

This information refers to the following products

**Rayburn 460K MK1
(Early models
1994-5)**

WARNING

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Home on the Range.

Servicing Instructions for Rayburn 460k Central Heating Cooker

Consumer Protection Act 1987

As manufacturers and suppliers of cooking and heating products, in compliance with Section 10 of the Consumer Protection Act 1987, 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.

Control of Substances - Health and Safety - Important.

This appliance may contain some of the materials that are indicated below. 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

To ensure the best performance from your Rayburn 460k it should be serviced once a year; preferably at the start of the heating season by a registered heating installer. An additional flueway and combustion chamber clean halfway through the heating season may be necessary in some cases. The 460k cannot be serviced whilst hot, so both oven and boiler thermostats should be turned off on the evening before the service visit.

SERVICE SCHEDULE

Annual Service

BURNER REMOVAL - for cleaning and inspection.

CLEANING - Boiler heat exchanger flueways, oven and hotplate flueways together with ceramic fibre burner chambers.

BURNER SERVICING.

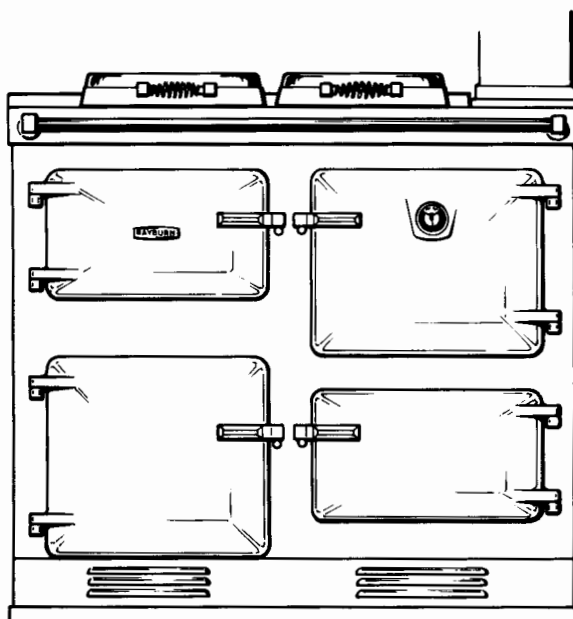
OIL LINE SERVICING - Cleaning of oil pump strainer and fuel line strainer.

RE-COMMISSIONING.

REPLACEMENT PARTS.

Additional Flueway Clean

It may be necessary in some installations to give the boiler flueways and clean out at the end of the heating season.



DESN 510517

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

Burner Removal

PREPARATION

WARNING: BEFORE REMOVING SERVICE ACCESS COVERS OR THE OIL BURNERS ENSURE THAT ALL ELECTRICAL SUPPLIES TO THE APPLIANCE HAVE BEEN ISOLATED.

The burners can be removed without disconnecting the oil supply pipe. However if a pressure gauge is fitted to the pump then the oil supply should be turned **OFF** and arrangements made to catch any oil which will leak from the oil pump.

BURNER ACCESS

- SEE FIG. 1

1. Open up the bottom burner access door. Remove door and put in a safe place.
2. Remove the 4 inner panel securing screws and remove panel.
3. Remove the 3 plinth securing screws and remove plinth.

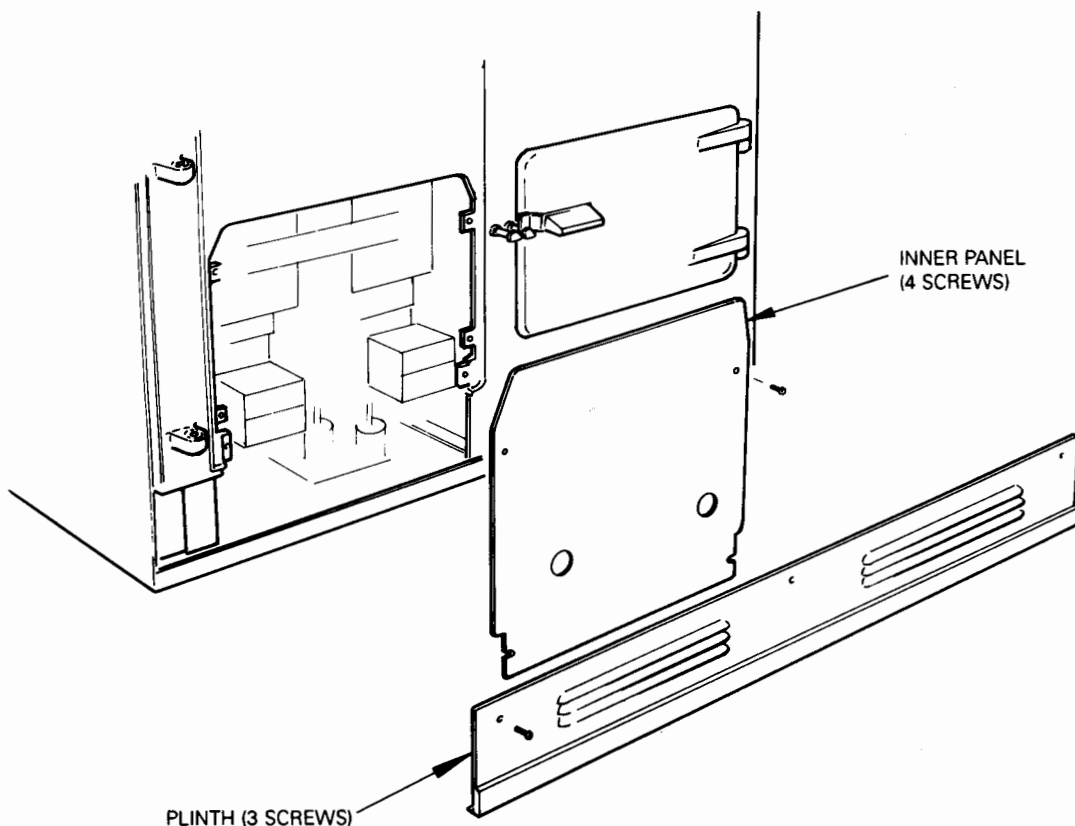


FIG. 1

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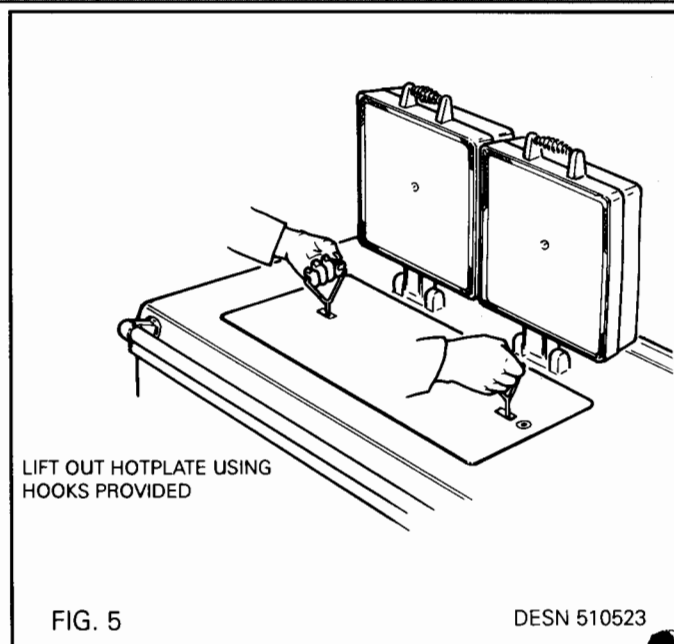
Cleaning

HEAT EXCHANGER CLEANING

IMPORTANT: DURING CLEANING CARE MUST BE TAKEN NOT TO DAMAGE THE CERAMIC FIBRE INSULATION.

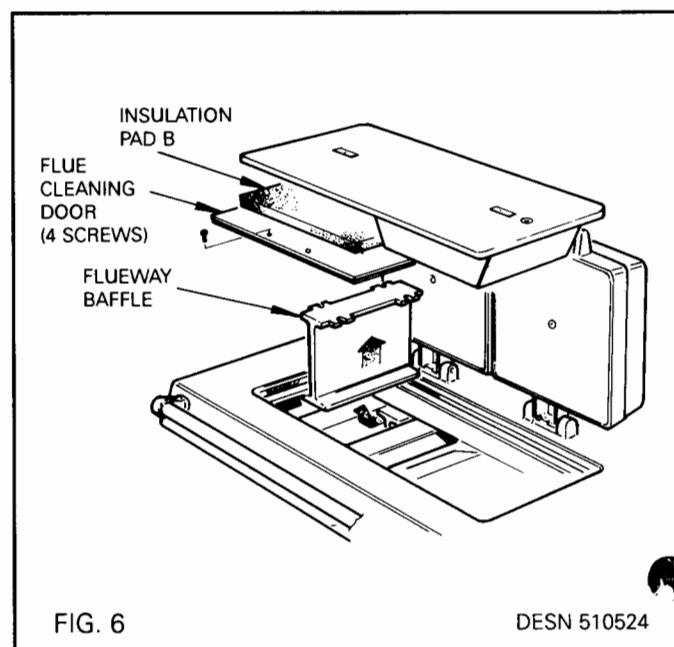
SEE FIG. 5

1. Lift insulation covers and remove hotplate using lifting hooks provided.



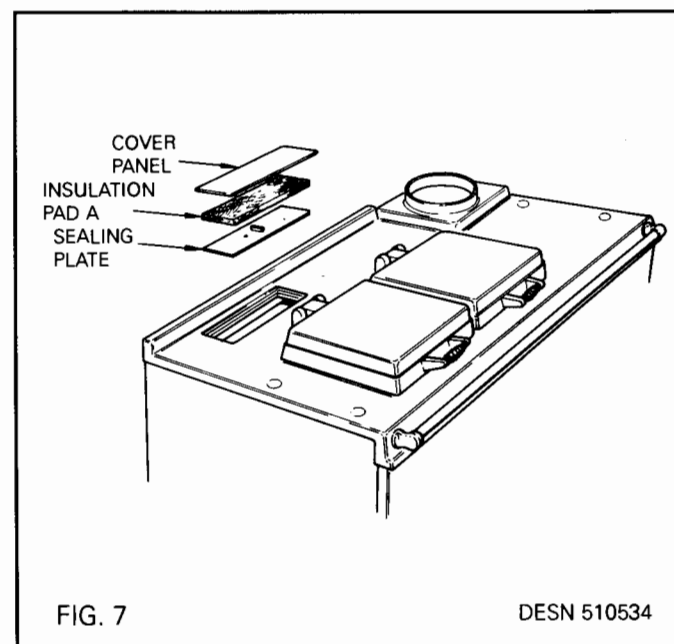
SEE FIG. 6

2. Remove insulation pad B, remove the 4 flue cleaning access door securing bolts and remove door.
3. Using the rods provided remove the boiler flueway baffles from between the boiler cross waterways. Lift the front ones first and then pull the rear ones forward and then lift them out.



SEE FIG. 7

4. Lift top plate enamelled cover panel (behind the L.H. insulating cover) remove insulation pad A and sealing plate.
5. Clean the boiler outlet flueway by inserting a flexible rake through top plate aperture, directing it towards the flue outlet. Scrape the deposits towards the heat exchanger.
6. Thoroughly clean boiler heat exchanger flueway.
7. Carefully vacuum any debris that has fallen down into the burner chamber.
8. Clean and replace boiler flueway baffles in reverse order. Locate boiler flue access door, secure and replace ceramic fibre pad B.
9. Replace sealing plate, insulation pad A and cover panel.



OVEN & HOTPLATE FLUEWAY CLEANING

SEE FIG. 8

1. Remove the top oven door and place in a safe position.
2. Remove side and base access doors using hex. driver.
3. Thoroughly clean top, side and base flueways through access apertures with brush.
4. Remove all debris with vacuum cleaner.
5. Replace side and base access doors. Secure in position using hex. driver.

NOTE: Further access to base flueway is available if diverter baffle is removed (replace baffle if removed).

6. Brush and clean in between hotplate ribs on underside.
7. Examine soft rope seal located around hotplate aperture in top plate. Replace if frayed or damaged.
8. Replace hotplate ensuring the underside ribs lie over the oven, and that it seals to the top plate.

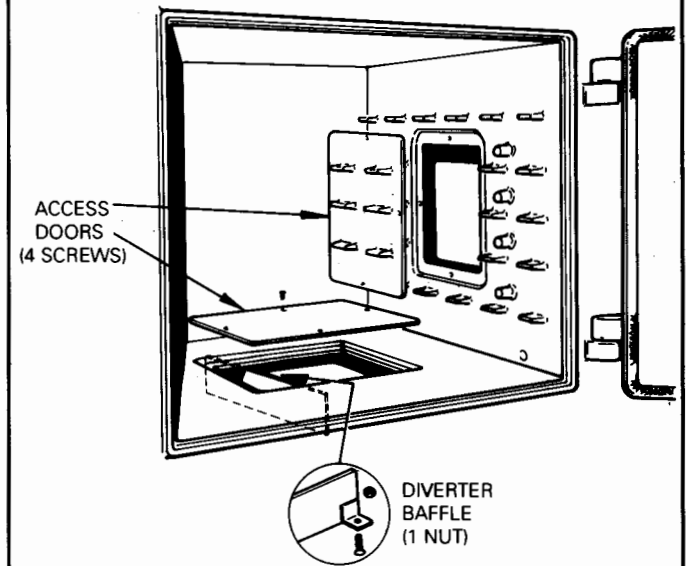


FIG. 8

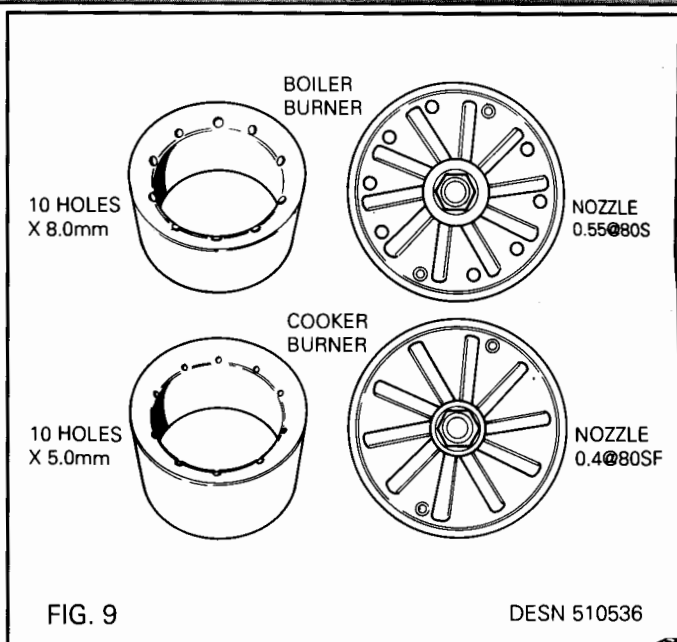
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Burner Servicing

INTRODUCTION

It is recommended that each burner is serviced individually so as not to get the components from the two burners mixed up.

The correct combination of burner blast tubes and diffusers are shown in Fig. 9.



BURNER NOZZLE REMOVAL

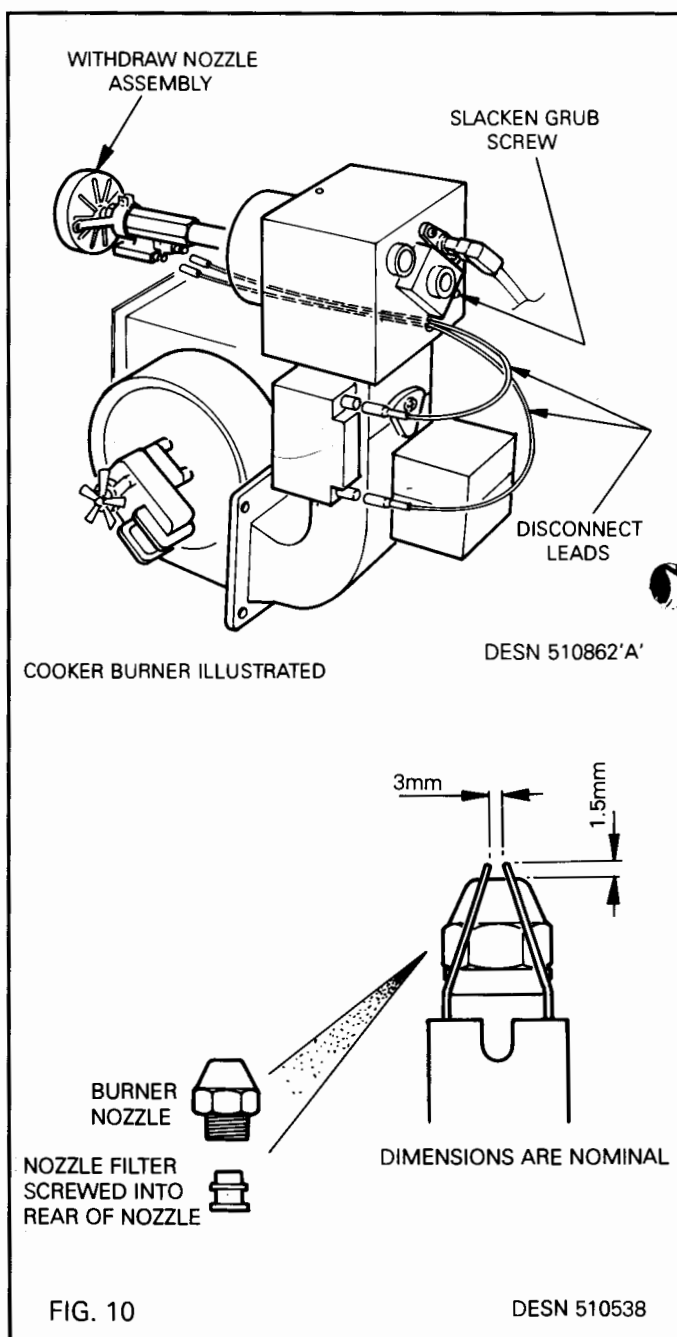
SEE FIG. 10

1. Slacken the grub screw in the bottom of the centre boss.
2. Disconnect the two leads from the transformer and gently tap the centre oil inlet boss.
3. The complete nozzle assembly should now move through the Burner sleeve.
It would be advisable to disconnect the igniter leads to enable the assembly to be completely withdrawn.
4. Clean the diffuser and ignition electrodes taking care not to wipe the nozzle tip itself.
5. Check electrode gap and reset if necessary.

N.B. Nozzles should not be replaced or dismantled for cleaning nozzle filters unnecessarily. This should normally only be done if, after carrying out the routine service, the combustion check does not give acceptable results.

Nozzles should be handled with great care, using clean tools and clean hands.

1. Unscrew nozzle from its holder with a correctly fitting tubular spanner to avoid damage to hexagon.
2. Replace nozzle by a new one of the same size, spray angle and spray pattern.



NOZZLE FILTER CLEANING

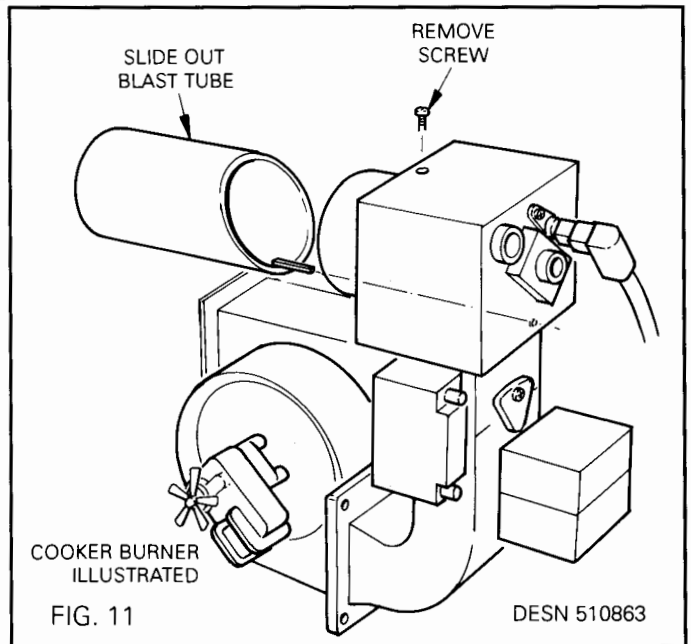
SEE FIG. 10

1. Remove nozzle as above.
2. Unscrew filter assembly from the rear of the nozzle.
3. Wash filter assembly in clean petrol or paraffin.
4. Refit filter assembly to nozzle in reverse order of removal.
5. Refit nozzle taking care not to over tighten.

BLAST TUBE CLEANING

SEE FIG. 11

1. The blast tube is held in position by one screw in the top of the burner housing. Undo the screw and remove the blast tube taking note of how it fits into the burner housing. i.e. with the longest length of tube at the bottom.
2. Clean off any deposits on the surface or in the holes of the blast tube.



FAN CLEANING

SEE FIG. 12

1. Undo the three screws, on the motor side of the fan, and withdraw the fan and motor complete.
2. Clean between the blades of the fan impeller with a small brush and tip upside down to remove any residue.
3. Spin the motor to make sure that it turns easily.
4. Re-assemble fan unit.

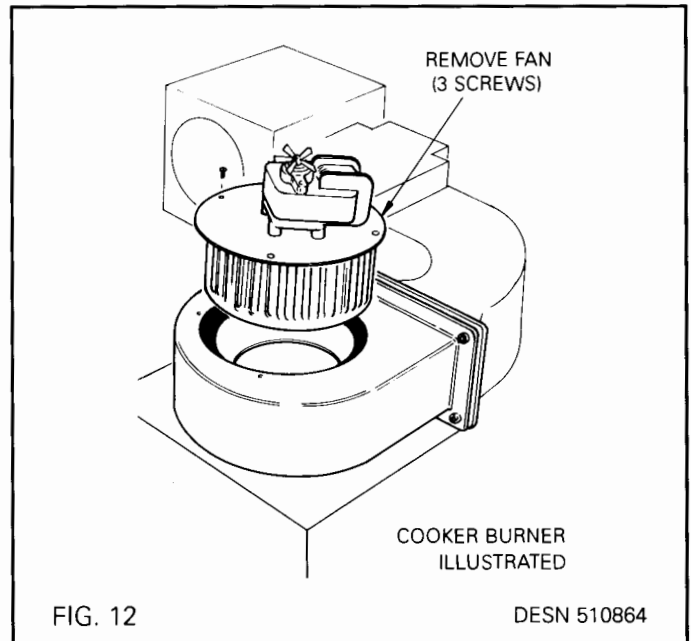


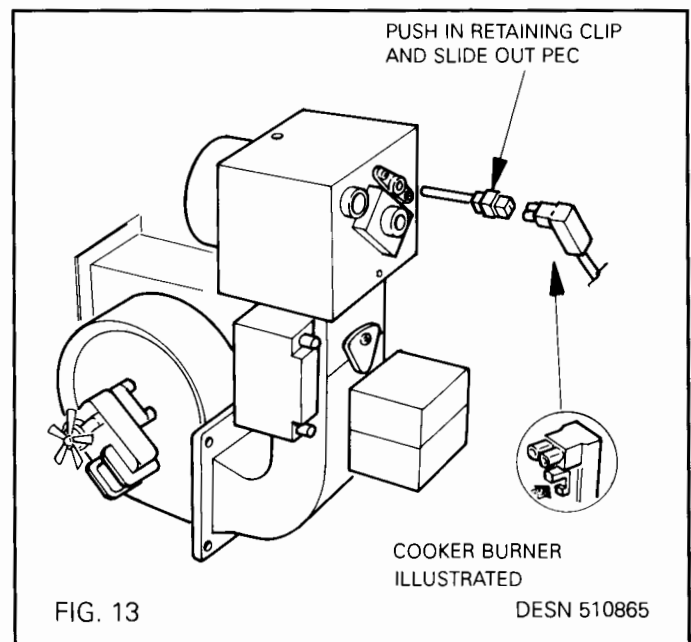
PHOTO ELECTRIC CELL (PEC) CLEANING

SEE FIG. 13

Withdraw Photo electric Cell from the burner head. Clean PEC sensing end with a soft cloth taking care not to scratch the light sensitive body. Re-insert PEC taking care to insert the correct way round.

RE-ASSEMBLE BURNER

Re-assemble the burner in reverse order making sure that the fixing screws for the blast tube and the nozzle assembly are correctly lined up with the respective holes in the body.



Oil Pump Servicing

INTRODUCTION

To carry out any servicing on the oil pump Turn OFF the oil line isolating valve near to the appliance.

OIL PUMP STRAINER CLEANING

SEE FIG. 14

1. The oil pump strainer is situated on top of the pump beneath the boiler burner solenoid manifold.
2. Remove the cartridge filter with a hex. driver.
3. Wash with clean petrol or paraffin.
4. Re-assemble element and end cover in reverse order of removal.

OIL LINE FILTER CLEANING

1. Turn off the line isolating valve fitted prior to the oil line filter.
2. Follow manufacturer's instructions to remove filter element from the housing, taking care to collect Gas oil residue from the filter housing.
3. Wash filter thoroughly in clean petrol or paraffin.
4. Re-assemble filter in reverse order of removal.

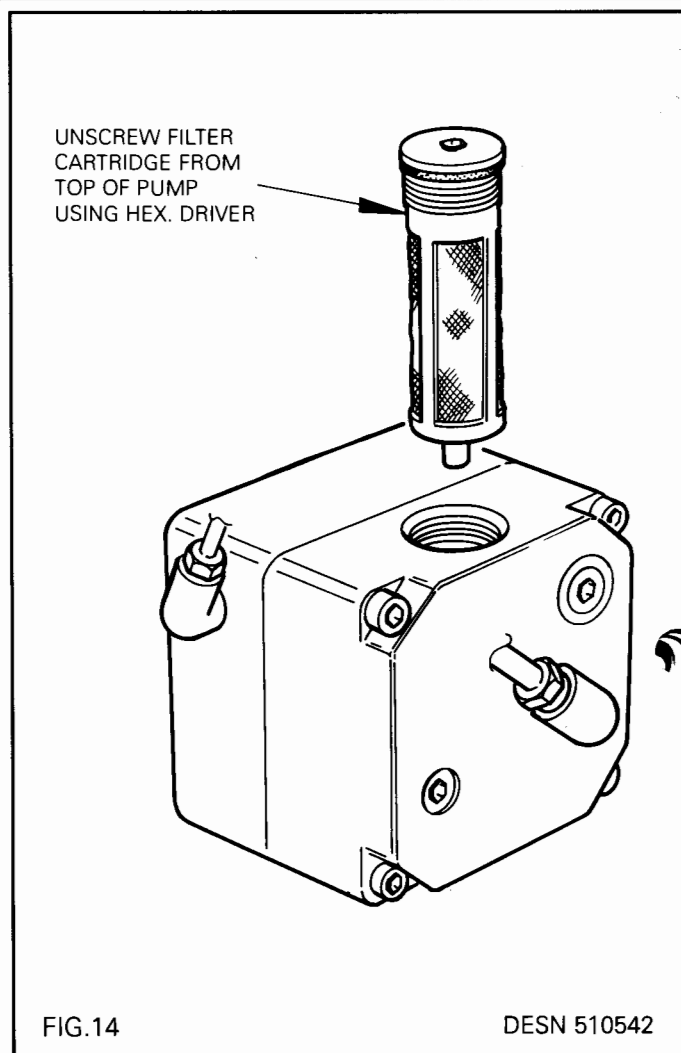
OIL PUMP MOTOR CHECK

Rotate the motor spindle, at far end of pump to see if it is free to turn.

RE-ASSEMBLE OIL PUMP

Replace the oil burners and oil pump in the reverse order of disconnection.

Replace all electrical and oil pipe connections as required.



Re-commissioning

BLEED AIR FROM OIL SUPPLY

SEE FIG. 15

Disconnect the flexible oil pipe at the pump inlet, open the stop valve slowly and run off some of the oil into a receptacle to establish an air free supply to the pump. Remake the connection oil tight and leave valve open.

FIT PRESSURE GAUGE

SEE FIG. 15

Remove the bleed screw from the boiler oil pump and fit an oil pressure gauge with R1/8 connection to check the pump output pressure.

ELECTRICAL CHECK

Switch on 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 7 to 15 seconds, with the ignition spark energised. The oil solenoid valve should open allowing the burner to fire.

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. 15). **IN THIS EVENT, WAIT AT LEAST ONE MINUTE**, then press the re-set button to restart.

VENT OIL PUMP

SEE FIG. 15

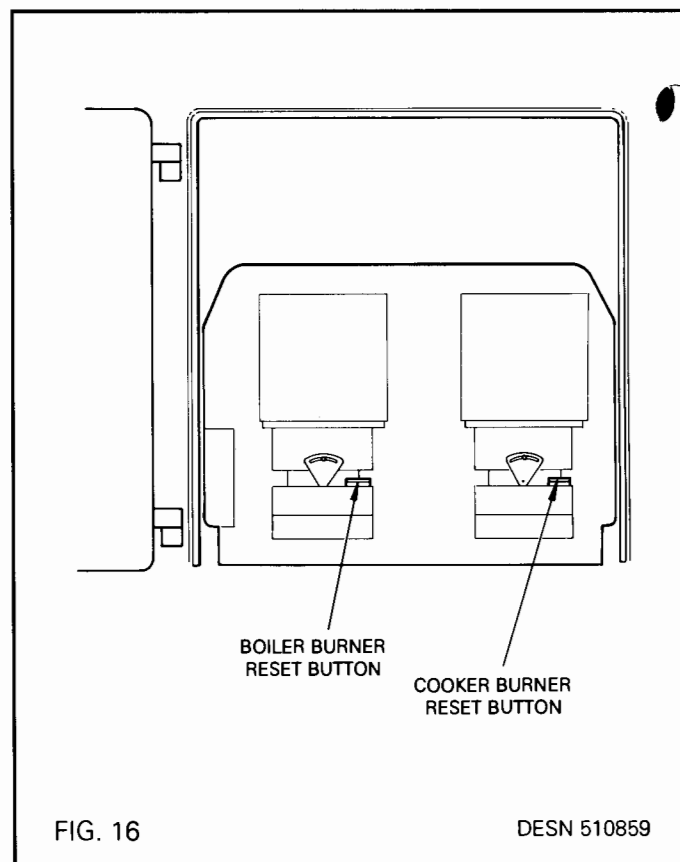
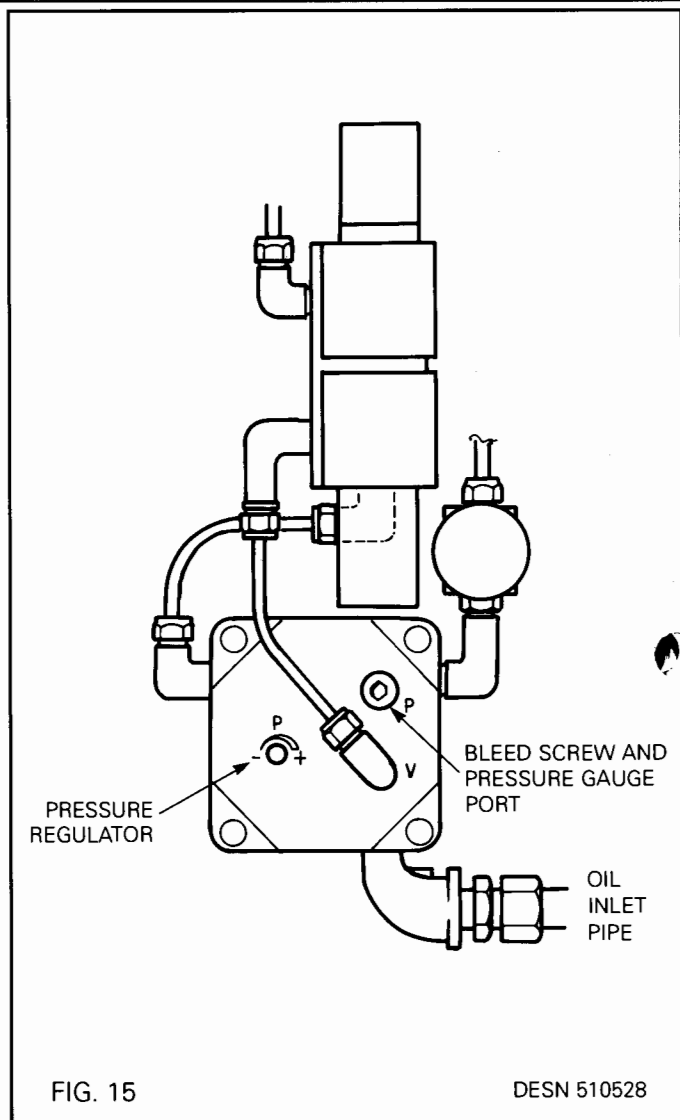
Whilst the burner is running, vent air from the pump by slackening the pressure gauge connection sufficient to allow air to bleed out. When bubble free oil seeps out re-tighten.

ADJUST OIL PRESSURE

SEE FIG. 15

With the burner 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 9.0 bar (130 lb/in²) for the boiler burner



SET COMBUSTION AIR

SEE FIG. 17

Remove the enamelled top cover panel and the insulation pad.

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 a reading of 12.0% CO₂ is recorded on the indicator.

CHECK SMOKE

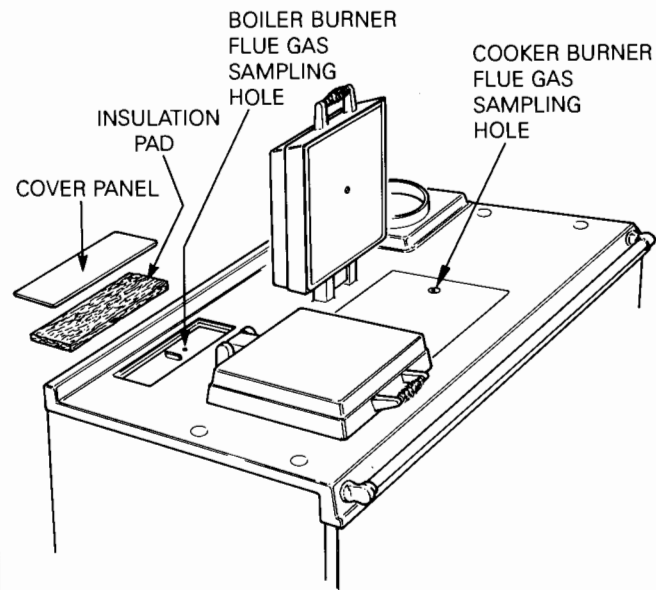
SEE FIG. 17

Remove the CO₂ sampling tube and using the same hole for flue sampling insert the sensing end of a Baccarach Smoke Pump and check that the smoke in the boiler flue does not exceed No.2 on the scale.

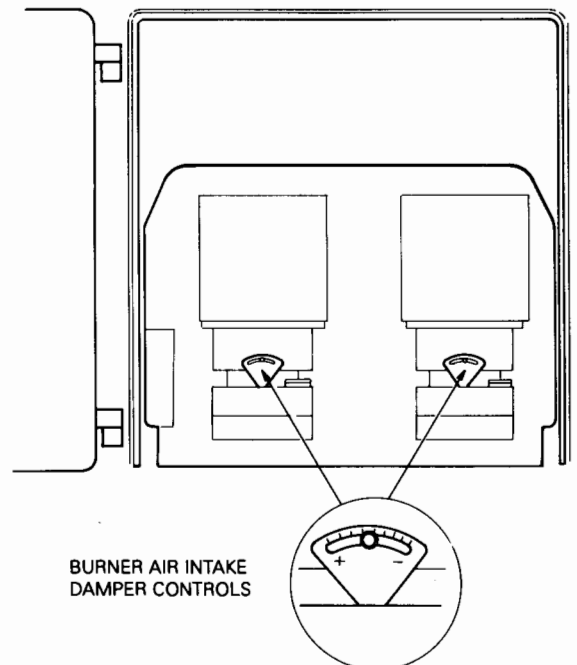
Replace the plugging screw, insulation pad and cover panel.

COOKER BURNER - SEE FIG. 17

Switch off the boiler burner and repeat the procedure with the 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 to 12.0% CO₂ with a maximum Smoke No. of 2. Replace the countersunk headed screw on completion ensuring that it will not interfere with any pots and pans placed on the hotplate.



DESN 510531



IMPORTANT: ALWAYS LOCK IN POSITION AFTER SETTING

FIG. 17

DESN 510860

ELECTRICAL COMPONENT ACCESS

BEFORE REMOVING SERVICE ACCESS COVERS ENSURE THAT ALL ELECTRICAL SUPPLIES TO THE APPLIANCE HAVE BEEN TURNED OFF (SWITCH OFF AND REMOVE PLUG).

SEE FIG. 18

1. Remove the controls door and place in a safe position.
2. Remove both thermostat control knobs.
3. Remove the 2 cover panel fixing screws.
4. Remove cover panel. It will be necessary to disconnect the push on tags from the selector switch.

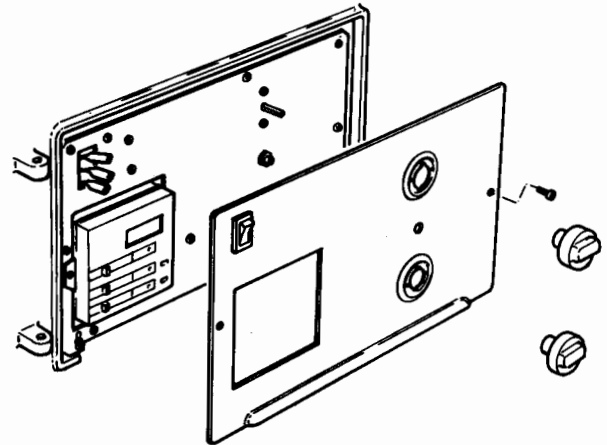


FIG. 18

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SEE FIG. 19

5. Remove the four control panel fixing screws.
6. Tilt the chassis forwards from the top and lift out. To fully access the rear of the control chassis, the thermostat capillaries should be removed from their pockets.
7. To access the controls remove the insulation panel (4 nuts and washers).

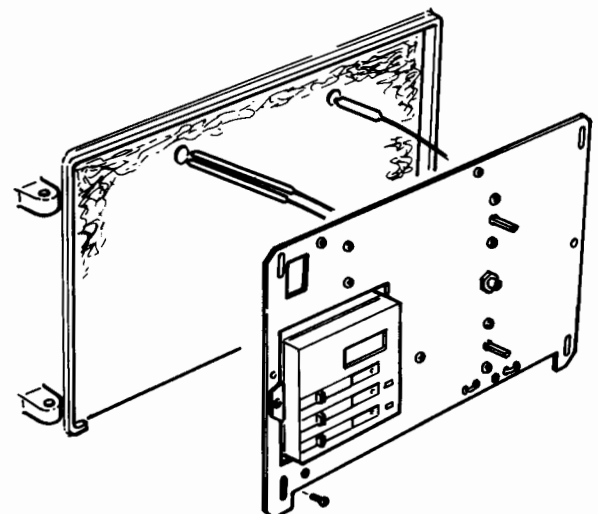


FIG. 19

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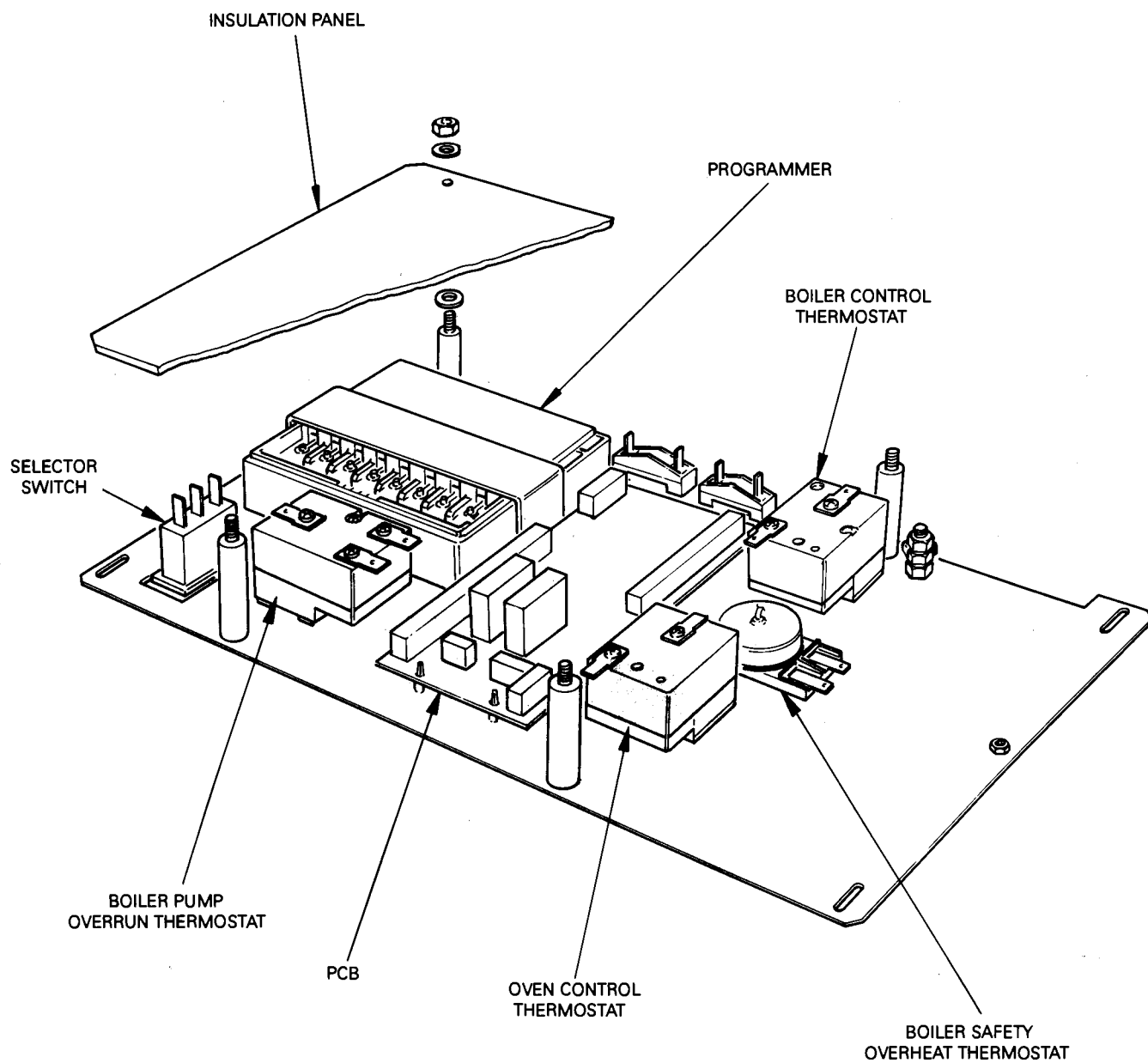


FIG. 20

DESN 510866

Replacement of parts

TO FIT NEW BOILER CONTROL THERMOSTAT

SEE FIG. 21

Follow instructions in section ELECTRICAL COMPONENT ACCESS, Steps 1 to 7.

1. Undo the two screws on the front of the chassis which hold the thermostat in place.
2. Remove the two push on connectors from back of thermostat.
3. Replace thermostat. Take care to push thermostat phial correctly into the pocket provided. The thermostat should be mounted with tag P at the bottom.
4. Re-connect push on connector wires. The RED wire to P and BROWN wire to 1.

To complete follow instructions in section RE-ASSEMBLE, Steps 1 to 6.

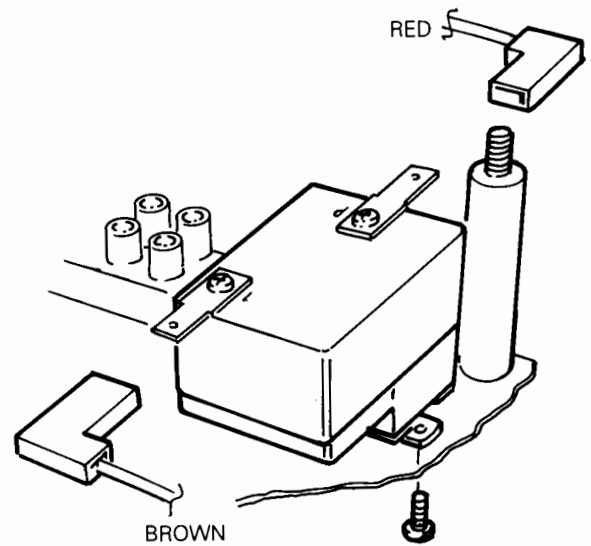


FIG. 21

DESN 510546

TO FIT NEW BOILER PUMP OVERRUN THERMOSTAT

SEE FIG. 22

Follow instructions in section ELECTRICAL COMPONENT ACCESS, Steps 1 to 7.

1. Undo the two screws on the front of the chassis which hold the thermostat in place.
2. Remove the two push on connectors from back of thermostat.
3. Replace thermostat. The thermostat should be mounted with tag P at the right hand side (looking from back). Take care to push thermostat phial correctly into the pocket provided.
4. Re-connect push on connector wires. The WHITE wire from the over heat thermostat to P, and the other WHITE wire to 2.

To complete follow instructions in section RE-ASSEMBLE, Steps 1 to 6.

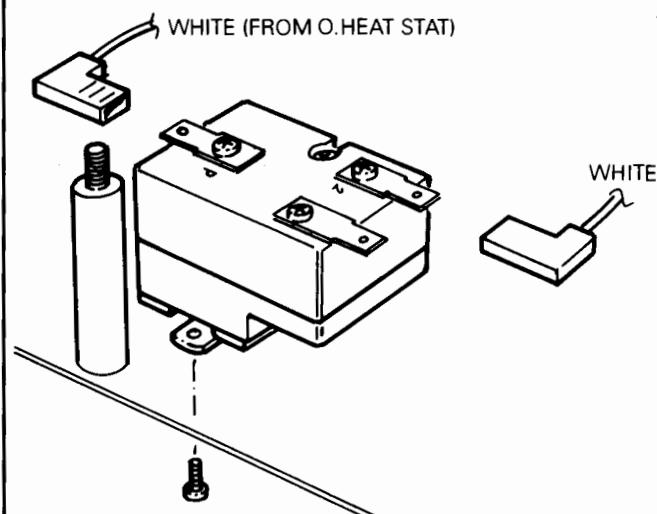


FIG. 22

DESN 510547

TO FIT NEW BOILER SAFETY OVERHEAT THERMOSTAT

SEE FIG. 23

Follow instructions in section ELECTRICAL COMPONENT ACCESS, Steps 1 to 7.

1. Undo the central hexagon nut on the front of the chassis which holds the thermostat in place.
2. Remove the two push on connectors from back of thermostat.
3. Replace thermostat. The thermostat should be mounted with tags 21 and 22 at the left hand side (looking from back). Take care to push thermostat phial correctly into the pocket provided.
4. Re-connect push on connector wires. The BROWN wire to tag 22 and the BROWN wire to tag 21.

To complete follow instructions in section RE-ASSEMBLE, Steps 1 to 6.

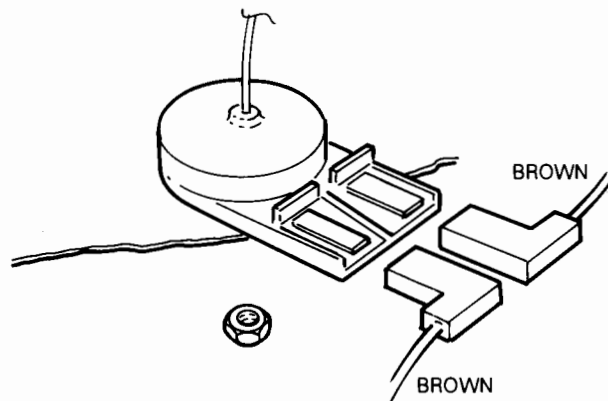


FIG. 23

DESN 510867

TO FIT NEW OVEN CONTROL THERMOSTAT

SEE FIG. 24

Follow instructions in section ELECTRICAL COMPONENT ACCESS, Steps 1 to 7.

1. Undo the two screws on the front of the chassis which hold the thermostat in place.
2. Remove the two push on connectors from back of thermostat.
3. Open Roasting Oven door to access the thermostat phial and capillary which pass into the oven at the top, left hand front corner. The thermostat phial is located in a slot at the top front of the oven.
4. Slacken the single screw where the phial passes through the roasting oven side and rotate the cover plate to open up the access hole.
5. Slack the two screws in the top of the roasting oven at the front and rotate the two retaining clips.
6. Allow the thermostat phial to drop down and withdraw the thermostat capillary out of the oven.
7. Replace thermostat. The thermostat should be mounted with tag P at the bottom. Reposition the phial in same position as removed. Ensure that the insulation, spacer tubes are correctly fitted.
8. Re-connect push on connectors. The BLACK (4) wire to P and BLACK (2) wire to 1.

To complete follow instructions in section RE-ASSEMBLE, Steps 1 to 6.

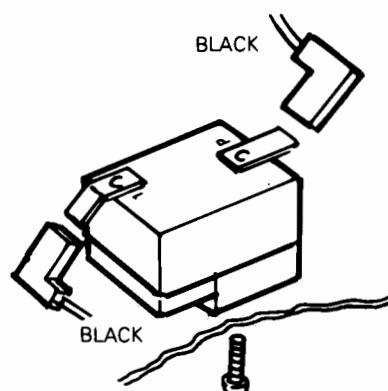
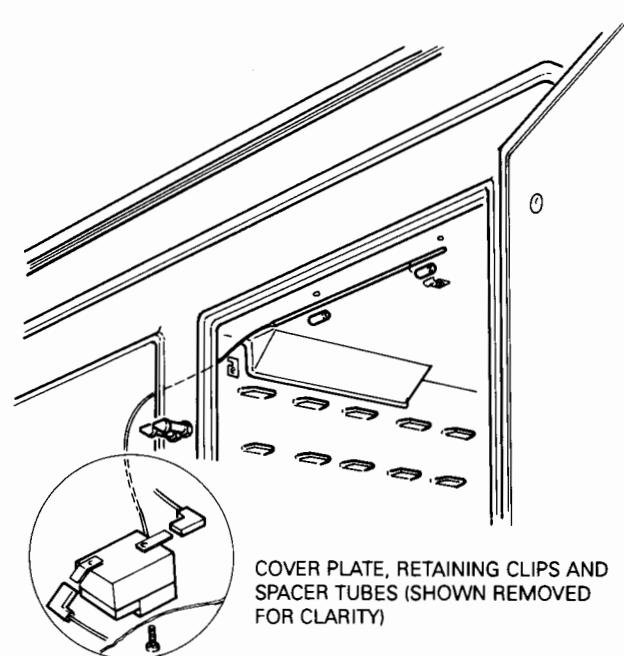


FIG. 24

DESN 510868

TO FIT NEW P C B

SEE FIG. 25

Follow instructions in section ELECTRICAL COMPONENT ACCESS, Steps 1 to 7.

- 1. Remove lead connections.
- 2. Remove PCB from chassis.
- 3. Fit new PCB.
- 4. Refit lead connections to new PCB, refer to fig. 28 for wiring details.

To complete follow instructions in section RE-ASSEMBLE, Steps 1 to 6.

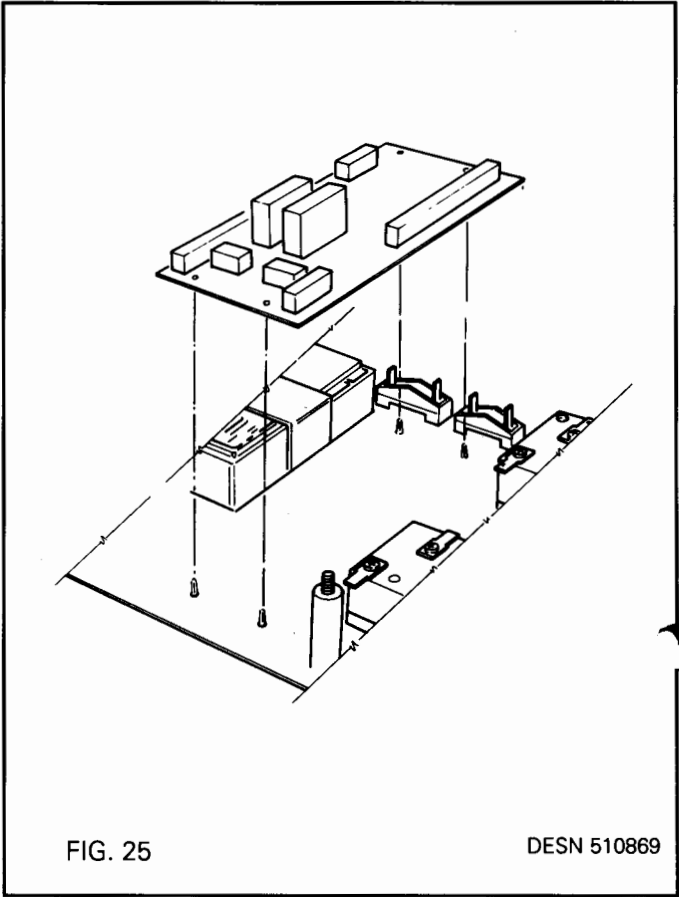


FIG. 25

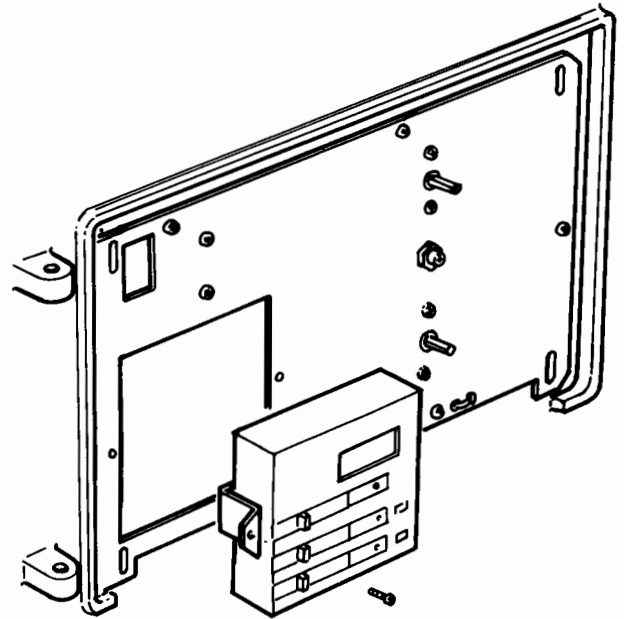
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TO FIT NEW PROGRAMMER

SEE FIG. 26

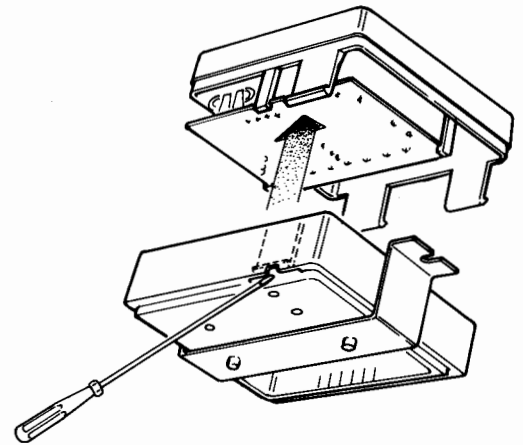
Follow instructions in section ELECTRICAL COMPONENT ACCESS, Steps 1 to 4.

1. Remove the two screws holding the mounting bracket to the control chassis.
2. Pull the programmer forward to access the rear casing.
3. Insert a small screwdriver into cut-out and push against the retaining clip.
4. The programmer can now be pulled away from its base at the bottom. The top retaining clips can now be pulled out freeing the programmer.
5. Replace with the new programmer inserting the top clips first and then locking the programmer inserting the top base with the bottom clip.
6. Refix the mounting brackets to the control chassis.
to complete follow instructions in section RE-ASSEMBLE, Steps 3 to 6.



REMOVE PROGRAMMER/MOUNTING BRACKET (2 SCREWS)

DESN 510552 'A'



TO REMOVE PROGRAMMER FROM ITS BASE INSERT A SMALL SCREWDRIVER INTO CUT-OUT AND PUSH AGAINST RETAINING CLIP.

FIG. 26

DESN 510559

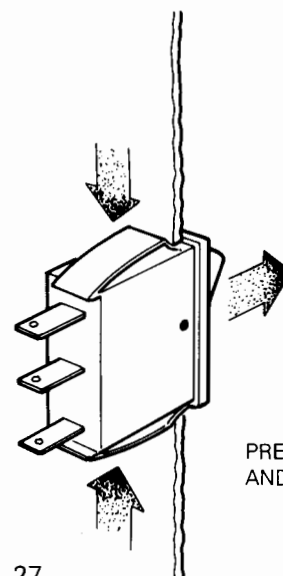
TO FIT NEW SELECTOR SWITCH

SEE FIG. 27

Follow instruction in section ELECTRICAL COMPONENT ACCESS, Steps 1 to 4.

To remove switch of the cover panel press the two toggles, at top and bottom of switch, simultaneously and push switch through panel. Push replacement switch into aperture and click into place. The switch should be fitted with terminal 1 at the top.

To complete follow instructions in section RE-ASSEMBLE, Steps 3 to 6



PRESS IN RETAINING CLIPS AND PUSH SWITCH OUT

FIG. 27

DESN 510553

RE-ASSEMBLE

1. Refix insulation panel on the pillars at the rear of the control chassis, making sure that it is the correct way round for the boiler thermostat phials to line up with the pockets.
2. Locate the base of the control chassis into the bottom of the doorway aperture, tilt the chassis backwards into position and secure with the four screws.
3. Thread the four wires for the selector switch through the aperture and connect them onto the rear of the selector switch fitted in the outer panel. Connect the RED wire on 1, the PURPLE wire on 2 and the BLUE wire to 3.
4. Refix the outer panel in position and secure with the 2 screws.
5. Replace the thermostat knobs.
6. Replace the controls door.

**CONTROL CIRCUIT
DESCRIPTION**

SEE FIG. 28

The external connections to the appliance are situated at the front left hand corner of the burner chamber behind the bottom front plinth.

The mains line voltage is applied to terminal L on the connector block. From the connector block it is fed to the Programmer clock connection (L), to the Safety cut-out connection (22) and to the common connection (P) of the pump overrun thermostat.

From the switched connection (21) of the Safety cut-out power is fed and to the N/O connection of the water circulating pump control relay and to the common connection of both channels of the programmer. Terminal (8) for the cooker and terminal (5) for the boiler.

The two channels switch independently of one another, but must use the same pre-set timed control settings.

From the N/O connection of the pump overrun thermostat power is fed to the N/C connection of the water circulating pump control relay.

**PUMP OVERRUN
FACILITY**

When the programmer switches off the BOILER channel then the water circulating pump will be switched off. If during the period shortly after this the residual heat in the appliance causes the water temperature in the boiler to rise above 65°C then the pump overrun thermostat will change-over. This will switch on the circulating pump through the N/C connections of the water circulating control relay.

If during a normal programmer COOKER 'ON' period the boiler flow temperature rises above 65°C then the pump overrun thermostat operates and switches on the pump until the overrun thermostat switches back.

**OVERHEAT SAFETY
THERMOSTAT**

This thermostat is a safety cut-out device which is intended to operate if the other controls fail. This control will "lock-out" and switches everything off except for the programmer clock and the "Pump Overrun" facility.

This thermostat has to be manually reset once the temperature has cooled down.

BOILER BURNER

SEE FIG. 28

This is controlled by the switched outlet of the top channel (3) of the programmer. With this switch made power is connected to:-

1. To the common connection (1) of the HEATING/HOT WATER selector switch. With this switch made power is available at the external connections L2/N2 to switch a motorised zone valve and open up the heating circuit.
2. Power is applied to the coil of the water circulating pump control relay. With this switch made power is available at the external connections L1/N1 to switch on the water circulating pump.
3. To the external connection L3 and through either the link or the external switch connections of the motorised zone valves to terminal L4. From L4 power is fed to the boiler thermostat and if this switch is calling for heat then power is supplied to switch the boiler burner on (9).

BOILER CONTROL SEQUENCE

When power is applied to terminal (9) the ignition sequence starts:-

1. At the instant of switch on, power is supplied to terminals (3) & (4) in the control box. Terminal (4) switches on the burner fan. This also supplies power to the oil control relay and power on to the N/O contact of this relay. The common connection of this relay switches on the oil pump. Terminal (3) switches on the ignition transformer and opens up the start solenoid. This momentarily reduces the pump pressure by by-passing some oil back to the inlet.
2. After a period of 7 to 10 seconds power on terminal (5) opens the main oil solenoid, and ignition will take place, at the slightly reduced oil pump pressure.
3. After a short period of time, once the flame has been detected, the ignition transformer and the start up solenoid will both be switched off. The burner will now be firing at the full pressure of 9.0 bar/130lb/in².

COOKER BURNER

SEE FIG. 28

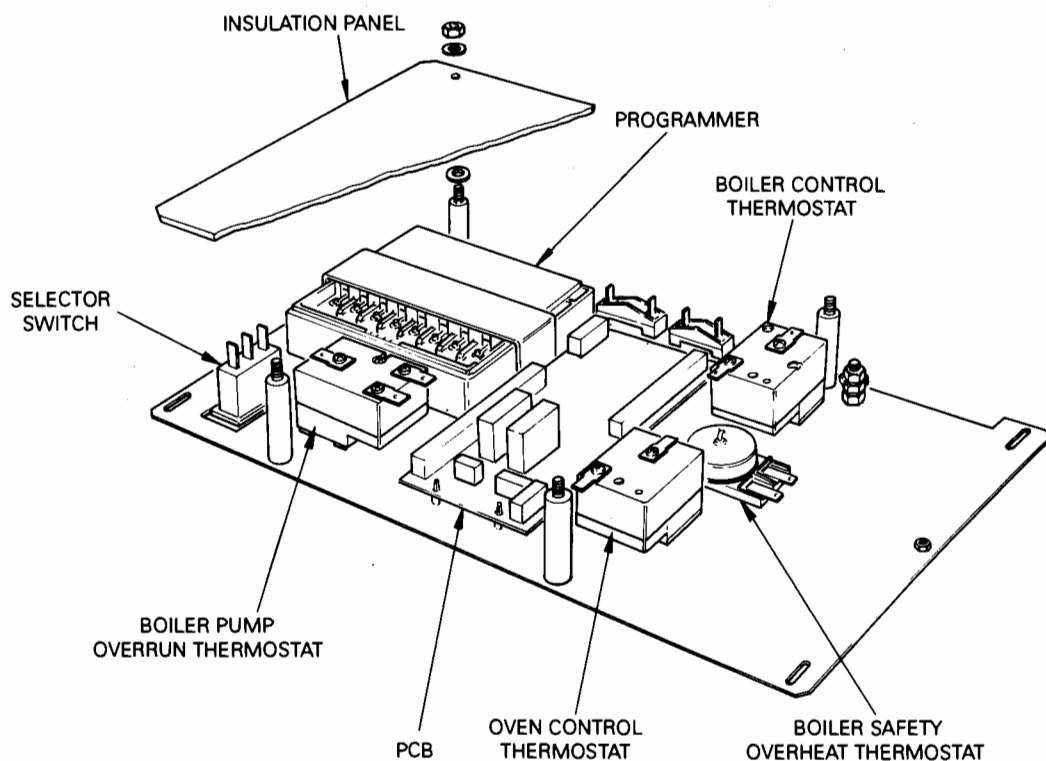
This is controlled by the switched outlet of the bottom channel (6) of the programmer. With this switch made power is connected to:-

1. The cooker burner fan which is running continuously during the programmed on period.
2. To the cooker thermostat and if this switch is calling for heat then power is supplied to switch the cooker burner on (9).

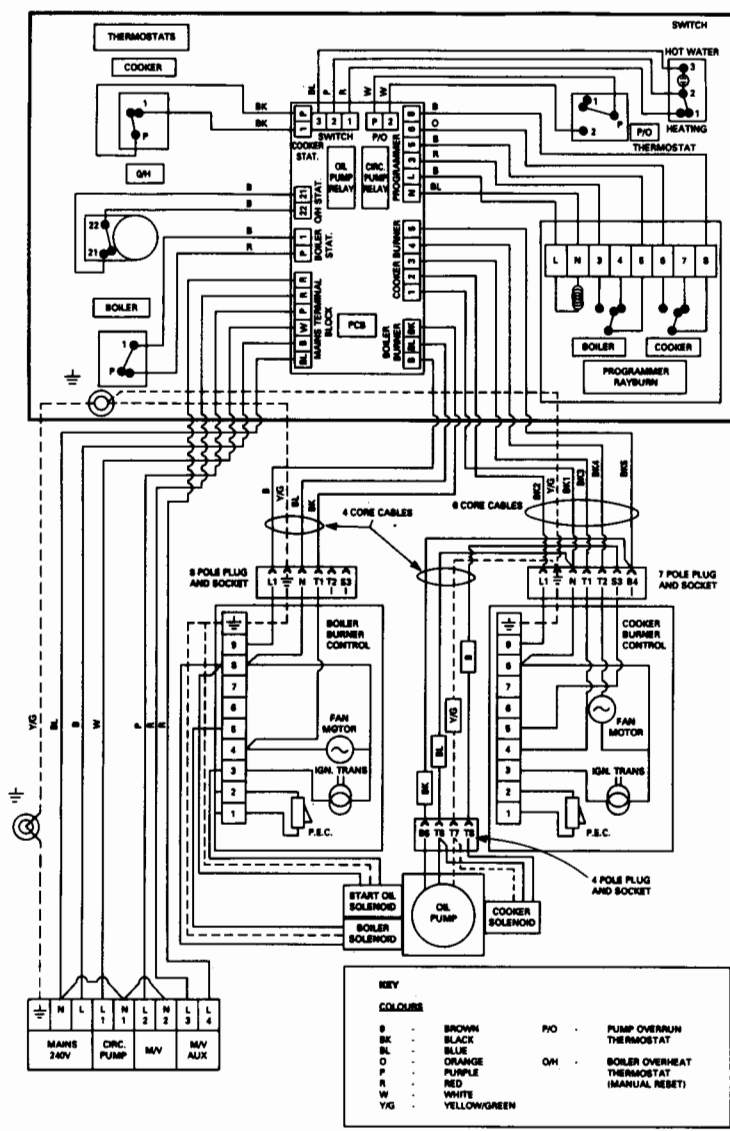
COOKER CONTROL SEQUENCE

When power is applied to terminal (9) the ignition sequence starts:

1. At the instant of switch on, power is supplied to terminals (3) & (4) in the control box. Terminal (4) supplies power to the N/C contact of the oil control relay. The common connection of this relay switches on the oil pump. If the relay has changed over then the oil pump is already running. Terminal (3) switches on the ignition transformer.
2. After a period of 7 to 10 seconds the main oil solenoid will open and ignition will take place.
3. After a short period of time, once the flame has been detected, the ignition transformer will be switched off.



DESN 510866



KEY	
COLOURS	
B	BROWN
BK	BLACK
BL	BLUE
O	ORANGE
P	PURPLE
R	RED
W	WHITE
YG	YELLOWGREEN
P.O.	PUMP OVERRUN THERMOSTAT
O.H.	BOILER OVERHEAT THERMOSTAT (MANUAL RESET)

FIG. 28

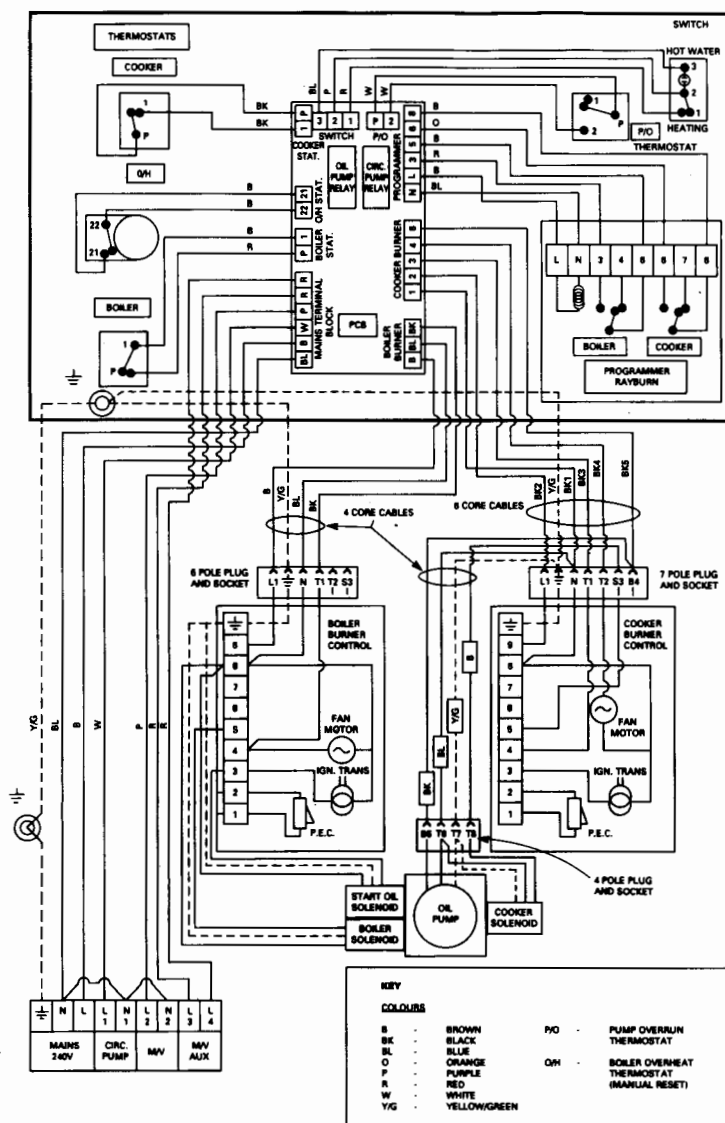
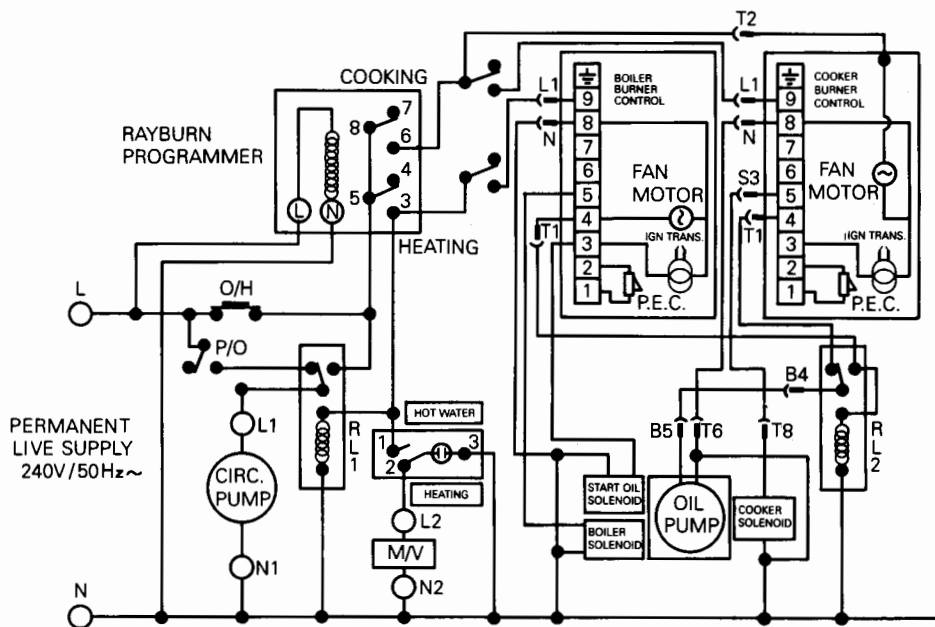


FIG. 29

BURNER DOES NOT START**ELIMINATION PROCEDURES****General**

1. To check out the electrical wiring at the burners you will first have to have access to the burner chamber. Use the following procedure:-
Isolate the electrical power supply.
Open up the bottom burner access door. Remove door and put in a safe place.
2. Unscrew the 4 screws holding the inner panel in place and remove panel.
3. Unscrew the 3 screws holding the louvered plinth in place and remove plinth.

The external mains connections are made to a terminal block situated in the front left-hand corner of the burner chamber. Re-connect the electrical supply and check that there is a 230/240V power supply available across the mains input connections L & N on the terminal block. If not then check connecting leads, fuse and whether power is available at mains plug.

If power is available across L & N then check to see whether the overheat cut-out switch has cut-out, if it has then reset by pushing in the centre with a small, round tool i.e. a pencil.

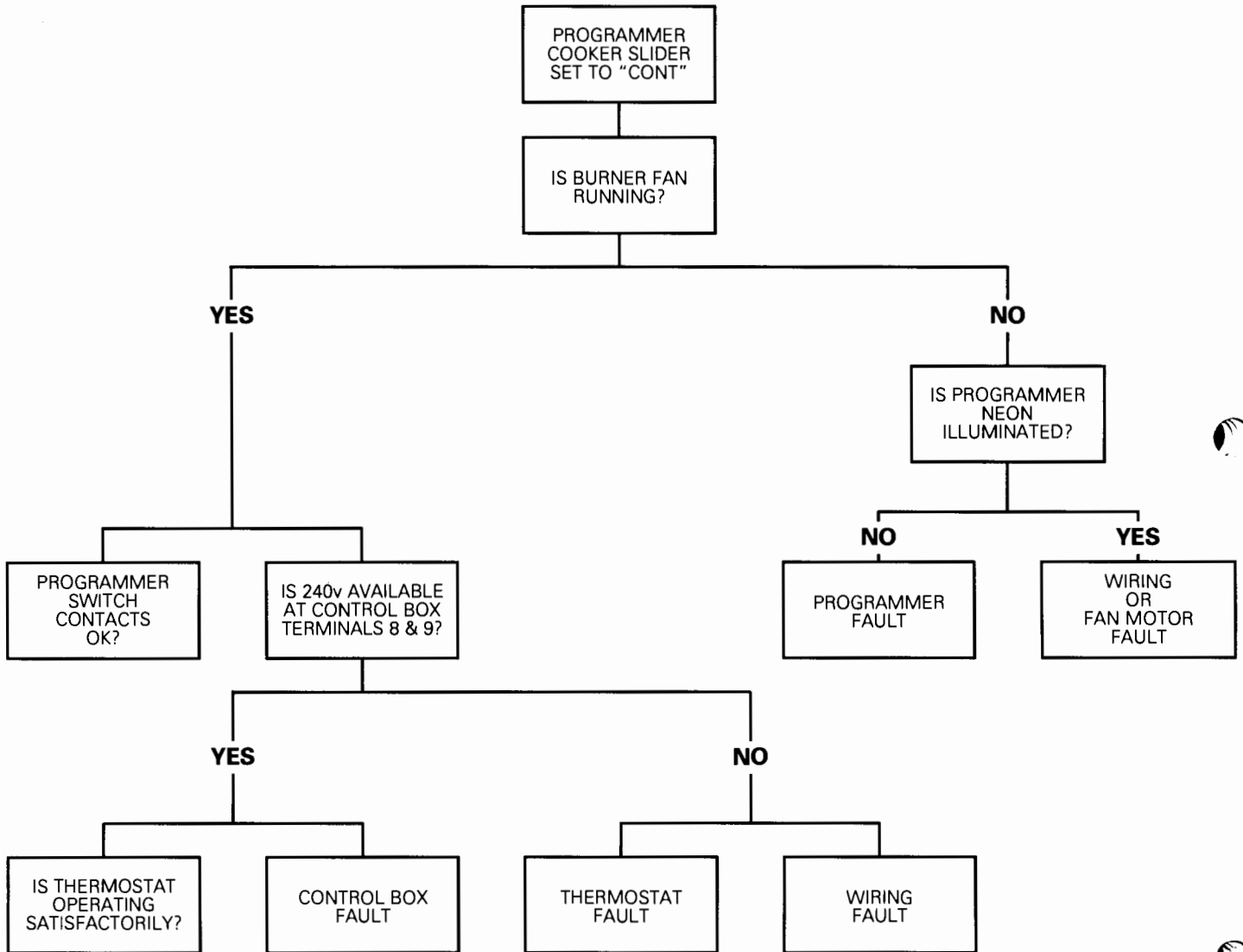
You can carry out some checks on the controls before you need to access the controls compartment behind the controls door.

If only one of the burners is not running then the fault must be after the safety overheat thermostat.

Conversely if both burners are affected then the fault must lie before the programmer connections.

For access to individual controls refer to section on Replacement Parts and for wiring continuity checks refer to Fig. 29 for detailed and schematic wiring layouts.

COOKER BURNER REFUSES TO ATTEMPT TO START



BOILER BURNER REFUSES TO ATTEMPT TO START

PROGRAMMER BOILER SLIDER SET TO "CONT" AND PRIORITY SWITCH SET TO "HEATING / HOT WATER"

IS PRIORITY SWITCH NEON ILLUMINATED

YES

PROGRAMMER SWITCHING CORRECTLY

NO

CHECK OVERHEAT THERMOSTAT

IS CIRCULATING PUMP WORKING

IS CIRCULATING PUMP WORKING

YES

WATER PUMP CONTROL CIRCUIT OK

NO

IS THERE 240v ACROSS TERMINALS L1/N1

YES

IS THERE 240v ACROSS 8 & 9 IN CONTROL BOX

NO

IS THERE 240v ACROSS TERMINALS L3/N1

YES

PROGRAMMER SWITCHING CORRECTLY

YES

PRIORITY SWITCH OR WIRING FAULT

NO

PROGRAMMER FAULT

NO

WIRING FAULT

YES

PUMP OR WIRING FAULT

NO

FAULT IN CIRCULATING PUMP RELAY CIRCUIT

YES

THERMOSTAT OPERATING CORRECTLY

NO

THERMOSTAT OR WIRING FAULT

YES

CHECK LINK ACROSS TERMINALS L3/L4

NO

WIRING FAULT

IF MV AUXILIARY SWITCHES ARE CONNECTED ACROSS L3/L4 CHECK SWITCHING WHEN VALVES OPERATE

IS CIRC. PUMP RELAY ACTIVATED

CONTROL BOX FAULT

IS THERE 240v AT RELAY COIL

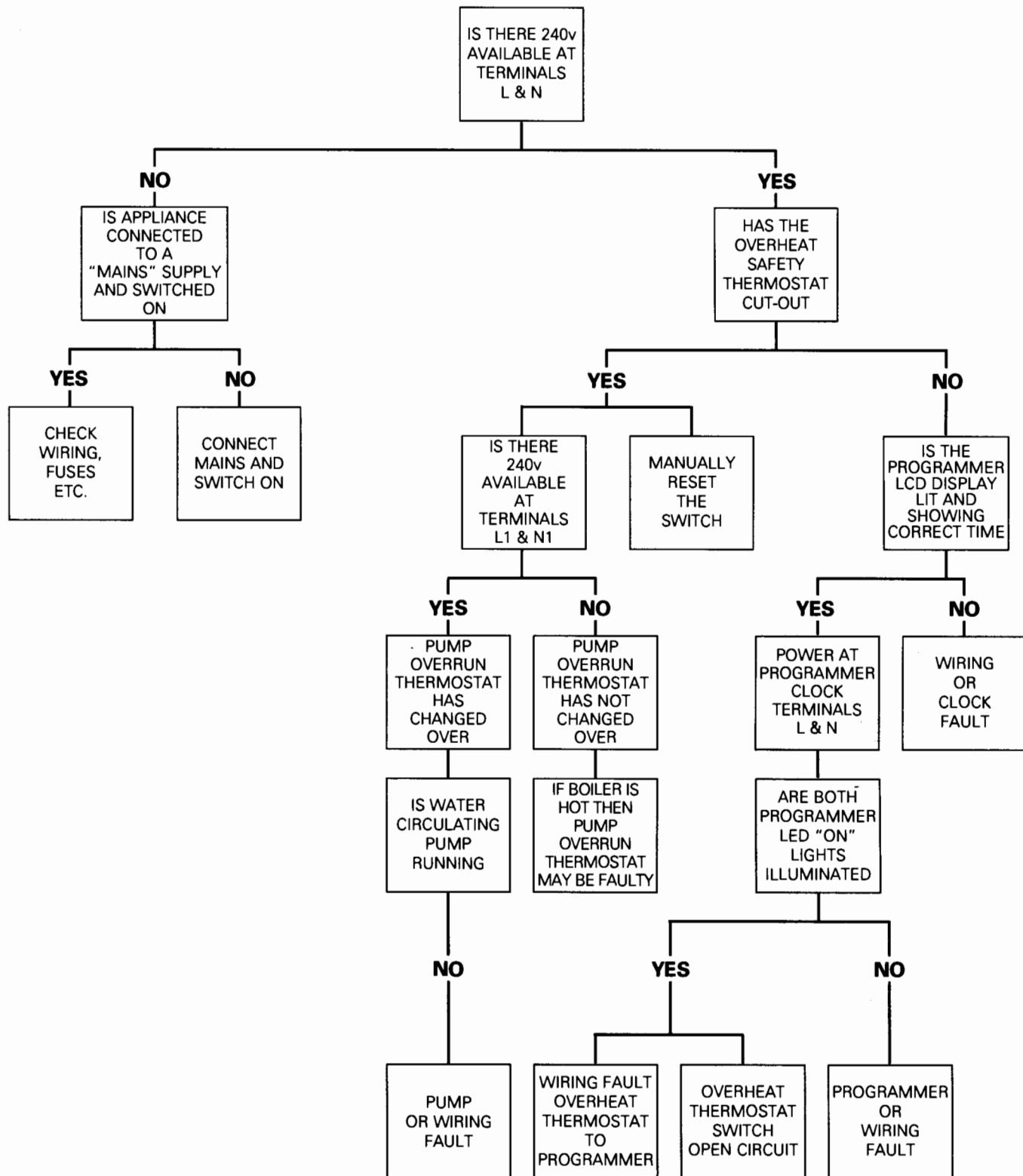
YES

CHANGE RELAY

NO

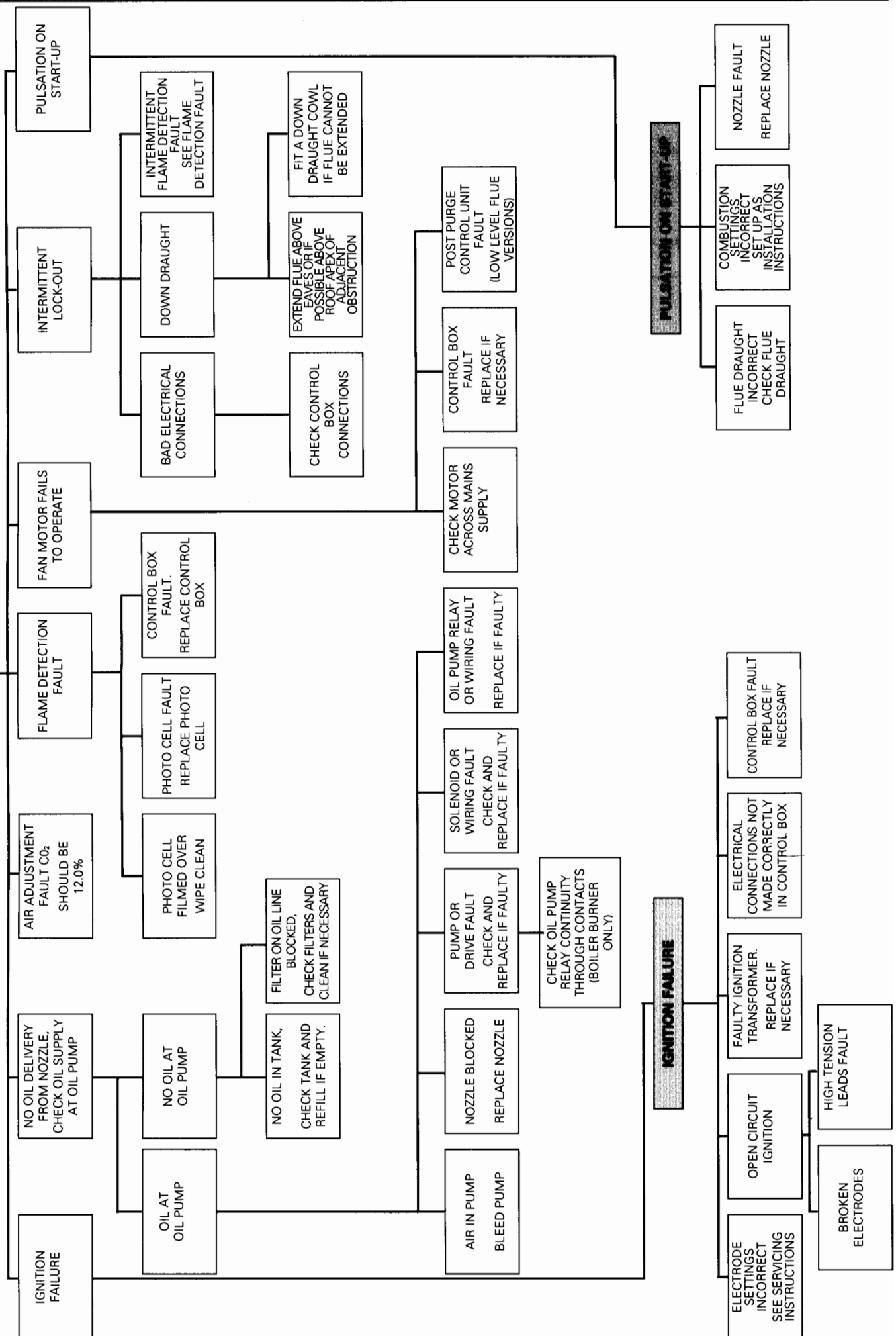
WIRING FAULT

NEITHER BURNER WILL ATTEMPT TO FIRE, BOTH PROGRAMMER CHANNELS SET TO "CONT"



Fast Finding

**BURNER CONTROL BOX @ LOCK OUT BOX NEON ILLUMINATED
(TO REST, WAIT ONE MINUTE THEN PRESS BUTTON)**

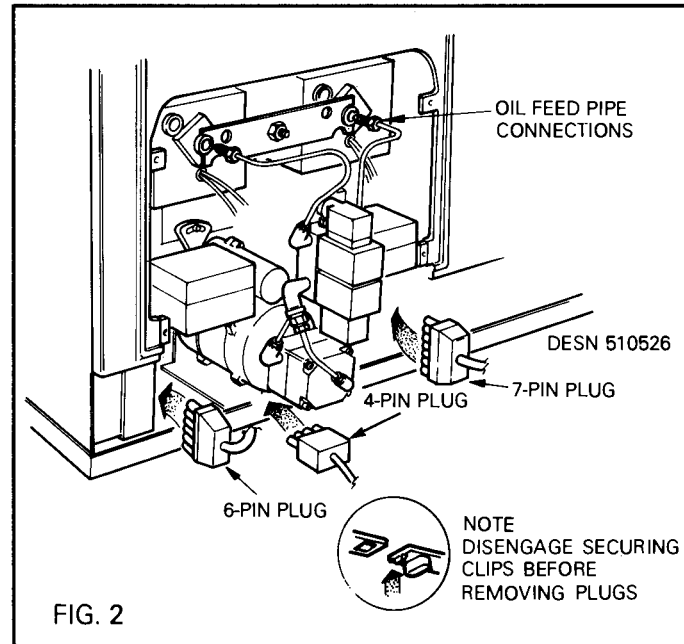


BURNER REMOVAL

IMPORTANT: DURING BURNER REMOVAL CARE MUST BE TAKEN NOT TO DAMAGE THE CERAMIC FIBRE INSULATION.

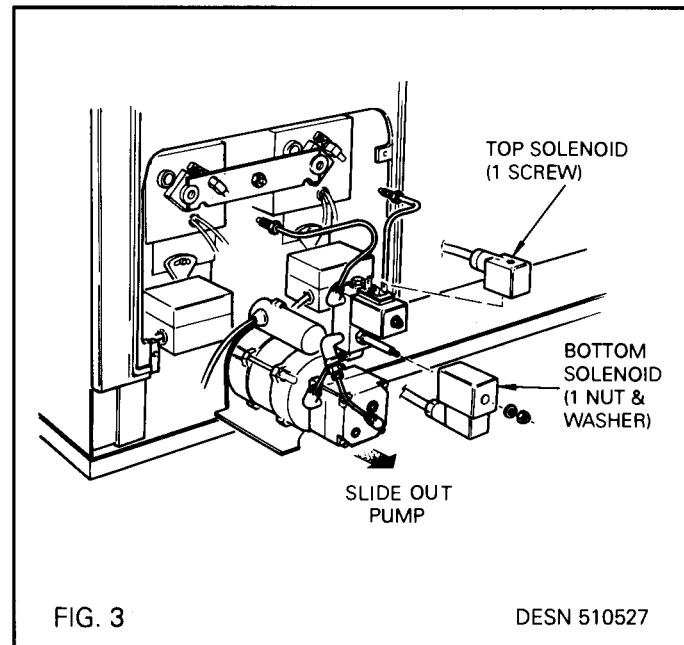
SEE FIG. 2

1. Place a sheet on the floor in front of the cooker to act as a working area
2. Undo the burner oil feed pipe connections from the solenoids to both burners.
3. Disconnect the 7-pin plug underneath the cooker burner control box.
4. Disconnect the 4-pin plug from the oil pump. Withdraw this oil pump as far as the flexible pipe will allow.
5. Disconnect the 6-pin plug underneath the boiler burner control box.



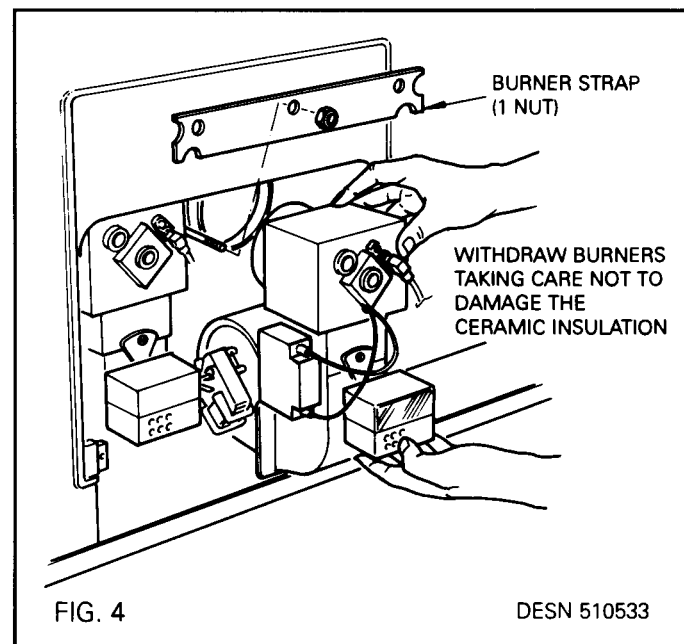
SEE FIG. 3

6. Slide out pump.
7. Remove plug securing screw and remove the plug-in lead from the top solenoid on the top of the oil pump.
8. Remove the bottom solenoid coil complete with its plug by undoing the hexagon nut and lifting the coil off the shaft of the solenoid. Temporarily replace the washer and nut back on solenoid.



SEE FIG. 4

9. Undo the central locking nut between the two burners and remove the strap holding the burners in position.
10. Withdraw the cooker burner first, taking care not to damage the insulation in the process.
11. Withdraw the boiler burner by pulling forward and twisting slightly to the right, again taking care not to damage the insulation in the process.



HIGH SMOKE NUMBERS

NOZZLE FAULT
REPLACE
NOZZLE

AIR INTAKE
BLOCKED
CHECK AIR INLET
TO BURNER

INCORRECT
COMBUSTION
SETTINGS
RE-ADJUST
TO
INSTALLATION
INSTRUCTIONS

OIL PRESSURE
INCORRECT
ADJUST TO
RECOMMENDED
SETTINGS

INCORRECT
COMPONENTS
USED ON
COMBUSTION
HEAD
SEE SERVICING
INSTRUCTIONS

INTERNAL
INSULATION
PANELS
INCORRECTLY
POSITIONED
OR
FAULTY

OIL SMELLS

FUMES ON
START UP
DOWN
DRAUGHT
CHECK WITH
GAUGE

OIL SOAKED
HEARTH

ODOURS
IN
KITCHEN

POST PURG
CONTROL UN
FAULT
(LOW LEVEL
FLUES ONLY

NUMEROUS
LOCK-OUTS
CURE THE
LOCK-OUT
CONDITION

BURNER
FAULT

OIL LEAKS AT
PIPE FITTINGS
TAKE APART
AND
REMAKE AS
REQUIRED

LEAKS AT
TUBING
CONNECTORS
ENSURE END
OF TUBING
SQUARE