

WARNING

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THE ROYAL COOKER



THE GAS-FIRED RAYBURN ROYAL GDO ... SHOWN IN WEDGWOOD BLUE.

The Rayburn Royal is, quite simply, the finest cast iron cooker of its size that you could choose.

Like generations of Rayburns before it, the Rayburn Royal is also more than a cooker:

it is a continuous-burning appliance that introduces gentle warmth and a welcoming ambience into your kitchen.

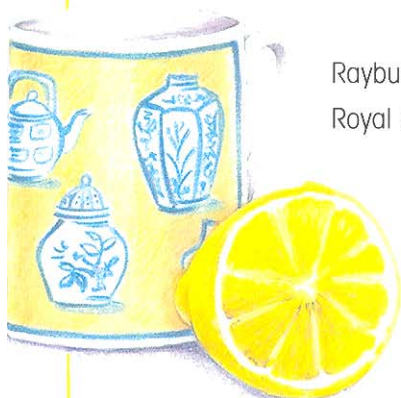
Today, however, the Rayburn Royal is as much at home in a town house as it is in a country cottage.

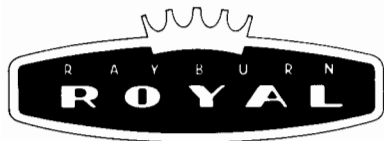
The latest addition to the Royal range is the Royal GDO cooker.

Operating on natural or propane (LPG) gases the Royal GDO is perfectly suited to the urban or rural environment, and is purely and simply a superb cooker. With two cast-iron ovens and an optional electronic programmer, the Royal GDO has been perfectly designed for all the cooking needs of the modern family.



OPTIONAL ELECTRONIC PROGRAMMER





Installation and Servicing Instructions for Rayburn Royal GDO Gas-Fired Cooker:-LPG Model (FOR USE ON PROPANE ONLY)

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 practicable, 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 Rayburn, could invalidate the approval of the appliance, operation of the warranty and could also 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 disposal 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 Oil - may be harmful if inhaled, may be irritating to skin, eyes, nose and throat. When handling avoid inhaling and 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.

INSTALLATION INSTRUCTIONS FOR THE RAYBURN ROYAL GDO GAS-FIRED COOKER:- LPG MODEL.

INTRODUCTION

The Rayburn Royal GDO Gas-Fired Cooker:- LPG Model provides cooking facilities only. A single atmospheric gas burner is thermostatically controlled at cooking rates, and operates at a low bypass rate when idling.

The exhaust flue connection of the appliance is in Open Flue form, operating on natural draught.

Facilities included on the cooker are, a heat graduated hotplate main oven and lower oven. A timing programmer is also available, as an optional extra.

Technical Specification

L.P.G. Only		Cooker Bypass Rate	Cooker High
Heat Input	kw Btu/h	1.2 4,100	6.3 21,500
Burner	mb	0.9	36.5
Pressure	Ins w.g	3.6	14.6
Burner	MAIN 1.27mm		
Injector	PILOT 4209		
Thermostat	RANCO C26		

INSTALLATION INSTRUCTIONS

Gas connection 15mm O.D. copper.

Open flue outlet 100mm (4in.int)

Electric Supply 240V~ 50Hz 3 amp fused

Weight of Appliance 275kg (600lbs)

Installation Instructions

The installation of the appliance must be in accordance with the relevant requirements of the current Gas Safety (Installation and Use) Regulations, Building Regulations, Building Standards (Scotland) Regulations, Current IEE Wiring Regulations.

It should also be in accordance with any relevant requirements of the Local Authority and the relevant recommendations of the following current British Codes of Practice and British Standards.

BS 5482 Code of Practice for Domestic Butane and Propane gas burning installation Part 1. Installation in permanent dwelling.

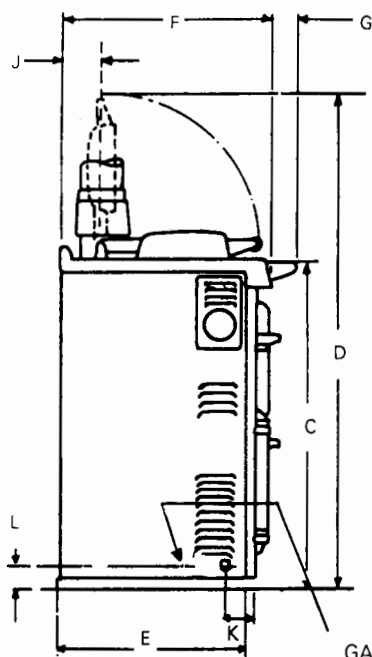
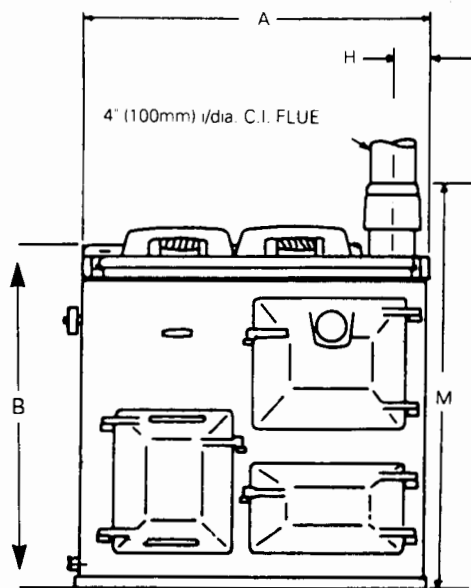
BS 5440 Flues and air supply for gas appliances of rated input not exceeding 60kW. Part 1. Flues. Part 2. Air Supply.

BS 6172 Code of Practice for installation of domestic cooking appliances.

In your own interests, and that of safety to comply with the law, all gas appliances should be installed by competent persons, in accordance with the above regulations. Failure to install appliances correctly could lead to prosecution.

Appliance

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



	mm	ins
A	840	33
B	848	33 ⁵ / ₁₆
C	820	32 ¹ / ₄
D	1245	49
E	457	18
F	510	20
G	65	2 ⁵ / ₈
H	95	3 ³ / ₄
J	95	3 ³ / ₄
K	45	1 ³ / ₄
L	55	2 ¹ / ₄
M	995	39 ¹ / ₄

Fig. 1

Location

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 adequate space for servicing and air circulation around the appliance. See Section - Installation of Appliance - General.

GAS SUPPLY

Installation Gas Pipes

Installation pipes should be fitted in accordance with BS 5482 Part 1. Pipework from the tank to the appliance must be of adequate size. 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 above Standard.

FLUE SYSTEM

Detailed recommendations are given in BS 5440:1.

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, and at least 3m (10ft) high from the floor level. If flue pipe is to be used it must be not less than 100mm (4in) internal diameter.

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

- Cement to BS 567
- Aluminium or stainless steel to BS 715
- Cast iron or mild steel to BS 41 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. (Chimneys lined with salt glazed earthenware pipes are acceptable if the pipes comply with BS 65:1981). A flue pipe constructed to one of the standards in (a) to (c), 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. The internal diameter of the liner must be not less than 100mm (4in) and the number of joints must be kept to a minimum. If the flue liner is not to be connected directly to the appliance draught diverter, a flue pipe which is manufactured from one of the materials in (a) to (c) should form the connection between the draught diverter and flue liner.

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 material. If a register plate, restrictor plate, damper 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 the relevant recommendations given in BS 5440:1.

The point of termination must not be within 600mm (2ft) of an openable window, air vent or any other ventilation opening.

If there are other fuel burning appliances in the same room the current issue of BS 5440: Part 2 should be consulted to determine the air vent requirements.

Do not install this appliance in a room below ground level unless there is a door on the one side that opens directly onto ground level.

EFFECT OF AN EXTRACT FAN

If there is any type of extract fan fitted in the same room as an appliance, there is a possibility that if adequate air inlet area 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 as detailed in BS 5440:1 must be carried out as follows:- By holding a smoke match so that the flame is approximately 3mm ($\frac{1}{8}$ in) up inside the lower edge of the draught diverter. Spillage is indicated by the smoke being displaced outwards from the draught diverter.

Any necessary remedial action must then be taken.

ELECTRICAL SUPPLY

Wiring external to the appliance must be installed in accordance with the current I.E.E. Wiring Regulations and any local regulations which apply.

The appliance is supplied for 240 volt ~ 50Hz and fuse rating of 3A.

The method of connection to the mains electricity supply must facilitate complete electrical isolation of the appliance, preferably by the use of an unswitched shuttered socket-outlet in conjunction with a fused three-pin plug both complying with the requirements of BS 1363.

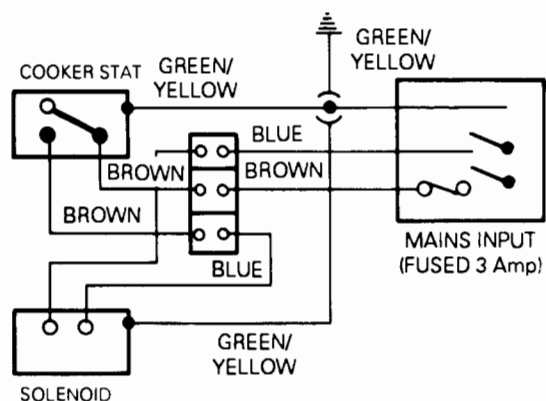


Fig. 2 Wiring Diagram without Programmer

Alternatively, a fused double-pole switch having contact separation of at least 3mm in both poles serving only the appliance may be used.

The point of connection to the mains should be readily accessible and adjacent to the appliance. For wiring instructions See Fig. 2

CONTROLS

An optional external electrical programmer is available, which will provide a timing feature to switch the main oven to the desired temperature setting as and when required. See Fig. 3

INSTALLATION OF APPLIANCE

General

The appliance is floor-mounted and must have the following minimum clearances for servicing / installation:-

Between wall and LH side of appliance 150mm (6in)

Between wall and RH side of appliance 25mm (1in)

Above the raised insulating cover handle 60mm (2 $\frac{3}{8}$ in).

NOTE: 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.

In addition, adequate clearance must be available at the front of the appliance to enable it to be operated and serviced. Flue piping and fittings must not be closer than 25mm (1in) to combustible materials and where passing through a combustible partition such as a ceiling or roof, must be enclosed in non-combustible sleeve providing an air space of at least 25mm (1in).

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

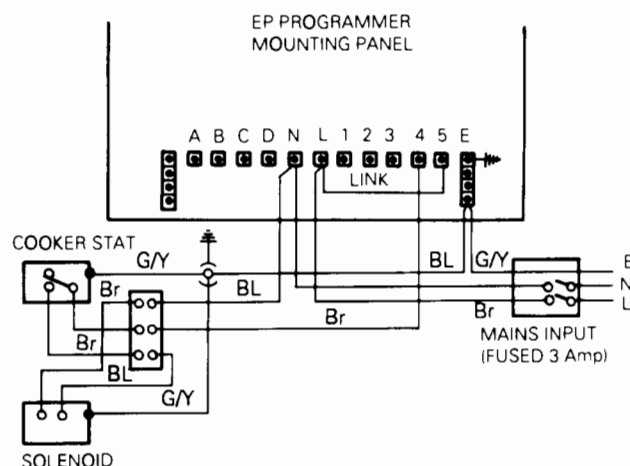


Fig. 3 Wiring Diagram with Programmer

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 Bracket installed 25mm (1in) away from a rear wall of combustible material). See Fig. 5.
3. Insulating Covers
4. Handrail Brackets and Handrail.

Site Location

1. Remove the appliance assembly from its transit wooden pallet by the temporary location of a sloping ramp board between the pallet and the floor.

With the appliance on the floor carefully lift the appliance (taking care not to damage the enamelled/painted components or the floor covering in the room) and insert suitable rollers beneath the base plate to aid positioning of the appliance.

When in position remove rollers and continue assembly.

NOTE: IF THE REAR WALL IS OF COMBUSTIBLE MATERIAL, THERE MUST BE AN AIR GAP OF 25mm (1in) BETWEEN THE WALL AND REAR OF APPLIANCE. FIT REAR DISTANCE BRACKET AS SHOWN IN FIG. 5.

2. Assemble and locate the flue draught diverter assembly on the top plate. See Fig. 4.
3. Fit a 600mm (24in) minimum vertical height of flue pipe into the draught diverter flue socket, sealing joint with fire cement. See Fig. 6.
4. The flexible liner joint and the entire flexible liner should be in the confines of the flue.

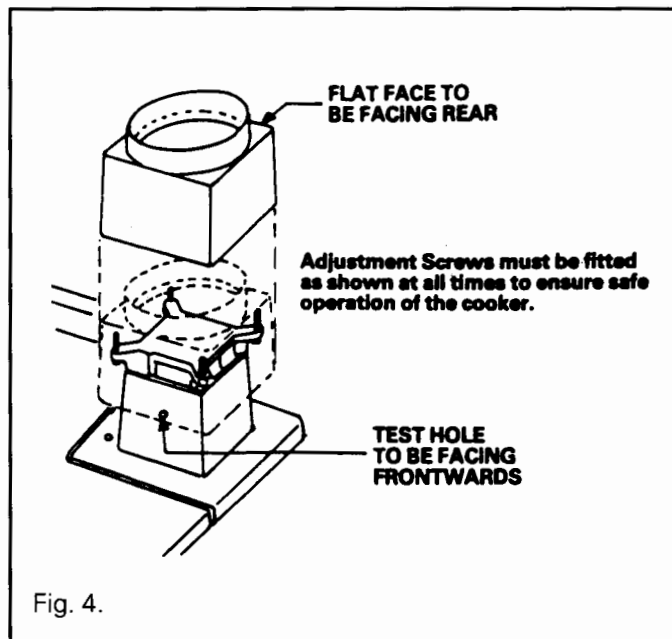


Fig. 4.

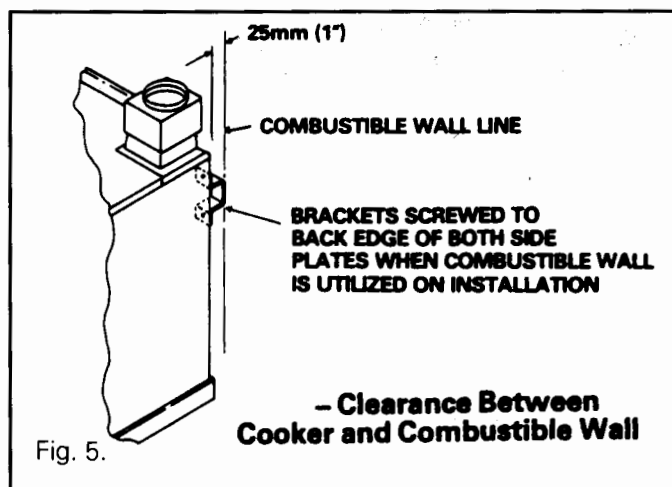


Fig. 5.

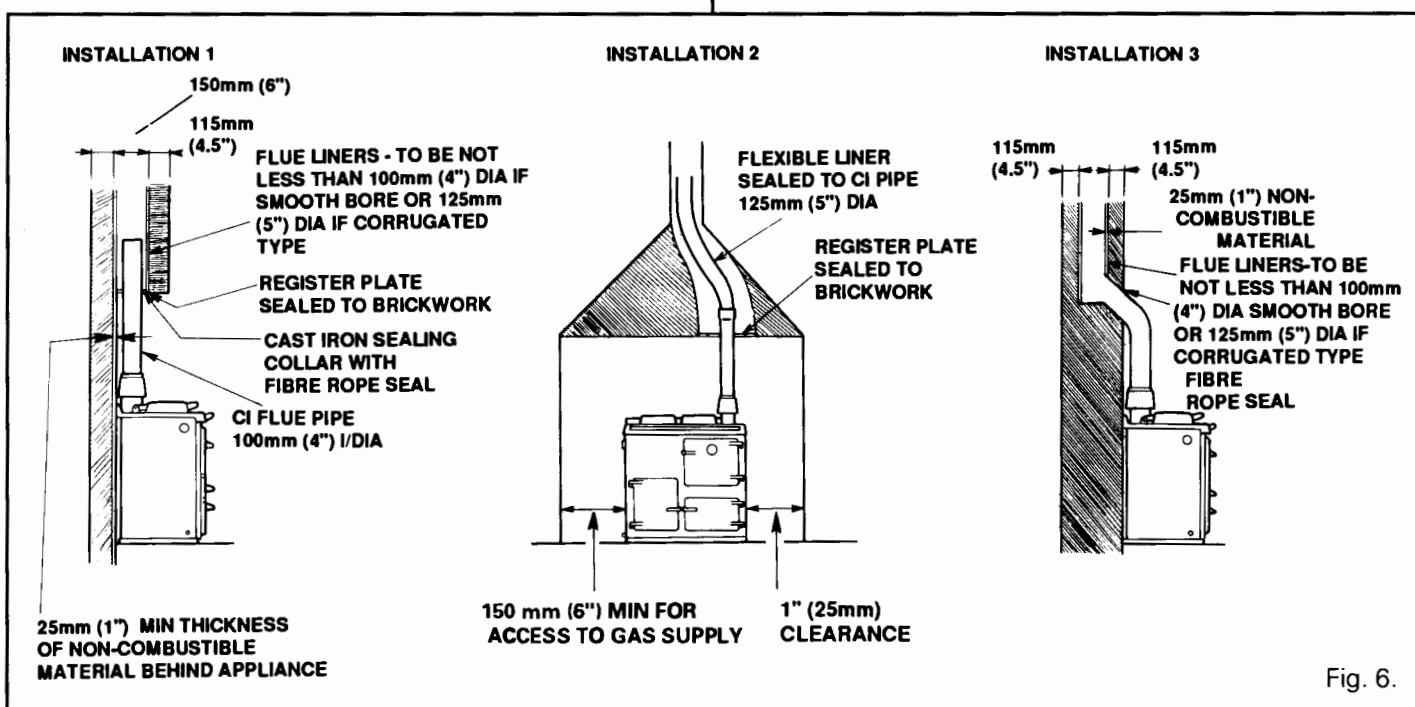


Fig. 6.

5. Insulating covers are placed in position and their chrome hinge spindle inserted and held in position with the circlips provided.
6. The handrail brackets are held on the front ends of the cooker top-plate casting. Remove the travel nuts and replace with the hand rail brackets ensuring the fibre protecting washers are in position. Insert the handrail into the brackets, positioning them correctly, and tighten the locating bolts.

GAS INSTALLATION

Connect the gas supply to the pre-formed 15mm O.D. copper pipe from the integral union gas service cock on the appliance.

ELECTRICAL CONNECTIONS

A 240V ~50Hz electrical supply is required near to the appliance.

The appliance is supplied with a 0.75mm (24x0.2mm) - 3 core PVC x 3 metres long replaceable power supply cable to BS 6500 Table 16, which must be connected as described under "Electricity Supply".

A label attached to the end of the flexible cable gives details of the cable core colour coding and their function which should be adhered to. When connecting to a 3 pin plug, observe the following recommendations:-

1. The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol  or coloured green or green and yellow.
2. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
3. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

COMMISSIONING AND TESTING

This appliance must be used with LPG only.

The whole gas installation, must be inspected and tested for soundness, and purged up to the appliance gas cock in accordance with the recommendations of BS 6891.

LIGHTING THE BURNER - SEE FIG 7

IMPORTANT: IF THE PILOT IS EXTINGUISHED FOR ANY REASON, ALWAYS WAIT AT LEAST 3 MINUTES BEFORE ATTEMPTING TO RELIGHT.

1. Switch OFF the electricity supply at the wall socket and ensure the optional programmer if fitted is switched to the OFF position.
2. Ensure that the thermostat knob D is at the LOW position Fig 7.
3. Open the outer burner door A.
4. Turn ON the service cock E (below cooker burner control valve) so that the screwdriver slot is in line with pipework.
5. Turn the control Knob B to the ignition symbol ★ and depress it fully.
6. Keeping Control Knob B depressed fully simultaneously press Piezo Spark Generator C repeatedly until the pilot flame lights. This is visible through the sight glass F (Fig 7) (A few seconds must be allowed for the gas to reach the pilot burner).
7. Continue to hold down Control Knob B for at least 15 seconds after the pilot flame has lit, then release the knob slowly. The pilot flame will remain if its presence has been detected by the flame sensor unit.
8. Check with leak detection fluid for gas soundness at the joint of the pilot supply pipe with the control valve.
9. Check that the pilot flame is enveloping the pilot thermocouple.
10. With thermostat knob D still at its minimum setting (LOW). TURN the Control knob B to the large main flame symbol .
11. Check that the main burner has lit.
12. Check that the burner pressure is correct at Test Nipple G for Low Fire.
13. Leave at LOW fire for 5 minutes.
14. Turn thermostat knob D to No.9, turn ON the electricity supply, and the programmer if fitted requires setting to continuous.
15. Check that the main burner flame has increased from LOW to HIGH.
16. Check that the burner pressure is correct for this setting.
17. Check that the main burner gas pressure is maintained and unaffected when other gas appliances are used.

NOTE: IF FOR ANY REASON A GAS RATE CHECK IS REQUIRED, TURN OFF ALL OTHER GAS APPLIANCES, AND USING THE GAS METER TEST DIAL AND STOP WATCH, CHECK THAT THE MAXIMUM GAS INPUT TO THE APPLIANCE IS AS INDICATED ON THE DATA PLATE, (BS 6798: 1987 GIVES FULL DETAILS OF THE METHOD).

18. Check that there is no spillage of combustion products from the appliance down-draught diverter by carrying out a spillage test as detailed in BS 5440: 1 i.e By holding a smoke match so that the flame is approximately 3mm (1/8 in) up inside the lower edge of the draught diverter. Spillage is indicated by the smoke being displaced outward from the draught diverter.
Inspect flame pattern and appearance of burner at high fire to establish that there is adequate air for combustion.
19. Turn the control knob B to ★ and remove the pressure gauge from the burner test nipple, then replace the sealing screw.
20. Return control Knob B to large flame symbol.
21. Close outer burner door.

HOW TO OPERATE COOKER CONTROL

Overnight and when not required for cooking, leave thermostat knob D at LOW position. To increase the temperature of the oven or hotplate, turn the thermostat knob D to required temperature setting.

See separate programmer operating instructions to set the programmer if fitted.

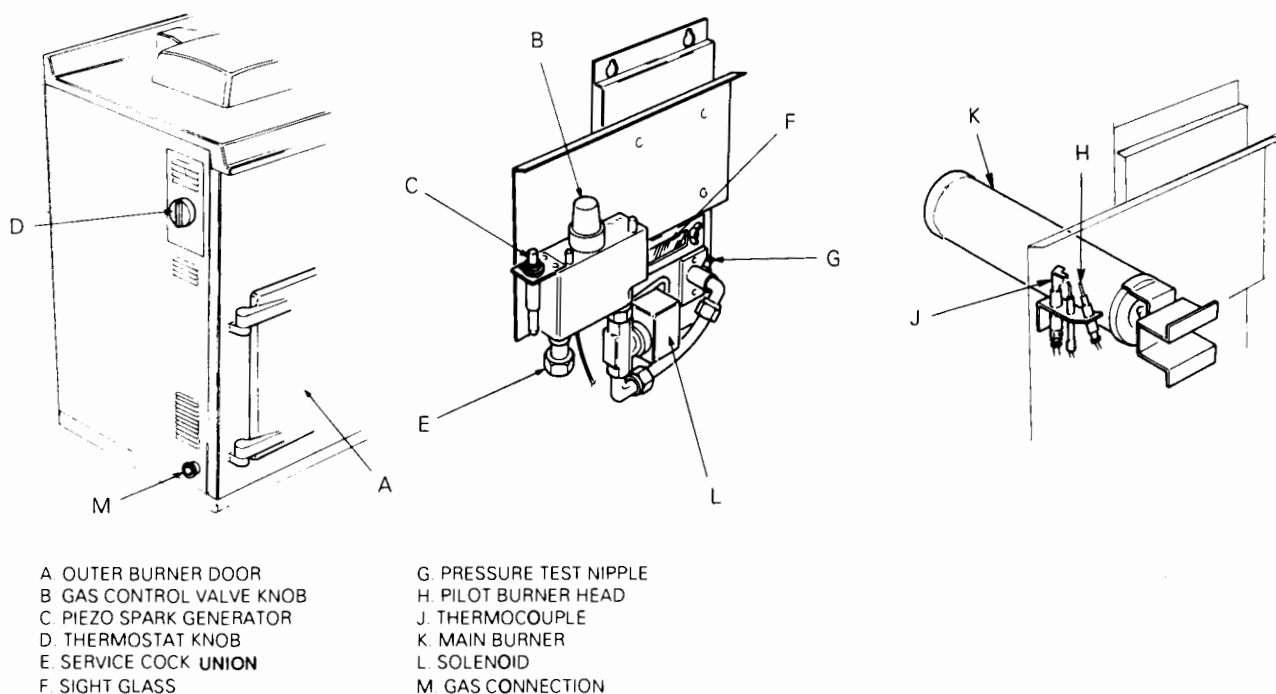
TO TURN OFF COOKER BURNER

Press and turn control knob B clockwise to off (● symbol) whereupon the main cooker burner and the pilot burner will extinguish.

NOTE: IF THE BURNER IS TO BE RE-LIT IN A DAY OR TWO TURN THE CONTROL KNOB B TO ★ SYMBOL LEAVING THE PILOT ALIGHT. THE MAIN BURNER WILL THEN LIGHT IMMEDIATELY YOU TURN CONTROL KNOB B FROM ★ TO flame AND THE THERMOSTAT KNOB D TO REQUIRED SETTING.

ADVISE USER ABOUT THE FOLLOWING ITEMS ON COMPLETION OF INSTALLATION.

(a) For continued efficient and safe operation of the appliance, it is important that adequate servicing is carried out annually.



BURNER ASSEMBLY

Fig. 7.

(b) Hand these Instructions and the Operating Instructions to the User and demonstrate the correct operation of the appliance and system controls. See notes under heading 'Methods of Appliance Control'.

Note: The cooker is designed to be alight continuously, with the Thermostat at LOW during times of low cooking load or idling conditions, and the thermostat set to give the appropriate oven conditions when cooking - see the Rayburn Cook Book for recipes.

METHOD OF APPLIANCE CONTROL

The cooker burner provides heat for the two ovens and hotplate. A main gas service cock is incorporated below the cooker burner control valve.

Operation

The burner K has a permanent pilot light H protected by a flame supervision valve. Turning ON the main gas service cock E to allow gas to the gas control valve and turning and pressing control knob B to ★ allows gas to pass to the pilot light H which must be lit by means of the Piezo (knob C).

When the pilot heats the thermocouple probe J correctly, gas is allowed to pass through the flame failure device.

Depressing the control knob B and turning to  allows the gas to the main burner K which crosslights from the pilot burner.

LOW is the minimum (and idling) gas rate and turning the Thermostat knob D to a higher setting selects the temperature of the ovens required for cooking.

When not in use, reset knob D to LOW.

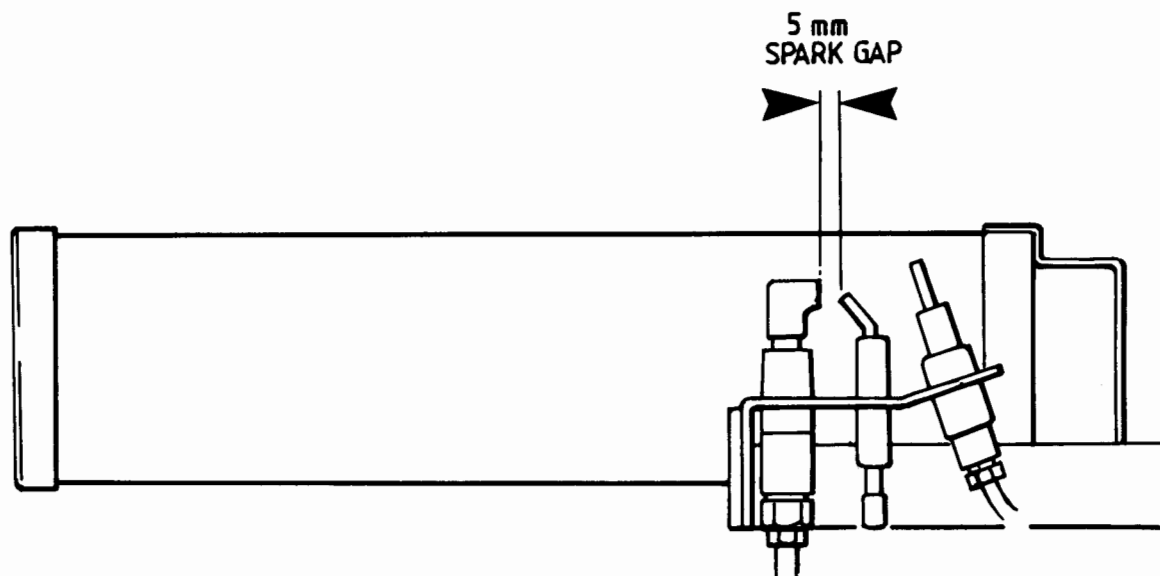


Fig. 8

Servicing Instructions

ANNUAL SERVICING

It is important that servicing be carried out by a competent service engineer, and it is recommended that a contract be made with the CORGI registered installer.

The householder should be advised to turn OFF the cooker control knob B the night before, the day of service, so that the appliance will have cooled down by the following morning, in readiness for servicing. Before commencing any servicing, turn OFF the gas supply at the appliance gas service cock (below cooker burner control valve).

WARNING: DISCONNECT FROM ELECTRICITY SUPPLY AND REMOVE PLUG BEFORE COMMENCING SERVICING.

SERVICE SCHEDULE

To Obtain Servicing Access - Fig. 1.

To obtain servicing access to main gas burner, gas control and heat exchanger, proceed as follows:

- a. Lift out the hotplate.
- b. Open the outer burner door A and lift it off.
- c. Disconnect main burner inlet union connection below valve.
- d. Disconnect solenoid plug by undoing the small screw in the top of the plug.
- e. Loosen the two tap fixing screws and remove the two lower fixing screws on the burner front plate.
- f. Lift up the burner frontplate and draw carefully forward.

To Service Main Burner

Gently brush away any deposit on burner and examine gas ports. Remove any lint or fluff from injector and venturi entrance, and check pilot burner assembly for damage, and probe bracket for correct alignment.

DO NOT USE WIRE TO CLEAN INJECTOR ORIFICE.

To Service Pilot Burner

Remove pilot burner as instructed in 'Replacement of Parts' in Section 5.

Remove pilot injector and check to see it is free of deposit with a tooth brush bristle or similar if necessary.

DO NOT USE WIRE TO CLEAN INJECTOR ORIFICE

Examine probe end of flame failure device and replace flame failure probe if probe end is badly pitted, corroded or malfunctioning.

To Clean Heat Exchanger and Flueways

- a. Remove the main and pilot burner assembly as previously described.
- b. Place a layer of paper on combustion chamber baseplate.
- c. Examine insulation panels for any signs of deterioration, replace if necessary.
- d. Remove layer of paper with fallen debris.
- e. Check that oven top is free of deposit and brush in between ribs on hotplate underside.
- f. Examine soft rope seal located on underside of hotplate baffle plate. Replace if worn or frayed.
- g. Examine soft rope seal located around hotplate aperture in top plate. Replace if frayed or damaged.
- h. Re-fit the main and pilot burner assembly in reverse order of assembly. Test all disconnected joints for gas soundness.
- i. Replace hotplate ensuring that the underside ribs lie over the combustion chamber.
- j. Turn ON appliance service cock on outside of appliance. Light pilot and turn oven control knob to confirm the burner lights satisfactorily in accordance with lighting instructions.

REPLACEMENT OF PARTS

Only to be carried out by a competent Service Engineer.

1. Oven Temperature Indicator

- a. Open main oven door and remove from cooker. Place enamelled side on a cloth to protect it, and remove four screws securing inner lining panel to outer door.
- b. Remove inner lining panel and slagwool insulation.
- c. Unscrew two hexagon nuts securing indicator to outer door and remove indicator.
- d. Fit replacement indicator in reverse order of dismantling.
- e. Seal indicator to door with heat resistant string and seal with fireclay.
- f. Reassemble as c. to a, above.

2. Thermocouple

- a. Remove burner assembly as detailed in Servicing Schedule.
- b. Remove thermocouple from gas valve.
- c. Remove thermocouple from pilot burner.
- d. Replace with new thermocouple assembling in reverse order.
- e. Reassemble burner assembly into cooker.

3. HT Spark Lead

- a. Remove burner assembly as detailed Servicing Schedule.
- b. Remove HT spark Lead from Piezo Spark Generator.
- c. Remove HT spark Lead from Spark Electrode.
- d. Replace with new HT spark lead, reassembling in reverse order.
- e. Reassemble burner assemblies into cooker.

4. Spark Electrode

- a. Remove burner assembly as detailed in Servicing Schedule.
- b. Remove HT spark lead from spark electrode.
- c. Remove spark electrode.
- d. Replace with new spark electrode taking care not to put any strain on the ceramic body replace screw to secure position.
- e. Reconnect the HT spark lead.
- f. Reassemble burner assembly into cooker.

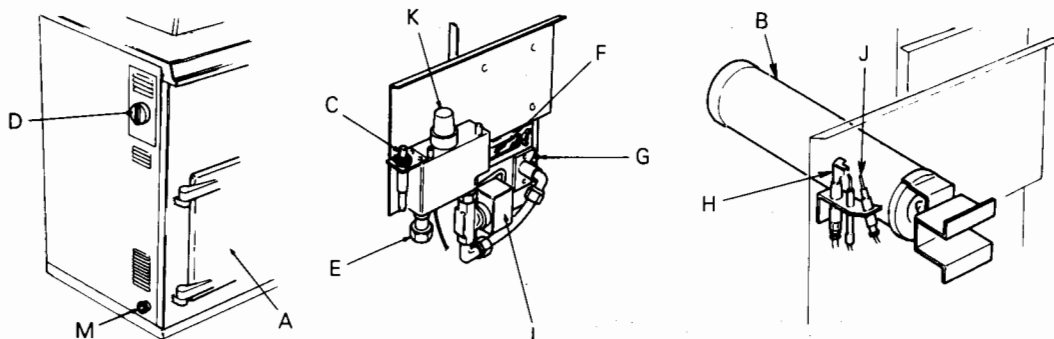
5. Pilot Assembly

- a. Remove burner assembly detailed in Servicing Schedule.
- b. Remove HT spark lead from spark electrode.
- c. Remove thermocouple from pilot burner.
- d. Slacken the pilot feed pipe nut.
- e. Remove the pilot burner fixing screws.

- f. Release the pilot feed pipe and unscrew the pilot burner injector.
- g. Examine/clean or renew the injector before replacing it in the new pilot burner.
- h. Re-assemble the injector into the pilot burner assembly.
- i. Enter the pilot feed pipe nut into the pilot burner and turn by hand a few turns.
- j. Replace the pilot burner on to its support bracket and tighten the screws.
- k. Tighten the pilot feed pipe nut fully with a spanner.
- l. Replace thermocouple.
- m. Replace spark electrode taking care as detailed in (4) above.
- n. Replace HT spark lead.
- o. Reassemble burner assembly into cooker.

6. Thermostat

- a. **Ensure that the cooker is ISOLATED FROM THE POWER SUPPLY**
- b. Remove thermostat control knob by grasping firmly and pulling off the spindle.
- c. Remove the four fixing screws which secure the thermostat mounting plate to the cooker side plate.
- d. Remove the earth lead and note position of electrical connection and remove.
- e. Unscrew the locknut and washer securing the thermostat.
- f. Open top oven door.
- g. Slacken the rear screw securing the LH side panel casting in the oven.
- h. Remove the front screw from the LH side panel, which allows it to swing out and give access to the thermostat phial mounting brackets.
- i. Pull the capillary out of the tube along the front of the cooker sufficiently to enable the phial to be removed from its clips (push the phial towards the rear of the oven to release it from the front bracket).



A. OUTER BURNER DOOR
B. GAS CONTROL VALVE KNOB
C. PIEZO SPARK GENERATOR
D. THERMOSTAT KNOB
E. SERVICE COCK UNION
F. SIGHT GLASS

G. PRESSURE TEST NIPPLE
H. PILOT BURNER HEAD
J. THERMOCOUPLE
K. MAIN BURNER
L. SOLENOID
M. GAS CONNECTION

BURNER ASSEMBLY

- j. The thermostat can now be removed.
- k. Straighten an equivalent length of capillary on the new thermostat taking care when doing so not to kink it.
- l. Feed the capillary back through the front tube into the oven and relocate the capillary in the support brackets.
- m. Draw the spare capillary back towards the left of the cooker and carefully coil the spare capillary behind the thermostat.
- n. Now reverse the order of the above to reassemble (h-b).

7. Gas Valve

- a. Remove burner assembly as detailed in Servicing Schedule.
- b. Remove thermocouple from S.I.T valve.
- c. Remove H.T. spark lead from Piezo.
- d. Remove pilot feed pipe from gas valve.
- e. Remove main burner feed pipe from outlet of solenoid.
- f. Unscrew the two fixing bolts holding gas valve to its mounting plate.
- g. Remove Piezo complete with its mounting bracket from gas valve.
- h. Remove inlet gas assembly complete.
- i. Remove solenoid valve from gas valve.
- j. Fit new gas valve reassembling in reverse order.

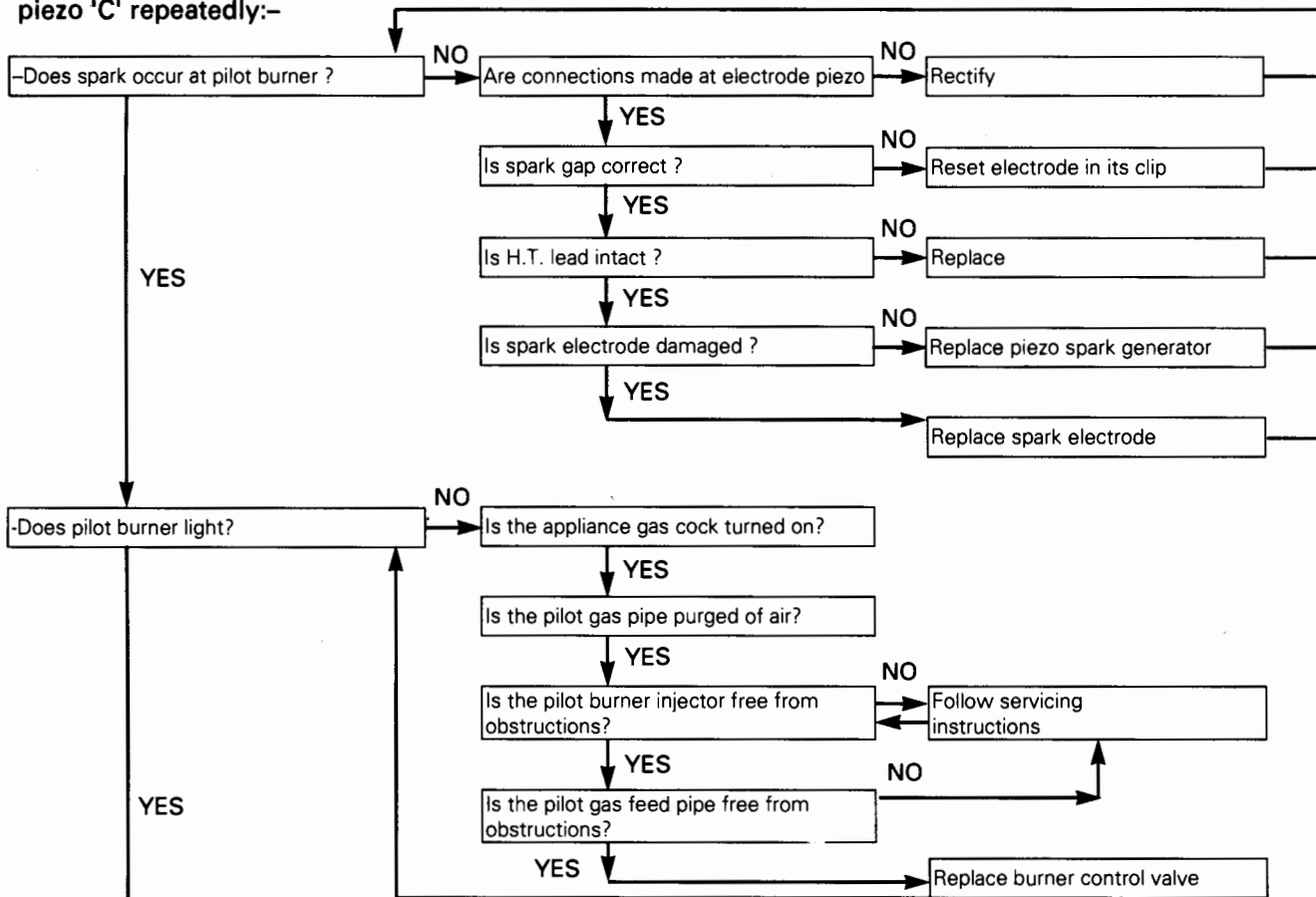
8. Solenoid

- a. Remove burner assembly as detailed in 'Servicing' above.
- b. Remove thermocouple from S.I.T. valve.
- c. Remove H.T. spark lead from Piezo.
- d. Remove pilot feed pipe from gas valve.
- e. Remove main burner feed pipe from outlet of solenoid.
- f. Unscrew the two fixing bolts holding gas valve to its mounting plate.
- g. Remove Piezo complete with its mounting bracket from gas valve.
- h. Remove inlet gas assembly complete.
- i. Remove solenoid valve from gas valve.
- j. Fit new solenoid reassembling in reverse order.

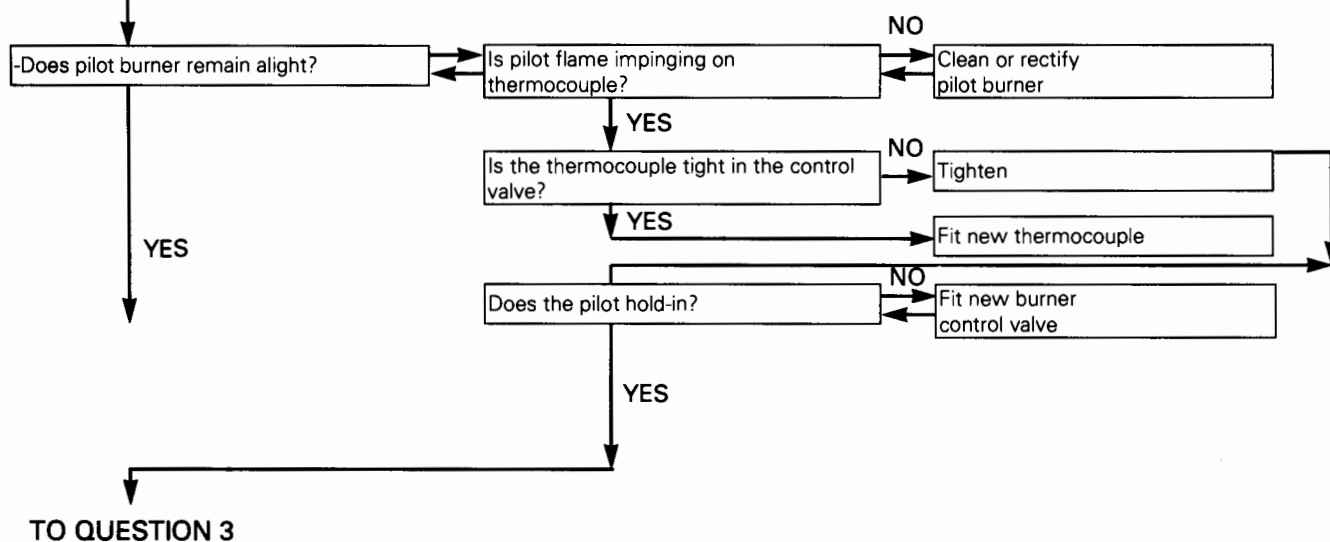
LEAVE SERVICING INSTRUCTIONS WITH THE USER FOR FUTURE USE.

FAULT FINDING

1. Hold control knob 'B' at pilot lighting position and press piezo 'C' repeatedly:-



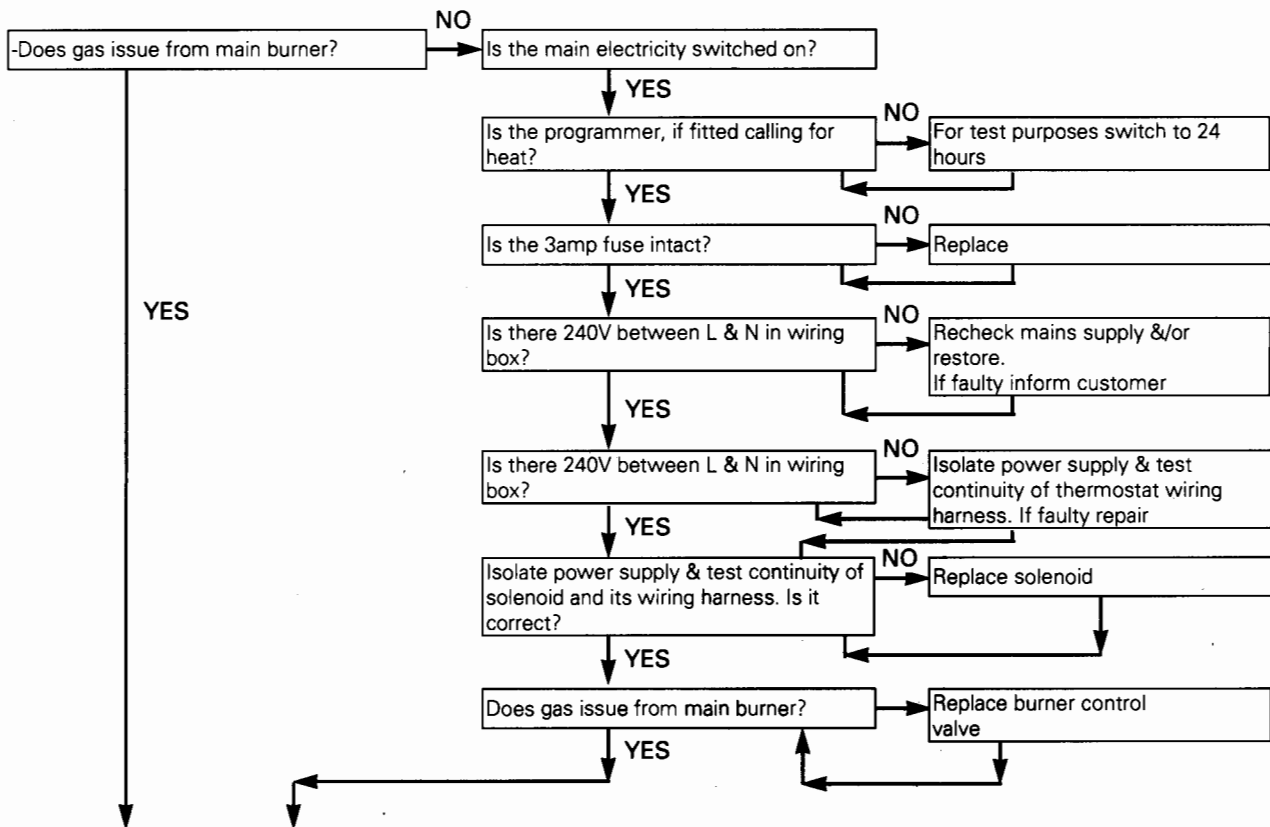
2. When control knob 'B' is released 30 seconds after pilot burner has lit:-



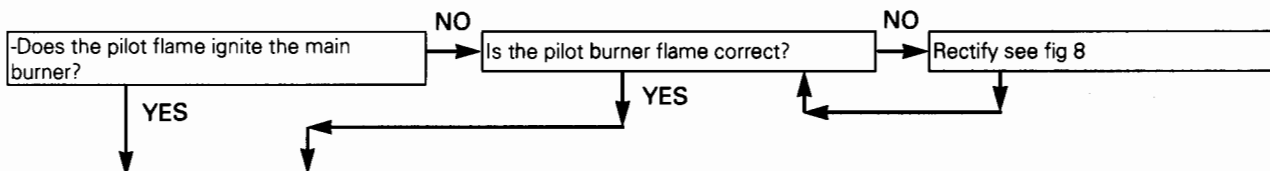
FAULT FINDING

3. When thermostat knob 'D' is turned to a higher setting and knob 'B' is turned from pilot (★) to main burner 🔥.

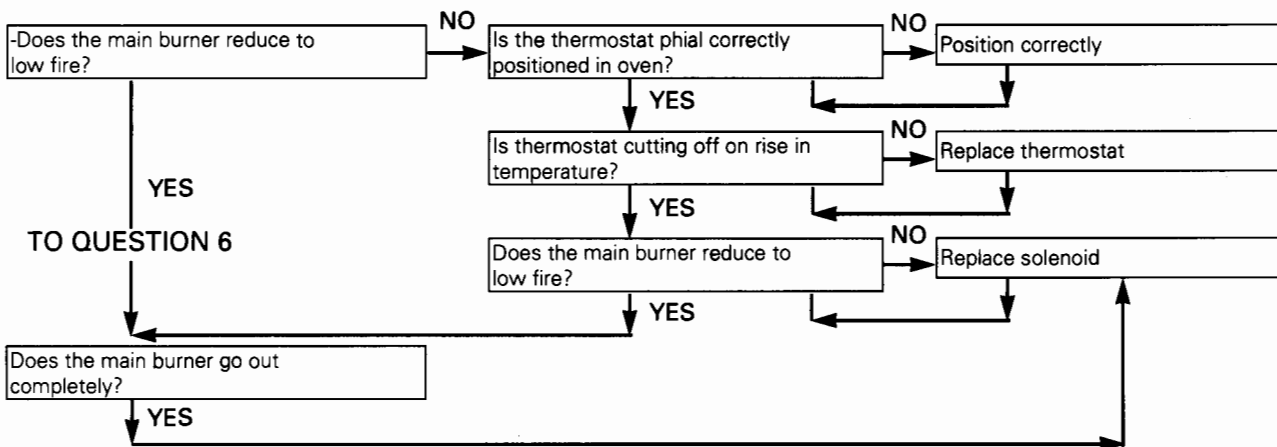
NB It is emphasized that in all cases extreme care must be taken when handling electricity. Isolate the power supply before removing the cover of the wiring box. Physically check all cables and connections. Then using a multi-meter set at 240V A.C check the supply presence of a 240V supply in front of wiring box, having restored the supply for test purposes. Isolate and replace the cover after testing.



4. When gas issues from the main burner:-

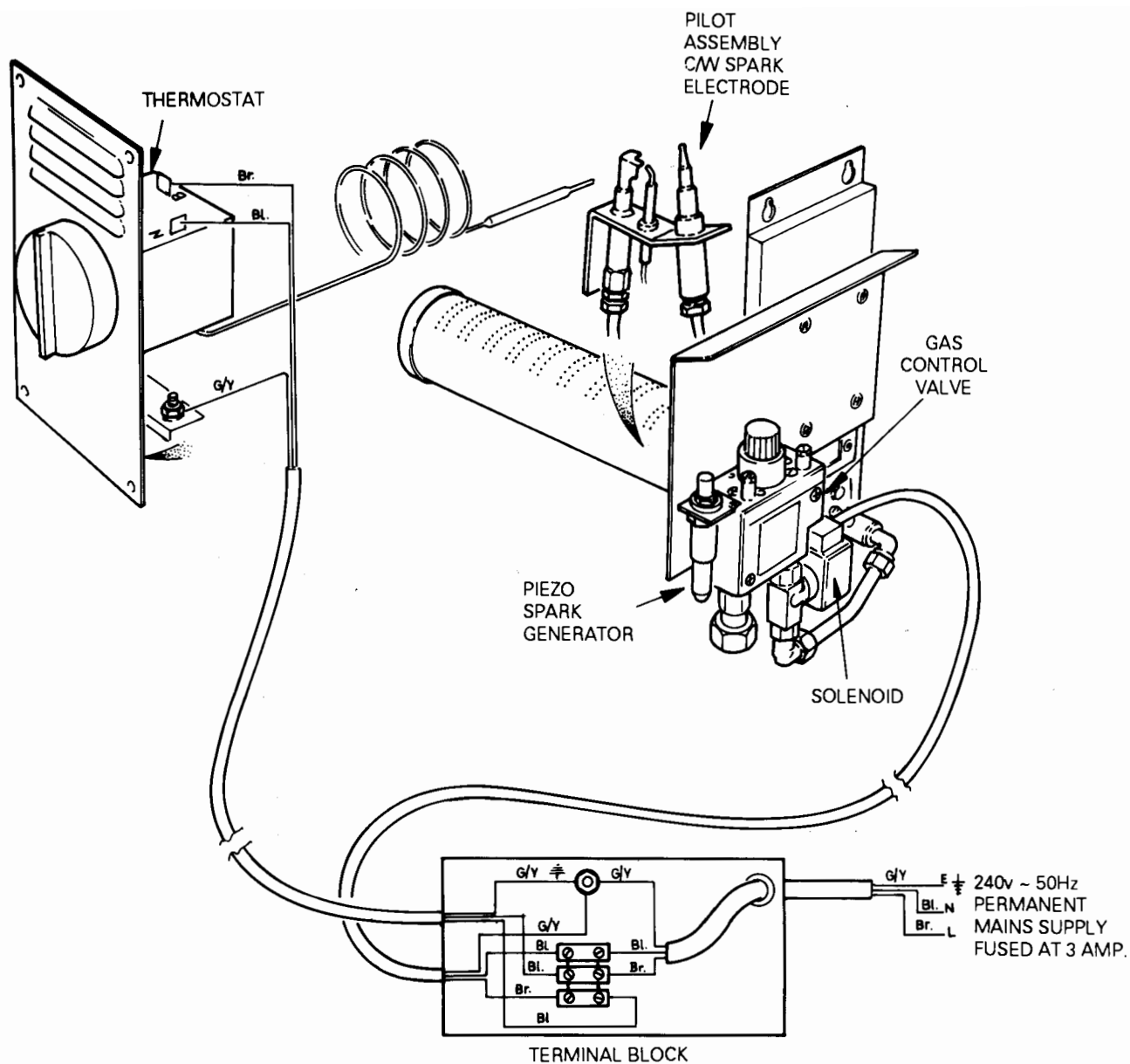


5. When thermostat knob 'D' is turned to a lower setting:-

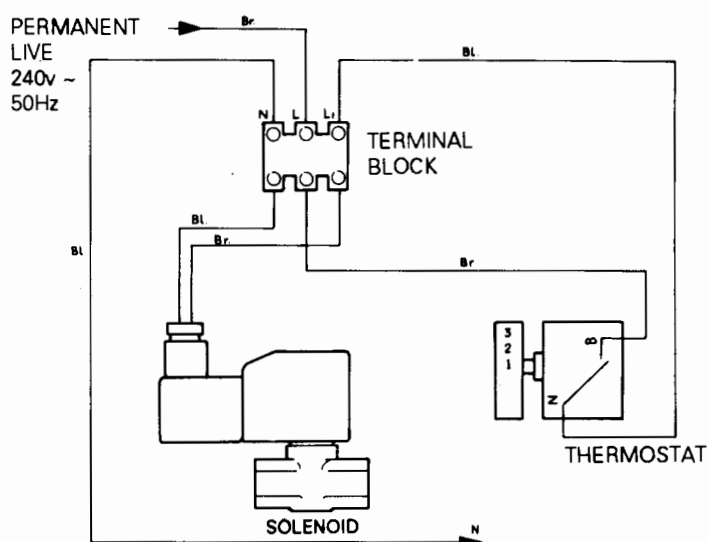


6. When control 'B' is turned off (to ●) :-

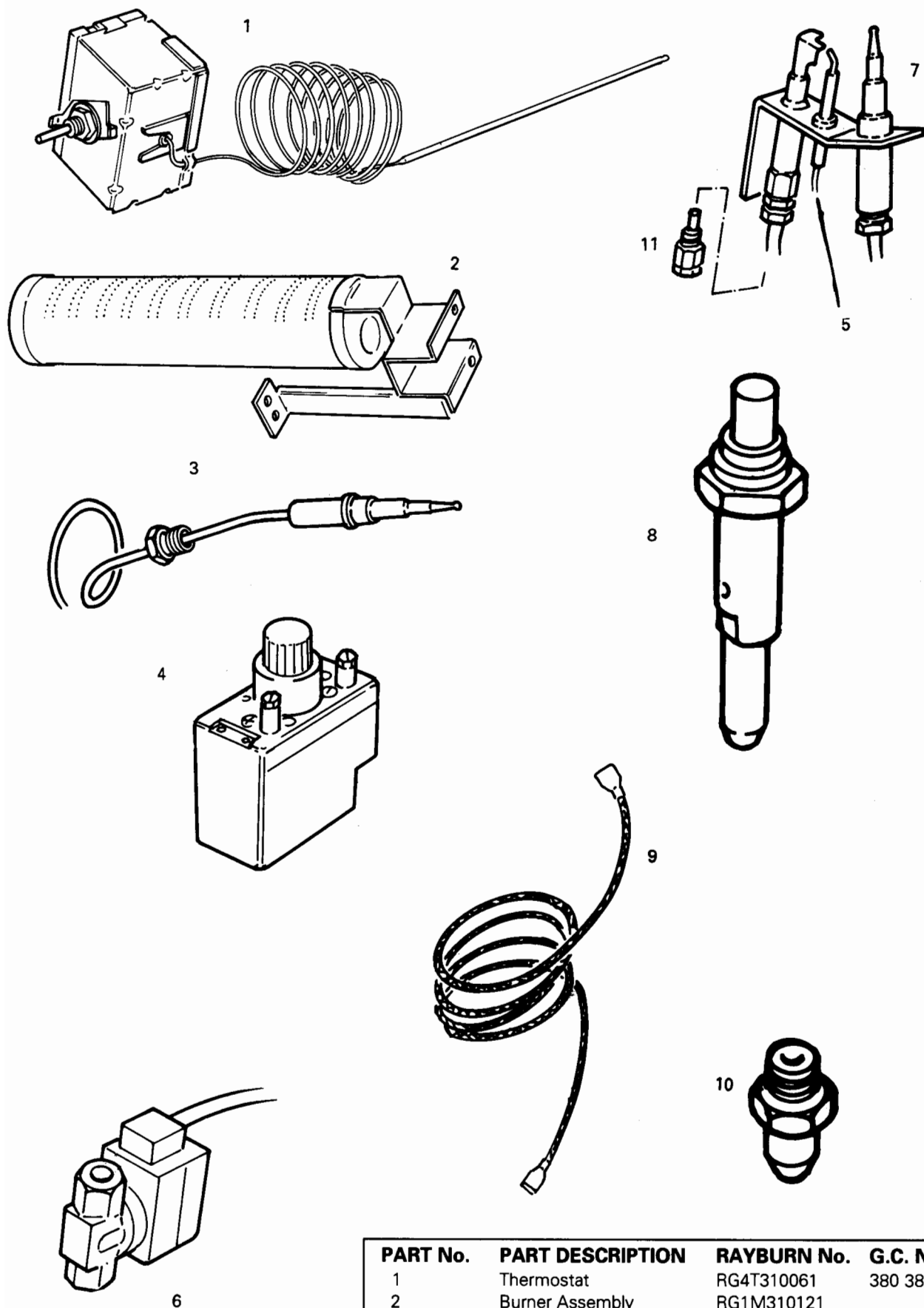




Illustrated Wiring Diagram



Functional Flow Diagram



PART No.	PART DESCRIPTION	RAYBURN No.	G.C. No.
1	Thermostat	RG4T310061	380 38 378 000
2	Burner Assembly	RG1M310121	
3	Thermocouple	RG4M310129	
4	Gas Valve	RG4M310053	630 63 382 902
5	Ignition Electrode	RG4M310059	430 43 387 169
6	Solenoid	RG4M310126	
7	Pilot Burner Assembly	RG4M310128	
8	Piezo Spark Generator	RG4M32406	610 61 394 183
9	Ignition Lead	RG4M 310041	600 60 082 029
10	Burner Injector	AG4M33178	
11	Pilot Injector	RG4M33115	470 47 382 536



Operating Instructions for Rayburn Royal GDO Gas-Fired Cooker:- LPG Model (FOR USE ON PROPANE ONLY)

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 practicable, 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.

Control of Substances – Health and Safety Important:

IMPORTANT NOTICE: Any alteration that is not approved by Rayburn, could invalidate the approval of the appliance, the warranty and could also infringe the current issue of the statutory requirements.

This appliance could contain any 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, Fuelbeds, Artificial Fuel – 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 inhaling and 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.

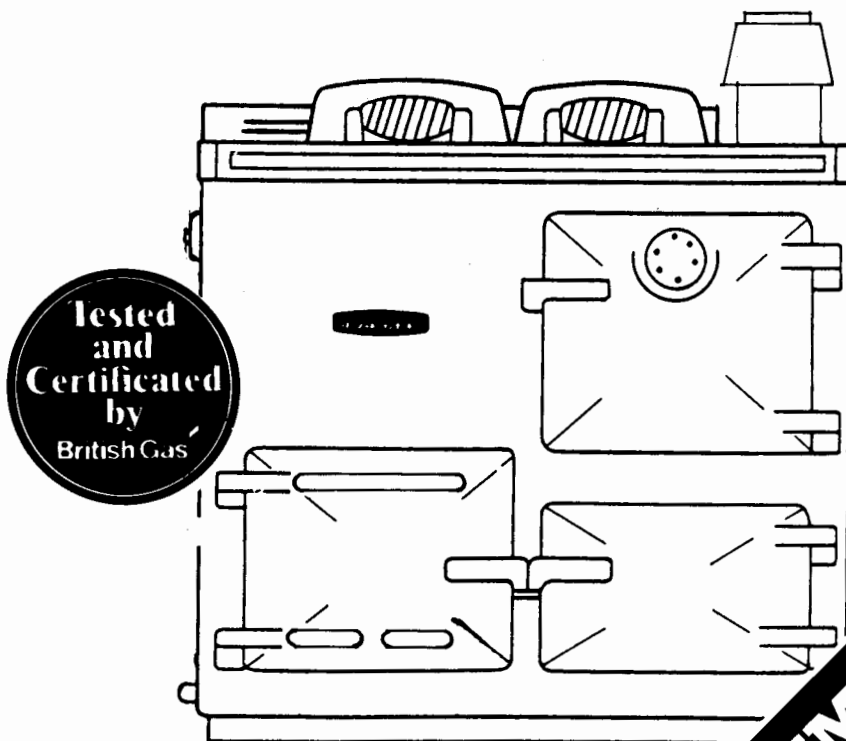
THE RAYBURN ROYAL GDO GAS FIRED COOKER:-LPG MODEL. (FOR USE ON PROPANE ONLY)

The cooker you have chosen has a well known pedigree and is the result of many years of evolution and development. The cooking performance and features of the popular and proven solid fuel Rayburn cookers have been preserved and integrated into the Rayburn Royal GDO LP GAS FIRED COOKER LPG Model. The cooking facilities consist of a heat-graduated hot plate, cast iron main and lower ovens. An optional programmer can be set to operate your Rayburn.

Your Rayburn is easy to use. To get the best from it, please read this leaflet and carefully follow the instructions before using your Rayburn for the first time.

You will find supplied with your Rayburn the following:-

- 1 solid shelf
- 2 grid shelves
- 1 meat tin
- 1 grill rack
- 1 cookbook



IMPORTANT
The cooker burner is intended to run in a continuously alight condition at all times. at low fire rate when idling. Turning the cooker burner **OFF** is **NOT** recommended unless servicing is required.

ELECTRICAL INSTALLATIONS

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

Electricity Supply

WARNING: THIS APPLIANCE MUST BE EARTHED.

A 240V~ 50Hz electrical supply is required near to the appliance. The appliance is supplied with an 0.75mm², 3 - core PVC x 3m long replaceable power supply cable having a label attached to the end of the cable giving details of the cable core colour-coding and their function, which should be adhered to. The appliance must be protected by a 3 amp fuse if a 13 amp (BS 1363) plug is used.

For details of Programmer Wiring, see separate Installation Instructions.

To connect a Plug

As the colour of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

1. The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol or $\perp$ or coloured green or green and yellow.
2. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
3. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Gas Safety Installation and Use Regulations (Current Issue)

In your own interests and that of safety, it is the law that all gas appliances are installed by a competent person in accordance with these Regulations.

The whole gas installation, including the gas meter shall be inspected and tested for soundness, and purged up to the appliance gas cock in accordance with the recommendations of BS 6891

INSTRUCTIONS

When you light your cooker for the first time it may give out a slight odour, this will soon disappear.

Lighting the Burner - See Fig. 1.

1. Switch OFF the electricity supply at the wall socket or if the optional programmer is fitted ensure that it is switched to the OFF position.
2. Ensure that the thermostat knob D is at the LOW position (Fig. 1).
3. Open the outer door A.
4. Turn ON the service cock E (below cooker burner control valve) so that the line of the top of the service cock E is in line with the pipework.
5. Turn cooker burner control knob B to the ignition symbol ★ and depress it fully (see Fig.2).
6. Keeping cooker burner control knob B depressed fully, simultaneously press Piezo spark generator C repeatedly until the pilot flame lights.

This is visible through the sight glass F. (A few seconds must be allowed for the gas to reach the pilot burner). (See Fig 1).

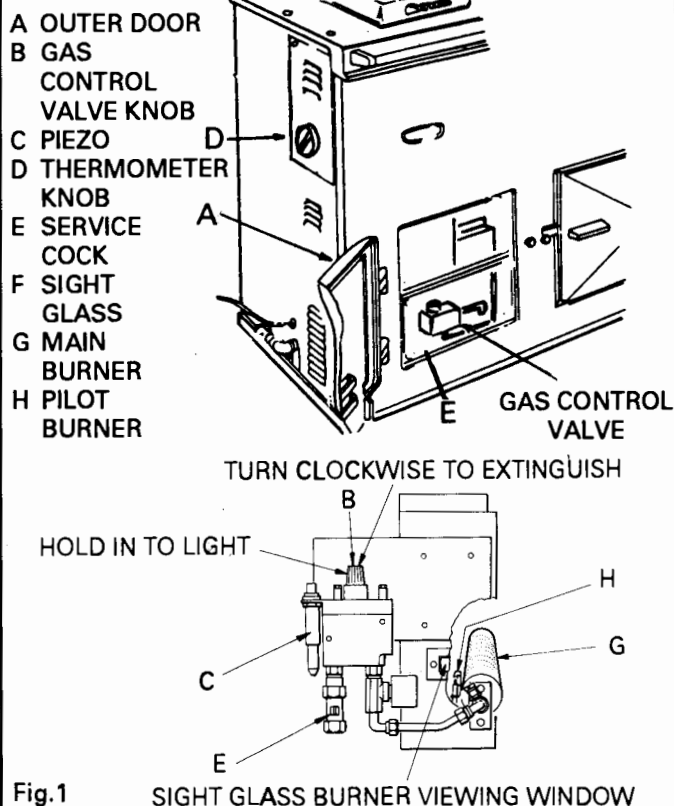


Fig.1

7. Continue to hold down cooker burner control knob B for at least 15 seconds after the pilot flame has lit, then release the knob slowly. The pilot flame should then remain alight.

IMPORTANT

If the flame does not remain alight, wait 3 minutes and repeat the sequence, holding the knob B for a slightly longer time.

8. Turn the cooker control B to the large main flame symbol (See Fig 2).
9. Check that the main burner has lit.
10. Leave at LOW fire for 5 mins.
11. Turn ON the electricity supply and if the optional programmer is fitted set it to 'Continuous'.
12. Turn thermostat knob D to MAX (9) and check that the main burner flame has increased from LOW to HIGH.
13. Close the outer door A.
14. Select the setting of thermostat D to suit your needs.
15. Ensure both hotplate insulating covers are closed down to conserve heat in the hotplate.

NOTE: IT IS NOT RECOMMENDED TO SWITCH OFF THE COOKER EXCEPT FOR SERVICING.

To Turn Off Cooker Burner

Press and turn cooker burner control knob B clockwise to OFF symbol (see fig 2) whereupon the main cooker burner will extinguish.

SHORT PERIODS: IF THE BURNER IS TO BE RE-LIT IN A DAY OR TWO TURN THE COOKER CONTROL KNOB B TO ★ SYMBOL (see Fig 2) LEAVING THE PILOT ALIGHT. THE MAIN BURNER WILL THEN LIGHT IMMEDIATELY YOU TURN COOKER CONTROL KNOB B FROM ★ to (see Fig 2).

LONG PERIODS: SWITCH THE ELECTRICITY OFF AT THE WALL SOCKET, AND TURN THE COOKER BURNER CONTROL KNOB B CLOCKWISE UNTIL THE KNOB SYMBOL ● IS IN THE "GAS OFF" POSITION (See Fig 2) AND THIS WILL EXTINGUISH THE PILOT LIGHT. TO RE-LIGHT, FOLLOW THE PROCEDURE GIVEN UNDER 'LIGHTING THE BURNER'.

Power Failure

During periods of electrical power failure the cooker will continue to operate, but at low fire only until power is restored. The cooker will then revert to operating at the setting previously in use.

TO USE THE HOT PLATE AND OVENS

To increase the temperature of the hotplate and ovens turn the thermostat knob D (See Fig 1) to the required setting.

THE HOTPLATE

The single hotplate of your Rayburn is graduated in temperature, the hottest side is on the left hand side and cooler over the ovens. Just slide pans to a hotter or cooler area depending on whether boiling or simmering is required. The hotplate temperature is also variable, depending upon the setting used; the higher the setting the hotter the hotplate.

Made of thick cast iron, the hotplate is ground flat. In order to ensure perfect contact and even heat distribution it is recommended that all pans and utensils used have thick flat ground bases. Pans should also have tight fitting lids for greatest efficiency.

NOTE: Hotplate cooking is quicker when the gas burner is on high fire. So increase the setting of the thermostat knob D (see fig 1) to increase the temperature of the hotplate. (The hotplate gains in heat quicker than the oven).

Keep the insulated hotplate covers down when the hotplate is not being used to conserve heat.

If the programmer is not in use turn the thermostat knob D to number 9 setting in the morning to increase the hotplate temperature and minimise the time to boil a kettle. Then turn to the setting required.

THE OVENS

Both the ovens are made of cast iron and are indirectly heated.

Main Oven

This oven is thermostatically controlled by the thermostat knob D (see fig 1). When the oven reaches the desired temperature this is maintained by the thermostat.

As a guide, the numbered settings give the following approximate oven temperatures and an indication of heat-up-time.

The thermodial temperature on the oven door is the approximate temperature in the centre of the oven.

NOTE: Due to the varying operating demands on the cooker the thermodial temperature relative to thermostat knob is given as a guide only.

SETTING	APPROXIMATE MAIN OVEN TEMPERATURE	APPROXIMATE HEAT UP TIME FROM LOW
	LOW	IDLING
2	140-160°C (284-320°F)	18 MINS
4	170-190°C (338-374°F)	30 MINS
6	195-215°C (383-419°F)	40 MINS
8	220-240°C (428-464°F)	53 MINS
9	234-255°C (455-491°F)	60 MINS

The low setting may vary, dependant upon weather conditions.

When the ovens are not required during the day or overnight, then turn to the LOW (idling) setting to give the lowest burning rate.

NOTE: When the main oven is at LOW, slow cooking and meringues can be cooked here.

Lower Oven

The temperature of the cast iron lower oven is dependant upon the temperature of the main oven. As a guide, it is around half the temperature of the main oven. This means that it can be used as a cooking oven when the main oven is at higher temperature i.e. over (200°C/400°F) for meringues, casseroles, milk puddings etc.

Best results are obtained if food is brought up to heat (either on the hotplate or on the main oven) first, then transferred to the lower oven. (The exception being meringues).

Some examples of items that are suitable for the lower oven temperatures are given below, for these times the thermostat knob D (see Fig 1) is above setting 6:-

Casseroles:- Bring to boiling point, place on floor of lower oven for about 2½ to 3 hours.

Rice pudding:- Bring to boiling point, place in middle of lower oven for about 2 to 3 hours.

Lemon Meringue Pie:- To cook meringue topping place completed pie in lower oven for about 1½ hours.

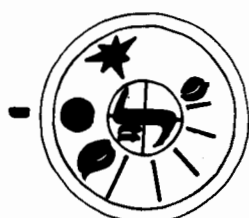
Meringues:- Place on baking parchment on the solid shelf, middle of lower oven, for about 1½ to 2 hours.

When the main oven is at a cooler temperature the lower oven can be used for warming plates and dishes and for keeping food warm.

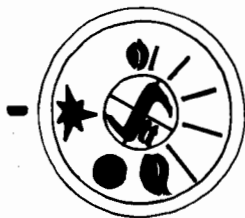
PROGRAMMER (OPTIONAL)

This control is available giving three individual time settings and an override control. It may be used for the following:

1. Pre-set morning programme to turn cooker to desired temperature, so that cooker is available for immediate use on rising.



GAS OFF



IGNITION



BURNER ON
PRESS DOWN & RETURN

Fig 2

OPERATING POSITIONS FOR GAS CONTROL KNOB 'B'

2. Mid-day or evening timing to suit meal times.
3. Alternative third programme setting if needed.

Please refer to the separate manual provided for the programmer for the method of setting up the programmer.

The programmer can be set to give the desired cooking temperature when you want it, without having to wait for the warming up period. For example, if you wish to cook breakfast at 7.30 am, the programme can be set to give the required heat up time prior to this. Thus, if it takes 60 minutes to come to the temperature you require, the programmer will be set to operate at 6.30 am and the thermostat knob D (see Fig 1) set to the position you require the night before. The cooker will continue to operate at LOW until the programme switches on at 6.30 am, when the cooker will commence to warm up. The 'Time Off' will need to be set to allow sufficient time for your cooking period.

The recommendations for the best use of the appliance are guidelines only and the respective settings of the cooker thermostat knob which best suit your requirements will be apparent with experience.

MAINTENANCE

It is important to have the appliance serviced once a year by a competent maintenance engineer. It is recommended that a regular servicing contract is made with the gas region or a CORGI registered installer.

WARNING: IF A GAS LEAK OR FAULT IS SUSPECTED, TURN OFF THE APPLIANCE AND CONSULT YOUR LOCAL REGISTERED CORGI INSTALLER.

Rayburns are designed to be continuous burning appliances. If left unlit for any length of time, leave the doors slightly open to allow air circulation.

CLEANING

REMEMBER: BE CAREFUL OF THE HOT APPLIANCE

To keep the vitreous enamelled surface bright and clean, wipe over daily with a soapy damp cloth, followed by a polish with a clean dry duster. If milk, fruit juice or anything containing acid is spilt on the top plate or down the cooker, be sure to wipe it immediately or the vitreous enamel may be permanently discoloured. Keep a damp cloth handy, while cooking to wipe up spills as they occur, so they do not harden and become more difficult to remove later. If spills do become baked on a cream cleanser can be used. For stubborn deposits a soap impregnated pad can be carefully used on the vitreous enamel.

In the main oven, spills and fat splashes are carbonised at high temperatures; occasionally brush out with a stiff brush. The oven door can be removed for cleaning, DO NOT immerse in water. Shelves can be soaked and cleaned with a cream cleanser.

The lower oven can be wiped out with a damp cloth.

Both insulating covers should be raised and allowed to cool before cleaning with a soapy damp cloth.

Use a wire brush to keep the cast iron hotplate clean.

General cleaning is best carried out when the Rayburn is cool.

DO NOT USE OVEN CLEANERS OR CLEANERS CONTAINING CITRIC ACID ON ENAMELLED SURFACES.

COOKING HINTS

The oven is indirectly heated from outside by hot gases from the heat source so that no flame or elements within the oven means full use can be made of the whole cooking space.

The main oven is slightly hotter towards the top than the bottom. At a low idling heat the main oven can be used for long slow cooking such as casseroles, stock, soup, ratatouille, curries, meringues, creme caramels, rice puddings etc., all of which benefit from the gentle slow heat, and as the oven is vented into the flue, cooking smells disappear to the outside.

Alternatively, the lower oven can be used for slow cooking when the main oven is being used at a high temperature.

One of the many benefits of the cast iron main oven is that the floor of the oven is hotter than that of a conventional cooker. No need to bake quiche pastry cases "blind", just place the flan dish on the oven floor for 'soggy-free' pastry. When the oven is hot, the floor of the oven can be used for shallow frying (a cast iron dish is recommended) with the added advantages that fat splashes are carbonised, so cleaning is minimised and frying smells are taken away through the flue.

For perfect baking results, turn food during cooking.

The top of a hot oven is where grilling takes place. Place the grill rack in the meat tin arrange food to be grilled on the grill rack and slide onto the top set of runners of the main oven.

The thermodial temperature gauge on the main oven door is a guide to the internal oven temperature. Remember though, on opening the door the temperature will appear to drop, do not worry, close the door and after a few minutes the oven temperature can be read again. Heat is not lost as quickly from a cast iron oven, as a pressed metal box type, so you can peep at a cake to see how it is cooking without it sinking.

As you have probably realised, the meat tin supplied with your Rayburn fits the oven size, hanging directly from the runners, so leaving the grid shelves free for other dishes. The oven grid shelves are designed to be non-tilt and should be fitted with the upstand to the top and at the back, so when pulled forward the shelf cannot come right out.

The solid shelf can be used as a baking sheet or as a heat deflector. If the oven is too hot or food already in the oven is beginning to over-brown, slide the solid shelf above the food. To be effective, this shelf should be stored out of the oven so that it is used from cold.

NOTE: TAKE CARE WHEN CLOSING THE DOORS TO LIFT THEM ONTO THE CATCH. IT IS NOT ADVISABLE TO PUT VERY WET CLOTHES ONTO THE HAND RAIL AS THIS MAY CRAZE THE ENAMEL.

Further accessories (extra meat tins, shelves, solid shelves are available from your stockist).

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



Glynwed Consumer & Building Products Ltd.

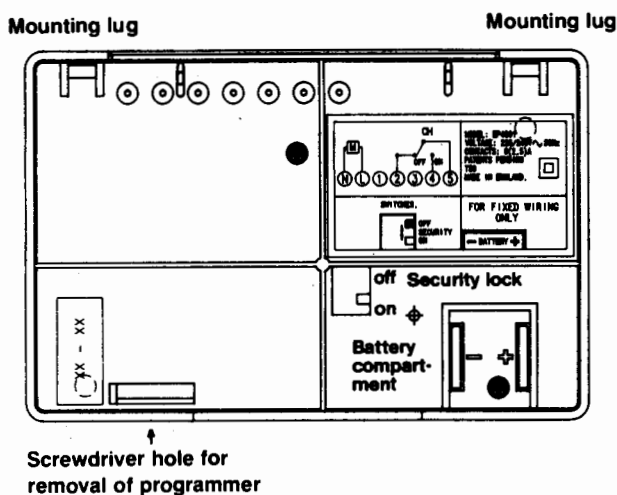
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Diagram A Back view of the programmer



About the programmer

The programmer is a time control which switches the system on and off to give time settings to the customer's requirements. The programmer incorporates the following features.

- A security lock switch to prevent people changing the set times in the programmer's memory.
- An indicator light which lights up when the cooker switches on.
- Weekday/weekend programming.

NOTE: The programmer can only be fitted to selected models. Please contact your Rayburn outlet for further advice.

Data

Supply voltage 220~240VAC 50Hz.

Switch rating 6 amps resistive/2.5 amps inductive (0.6 power factor).

Working temperature 50°C.

Dimensions Height 104mm, width 160mm, depth 41mm.

Where to site the programmer

The programmer can be fitted to:

- Any non-metallic flat surface.
- A double or single flush-mounted outlet box.
- Boxes must conform to BS 1363: Part 2.

We recommend a minimum clearance of 50mm above and 150mm below the programmer.

Warning: Do not fit the programmer to a single surface-mounted outlet box as it would allow access to live wires. Do not fit the programmer to a metal surface.

Installing the programmer

There are four main steps in installing the programmer:

- 1 Fixing the mounting panel.
- 2 Wiring up the mounting panel.
- 3 Connecting the battery - you can then set the times and security switch if you wish.
- 4 Fixing the programmer to the mounting panel.

Fixing the mounting panel

To hinge the mounting panel from the back plate depress the retaining clip with a small screwdriver. (See Diagrams A & B).

Diagram B Side view of the programmer and mounting panel.

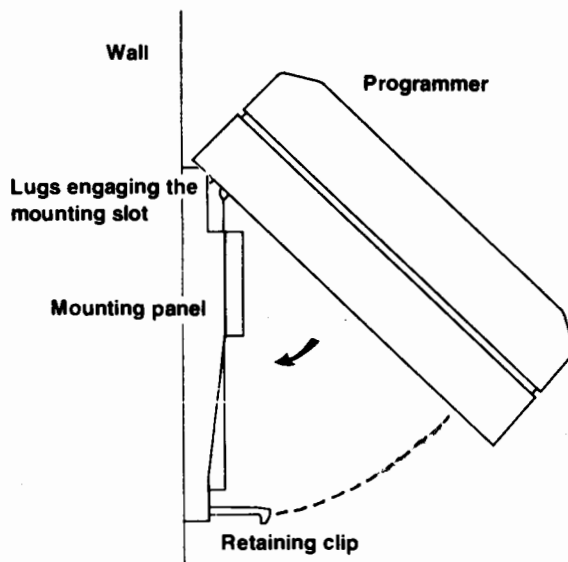
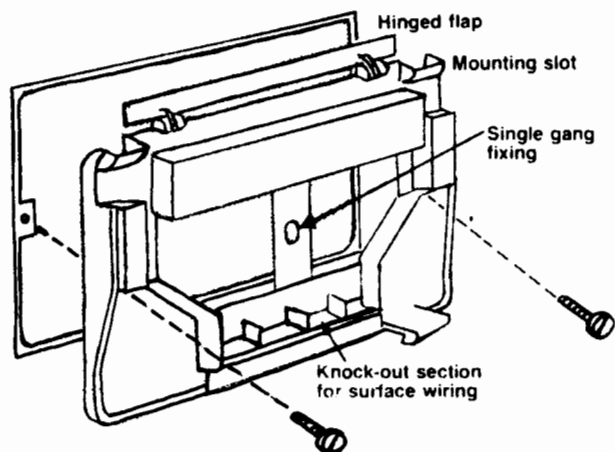


Diagram C Fixing the mounting panel



Screw the mounting panel to the surface you have chosen. (Diagram C). or fix to existing outlet box. The surface must not be metal.

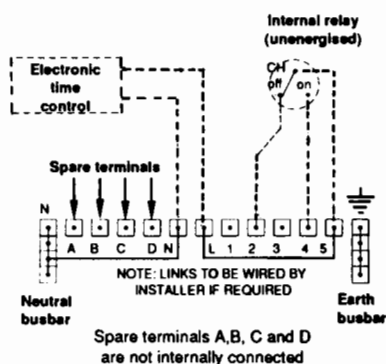
General facts about the wiring

The wiring to and from the programmer must conform to the latest IEE regulations. The electricity supply must be connected through an isolation switch (Class A all poles 3mm gap) fused at 6 amps or less. The programmer is designed for fixed wiring only. Each terminal is designed to take up to three 1mm solid conductors.

Warning: Disconnect the mains supply before wiring the programmer.

Method of wiring

Diagram C Internal wiring of the programmer



Connect the internal links on the mounting panel as shown in Diagram D.

Connect the other wiring and ensure all the wires are fully inserted into the terminals.

Ensure the correct polarity of the L and N connections.

Circuit testing

Warning: Circuit testing must be done only by a competent person.

For temporary access to the terminals, there's a flap on top of the mounting panel. Lift it before fitting the programmer (see Diagram D).

When the testing is done, remove the programmer and lower the flap. Ensure it is positively clipped down. Then refit the programmer.

Connecting the battery

Remove the battery from the back of the programmer. Make sure you have the correct polarity with the battery + sign towards the + sign on the backplate. Press the battery into the battery compartment.

You can now set times into the programmer's memory and set the security lock switch if you wish. **Please note:** the battery may have gradually discharged during storage; you will then need to connect the programmer to the mains supply before you can set times into the programmer's memory. The battery will then recharge.

Fixing the programmer to the mounting panel

See Diagrams A & B.

Fit the lugs on the back of the programmer into the slots at the top of the mounting panel.

Hinge down the programmer.

Make sure the programmer is firmly held by the retaining clip.

Removing the programmer

See Diagrams A and B

Warning: Immediately disconnect the mains supply before removing the programmer.

To remove the programmer, insert a screwdriver into 1 rectangular slot in the groove at the bottom of the case. Do not turn the screwdriver. Push up the retaining clip, and hinge up the programmer until it is horizontal. Lift off the programmer.

Setting the programmer

See the operating instructions.

Finally:- Leave behind the operating instructions for the customer.

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RAYBURN

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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 practicable, 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.

You have just installed a quality product. We are confident that it will provide you with years of efficient service.

Please read this Guide carefully. It explains how to set the time control and how to make full use of the programmer's other features.

If you have any questions please contact the installer.

Please do not throw away this Guide - you may need to refer to it occasionally.

About the programmer

The programmer will switch your controlled medium (Rayburn cooker) on and off at the times you have set in the programmer's memory. You can set your output to come on for three time periods per day from Monday to Friday with different times for Saturday and Sunday if you prefer.

Special Features

When you wish, you can change your set times for any day using the touch keys underneath the cover flap below the display screen. You can also make temporary changes using the EXT and ADV keys without affecting the times you have set into the programmer's memory.

The weekday/weekend program allows you to automatically set times for weekdays Monday to Friday without having to copy them for each day - the programmer does it for you. You can also set different times for the weekend which the programmer will automatically run to for both Saturday and Sunday.

A security lock switch on the back of the programmer can be used to prevent other people using the ADV, EXT and SELECT keys or from changing the times you have set into the programmer's memory. (see Diagram A). Follow instructions for removing the programmer detailed on page 3.

WARNING

Turn off the mains supply before removing the programmer from the mounting panel. Remember to turn on the mains supply again when you have replaced the programmer.

Programmer Operating Instructions

What the display screen shows you

The top of the display screen shows the day of the week.

The middle of the display screen shows the time of day or the program time setting.

When the PROG/RUN key is touched the bottom of the display screen will show the programming operation to be undertaken.

Above the display screen there is an indicator light. This shows red when the output is on.

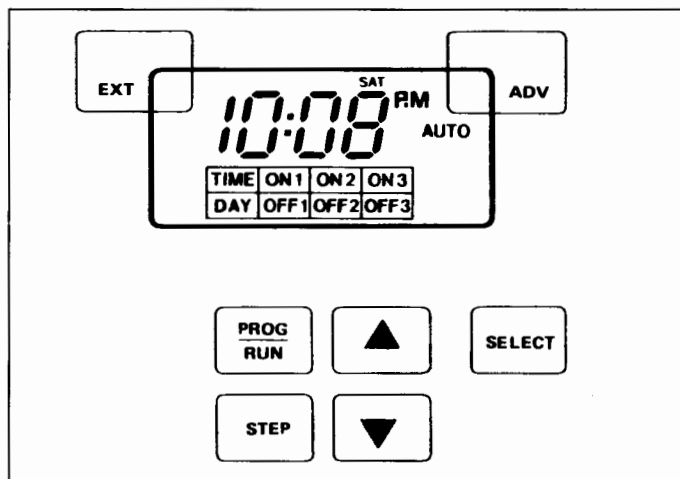
What the touch keys do

There are two types of touch keys. The group of touch keys under the bottom flap below the display screen are used for setting the time of day and the ON and OFF times.

The SELECT key is used to set the number of times you wish the programmer to come ON and OFF in any 24 hour period.

The EXT and ADV keys are used for making temporary changes to when your Rayburn cooker will come ON or OFF. These temporary changes will not affect the times you have set into the programmer's memory.

The PROG/RUN key is used when you wish to enter the programming mode or when you wish to view the programs which are set in the programmer's memory.



The above display shows the programming options that appear when the PROG/RUN key is touched.

The programmer will beep each time you touch a key to show that it has carried out your instruction. If it does not beep it may be because the programmer cannot carry out your instruction, e.g. you cannot use the SELECT key while you are programming.

How to set the programmer

You can set up to three time periods a day into the programmer's memory. They are called ON1 to OFF1, ON2 to OFF2 and ON3 to OFF3.

The earliest time you can set is 12.00a.m. (midnight). The latest time you can set is 11.50p.m.

If you set the same ON and OFF times they cancel each other and you can put this to good use

e.g. For weekdays you could set different ON1, OFF1, ON2, OFF2, ON3 and OFF3 times to give you three periods.

For weekends you could set OFF1, ON2, OFF2 and ON3 to the same time to give one period from ON1 to OFF3 (or you might even set all the times the same and then the output would be off all weekend etc.).

Setting the programmer for the built-in times

The programmer already has three time periods built into its memory which you can use if they suit your needs.

The built-in times for each day of the week are:

ON1 to OFF2: 6.30a.m. to 9.30a.m.

ON2 to OFF2: 12.00p.m. (midday) to 1.00p.m.

ON3 to OFF3: 4.30p.m. to 10.30p.m.

If the programmer time periods have not been altered since the programmer was first powered up, then all you need to do to use the built-in times is to set the correct time of day and the day of the week. It is also possible to reset the programmer to the built-in times if the time periods have been altered. To do this, you must first change the display so that it shows any ON or OFF time (see the instructions on How to Set the Time Periods). Now press the SELECT key and keep it pressed - then press the STEP key and release it - and then finally release the SELECT key.

The Programmer time periods will now be reset to the built-in times.

Setting the correct time and day

To set the correct time, lower the flap on the front of the programmer, touch the PROG/RUN button and TIME will flash at the bottom of the display screen.

Press the forward ▲ or reverse ▼ keys until you reach the correct time. If you keep your finger pressed on these keys the displayed time will change slowly at first, then quickly. When you have set the time touch STEP and DAY will now flash at the bottom of the display screen. Press the forward ▲ or reverse ▼ keys until the day you require is displayed at the top of the display screen.

How to set the time periods for Monday to Friday/Saturday & Sunday

Touch PROG/RUN and the word TIME will flash. If the time has already been set touch STEP and DAY will now flash. If the day has already been set touch STEP and ON will now flash and the middle of the display so will now be showing the time ON1 is set to. Use the forward ▲ or reverse ▼ keys to change the time for ON1 (the time moves steps of 10 minute intervals).

When you have set the time for ON 1 touch STEP key and OFF 1 will flash at the bottom of the display screen and the middle of the display screen will now be showing the time OFF 1 is set to.

Use the forward ▲ or reverse ▼ keys to change the time for OFF 1

Set the times for ON 2 to OFF 2 and ON 3 to OFF 3 in the same way. After setting each touch STEP to move on to the next ON or time.

The programmer will automatically run to the same time for Monday, Tuesday, Wednesday, Thursday and Friday. Touch STEP after Setting OFF 3 and Saturday and Sunday will be displayed at the top right-hand side of the display screen.

ON 1 will be flashing, go through the procedure as before for setting the ON 1 and OFF 1 or ON 2 and OFF 2 times and ON 3 and OFF 3 times for Saturday and Sunday.

Press STEP after setting OFF 3 for the third time, the programming sequence ends and the display screen reverts to the time of day.

How to use the other touch keys

Using the advance key

The advance key (ADV) allows you to go forward to the next ON or OFF time. Simply touch the ADV key once and your output will come on if it is off, or go off if it is on. A ≡ will appear next to the key. The program will return to normal when the next ON or OFF time is reached. If you touch the ADV key and then change your mind, touch it again and the programmer will run to the set times again.

Please note: Using the ADV key will not affect the times you have set in the programmer's memory. The change is only temporary.

Using the extend key

The extend key (EXT) allows you to extend a current ON period or switch your output on during an OFF period. Simply touch the EXT key and one hour will be added. Touch it again and a further hour will be added. You can add up to three hours. A '1', '2' or '3' will appear next to the key. If you touch EXT a fourth time, the programmer will run to your original set times.

Please note: Using the EXT key will not affect the times you have set in the programmer's memory. The change is only temporary.

Using the SELECT key

By using the SELECT key you can turn your output off, run it on the times you have set in the programmer's memory, have it on once a day, or turn it on all day.

Touch the SELECT key and the option shown at the side of the screen will change.

Keep touching the key until the option that you want appears.

OFF ignores the time periods set in the programmer's memory.

AUTO allows your output to run to the times you have set in the programmer's memory.

ONCE allows your output to run once a day from the first ON time to the last OFF time.

CONT will turn your output on continuously. It will run for 24 hours a day.

Please note: Using the SELECT key will not affect the times you have set in the programmer's memory.

The battery

If the electricity fails or is switched off, the battery in the programmer will maintain the set times for a minimum of 7 days. After that time you may have to reset the time. The battery will recharge automatically when the power is restored.

We recommend you change the battery every five years – spares can be bought from us.

Changing the battery

Diagram A and Diagram B

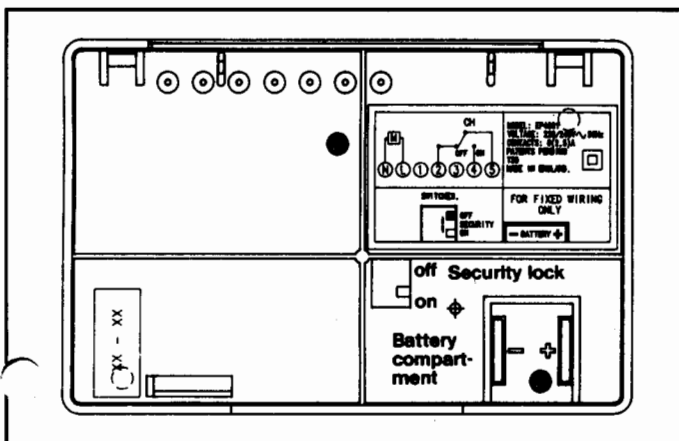


Diagram A Back view of the programmer.

1 WARNING. DISCONNECT FROM THE MAINS IMMEDIATELY

To remove the programmer, insert a screwdriver into the rectangular slot in the groove at the bottom right-hand side of the keys.

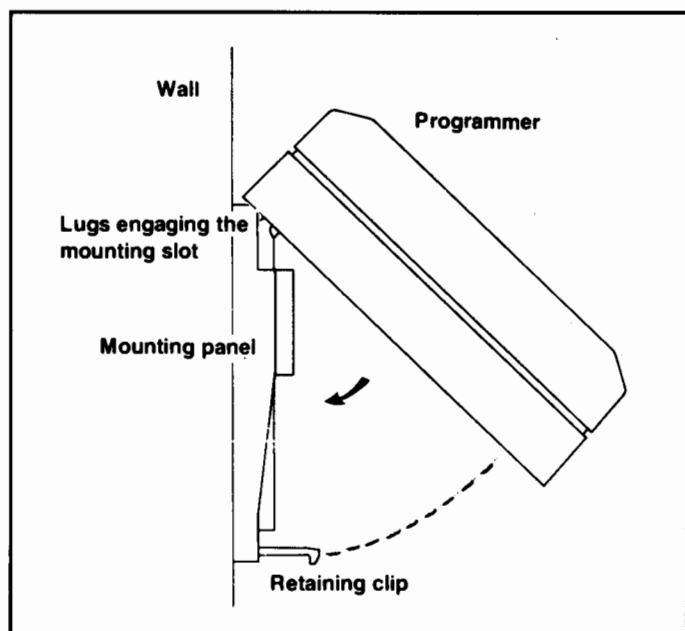
Do not turn the screwdriver.

Use it to push up the retaining clip as you hinge the programmer slightly upwards. Study the hinges so that you will be able to refit the programmer easily. Lift off the programmer. (see Diagram B)

2 Note the position of the old battery, then remove it. Clean the contacts in the battery compartment. Press in the new battery so that the battery's plus sign is next to the plus sign on the back of the programmer.

Please note: the new battery may have discharged during storage but will recharge when the programmer is connected to the mains supply.

Diagram B Side view of the programmer and mounting panel.



3 To refit the programmer.

■ Fit the lugs on the back of the programmer into slots at the top of the mounting panel.

■ Hinge down the programmer. Make sure the programmer is firmly held by the clip.