be installed in accordance with current National Wiring Regulations and any local regulations which apply. The appliance is supplied for 230 Volt ~ 50 Hz 270W a fuse rating of 3 amps. The method of connection to the mains supply should facilitate complete isolation of the appliance, by the use of a fused double pole switch having contact separation of at least 3mm serving only the appliance.

The point of connection to the mains should be readily accessible and adjacent to the appliance. The installation should be protected by a 30mA Residual Current Circuit Breaker (RCCB).

The minimum requirement for the power cable is that it should be a 3 core PVC sheathed flexible cord (85°C min) at least 0.75mm<sup>2</sup> (24 x 0.2mm) to the relevant standard.

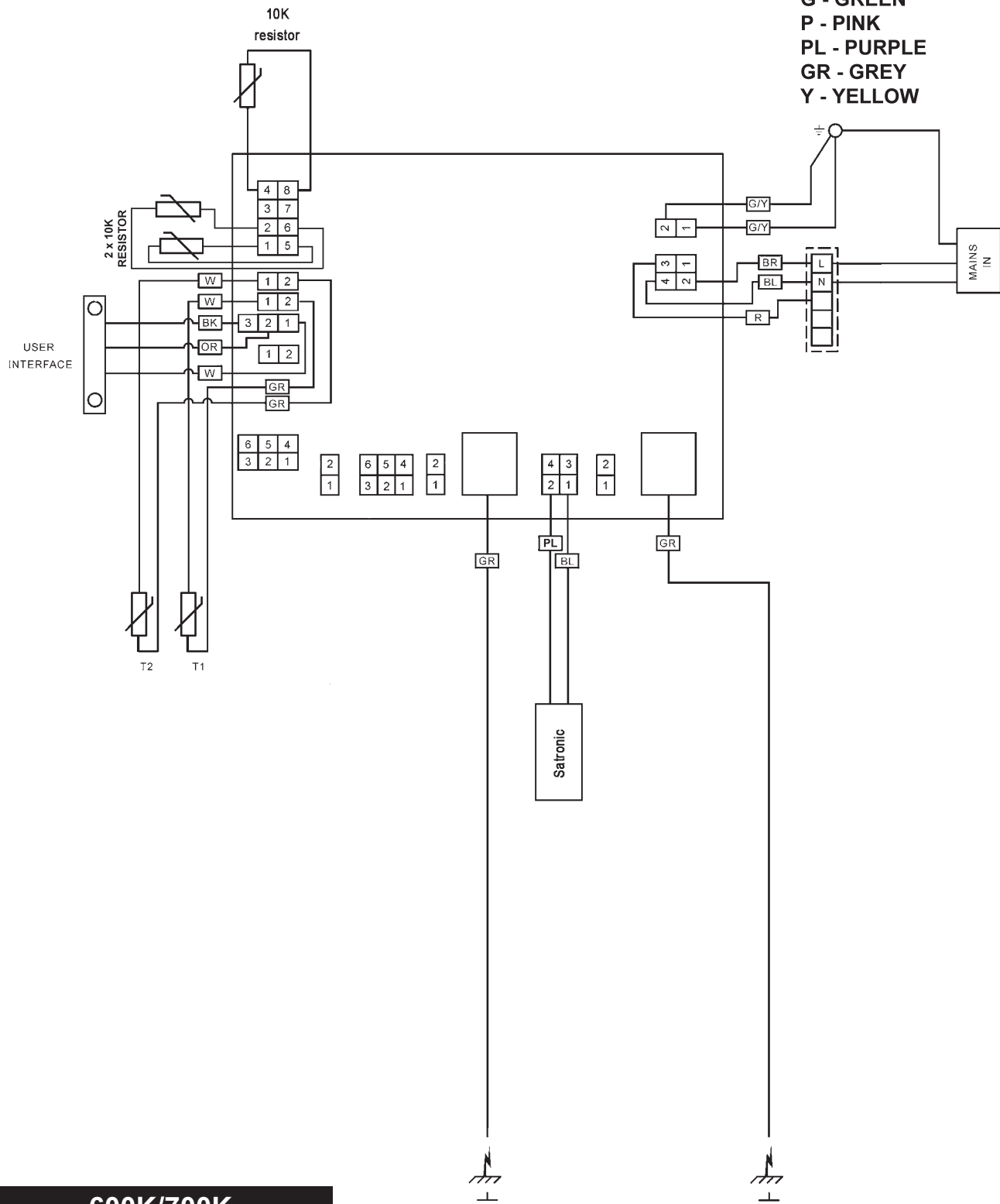
### WARNING: THIS APPLIANCE MUST BE EARTHED.

In the event of an electrical fault after installation of the appliance, preliminary electrical system checks must be carried out i.e. earth continuity, polarity and resistance to earth.

For wiring instructions, see wiring diagrams.

Rayburn 600/700 Wiring Diagram 111MB for Satronic boxes

**KEY - APPLIANCE**  
 G/Y - GREEN/YELLOW  
 BL - BLUE  
 BR - BROWN  
 W - WHITE  
 R - RED  
 BK - BLACK  
 G - GREEN  
 P - PINK  
 PL - PURPLE  
 GR - GREY  
 Y - YELLOW



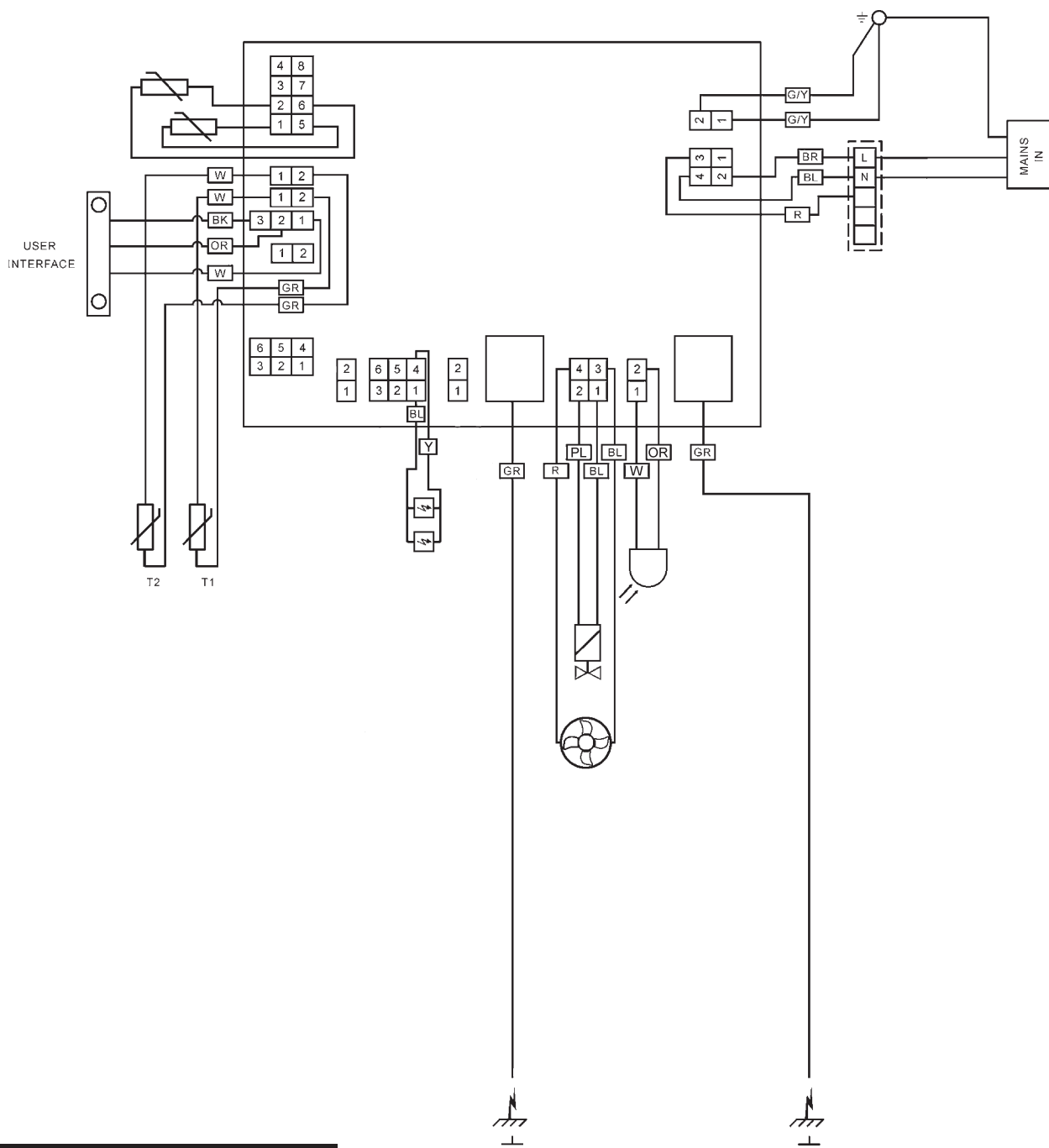
600K/700K

Fig. 4

# Site requirements

Rayburn 600/700 Wiring Diagram 111MB self contained control

KEY - APPLIANCE  
 G/Y - GREEN/YELLOW  
 BL - BLUE  
 BR - BROWN  
 W - WHITE  
 R - RED  
 BK - BLACK  
 OR - ORANGE  
 Y - YELLOW  
 GR - GREY  
 P - PINK  
 PL - PURPLE



600K/700K

Fig. 5

## CLEARANCES

The appliance is floor mounted. The space in which the appliance is to be fitted must have the following minimum dimensions:-

Between wall or unit and LH side of - 4mm  
appliance top plate

Between wall or unit and RH side of - 4mm  
appliance top plate

**SHOULD THE WALL PROJECT BEYOND THE FRONT OF THE APPLIANCE, IT MUST BE INCREASED TO 50mm, SEE FIG. 1C. To allow oven door to open enough to change oven and shelf positions.**

Above the raised insulating covers - 60mm

In addition adequate clearance must be available at the front of the appliance to enable it to be operated and serviced.

## PRELIMINARY INSTALLATION

The appliance is delivered in a fully assembled condition with the exception of the following items which are supplied separately packed and require assembly:-

The appliance rear distance bracket

The cooker handrail

The oil filter

Appliance rear distance bracket: If the rear wall is of combustible material, there must be an air gap of 25mm between the wall and the rear of the cooker. Fit the rear distance bracket as shown in Fig. 6. Wherever possible it is recommended that the skirting board is removed for the width of the appliance to enable the rear edge of the appliance to make contact with the vertical wall and avoid a rear gap. (Combustible wall excepted).

Where the cooker is to stand in a recess or against a wall which is to be tiled, **IN NO CIRCUMSTANCES SHOULD THE TILES OVERLAP THE TOP PLATE.**

The handrail brackets are held on the front edges of the cooker top-plate casting. Fit the handrail brackets ensuring the fibre protecting washers are in position. Insert the handrail into the brackets, positioning them correctly, and tighten the grub screws and locating bolts.

## SITE LOCATION

1. Check that the hearth is level, then remove the appliance from its transit wooden pallet, and position it with its back against the wall and in its intended position for flue connection.
2. Locate and fit flue pipe into socket of flue pipe adaptor, sealing joint with fire cement.
3. Connect and terminate the flue system in accordance with the regulations in force.

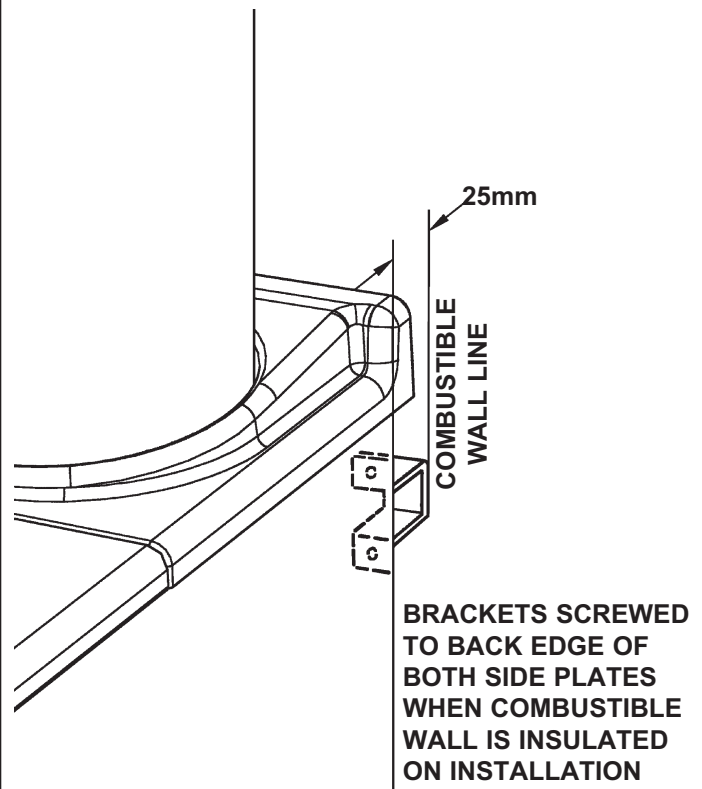


Fig. 6

DESN 515782

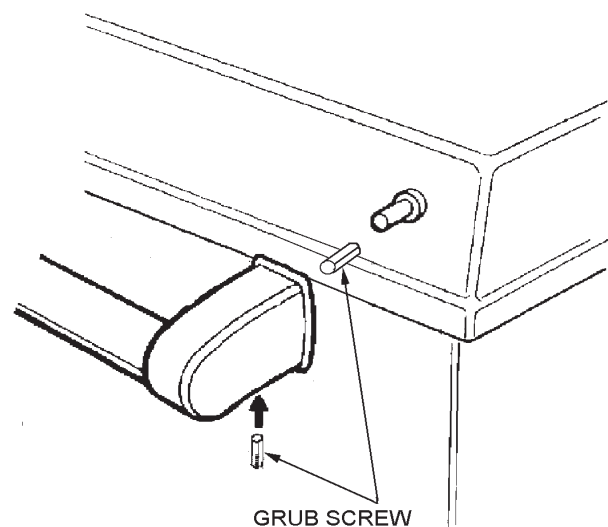


Fig. 7

DESN 515617

# Commissioning Instructions

## BURNER ACCESS

SEE FIG. 6

**NOTE:** PLEASE REMOVE PLASTIC PROTECTION ON DOOR LININGS.

1. Open the burner access door (**Rayburn 600K only**). Remove door and put in a safe place.
2. Remove 4 inner panel securing screws and remove panel.
3. Remove the 3 plinth securing screws and remove plinth.

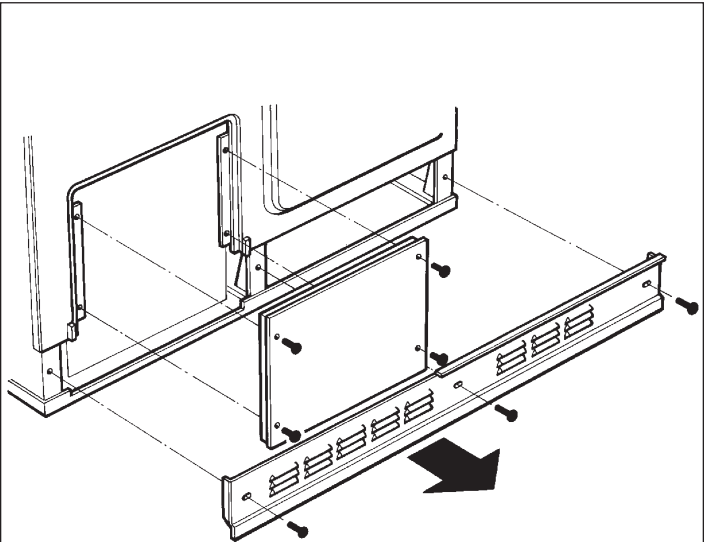


Fig. 6

DESN 516793

## ELECTRICAL CONNECTION

1. Make electrical connections to terminal strip as wiring diagram. (See Fig. 4 or 5).

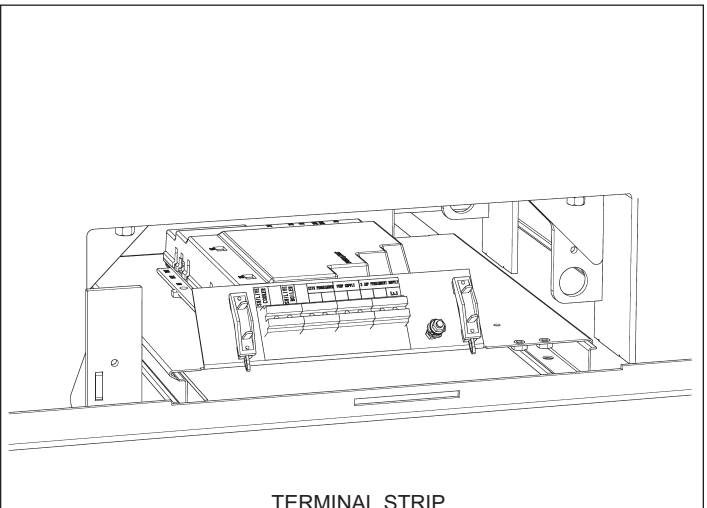


Fig. 7

DESN 515905

## OIL PUMP

1. Before connecting the flexible oil pipe to the pump inlet, open the stop valve slowly and run off some of the oil into a receptacle to establish an air free and clean supply to the pump. Make the connection onto the oil pump tight and leave valve open.

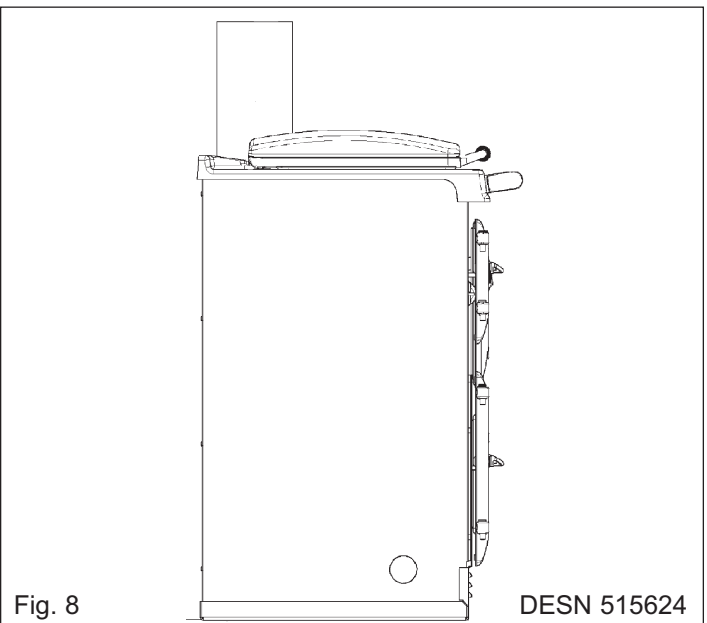


Fig. 8

DESN 515624

### TERMINAL STRIP CONNECTIONS

SEE FIG. 9

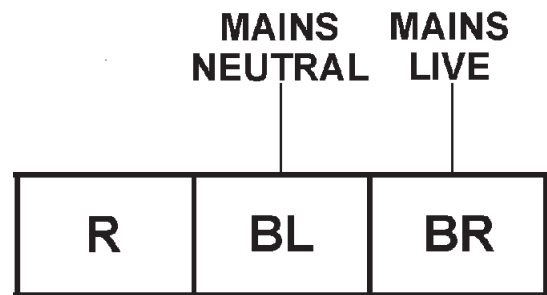


Fig. 9

DESN 515893

### ELECTRICAL CHECK

Checks to ensure electrical safety should be carried out by a competent person.

# Commissioning Instructions

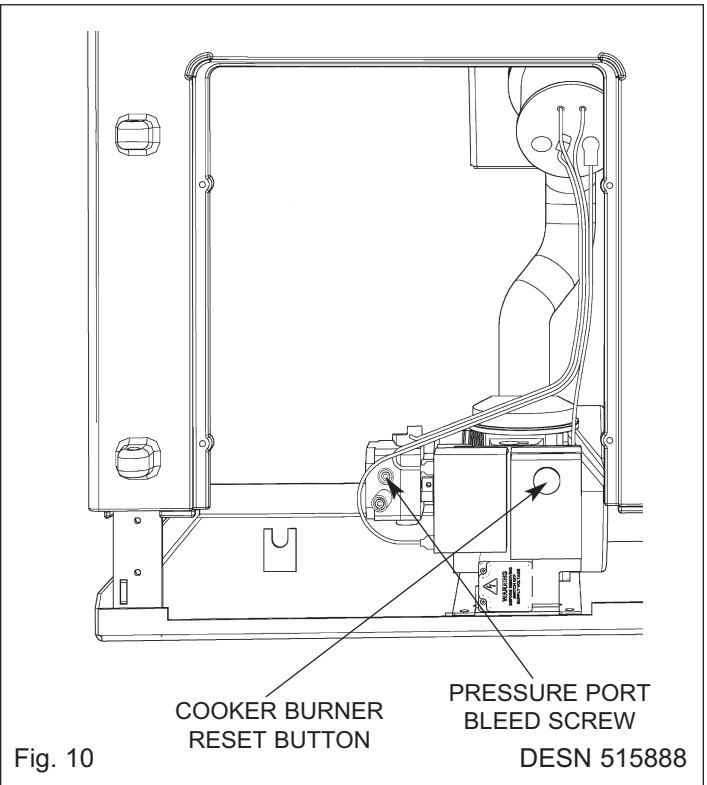
## FIT PRESSURE GAUGE

SEE FIG. 10

Remove the bleed screw from the manifold and fit an oil pressure gauge with R 1/8 connection to check the pump output pressure.

Until all the air from the oil pump is flushed out there may be some flame instability resulting in the burner locking out.

This will be shown by the burner stopping and the illumination of the signal light in the reset button of the control box (See Fig. 10). In this event, **wait at least one minute**, then press the re-set button to restart.



## VENT OIL PUMP

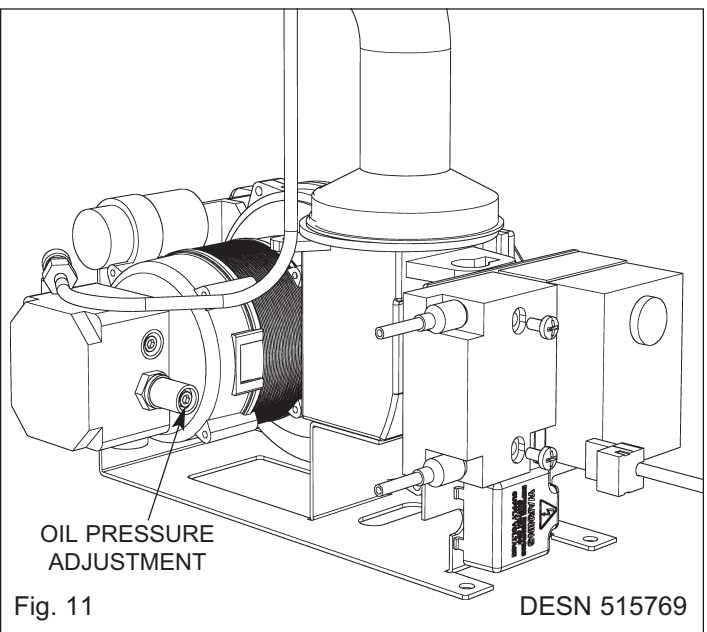
Whilst the burner is running, vent air from the pump by slackening the pressure gauge connection sufficient to allow air to bleed out. When bubble free oil seeps out re-tighten.

## ADJUST OIL PRESSURE

SEE FIG. 11

Whilst the burner is running check the oil pressure on the pressure gauge.

If the pressure gauge is not indicating the correct reading then adjust the pressure by turning the pressure regulator clockwise to increase or anti-clockwise to decrease the pressure until the pressure gauge reads 10 bar (145lb/in<sup>2</sup>).



### SET COMBUSTION AIR

The air controls of the burner are factory pre-set, however small adjustments may be necessary to suit the site conditions. (See Fig. 12).

**IMPORTANT: Ensure that the bottom louvered plinth is in place during combustion setting procedure.**

Turn cooker on.

After 15 minutes running, sample the flue gases from the cooker burner. Lift up the RH insulating cover and remove the countersunk headed screws (right hand side) in the hotplate. Insert the sensing end of a portable indicator to check the CO<sub>2</sub> (Carbon Dioxide) level. The cooker burner should be set to 11.0-11.5 CO<sub>2</sub>.

#### Check Smoke

Remove the CO<sub>2</sub> sampling tube, using the same hole for flue sampling insert the sensing end of a Baccarach Smoke Pump and check that the smoke in the cooker **flueways** does not exceed No. 2 on the scale.

Replace the countersunk headed screws on completion ensuring that it will not interfere with any pots and pans placed on the hotplate.

When satisfied with combustion check, refit burner inner panel.

Refit outer burner door. **(Rayburn 600K only).**

### ANCILLARY CONTROLS CHECK

Before leaving the site, check the operation of the thermostat is working correctly, and is capable of controlling the burner correctly. Check the operation of the control box.

In the event of a flame failure, the control box should cut off the oil supply by closing the solenoid valves. The reset button will then be illuminated.

**WAIT 1 MINUTE BEFORE RESETTNG THE CONTROL.**

### INSTRUCT THE USER

1. Advise the User that, for continued efficient and safe operation of the appliance, it is important that adequate servicing is carried out at regular 12 monthly intervals.
2. Hand the Operating Instructions to the User and demonstrate the correct operation of the appliance and system controls.
3. Leave the Installation and Servicing Instructions with the User.

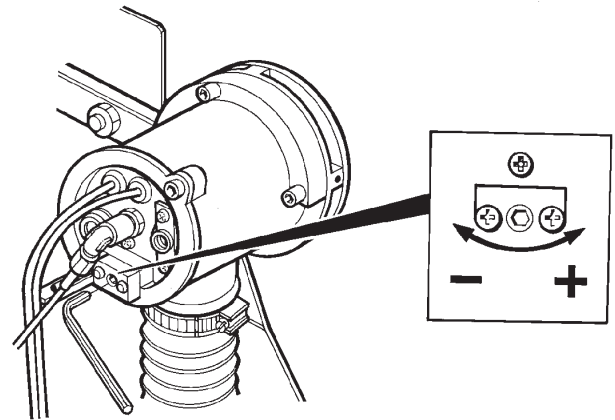


Fig. 12

DESN 512001

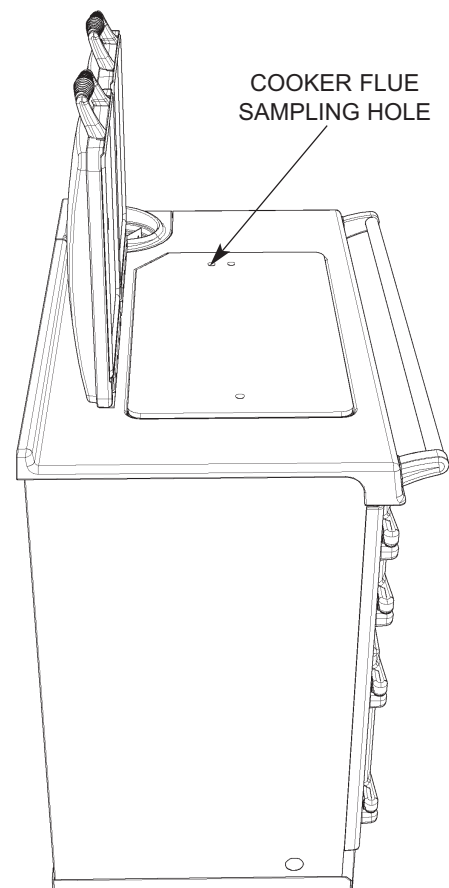


Fig. 13

DESN 515889







**For further advice or information contact  
your local distributor/stockist**

With AGA Rangemaster's policy of continuous product improvement, the Company reserves the right to change specifications and make modifications to the appliance described at any time.



from The AGA logo is a small, black, rounded rectangular badge with the letters "AGA" in white, sans-serif font.

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