

This information refers to the following products

Rayburn 380G Nat gas

Rayburn 380L LPG

Rayburn 370L LPG

CE models

(1995 - 2000)

WARNING

This information is a copy of an original archive, therefore Aga cannot be held responsible for its continued accuracy or relevance.



Home on the Range.

380G/L

Installation and Servicing Instructions

CE FOR USE IN GB & IE

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 requirement 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.

Important

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, Kerosene/Gas Oil - 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.

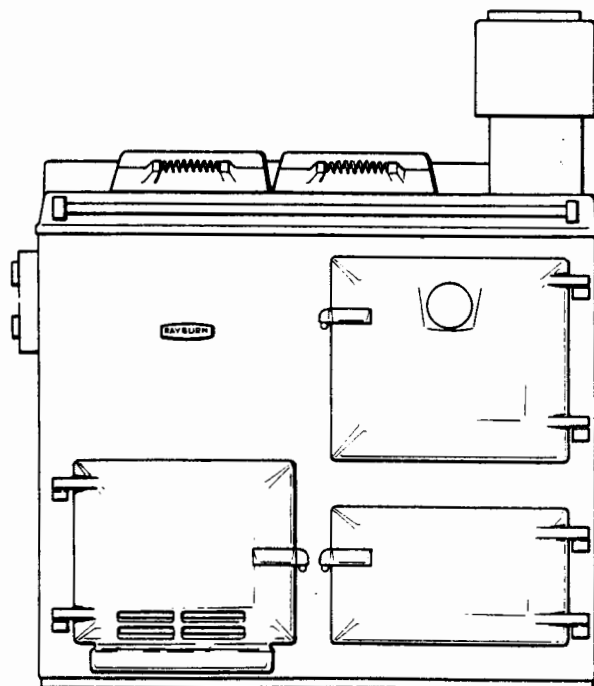
INTRODUCTION

THIS APPLIANCE MUST BE INSTALLED IN ACCORDANCE WITH THE RULES IN FORCE AND USED ONLY IN A SUFFICIENTLY VENTILATED SPACE.

This Rayburn Gas combination appliance is combined cooker and hot water boiler providing central heating and domestic hot water in addition to special cooking facilities. It is available in open flue form, operating on natural draught, the boiler being designed for use in fully pumped systems and sealed systems. Two separate independent controlled gas burners provide heat. One to central heating boiler section, providing heating and hot water, whilst the other provides heat to the cooker.

REGULATIONS

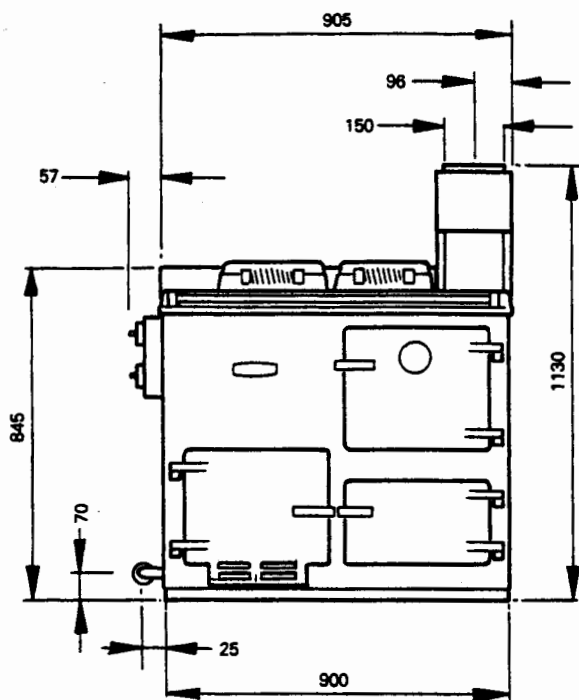
In the interests of safety all gas appliances should be installed by competent persons, in accordance with the regulations in force.



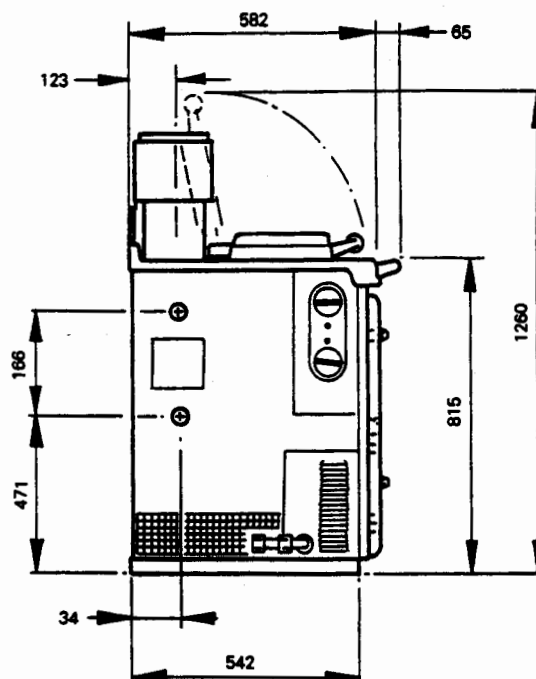
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PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLING THE APPLIANCE

Specifications

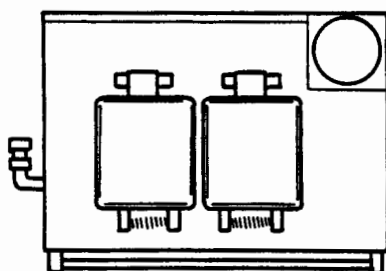


FRONT VIEW



SIDE VIEW

DESN 510955



PLAN

ALL DIMENSIONS IN MILLIMETRES

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

380G	NAT. GAS (G20)	TOTAL	BOILER	COOKER
Max. Heat Inputs		37.4kW	29.3kW	8.1kW
Inlet Pressure		20mbar	2.82m ³ /h	0.77m ³ /h
Marking - Injector Size			4.1	2030
Max. Boiler Output		23.4kW at 17.5mbar burner pressure		
Min. Boiler Output		17.6kW at 10.5mbar burner pressure		

380L	PROPANE (G31)	TOTAL	BOILER	COOKER
Max. Heat Inputs		39.05kW	29.3kW	9.75kW
Inlet Pressure		37mbar	1.1m ³ /h (2100g/h)	0.37m ³ /h (700g/h)
Marking - Injector Size			3.1	320

Gas Connection	Rc 1/2 (1/2 in BSP int)
Electrical Supply	230V~50Hz 3amp Fused
Max working Hydraulic pressure of Boiler	3 bar
Max Water temp	82°C + 3°C
Water capacity	0.8 litre
Appliance Weight	290Kg

Boiler Connections	
Flow	28mm O/D Copper Tube
Return	28mm O/D Copper Tube
Flue Outlet Dia.	150mm
Appliance Dimensions	
Height	845mm
Width	962mm
Depth	647mm

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Site Requirements

LOCATION

The appliance must be installed on a solid level floor or base of incombustible material which is capable of supporting the total weight.

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

Between wall and L.H. side of appliance	150mm
Between wall and R.H. side of appliance	25mm
Above the raised insulated 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 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.

Spaces around flue pipes passing through walls or floors should be sealed against the passage of smoke and flame.

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.**

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 the linings.

GAS SUPPLY

Installation Pipes

Pipework from the meter to the appliance must be of adequate size. It is recommended that minimum of Ø 22mm copper tubing is used to within 1m of the appliance. A reduction to Ø 15mm is permissible over the last metre to the appliance. Do not use pipes of a smaller size than the appliance gas connection. The complete installation must be tested for soundness and purged as described in the standards.

ELECTRICAL SUPPLY

External wiring must be correctly earthed, polarised and in accordance with current regulations. The main supply required is 230V. 50Hz fused at 3A.

NOTE: The method of connection to the electricity supply must facilitate complete electrical isolation of the appliance, preferably by the use of a fused three pin plug and unswitched shuttered outlet. Alternatively, connection may be made by via a fused double - pole isolator with a contact separation of at least 3mm in all poles and serving the appliance and system control only.

CONTROLS

Independent temperature controls with time switch control are recommended for providing temperature comfort from radiators.

Typical controls can be motorised valves operated by room thermostat and cylinder thermostat.

Thermostatic radiator valves may be fitted if required and consideration should be given to fitting a frost thermostat which should be set to operate at a temperature of approximately 4°C.

The boiler should be controlled so that it operates on demand only.

Operation of the system under control of the boiler thermostat only, does not produce the best efficiency.

Refer to the control equipment manufacturer's literature for information e.g. wiring.

The internal boiler/cooker wiring diagram is shown in Fig. 9, page 11.

FLUE SYSTEM

Open Flue

The following notes are intended to give general guidance. The cross sectional area of the flue serving the cooker must not be less than the area of the flue outlet of the cooker. If flue pipe is to be used it must not be less than 150mm internal diameter.

A straight vertical section of the flue pipe of a length not less than 600mm must be utilised immediately above the draught diverter before any bends are used.

Flue pipes and fitting should be constructed from one of the following materials:-

- (a) Cement
- (b) Aluminium or stainless steel
- (c) Cast iron or mild steel acid resistant vitreous enamel lined.

If a chimney is to be used, it preferably should be one that is composed of or lined with a non-porous acid resistant material.

A flue pipe constructed in (a) to (c) above, should form the initial connection to lined chimneys.

Where a chimney is to be used which is not composed of or lined with a non-porous acid resistant material it should be lined with a stainless steel flexible flue liner in accordance with relevant standards.

Before connecting the appliance to or inserting a liner into a flue that has been previously used, the flue must be thoroughly swept clean of any soot and loose materials. If a baffle plate, etc. is fitted in the flue it must be removed before connecting the appliance to, or inserting a liner into the flue.

The flue should terminate in accordance with relevant recommendations.

AIR REQUIREMENTS

The following notes are intended to give general guidance:-

Kitchen or Internal Space Air Supply

Wherever an open flue appliance is to be installed it must have a permanent air vent. This vent must be either direct to outside air or to an adjacent room or internal space which itself must have a permanent air vent of at least the same size direct to outside air.

The minimum effective area of the permanent air vent in the outside wall must be 144cm².

Effect of an Extract Fan

If there is any type of extract fan fitted in the same room as an open flue appliance there is a possibility that if adequate air inlet from outside is not provided, spillage of the products from the appliance flue could occur when the extract fan is in operation. Where such installations occur, a spillage test must be carried out and any necessary remedial action taken.

Site Requirements

WATER CIRCULATION SYSTEM

The following notes 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 calorifier 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.

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 head of 3bar (30m), minimum of .1bar (1m).

The heating system must be designed (and adjusted if necessary) to give a temperature differential across the boiler at full output of 10° - 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. 3) 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 circulating pump to facilitate service and replacement of pump without draining the system.

Inhibitor

It is recommended that a corrosion inhibitor is added to the heating to protect the heat exchanger and pipework.

Use only the type for copper heat exchangers.

When using an existing system take special care to drain the entire system, including the radiators, then thoroughly flushing out before fitting the boiler and adding the inhibitor.

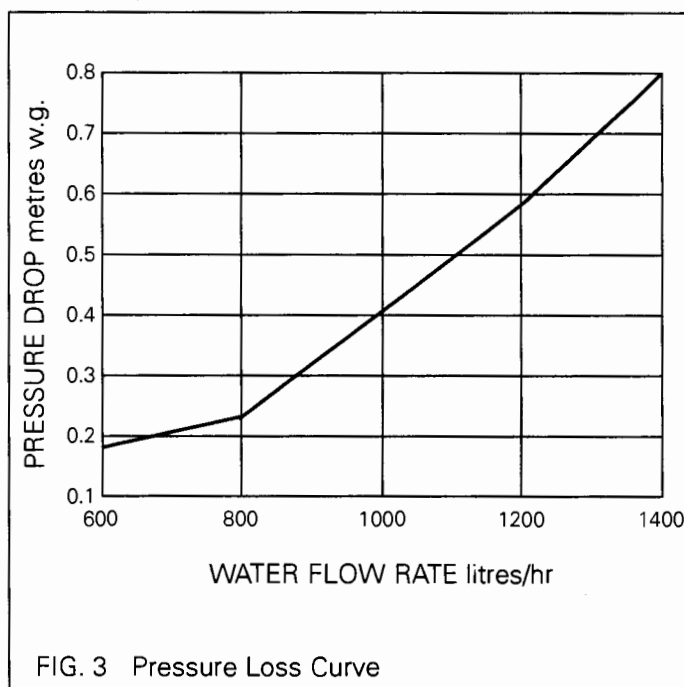


FIG. 3 Pressure Loss Curve

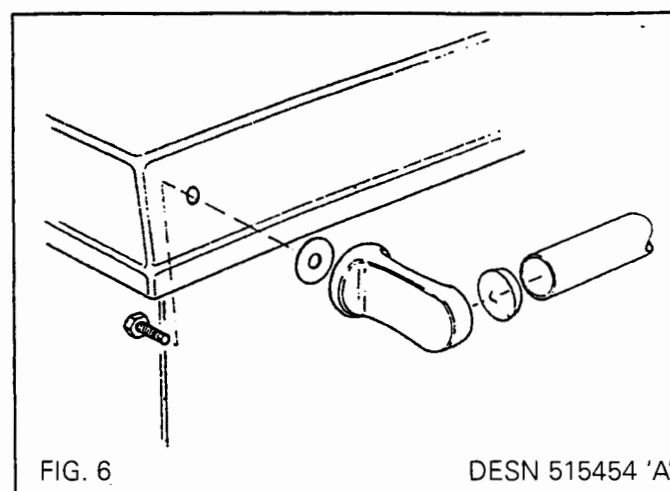
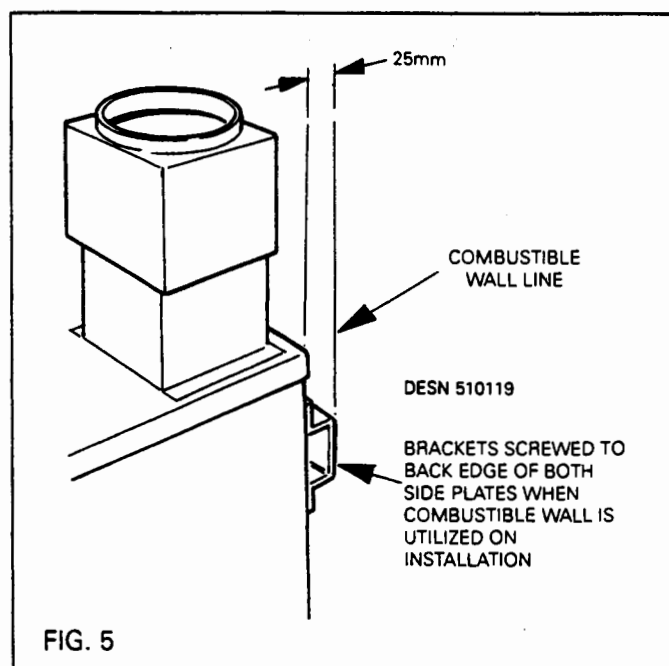
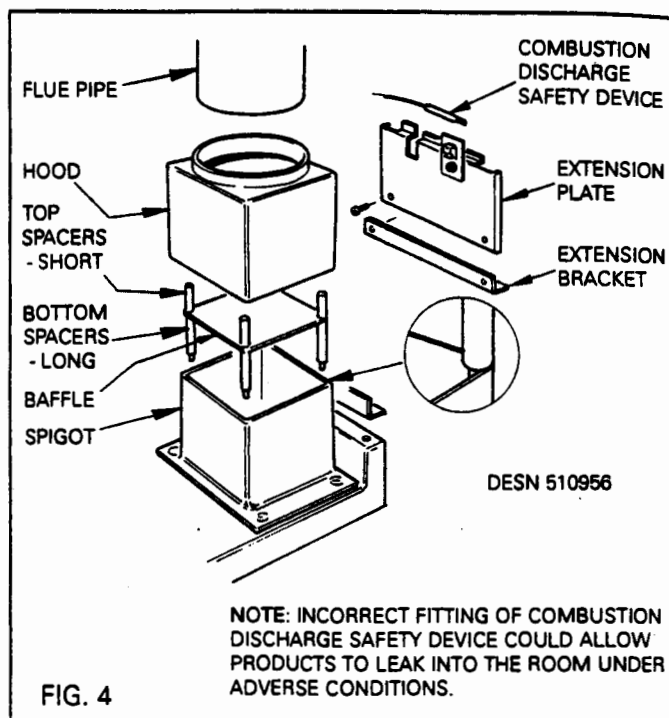
Installation Instructions

PRELIMINARY INSTALLATION

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

1. Draught Diverter Assembly — See Fig. 4.
2. Appliance Rear Distance Bracket — (for use when appliance is installed (25mm) away from a rear wall of combustible material). See Fig. 5.
3. Hand Rail

The handrail brackets are held on the front ends 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 in to the brackets, positioning them correctly, and tighten the locating bolts (Fig. 6).



Installation Instructions

Site Location:-

1. Remove the appliance assembly from the transit wooden pallet by the temporary location of a sloping ramp board between the pallet and the floor. With the appliance on the floor, lift the front of the appliance (manually or crowbar) and insert a 32mm x 1m long tube between the front of the appliance base plate and the floor.

Draw the tube balanced appliance forward until the tube is at the rear of the appliance and then insert a second similar tube at the front of the appliance, between the base plate and the floor. The tube supported appliance can now slowly be "rolled" across the floor and positioned with its back against the wall, and in its intended position for flue connection.

Using a crowbar at the rear corner of the appliance base plate, take the weight of the appliance on the crowbar and remove the rear rolled tube, followed by similar action on the front tube.

2. Assemble and locate the flue draught diverter assembly on top plate as follows:-

1. Using 2 slotted head screws and washers, attach diverter hood extension bracket to hotplate (as shown in Fig. 7).

2. Screw flue spigot to hotplate (2 slotted head screws). Centralise extension bracket (ensure equal distance either side of the flue spigot).

3. Attach CD SD phial to spring clip on CD SD phial bracket.

4. From the left hand side slide the diverter hood extension plate (d. h. e. p.) behind flue spigot and align holes in phial bracket with holes in d. h. e. p.

Fix phial bracket to d. h. e. p. (using 2 pozi screws).

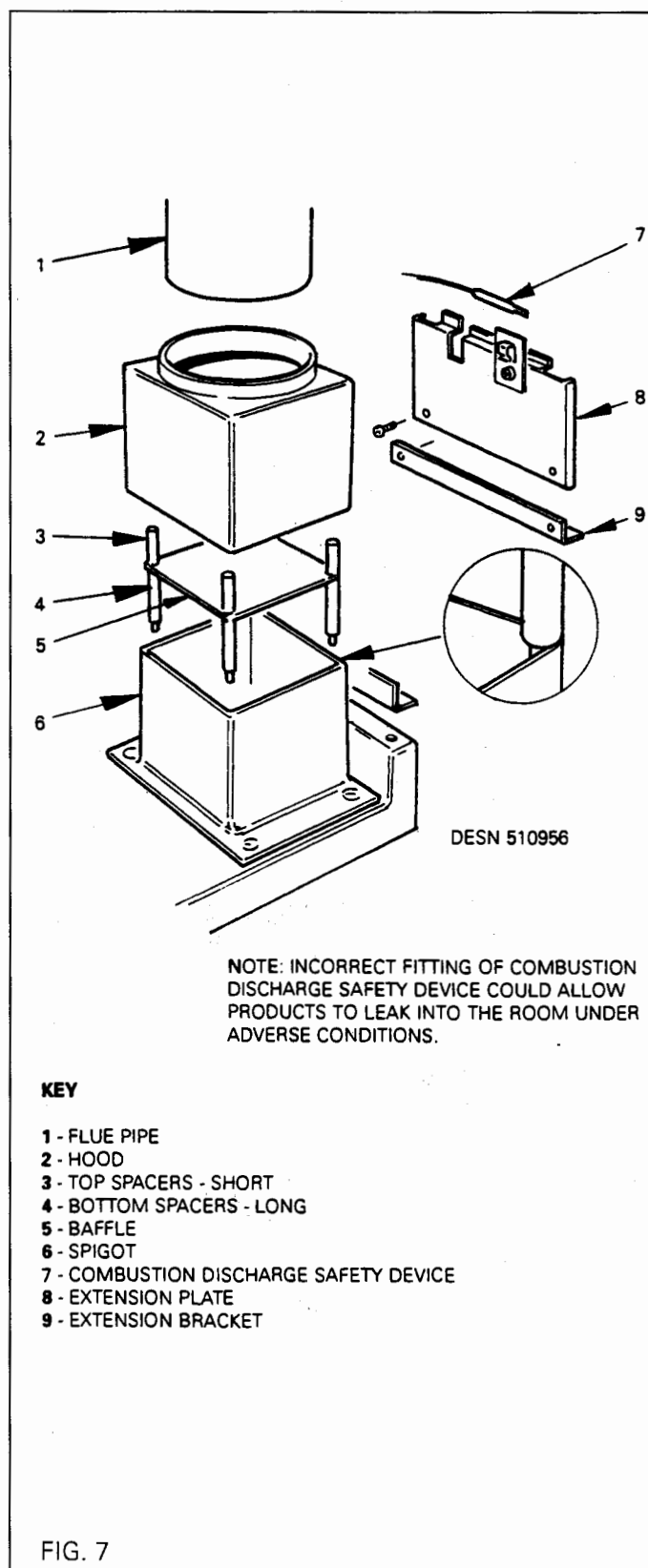
NOTE: CD SD Capillary must be routed through cut out in d. h. e. p. (as shown in Fig. 7).

5. Screw d. h. e. p. to diverter extension bracket using 2 slotted head screws (Fig. 7).

6. Position flue hood onto spigot so that rear edge of flue hood is located between phial bracket and d. h. e. p. (as shown in Fig. 7).

NOTE:- IT IS RECOMMENDED THAT A "SLIP" OR "SPLIT" ADAPTOR IS FITTED BETWEEN THE DIVERTER FLUE SOCKET AND FLUE PIPE TO FACILITATE POSSIBLE FLUE DISCONNECTION AFTER COMMISSION.

Connect and terminate the flue system in accordance with standard practice.



Installation Instructions

GAS CONNECTION

1. Connect the gas supply to the integral union gas service cock on the appliance.
2. Test the whole of the gas installation, including the meter and purge in accordance with the relevant recommendations.

WATER CONNECTIONS

The two flow and return (28mm O/D Compression) connections are located towards the rear edge of the appliance left hand side panel, and should be made with 28mm dia copper tube if the boiler is to be operated at its maximum boiler output.

SYSTEM SUITABILITY

For optimum operating conditions the heating system, into which the boiler is installed, should include a control system.

Such a system will include a timer switch and a room thermostat and/or cylinder thermostat.

The boiler should be controlled to that it operates on demand only.

Operation of the system under control of the boiler thermostat only does not produce the best efficiency. Refer to the control equipment manufacturer's literature for information, e.g., wiring.

The internal boiler/cooker wiring diagram is shown in Fig. 9.

ELECTRICAL CONNECTIONS

Supply Cable:- PVC Insulated three core 85°C rated 300/500V .75mm².

To connect the electrical wiring to the appliance.

Remove the terminal cover plate at the bottom left hand side of the appliance.

Fit supply and pump cables to the terminals as shown in Fig. 8. Ensure that the appropriate cable clamp is used.

The permanent live MUST be connected to the terminal marked L.

If a time switch is fitted to the boiler then the switch live MUST be connected to the terminal marked BSL.

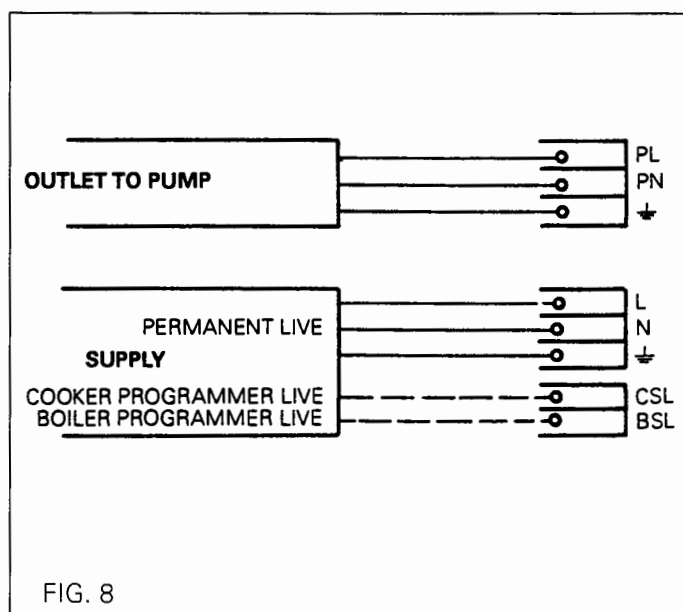
NOTE:- The link between terminals L1 and BSL MUST be removed to ensure correct operation of the time switch. If the time switch is fitted to the cooker then the switched live MUST be connected to the terminal marked CSL.

NOTE:- The link between terminals L1 and CSL MUST be removed to ensure correct operation of the time switch.

Refit the terminal cover plate.

WARNING

THIS APPLIANCE MUST BE EARTHED, EXTERNAL CONTROLS AND THE APPLIANCE MUST BE SUPPLIED VIA THE SAME PLUG AND SOCKET OR ISOLATOR.



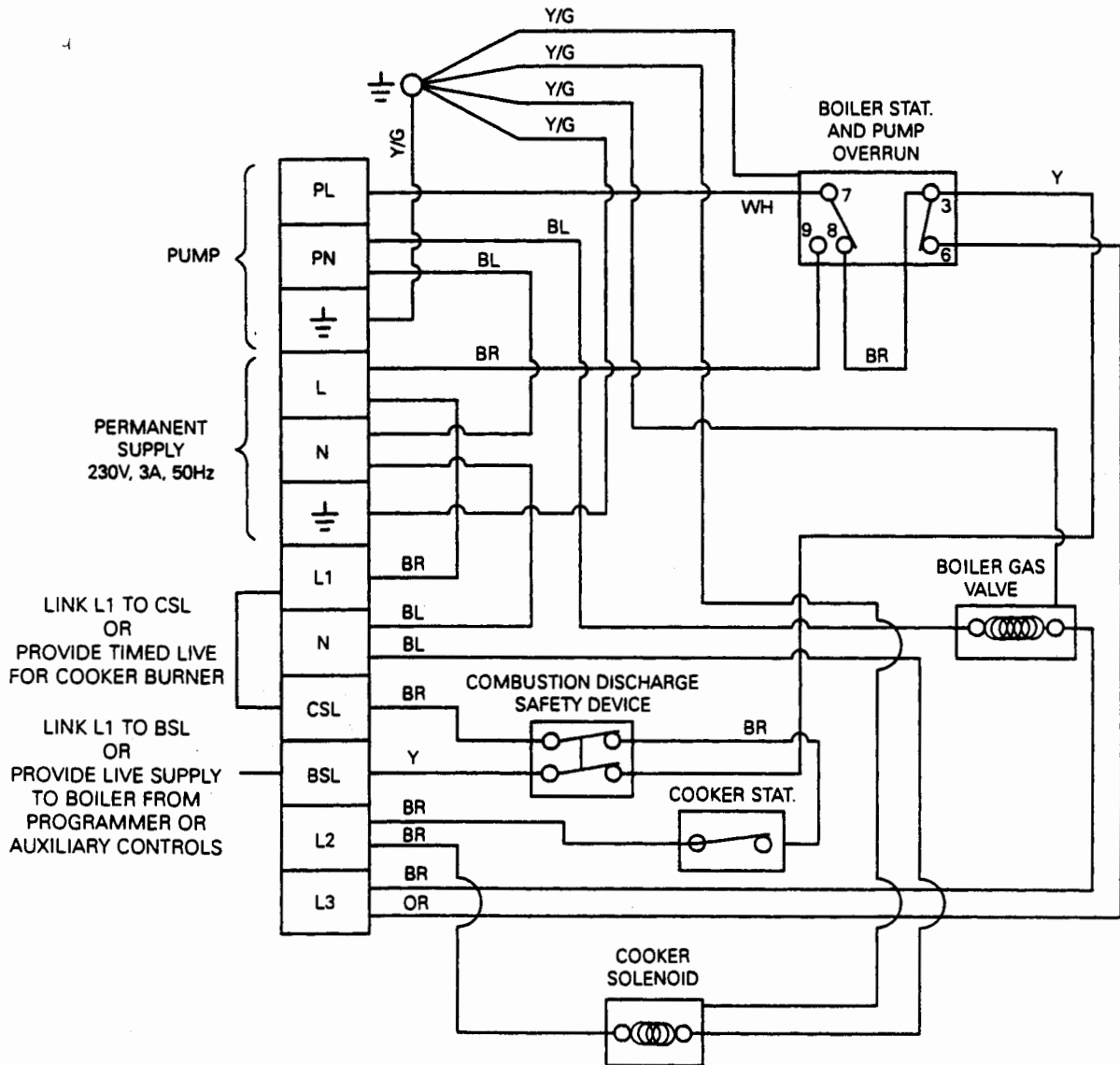


FIG. 9

Commissioning

ELECTRICAL INSTALLATION

Checks to ensure electrical safety should be carried out by a competent person, ie, earth continuity, polarity and resistance to earth.

WATER CIRCULATION SYSTEM

The whole of the system should be thoroughly flushed out with cold water without the pump in position. Ensure that all valves are open. With the pump fitted, the system should be filled.

Vent all heat emitters and check for water soundness.

COMMISSIONING THE COOKER AND BOILER

Isolate electricity at the wall socket. Turn the cooker and boiler control knobs to off.

After ensuring gas is available to the appliance, loosen joint and purge any air from the supply pipe.

WARNING: NO SMOKING OR NAKED LIGHTS.

Tighten joint and check gas service cock is in the ON position. Check for gas soundness up to the gas valves.

LIGHTING THE PILOT

Boiler (see Fig. 10)

Push in and hold the gas control knob **A** allowing a few seconds for the gas to reach the boiler pilot. Press piezo ignitor button **B** and the pilot burner will light.

Continue to hold the knob in for 15 seconds after the pilot has been lit so that when the knob is released, the pilot should remain alight.

If it does not, WAIT 3 MINUTES then repeat the procedure.

If the pilot flame does not remain alight, consult the fault finding section of this document.

Cooker (see Fig 10)

Press in and hold the cooker flame failure override button **C** allowing a few seconds for the gas to reach the cooker pilot. Press the piezo ignitor button **D** and the pilot burner will light.

Continue to hold the button in for 15 seconds after the pilot has been lit so that when the button is released, the pilot should remain alight.

If it does not, WAIT 3 MINUTES then repeat the procedure. If the pilot flame does not remain alight, consult the fault finding section of this document.

BOILER OUTPUT SETTING

SEE FIG. 10

380G ONLY
REFER TO PAGE 2, 'SPECIFICATIONS'.

The boiler side of the appliance is preset to give a maximum heat output of 23.4kW

The multifunctional burner control valve can be reset to decrease this output to 17.6kW.

To decrease the boiler output to 17.6kW connect the pressure gauge to the burner test nipple **F** and turn on the boiler burner.

Adjust the pressure to 10.5 mbar by turning the adjusting screw **G** clockwise.

Seal adjusting screw using paint to provide tamperproofing.

MAIN BURNER LIGHTING - SEE FIG. 10

This appliance is fitted with a combustible discharge safety device which will switch off both main burners in adverse flue conditions. Before turning on main burners ensure that the manual reset button on the control panel is depressed.

Ensure the electricity supply is turned ON and set any external controls to the ON position.

Turn the boiler thermostat knob to 80°, and the boiler will ignite.

Turn the cooker thermostat to No. 9, and the cooker burner will go to full rate.

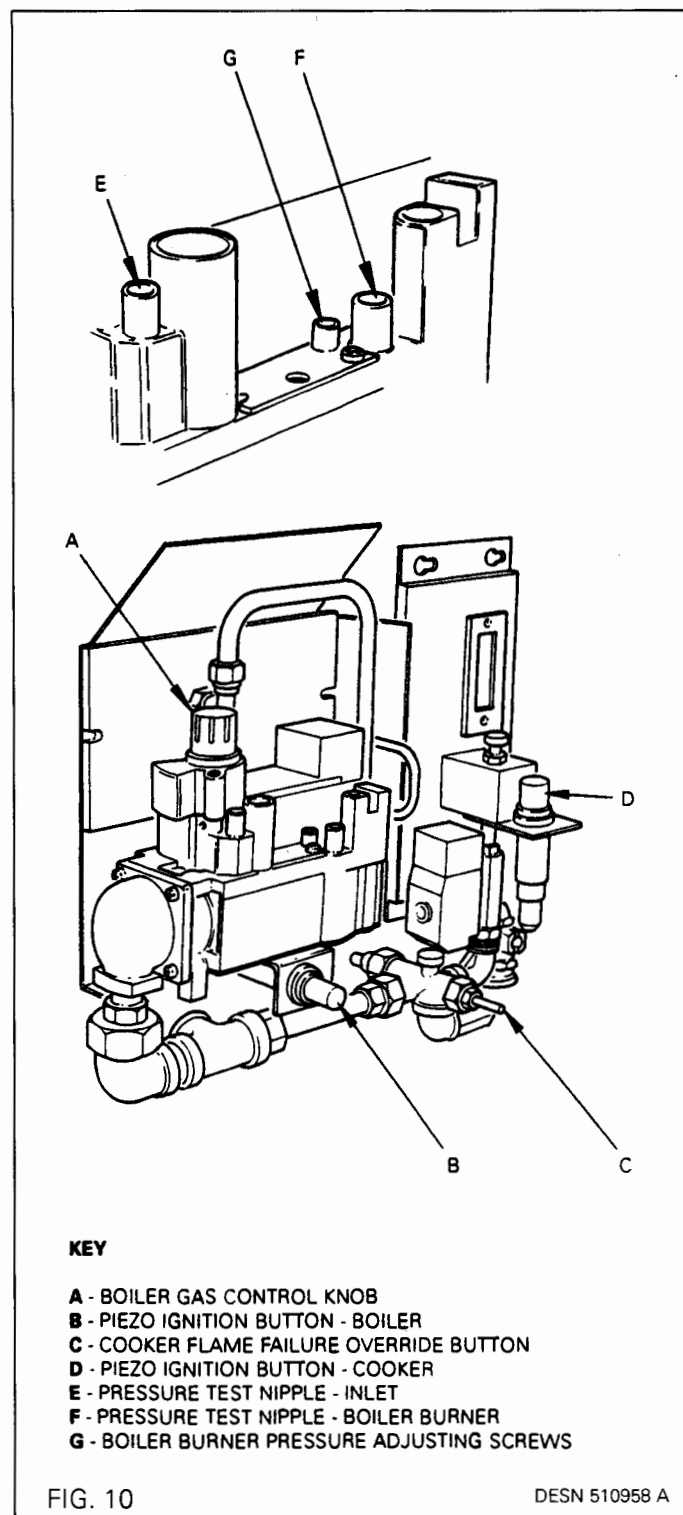
Check for gas soundness of all leaks with leak detection fluid.

Turn off both burners.

Turn the thermostat knob to the required setting.

The boiler and pump should be run until the system is hot. Check for water leaks, then flush the system with all manual automatic valves open. Upon refilling check the system for leaks. When all the air has been removed from the water circuit, the pump and radiators should be balanced to achieve the correct temperature to drop across the system.

Set any timer control, room temperature, etc, to suit the customer's requirements.



ANNUAL SERVICING

It is important for the current operation of the appliance that servicing be carried out annually by a competent person in accordance with gas safety regulations.

With normal use, a boiler/cooker service should be carried out immediately after the end of the heating season. The householder should be advised to turn off both burner and cooker control knobs the night preceding the day of the service, so that the appliance will be cooled down by the following morning, in readiness for servicing.

Before commencing any service, isolate the electricity supply then turn OFF the gas supply at the gas service cock.

SERVICING SCHEDULE

1. Carry out a pre-service check noting any operational faults.
2. Clean the hotplate.
3. Clean the burners.
4. Clean the burner and pilot injectors.
5. Clean the heat exchanger.
6. Check the condition of the boiler combustion chamber insulation.
7. Check that the flueway is unobstructed and that the draught diverter unit is correctly assembled.

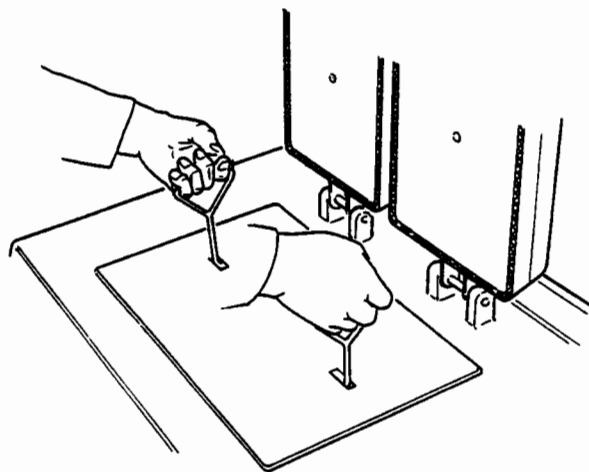
PRE-SERVICE CHECK

Operate the appliance and system, noting any faults which may need to be corrected during service.

NOTE: Isolate unit from electricity supply and turn off gas at service cock before servicing. After completing service always check for gas soundness and check the function of controls.

HOTPLATE CLEANING- SEE FIG. 11

Lift out the hotplate using the lifting tools provided. Brush the fins with a wire brush to remove any deposits.



DESN 510145 'A'

FIG. 11

BURNER CLEANING

Boiler (See Fig. 12 and 13)

Ensure isolation of electricity and gas supply.

Remove electrical terminal cover **J** from boiler gas valve.

Remove electrical connections.

Slacken union nut **K**.

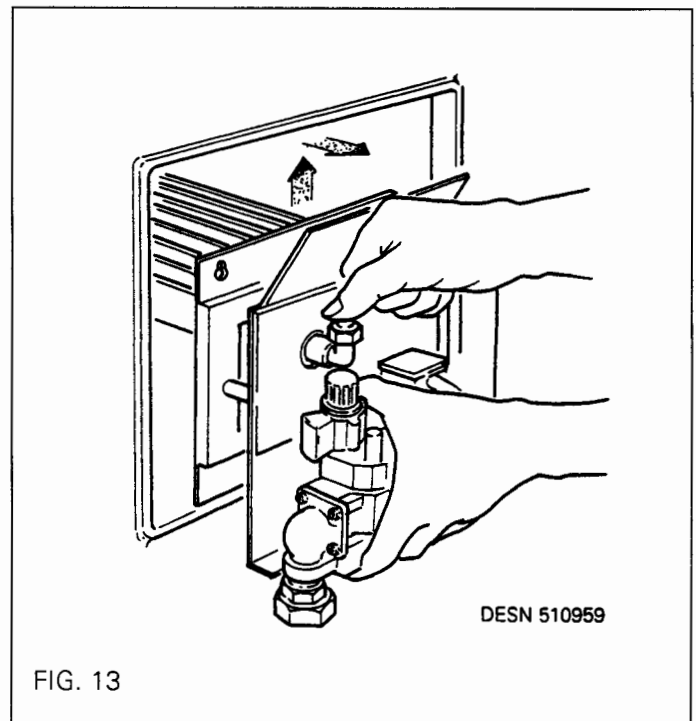
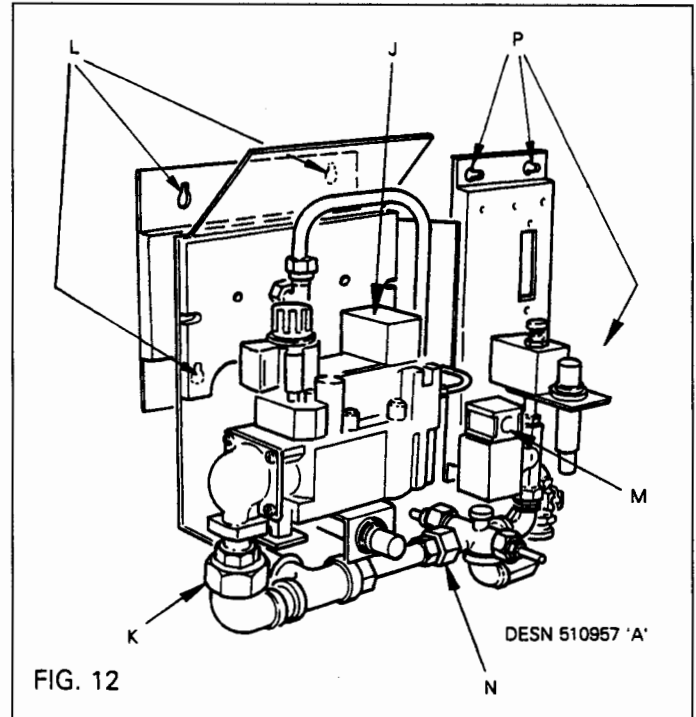
Slacken three screws **L**.

Undo union nut. Lift and remove burner, complete with gas valve, from the unit (See Fig. 13).

Brush the boiler burner top and check the flame ports are clear. Any deposits may be removed with a non-metallic brush.

Remove the burner injector, check the orifice and remove any deposits from the injector and burner venturi using a suitable non-metallic brush.

Remove pilot injector. Clean any deposits by rinsing in warm water or use a suitable brush. DO NOT attempt to push a wire through the orifice.



Cooker (see Fig. 14 and 15)

Remove solenoid connector plug **M**.

Slacken union nut **N**.

Slacken three screws **P**.

Undo union nut. Slide the assembly to the right and remove the burner, complete with controls, from the unit (See Fig. 15).

Brush the cooker burner top and check flame ports are clear.

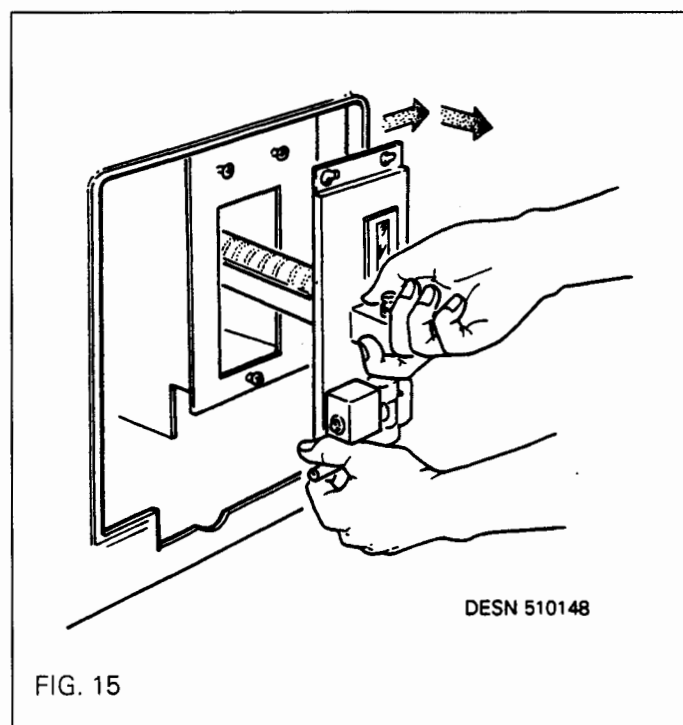
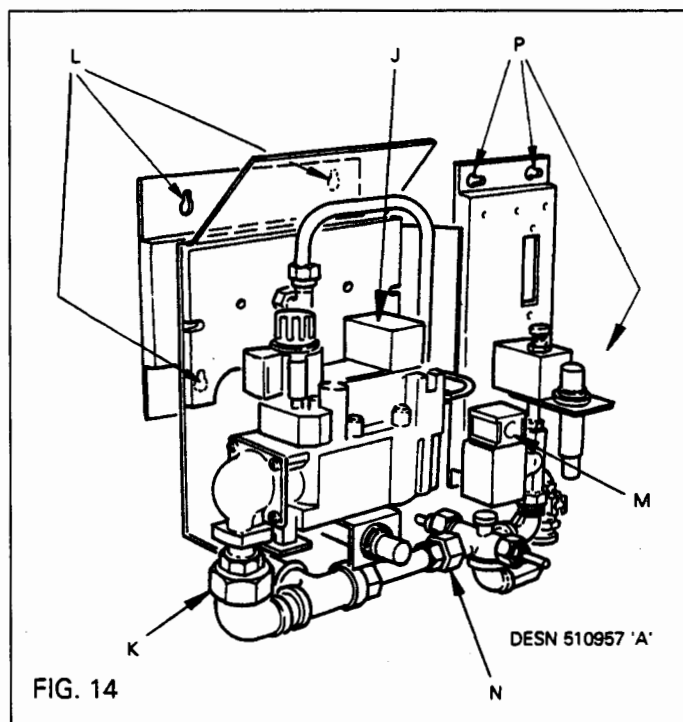
Remove screws and end plate from burner.

Remove any deposits from inside the burner or venturi and tip downwards to discharge debris.

Re-secure the end plate.

Remove the burner injector, check the orifice and remove any deposits from the injector using a suitable non-metallic brush.

Remove pilot injector. Clean any deposits by rinsing in warm water or use a suitable non-metallic brush. DO NOT attempt to push a wire through the orifice.



Servicing

HEAT EXCHANGER - See Fig 16

Remove access plate **R**.

Using a suitable brush, clean the heat exchanger from above and below.

NOTE: The insulation used on the inside surface of the combustion chamber is delicate. Great care must be taken when cleaning the heat exchanger not to abrade it. No attempt should be made to clean the insulation.

COMBUSTION CHAMBER INSULATION

Remove boiler burner assembly as previously described. Check insulation for any signs of deterioration or physical damage and replace if necessary.

FLUE CLEANING

Brush out cooker and boiler flueways with a suitable brush.

Check the assembly of the draught diverter.

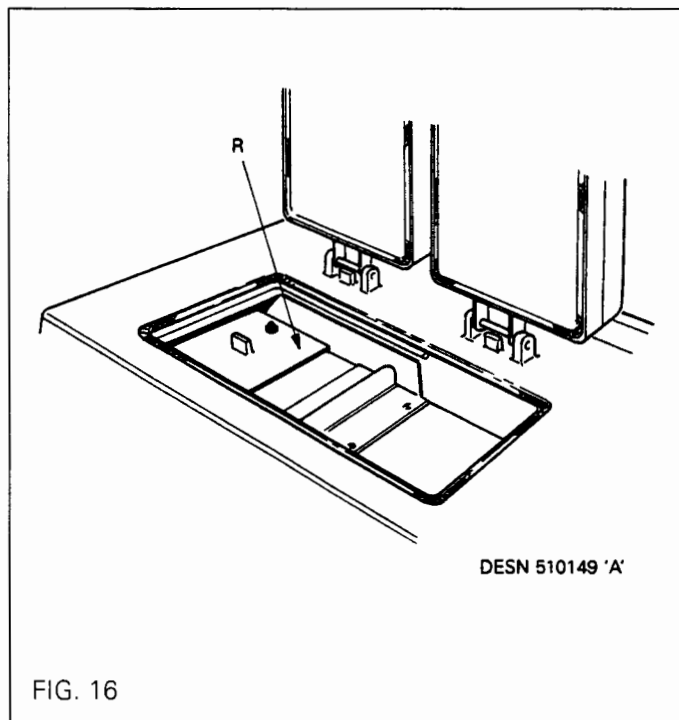


FIG. 16

RE-ASSEMBLE THE APPLIANCE

Re-assemble the appliance in reverse order.

Refit the burner injectors to the assembly.

Refit access plate **R**.

Refit the pilot injectors and pilot supply pipe to the pilot assembly.

Refit boiler and cooker burner assemblies, refit screw and tighten union nuts.

Re-connect solenoid electrical supply to cooker burner assembly.

Re-connect electrical terminals to the boiler gas valve.

Replace terminal cover.

Replace hotplate.

Test fully for gas soundness.

Test the Appliance and Installation

Ensure that gas is turned on at the service cock and electrical supply is ON.

Following the sequence in COMMISSIONING INSTRUCTIONS.

Replacement of parts - Cooker

TO FIT NEW THERMOELECTRIC VALVE - See Fig. 17

Follow instructions in section Burner Cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Disconnect the necessary fittings and remove existing valve.
2. Transfer inlet and outlet elbows to the replacement valve.
3. Re-assemble in reverse order.
4. Check for gas soundness.

TO FIT NEW PILOT INJECTOR - See Fig. 18

Follow instructions in section Burner Cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Unfasten the securing nuts on each of the supply pipe and remove.
2. Remove the injector.
3. Fit replacement injector.
4. Re-assemble in reverse order.
5. Test for gas soundness.

TO FIT NEW THERMOCOUPLE

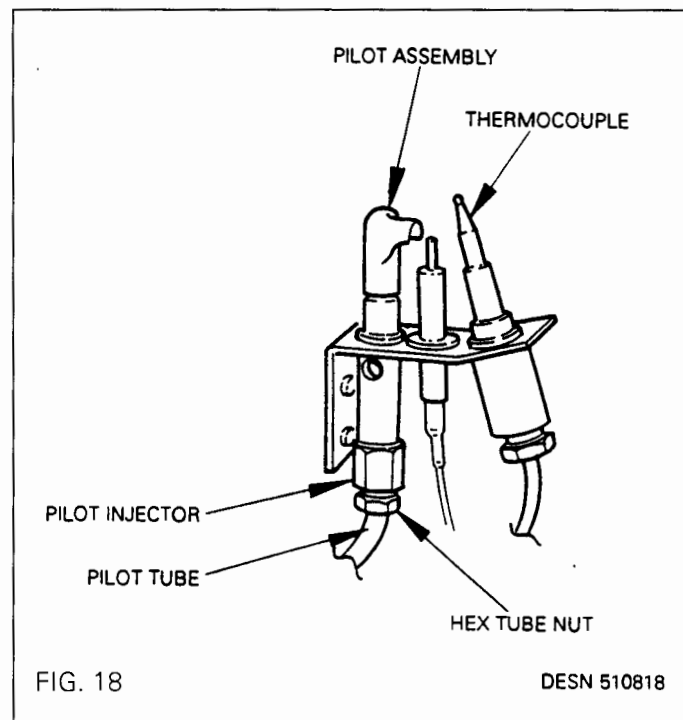
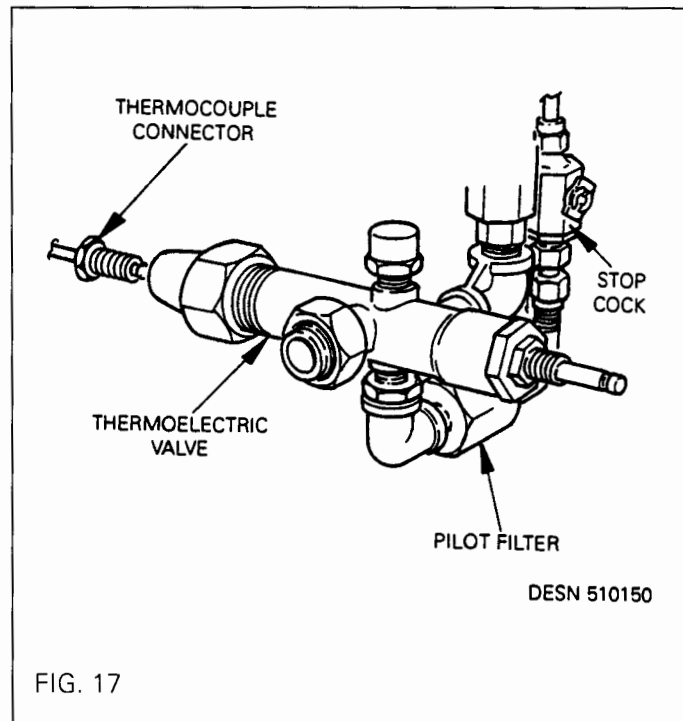
Follow instructions in section Burner Cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Disconnect thermocouple from thermoelectric valve via tube nut from pilot assembly.
2. Remove thermocouple.
3. Fit replacement thermocouple.

TO FIT NEW PILOT FILTER - See Fig. 17

Follow instructions in section Burner cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Disconnect the compression fitting between filter and stop cock.
2. Unscrew filter.
3. Fit replacement filter.
4. Re-assemble fitting.
5. Check for gas soundness.



TO FIT NEW PILOT STOP COCK

Follow instruction in section Burner cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Disconnect the compression fittings.
2. Remove stop cock.
3. Fit replacement.
4. Re-assemble fittings.
5. Check for gas soundness.

TO FIT NEW BURNER

Follow instructions in section Burner cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Remove two pilot assembly screws.
2. Slacken locknut.
3. Lift and remove burner.
4. Fit new burner.
5. Re-assemble in reverse order.

TO FIT NEW BURNER INJECTOR

Follow instructions in section Burner cleaning of Servicing Instructions and remove the cooker burner assembly.

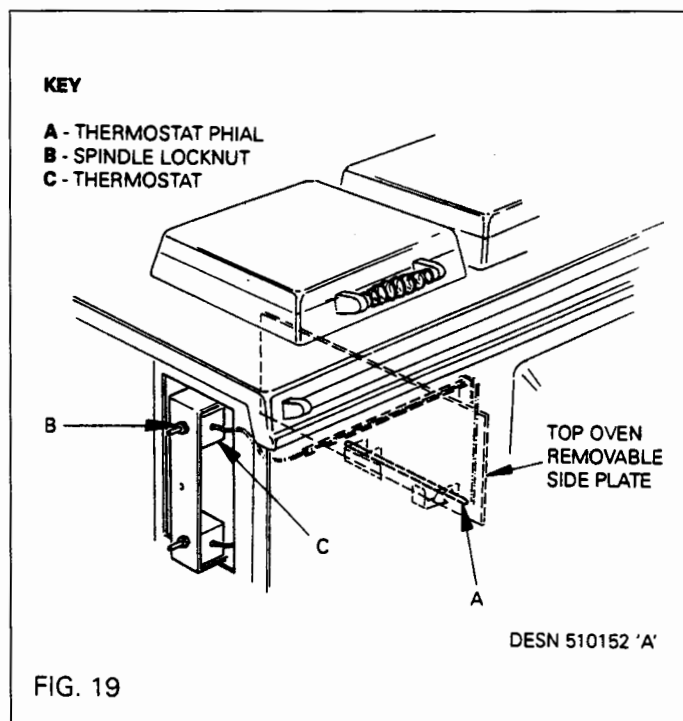
1. Refer to the above and remove the burner.
2. Unscrew injector.
3. Fit replacement.
4. Re-assemble in reverse order.

TO FIT NEW SOLENOID COIL

1. Remove electrical connector plug.
2. Remove nut and pull coil from selected body.
3. Fit replacement.

TO FIT NEW COOKER THERMOSTAT - See Fig. 19

1. Remove thermostat knobs.
2. Remove screws and control panel cover.
3. Unclip thermostat knob **A** from LH side of roasting oven and withdraw phial and capillary tube clear of oven and front plate until it is fully clear and the LH side of the appliance.
4. Remove electrical leads from thermostat noting position.
5. Remove spindle locknut **B** and extract thermostat **C**.
6. Fit replacement.
7. Re-assemble in reverse order.

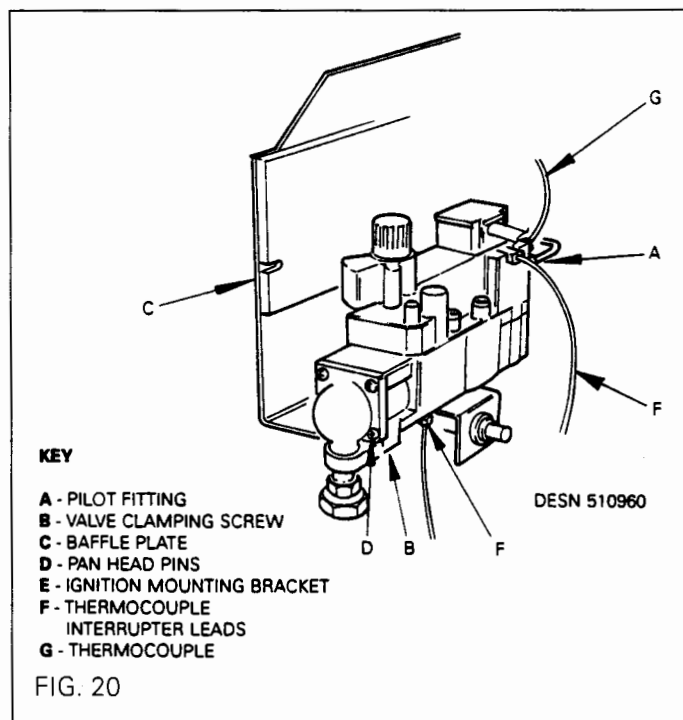


Replacement of parts - Boiler

TO FIT NEW GAS VALVE See Fig. 20

Follow instructions in section Burner cleaning of the Servicing Instructions and remove the boiler burner assembly.

1. Unscrew the pilot fitting **A** on the gas valve and remove.
2. Unscrew the valve clamping screw **B** beneath the baffle plate **C**.
3. Remove valve.
4. Unscrew the four pan head pins **D** on each end of the gas valve, remove the two elbow flanges and the ignitor mounting bracket **E**.
5. Fit the two elbow flanges to the new gas valve ensuring the correct positioning.
N.B. ALWAYS USE NEW 'O' RINGS.
6. Re-assemble in reverse order.
7. Check for gas soundness.



TO FIT NEW PILOT INJECTOR See Fig. 21

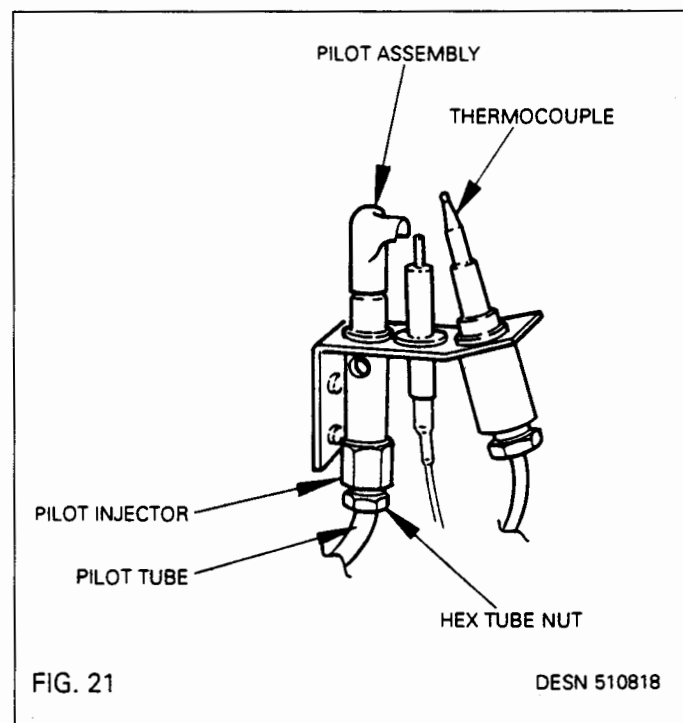
Follow instructions in section Burner cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Release both end of the pilot supply pipe.
2. Remove injector.
3. Fit replacement.
4. Re-assemble in reverse order.
5. Check for gas soundness.

TO FIT NEW THERMOCOUPLE See Fig. 20

Follow instructions in section Burner cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Release thermocouple **G** from right hand side of gas valve from pilot assembly.
2. Remove thermocouple, noting the route taken.
3. Re-assemble in reverse order.



TO FIT NEW BURNER

Follow instructions in section Burner cleaning of Servicing Instructions and remove the cooker burner assembly.

1. Remove two pilot assembly clamping screws.
2. Remove two screws and spacers from baffle plate assembly.
3. Release gas pipe at final elbow.
4. Remove two burner housing screws.
5. Remove burner.
6. Transfer injector to replacement burner.
7. Re-assemble in reverse order.

TO FIT NEW BURNER INJECTOR

Follow instructions in section Burner cleaning of Servicing Instructions and remove the boiler burner assembly.

1. Unscrew injector.
2. Fit and tighten replacement.

TO FIT NEW BOILER THERMOSTAT See Fig. 22

1. Remove thermostat knobs.
2. Remove screws and control panel cover.
3. Remove screws and thermostat phial access cover **D**.
4. Remove thermostat phial insulation blanket **E**.
5. Remove phial **F** from heat exchanger via rear access panel.
6. Remove overheat leads from thermostat coil **G** from phial.
7. Remove electrical leads from thermostat noting positions.
8. Remove spindle locknut **H** and extract thermostat **J** carefully guiding the phial back into its guide tube on the inside of the side panel.
9. Fit replacement.
10. Re-assemble in reverse order.

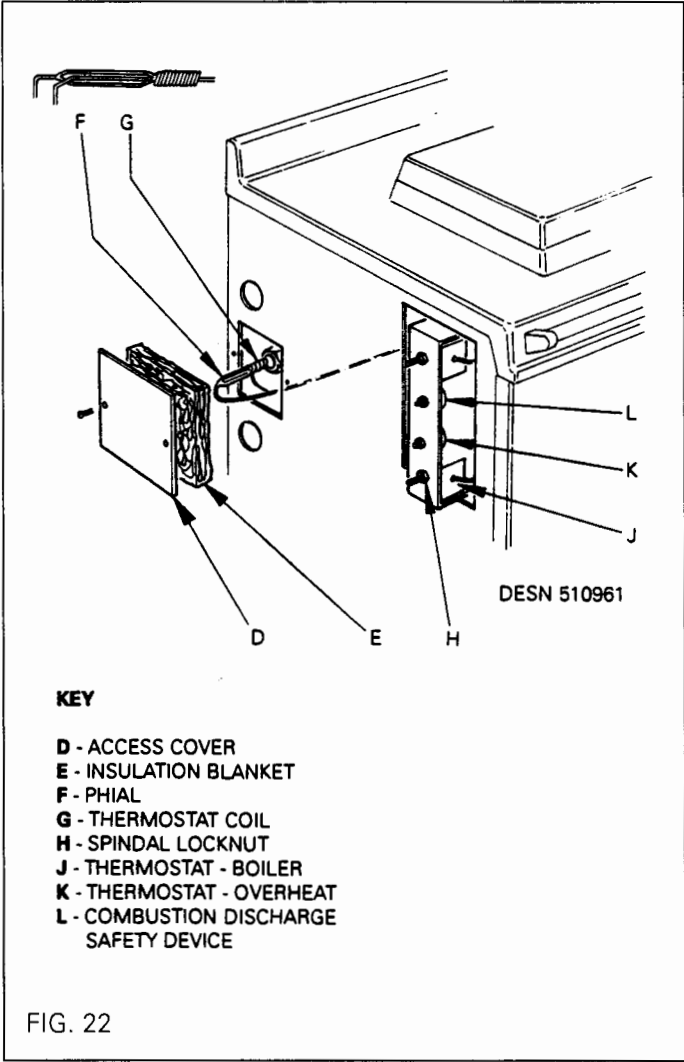


FIG. 22

Replacement of parts - Boiler

TO FIT NEW BOILER OVERHEAT THERMOSTAT

Follow new boiler thermostat instructions 1 to 5.

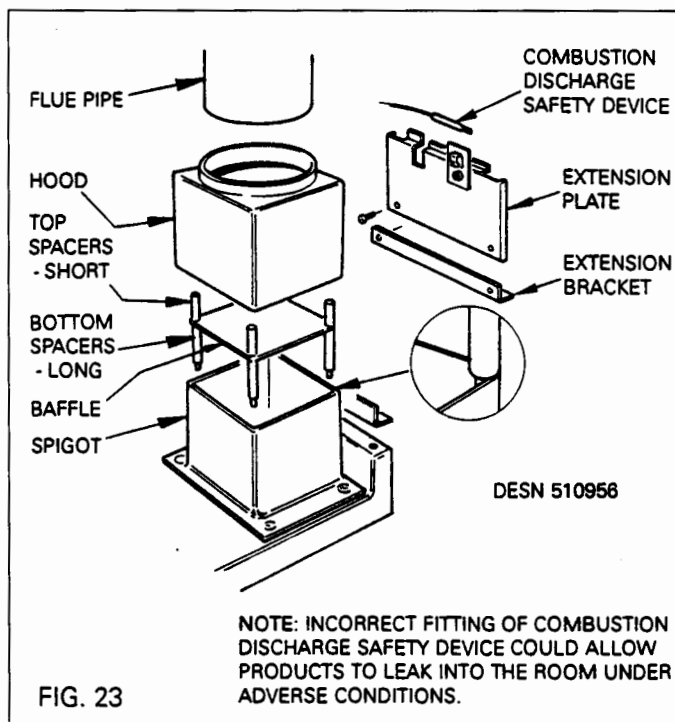
1. Remove electrical leads from thermostat **K**.
2. Remove spindle locknut and extract overheat thermostat.
3. Fit replacement.
4. Re-assemble in reverse order.

TO FIT COMBUSTION DISCHARGE SAFETY DEVICE

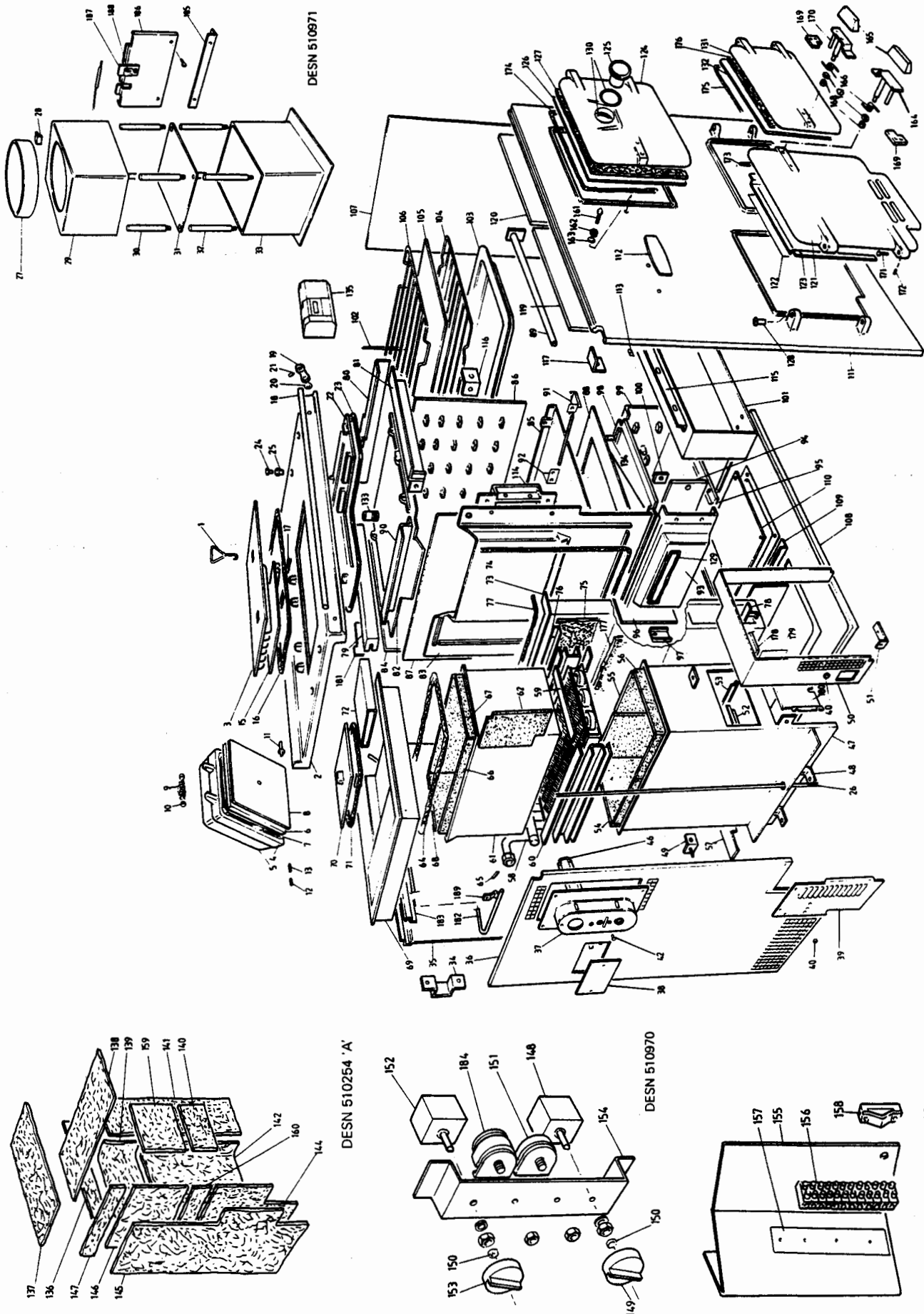
1. Remove thermostat knobs.
2. Remove screws and control panel cover.
3. Remove 2 screws from diverter hood extension plate (d. h. e. p.).
4. Slide D. H. E. P. slightly forwards and then to the left of the flue assembly.
5. Remove CD SD phial from spring clip.
6. Remove D. H. E. P. and feed CD SD phial and capillary down copper tubing.
7. Remove spindle locknut and electric leads from CD SD, extract CD SD.
8. Fit replacement and re-assemble in reverse order.

NOTE: INCORRECT FITTING OF COMBUSTION DISCHARGE DEVICE COULD LEAD TO COMBUSTION PRODUCTS LEAKING INTO THE ROOM.

ONLY PARTS SUPPLIED BY RAYBURN MUST BE USED.



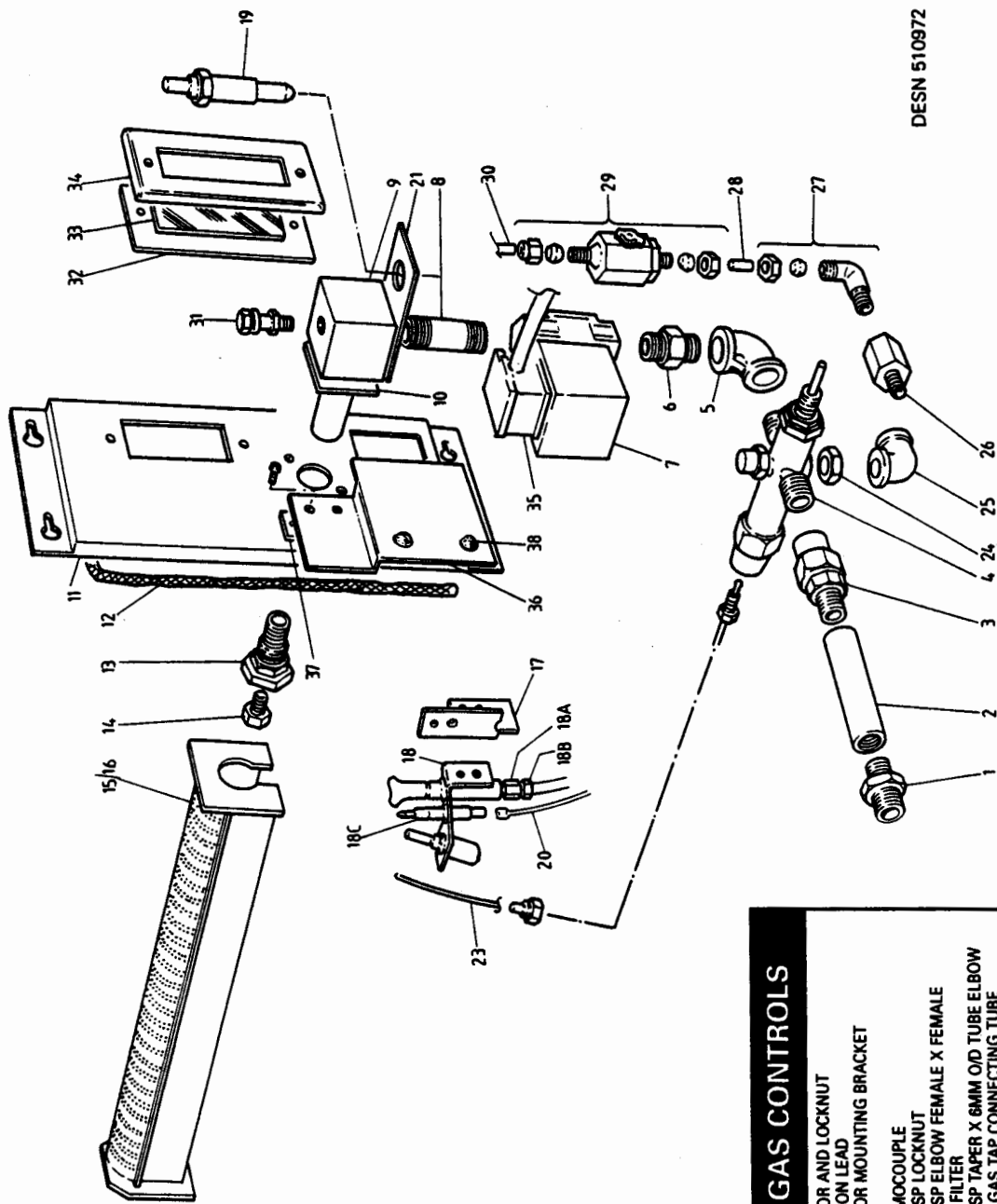
Spare Parts



SPARE PARTS LIST - APPLIANCE

Spare Parts

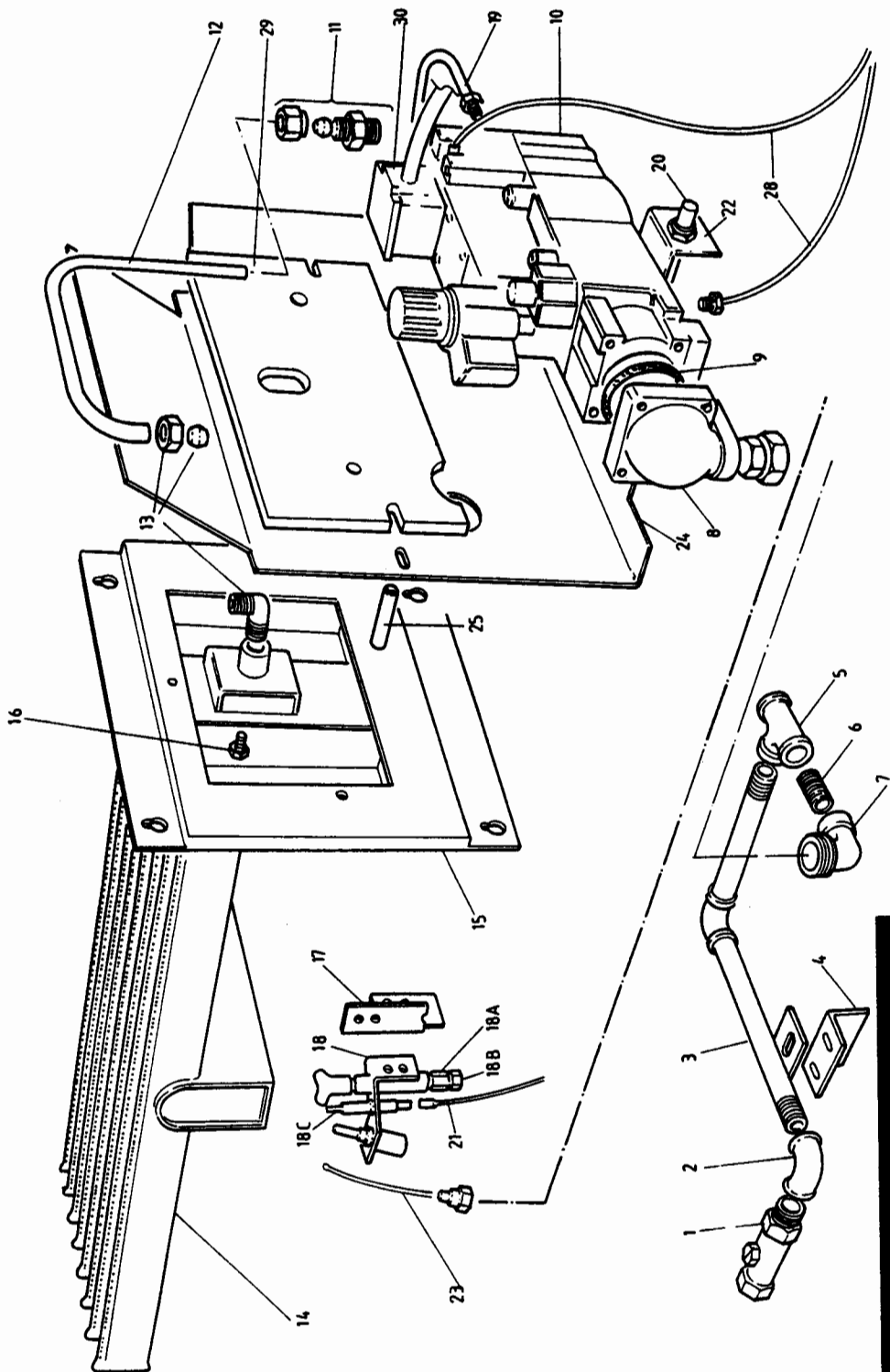
1	HOT PLATE LIFTING TOOL	55	PAD	95	SIMMERING OVEN BOTTOM PLATE	145	L.H. SIDE PANEL BLANKET
2	HOB PLATE	56	BURNER CHAMBER SIDE INSULATION	96	SIMMERING OVEN BACK PLATE	146	FLUE COLLECTOR L.H. SIDE BLANKET
3	HOT PLATE	57	PAD	97	SIMMERING OVEN SUPPORT BRACKET	147	FLUE SEPARATOR L.H. SIDE BLANKET
4	INSULATING COVER BASE	58	BURNER CHAMBER FRONT	98	SIMMERING OVEN TOP PLATE	148	BOILER THERMOSTAT
5	INSULATING COVER TOP	59	INSULATION PAD	99	SIMMERING OVEN R.H. SIDE PLATE	149	BOILER THERMOSTAT KNOB
6	INSULATING COVER SEAL	60	REAR INSULATION SUPPORT BRACKET	100	SIMMERING OVEN RETAINING BRACKET	150	KNOB TO SHAFT CLIP
7	INSULATING COVER LINING PLATE	61	HEAT EXCHANGER	101	SIMMERING OVEN INSULATING FRINGE	151	OVERHEAT THERMOSTAT
8	INSULATING COVER LINING PLATE	62	SEALING STRIP FOR HEAT EXCHANGER	102	OVER STAY ROD	152	COOKER THERMOSTAT
9	COIL HANDLE	63	END PLATE	103	MEAT TRAY	153	COOKER THERMOSTAT KNOB
10	HANDLE CUPS	64	SEALING STRIP FOR HEAT EXCHANGER	104	OVEN GRID SHELF	154	THERMOSTAT MOUNTING BRACKET
11	FIXED PIVOT BEARINGS	65	CHANNELS	105	OVEN SHELF	155	TERMINAL BLOCK MOUNTING BRACKET
12	GRUB SCREW M10 X 10MM LONG	66	BOILER FLUE COLLECTOR	106	GRILL RACK	156	12-WAY TERMINAL BLOCK
13	GRUB SCREW M10 X 16MM LONG	67	INSULATION PAD FOR THERMOSTAT	107	R.H. SIDE PANEL	157	TERMINAL BLOCK LABEL
14	HOTPLATE BAFFLE	68	HOUSING	108	BASE PLATE	158	CABLE CLAMP
15	ROPE 13MM DIA X 1600MM LONG	69	ROPE 13MM DIA X 220MM LONG	109	COOKER BURNER CHAMBER FIXING	159	FLUE COLLECTOR FRONT BLANKET
16	ROPE 13MM DIA X 230MM LONG	70	COTTER PIN	110	BASE PLATE FILLER PLATE	160	HEAT EXCHANGER CHANNEL BLANKET
17	ROPE 13MM DIA X 230MM LONG	71	FLUE COLLECTOR SIDE INSULATION	111	FRONT PLATE	161	DOOR KEEP
18	HANDRAIL	72	PAD	112	NAME BADGE	162	M8 FLANGE NUT
19	HANDRAIL BRACKET	73	FLUE COLLECTOR FRONT INSULATION	113	PUSH ON CLIPS	163	DOOR KEEP WASHER
20	FIBRE WASHER	74	FLUE COLLECTOR REAR INSULATION	114	FIREBOX SIDE FIXING BRACKET	164	BURNER DOOR CATCH
21	1/8" DIA X 1/2" LONG ROLL PIN	75	PAD	115	OVEN RETAINING BRACKET	165	DOOR HANDLE
22	HOB PLATE PROTECTOR PLATE	76	FLUE SEPARATING DUCT	116	TOP OVEN R.H. RETAINING BRACKET	166	DOOR CATCH SPRING
23	ROPE 13MM DIA X 2400MM LONG	77	HEAT EXCHANGER ACCESS DOOR	117	SIDE PANEL RETAINING BRACKET	167	SPRING RETAINING WASHER
24	CORNER STAY BUTTONS	78	ROPE 7MM DIA X 620MM LONG	118	TOP OVEN R.H. RETAINING BRACKET	168	M8 SELF LOCKING NUT
25	CORNER STAY NUTS	79	FLUE DUCT EXTENSION	119	TOP HEAT SHIELD - BOILER	170	OVEN DOOR CATCH
26	CORNER STAY RODS	80	FLUE DUCT EXTENSION	120	TOP HEAT SHIELD - OVEN	171	DOOR HINGE PIN
27	FLUE SOCKET	81	COOKER BURNER CHAMBER	121	OUTER BURNER DOOR	172	GRUB SCREW
28	FLUE SOCKET FIXING BRACKET	82	ROPE 13MM DIA X 1400MM LONG	122	LIGHTING INSTRUCTIONS	173	BURNER DOOR SEAL
29	FLUE DIVERTER HOOD	83	COOKER BURNER CHAMBER	123	BURNER DOOR LINING PANEL	174	TOP OVEN DOOR SEAL
30	FLUE DIVERTER TOP SPACER	84	INSULATING BRACKET	124	TOP OVEN DOOR	175	SIMMERING OVEN DOOR SEAL
31	FLUE DIVERTER BAFFLE	85	INSULATION RETAINING BRACKET	125	THERMODIAL	176	SIMMERING OVEN DOOR INSULATION
32	FLUE DIVERTER BOTTOM SPACER	86	ROPE 13MM DIA X 750MM LONG	126	TOP OVEN DOOR LINING PANEL	177	INSULATION PAD - COOKER BURNER
33	FLUE DIVERTER SPIGOT	87	COOKER BURNER BAFFLE	127	DOOR INSULATION	178	CHAMBER
34	COMBUSTIBLE WALL	88	OVEN TOP REAR FLUE PLATE	128	NYLON BUSHES	179	INSULATION PAD - BURNER HOUSING
35	BACK PLATE	89	OVEN TOP L.H. FLUE PLATE	129	ROPE 7MM DIA X 640MM LONG	180	DATA PLAQUE
36	L.H. SIDE PANEL	90	OVEN TOP FRONT FLUE PLATE	130	THERMODIAL SEALING WASHER	181	BURNER CHAMBER BLANKING PLATE
37	CONTROL COVER	91	TOP OVEN TOP PLATE	131	SIMMERING OVEN DOOR	182	FLUE DIVIDER PLATE
38	ACCESS PANEL FOR THERMOSTAT	92	FIREFLEX SIDE PLATE	132	SIMMERING OVEN DOOR LINING PANEL	183	STAT PHIAL GUIDE TUBE
39	L.H. SIDE FILLER PLATE	93	TOP OVEN BACK PLATE	133	TOP OVEN VENT PIPE	184	GUIDE TUBE BRACKET
40	GROMMET	94	TOP OVEN BOTTOM PLATE	134	SIMMERING OVEN VENT PIPE	185	FLUE SPILLAGE THERMOSTAT
41	HOLE PLUG	95	TOP OVEN R.H. FIXED SIDE PLATE	135	PROGRAMMER TIME SWITCH -	186	FLUE DIVERTER EXTENSION BRACKET
42	THERMOSTAT PHIAL GUIDE BRACKET	96	TOP OVEN R.H. REMOVABLE SIDE	136	FLUE SEPARATOR REAR BLANKET	187	FLUE DIVERTER EXTENSION BRACKET
43	BOILER BURNER CHAMBER	97	TOP OVEN REFLECTOR DUCT	137	FLUE SEPARATOR TOP BLANKET	188	FLUE STAT PHIAL BRACKET
44	BURNER CHAMBER TO BASE FIXING	98	OVEN THERMOSTAT PHIAL GUIDE	138	THERMOSTAT HOUSING TOP BLANKET	189	PHIAL CLIP
45	BRACKET	99	TUBE	139	FLUE COLLECTOR REAR BLANKET		
46	BURNER CHAMBER SPACING BRACKET	100	HOTPLATE BAFFLE SEALING PLATE	140	BOILER BURNER CHAMBER FRONT		
47	BURNER HOUSING FRAME	101	THERMOSTAT PHIAL FRONT LOCATION	141	BLANKET		
48	BURNER CHAMBER TO BASE FIXING	102	BRACKET	142	BLANKET		
49	BRACKET	103	THERMOSTAT PHIAL REAR	143	BLANKET		
50	BURNER CHAMBER REAR INSULATING	104	INSULATION BRACKET	144	BOILER BURNER CHAMBER L.H. SIDE		
51	BRACKET	105	SIMMERING OVEN L.H. FIXED SIDE		BLANKET		
52	BRACKET	106	PLATE				
53	BRACKET	107	SIMMERING OVEN L.H. REMOVABLE				
54	BRACKET	108	SIDE PLATE				



DESN 510972

SPARE PARTS LIST - COOKER GAS CONTROLS

1	1/2" X 1/4" BSP TAPER REDUCING NIPPLE	19	IGNITOR AND LOCKNUT
2	ADAPTOR SOCKET	20	IGNITION LEAD
3	1/4" BSP UNION MALE X FEMALE	21	IGNITOR MOUNTING BRACKET
4	FLAME FAILURE VALVE	23	THERMOCOUPLE
5	1/4" BSP ELBOW FEMALE X FEMALE	24	1/8" BSP LOCKNUT
6	1/4" BSP HEXAGON	25	1/8" BSP ELBOW FEMALE X FEMALE
7	SOLENOID	26	PILOT FILTER
8	1/4" BSP NIPPLE	27	1/8" BSP TAPER X 6MM O/D TUBE ELBOW
9	COOKER BURNER MANIFOLD	28	PILOT GAS TAP CONNECTING TUBE
10	MANIFOLD GASKET	29	PILOT GAS TAP
11	COOKER BURNER DOOR	30	PILOT CONNECTING TUBE
12	ROPE 12MM DIA X 440MM LONG	31	PRESSURE TEST NIPPLE
13	INJECTOR HOLDER	32	SIGHT GLASS GASKET
14	BURNER INJECTOR	33	SIGHT GLASS
15	COOKER BURNER (BRAY)	34	SIGHT GLASS FIXING BRACKET
16	ANTI-LIGHTING GAUZE (COOKER-BURNER)	35	SOLENOID PLUG AND CABLE
17	PILOT MOUNTING BRACKET	36	SOLENOID BAFFLE PLATE
18	PILOT BURNER (JOHNSON)	37	SOLENOID BAFFLE GASKET
18A	PILOT INJECTOR	38	RUBBER SPACERS
18B	COMPRESSION NUT AND OLIVE		
18C	IGNITION ELECTRODE		



DESN 510973

SPARE PARTS LIST - BOILER GAS CONTROLS

1	GAS COCK	17	PILOT MOUNTING BRACKET
2	1/2" BSP FEMALE ELBOW	18	PILOT BURNER (JOHNSON)
3	GAS FEED MANIFOLD	18A	PILOT INJECTOR
4	GAS BRACKET SUPPORT BRACKET	18B	COMPRESSION NUT AND OLIVE
5	1/2" BSP FEMALE TEE	18C	IGNITION ELECTRODE
6	1/2" BSP CLOSE TAPER NIPPLE	19	PILOT FEED TUBE
7	1/2" BSP UNION ELBOW MALE X FEMALE	20	IGNITOR AND LOCKNUT
8	1/2" BSP FLANGE ELBOW	21	IGNITION LEAD
9	O' RING	22	IGNITOR MOUNTING BRACKET
10	GAS VALVE (HONEYWELL)	23	THERMOCOUPLE
11	1/2" BSP TAPER X 10MM O/D TUBE STUD COUPLING	24	GAS VALVE SHIELD
12	BOILER BURNER FEED PIPE	25	GAS VALVE
13	1/4" BSP TAPER X 10MM O/D TUBE ELBOW	28	SPLIT WIRE ENERGY CUT OUT
14	BOILER BURNER (FURIGAS)	29	GAS VALVE INSULATION PAD
15	BOILER BURNER DOOR	30	GAS VALVE PLUG AND LEAD
16	BURNER INJECTOR		