



Central Heating Cooker

Natural Gas

Instructions for Use, Installation and Servicing

For use in GB, IE (Great Britain and Eire)

This appliance has been certified for use in countries other than those stated. To install this appliance in these countries, it is essential to obtain the translated instructions and in some cases the appliance will require modification. Contact Gazco for further information.

IMPORTANT

The front casing of this appliance will become hot whilst in operation, it is therefore recommended that a suitable guard should be used for the protection of young children, the elderly or infirm.

Please read these Instructions carefully before installation or use.
Keep them in a safe place for future reference and when servicing the cooker.

The commissioning sheet found at the end of the Users Sections of these instructions should be completed by the Installer.

HEALTH AND SAFETY

INFORMATION FOR THE INSTALLER AND SERVICE ENGINEERS

Under the Consumer Protection Act 1987 and the Health and Safety at Work Act 1974, it is a requirement to provide information on substances hazardous to health (COSHH Regulations 1988).

The Company takes every reasonable care to ensure that these products are designed and constructed to meet these general safety requirements, when properly used and installed.

To fulfil this requirement products are comprehensively tested and examined before despatch.

This appliance may contain some of the items below.

When working on the appliance it is the Users/Engineers responsibility to ensure that any necessary personal protective clothing or equipment is worn appropriate to parts that could be considered as being hazardous to health and safety.

INSULATION AND SEALS

Glass Rope, Mineral Wool, Insulation Pads, Ceramic Fibre, Glass Insulation.

May be harmful if inhaled. May be irritating to the skin, eyes, nose or throat. When handling avoid inhalation and contact with eyes. Use (disposable) gloves, face masks and eye protection.

After handling wash hands and other exposed parts. When disposing, reduce dust with water spray, ensure parts are securely wrapped.

GLUES, SEALANTS & PAINT

Glues, Sealants and Paints are used in the product and present no known hazards when used in the manner for which they are intended.

GENERAL SAFETY INSTRUCTIONS

Read and understand this booklet before operating and installing this appliance.

- 1 The person(s) who installs this appliance, commissions, services or carries out any remedial work, ie electrical fault finding must be Corgi registered.
- 2 The cooker should not be altered in any shape or form.
- 3 Approved spare parts only may be used.
- 4 The cooker is designed to be operated by adults only. Children should not be allowed to play with or be near to the cooker, and should be supervised at all times if in the vicinity of the cooker.
- 5 When in use, parts of the cooker become very hot (eg hot plates and ovens) and remain hot for a long period after use. You must therefore take great care when using the cooker and the use of oven gloves is recommended when applicable.
- 6 In the interest of hygiene and safety the cooker should be kept clean at all times.
- 7 The Redfyre is designed for domestic cooking, hot water and central heating and must not be used for any other purpose.
- 8 Always switch off at the mains and allow to cool before cleaning and carrying out any maintenance work.
- 9 Do not use unstable saucepans and always position handles away from the edge of the hot plate.
- 10 Do not place combustible materials onto the hot plate surfaces even when the cooker is off.
- 11 This appliance is heavy and care must be taken when installing.
- 12 DO NOT spray aerosols in the vicinity of this appliance while it is in operation.
- 13 DO NOT COVER THE OUTLET ON THE TOP REAR SPLASH BACK COVER
- 14 SERVICING. Your Redfyre cooker should be serviced every twelve months. It is impossible to service your cooker while it is hot, therefore turn off your appliance 12 hours before a service is required.
- 15 These instructions explain the features of your new storage cooker, and how to achieve the best results, the cleaning, maintenance and the installation and servicing. Please read the instructions carefully so that you can enjoy cooking and how to look after your cooker so it gives you many years of service.

As with any heat storage cooker when first used odours are given off which are not harmful. However you should open windows or doors to keep the room well ventilated until the odour disappears.

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IMPORTANT INFORMATION

Congratulations you are now the proud owner of the new Redfyre Central Heating Cooker which is capable of providing full central heating and domestic hot water. As manufacturers we are proud of the features, and quality of construction of all our cookers.

These instructions explain the features of your new cooker, how to achieve the best results, the cleaning and maintenance. Please read the instructions carefully so that you can enjoy cooking and can look after your cooker so it gives you many years of service. As with any heat storage cooker, when first used odours are given off which are not harmful. However you should open windows or doors to keep the room well ventilated until the odour disappears.

The use of a cooking appliance results in the production of heat and moisture in the room in which it is installed. Ensure that the kitchen is well ventilated: keep natural ventilation holes open or install a mechanical ventilation device (mechanical extractor hood) Prolonged intensive use of the appliance may call for additional ventilation, for example opening of a window, or more effective ventilation (see Air Supply & Ventilation Section for details)

The contents of these instructions are accurate at the date of printing, however, because of Redfyre's policy of continual development, it may be superceded and should be disregarded if specifications or appearance change. The statutory rights of the customer are not affected.

This appliance is designed for domestic use only. Use for any other purpose could invalidate any warranty or liability claim.

The DATA BADGE is located on the burner access panel found behind the bottom left hand door.

Gas Leak Warning

If a gas leak exists or is suspected, turn the gas off at the incoming mains adjacent to the meter and obtain help/advice from your gas provider.

1. Do not operate any electrical appliance.
2. Do not operate any electrical switches.
3. Open all windows and doors.
4. Do not smoke.
5. Extinguish all naked lights.
6. Contact your gas provider immediately.

Ventilation

Do not block the appliance lower door as the air for combustion is taken through these slots. Do not shut off or block any additional air vents fitted by your installer in any compartment or to the outside.

Do not adjust any sealed components, as this will affect the performance of your appliance and your safety.

Spares Parts & Service

A 12 month warranty and a nationwide network of Service Engineers cover all Redfyre products.

All Redfyre products must be serviced at least annually by a competent person using approved spare parts available from Redfyre.

Frost Protection

If the boiler is to be out of use for a long period of time during severe weather conditions, it is recommended that the whole heating system be drained down to avoid the risk of freezing up. Frequent draining, especially in hard water areas, should be avoided as this may lead to scale build up inside the boiler.

For short periods of absence leave the boiler operating at a low thermostat setting. If a frost thermostat is fitted, leave the boiler with the thermostat turned to low and the time switch to off.

IMPORTANT CUSTOMER NOTICE
Cosmetic damage, stains and scratches
produced by cooking and cleaning are NOT
covered by the statutory guarantee. The user
MUST be aware of this before the cooker is
installed and commissioned.

USERS INSTRUCTIONS

The Redfyre cooker has two large ovens. The main oven works similar to a conventional oven which is controlled by its own programmer and thermostat, this thermostat also controls the rest of the appliance. This oven will reach a roasting oven temperature in approximately 20 - 25 minutes from cold and less if it has already been in use during the day.

1. MAIN OVEN

- 1.1 The main oven is very spacious and will easily accommodate the largest of roasting joints ie a 12kg (28lb) turkey. It is constructed from 5mm mild steel plate and all joints are welded to seal in natural juices and flavour when roasting as well as minimising shrinkage. Any kind of food spillage in the main oven will be automatically burnt off at high temperature, all you have to do is brush it out with a wire brush.
- 1.2 The highly insulated door and high quality door seal closes with a spring loaded action to ensure that there is minimal heat loss with oven door closed.
- 1.3 There are four oven shelf positions within the oven which are designed to take the oven grid shelves and roasting tins to give the maximum area coverage. The top oven shelf position is ideal for grilling and roasting.
- 1.4 A farmhouse breakfast can be produced by lightly greasing the base of the roasting tin. Carefully crack some eggs and place in one half of the tin, in the other half place slices of bread. Using a grill rack over the eggs and bread lay bacon and sausage, the fat will drip out during cooking onto the eggs and bread to help flavour them. You can also add tomatoes and mushrooms to the tin if you like. Cooking this way helps keep the top of your cooker cleaner and make less mess. Similarly fillets and fish give excellent results when grilled using this method.
- 1.5 The thickness and the construction of the oven walls enable heat to be transferred all around the oven so excellent results can be achieved by cooking on the base of the oven for pastry dishes and quiches. Alternatively it can be used for shallow frying, again containing splashes to the inside of your oven which will burn off at high temperatures as previously explained.

2. LOWER OVEN

- 2.1 The lower oven is the same size as the main oven and operates at a temperature of approximately 100° C lower than the main oven, therefore if the main oven is operating at a temperature of above 200° C the lower oven can only be used as a warming oven.

- 2.2 This oven is ideal for long slow cooking and is ideal for putting the roast to rest before carving, slow cooking vegetables, meringues and milk puddings. As its size is identical to the main oven there is plenty of room for warming serving dishes or pre-warming cooking utensils before use. When making bread, dough can be placed in the oven to make it rise free from draughts. Spillages can be wiped and surfaces wire brushed similar to the main oven to keep them clean.

3. HOTPLATES

- 3.1 The hotplate is large enough to take up to seven various sized saucepans, surely big enough for the largest meal. The hotplate is graduated in temperature with the left side being the hotter. With the hotplate being one piece pans can slide from one side to another without the risk of damaging the enamel surround. The insulated lids and decorative centre cover conserves heat when not in use. However, one must be careful when removing the decorative centre cover and a oven glove must be used. When the cooker has been in use the cover will be hot and may damage sensitive surfaces if placed on them. Obviously the higher the oven temperature setting the hotter the hotplates will become, it may only take 10 - 15 minutes from cold for the hotplate to be used. The black enamel surround of the hotplate becomes warm when in use and is ideal for keeping a coffee pot warm, dissolving gelatine and melting butter.

4. THE CONTROL PANEL

- 4.1 The control panel is located behind the top left hand door and is self explanatory, it consists of :
- 4.2 One cooker programmer and two thermostat switches - one for central heating and one for cooking.
- 4.3 The cooker thermostat has a neon indicator which goes off when the main oven has reached its desired temperature. The boiler thermostat has a neon indicator which goes off when the boiler has reached its desired temperature.
- 4.4 There are two safety manual overheat thermostats, each have a neon indicator, which when lit will require resetting. If the overheat thermostat requires continual resetting you must contact your distributor to check the appliance is operating correctly, it may require a service.
- 4.5 There are two reset burner buttons behind the lower left hand door, one for the boiler and one for the cooker. These will illuminate if the burner has gone to lock out, simply press the button to try and refire the burner (make sure that the correct thermostat is calling for heat). If the burner continues to go to lock out, then you need to call your service company or installer.
- 4.6 There is one additional safety device reset button behind the lower left hand door. The light will illuminate if there is a problem with the flue system. It can be reset by pressing the reset button. If this illuminates more than twice call a service engineer to check the flue for blockages.

USERS INSTRUCTIONS

5. LIGHTING THE BURNERS

COOKER BURNER

- 5.1 The cooker burner is fully automatic and requires no manual intervention to light. Ensure that the programmer is in the ON mode, neon glowing, and turn the thermostat to the desired temperature. The cooker light will illuminate and once the desired temperature has been reached it will extinguish.

BOILER BURNER

- 5.2 The boiler burner is fully automatic in operation and requires no manual intervention to light. Ensure that any external controls are on and calling for heat and that the thermostat is turned on to the desired temperature. The boiler light will illuminate and once the desired temperature has been reached it will extinguish.

6. SWITCHING OFF

Please note the section on frost protection. (page 1)

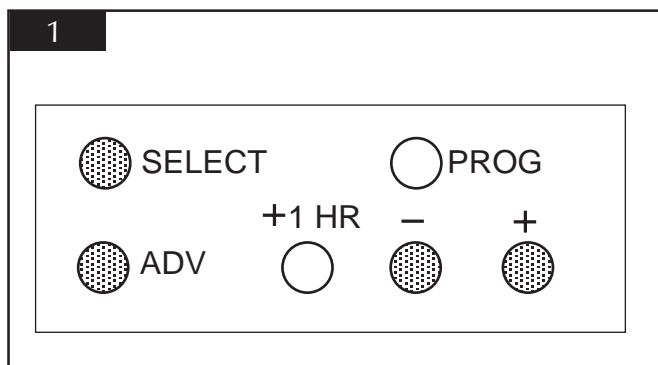
- 6.1 **For short periods:** Turn all the external controls to off and turn the boiler thermostat to 'off'. Turn the cooker thermostat to 'off' and switch the cooker programmer to off.
- 6.2 **For Long Periods:** Turn all external and internal controls to off, switch off the electrical supply to the unit.

7. PROGRAMMER -COOKER

- 6.1 In general the programmer is used either to turn 'On' of 'Off' the cooker manually or automatically.

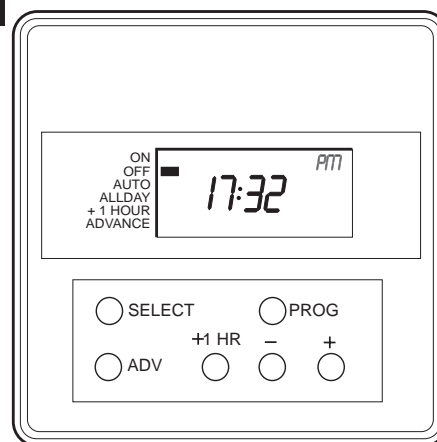
Programmer Setting instructions

- 6.2 On initial power-up the unit should be re-set to wake up the unit remove the programmers button cover, see figure 2. To re-set the unit press and hold the four buttons shaded grey, see diagram 1.



- 6.3 Figure 2 depicts how the display will look after being re-set.

2



Unit with programming cover removed

Factory programming.

- 6.3 The unit can provide up to 3 On/Offs each day. In order to simplify programming a factory pre-set programme is included. This can be easily altered to suit household lifestyle and needs.

Event 1	ON = 06:30 AM	OFF = 08:30 AM
Event 2	ON = 12:00 PM	OFF = 02:00 PM
Event 3	ON = 05:00 PM	OFF = 10:30 PM

Setting the time of the day.

- 6.4 Remove the programmers button cover.
- 6.5 Press PROG to enter programming mode. The display will be as in diagram 3 and the colon in the display will not flash.

3



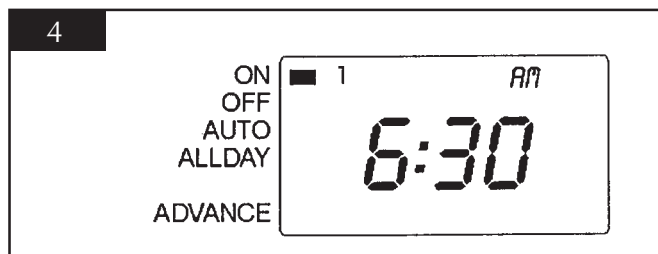
- 6.6 Press and release the + or - button to change the time in one minute increments. Note: If the button is held down, the time will change in increments of 10 minutes.

USER INSTRUCTIONS

Setting event times

Step A

- 6.7 Press PROG to advance to the next step. The display will be as in diagram 4.

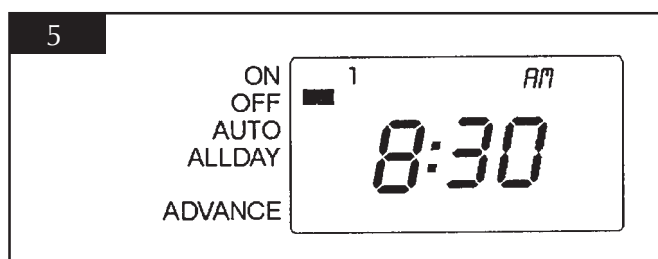


Step B

- 6.8 Press and release the + or - buttons to change event 1 ON time in increments of one minute.
Note: If buttons are held down, the time will change in increments of 10 minutes.

Step C

- 6.9 Press PROG again to select event 1 OFF time. The display will be as in diagram 5.



- 6.10 Repeat steps A, B and C above for event 2 ON/OFF times and again for event 3 ON/OFF times before pressing PROG again to return to RUN mode.
6.11 Having finished programming, replace the programming button cover.

Use the Cooker SELECT button to select between:

ON	Run continuously
OFF	Off continuously
AUTO	Follows programme
ALL DAY	Turns on first programmed ON event and off at end of last programmed OFF event.

Use ADV or +1HR to override programmes.

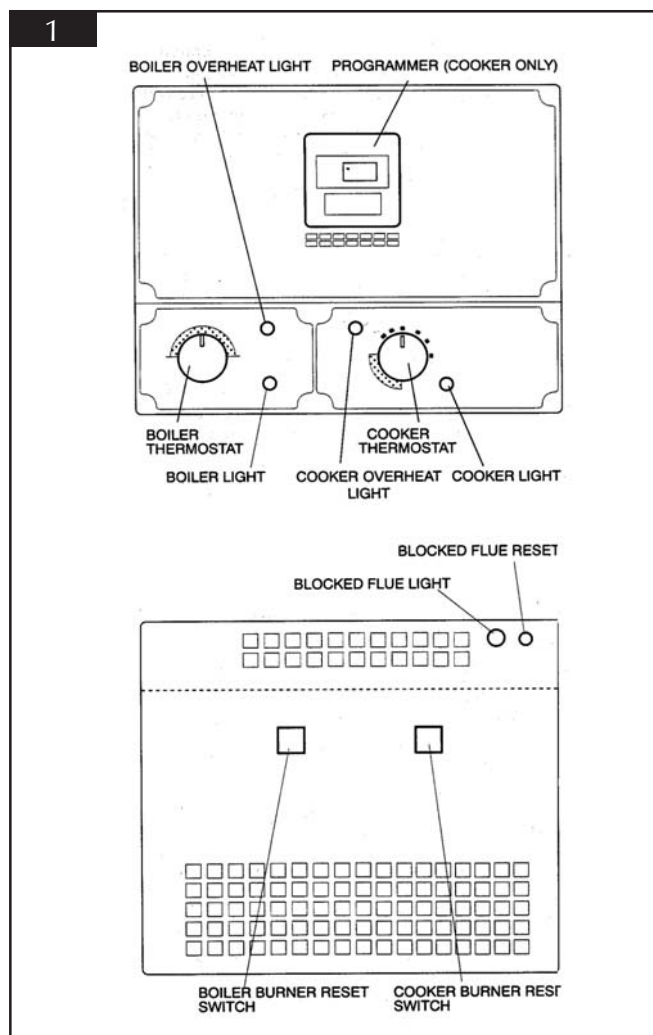
ADV	Advances unit to next event.
+1HR	Adds 1 hour onto end of current programme.

Battery back-up.

In the event of a power failure the time and programmed events will be retained for up to 14 days, after which the unit will go into sleep mode, and will need to be reprogrammed when the power is restored (refer to Initial Power-Up at beginning of instruction).

8. CENTRAL HEATING

- 8.1 For heating or hot water (depending on how the appliance has been installed), you simply have to turn the heating thermostat to the desired temperature. If you have an external programmer or other controls fitted you must ensure these are calling for duty.



USER INSTRUCTIONS

9. BLOCKED FLUE

- 9.1 This is a blocked flue sensing device. This is an important safety device to prevent the products of combustion entering the room due to a flue problem. Under no circumstances must this device be put out of operation whilst the cooker is in use.
- 9.2 If either one or both burners are switched off by this device, the red neon will illuminate. It will not be possible to relight the appliance for approximately 30 minutes after which time the reset button should be pressed.
- 9.3 In the event of repeated activation of the blocked flue device the chimney / flue problem must be investigated and corrective action taken immediately.
- 9.4 Access to the reset button is achieved by opening the control lower left hand door and pressing the red reset button.

Approx Time	Top Oven	Bottom Oven	Hotplate	
			L/H side	R/H side
From Cold	Temperature			
18 min	140° C	Warming	Boil	Simmer
20 min ¹	60° C	Warming	Boil	Simmer
22 min ¹	80° C	Warming	Boil	Boil
24 min	200° C	Simmer	Boil	Boil
26 min	220° C	Simmer	Boil	Boil
28 min	240° C	Simmer	Boil	Boil

OVEN COOKING GUIDE

1. MEAT

PLEASE NOTE - THESE TABLES SHOULD BE USED AS GUIDANCE ONLY AS EACH COOKER AND ITS INSTALLATION WILL VARY SLIGHTLY.

- 1.1 Meat cooked in a heat storage cooker has very little shrinkage and rarely requires any additional fat for cooking. There are two basic methods for roasting meat, to quick roast at setting 200°C for superior cuts, and for slower roast at setting 170°C for coarser cuts, where muscle has been worked far more. We would recommend searing or sealing an inferior cut at a high temperature for approximately 20/30 minutes before reducing the thermostat to the lower setting. Roast meat will benefit if left to stand when cooked, it allows the juices to settle and makes for easier carving. Transfer to the lower oven for this rest period, it will leave the top oven free for such items as roast potatoes or Yorkshire pudding.
- 1.2 If the lower oven is not free, cover to keep warm. To calculate cooking times always take into account the shape as well as the weight. A small, narrow joint will cook quicker than a solid, even shaped joint.
- 1.3 The oven control settings and cooking times given below are intended to be used as a guide only. Individual tastes may require you to adjust the control setting either up or down or to reposition the item being cooked. (If oven temperatures seem to be abnormal to those stated then the oven thermostat could be faulty and may require replacing.

	Setting	Shelf	Approx time
Beef with bone - slow	170°C	3	20-25 min per 500g+ 20-25 min
	- quick 200°C	3	15-20 min per 500g+15-20 min
Beef boneless	- slow 170°C	3	30-35 min per 500g+30-35 min
	- quick 200°C	3	20-25 min per 500g+20-25 min
Lamb	- slow 170°C	3	30-35 min per 500g+30-35 min
	- quick 200°C	3	25-30 min per 500g+25-30 min
Pork or Veal	- slow 170°C	3	35-40 min per 500g+35-40 min
	- quick 200°C	3	25-30 min per 500g+25-30 min

NOTE : If stuffed and rolled add approximately 10 min per 500g. All joints must be thoroughly thawed out before cooking.

2. POULTRY

- 1.1 Poultry and Game are best cooked on a trivet in a roasting tin so that the meat does not stew in it's own juices. Remember to calculate any stuffing into the cooking time. All birds must be thoroughly thawed out before cooking

	Setting	Shelf	Approx time
Chicken	170°C	3	20-25 min per 500g+ 20-25 min
Turkey up to 4.5kg - slow	170°C	3	15-20 min per 500g+15-20 min
	- quick 200°C	3	15-20 min per 500g+15-20 min
Turkey over 4.5kg - quick	170°C	3	30-35 min per 500g+30-35 min
	- quick 200°C	3	20-25 min per 500g+20-25 min
Duck	170°C	3	30-35 min per 500g+30-35 min
Goose	170°C	3	35-40 min per 500g+35-40 min

3. CASSEROLES

Remember to sear or seal the meat over a high heat before adding to the casserole, and to bring to boiling point any liquids if recipe requires.

	Setting	Shelf	Approx time
Top oven	140-150°C	3	Hours according to recipe
Fish oven baked	180°C	2	According to size, cut, preparation, and recipe.

4. CAKES

	Setting	Shelf	Approx time
Rich fruit cake	140-150°C	4	Approx guide line 45 min
Victoria sandwich	180°C	3	per 500g of mixture. 180-230 mm 200mm (7-8") tin, 2-3 hr.
Queens cakes (2 trays)	180-190°C	2	
		3	15-25 min
Scones	200°C	2	10-15 min

OVEN COOKING GUIDE

5. PASTRIES

	Setting	Shelf	Approx time
Shortcrust	220°C	4	According to recipe
Flaky	220°C	2	According to recipe
Rough puff	220°C	2	According to recipe
Puff pastry	220°C	2	According to recipe

NOTE: Pastry recipes may benefit from placing on the floor of the oven for the last 10-15 min of cooking. Shelf positions are counted from the top down 1,2,3, and 4. 500g is approximately 1lb 2oz.

USES FOR THE PROGRAMMER

If it is winter time, you can preset the programmer to your own personal program allowing the cooker to switch on before you return, when your lifestyle takes you away from home during the day, or simply to switch on the cooker before you wake in the morning to a warm kitchen and breakfast can be prepared quickly. To switch Off if not required and on again before the family return at the end of the day to cook the evening meal, and then off just before you retire. Do not forget this appliance has loads of stored heat, use it to save fuel accordingly.

COLD START COOKING

Choose food carefully when there is a time delay before cooking commences. Ideally food should be taken from the refrigerator and placed in the oven and cooked. Never place hot or warm food from previous usage in the oven for a delayed cook time.

Remember there will be no one attending to the food during cooking, so do not overfill dishes.

Remember that there are different heat zones in the oven and place the food on the correct shelf position.

Perishable foods should be very fresh.

Protect food, wherever possible with a lid or aluminium foil.

Important: Keep the delay cook time as short as possible, given the right conditions of food, moisture and warmth bacteria will rapidly multiply.

THE MAIN REASON FOR FOOD POISONING IS THE STORAGE OF HIGH RISK FOOD AT ROOM TEMPERATURE.

CARE OF THE COOKER

IMPORTANT:

Never use caustic, citric, or abrasive cleaners as these will scratch or damage the surface.

Always try to wipe up any spillages when they occur.

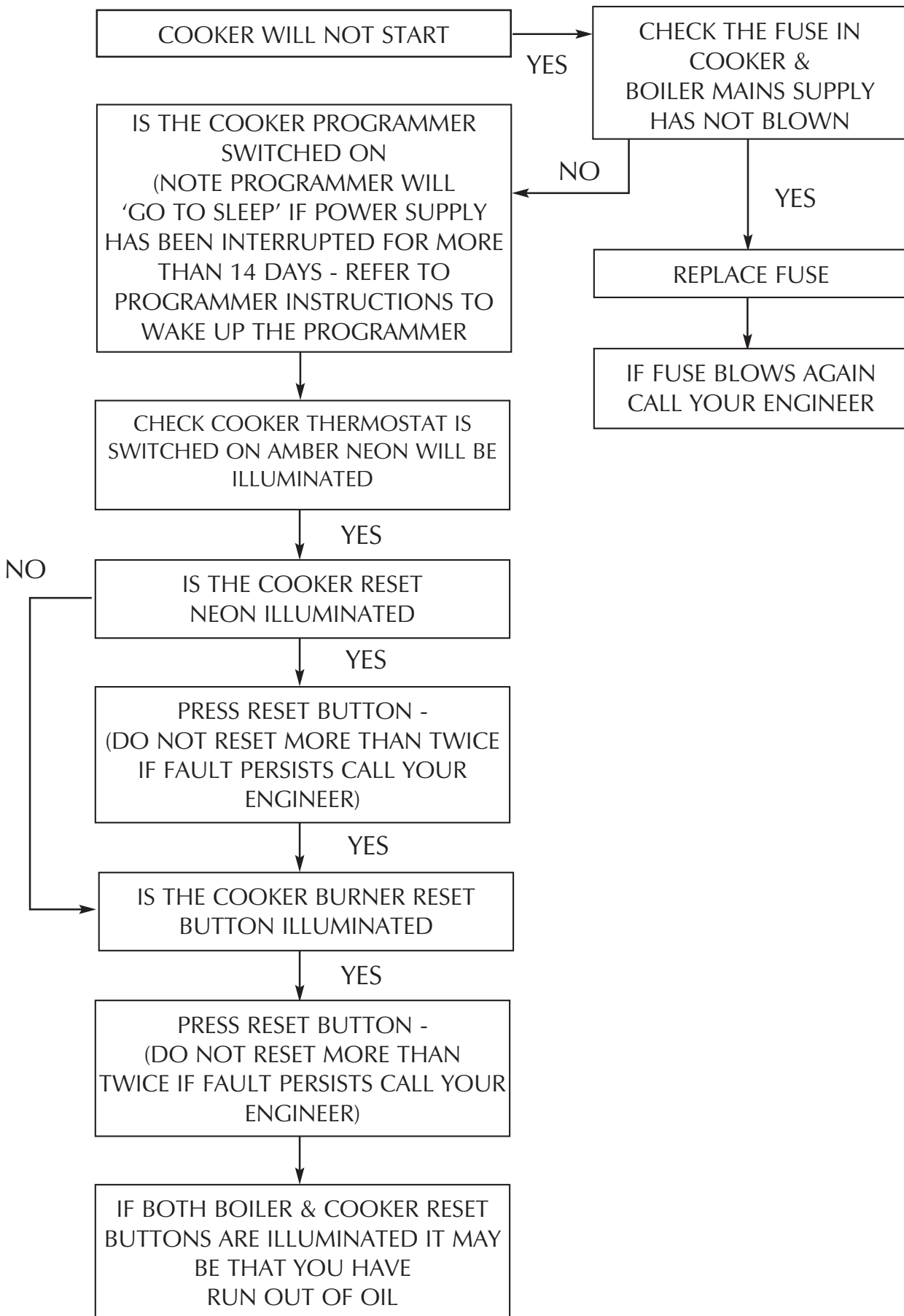
A more satisfactory result will be achieved if the cooker is cool when cleaning.

Use hot soapy water and a cloth for the enamel, drying with a soft dry cloth after to avoid streaking.

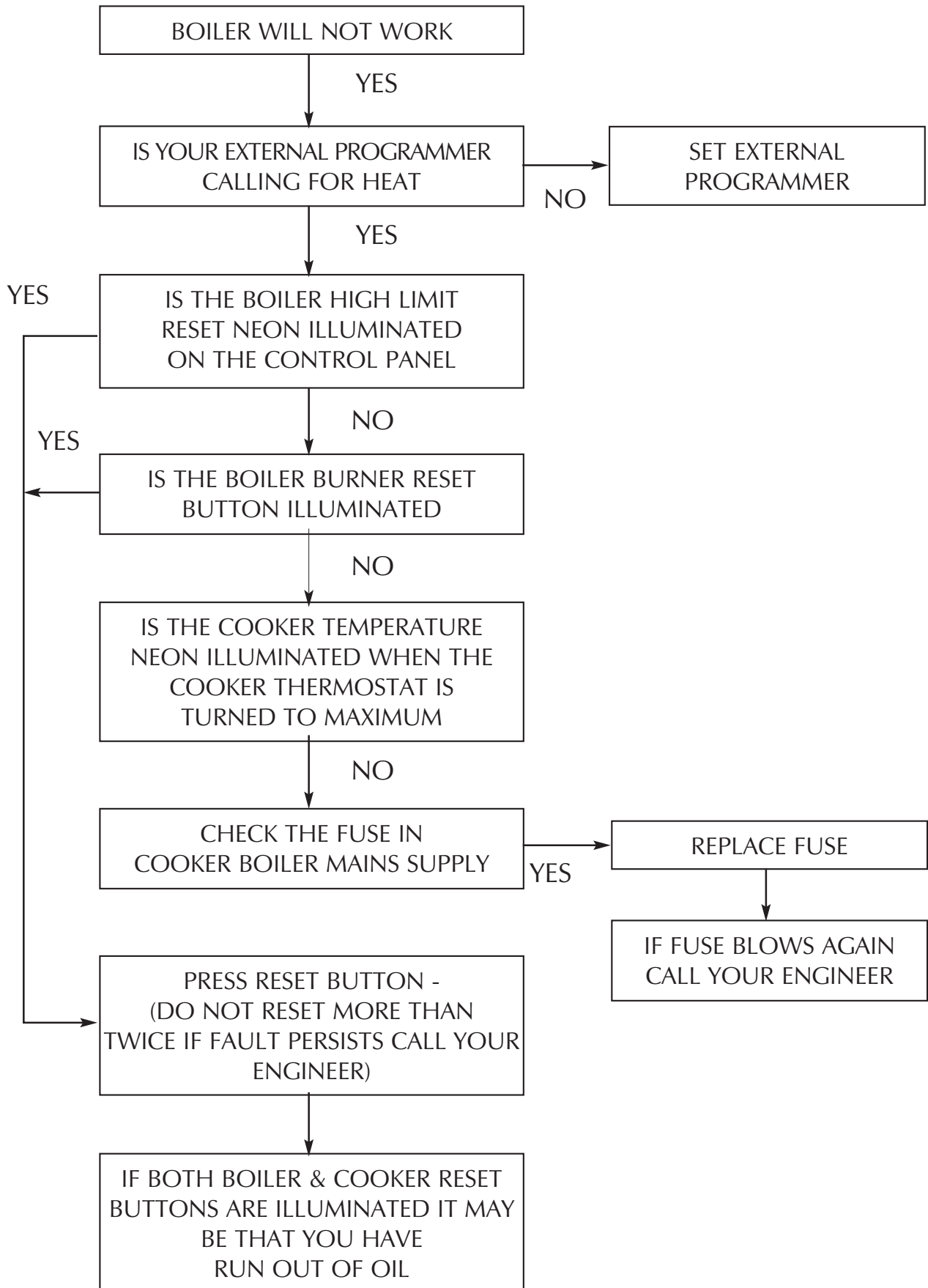
To clean the ovens simply wire brush any stubborn carbon stains and vacuum away the deposits. Using a wire brush can scratch the surface of the oven but this is not detrimental. The surfaces of the oven are natural, therefore to prevent oxidation dry all surfaces after cleaning.

	Hot water & soap	Wire brush	Cream cleaner VE Approved	Nylon brush
Top plate	✓		✓	
Hot plate dome chrome	✓			✓
Hot plates		✓		
Oven		✓		
Chrome Shelves	✓		✓	
Oven door	✓			
Door Liner	✓		✓	
Seal	✓			
Colour parts	✓			
Front	✓			
Sides	✓			
Doors	✓			
Chrome handles	✓			
Towel rail	✓			

USER COOKER FAULT FINDING



USER BOILER FAULT FINDING



REDFYRE

CUSTOMER AFTER SALES SERVICE INFORMATION

A step by step guide to reporting a fault with your appliance

A qualified field SERVICE ENGINEER is available to attend a breakdown or manufacturing fault occurring whilst the appliance is under guarantee.

A charge will be made where:

- Our Field Service Engineer finds no fault with the appliance
or
- The cause of a breakdown is due to other parts of the plumbing/heating system (including oil line/lack of oil), or with equipment not supplied by Redfyre.
or
- Where the appliance falls outside the guarantee period (see terms and conditions enclosed).
or
- The appliance has not been correctly installed, commissioned or serviced as recommended (see commissioning, installation and servicing instructions)
or
- The breakdown occurs immediately following an annual service visit. In this instance you appointed Service Agent must check all his work PRIOR to requesting Redfyre to attend.

NOTE: Burner nozzles are currently guaranteed until the first service.

Over 50% of all service calls made are found to have no appliance fault.

What to do in the event of an appliance fault or breakdown:

Step 1: Always contact your installer or commissioning engineer in the first instance, who must thoroughly check all his work PRIOR to requesting a service visit from Redfyre.

Step 2: If your appliance has developed an in-guarantee fault your installer should contact Redfyre Service Centre for assistance.

What happens if my installer/engineer is unavailable?

Step 3: Contact Redfyre Direct. We will provide you with the name and telephone number of our Service Agent. However, a charge may apply if the fault is not covered by the appliance guarantee (payment will be requested on site by our independent Service Agent).

PLEASE NOTE:

Unauthorised invoices for attendance and repair work carried out on this appliance by any third party will not be accepted by Redfyre.

The Enamelled Parts on your cooker

Every enamelled part on your cooker is unique and has its own individual characteristics which do not impair its quality of life expectancy in any way. Enamelling emphasises the unique quality and means that every cooker has its own distinguishing marks and features. Coloured parts may differ in shading. It is extremely important and to your own advantage and safety that your cooker is properly installed and commissioned to the instructions and serviced at the recommended intervals, failure to comply may invalidate your warranty.

TECHNICAL DETAILS

Model	Cooker	60	80	100	120
Rated input kw (gross)	17.6	22.2	29.7	37.3	45.5
Rated output kw (gross)	-	17.6	23.4	29.3	35.2
Burner	Cooker	Boiler - 60k	Boiler - 80k	Boiler - 100k	Boiler - 120k
Gas Volume m ³ /jr	1.68	2.11	2.84	3.56	4.34
Co2 %	8.5-9.0	7.0-8.0	8.0-8.5	8.5-9.0	8.5-9.0
Starting current - Amp	0.422	0.422	0.8	0.8	0.83
Running current - Amp	0.33	0.33	0.48	0.48	0.74
Electrical power consumption	230v 50 Hz 95 watts				
Gas Type	Natural Gas 20mbar G20				
Gas Cat	I _{2H} for use in GB, IE (Great Britain and Eire)				
Weight - dry kg	512kg				
Water content - Litre	38				
Flow and Return	NA	2 x 1 ¹ / ₄ " BSP			
Max Operating Pressure (PMS)	NA	3.0 bar			
Operating Temperature Range	NA	60 - 80°C			
Conventional Flue	0.05 +/- 0.02" WG				
Operating Range	12.45 +/- 4.98 Pa				
Water side resistance - mbar					
10°C diff	NA	26			
20°C diff	NA	8.3			
Flue sockets - Dia. 145mm	Inside Flue Dia. 5" (125mm)				

SITE REQUIREMENTS

Sound Levels

Whilst the level of sound is low it is important that the following aspects should be considered before installation:

- (a) The Flue pipe from the appliance should be cast iron
- (b) Some people are particularly sensitive to even low noise levels so this aspect should be discussed with the householder.
- (c) Small rooms tend to amplify noise, particularly if the wall construction is hollow or the surface tiled.
- (d) A chimney passing through a bedroom can sometimes transmit noise.

Hearth

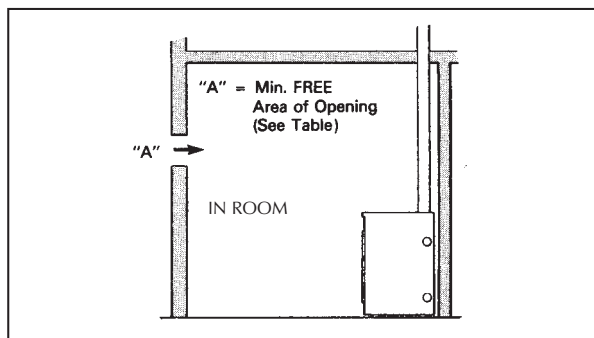
The appliance must be fitted on a non-combustible base. Also the floor must be level and capable of supporting the installed weight of the appliance including its water content.

Combustion Air (Conventional Flue)

The provision of an adequate supply of combustion air is essential for the efficient and safe operation of the appliance. The air opening should be positioned so as to cause the least possible draught to the occupants and located so it is not liable to be accidentally blocked.

British Standard Code of Practice BS 5440 Part 2 requires a permanent air inlet opening of 5cm² per kW above 7kW (gross) input. See below for the required ventilation for each model.

AIR SUPPLY AND VENTILATION



Redfyre Model	Minimum FREE Area opening 'A'
60	166 cm ² (15 in ²)
80	198 cm ² (19.5 in ²)
100	230 cm ² (24.5 in ²)
120	262 cm ² (30 in ²)

Extractor Fan

If the kitchen has an extractor fan, the combustion performance of the appliance must not be affected when the fan is running and all doors and windows are closed. A spillage check should be carried out to prove that combustion is satisfactory.

Heating and Domestic Hot Water Systems

The heating system should be installed in accordance with current HVCA Codes of Practice and BS 5449 Part 1 'Forced Circulation Hot Water Systems'.

Fit drain-off cock in the lowest part of the system. Where a boiler is also used for providing domestic hot water, a double feed indirect cylinder to BS 1566 Part 1 must be used.

Flush out the system to remove any swarf or residues before fitting the circulating pump.

PLEASE NOTE: If the boiler is to be installed on a gravity type system, care must be taken, i.e. due to the high efficiency of the appliance consideration should be given to gravitational flows with view to system contamination and operation. Failure to comply with these recommendations may result in there being a temperature build-up within the boiler/system causing noisy operation.

Overall dimensions

Height	917mm
Width	980mm
Depth (including towel rail)	795mm
Towel Rail	80mm

Cooker clearances

The cooker is designed to fit in a 1000mm space with a 10mm clearance each side.

If the right hand side of the cooker is to be positioned next to a wall, then an extra 100mm is required at the right hand side for over shelf removal.

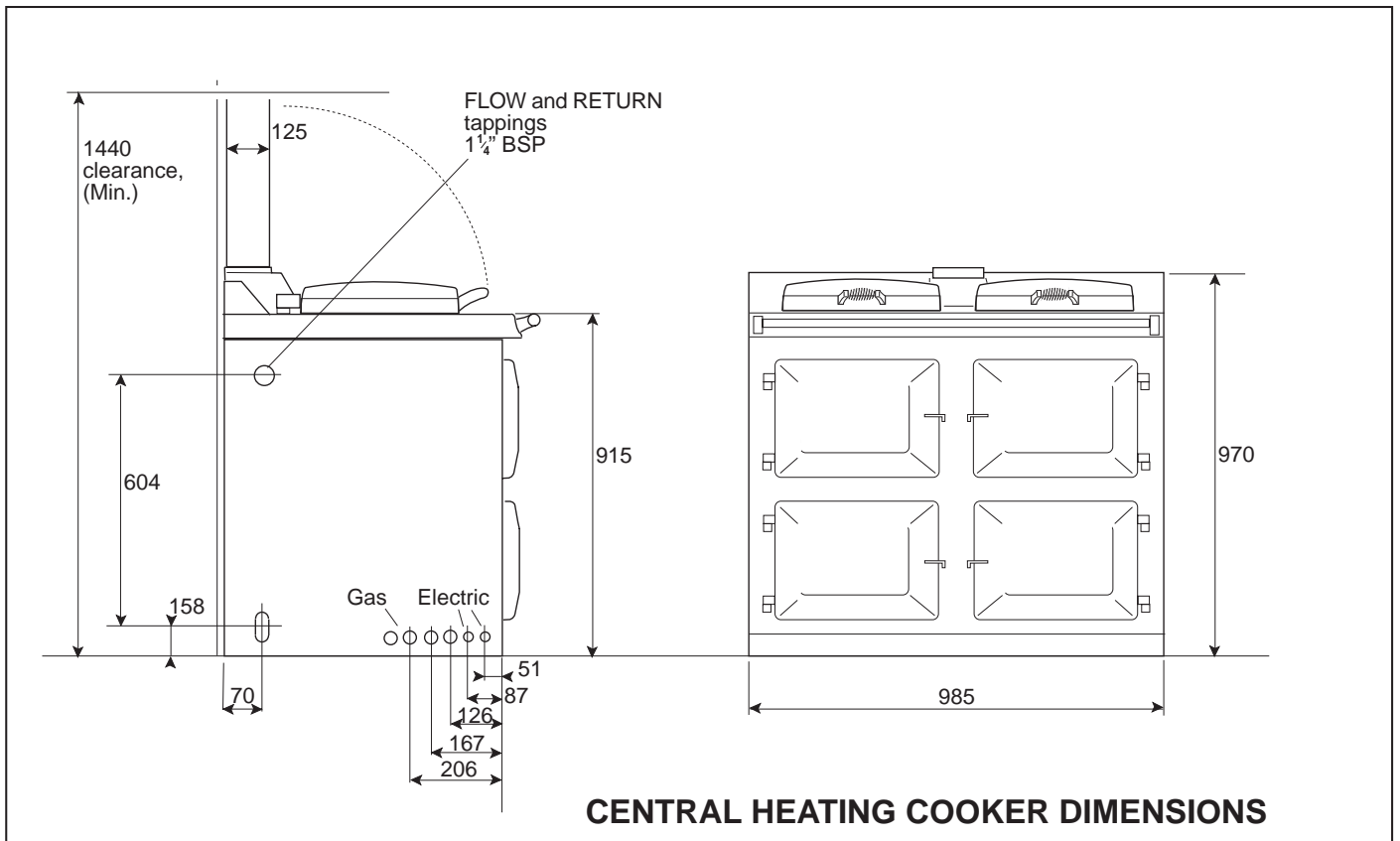
A clearance above the cooker of 550mm is required for the raising of the dome lids.

If a cooker hood it to be fitted then it should be installed to the manufacturers instructions.

We recommend that 1000mm is left in front of the cooker to aid cooking and servicing.

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

SITE REQUIREMENTS



INSTALLATION INSTRUCTIONS

1. GENERAL DESCRIPTION

- 1.1 The Redfyre range of Central Heating cookers is a range of floor mounted storage central heating cookers with a fixed rate cooker burner and the option of four fixed rate central heating outputs depending on heating load. 60, 80, 100 x 12,000 BTU.
- 1.2 The cooker has two independent matched premix gas burners which are exceptionally quiet in operation. One heats the cooker and the other the central heating and are controlled via thermostats with the cooker being controlled by an electronic programmer within the unit
- 1.3 The boiler side of the cooker has been designed for use on open vent or sealed systems. If it is to be used on a sealed water system up to a maximum working pressure of 3bar, additional safety devices will be required.
- 1.4 This cooker is suitable for use on natural gas only and must be connected to a conventional flue.
- 1.5 Incorporated with the appliance are:-
 - a) User adjustable controls for cooking oven and central heating water temperature.
 - b) Burner running indicator neons
 - c) Overheat thermostats (with neon indicators) on both the cooker and boiler, with an additional pump over run thermostat on the central heating circuit.
 - d) An integral electronic programmer to control the cooker on and off times.
 - e) A boiling spot and simmer spot in addition to a top oven (with thermostat control) and a separate lower oven which operates at approximately 100° C lower than the top oven
 - f) A blocked flue thermostat which prevents the unit operating if a blocked flue occurs.
 - g) Two efficient and quiet premix gas burners with fully automatic ignition provide outputs with very Low No_x values.
- 1.6 All servicing can be carried out from the front and top of the appliance, thus allowing the cooker to be fitted between kitchen units. The front mounted flue-cover permits easy access for the removal of the flue baffles and cleaning of heating surfaces.
- 1.7 This appliance has been designed to conform to European Directive/Standards BED, LVD, EN, EMC and GAD.
- 1.8 The installation of this central heating cooker MUST be carried out by a competent person in accordance with the relevant requirements of the current issue of the Gas Safety (Installation and Use) Regulations, the Building Regulations, the IEE Wiring Regulations, the Building Standards (Scotland) Regulations (applicable in Scotland), Local Water Company Byelaws, Health and Safety Document No 635.

Detailed recommendations are contained in the current issues of the following British Standards BS 5440 Pts 1 & 2, BS 5449, BS 5546, BS 6700, BS 6798, BS 6891 and BS 7593.
- 1.9 **Health and Safety at Work Act**

The installer should be aware of his responsibilities under the Act and provide, where necessary, appropriate protection for persons carrying out the installation.

INSTALLATION

1. GAS SUPPLY

- 1.1 The supply pipe from the cooker is 3/4" BSP threaded male. An isolating gas valve must be fitted adjacent to the cooker and the gas installation pipe work must be installed, inspected, tested for soundness and purged in accordance with BS 6891

Nominal inlet gas pressure	20mbar
Maximum gas pressure	25 mbar
Minimum gas pressure with both burners running	17 mbar

2. FLUE & CHIMNEY REQUIREMENTS

- 2.1 To evacuate the products of combustion safely and thoroughly, the cooker must have an efficient flue system. Reference should also be made to BS 5440 Part 1 & 2 if further information is required on conventional chimneys.
- 2.2 This unit is designed to work on a conventional flue system with a draught of 0.05" +/- 0.02" W.G (12.45 +/- 4.98 Pa or 0.124 +/- 0.498 mbar).
- 2.3 The chimney should rise as vertically as possible and terminate at a point not subject to down draughts or wind eddies.
- 2.4 Brick and masonry chimneys must be lined with a moisture and acid resistant liner of the same diameter as the boiler flue outlet.
- 2.5 A factory made insulated chimney complying with BS 4543 Part 3 may be considered as an alternative to a structural chimney both for new and existing buildings.
- 2.6 The in-built flue gas resistance of the appliance is such that it allows the boiler to operate reliably over the wide range of chimney draughts encountered from typical domestic chimneys. The use of a flexible stainless steel liner is a convenient method of lining an existing chimney and this should be back filled with 'vermiculite' or similar insulating material to retain heat. A flexible liner should also be used in chimneys fitted with large diameter clay liners to reduce the flue bore and improve the thermal insulation.
- 2.7 The use of a draught stabiliser should not be necessary nor it desirable since it allows flue noises to be emitted into the room.

Notes:

1. In view of the appliances high terminal efficiency it is important that a liner is fitted, otherwise condensation problems could result.

2. Before fitting a liner, the chimney must be thoroughly cleaned free from all traces of soot and scale.

3. TYPES OF CHIMNEY AND FLUE SYSTEMS

- 3.1 There are four basic chimney/vent systems that can be used with gas fired appliances.

These are:-

Twin Wall Gas Vent.

- 3.2 A metal twin wall flue system incorporating an air gap of between 6 mm and 20 mm constructed in either all aluminium for external use or aluminium inner and galvanised or stainless steel outer skin recommended for internal use only. Such products shall be certified to BS 715.

Stainless Steel Lined Prefabricated Chimneys.

- 3.3 These chimney systems consist of two skins of stainless steel or a combination of stainless steel and galvanised steel incorporating high quality insulating materials. Depending upon the materials of combustion, these products can be used internally and externally. Such products shall be certified to BS 4543.

Ceramic or Concrete Lined Prefabricated Chimney.

- 3.4 Similarly, constructed to the previous category except that the inner liner is fabricated with either lightweight fireproof concrete or ceramic material. These products shall be certified by the British Board Agreement.

Concrete Block/Masonry Chimneys.

- 3.5 These can be divided into three different categories:-

(i) Conventional brick or masonry construction with either clay to BS 1181 or refractory concrete flue liner manufactured from a kiln burnt aggregate and high alumina cement.

(ii) Prefabricated chimney block systems

(iii) Gas Flue blocks.

- 3.6 Category (i) is the conventional chimney and in the majority of installations where used with a gas appliance it will be necessary to utilise a stainless steel flexible liner. The second category (ii), prefabricated block chimney systems are designed to accommodate quite a range of heating appliances, gas appliances included. In some cases they may need to be lined with a flexible liner. The appliance manufacturer and chimney manufacturer should be consulted for guidance. The final category (iii), gas flue blocks consists of a narrow rectangular flue way within a building block normally used as part of the internal or external construction of the house. The flue way is usually very narrow, and the systems are often linked with twin wall gas vent to which they are "adapted" in the roof space, after which the gas vent completes the chimney run through termination. Such systems should be carefully inspected for soundness before being used. If they are incorrectly constructed they can contribute to operational difficulties and in particular condensation within the chimney system as a whole. If any doubts should arise as to the condition of such chimney systems they should be carefully checked and possibly replaced with a new flue system.

INSTALLATION

Flue Pipes.

- 3.7 These should only be used to connect a gas burning appliance to one of the types of chimney previously mentioned. Any flue type serving a gas appliance must be kept clear of any combustible materials including any materials likely to be located near the installation by the householder. The minimum air gap clearance that must be maintained is 25 mm (1").

Flue pipes may be constructed from the following materials.

- 3.8 Sheet metal as described in BS 715 stainless steel flue pipe, cast iron flue pipe as described in BS 41, any flue pipe material described in the Building Regulations relating to flue pipes suitable for solid fuel and oil burning appliances. All flue pipes should be constructed such that any condensation is retained by the flue pipe system. Systems with spigot and socket joints must be fitted with the sockets uppermost.

4. LINING OF EXISTING CHIMNEYS

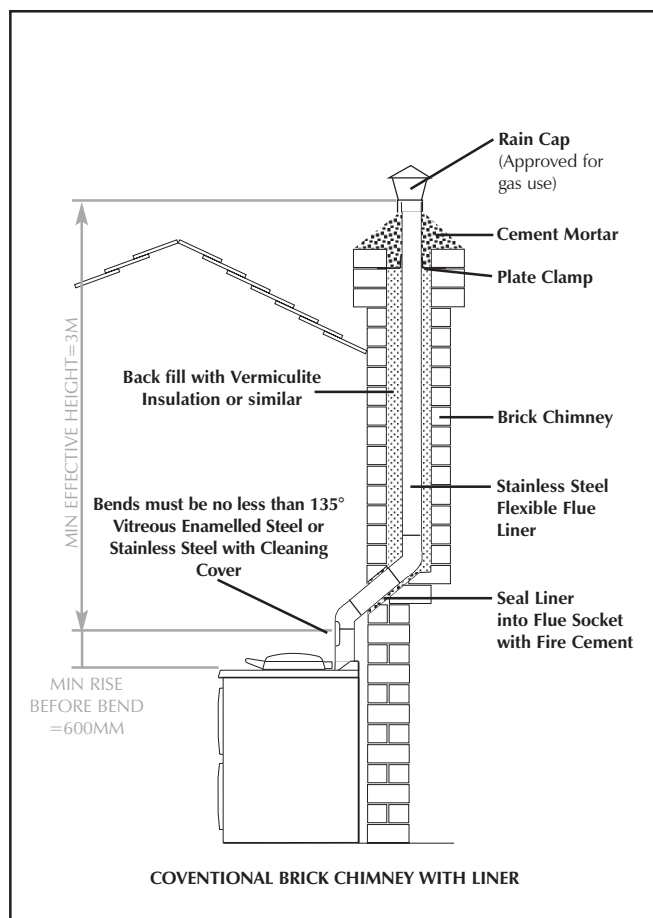
- 4.1 Before using any existing chimney or refitting a gas appliance, it is vital to check that the chimney is safe. Oversized, leaking or rough chimneys can be inefficient and dangerous.
- 4.2 There are two basic existing types of chimney re-lining product suitable for use with gas appliances. It is most important that the chimney is swept and thoroughly cleaned before installing a liner so as to remove previous combustion deposits, which have the potential to damage the liner.

Flexible Stainless Steel.

- 4.3 Recommended where any existing chimney is to be used for a gas-fired appliance. Flexible stainless steel liners must be certified to BS 715. When replacing an existing appliance connected to a chimney lined with a metallic liner, the liner should be replaced.

Rigid Stainless Steel Flue Pipe

- 4.4 Type 316 or 304 stainless steel, not less than 0.55 mm thick.

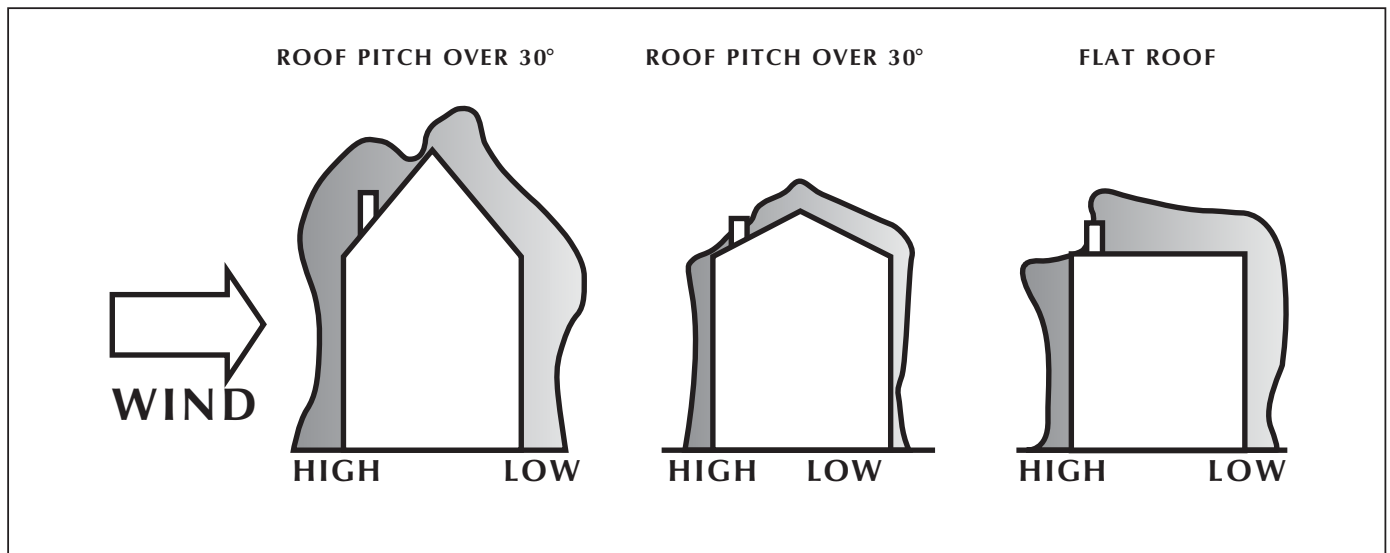


FLUE SYSTEMS

5. WIND EFFECTS ON BUILDINGS

The following drawing shows the general high and low pressure areas on buildings.

Flues should not be terminated in a high pressure area.



6. IMPORTANT NOTES

Do's

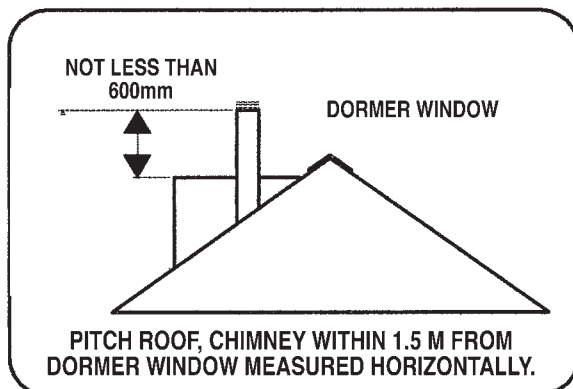
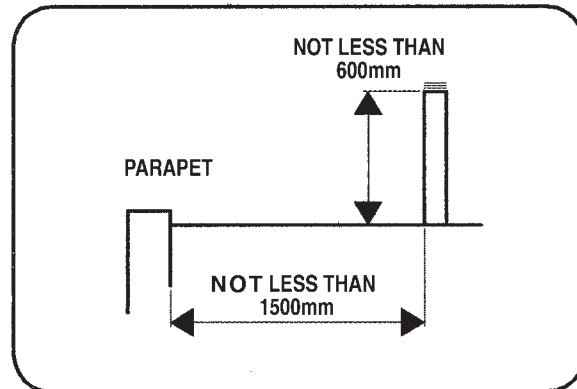
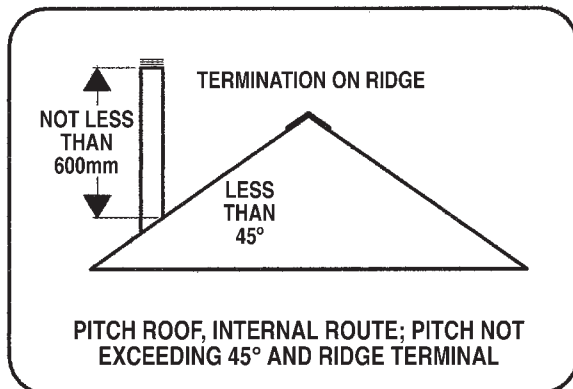
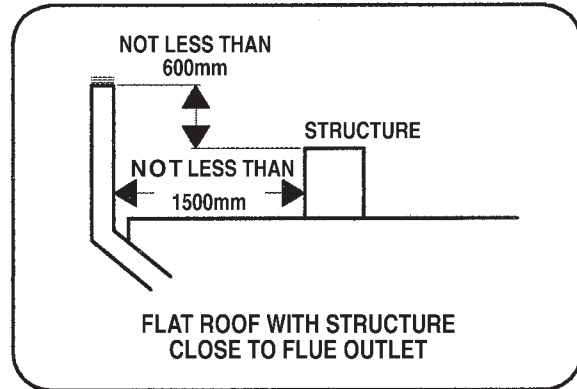
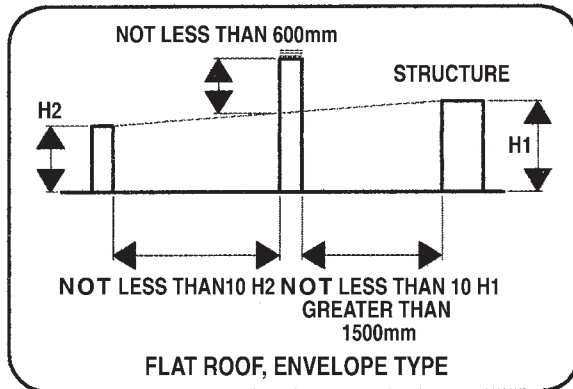
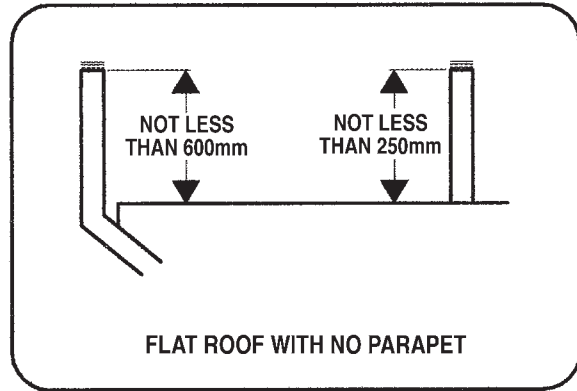
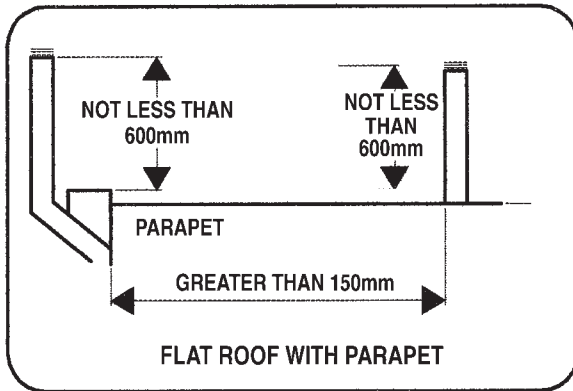
- 6.1 Ensure that when an appliance is fitted to any chimney system, that it is inspected and tested for soundness so that any defects are rectified or a new flue system provided if the soundness is in doubt.
- 6.2 Ensure that the flue system is always installed and supported strictly in accordance with the manufacturers instructions.
- 6.3 Ensure that all joints are properly, securely and efficiently made in accordance with the manufacturers instructions.
- 6.4 Ensure that the flue pipe connections from the appliance rise vertically for at least 600 mm (24") before any change of direction is contemplated. The reason for this is that the initial draught is crucial nearer the appliance because of the higher flue gas temperature. Any horizontal or angled runs at the bottom of the flue will create severe restriction to the gas movement and affect appliance operation.
- 6.5 Try to construct the chimney vertically all the way to the terminal.
- 6.6 Ensure that no part of the flue is installed at an angle more than 45°/135°
- 6.7 Ensure that the flue diameter is not less than the appliance outlet.
- 6.8 Ensure that the effective vertical height of any chimney with bends is at least twice that of the horizontal distance between appliance and terminal.
- 6.9 Try to position the chimney inside the building to avoid excessive cooling and risk of condensation.

- 6.10 Ensure that the chimney is installed and located in accordance with building regulations and Building regulations and British standards, particularly the distances from combustible materials are required.
- 6.11 Remind the householder that a chimney and an appliance must breathe, which is why a permanent supply of combustion air must be provided and kept clear of obstructions.
- 6.12 Advise the householder to have the gas appliance regularly and expertly serviced.
- 6.13 Ensure that if a gas flue block or mixed system consisting of gas flue blocks and prefabricated gas vent is constructed to avoid constructional faults.
- 6.14 Ensure that the flue is terminated in accordance with Building regulations.

Don'ts

- 6.15 Use single walled galvanised ducting as a flue system for any domestic gas installation.
- 6.16 Use non insulated flue systems externally.
- 6.17 Allow clothes, furnishings or any combustible material to come into contact with any flue pipe.
- 6.18 Use bends if they can be avoided.
- 6.19 Run horizontal flue anywhere in the system.
- 6.20 Position the chimney externally if it can be avoided.
- 6.21 Be tempted to use inferior materials for the flue system; they may only last a short time and replacement would be costly.

FLUE TERMINATION



IRRESPECTIVE OF THE TYPES OF CHIMNEY SYSTEM, A BRITISH GAS APPROVED TERMINAL MUST BE USED

Recommended flue positions for some roof conditions

WATER SYSTEMS

1. GENERAL

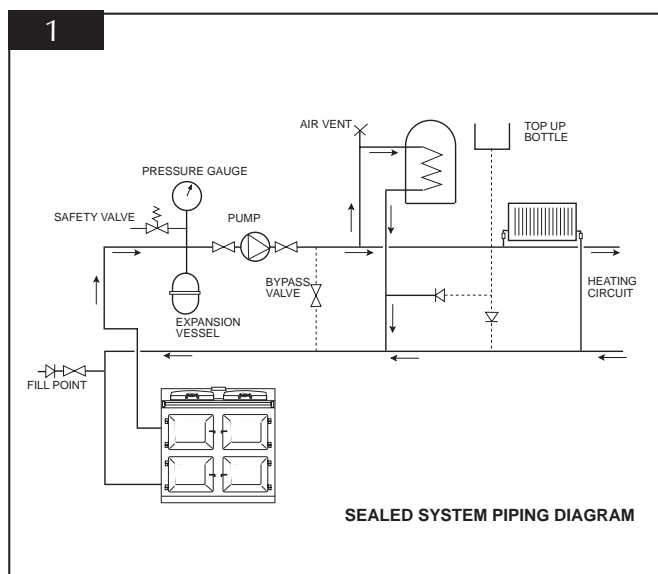
- 1.1 The appliance is suitable for fully pumped open vent & sealed systems **only** and the installation must comply with the requirements of BS 6798 and BS 5449. Fit a drain off cock in the lowest part of the system. Where the boiler is also to be used for providing domestic hot water, a double feed indirect cylinder to BS 1566 Part must be used.
- 1.2 An adjustable bypass valve must be fitted between the flow and return and it must be adjusted so that the return temperature to the boiler is always above 60°C. After setting this, the bypass should then be fixed. This will increase the life of the heat exchanger and failure to fit a correctly adjusted bypass will invalidate the warranty.
- 1.3 Flush out the system to remove any swarf or residues before fitting the circulating pump.

2. SYSTEM CONTROLS

- 2.1 Operation of the system under control of the boiler thermostat alone does not produce the optimum efficiency. The heating system should include a control system. This should comprise of at least a single channel programmer or thermostatic radiator valves (TRV). In the case of the boiler being used for central heating and domestic hot water, a 2 channel programmer should be used.

3. SEALED SYSTEMS

- 3.1 The appliance is suitable for connection to a sealed system and the installer needs to fit an expansion vessel of the correct size, pressure relief valve, pressure gauge, pump and automatic air vents and provide provision for filling. See diagram 1 for schematic piping diagram.



4. EXPANSION VESSEL REQUIREMENTS

Vessel Charge & Initial System Pressure	Bar	0.5	1	1.5
	psi	7.31	4.5	21.8
To calculate the expansion vessel required multiply the total system volume (including 38L for boiler) by the following factor		0.08	0.11	0.16

Note if the system pressure gauge indicates 2.6 bar or higher with the appliance at maximum temperature and all radiators in circulation an additional vessel is required.

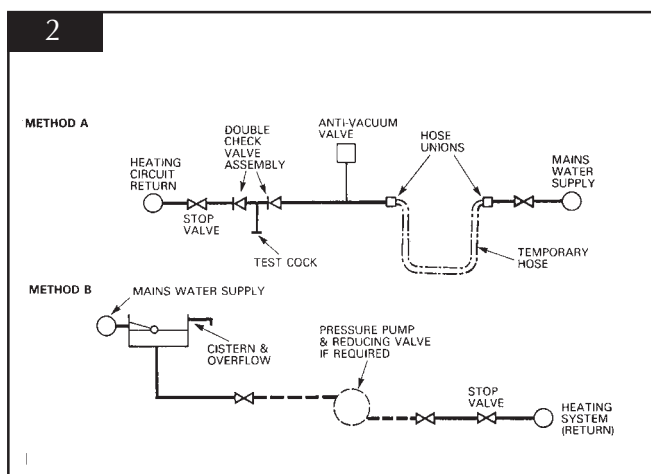
Total water content of boiler is 38 litres.

5. SYSTEM FILLING

- 5.1 A sealed system must only be filled by a competent person using one of the approved methods shown in diagram 2. The system should incorporate the connections appropriate to one of these methods. It is recommended that a suitable inhibitor is added to the system after the final hot flushing.

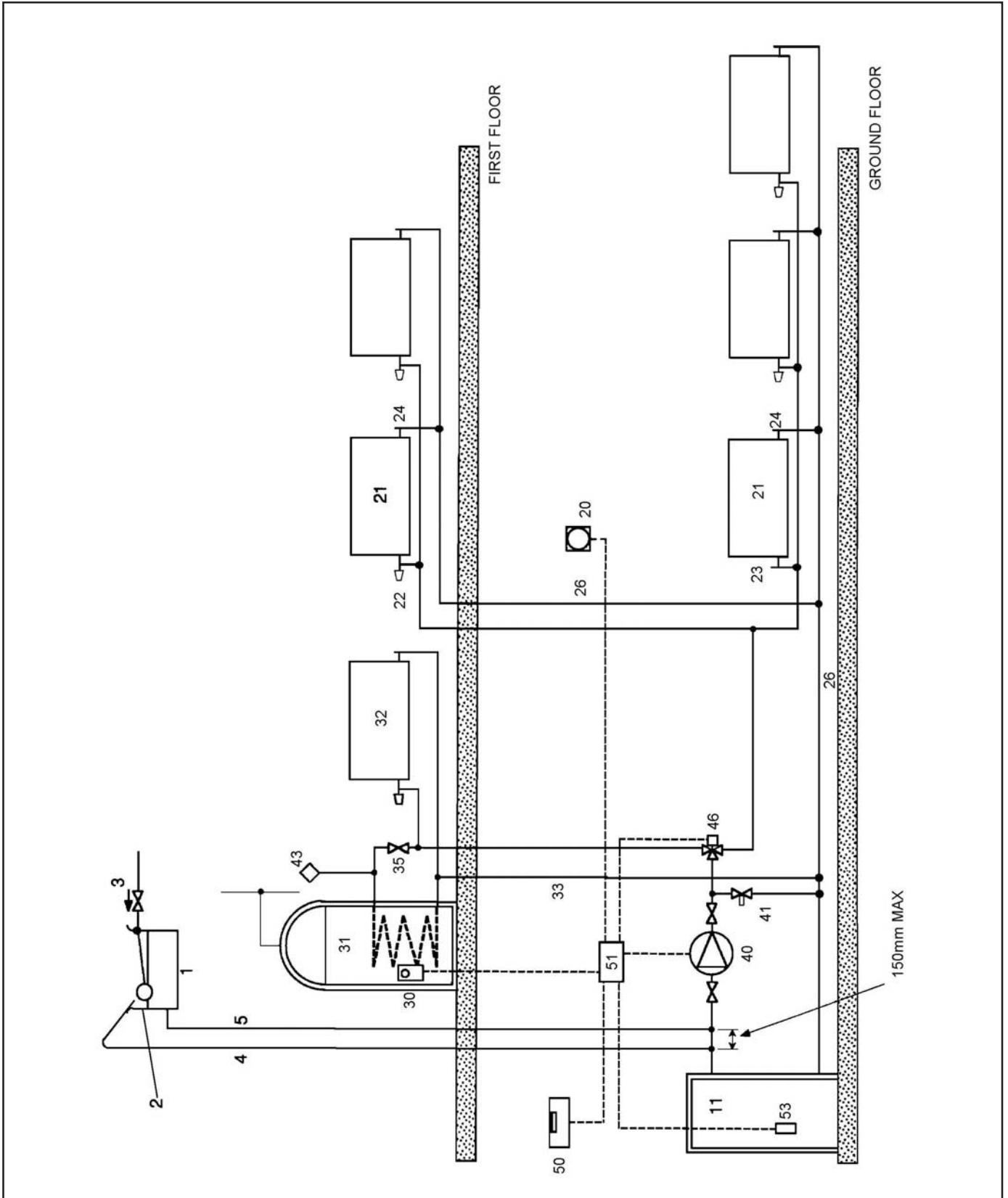
METHOD OF MAKEUP:

- 5.2 Water loss from the system should be replaced from a makeup vessel connected to the system through a non return valve on the return side of the heating circuit. This vessel should be higher than the top of the system.
- 5.3 Alternatively provision can be made by pre-pressurisation of the system via a temporary hose connection and through a double check valve (non-return) and stop valve.



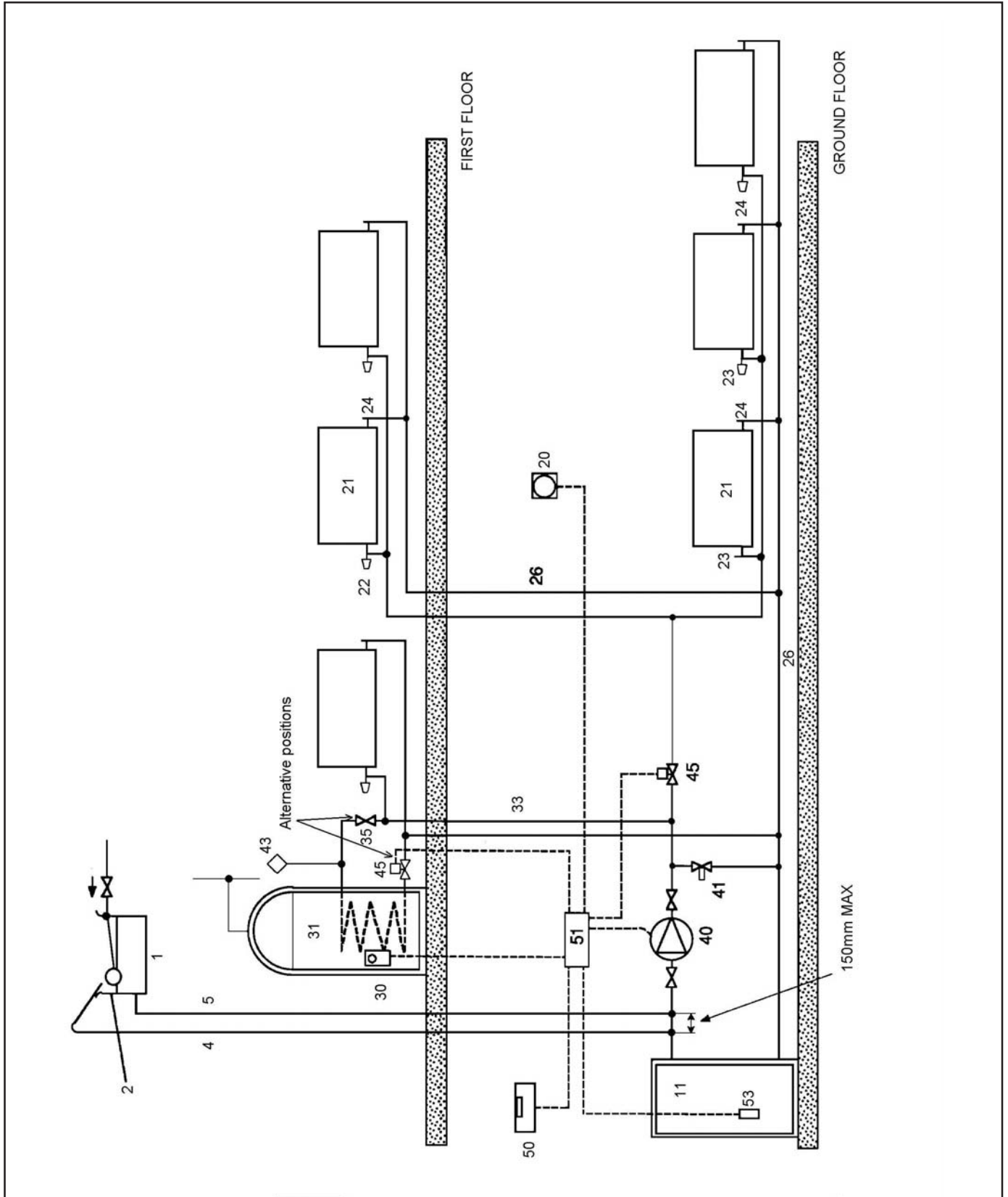
OPEN SYSTEMS

PLUMBING 'Y' PLAN



OPEN SYSTEMS

PLUMBING 'S' PLAN



ELECTRICAL SUPPLY

Electrical Supply
230V 1 Phase 50Hz (Fused 3 amp)

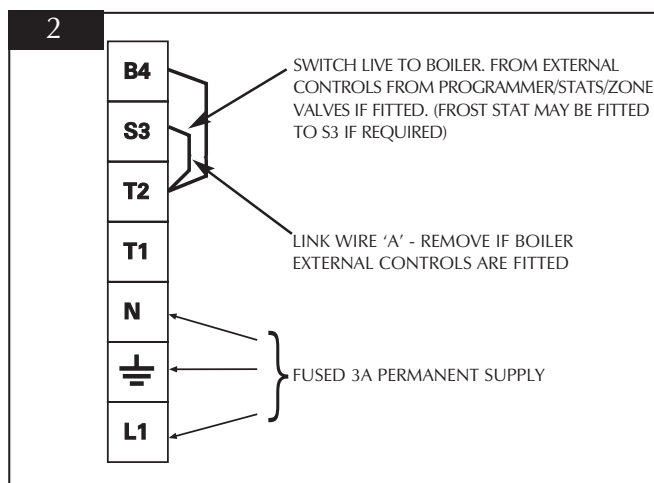
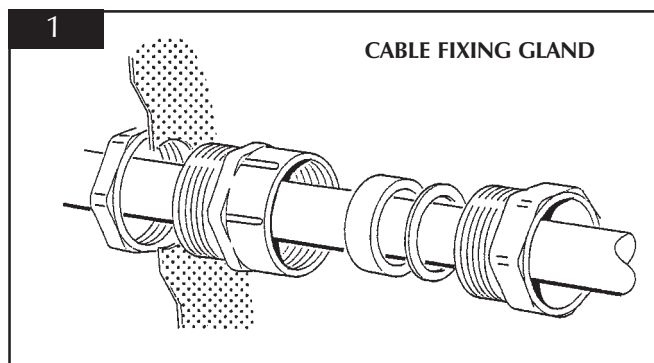
Note: THIS APPLIANCE MUST BE EARTHED

All electrical wiring must be carried out by a qualified electrician in accordance with current I.E.E. Regulations and any Local Regulations that may apply. The 230v - 50Hz electrical supply to the unit and auxiliary controls must be fused by a double pole switch with a contact separation of at least 3mm in both poles and shuttered socket (both complying with the requirements of BS 1363) adjacent to the boiler. Fuse supply at 3 amp. The minimum requirement for the power supply cable should be a PVC sheathed flexible cord, at least 0.75mm² (24x0.2mm) (code designation H05 VV-F or H05 VVH2-F) as specified in table 16 of BS 6500. The appliance MUST be earthed and the electrical supply earth cable must be of a greater length than the current carrying conductor cables (ie live and neutral supply cables). All external cables entering the appliance must be secured in position by strain relief bushes supplied (see diagram on how to secure cable). Terminal connections are also provided in the control panel for ancillary controls.

See wiring diagram. Fig 3 Page 25

Warning - High and Low Voltage

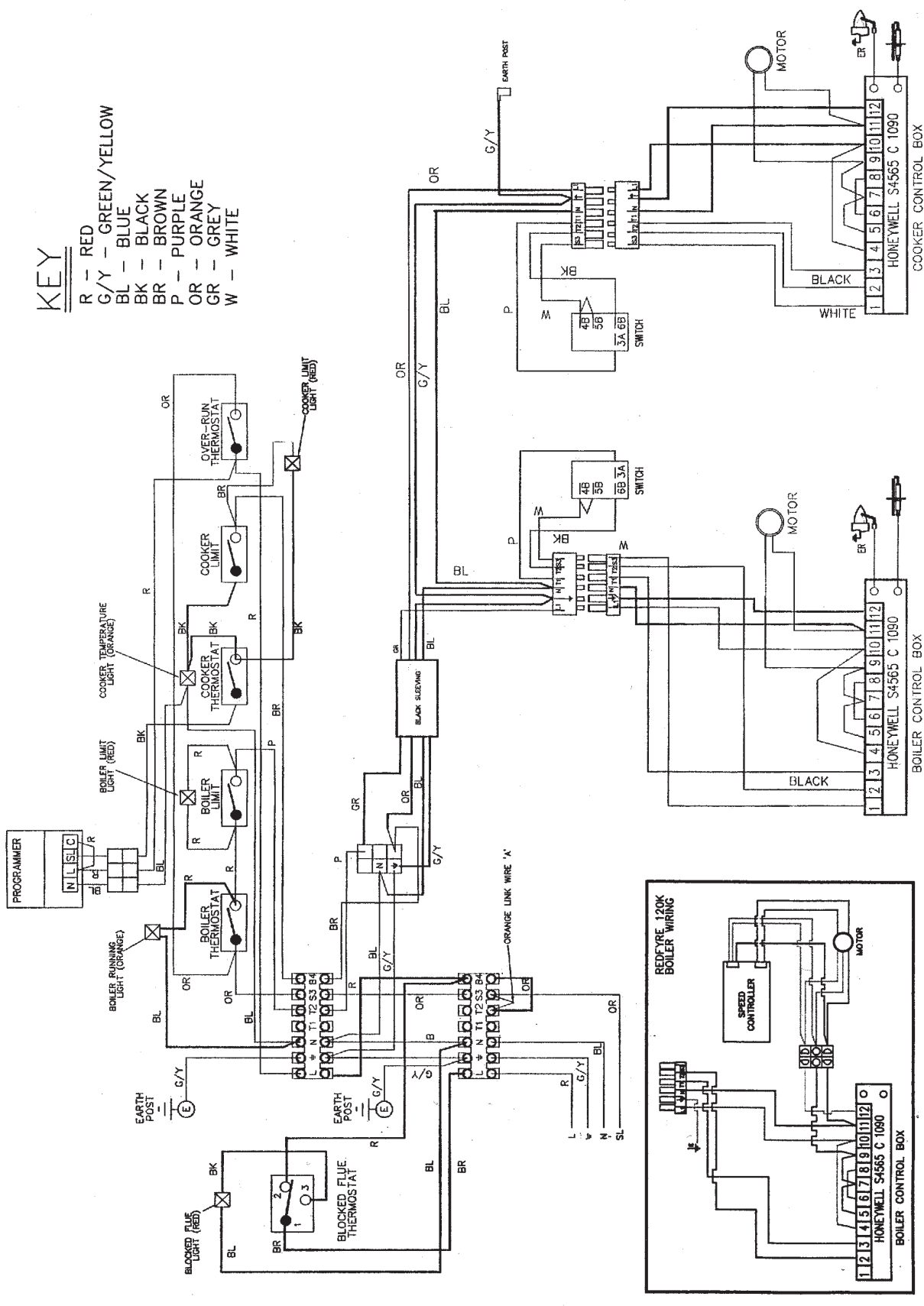
In certain parts of the country, where there is a known risk of high or low voltage fluctuations, the gas burner shall be prevented from starting by the use of a voltage sensitive device if the voltage drops or increases sufficiently to endanger installation.



COOKER INTERNAL WIRING

KEY

- R - RED
- G/Y - GREEN/YELLOW
- BL - BLUE
- BK - BLACK
- BR - BROWN
- P - PURPLE
- OR - ORANGE
- W - WHITE

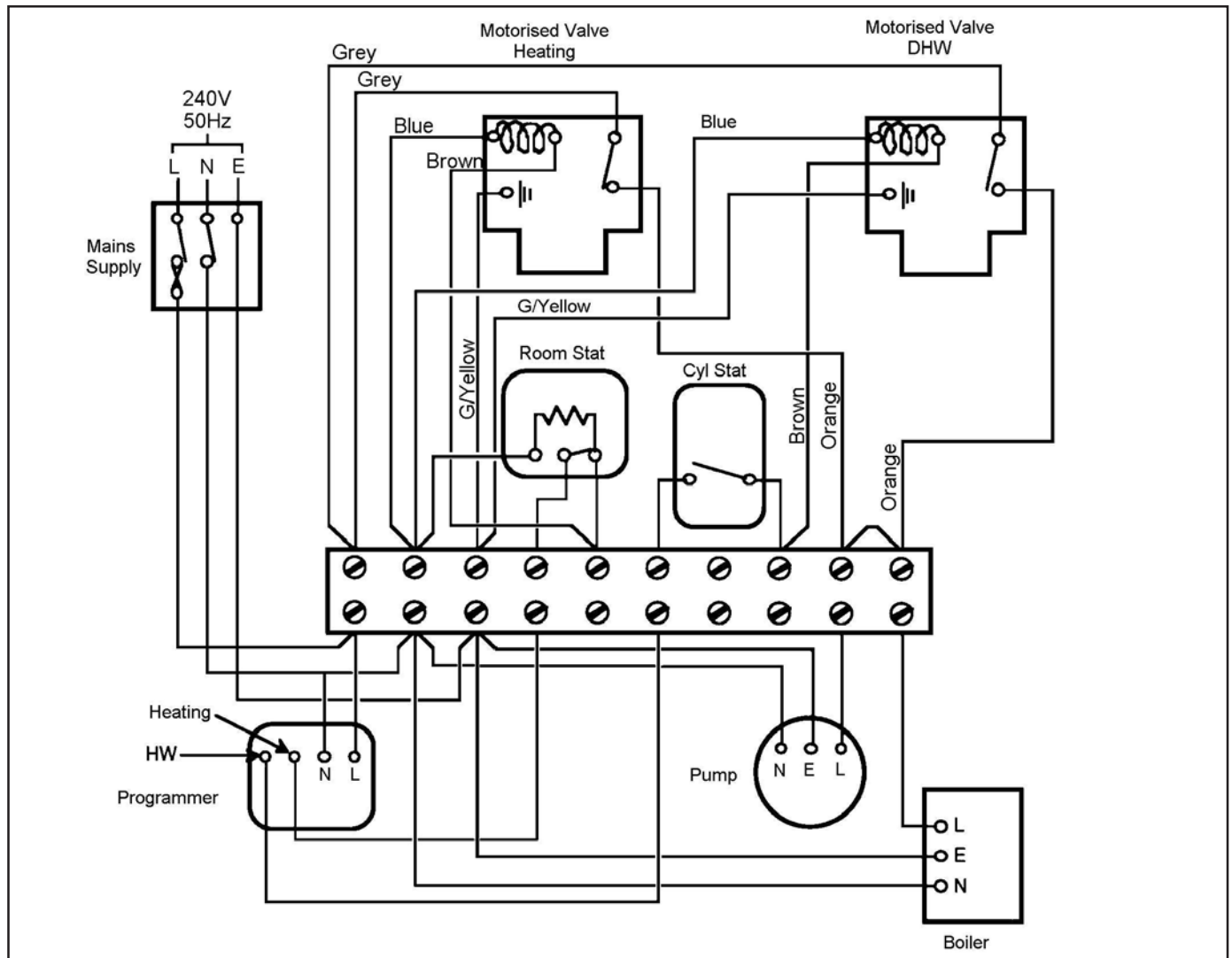


WIRING 'S' PLAN

Independent control of space and water heating circulation in a fully pumped system with two motorised valves (see System Diagrams 1 and 2)

This scheme provides the optimum degree of control over a fully pumped installation. Separate two port motorised valves are fitted in the space heating and water heating circuits controlled by room and cylinder thermostats respectively

The method of operation is that if either the room or the cylinder thermostats call for heat, they open the motorised valve controlling their circuit. The auxiliary switch in the valve switches on both pump and boiler. When either thermostat is satisfied, its motors shut and the auxiliary ceases to provide power for the pump and boiler. When thermostats are satisfied, both valves will be closed and the pump and boiler cannot run because their auxiliary switches have opened.

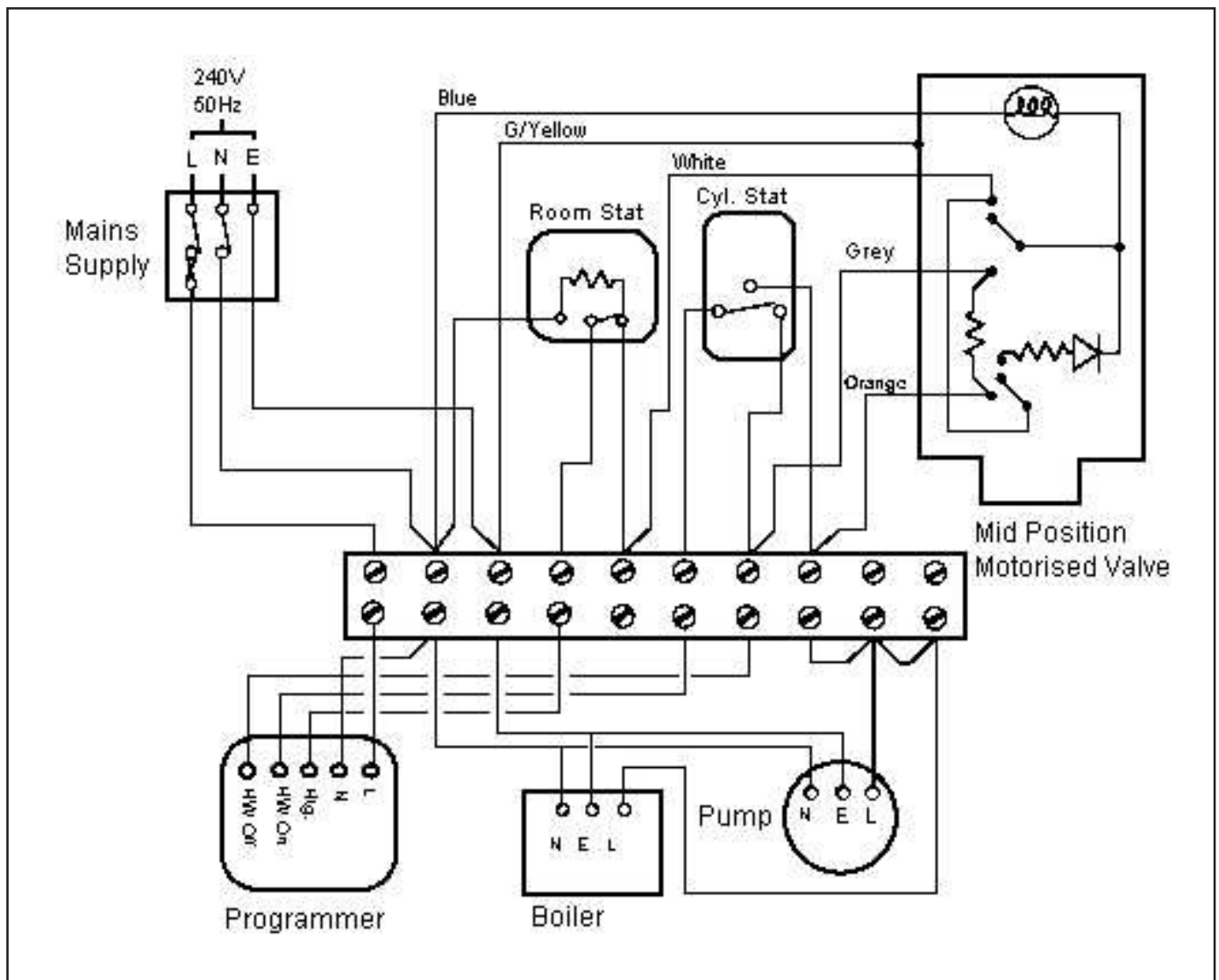


WIRING 'Y' PLAN

Independent control of space and water heating circulation in a fully pumped system with one motorised diverting valve (See System Diagram 3)

This scheme provides control over a fully pumped installation by means of a single motorised diverting valve. This provides flow to the space heating circuit or to the water heating circuit. The valve also has a mid position to enable circulating water to flow to both circuits simultaneously. Control is via room and cylinder thermostats.

The method of operation is that when the room thermostat calls for heat, the valve motors over so that the port serving the space heating circuit is opened and the pump and boiler are both switched on. If the cylinder thermostat calls for heat, the valve motors over to open its domestic hot water port only, and again to switch on the pump and boiler. If both thermostats are calling for heat, the valve motors to open both of its ports and to switch on both pump and boiler. When both thermostats are satisfied, the valve motors to the closed position and the pump and boiler are switched off.



SERVICING

To maintain the appliances high thermal efficiency and reliable operation, it must be serviced annually which is also a requirement of the appliances guarantee. If the boiler is used to provide central heating and hot water, we recommend that the appliances annual service is carried out just before the start of the heating season.

NOTE: THE PERSON(S) WHO SERVICES OR CARRIES OUT ANY REMEDIAL WORK, IE ELECTRICAL FAULT FINDING, MUST BE CORGI APPROVED.

IMPORTANT: ISOLATE ELECTRICAL SUPPLY TO THE APPLIANCE BEFORE CARRYING OUT ANY WORK

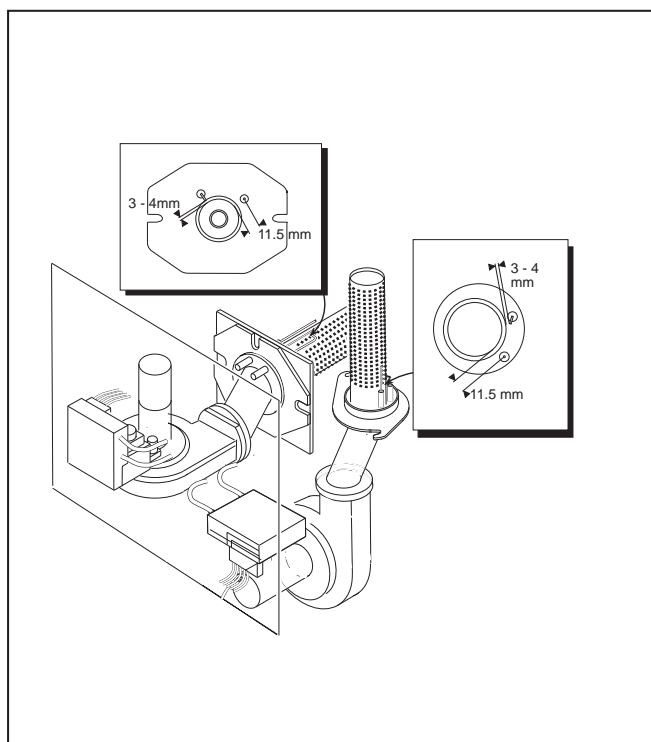
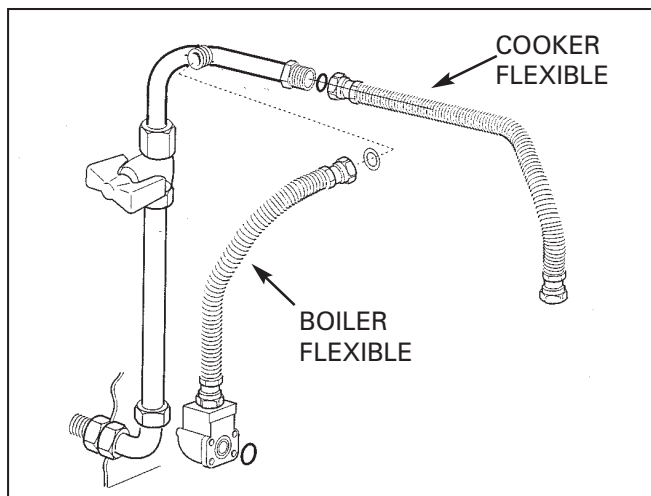
1. REPLACEMENT OF PARTS

- 1.1 Replacement of parts must only be carried out by a competent person e.g. a CORGI registered engineer.
- 1.2 Before commencing the replacement of any components:
ISOLATE THE ELECTRICITY SUPPLY TO THE APPLIANCE

ISOLATE THE GAS SUPPLY TO THE APPLIANCE BY TURNING OFF AT THE GAS SERVICE VALVE (ACCESSIBLE BY REMOVING THE LOWER PANEL BEHIND THE LOWER LH DOOR)
- 1.3 Remove the two lower pozi screws and star lock washers and remove the two screws at top of this panel only (there is no need to remove the smaller top panel which contains the Blocked flue device)

2. BOILER BURNER REMOVAL

- 2.1 Remove the lower panel as detailed previously.
- 2.2 Disconnect the burner 6 way plug from the lower support bracket and disconnect the ignition lead and ionisation lead from the control box.
- 2.3 The boiler burner is connected to the solid supply pipe, undo the connection and retain the sealing washer, replace if necessary. (Fig. 1)
- 2.4 Undo the two flange nuts (13mm) on either side of the burner mounting flange and withdraw burner from combustion chamber. Check condition of gasket and replace if necessary.
- 2.5 Remove the ignition control box by unscrewing the single retaining screw and fit to the new burner assembly refit both ignition & ionisation probe leads. (Fig. 2)
- 2.6 Fit the new burner ensuring it is the direct replacement and reassemble in reverse order

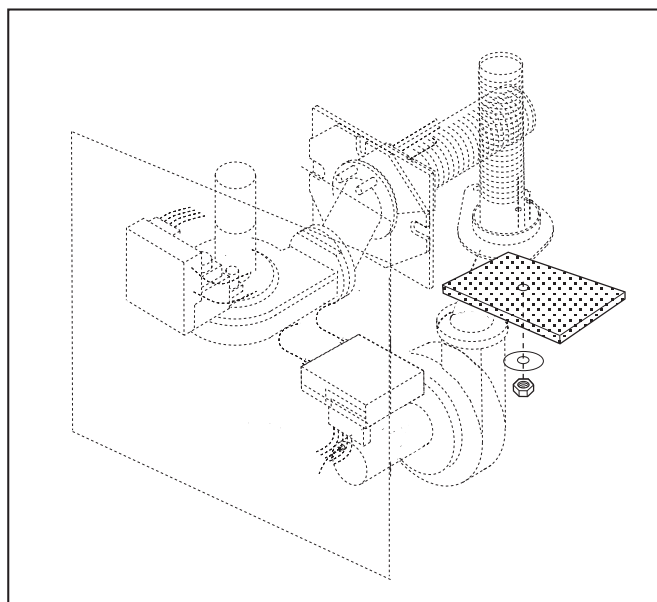


SERVICING

3. COOKER BURNER

To remove the cooker burner, the boiler burner needs to be removed first following the section on boiler burner removal

- a) Remove the lower panel as detailed above.
- b) Remove the boiler burner as detailed previously.
- c) Disconnect the cooker burner 6 way plug, the ignition lead, and the ionisation lead from the control box.
- d) The burner is connected to the gas supply pipe via a union with a sealing washer which needs to be undone, retain the sealing washer, replace if necessary. See diagram 3.
- e) Remove the Front Insulation piece from the underside of the cooker combustion chamber, undo the nut and mudguard washer. See diagram 4.



- f) Access to the securing nuts will then be possible. The cooker burner is fixed to the cooker by a bayonet type flange. Undo the two flange nuts (13mm) and whilst supporting the burner rotate the burner clockwise. Gently lower the burner and then out of the chamber.
- g) Remove the ignition control box by unscrewing the single retaining screw and fit to the new burner assembly, refit both ignition & ionisation probe leads.
- h) Fit the new burner ensuring it is the direct replacement and reassemble in reverse order.

4. IGNITION & IONISATION ELECTRODES

Ignition Electrode Removal

- a) Remove the burners as described in the previous sections.
- b) Disconnect the HT leads from the ignition control box and electrode (push fit). Remove the single retaining screws and remove the electrode.
- c) Fit replacement and check electrode to burner head gap is in accordance with specification (See Fig. 7)
- d) Refit in reverse order

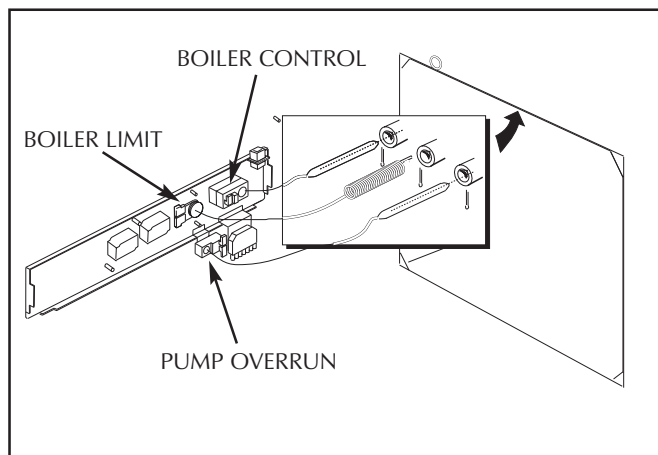
Ionisation Electrode Removal

- a) Remove the burners as described in the previous sections.
- b) Disconnect the white lead from the ignition control box.
- c) The lead is permanently attached to the electrode and is replaced at the same time.
- d) Undo the single retaining screw and carefully remove the electrode. Fit replacement and check electrode to burner gap is in accordance with specification (See Fig. 7)
- e) Refit in reverse order.

SERVICING

5. BOILER THERMOSTATS

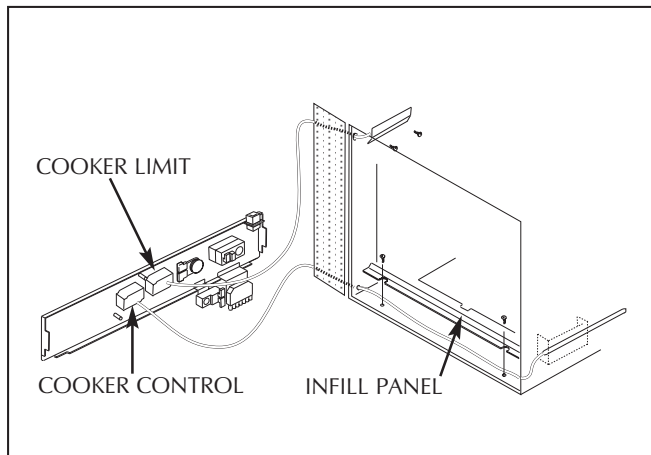
- Remove the upper programmer retaining panel, four screw and starlock washers at the four corners of panel.
- Supporting the panel ease forward and release 6 way plug (two lugs). Carefully put panel at one side.
- Access to the underside of the control panel will need to be gained by following the section above. Unclip the 7 way plug from the control panel.
- The 3 thermostats phials for the boiler thermostats are all located above the boiler inspection cover. Remove the 3 split pins and retain, carefully remove from the pockets.
- Remove the control panel from the unit (4 screws and starlock washers) and support, as the two cooker thermostats will be still in position.
- Remove the heat shield from the control panel, (two brown screws). Identify and remove faulty thermostat. Removing knob if appropriate and retaining screws.



6. COOKER THERMOSTATS

- Remove the upper programmer retaining panel, four screw and starlock washers at four corners of panel.
- Supporting the panel ease forward and release 6 way plug (two lugs) carefully put panel to one side.
- Access to the underside of the control panel will need to be gained by following the section above, unclip the 7 way plug from the control panel.
- Remove the heat shield from behind the control panel (two brown screws from front).

- The two cooker control thermostats are located in the top oven, the control thermostat phial located at the bottom RHS of the oven, the limit thermostat phial on the top LHS of the oven.
- Control thermostat
 - Remove the infill panel at the bottom front of the oven, remove the phial from the phial clip and pull phial through insulation at side of oven.
 - Remove control knob and thermostat two screws from front.
 - Replace in reverse order ensure that the phial is in correct position and capillary not kinked.
- Cooker limit thermostat.
 - Remove the limit phial securing bracket two screws.
 - Pull phial through insulation at side of oven.
 - Remove the knob and the two thermostat front retaining screws.
 - Replace in reverse order ensuring that phial is in correct position and capillary not kinked.

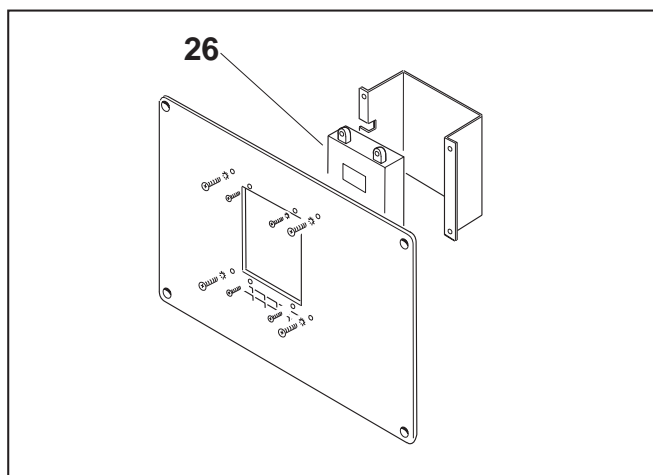


7. COOKER PROGRAMMER

- Remove the upper programmer retaining panel, four screw and starlock washers at four corners of panel.
- Supporting panel ease forward and release 6 way plug (two lugs)
- Remove rear heat shield, 4 outer screws on programmer mounting panel
- Remove the smaller inner counter sunk screws and release programmer.
- Remove electrical connections and set up programmer as required.

SERVICING

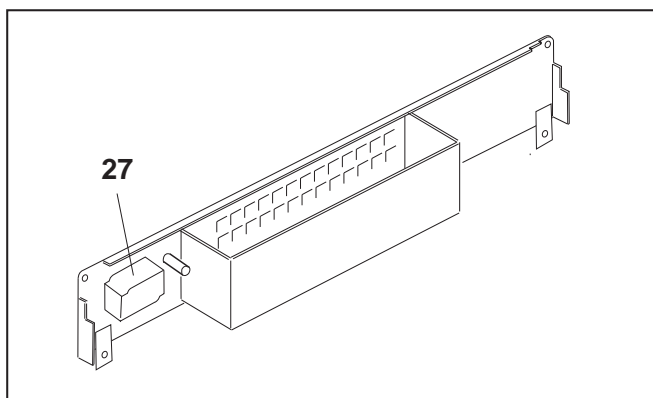
- f) Replace in reverse order ensure heat shield large opening is at the top of the panel.
- g) Reset the programmer to the current time and program to customer requirements.



8. BLOCKED FLUE OVERHEAT THERMOSTAT

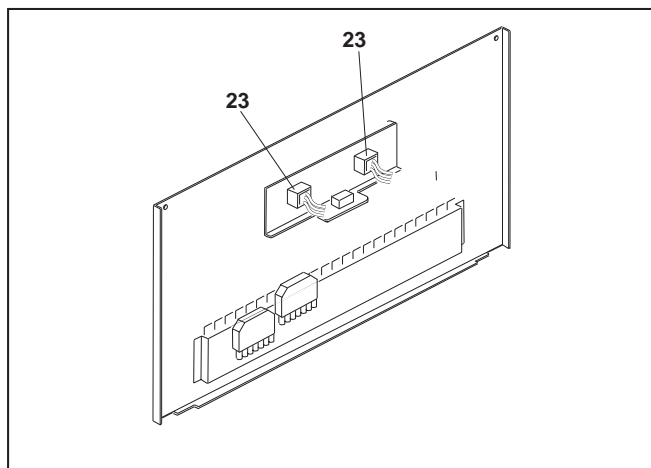
See Fig. 11

- a) Remove the lower control panel and remove the smaller blocked flue thermostat panel 2 screws.
- b) Remove the phial retaining clip and remove phial.
- c) Remove thermostat from panel 2 screws from front.
- d) Replace wires in line with wiring diagram.
- e) Refit in reverse order ensuring thermostat phial is fitted correctly in the pocket.



9. BURNER RESET SWITCHES

- a) Remove the lower control panel.
- b) Disconnect the thermostat control panel 7 way plug and remove both boiler burner and cooker burner 6 way plugs from the panel.
- c) Undo the two way central reset switch securing bracket bolts.
- d) Remove electrical connections from switch.
- e) Squeeze together switch retaining clips and release switch.
- f) Refit new switch into bracket, refit electrical connections, ensure switch is correctly fitted
- g) Refit in reverse order.



10. SERVICE PROCEDURES FOR BURNERS

- Remove the Venturi filter and remove any lint or other build-up.
- Check condition of combustion head and electrodes. Replace any cracked/damaged electrodes.
- Reset, if necessary, electrode and ionisation probe gaps to 3mm and 11.5mm respectively.
- Check condition of clear sensing tubing and replace if necessary.
- Check and replace as necessary any gasket seals.
- Check and ensure tight fit of both ignition lead and ionisation probes.
- Refit burners replace all seals, carry out soundness check - fit cooker burner prior to boiler burner.
- Restart the burners and check combustion values

SERVICING

11. BOILER HEAT EXCHANGER

- The boiler access door is behind the programmer mounting panel.
- Carefully remove the programmer mounting panel secured with fixing screws and disconnect the electrical plug.
- Remove the boiler access door by unscrewing the 4 wing nuts - check rubber seal and renew if necessary.
- Remove the baffles in order - noting the orientation
- Brush and remove all deposits from the inner surface of the heat exchanger and clean baffles if necessary.
- See diagram for boiler and cooker flue ways for access to clean boiler flue off take.
- Remove flue deposits from the chamber using a vacuum cleaner.
- Replace baffles in the correct order.
- Replace boiler access door ensuring that the rubber seal makes a gas tight seal.

DO NOT FIT THE BOILER BURNER UNTIL THE COOKER BURNER HAS BEEN FITTED

12. COOKER FLUEWAYS

- Remove the hotplate by unscrewing the countersink screws as shown in diagram and fit carrying handles and lift out.

WARNING: THE HOTPLATE IS VERY HEAVY AND IT MAY TAKE TWO PEOPLE TO LIFT OUT - CARE MUST BE TAKEN AS DAMAGE TO THE HOTPLATE BLACK VITREOUS ENAMEL SURROUND COULD OCCUR.

- With the hot plate removed the combustion chamber can now be accessed through the combustion chamber access opening. Simply extract the securing ring stud and slide the cover to one side.
- Remove access panel on the boiler/cooker manifold to clean flueway. Check seal and renew if necessary on re-assembly.

WARNING: BEFORE REMOVING THE INSULATION PLEASE READ HEALTH & SAFETY INSTRUCTIONS

- The final access plate is found in the base of the top oven and is removed by unscrewing the retaining screws.
- Remove any deposits with a suitable brush and vacuum cleaner and ensure ALL flueways are free from obstruction.

13. RE-ASSEMBLY

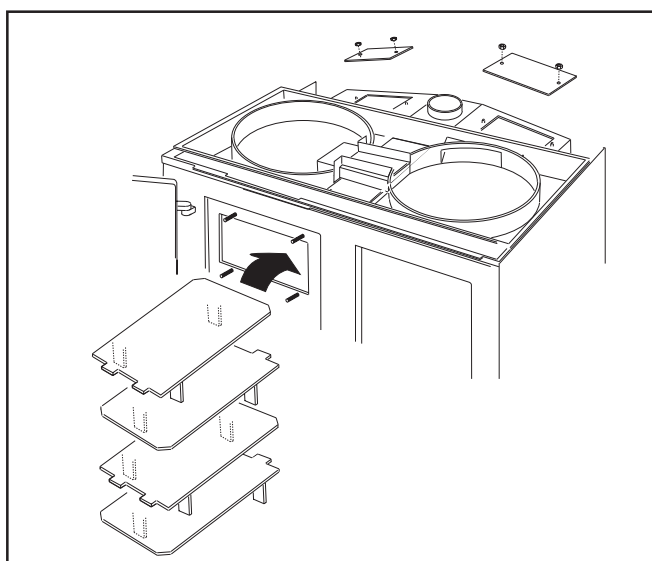
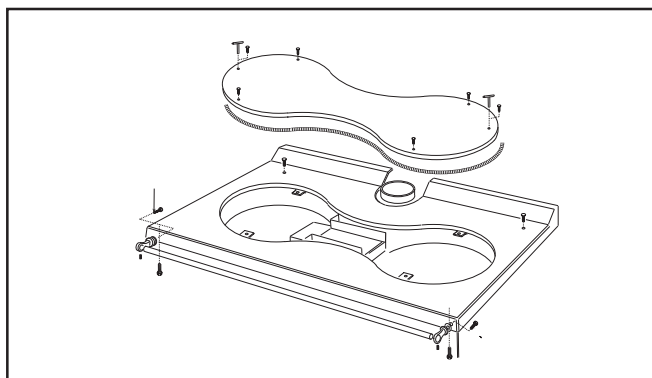
- When the appliance is thoroughly cleaned and free from any obstruction -

IT IS VERY IMPORTANT THAT ALL SEALS/GASKETS ARE IN GOOD CONDITION, IF NOT REPLACE

- Refit all parts in reverse order, again ensuring all access panels are sealed correctly, including the flueway top plates, hotplate and oven access plate.

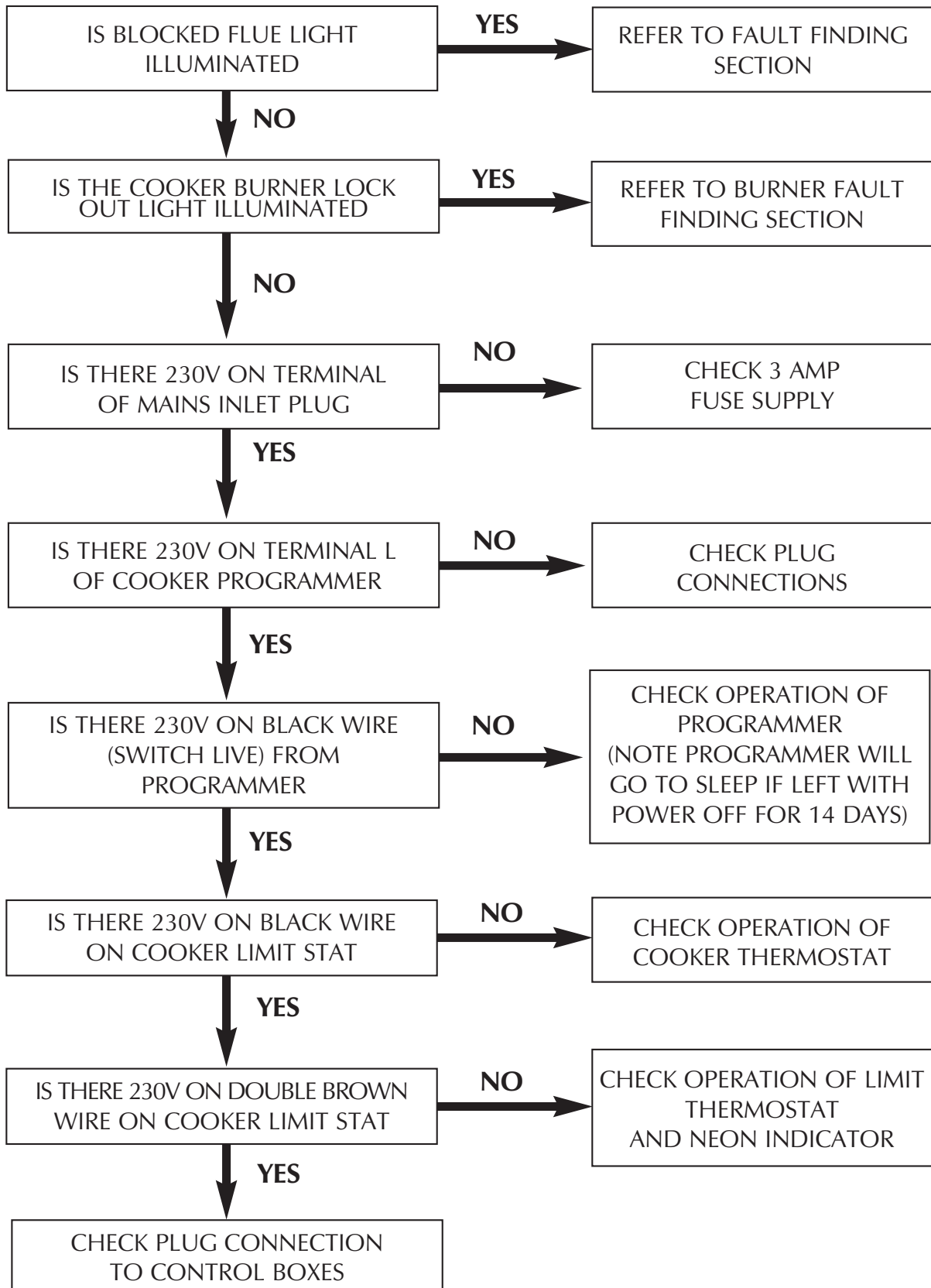
FAILURE TO DO SO WILL ENABLE FLUE GASES TO ENTER THE ROOM

- Remember when fitting the top plate and hot plate that they are **VERY HEAVY AND IT MAY TAKE TWO PEOPLE TO LIFT - CARE MUST BE TAKEN AS DAMAGE TO THE BLACK VITREOUS ENAMEL COULD OCCUR.**
- Refit both burners (cooker burner first)
- Turn on gas and electricity supplies.
- Check the combustion of both burners and adjust if necessary, referring to burner data.



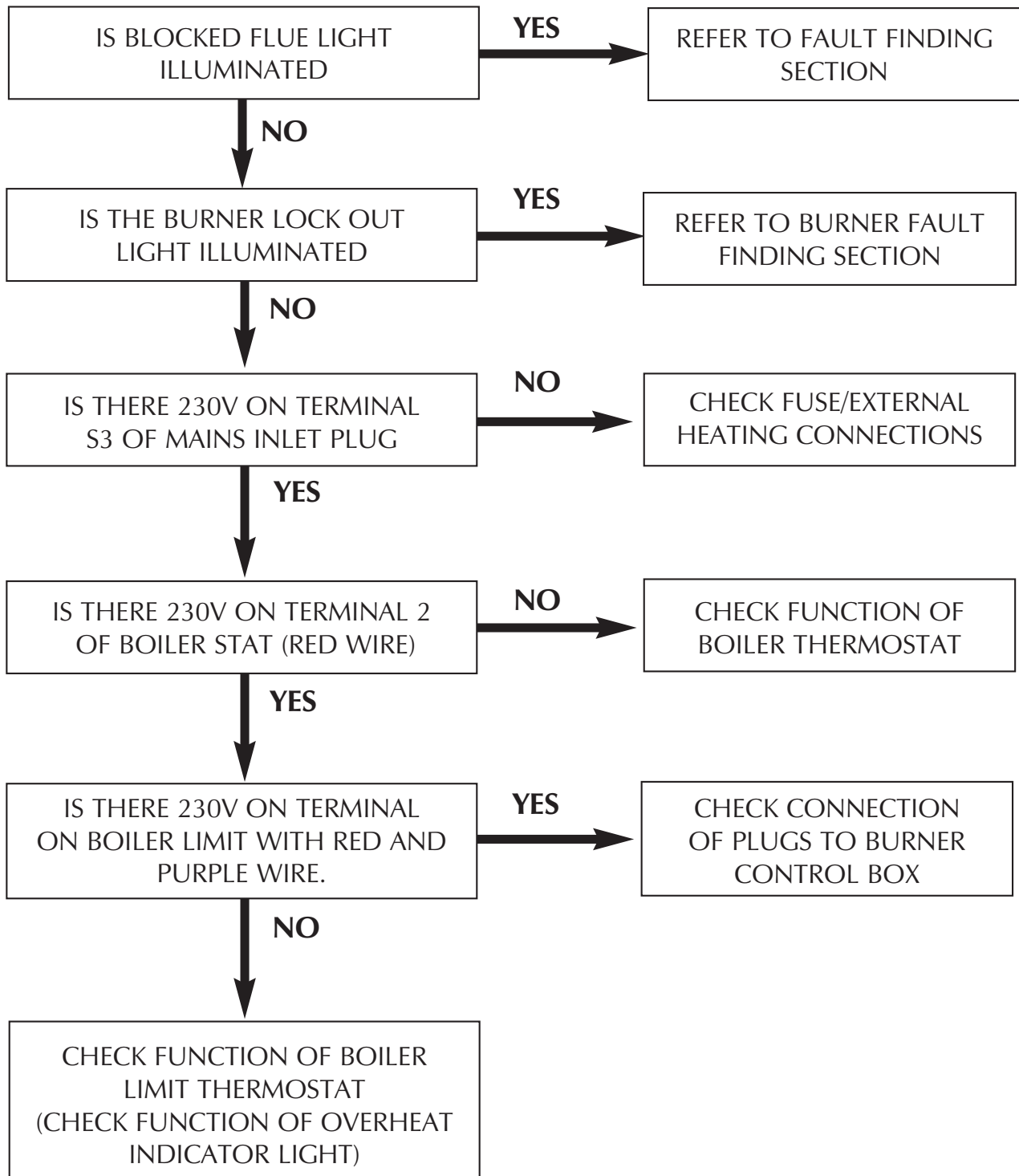
SERVICE ENGINEER GUIDE TO FAULT FINDING

COOKER NOT WORKING - SWITCH ON AT CLOCK + THERMOSTAT



SERVICE ENGINEER GUIDE TO FAULT FINDING

BOILER NOT WORKING - ENSURE THERMOSTAT IS SWITCHED ON

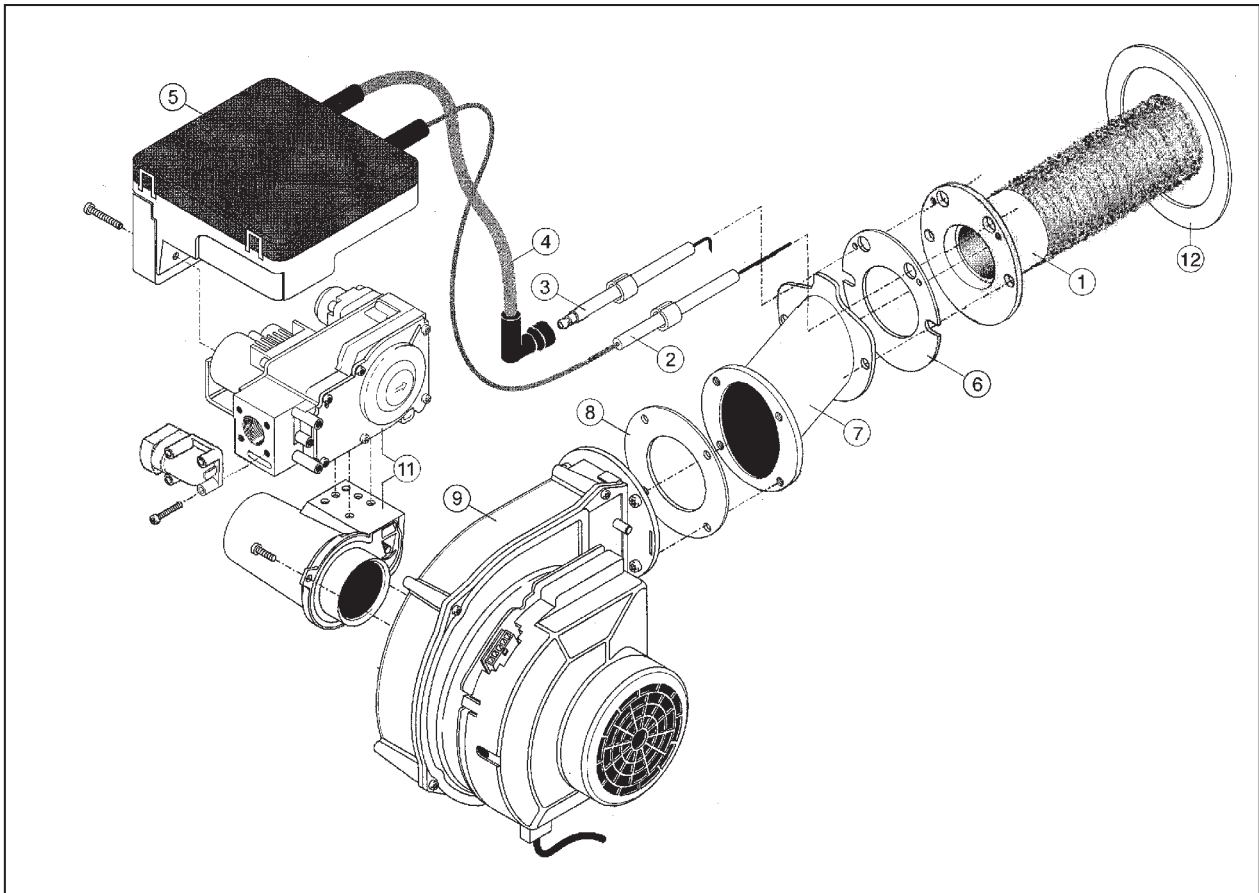


FAULT FINDING

ELECTRICITY SAFETY - Switch off electrical supply to unit before making any electrical tests.

FAULT	POSSIBLE CAUSE	ACTION
BURNER WILL NOT START	Boiler Thermostat or other system controls satisfied	Ensure all controls are calling for heat
	Fuse blown for short circuit in wiring	Fit new 5 amp fuse, if it blows again check
	No gas/pressure low	Ensure all isolation valves are open and minimum gas pressure on inlet is 17/20 mbar.
	Blocked Flue Neon illuminated	Press the reset button on lower control panel. NB Only try twice Ensure flue is not blocked and minimum draught of 0.04"WG Ensure bulb for thermostat is in pocket.
	Poor Earth	Check earth continuity and all earths connected.
FAN DOES NOT RUN NO FAN NOISE	Connections	Check connections and plugs 24DC 230V
	Gas Valve solenoid	Touch coil with non magnetic screwdriver, if not magnetic replace gas valve
BURNER IGNITES MOMENTARILY THEN GOES TO LOCKOUT	Live and neutral reversed	Check polarity
	Ionisation probe incorrect	Adjust gap to that specified
	Ionisation probe damaged	Replace probe
	Ionisation probe lead damaged	Repair/replace
	Poor earth to unit	Check continuity and all earth connections
	Control box wiring faulty	Check control box wiring and wiring into molex
BURNER IGNITES AND THEN GOES OUT AFTER A FEW MINUTES	Low/No gas pressure	Check supply pressure
	Breakdown in ionisation circuit	Check ionisation circuit whilst running is above 0.9 μ a DC
BURNER FAN RUNS BUT DOES NOT IGNITE	Damaged ignition electrode	Replace electrode
	Ignition lead not connected /damaged	Reconnect leads/replace
	Ignition spark excessive	Reset spark gap to specified 3mm
	Ignition control not seated on gas valve	Ensure control located correctly and pins not bent
	Ignition control box faulty	Replace

SPARE PARTS: BURNER



Item	Part Description	Cooker Burner Part No	60k-Boiler Burner Part No	80k-Boiler Burner Part No	100k-Boiler Burner Part No	120k-Boiler Burner Part No
1	Burner Head	603380	603381	603381	603381	603381
2	Ionisation probe + lead	603382	603382	603382	603382	603382
3	Ignition Electrode	603383	603383	603383	603383	603383
4	Ignition Electrode Lead	603384	603384	603384	603384	603384
5	Ignition Control box (Honeywell)	603385	603385	603385	603385	603385
6	Gasket (Burner)	603386	603387	603387	603387	603387
7	Manifold	603388	603389	603389	603389	603389
8	Gasket (fan)	603390	603390	603390	603390	603390
9	Fan	603391	603391	603392	603392	603393
11	Gas Valve + venturi	603395	603395	603395	603395	603395
12	Burner gasket	603396	603397	603397	603397	603397
N/S*	Gas Pipe Seals	603399	603399	603399	603399	603399
N/S*	Flexible Gas Pipe	603347	603347	603347	603347	603347
N/S*	Speed Control Board ECS002	-	-	-	-	603394

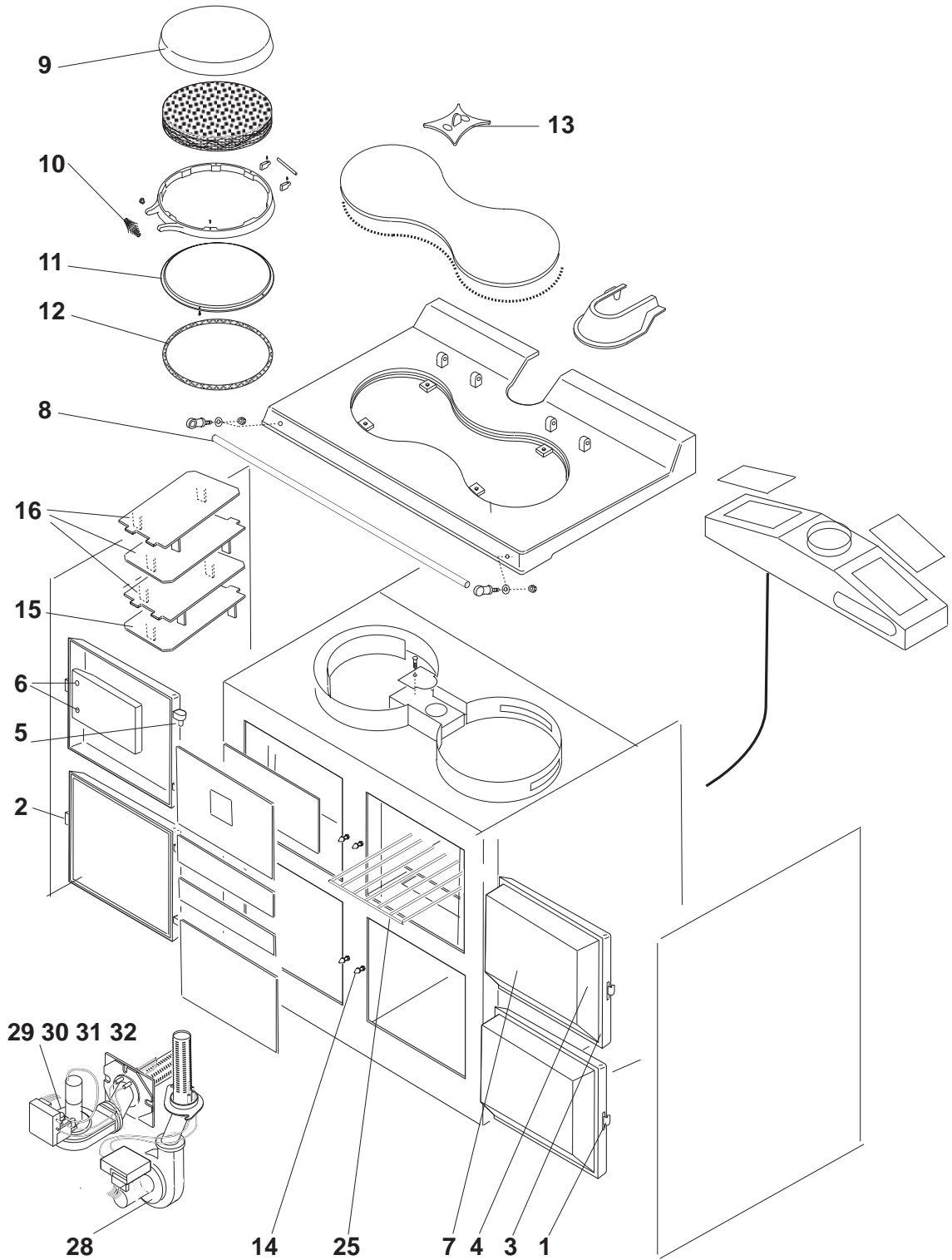
*Not Shown

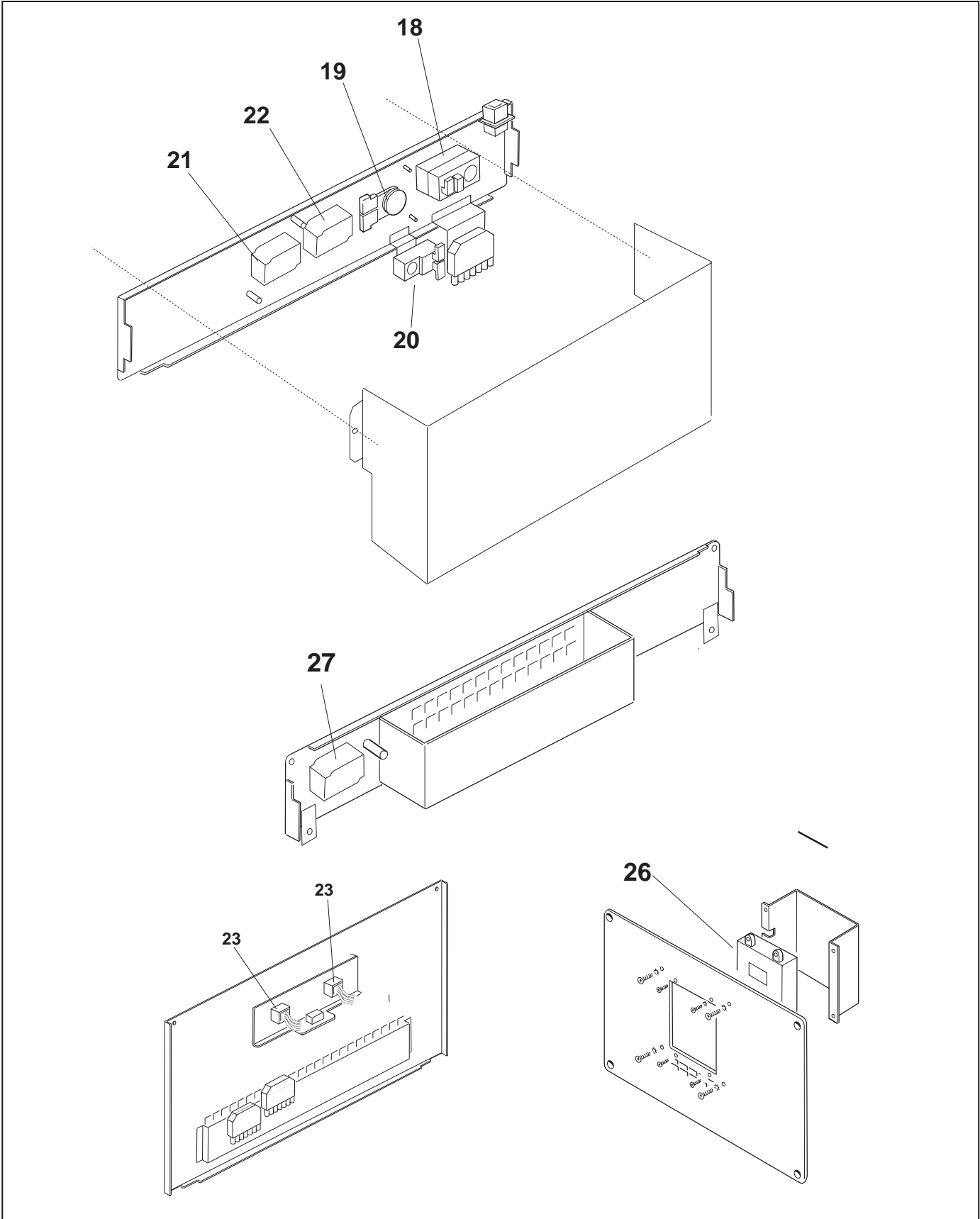
SPARE PARTS LIST

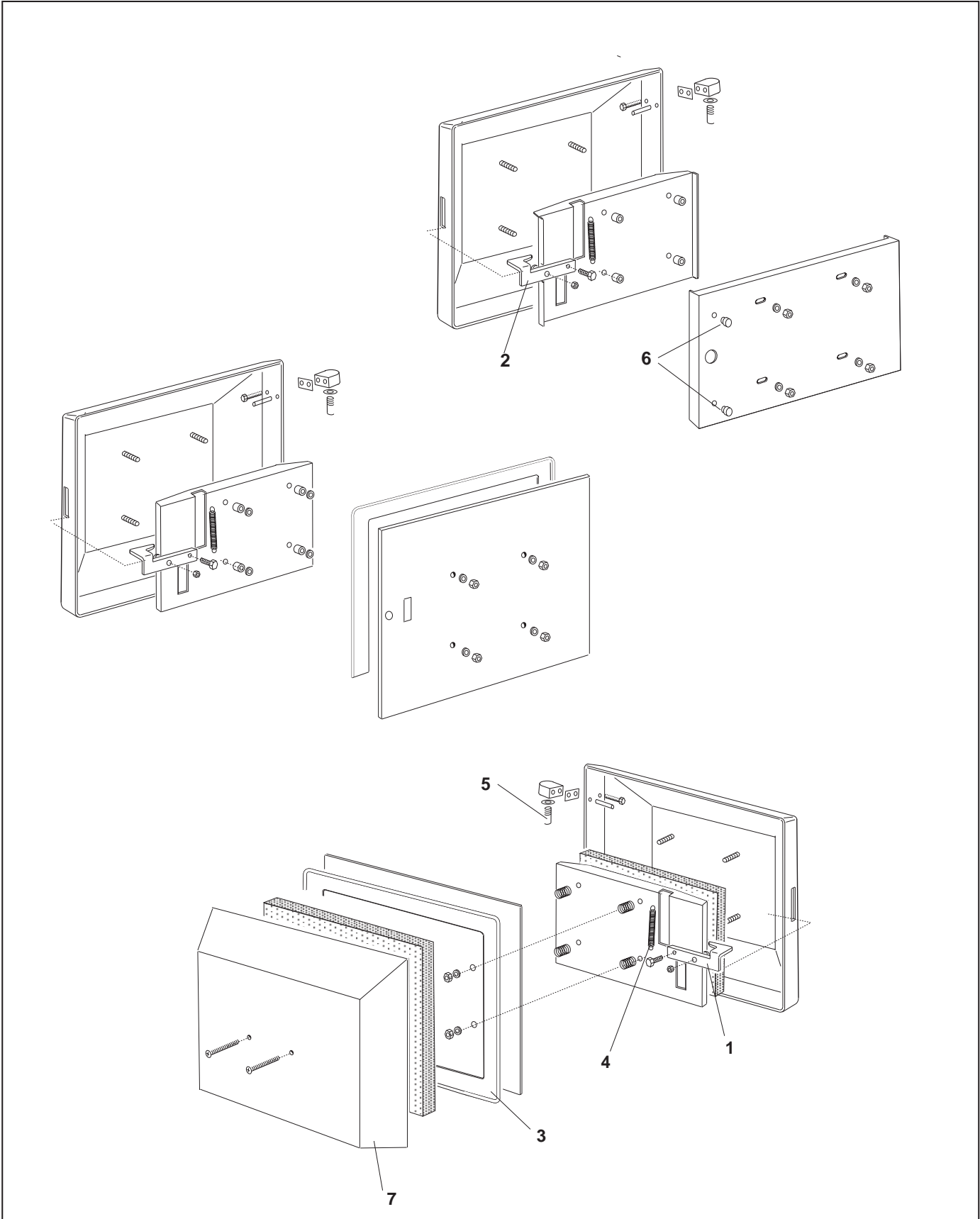
Item	Description	Part No.
1	Door Catch Chrome R/H	602884
2	Door Catch Chrome L/H	602883
3	Door Seal	602911
4	Spring	602088
5	Hinge pin	33097
6	Buffer	99593
7	Enamelled Door Liner	602912
8	Towel Rail chrome	600841
9	Chrome Lid	602457
10	Spring Handle	601478
11	Inner Lid	602459
12	Lid seal	601482
13	Hot plate Cover Casting	602864
14	Door Catch pin	601581
15	Bottom Baffle	602825
16	Top Baffle	602831
17		
18	Boiler Thermostat	602685
19	Boiler Limit Thermostat	602686
20	Pump Over run Thermostat	602687
21	Cooker Thermostat	602906
22	Cooker Limit Thermostat	602905
23	Burner Reset Switch	603350
Not Shown	Solid Oven Shelf	600566
Not Shown	Roasting Dish	600808
25	Wire Rack	602862
26	Programmer	602209
27	Blocked Flue (TTB) Device	603351
28	Cooker Burner	603340
29	Boiler Burner 60k	603341
30	Boiler Burner 80k	603342
31	Boiler Burner 100k	603343
32	Boiler Burner 120k	603344

SPARE PARTS LIST

EXPLODED VIEW







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