

WARNING

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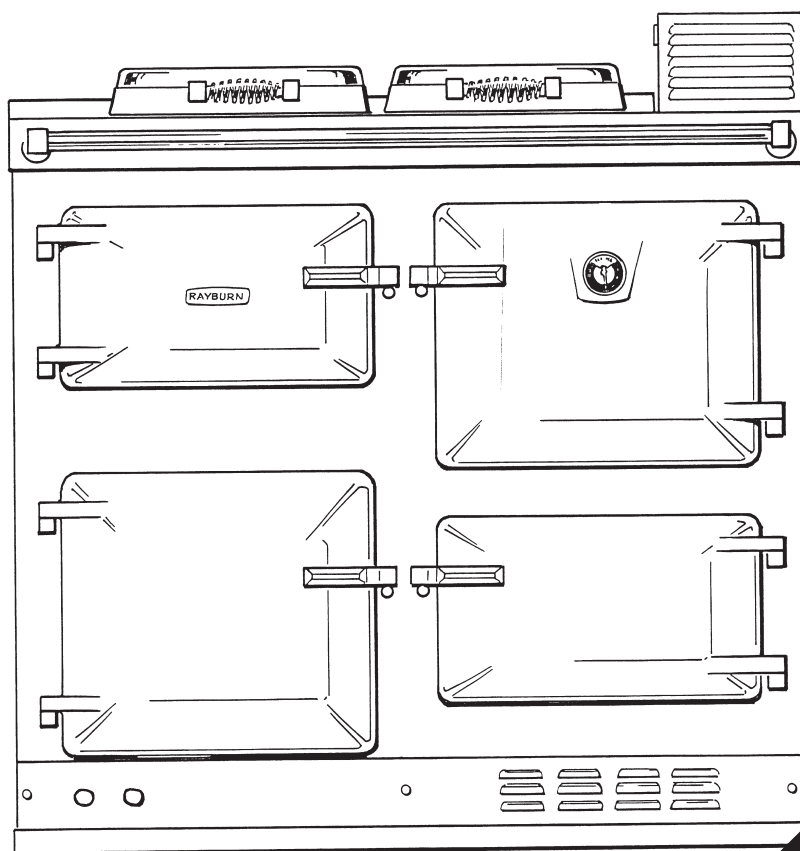


Installation Instructions

At the Heart of your Home.

Heatranger 480GB

For use in GB and IE



DESN 511653

PAT. APP 2 280 747
AND OTHER GB & IE
PATENTS PENDING

PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLING THIS APPLIANCE



10/99 EINS511381

Consumer Protection

As manufacturers and suppliers of cooking and heating products. We take every care to ensure, as far as is reasonably practical, that these products are so designed and constructed as to meet the general safety requirements when properly used and installed. To this end, our products are thoroughly tested and examined before despatch.

IMPORTANT NOTICE: Any alteration that is not approved by Aga-Rayburn 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.

Fire bricks, Fuel beds, Artificial Fuels

When handling use disposable gloves.

Fire cement

When handling use disposable gloves.

Glues and Sealants

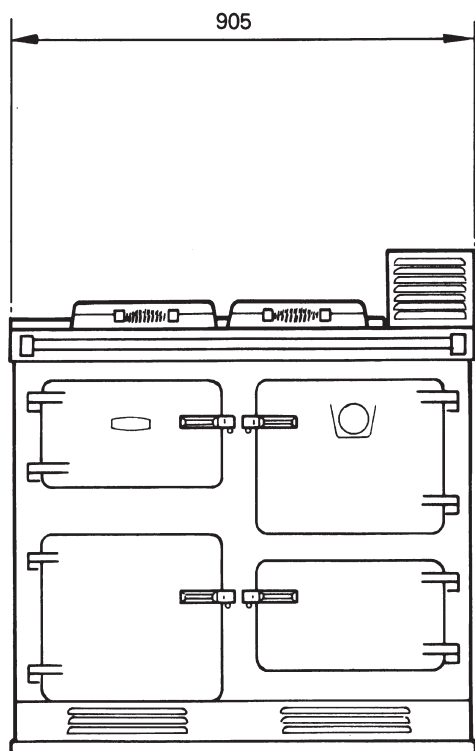
Exercise caution - if these are still in liquid form use face mask and disposable gloves.

Glass Yarn, Mineral Wool, Insulation Pads, Ceramic Fibre

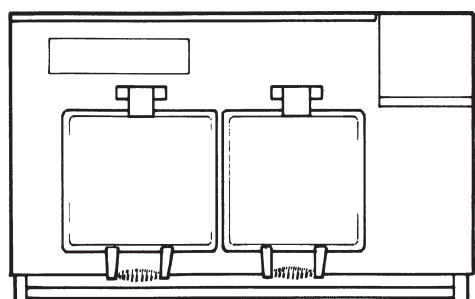
May be harmful if inhaled. May be irritating to skin, eyes, nose and throat. When handling avoid contact with skin or eyes. Use disposable gloves, face masks and eye protection. After handling wash hands and other exposed parts. When disposing of the product, reduce dust with water spray, ensure that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

NOTE: SMOKE/SMELL EMITTED DURING INITIAL USAGE

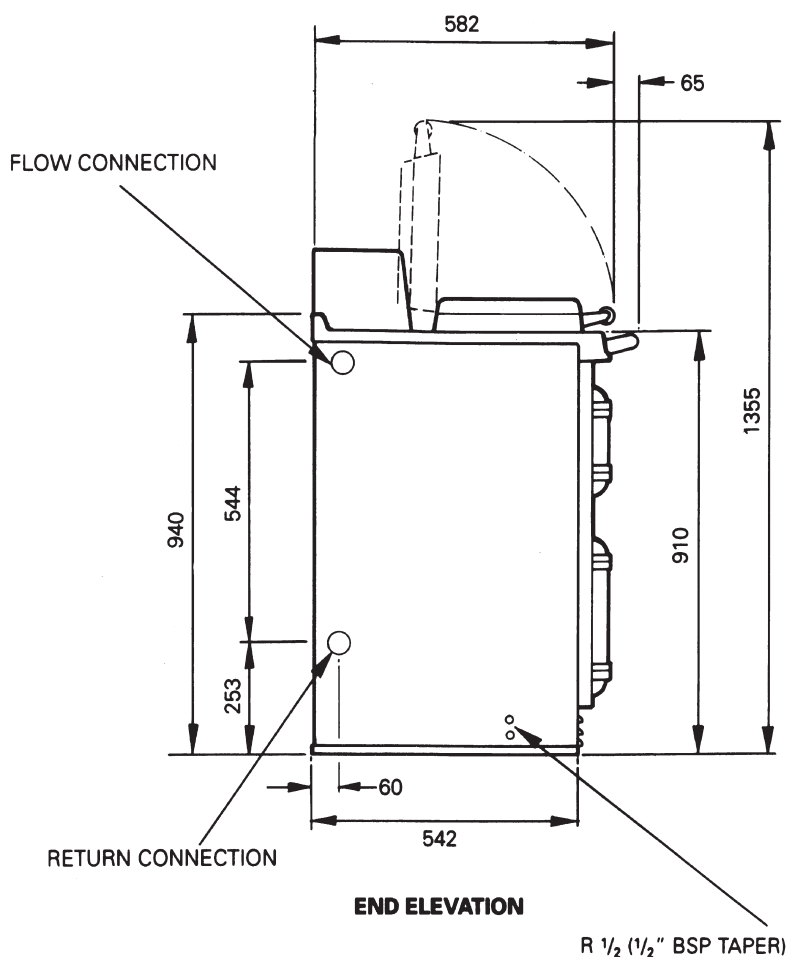
Some parts of the cooker have been coated with a light covering of protective oil. During initial operation of the cooker, this may cause smoke/smell to be emitted and is normal and not a fault with the appliance. It is therefore advisable to open doors and or windows to allow for ventilation. Lift the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



FRONT ELEVATION



PLAN



DIMENSIONS IN MM

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 511263

GENERAL SPECIFICATIONS

Boiler Water Connections

Flow (one)	Rp 1 (1in.BSP Int)
Return (one)	Rp 1 (1in.BSP Int)

Both connections are located towards the rear edge of the appliance L.H. side panel.

Gas Inlet R 1/2" (1/2" BSP Taper)

CO% 93 ppm (MAX)

CO₂% 8.5 - 9.0

Electrical Supply 230V ~ 50Hz 3 amp Fused

Max. Water Temp. 82°C

Water Capacity of Boiler 25.5 litres

Max. Operating Pressure of Boiler 2 bar

Weight of Appliance 420kg

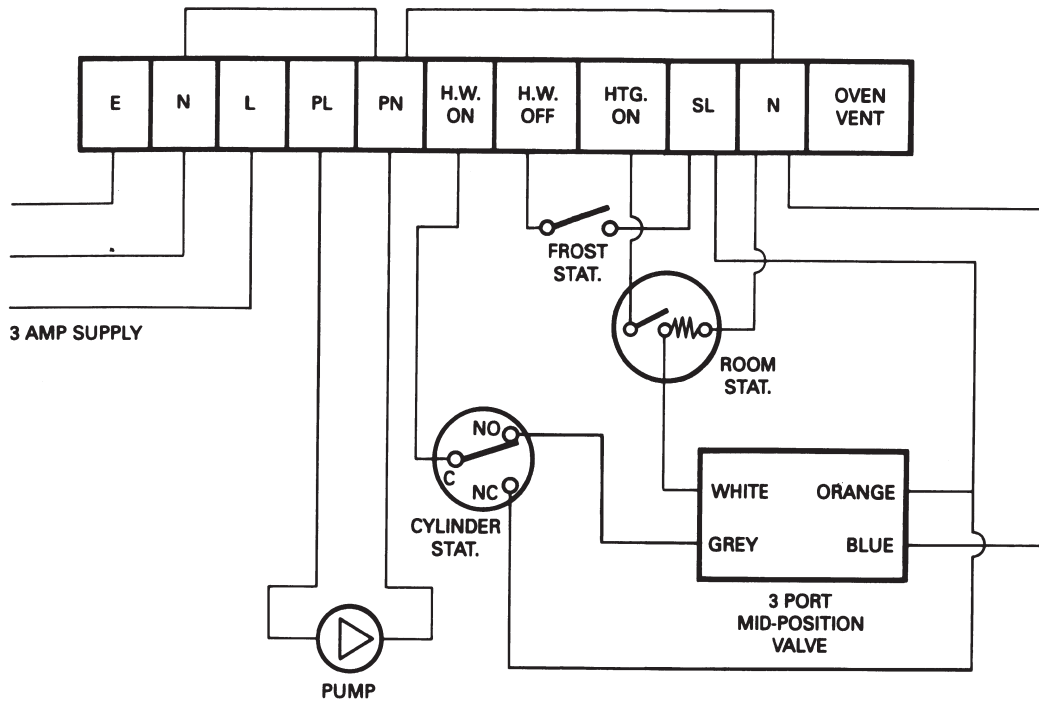
Fuel NATURAL GAS (G20)Cat I_{2H}

Terminal Requirements

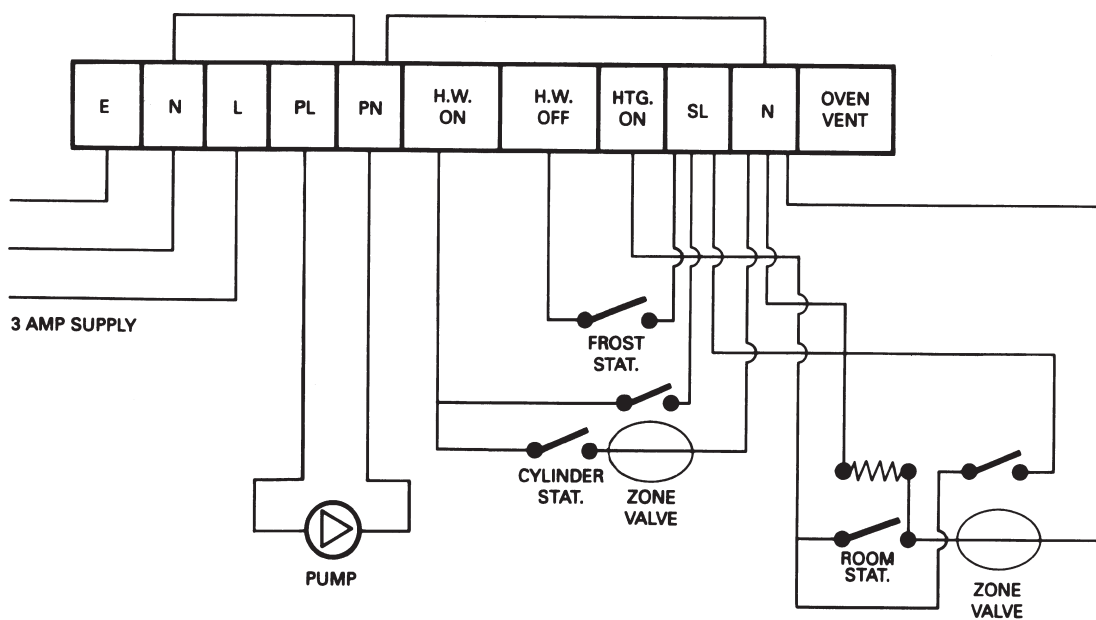
Wall Thickness - 228mm - 430mm
- Standard Kit

Wall Thickness - 430mm - 660mm
- Standard Kit + Extension Kit

RAYBURN
480GB External Controls



Typical External Wiring with 3-Port based on the Honeywell Mid-Position Valve



Typical External Wiring with 2 Honeywell N.C Motorised Zone Valves

Technical Data

480GB	BOILER BURNER	COOKER BURNER
INLET PRESSURE mbar	20	20
BURNER PRESSURE mbar (nominal)	12	12
INJECTOR	16 x 1.6mm	16 x1.6mm
HEAT INPUT kW	29.3	15.8
BOILER OUTPUT kW	23.5	0.8 MAX

Site requirements

INTRODUCTION

The Rayburn is a floor standing combined cooker and central heating boiler. It gives independent operation for space heating, domestic hot water and cooking. The appliance is fired by two independent gas burners. Either burner can be operated under programmer control if required.

The boiler is designed for use on a fully pumped low pressure hot water circulation system, with a pumped over run facility or alternatively on a sealed system.

IMPORTANT

The burners fitted to this appliance have been designed and constructed exclusively for use with the Rayburn 400 Series Cooker/Boiler and MUST not be used on any other appliance.

An Indirect Cylinder MUST be fitted. If the heating circuits are controlled in such a way that both heating and cylinder circuits can be closed off at the same time then a PERMANENTLY OPEN BYPASS LOOP should be provided.

REGULATIONS

In the interest of safety all gas appliances should be installed by competent persons in accordance with the regulations in force.

Failure to install appliances correctly could lead to prosecution.

LOCATION

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 and LH side of appliance - 3mm
Between wall and RH side of appliance - 10mm
Above the raised insulating cover handle - 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 fitting must not be closer than 25mm to combustible materials and where passing through a combustible partition such as 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.

GAS SUPPLY

Installation Pipes

Pipework from the meter to the appliance must be of adequate size. It is recommended that a minimum of ø22mm copper tubing is used to within 1m of the appliance. A reduction to ø15mm is permissible over the last metre of the appliance. Do not use pipes of a smaller size than the appliance gas connection and purged in accordance with the regulations in force.

Site requirements

AIR REQUIREMENTS

The appliance can only be installed in a room which meets ventilation regulations in force.

FLUE SYSTEM

The terminal is suitable for wall thicknesses from 228mm to 600mm cut size.

Should the installation of the appliance be in an unusual location or restricted space, special procedures may be necessary.

Terminal Position

The minimum acceptable spacings from the terminal to obstructions and ventilation openings are shown in the diagram.

Where the terminal is fitted within 600mm below plastic guttering an aluminium shield 1500mm long should be fitted to the underside and immediately beneath the guttering or eaves.

Where the terminal is fitted within 450mm below eaves or painted guttering an aluminium shield 750mm long should be fitted to the underside and immediately beneath the guttering or eaves.

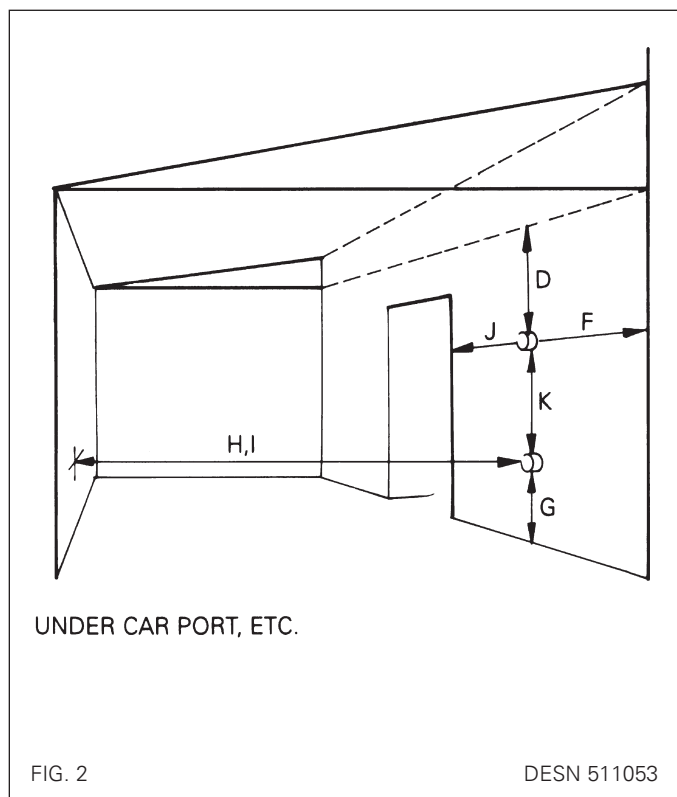
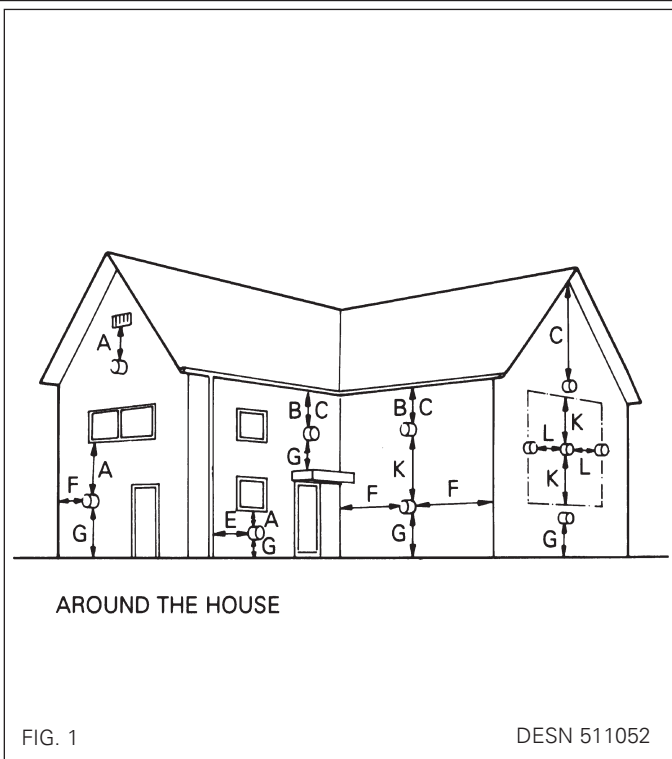
Minimum siting dimensions for Balanced Flue terminals

Position	Minimum Spacing mm
A. Directly below an openable window air vent, or an other ventilation opening	300
B. Below gutter, drain/soil pipe	300
C. Below eaves	300
D. Below a balcony or car port roof	600
E. From vertical drain and soil pipes	75
F. From internal or external corners	600
G. Above adjacent ground or balcony level	300
H. From surface facing the terminal	600
I. Facing terminals	1200
J. From opening (door/window) in car port into dwelling	1200
K. Vertical from a terminal	1500
L. Horizontally from a terminal	300

Terminal Protection

A terminal guard is supplied with the cooker and must be fitted if the flue termination is less than 2 metres above ground level, or subject to damage.

When fitted, it must be positioned to provide a minimum of 50mm clearance from any part of the terminal and be central from the terminal.



WATER CIRCULATION SYSTEM

The following items are of particular importance:- In a combined central heating and domestic hot water system, the hot water storage vessel **MUST** be of the indirect cylinder or calorifer type.

The hot water storage vessel should be insulated preferably, with not less than 75mm thick mineral fibre, or its equivalent.

Pipework not forming part of the useful heating surface should be insulated to prevent heat loss and possible freezing, particularly where pipes are run through roof space and ventilated under floor spaces. Cisterns situated in areas which may be exposed to freezing conditions should also be insulated.

The bypass balancing valve should be of a type non-adjustable by the householder and must have at least 2.5 metres of 28mm pipe each side between it and the cooker burner.

Alternatively the bypass loop can incorporate a towel rail, controlled by a non-adjustable balancing valve.

The bypass loop must not be insulated.

Draining taps must be located in accessible positions which permit the draining of the whole system, including the appliance and hot water storage vessel.

The appliance boiler section should be connected to cistern water supply, subject to a maximum heat of 2 bar (20m), minimum of 0.1 bar (1m).

The heating system must be designed (and adjusted if necessary) to give a temperature differential across the boiler at full output of 10°C - 14°C. The use of horizontal pipe runs should be avoided wherever possible in order to prevent the collection of air in the system. If horizontal runs are unavoidable, the pipes should rise upwards in the direction away from the appliance.

Circulating Pump

It is recommended that the selected pump be sized to suit the boiler pressure loss (see Fig. 1) and therefore adequate to give the required temperature differential between the flow and return.

The pump should be able to meet the requirements of the system design and fitted in a readily accessible position.

Isolating Valves

Isolating valves (preferably of the keyless type) must be fitted to the inlet and outlet of the circulation pump to facilitate service and replacement of pump without draining the system.

Inhibitor.

A corrosion inhibitor **MUST** be added to the heating system to protect the heat exchanger and pipework. Inhibitor must also be replaced if the system is drained after installation. As a precaution the heating system **MUST** also be flushed out prior to the addition of the inhibitor to ensure any flux, debris is removed.

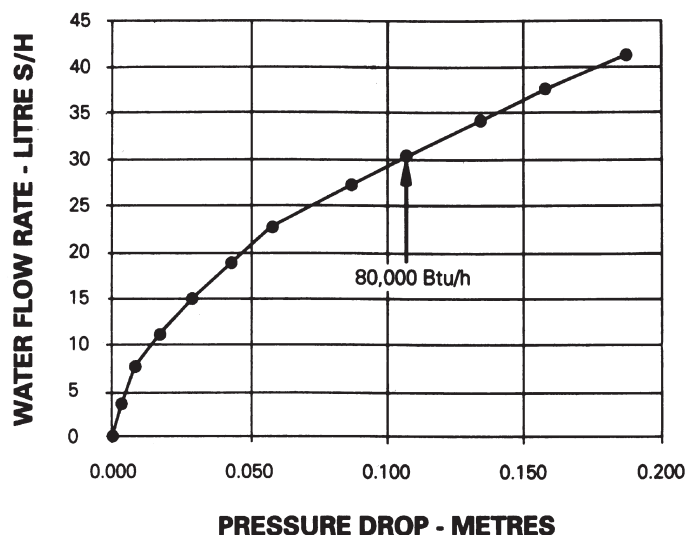


FIG. 3

Site requirements

HEATING CONTROLS

Internal temperature and time controls are supplied. These provide control of cooking and hot water temperatures. The cooker is supplied with 2-channel programmer:-

Channel 1 - supplies hot water - Marked "BOILER".
Channel 2 - controls the cooker burner - Marked "COOKER".

A separate switch in conjunction with the hot water channel gives priority to either the domestic hot water or the supply of hot water for central heating/DHW (if external controls are fitted).

It is recommended that independent temperature controls are provided for comfortable room temperatures, for economic operation and for control of the domestic hot water flow to the cylinder.

Consideration should be given to fitting a frost thermostat which should be set to operate at a temperature of approximately 4°C.

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 and a fuse rating of 3 amps. The method of connection to the mains supply should facilitate complete electrical isolation of the appliance, by the use of a fused double pole switch having a 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 3 core PVC sheathed flexible cord (85°C min) at least 0.75mm² (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, short circuit, polarity and resistance to earth.

For wiring instructions see wiring diagram.

The circulating pump **MUST** be connected to PL and PN on the terminal block (see Fig. 2) and the cables passed through the grommet in the left hand side panel, at the front.

Site requirements

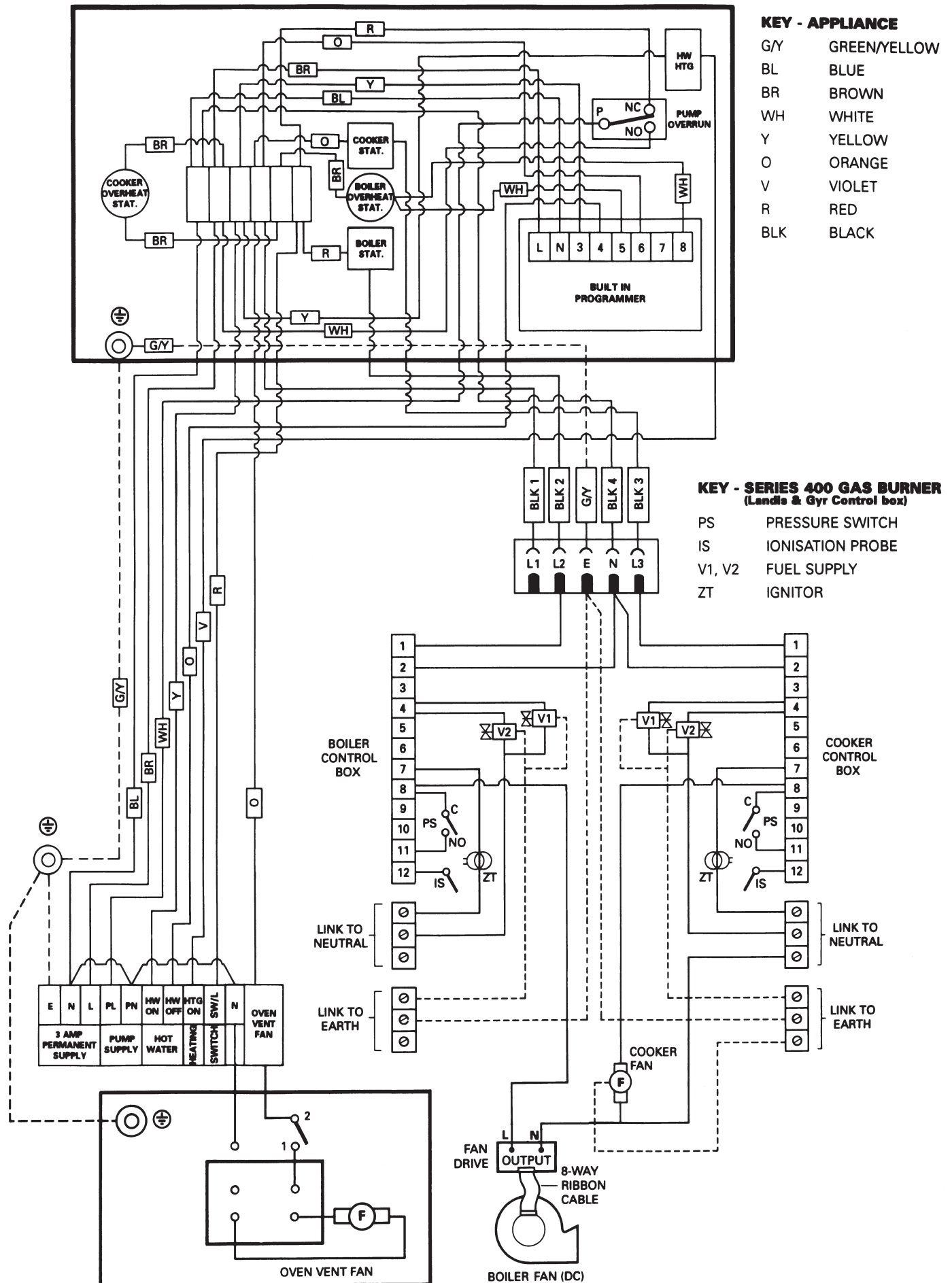


FIG.4

Installation requirements

CLEARANCES

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

Between wall and LH side of appliance - 3mm
Between wall and RH side of appliance - 10mm
Above the raised insulating cover handle - 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

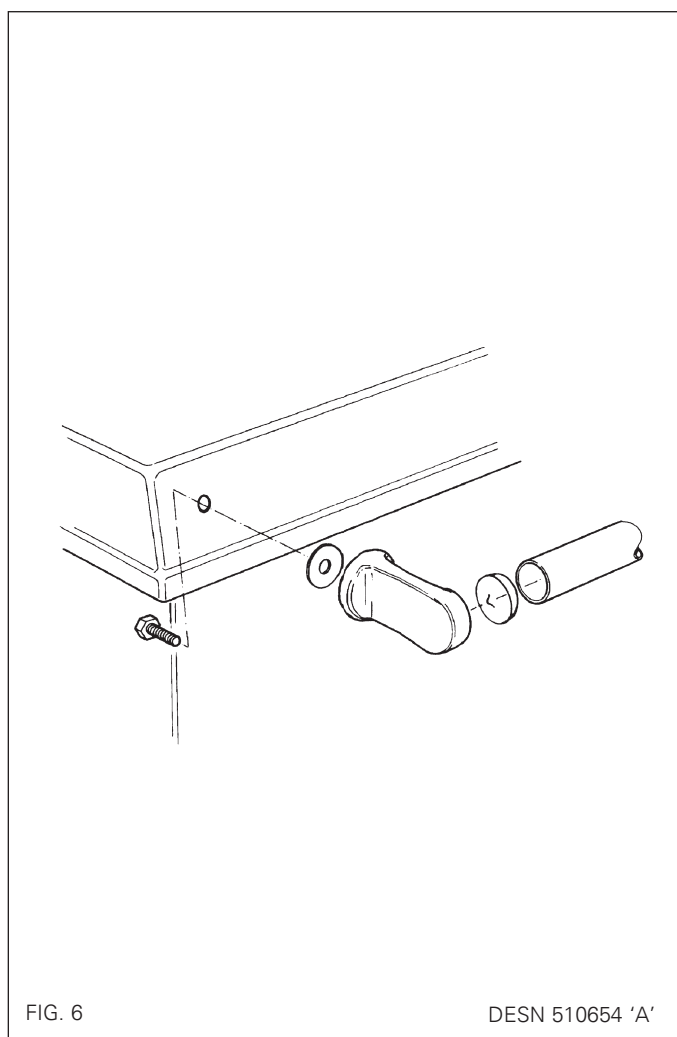
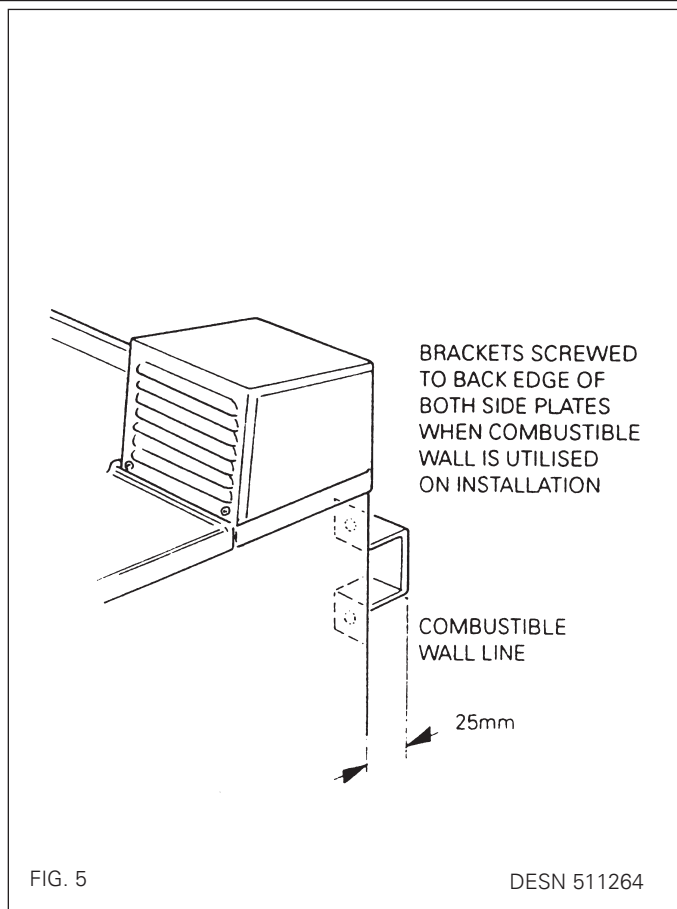
SEE FIG. 5

Appliance rear distance: 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 brackets as shown. Whenever possible it recommended that the skirting board is removed for the width of the appliance to enable the rear edge of the appliance top plate 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).**

SEE FIG. 6

The handrail brackets are held on the front edge of the cooker top-plate casting. Remove the travel nuts and replace with the handrail brackets ensuring the fibre protecting washers are in position. Insert the handrail with fitted endcaps into the brackets, positioning them correctly, and tighten the locating bolts.



SITE LOCATION

SEE FIG. 7

1. Check that the hearth is level, then remove the appliance from its transit wooden pallet.
2. Lift up the insulating covers and remove the hotplate using lifting hooks provided.

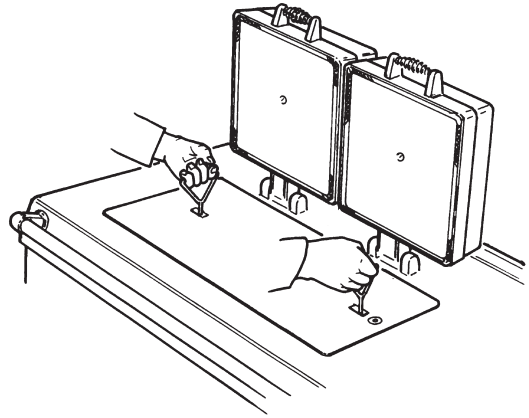


FIG. 7

DESN 510523

SEE FIG. 8

5. Remove the insulation pad (B).
6. Remove the 4 flue cleaning access door securing bolts and remove door.
7. Check the position of the boiler flueway baffles.
8. Replace door and refit bolts.
9. Replace insulation pad (B) and the hotplate ensuring that it seals around the edges.

NOTE: FOR THIS APPLIANCE USE ONLY 6 FLUEWAY BAFFLES.

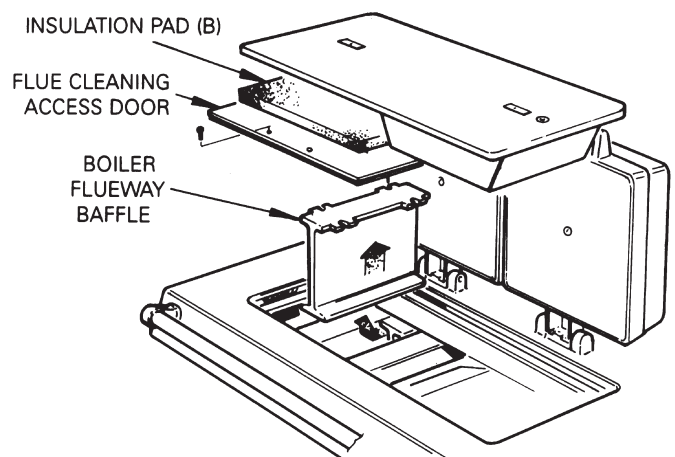


FIG.8

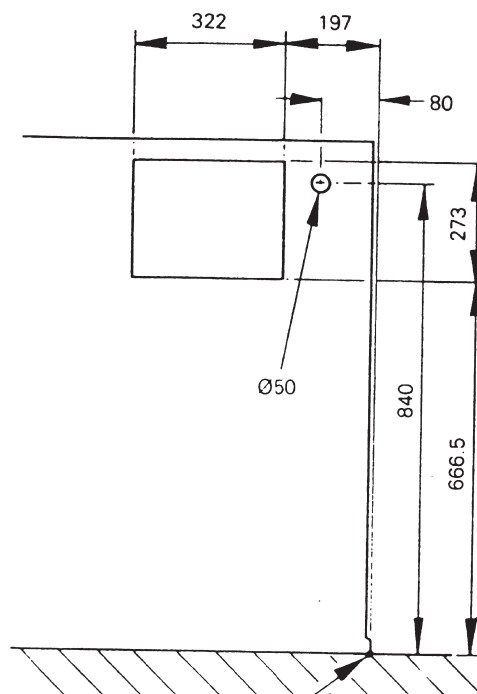
DESN 510524

Balanced Flue Installation (Standard Kit 228mm-430mm)

PREPARATION

SEE FIG. 9

- ❑ Mark and cut holes in wall for terminal duct and oven vent.



NOTE: DIMENSIONS TAKEN FROM COOKER BASE

FIG. 9

VIEW FROM FRONT OF COOKER

DESN 511265

SEE FIG. 10

- ❑ Establish wall thickness **(A)**
- ❑ Establish distance between flue mounting plate (when the cooker will be in final location) and internal wall **(B)**.

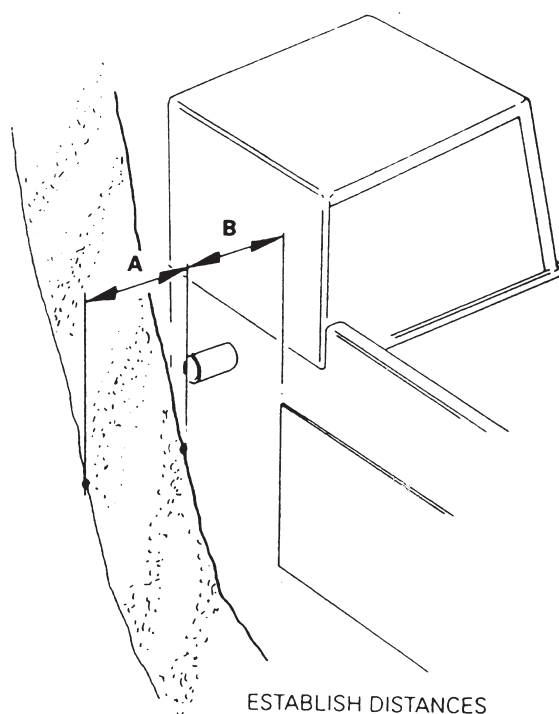


FIG. 10

DESN511266

Balanced Flue Installation (Standard Kit 228m -430mm)

EXHAUST DUCT

- ❑ Locate and secure exhaust duct to flue mounting plate, (1) gasket, (5) nuts and washers, (1) screw and washer.

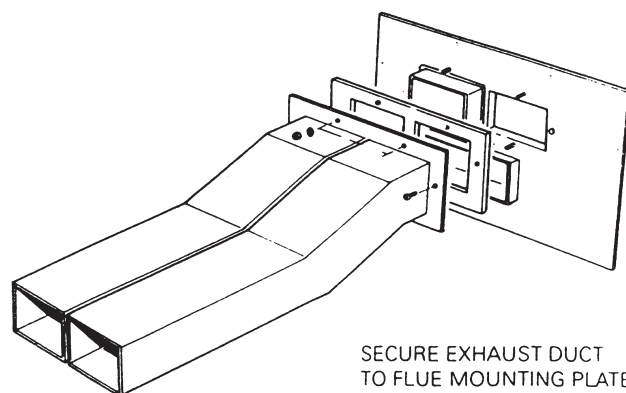


FIG 11

DESN 511267

- ❑ Mark and cut exhaust duct.

A (Wall thickness) + **B** (internal spacing) + 20mm

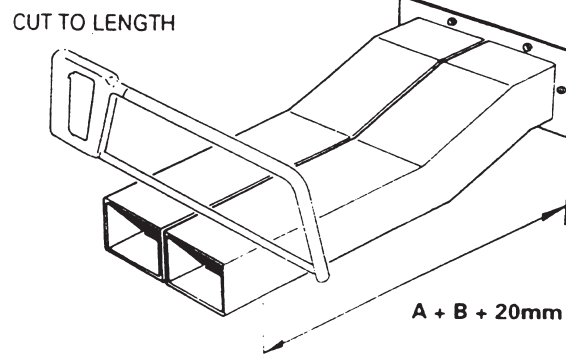


FIG 12

DESN 511268

- ❑ Position and tape exhaust duct insulation to exhaust duct.

- ❑ Cut insulation back 40mm from end of duct.

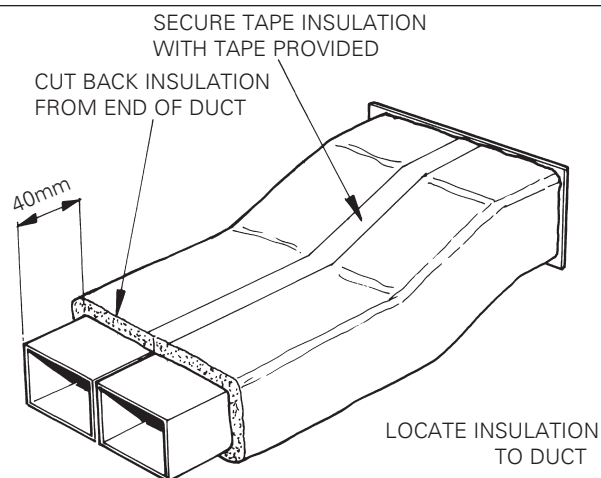


FIG. 13

DESN511269

WALL SLEEVE

EE FIG. 14

❑ Mark and cut wall sleeve

A (Wall thickness) + **B** (internal spacing) + 5mm

CUT TO LENGTH

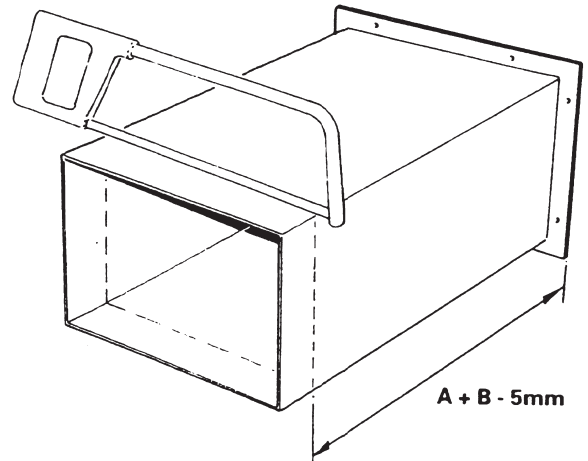


FIG. 14

DESN 511270

SEE FIG. 15

❑ Locate and secure wall sleeve to flue mounting plate
(1) gasket, (8) screws.

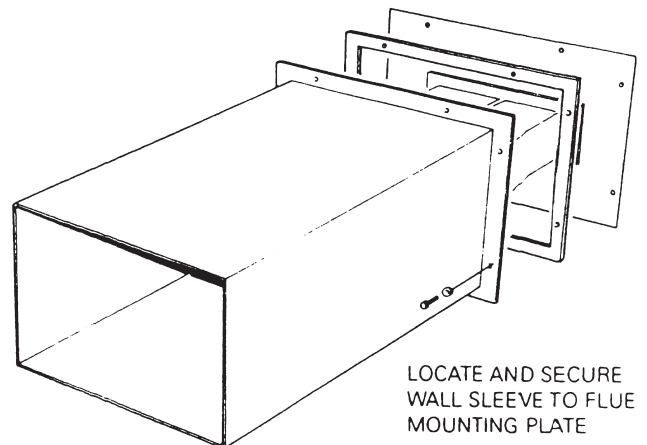


FIG. 15

DESN 511271

Balanced Flue Installation (Standard Kit 2 28m -4 30mm)

LOCATE APPLIANCE

SEE FIG. 16

NOTE: THE CONNECTOR MUST BE LOCATED BEFORE THE APPLIANCE IS MOVED INTO POSITION.

- ☐ Locate connector to vent fan.
- ☐ Move appliance in intended position.

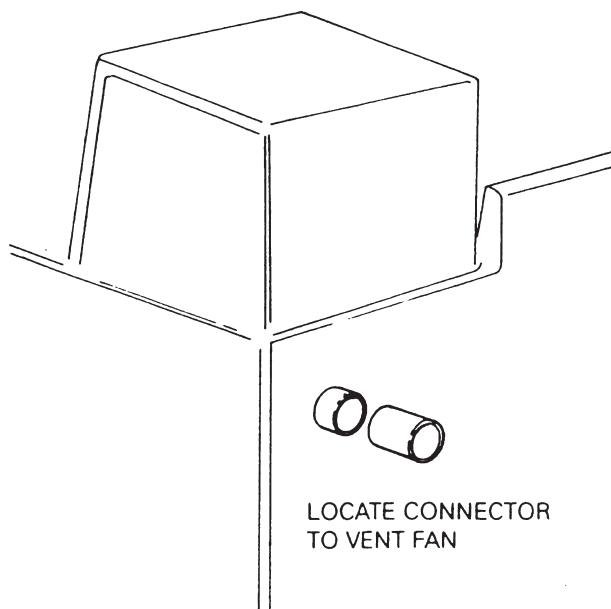


FIG. 16

DESN 511272

VENT PIPE

SEE FIG. 17

- ☐ Mark and cut vent pipe to length.
A (wall thickness) + **B** (internal spacing) + 40mm
- ☐ Locate vent pipe to appliance.

CUT TO LENGTH

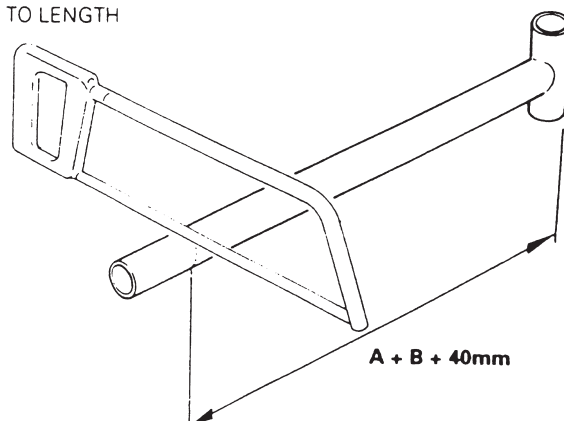


FIG. 17

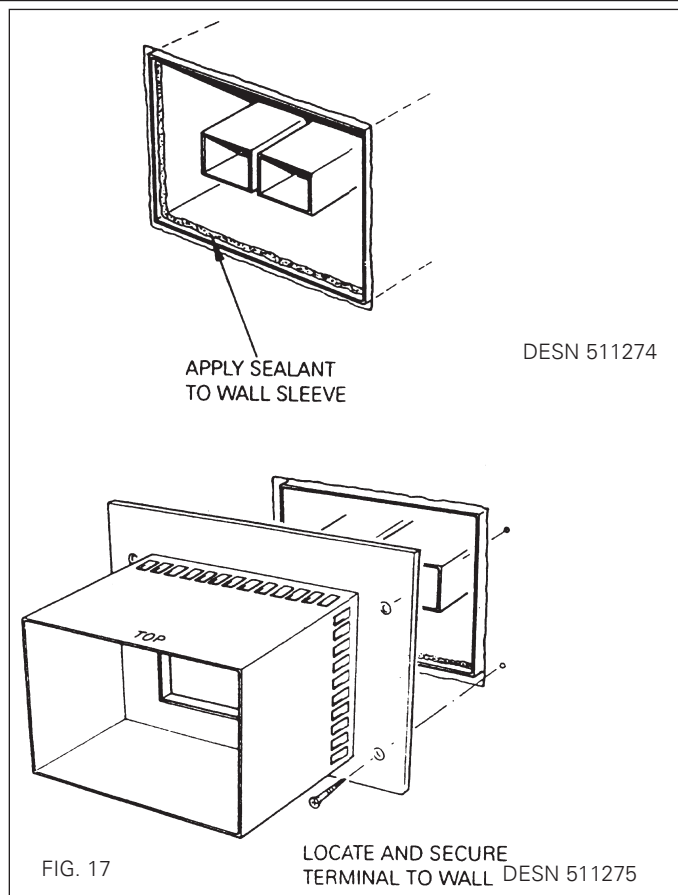
DESN 511273

Balanced Flue Installation (Standard Kit 228m -430mm)

TERMINAL

SEE FIG. 17

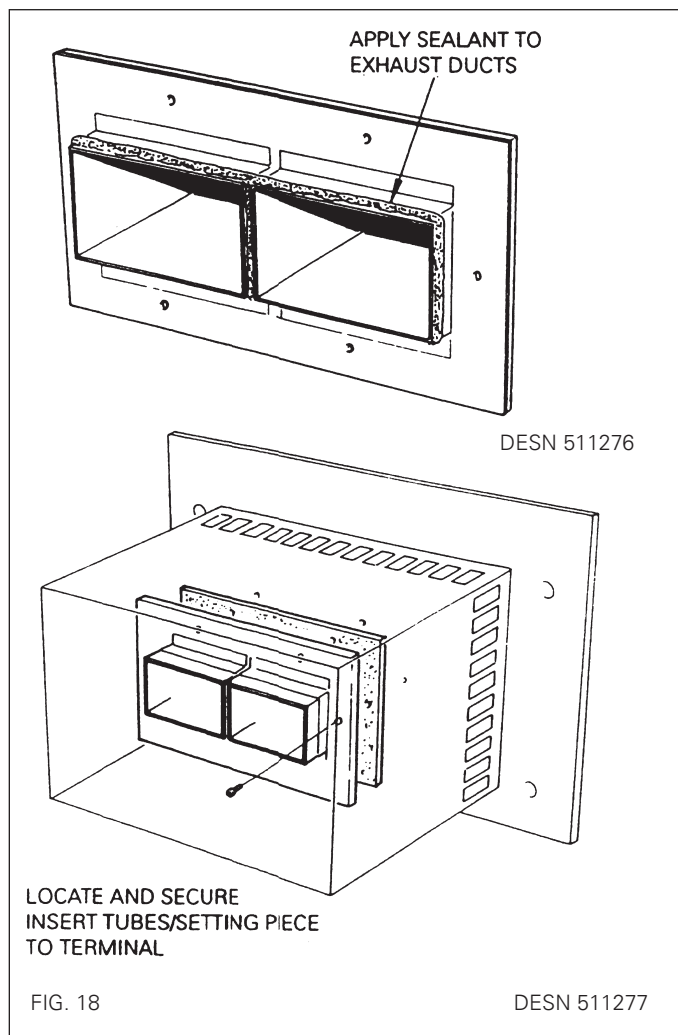
- ❑ Locate terminal to wall sleeve, mark location of securing holes, remove terminal.
- ❑ Drill holes and locate rawlplugs.
- ❑ Apply sealant to wall sleeve.
- ❑ Locate terminal to wall sleeve.
- ❑ Secure terminal to wall (4) screws.



INSERT TUBES/SETTING PIECE

SEE FIG. 18

- ❑ Apply sealant to exhaust duct.
- ❑ Locate and secure insert tubes/setting piece, (1) gasket, (6) screws.



Balanced Flue Installation (Standard Kit 228mm - 430mm)

TERMINAL BAFFLE

SEE FIG. 19

- ❑ Locate and secure terminal baffle, (4) screws.

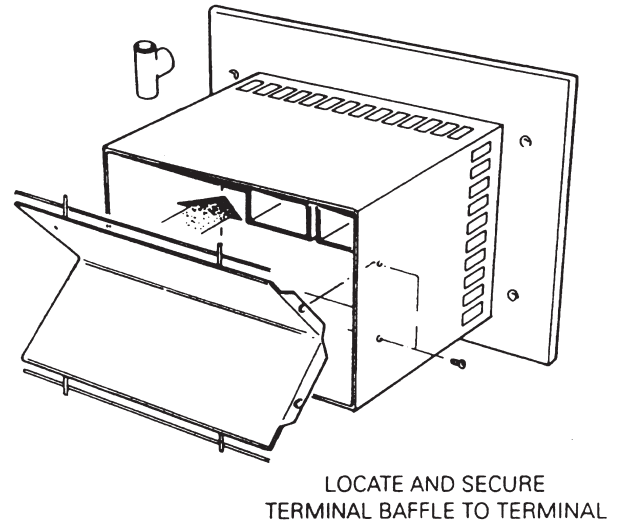


FIG. 19

DESN 511278

TERMINAL GUARD

SEE FIG. 20

- ❑ Locate terminal guard to wall, mark location of securing holes, remove guard.
- ❑ Drill holes and fit rawlplugs.
- ❑ Locate and secure terminal guard to wall, (4) screws.

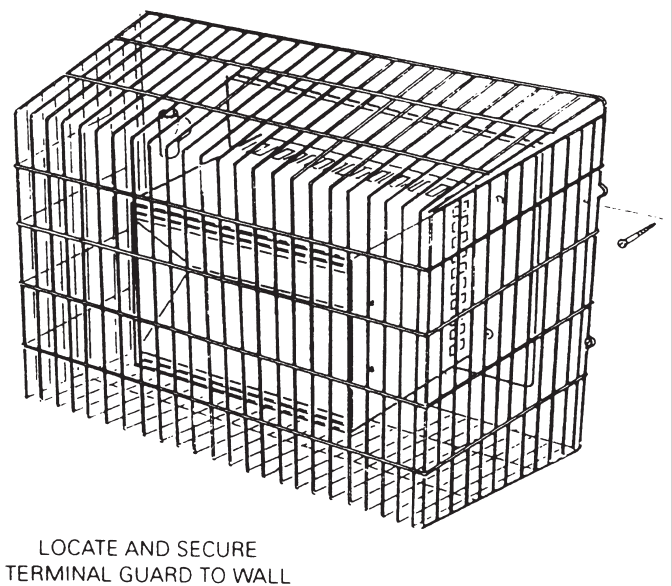


FIG. 20

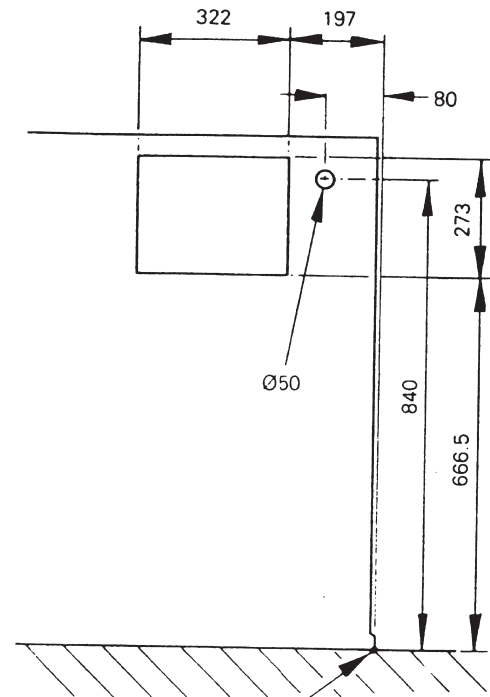
DESN 511279

Balanced Flue Installation (Extension Kit 430-660mm)

PREPARATION

SEE FIG. 21

- ❑ Mark and cut holes in wall for terminal duct and oven vent.



NOTE: DIMENSIONS TAKEN FROM COOKER BASE

VIEW FROM FRONT OF COOKER

FIG. 21

DESN 511265

SEE FIG. 22

- ❑ Establish wall thickness **(A)**.
- ❑ Establish distance between flue mounting plate (when the cooker will be in final location) and internal wall **(B)**.

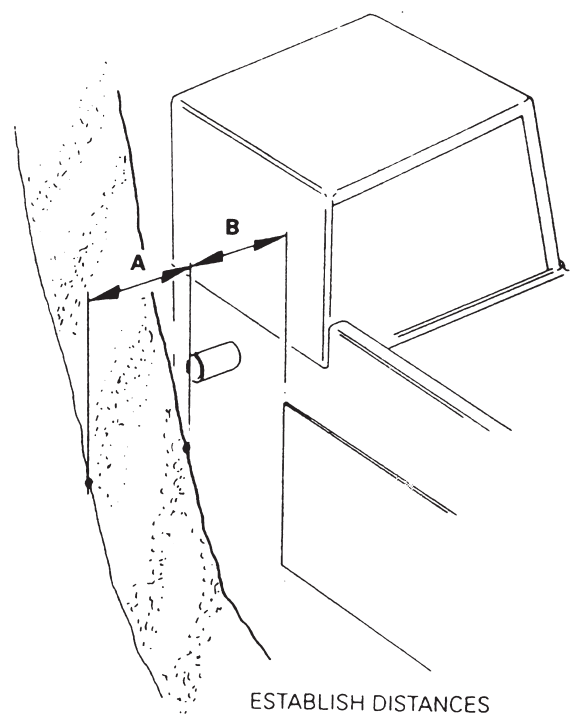


FIG. 22

DESN 511266

Balanced Flue Installation (Extension Kit 430-660mm)

EXHAUST DUCT

SEE FIG. 23

- ❑ Locate and secure exhaust duct to the flue mounting plate (1) gasket, (5) nuts and washers, (1) screw and washer.

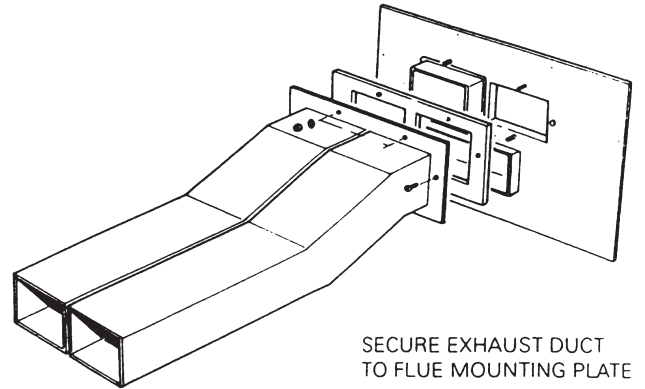


FIG. 23

DESN 511267

SEE FIG. 24

- ❑ Mark and cut exhaust duct extensions to length.
A (wall thickness) + **B** (internal spacing) + 430mm

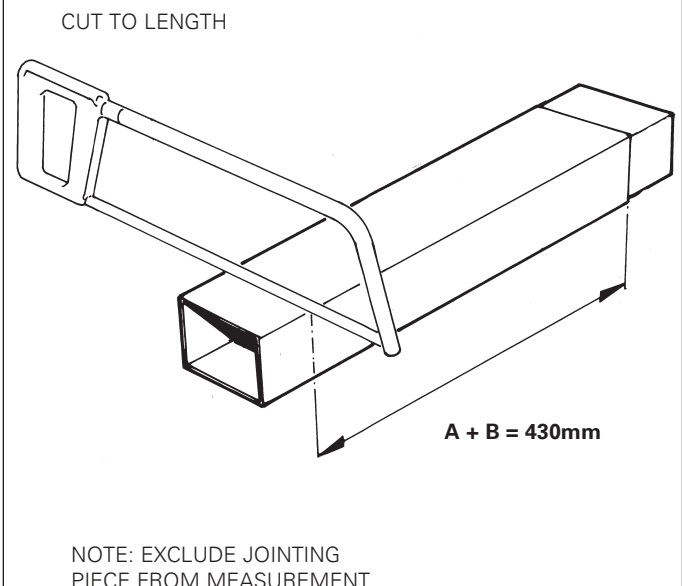


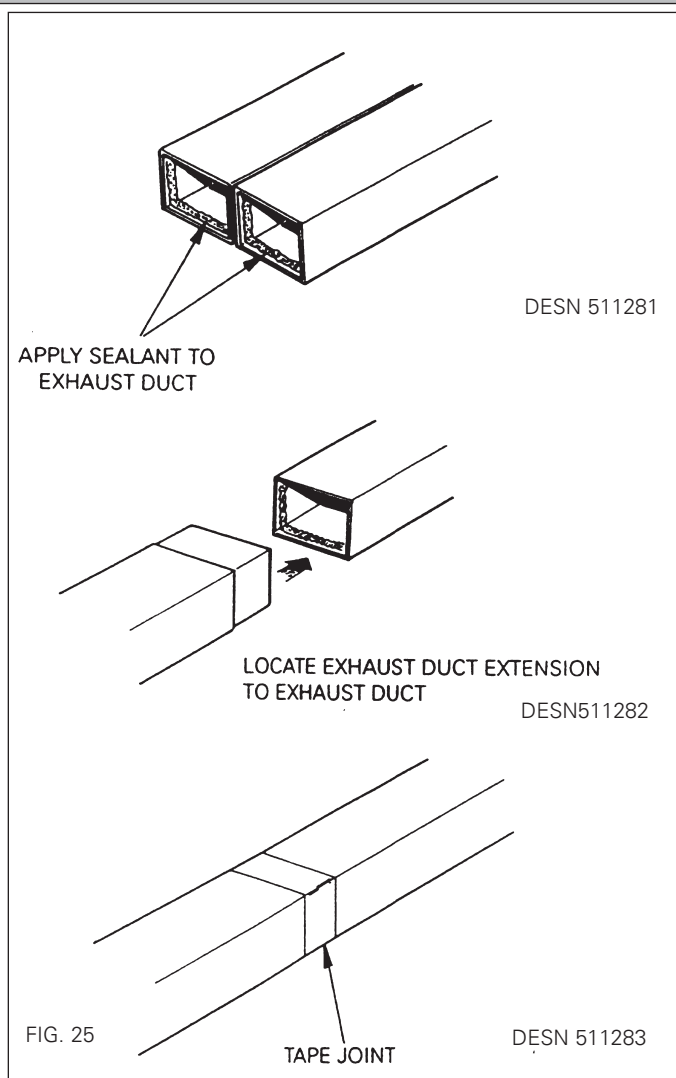
FIG. 24

DESN 511280

Balanced Flue Installation (Extension Kit 430-660mm)

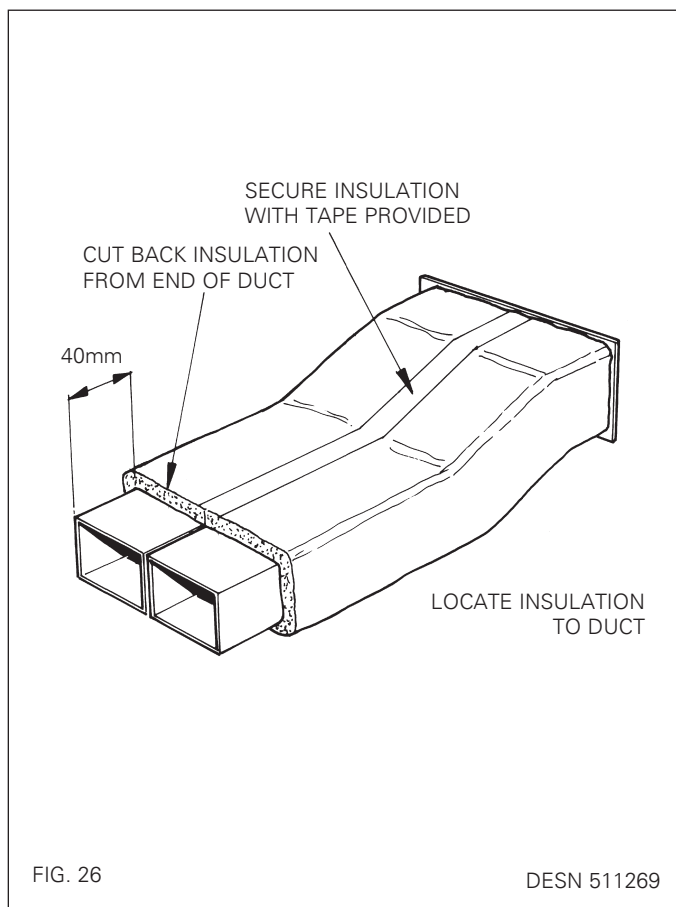
SEE FIG. 25

- ❑ Apply sealant to exhaust duct.
- ❑ Locate exhaust duct extensions to exhaust ducts and seal joint with tape.



SEE FIG. 26

- ❑ Position and tape exhaust duct insulation pieces to exhaust duct/extension.
- ❑ Cut insulation back 40mm from end of duct.



Balanced Flue Installation (Extension Kit 430-660mm)

WALL SLEEVE

SEE FIG. 27

- ❑ Locate and secure wall sleeve to the flue mounting plate, (1) gasket, (8) screws.

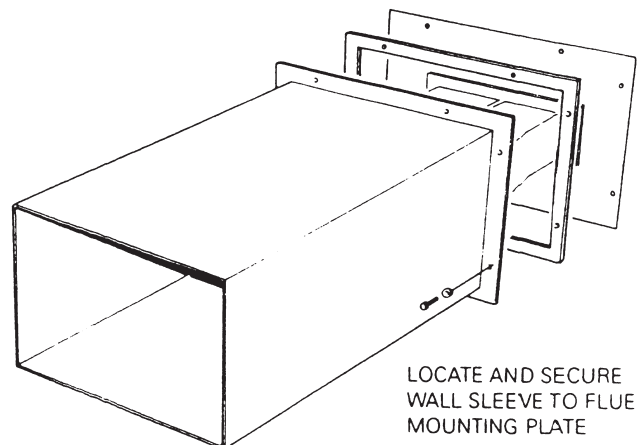


FIG. 27

DESN 511271

SEE FIG. 28

- ❑ Mark and cut wall sleeve extension to length.

A (Wall thickness) + **B** (internal spacing) - 455mm

CUT TO LENGTH

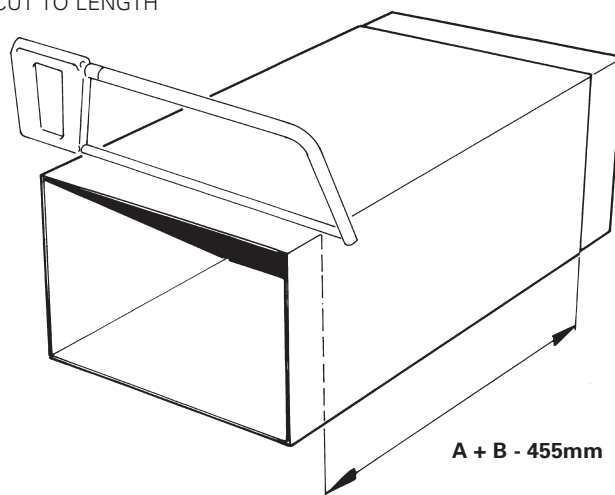


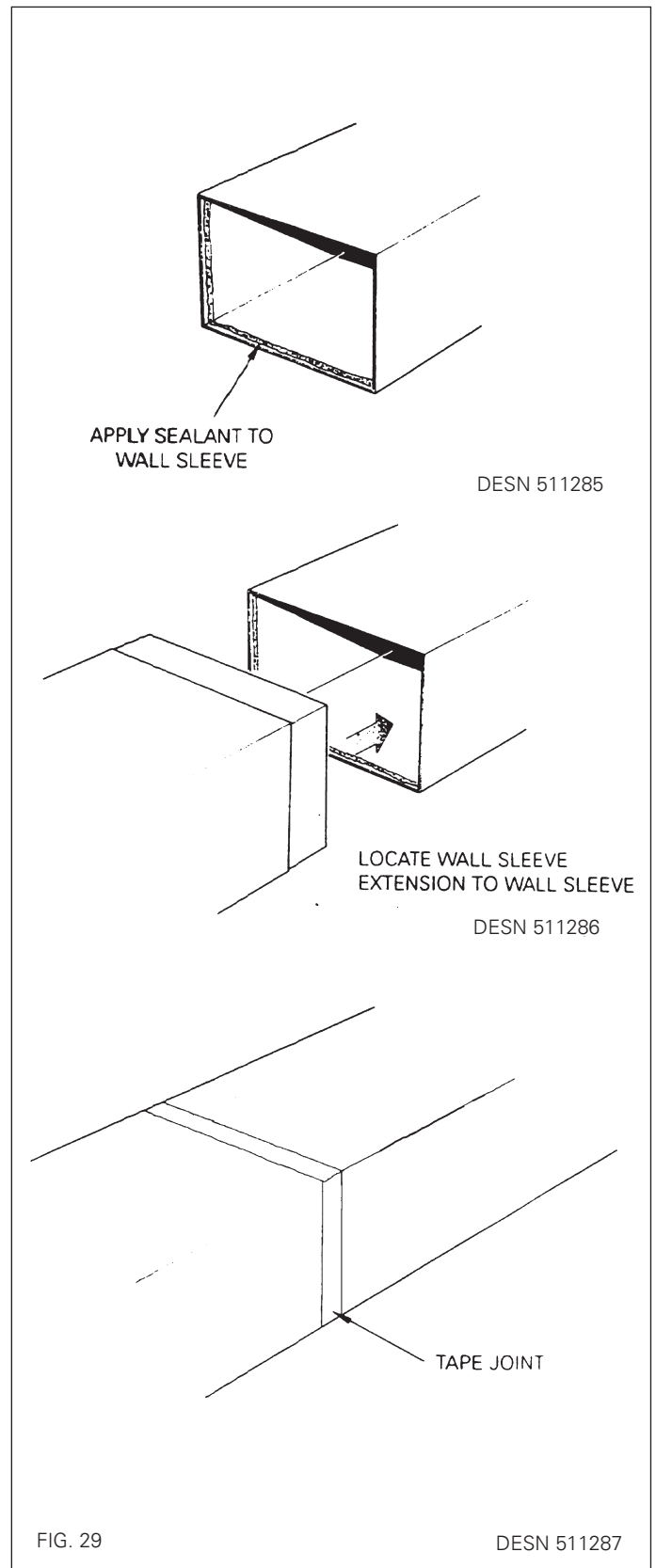
FIG. 28

DESN 511284

Balanced Flue Installation (Extension Kit 430-660mm)

SEE FIG. 29

- ❑ Apply sealant to wall sleeve.
- ❑ Locate wall sleeve extension to wall sleeve and seal joint with tape.



Balanced Flue Installation (Extension Kit 430-660mm)

LOCATE APPLIANCE

SEE FIG. 30

NOTE: THE CONNECTOR MUST BE LOCATED BEFORE THE APPLIANCE IS MOVED INTO POSITION.

- ☐ Locate connector to vent fan.
- ☐ Move appliance in intended position.

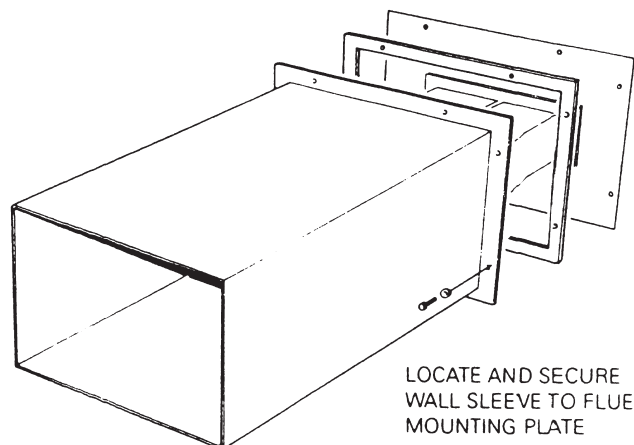


FIG. 30

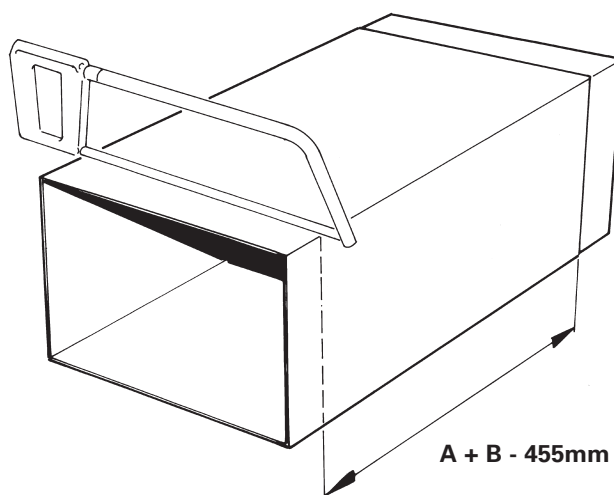
DESN 511271

VENT PIPE

SEE FIG. 31

- ☐ Mark and cut vent pipe to length.
A (wall thickness) + **B** (internal spacing) + 40mm
- ☐ Locate vent pipe to appliance.

CUT TO LENGTH



NOTE: EXCLUDE JOINTING
PIECE FROM MEASUREMENT

FIG. 31

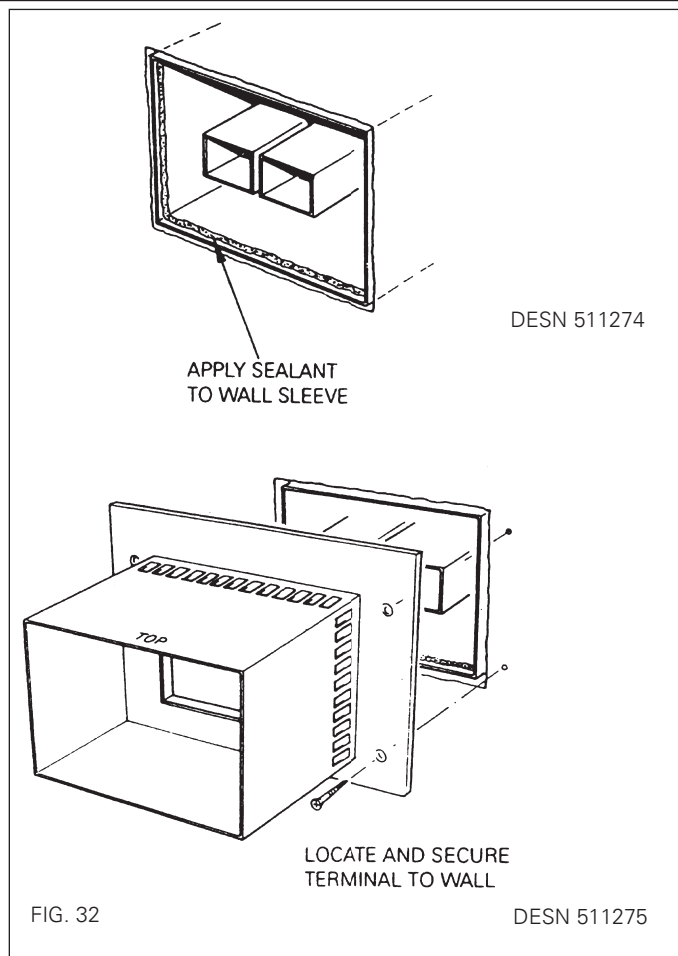
DESN 511284

Balanced Flue Installation (Extension Kit 430-660mm)

TERMINAL

SEE FIG. 32

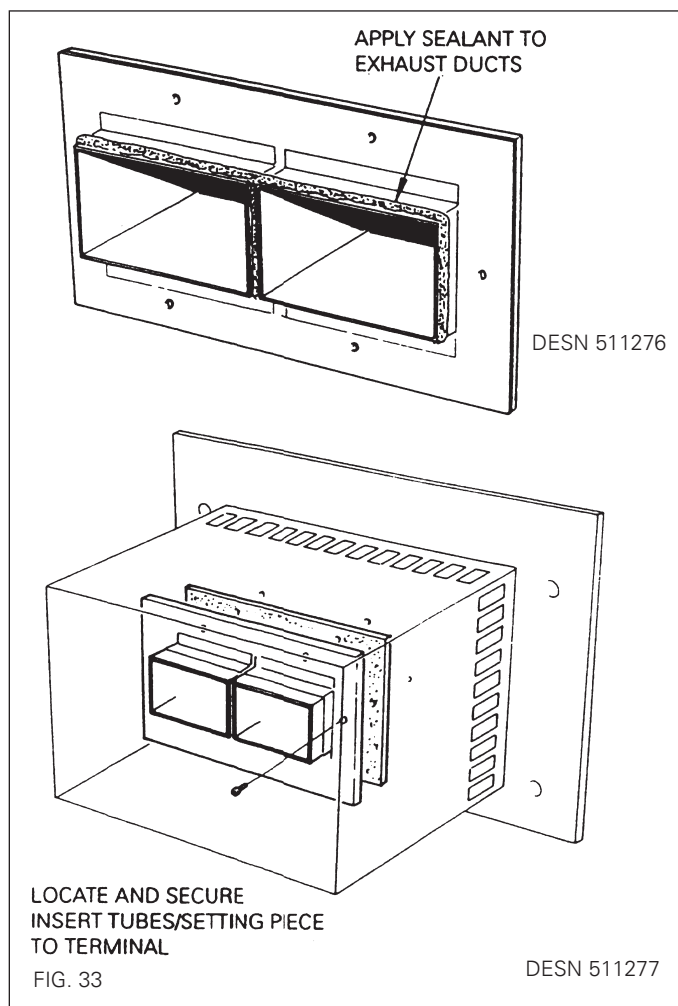
- ❑ Locate terminal to wall sleeve, mark location of securing holes, remove terminal.
- ❑ Drill holes and locate rawlplugs.
- ❑ Apply sealant to wall sleeve.
- ❑ Locate terminal to wall sleeve.
- ❑ Secure terminal to wall (4) screws.



INSERT TUBES/SETTING PIECE

SEE FIG. 33

- ❑ Apply sealant to exhaust duct.
- ❑ Locate and secure insert tube/setting piece, (1) gasket, (6) screws.



Balanced Flue Installation (Extension Kit 430-660mm)

TERMINAL BAFFLE

SEE FIG. 34

- ❑ Locate and secure terminal baffle, (4) screws.

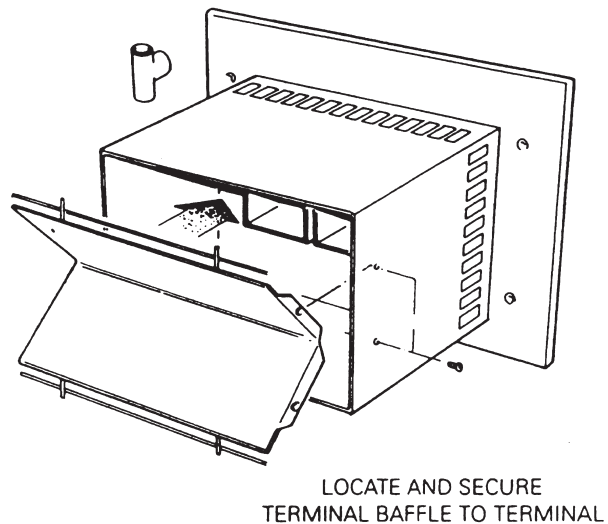


FIG. 34

DESN 511278

TERMINAL GUARD

SEE FIG. 35

- ❑ Locate terminal guard to wall, mark location of securing holes, remove guard.
- ❑ Drill holes and fit rawlplugs.
- ❑ Locate and secure terminal guard to wall, (4) screws.

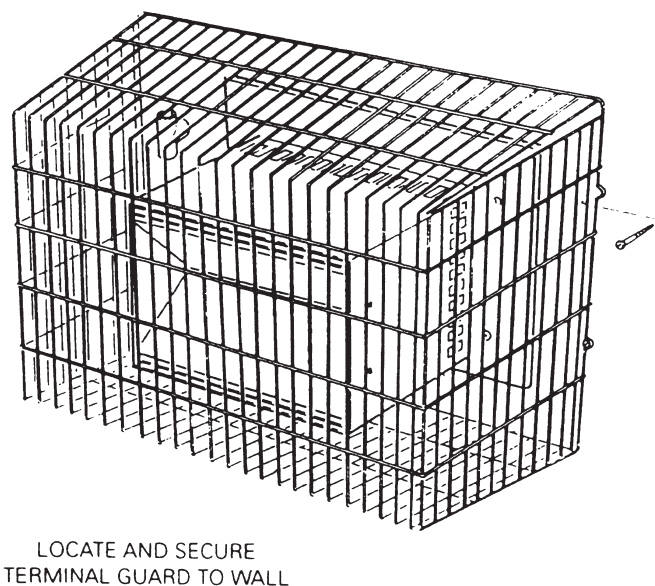


FIG. 35

DESN 511279

Commissioning Instructions

BURNER ACCESS

SEE FIG. 36

1. Open the burner access door. Remove door and put in a safe place.
2. Remove 4 inner panel securing screws and remove panel.

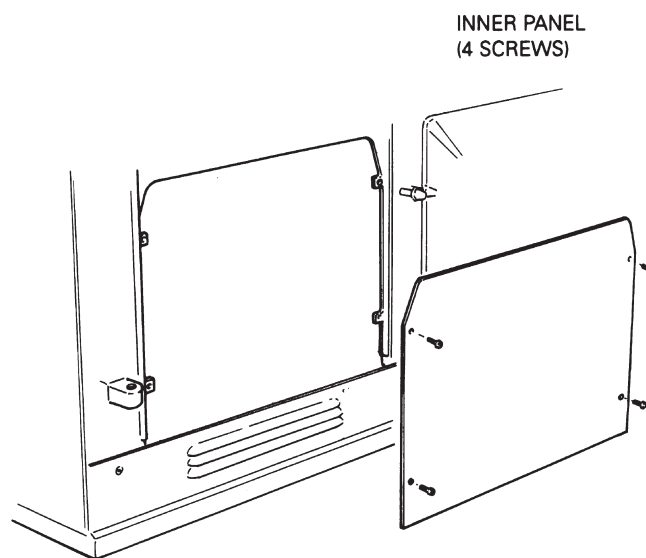


FIG. 36

DESN 511119

ELECTRICAL CONNECTION

SEE FIG. 37

1. Make electrical connections to terminal strip as wiring diagram (see Fig. 9).

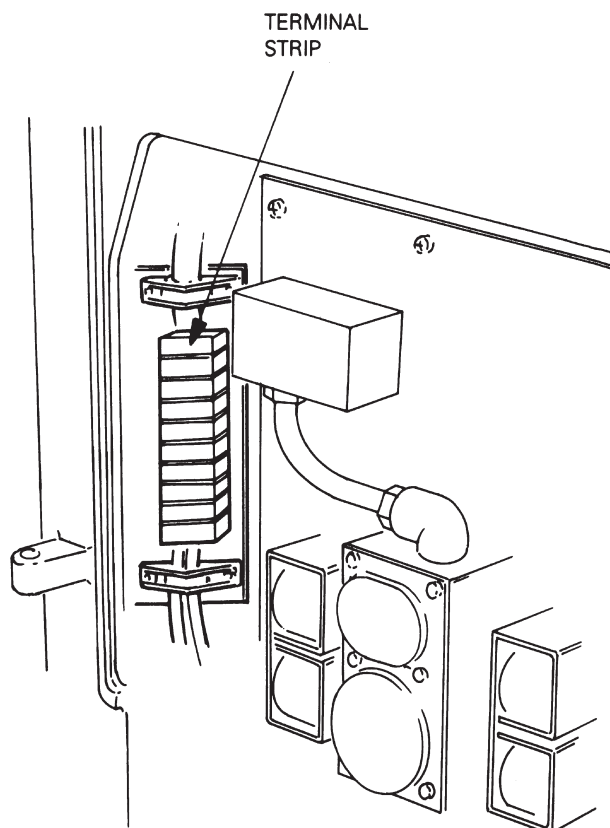
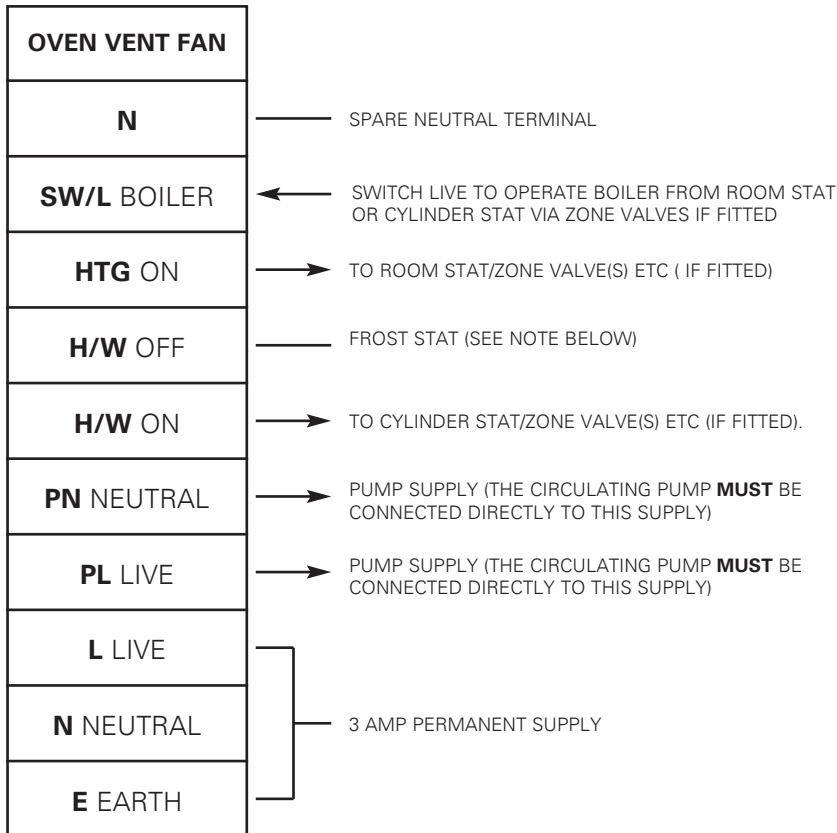


FIG. 37

DESN 511120

TERMINAL STRIP CONNECTIONS



NOTE:

If no Hot Water System Controls are used a link **MUST** be fitted between **H/W ON** and **SW/L BOILER**.

If no Central Heating System Controls are used a link **MUST** be fitted between **HTG ON** and **SW/L BOILER**.

If a Frost Thermostat is fitted it **MUST** be connected to **SW/L BOILER** and **H/W OFF**.

FIG. 38

Commissioning Instructions

BURNER CONTROL BOX OPERATION

When boiler or cooker thermostat is calling for heat, 230V is supplied to terminal 1 of either burner control box and the air pressure switch checked to ensure that it is in the 'no-air position'.

Providing this check is satisfactory, after a short delay, the burner fan will run (supplied from terminal 8).

The combustion air supplied by the fan will be detected by the air pressure switch.

If this is also found to be satisfactory, after a delay 10-15 seconds of the fan pre-purging, the ignition device is energised (supplied from terminal 7), at the same time the twin gas valve solenoids are energised (supplied from terminal 4).

Providing the start gas flame is established within 3 seconds and detected by the flame detection probe (connected to terminal 12), the burner will run.

The gas valves are a two stage design and although both solenoids open at the same time a low start facility initially operates and the gas will run at full rate after approximately 8 seconds.

ELECTRICAL CHECK

SEE FIG. 39

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

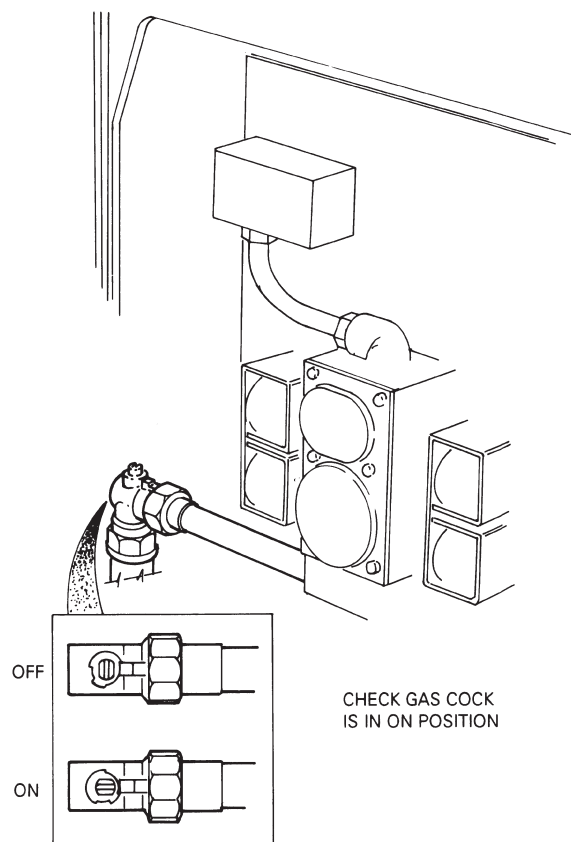
Check gas cock is in the on position.

Switch on the Electricity

Set the boiler burner time clock switch to continuous and turn the boiler thermostat to maximum. The boiler burner should run on pre-purge for 10 to 15 seconds, the burner should then ignite.

Until all the air from the gas burner is purged out the boiler may go to lock-out.

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



DESN 511121

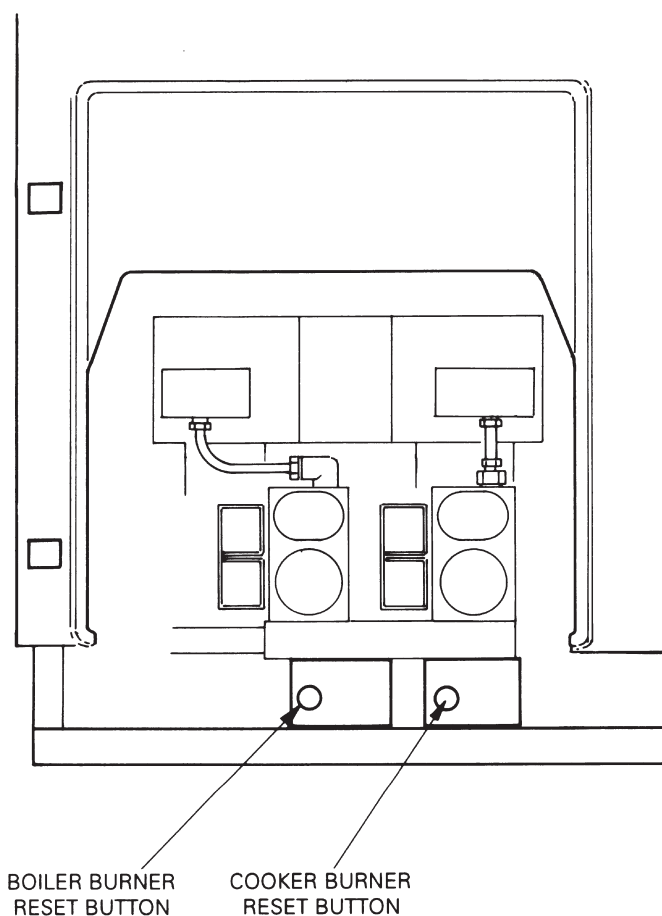


FIG. 39

DESN 511122

SET COMBUSTION AIR

SEE FIG. 40

Boiler Burner

Turn on the boiler burner.

After 15 minutes remove the enamelled top cover panel (behind the L.H. insulating cover) and remove the insulation pad A. Remove the plugging screw and insert the sensing end of a portable indicator to check the CO₂ (Carbon Dioxide) level. Adjust the boiler burner air intake until the CO₂/CO are as specified.

CO% **93 ppm (MAX)**

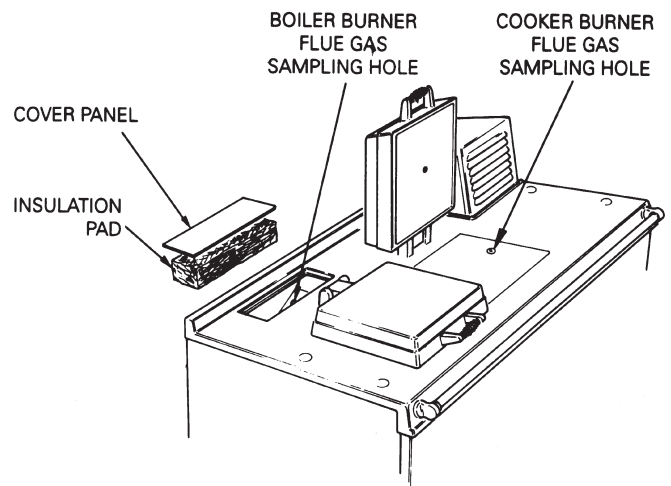
CO₂% **8.5 - 9.0**

Cooker Burner

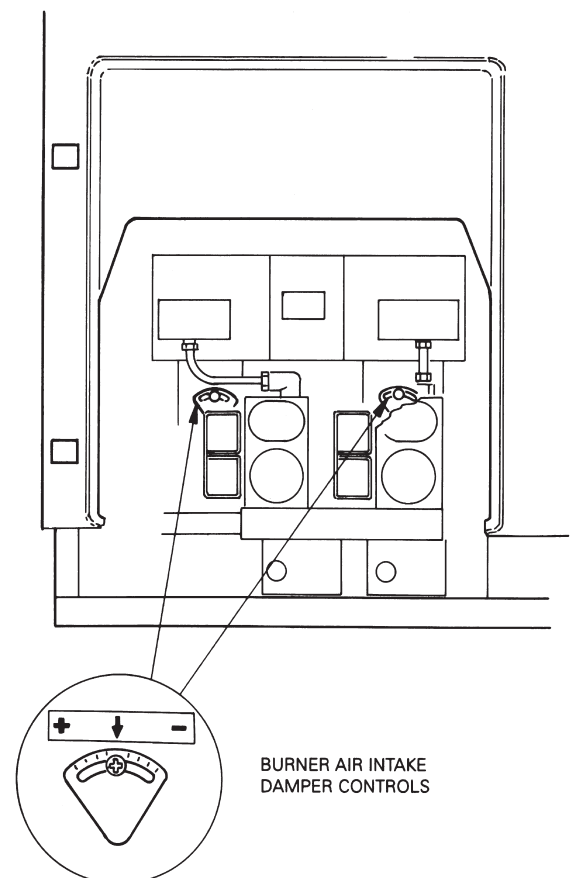
Switch off the boiler burner and repeat the above procedure with cooker burner. To sample the flue gases from the cooker burner lift up the R.H. insulating cover and remove the countersunk headed screw in the hotplate. The cooker burner should be set as specified as above. Replace the countersunk headed screw on completion ensuring that it will not interfere with any pots and pans placed on the hotplate.

When satisfied with combustion check refit burner door inner panel.

Refit outer burner door.



DESN 511259



IMPORTANT: ALWAYS LOCK IN POSITION AFTER SETTING

FIG. 40

DESN 511123

Commissioning Instructions

ANCILLARY CONTROLS CHECK

Before leaving the site, check the operation of programmer, control thermostats are working correctly and are capable of controlling the burners correctly. Check the operation of both burner control boxes. See 'RECOMMISSIONING' section in Servicing Instructions.

BOILER CONTROL CHECK

Check that:-

1. The boiler system is full of water and all the valves are fully open.
2. The programmer is set to continuous heating and the heating switch set to heating.
3. Ensure that the electricity supply is ON, that the pump is running and the boiler thermostat is ON.
4. Allow the pump adjuster to maintain a boiler "flow and return" temperature differential of 10°C - 14°C.

Checks must be made by the installer to see that this differential is obtained after the boiler 'Flow' temperature is stabilised.

The system should be balanced by regulating the water flow rate through individual heat emitters to ensure a satisfactory water temperature at each emitter.

5. When the water system reaches working temperature check that the boiler thermostat operates satisfactorily.
6. Examine the system for water soundness. The system should then be turned off and rapidly drained whilst still hot. The system should again be filled and cleared of all air locks. Whilst refilling the system it is recommended that a suitable corrosion inhibitor is added to the feed water.

INSTRUCT THE USER

1. Advise the User of the precautions necessary to prevent damage to the heating system and to the building in the event of the heating season being inoperative during frost conditions.
2. 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.
3. Hand the Operating Instructions to the User and demonstrate the correct operation of the appliance and system controls.
4. Leave the Installation and Servicing Instructions with the User.

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

With Aga-Rayburn's policy of continuous product improvement, the Company reserves the right to change specifications and make modifications to the appliances described and illustrated at any time.



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