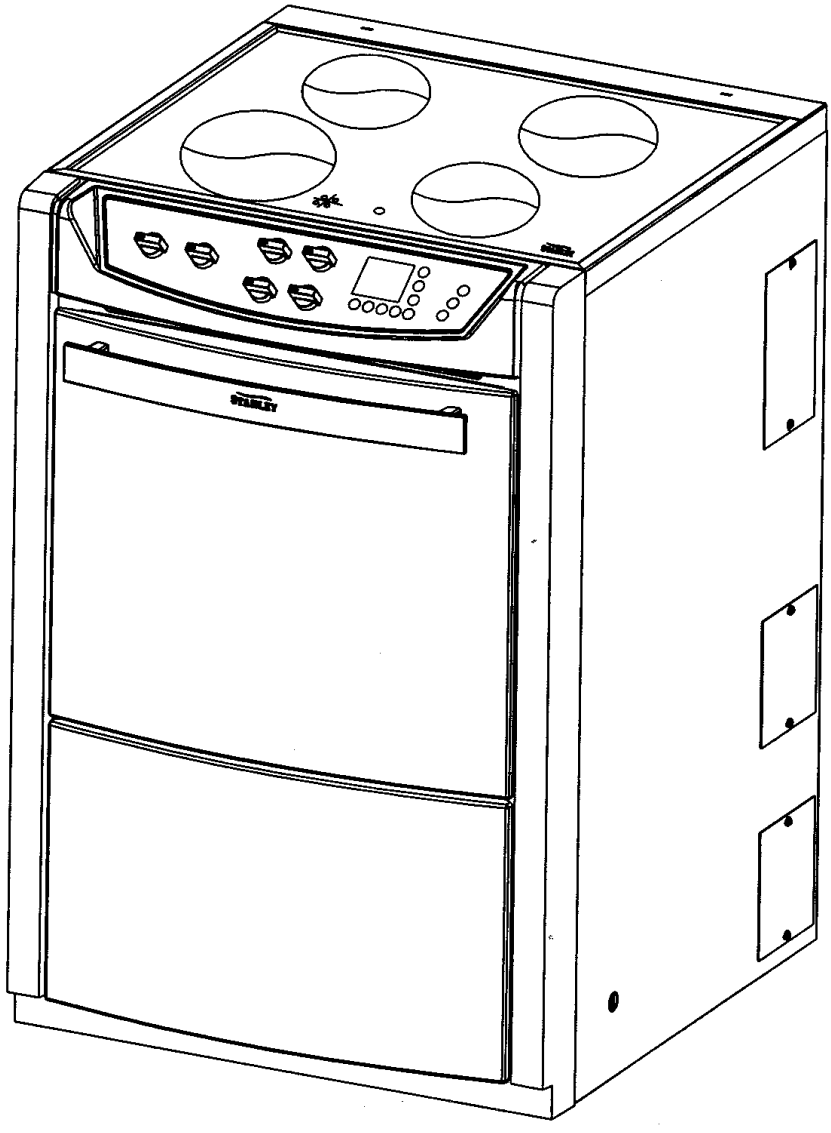
STANLEY

TURNING YOUR HOUSE INTO A HOME

COMPACT ELECTRIC HOB MODEL



INSTALLATION & OPERATION INSTRUCTIONS

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INTRODUCTION

Thank you for purchasing this fine cast iron Central Heating Cooker from Waterford Stanley. This cooker has been developed into a highly controllable efficient system using up to-date technology which will provide you with many years of reliable and pleasurable service. In return we ask that you have the cooker correctly installed by a competent trained person as described in this manual; we also ask you to keep the cooker clean and in good working order and please do arrange to have the cooker serviced properly every year.

OPERATING PRINCIPLE

The cooker is controlled automatically using a combined programmer and time clock system; this is also fitted with a manual override for occasional use.

This control system is already built into the cooker and must be used as the main controller for the system.

The cooker is economical to use as it only energises when the cooking and/or heating system calls for heat; thus wastage is minimised and more accurate temperature control is achieved.

Please Note:

* The central heating and hot water systems involved must conform fully to good plumbing practice and established Standards/Regulations.

* As manufacturers and suppliers of cooking and heating appliances, we take every possible care to ensure, as far as reasonably practicable, that these appliances are so designed and constructed as to meet the general safety requirements when properly installed and used.

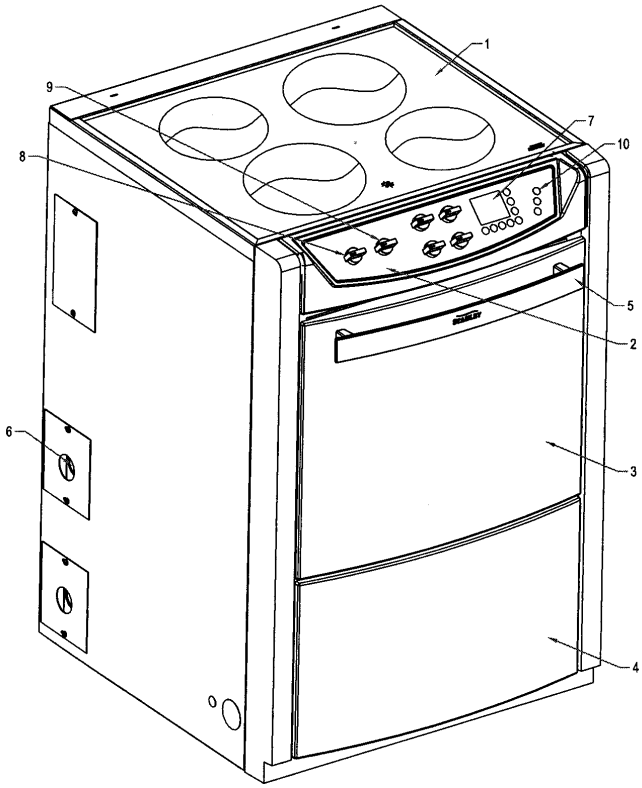
* It is important to note that any alteration to this product that is not approved in writing by Waterford Stanley will render the guarantee void.

* Cookers can become very hot and retain their heat for a long period of time after use. Children, aged and infirm persons should be supervised at all times and should not be allowed to touch hot surfaces or be in the vicinity of the cooker when in use until it has cooled down.

* **Please read the following manual carefully before installing or operating this excellent cooker.**

SCHEMATIC

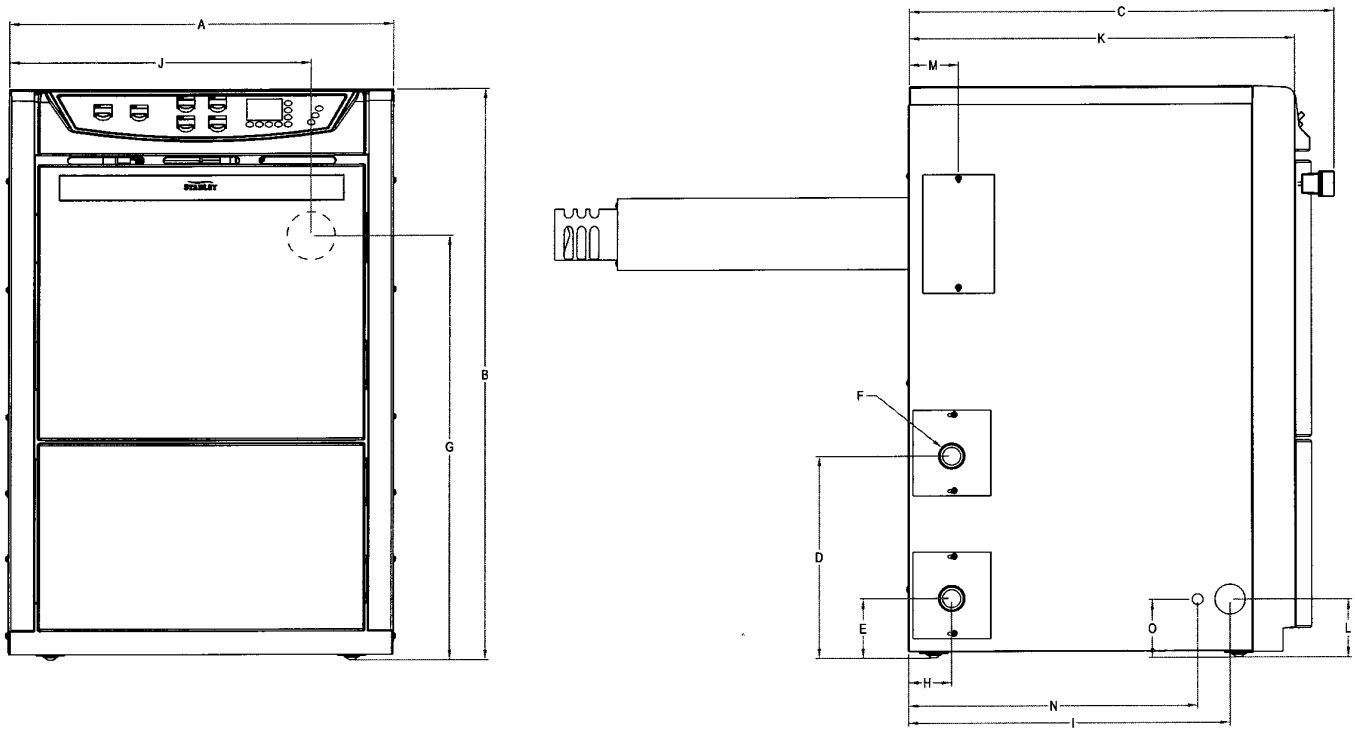
Fig.1



1. Hob
2. Control Panel
3. Main Oven Door
4. Boiler Door
5. Towel Rail
6. Boiler Tappings
7. Timer Unit
8. Oven Control
9. Grill Control
10. Space Heat Function Control

SPECIFICATION

Fig.2



Dimensions	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Metric (mm)	600	895	665	316	93	N/A	667	66	500	470	600	90	77	450	90
Imperial (inches)	23 5/8	35 1/4	26 1/8	12 1/2	3 3/4	1" BSP Male	26 1/4	2 5/8	19 5/8	18 1/2	23 5/8	3 1/2	3	17 3/4	3 1/2

Note: Dimensions stated above may be subject to a slight +/- variation.

TECHNICAL DATA

Cooker Specification

MAINS SUPPLY: 230 - 240 V, 50Hz A.C.
MAX LOAD: 8.5 kW
COOKER WEIGHT: 190 kgs (Nett)

Heating Specification

FUEL:	**G20**	**G31**	**28 Sec Kerosene**
BOILER NOMINAL HEAT INPUT:	18.9 kW (65,000 Btu's/hr)		16.5 kW (56,000)
BOILER HEAT OUTPUT:	15.5 kW (53,000 Btu's/hr)		
MAX BOILER WORKING PRESSURE:	1.9 Bar (27.3 PSI)		
TEST PRESSURE OF BOILER:	2.7 Bar (40 PSI)		
OPERATING TEMP LIMIT IN BOILER:	96˚C (205˚F)		
BOILER CAPACITY:	17.2 Litres	17.2 Litres	17.2 Litres
GAS CATEGORY:	I2H, 20 mbar	13P	N/A
COUNTRIES OF DESIGNATION:	GB, IE	GB, IE	N/A
BURNER GAS RATE:	29 litres/min	11.5 litres/min	N/A
NOZZLE:	N/A	N/A	0.45 60˚ES
PRESSURE SETTING:	N/A	N/A	120 psi
CO2 RANGE:	9% - 10% Vol	10.5 - 11.5% Vol	10.5 - 11.5% Vol
CO MAX:	50ppm	50ppm	100ppm

Electric Oven & Grill Specification

OVEN CAPACITY: 65 Litres
OVEN INPUT RATING: 2.25 kW
OVEN TEMP. RANGE: 50˚ - 250˚ C
GRILL INPUT RATING: 2.55 kW

FEATURE	METRIC (mm)	IMPERIAL (inches)
Oven	435W x 400H x 700D	$17\frac{1}{8}$W x $15\frac{3}{4}$H x $14\frac{1}{2}$D

Electric Hob Specification

HOB ELEMENT SIZE: 2 x Ø165mm, 1 x Ø180mm, 1 x Ø200mm
HOB INPUT RATING: 2 x 1.2 kW, 1 x 1.5 kW,
1 x 1.8 kW

(All data are taken under laboratory conditions and may vary in use)

The manufacturers reserve the right to make alterations to design, materials or construction for manufacturing or other reasons subsequent to publication.

STANDARDS FOR INSTALLATION

As manufacturers and suppliers of cooking and heating appliances, we take every possible care to ensure, as reasonably practicable, that these appliances are so designed and constructed as to meet the general safety requirements when properly used and installed.

United Kingdom

Section 10 of the Consumer Protection Act 1987.
Gas Safety (Installation and Use) Regulations 1998 (as amended).
Gas Appliance Safety Regulations (as amended).
Health & Safety at Work Act.

Ireland

Safety, Health and Welfare at Work Act 1989.
S.I. 101 of 1992 (as amended).
S.I. 150 of 1995 (as amended).

For models fitted with a Gas Boiler Burner (Natural Gas or Propane) the installation must comply with the following:

The Building Regulations: Part J England & Wales, Part F Section 5 Scotland, Part L Northern Ireland and Part J Ireland.
B.S. 5449: Forced circulation hot water, central heating systems for domestic installations.
B.S. 7671: Requirements for Electrical Regulations.
Safety Document 635: The Electricity at Work Regulations.
B.S. 7593: Treatment of Water in Domestic Hot Water Systems.
B.S. 7074: Part 1&2: Hot Water Supply.
B.S. 4814: Sealed System.
B.S. 5440: Part 1 & 2: Installations & Maintenance of Flues and Ventilation.
B.S. 6762: Services for Leisure Accommodation, Vehicles and Transportable Accommodation Units.
B.S. 6891: Pipe Sizing.
I.S. 813: Domestic Gas Installation.
PAS33: 1999: Product Assessment Specification for Design, Installation & Commissioning of Gas Fired Central Heating Systems in Domestic Premises.

U.K.: ALL GAS APPLIANCES MUST BY LAW BE INSTALLED BY A COMPETENT PERSON. ONLY USE A C.O.R.G.I. REGISTERED ENGINEER.

IRELAND: ALL GAS APPLIANCES MUST BE INSTALLED BY A COMPETENT PERSON AS OUTLINED IN I.S. 813.

For models fitted with an Oil Boiler Burner the installation must comply with the following:

The Building Regulations Part J England & Wales, Part F Section 4 Scotland, Part L Northern Ireland and Part J Ireland.
Health & Safety at Work Act.
B.S. 5449: Forced circulation hot water central heating systems for domestic installations.
B.S. 7593: Treatment of water in Domestic Hot Water Systems.
B.S. 7074: Part 1 & 2 Hot Water Supply.
B.S. 4814: Sealed System.
B.S. 5410: Oil Installations Part 1 under 45kW.
The Control of Pollution (Oil) Regulations

This appliance has been tested and approved in accordance with Gas Appliance Directive (90/896/EEC), the Low Voltage Directive (72/23/EEC) and the Electromagnetic Compatibility Directive (89/336/EEC) as amended.

NOTE: UNDER NO CIRCUMSTANCES SHOULD ANY HEAVY OBJECTS BE PLACED ON OR BE SUPPORTED BY THE ELECTRIC HOB ON THE TOP OF THE APPLIANCE

LOCATION

When choosing a location for this appliance you must have:

(a) Sufficient room for the installation (see Cooker Clearances), a satisfactory flue terminal position (see Chimney Section), and an adequate air supply for correct combustion and operation (see Ventilation and Combustion Air Requirements).

(b) Adequate space for maintenance and air circulation.

(c) Ensure that the local distribution conditions (nature of gas & gas pressure) and adjustment conditions are compatible - (Gas burner model only)

ELECTRICAL SUPPLY

IMPORTANT: All Electrical Installations/Work should ONLY be carried out by Suitable Competent Persons who will comply with the relevant regulations in force and any local requirements.

All wiring external to the appliance must conform to the current BS 7671, BS 7462, Safety Document 635: Part 1 Section 5.4.6 & The Electricity at Work Regulations.

This appliance requires a 230V-240V, 50Hz supply and should be connected to a fixed wiring via the use of a double pole 32 Amp cooker box which is fitted adjacent to the cooker. The power supply cable should conform to BS 6004. We recommend P.V.C. insulated twin & earth cable with a conductor size of 6mm^2. A competent person, prior to the installation of the appliance, should check fuse, circuit breaker and cable ratings. In particular, comparisons should be made between existing fuses or circuit breakers and the proposed load of the new cooker.

For access to the mains terminal block, for supply cable connection, remove the hob fixing screw, (See Fig.3) located on the oven top. Tilt the front of the hob up and slide it forward until it clears the back hooks. Disconnect the hob snap-on connector and place the hob to one side, (ensuring that it is not damaged). Pass the cable through the mains cable clamp on the back panel and then connect to the appropriate terminals (see Fig 4). Tighten the cable in position using the mains cable clamp. Refit the hob, making sure to reconnect the hob snap-on connector and to refit the hob fixing screw.

Fig.3

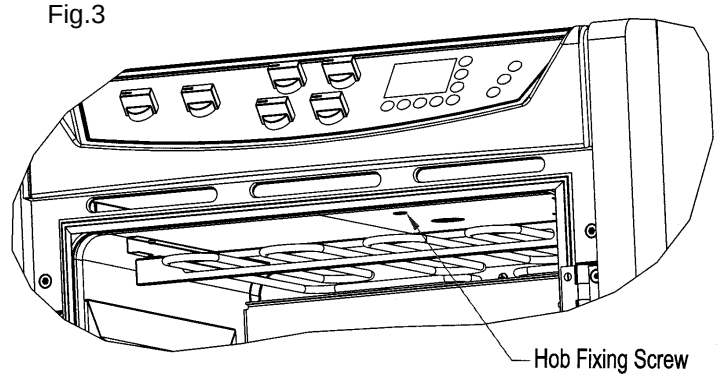
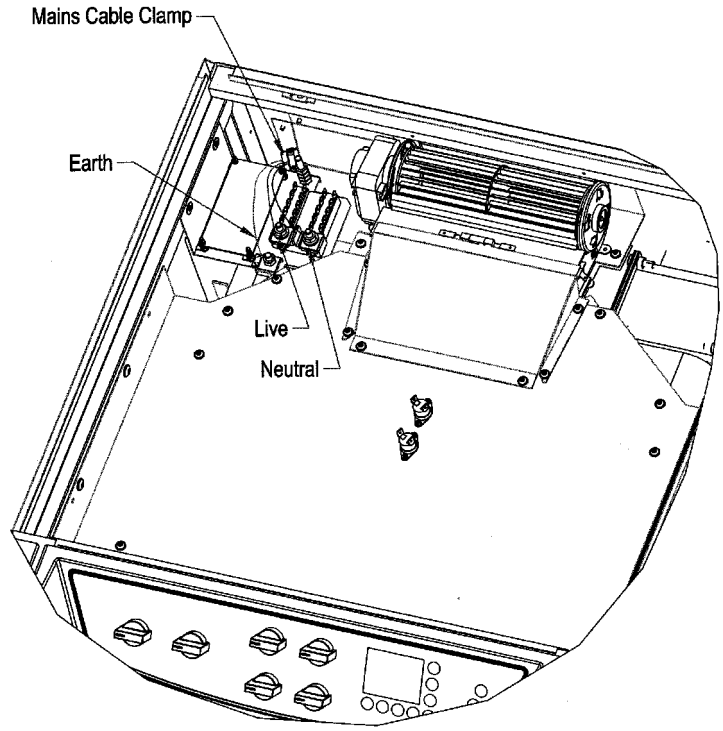


Fig.4



Before powering up the cooker, the bus wire must be connected to the control PCB. The control PCB is accessed by removing the boiler control panel.

ALWAYS ENSURE THAT THE SUPPLY SWITCH IS ACCESSIBLE, CLOSE TO THE APPLIANCE AND THAT IT IS SWITCHED OFF PRIOR TO ANY WORK ON THE APPLIANCE.

THIS APPLIANCE MUST BE EARTHED

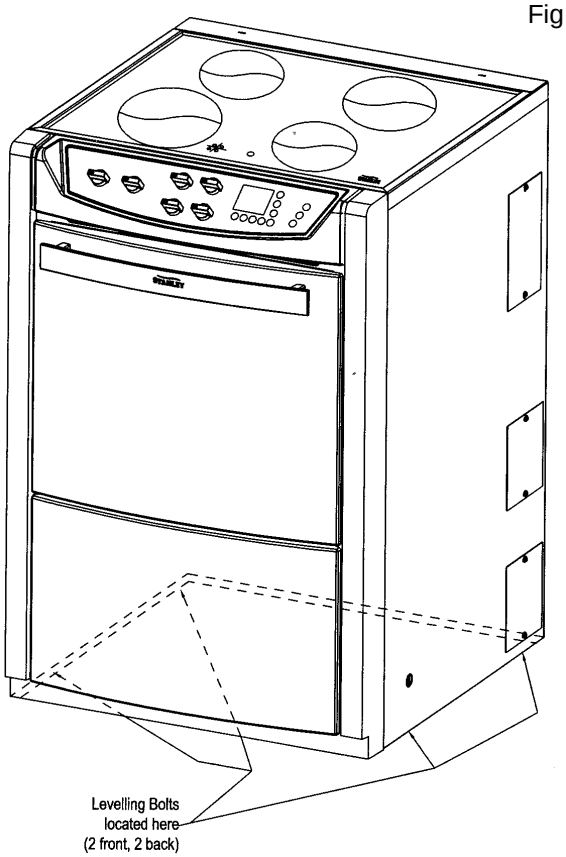
COOKER CLEARANCES

The cooker is designed to fit into a 600mm wide x 610mm (24" x 23 $^3/_5$") deep opening on a kitchen worktop and will sit flush with the conventional worktop level 900mm (35 $^4/_9$") high.

Note: If the cooker is fitted with the flue exiting from either the left or right hand side panels, a gap of 60mm must be maintained between the cooker side panel and the side of the kitchen unit to allow the flue clearance to pass behind the unit.

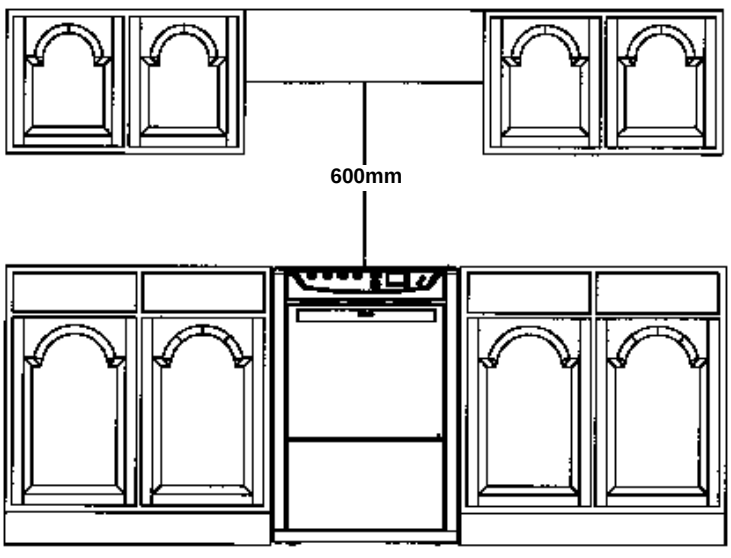
The cooker is fitted with two roller balls which allow for ease of movement of the appliance into its installed location. When the appliance is positioned in its installed location, it can be levelled (or raised to the height of the worktop, if necessary) by adjusting the height of the four levelling bolts attached to the chassis (See Fig.5).

Fig.5



A minimum clearance of 600mm must be maintained above the hob when the cooker is fitted in position. (see Fig.6)

Fig.6



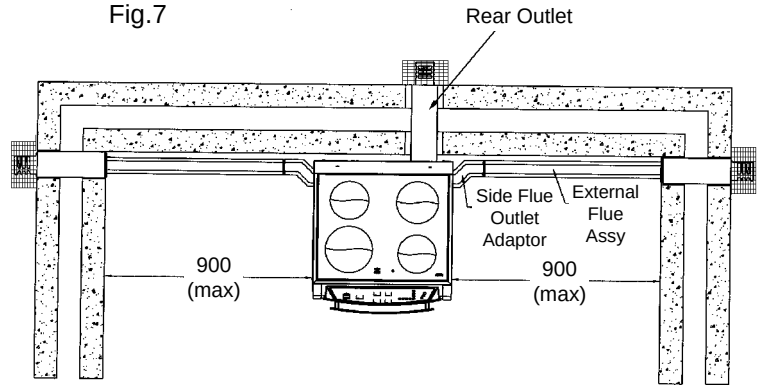
CHIMNEY

Note: This appliance can only be installed in conjunction with the flue supplied.

There are three different flue configurations for this appliance which are as follows (See Fig.7):

1. Back Outlet: Exit through the back panel with a circular flue section through an external wall.
2. RHS Outlet: Exit through the right side panel with a rectangular flue section along the back of the kitchen cabinets to an external wall.
3. LHS Outlet: Exit through the left side panel with a rectangular flue section along the back of the kitchen cabinets to an external wall.

Fig.7



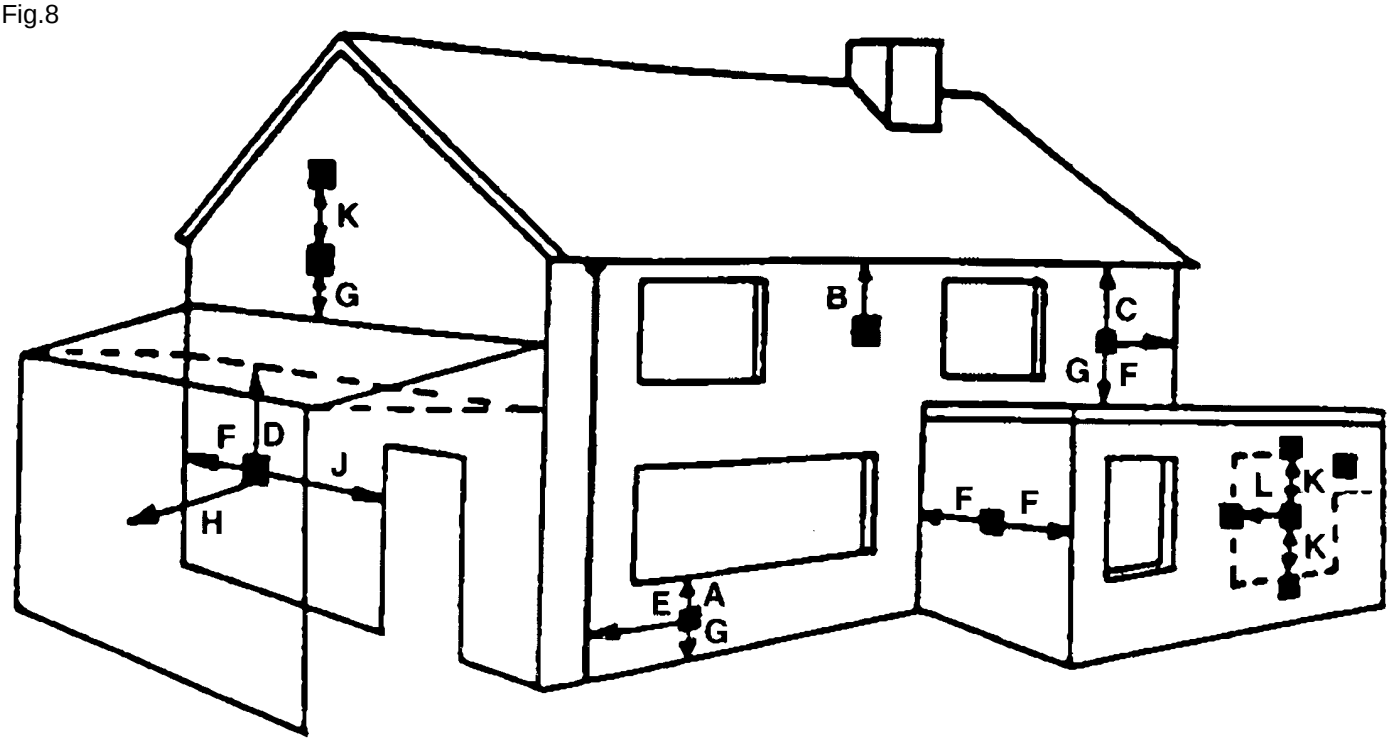
The flue kit supplied with this appliance is suitable for the back outlet configuration only.

Optional flue kits are available to connect the flue through either the left hand side or right hand side of the appliance. These flue kits are suitable only for positioning the appliance 900mm from the external wall (the width of a corner kitchen unit) as shown in Fig.7. The appliance can be positioned less than 900mm from the external wall but it will be necessary to order a suitable length of external flue section. Consult with your dealer for more information.

The appliance must be located so that the flue terminal is sited in accordance with the following:

FOR MODELS FITTED WITH GAS FIRED BOILER BURNERS (NATURAL GAS OR PROPANE)

Fig.8

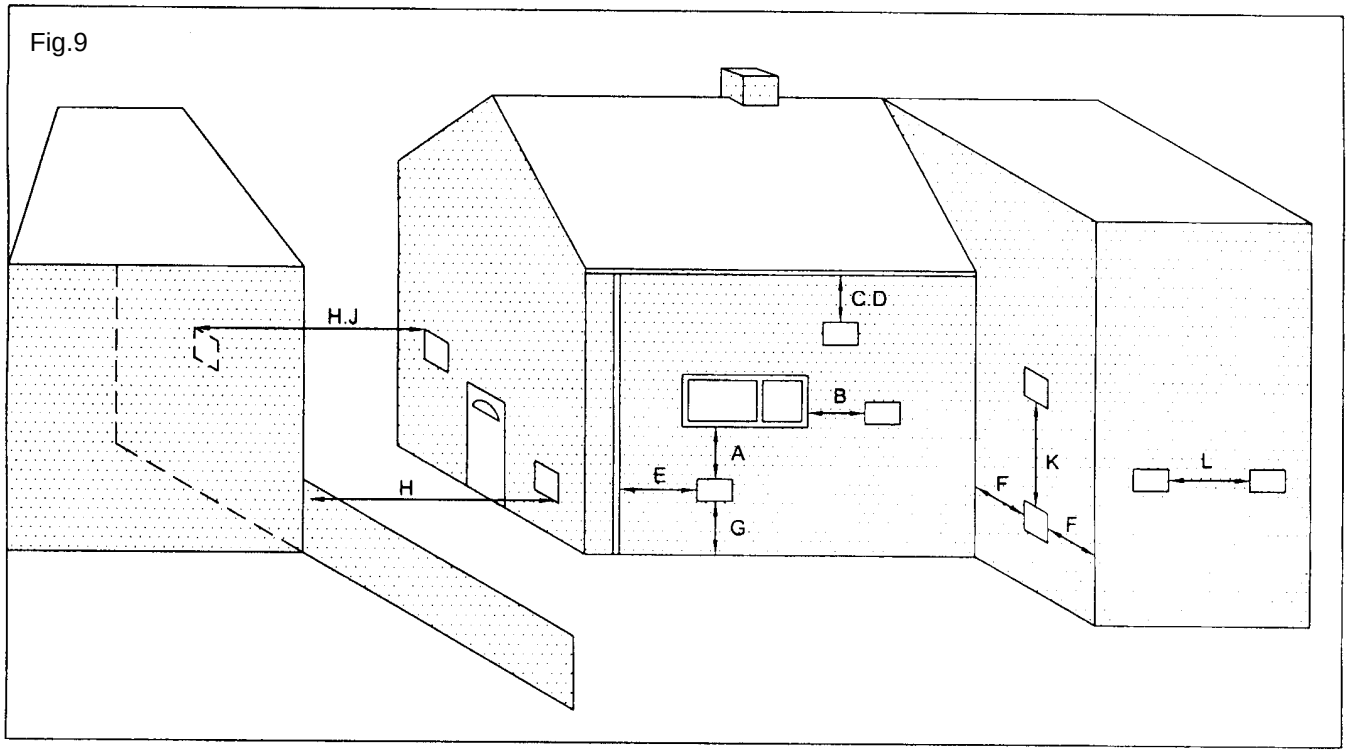


Car port (open sides)

GAS FIRED COOKERS - MINIMUM DISTANCES TO TERMINALS ARE AS FOLLOWS:		
		MM
A.	Directly below an opening, air brick, window etc.	300
B.	Below a gutter, eaves or balcony with protection.	75
C.	Below a gutter or a balcony without protection.	200
D.	Below balconies or car port roof.	200
E.	From vertical drain and sanitary pipe work.	75
F.	From an internal or external corner.	300
G.	Above ground or balcony level.	300
H.	From a surface or boundary facing the terminal.	600
I.	From a terminal facing a terminal.	1200
J.	Horizontally to an opening, air brick, window etc.	1200
K.	Vertically from a terminal on the same wall.	1500
L.	Horizontally from a terminal on the same wall.	300

Refer to Part J of the Building Regulations, England & Wales, Irish Building Regulations. B.S. 5440 Part 2 and Part F of the Building Standards (Scotland) Regulations.

Fig.9



OIL FIRED COOKERS		MM
A	Directly below an opening, air brick, window etc..	600
B	Horizontally to an opening, air brick, window etc..	600
C	Below a gutter, eaves or balcony with protection	75
D	Below a gutter or a balcony without protection	600
E	From vertical sanitary pipework	300
F	From an internal or external corner	300
G	Above ground or balcony level	300
H	From a surface or boundary facing the terminal	600
J	From a terminal facing the terminal	1200
K	Vertically from a terminal on the same wall	1500
L	Horizontally from a terminal on the same wall	750

Refer to part of the Building Regulations England and Wales, Irish Building Regulations. B.S. 5410 Part 1, and Part F of the Building Standards (Scotland) Regulations.

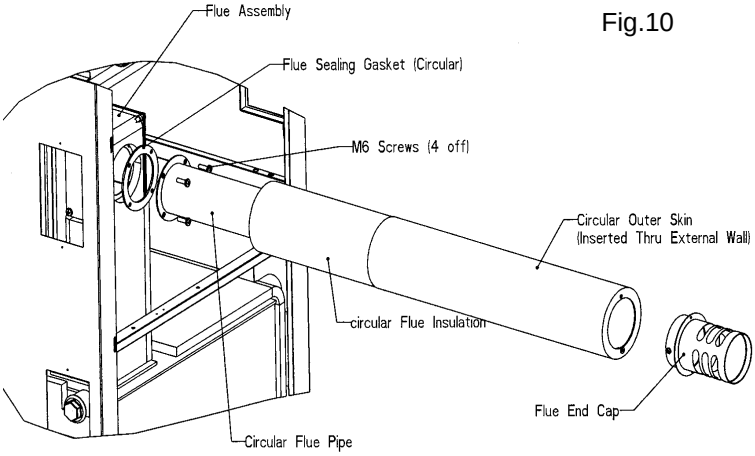
For back outlet flue connection, the following procedure should be followed:

(a) Make a Ø127mm (5") opening through the wall where the flue is to exit (Refer to Specification Section for the flue centre).

(b) Remove the hob to access the flue assembly (as described in the Electrical Supply section).

(c) Pass the rear outlet flue pipe through the back panel and attach it to the back of the flue assembly using the four M6 screws, ensuring that the circular flue sealing gasket is positioned between the flue pipe and the flue assembly (see Fig.10).

Fig.10

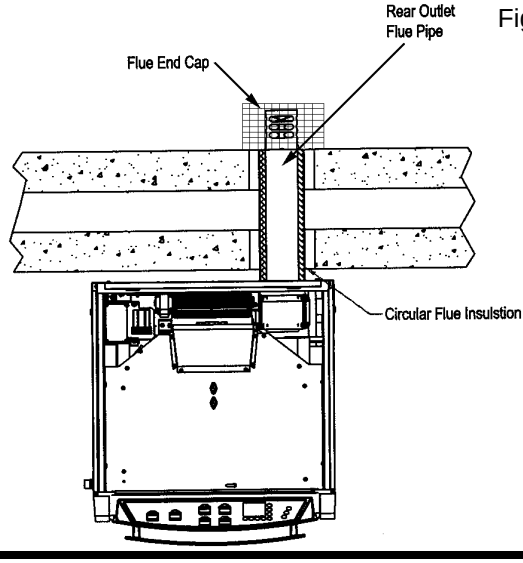


(d) Wrap the rear flue outlet insulation over the flue pipe and push the circular outer skin over the insulation until it is flush against the back panel.

(e) Position the appliance against the wall following the guidelines in the Cooker Clearances section. Take care not to damage the flue pipe when passing it through the wall.

(f) Cut the flue pipe and insulation to a length, so that the pipe is level with the outside wall (See Fig.11) and seal the insulation with the outer skin end cap.

Fig.11



(g) Connect the flue terminal to the external end of the flue pipe using the two bolts provided.

(h) Seal the exterior face of the wall around the assembled flue pipe and fit the terminal guard around the terminal.

(i) Refit the hob.

For the right hand side flue outlet configuration the following procedure should be followed:

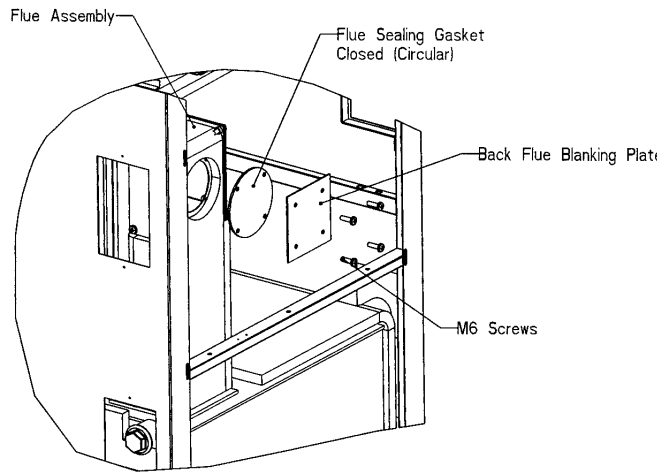
(a) Make a Ø127mm opening through the wall to the right of the final installation position of the appliance (refer to Specification section for the flue centre).

(b) Remove the hob to access the flue assembly.

(c) Attach the back flue blanking plate to the back of the flue assembly using four M6 screws, ensuring that the closed circular flue sealing gasket is used to seal between both surfaces (see Fig.12).

(d) Attach the back panel flue blanking plate to the back panel using the self tappers.

Fig.12



(e) Remove the side blanking plate from the right hand side panel.

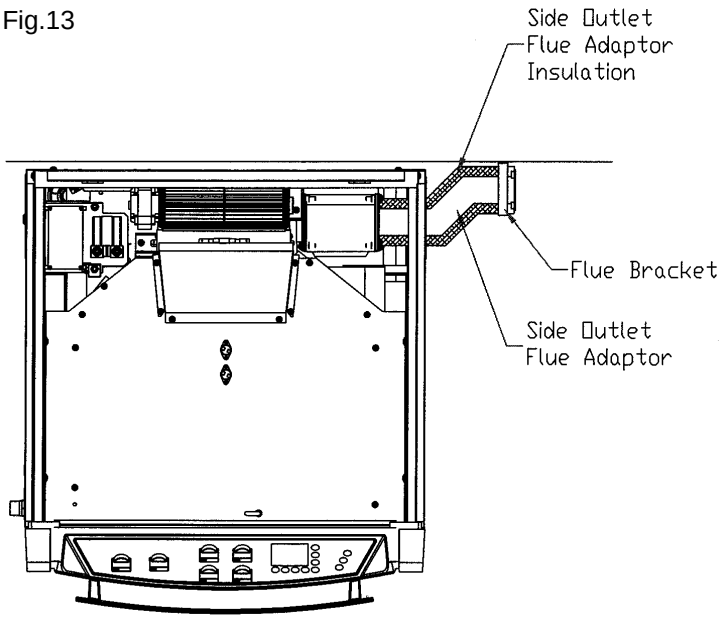
(f) Remove the right hand flue blanking plate and position the appliance in its installed location.

(g) Wrap the flue outlet adaptor insulation around the side flue outlet adaptor. Attach the side flue outlet adapter to the right hand side of the flue assembly using four M6 screws and ensure that the two flue sections are sealed with the flue connection open gasket.

(h) Support the right hand end of the adaptor by mounting one of the flue brackets to the wall using two screws and rawl plugs supplied (See Fig.13).

(i) Wrap the external flue insulation around the flue.

Fig.13



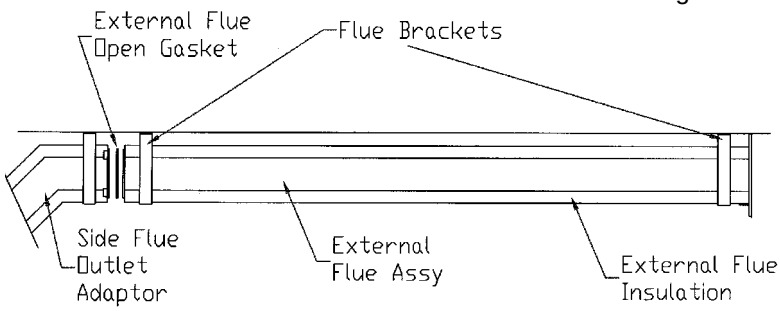
(j) Wrap the rear flue outlet insulation over the rear outlet pipe and push the circular outer skin over the insulation.

(k) Fix the rear flue outlet pipe to the external flue using four M6 screws and ensure that the external flue open gasket is used to seal both flue sections.

(i) Pass the rear flue outlet section through the wall and place the external flue in position against the side flue outlet adaptor.

(m) Fix the external flue to the side flue outlet adaptor using four M6 screws and ensure that the two flue sections are sealed with the external flue open gasket (See Fig.14)

Fig.14



(n) Position two brackets against the wall so that they support the external flue at both ends and fix the brackets to the wall using the screws and rawl plugs provided.

(o) Cut the rear flue outlet pipe and the rear flue pipe insulation so that it is level with the exterior face of the wall.

(p) Seal the insulation on the exterior face fo the wall with the outer skin end cap and attach the flue terminal to the external end of the flue pipe using the two bolts supplied.

(q) Seal the exterior face of the wall around the asembled flue pipe and fit the terminal guard around the terminal.

(r) Refit the hob.

For the left hand side flue outlet flue configuration, the following procedure should be followed:

(a) Make a Ø127mm opening through the wall to the left of the final installation position of the appliance (refer to Specification section for the flue centre).

(b) Remove the hob to access the flue assembly.

(c) Attach the back flue blanking plate to the back of the flue assembly using four M6 screws, ensuring that the closed circular flue sealing gasket is used to seal between both surfaces.

(d) Attach the back panel flue blanking plate to the back panel using three self tappers.

(e) Remove the right hand side panel and left hand side panel by loosening the six self tapping screws, three on each side.

(f) Remove the back panel by loosening the six self tapping screws, three on each side.

(g) Remove the left hand flue blanking plate.

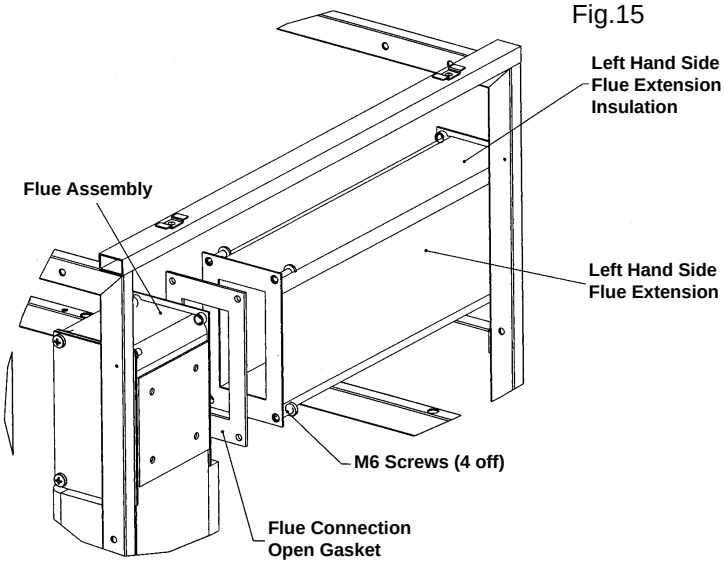
(h) Attach the left hand side flue extension to the flue assembly using four M6 screws and ensure that the two flue sections are sealed with the flue connection open gasket (See Fig.15).

(i) Wrap the left hand side flue extension insulation around the left hand side flue extension and reattach the back panel and right hand side panel to the cooker.

(j) Remove the side blanking plate from the left hand side panel by loosening the two self tapping screws and reattach the left hand side panel to the cooker.

(k) Position the cooker in its installed final location and follow steps (g)-(r) for the right hand side flue outlet configuration.

Fig.15



VENTILATION & COMBUSTION AIR REQUIREMENTS

1. It is imperative that there is sufficient air supply to the burner in order to support correct combustion.
2. The air supply to this appliance must comply with BS 5440: Part 2 (Gas Appliances) or BS 5410 : Part 1 (Oil Appliances).
3. The minimum effective air requirement for this appliance is 65 cm^2. When calculating combustion air requirements for this appliance use the following equation: 5cm^2 per kW of maximum rated output above 7 kW.
   Refer to BS 5440 : Part 2 (Gas Appliances) or OFTEC Technical Book No. 3 & BS 5410: Part 1 (Oil Appliances).
4. If there is another appliance using air, fitted in the same or adjacent room, it will be necessary to refer to BS 5440:Part 2 (Gas Appliances) or BS 5410 : Part 1 (Oil Appliances) to calculate the additional air supply.
5. All materials used in the manufacture of air vents should be such that the vent is dimensionally stable and corrosion resistant.
6. The effective free area of any vent should be ascertained before installation. The effect of any gauze or screen should be allowed for when determining the effective free area of any vent.
7. Air vents direct to the outside of the building should be located so that any air current produced will not pass through normally occupied areas of the room. An air vent outside the building should not be located less than the dimensions specified within the Building Regulations from any part of any flue terminal. These air vents must be satisfactorily fire proofed in accordance with the current Building Regulations.
8. Air vents in internal walls should not communicate with bedrooms, bedsits, toilets, bathrooms or rooms containing a shower.
9. Air vents traversing cavity walls should include a continuous duct across the cavity. The duct should be installed in such a manner as not to impair the weather resistance of the cavity.
10. Joints between air vents and outside walls should be sealed to prevent the ingress of moisture. Existing air vents should be of the correct size and unobstructed for the appliance in use.
11. If there is an air extraction fan fitted in the room or adjacent rooms where this appliance is fitted, additional air vents will be required to alleviate the possibility of spillage of products of combustion from the appliance while the fan is in operation. Refer to BS 5440: Part 2, IS 813 and the Gas Safety (Installation & Use) Regulations for Gas Appliances or BS 5410 : Part 2 for Oil Appliances.
12. An adequate ventilation check should be carried out by closing all external doors and windows, running all extract fans and any other appliances requiring air, and conducting the flue gas analysis again to ensure that the combustion figures have not been affected. If the combustion figures have been affected additional air will need to be provided before the appliance can be operated (See Commissioning Section).
13. The cooker can also be fitted with an outside air kit that can be used to supply the minimum effective air requirement to the boiler burner. This kit is available as an optional extra. Consult with your dealer for more information.

CENTRAL HEATING SYSTEM

NOTE: THIS APPLIANCE MUST BE CONNECTED TO A FULLY PUMPED SYSTEM.

Care should be taken to ensure that the heating installation is correctly installed and that it complies with all relevant codes of practice. If this appliance is being connected to an existing system, it is strongly recommended to check the following:

(a) That the system is sound.
(b) That the pipe work is adequately insulated.
(c) Check that the controls i.e. pump, motorised valves, time control, radiator valves etc. are operating satisfactorily and are compatible with the requirements of the appliance.
(d) Are any modifications necessary to make the heating system more efficient?
(e) Cleanse the system and add suitable inhibitor.

NOTE: We strongly advise the use of pipe lagging and also the use of a frost thermostat if the installation is likely to be exposed to a situation where the temperatures will drop to a level consistent with frost.

The use of motorised valves, room thermostats, radiator thermostatic valves, domestic hot water controllers etc, can greatly enhance a heating system and we recommend their use.

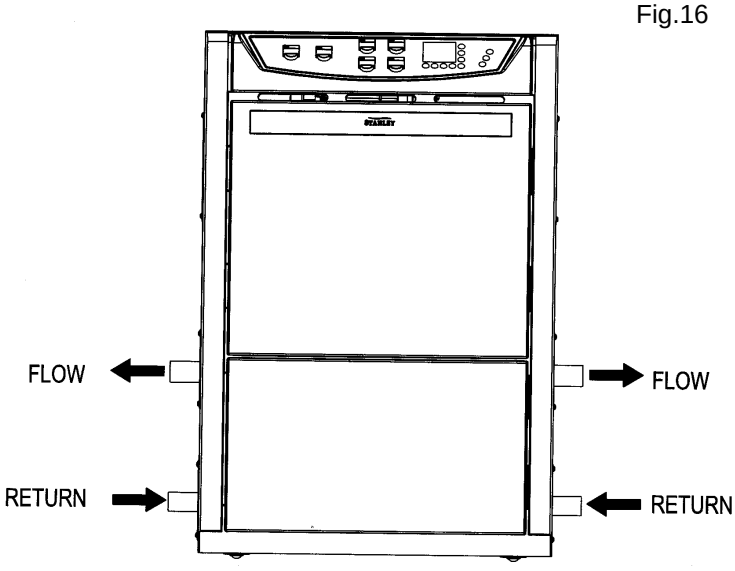
Only competent personnel should be employed to carry out your heating installation.
It is important that no external control devices, e.g. economisers, are directly fitted to this appliance unless covered by these installation instructions or agreed with the manufacturer in writing. Any direct connection of a control device not approved by the manufacturer could make the guarantee void.

The flow and return can be taken from either side of the appliance. (see Fig 16)

1. To take from the left side, connect directly onto the exposed boiler connection. (The boiler connection blanking plates can be removed for easier fitting.)
2. To take from the right side:

(a) Remove the two side blanking plates and the boiler connection blanking plates from each side.
(b) Remove the boiler plugs from the right hand side boiler connections and connect the pipes to the boiler. Replace the boiler connection blanking plates to the right hand side panel.
(c) Plug the boiler tappings on the left side of the boiler with 1" BSP plugs and replace the side blanking plates on the left side.
(d) Test for leaks.

Fig.16



PIPE FITTINGS

Materials used for installation work should be resistant, sound and should conform to the current editions of the following or their equivalent.
1.1 Ferrous Materials
BS 4127 Stainless Steel Tubes.
BS 1387 Steel Tubes.
BS 1740 Steel Pipe Fittings.
BS 6956 Jointing Materials.
1.2 Non-Ferrous Materials.
EN 29453 Soft Solder Alloys.
BS 864 Compression Tube Fittings.
BS 2871 & BS EN 1057 Copper and Copper Alloys.

DRAINING

Key-operated drain taps (adhering to BS 2879) should be provided in accessible positions in all low parts of the system. However, it should be noted that there may be short sections of pipework, e.g. when passing under doorways, that may not be possible to drain.

WATER CIRCUIT TEMPERATURE

The return water temperature should be maintained at not less than 50°C (122°F) so as to avoid condensation forming within the boiler.

CARE FOR YOUR CENTRAL HEATING SYSTEM

The use of suitable corrosion inhibitors and anti freeze solution in your heating system is essential to minimise black oxide, sludge and scale build-up, which effects efficiency.
In hard water areas, the use of a suitable limescale preventer/remover is advised. Use only quantities specified by the water treatment product manufacturer. Only add to the heating system after flushing and finally refilling. Refer to BS 7953.

INDIRECT DOMESTIC CYLINDER

The cooker must only be connected to an indirect cylinder of not less than 180 litres using 22mm (3/4”) diameter flow and return piping providing a pump is fitted. It is recommended that the cylinder is lagged together with the pipe-work, with runs in excess of 4 metres (12").

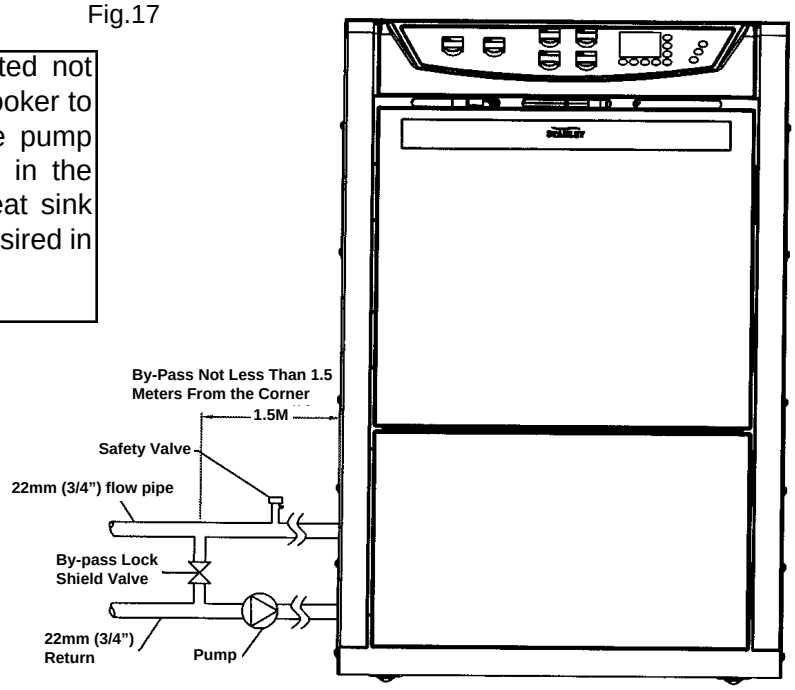
SAFETY VALVE

A non-adjustable 3 bar safety valve must to be fitted to the primary flow pipe adjacent to boiler connection ensuring that any discharge will not create a hazard to occupants or cause damage to electrical components or property.

BY-PASS LOOP

A 15mm system by-pass must be fitted not less than 1.5 metres (4.9ft) from the cooker to allow correct water circulation for the pump and to prevent condensation forming in the boiler. This should be balanced. A heat sink radiator/towel rail may be installed if desired in addition to the By-Pass Loop.

Fig.17



NOTE: We strongly advise the use of pipe lagging and also the use of a frost thermostat if the installation is likely to be exposed to situations where the temperature will dip to a level consistent with frost.

The following diagrams illustrate the different types of central heating systems to which this appliance can be connected, but are not to be used as working drawings.

WATER CIRCUIT DIAGRAMS

Fig.18

OPEN SYSTEM (WITH PUMP ON RETURN)

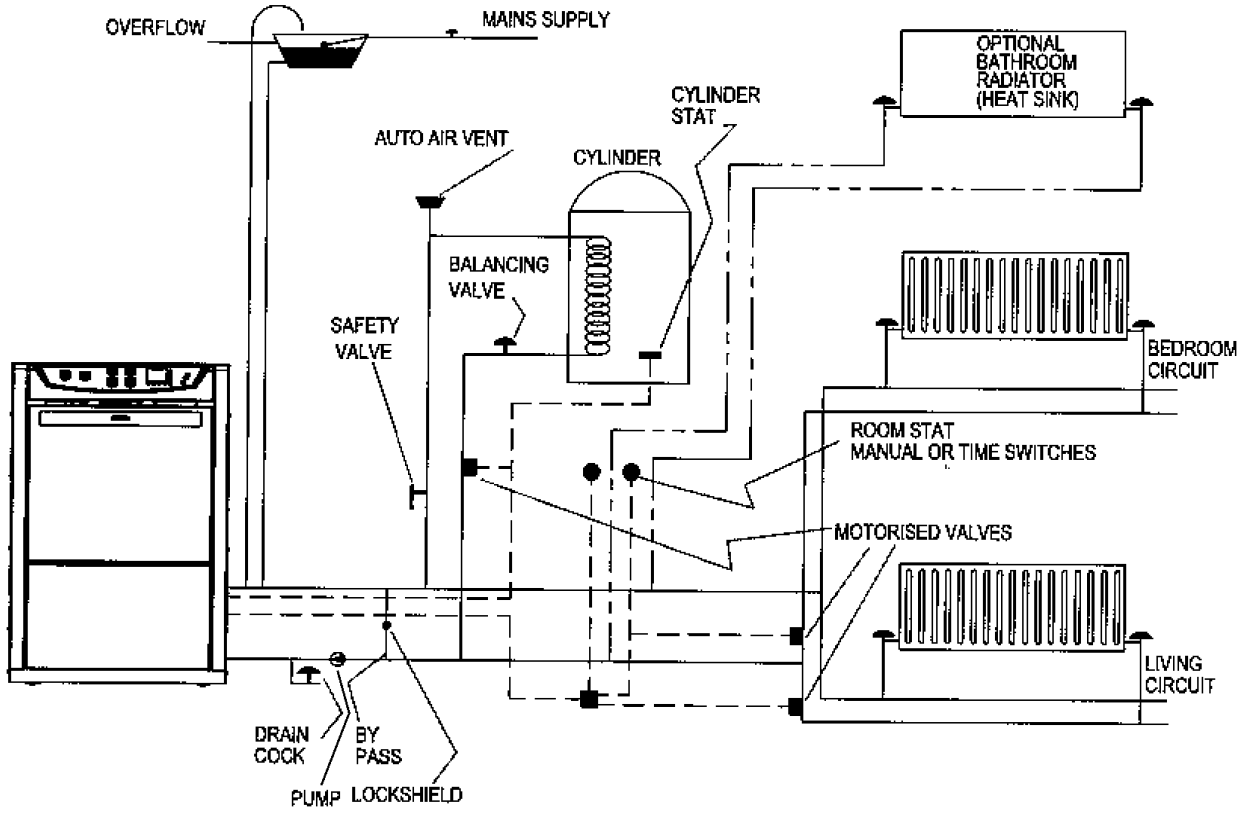


Fig.19 **SEALED SYSTEM (WITH PUMP ON FLOW)**

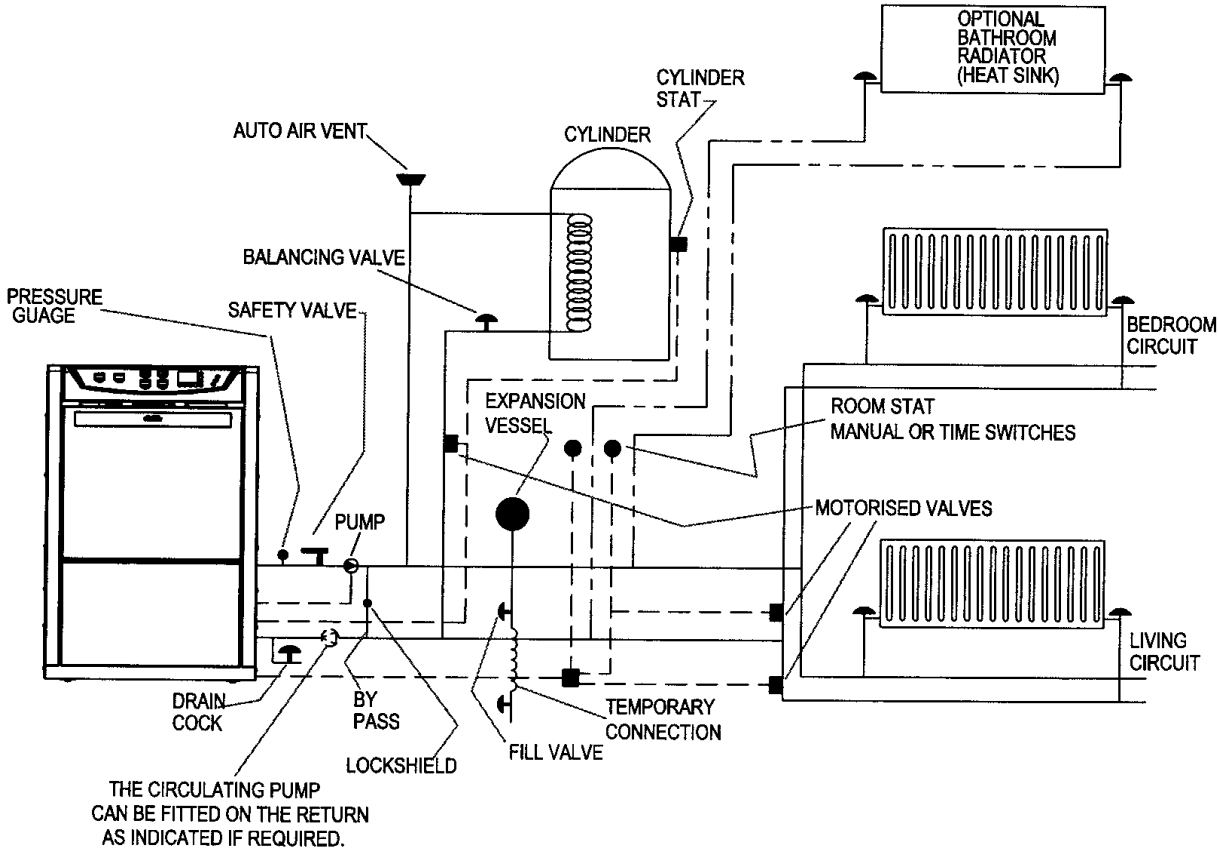


Fig.20 **OPEN SYSTEM (WITH PUMP ON FLOW)**

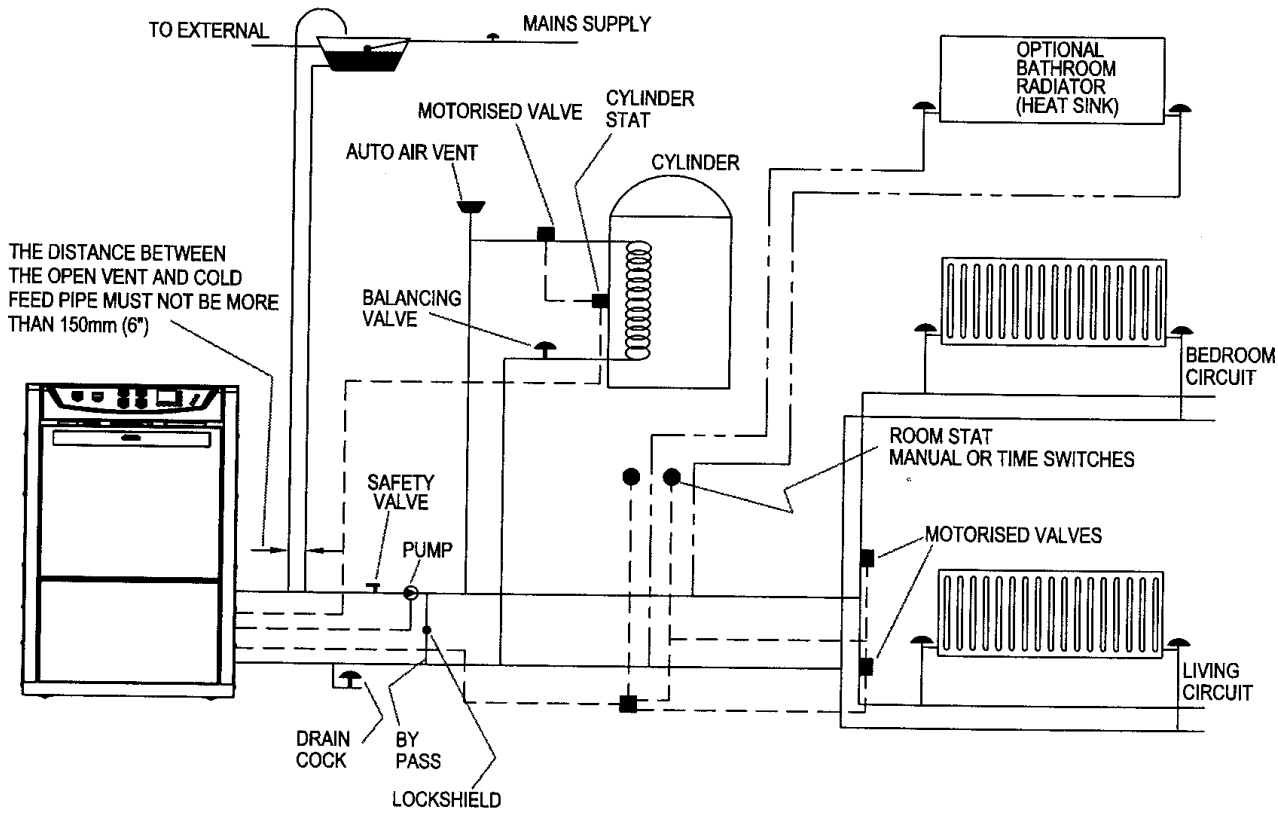
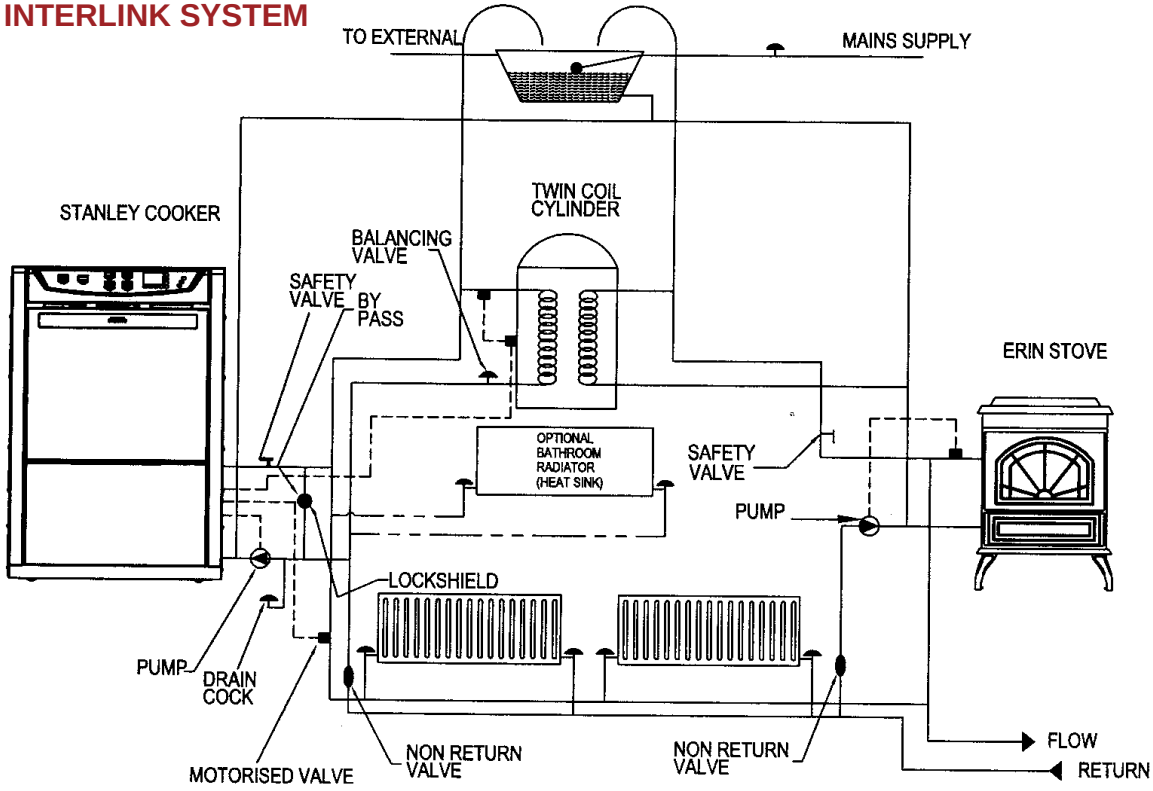


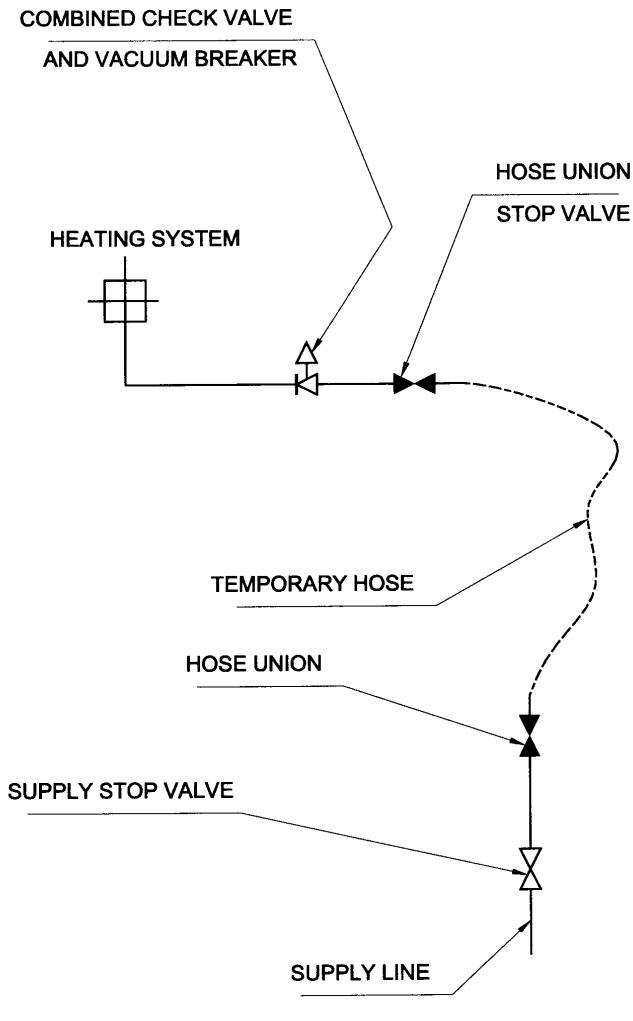
Fig.21

INTERLINK SYSTEM



PROVISION FOR FILLING SEALED SYSTEM

Fig.22



MAINS FILLING METHOD

Fig.23

S PLAN SYSTEM

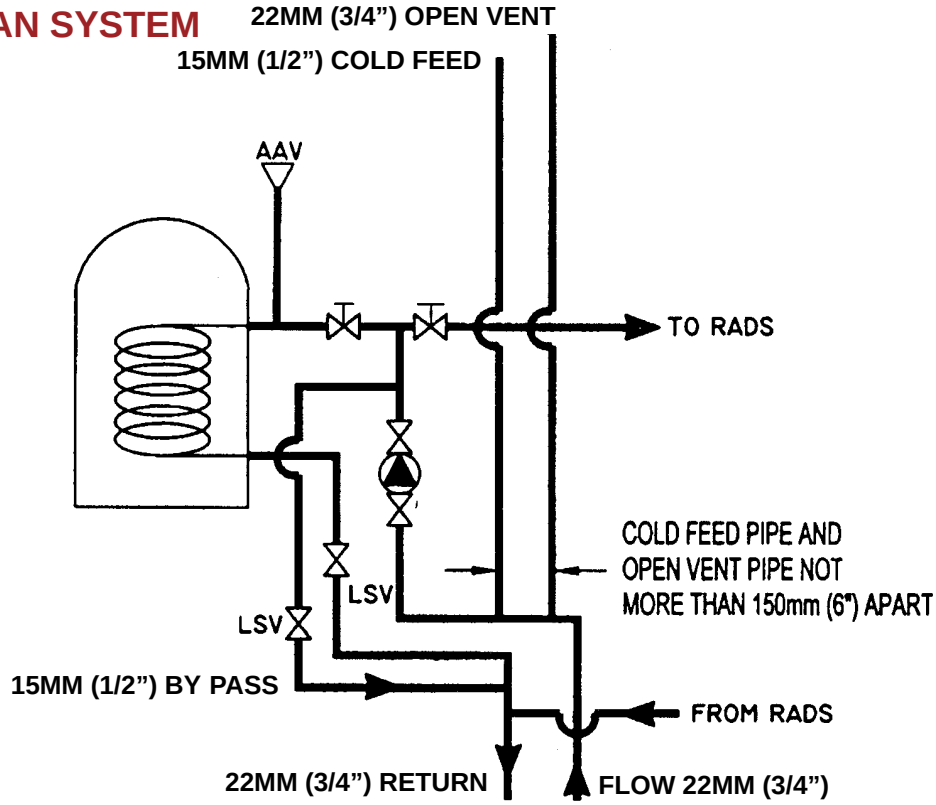
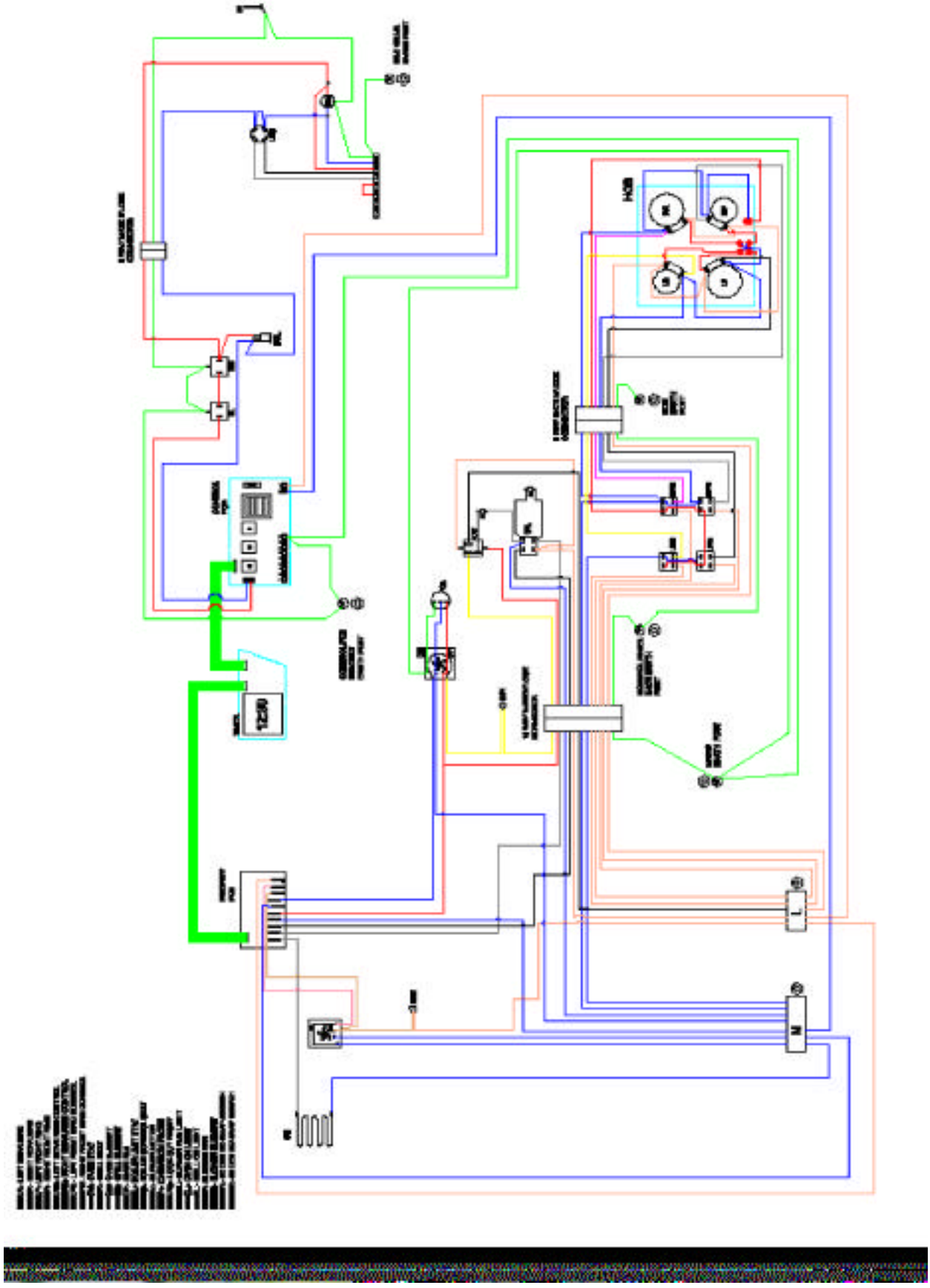


Fig.24

WIRING DIAGRAM - GAS BURNER



WIRING DIAGRAM - OIL BURNER

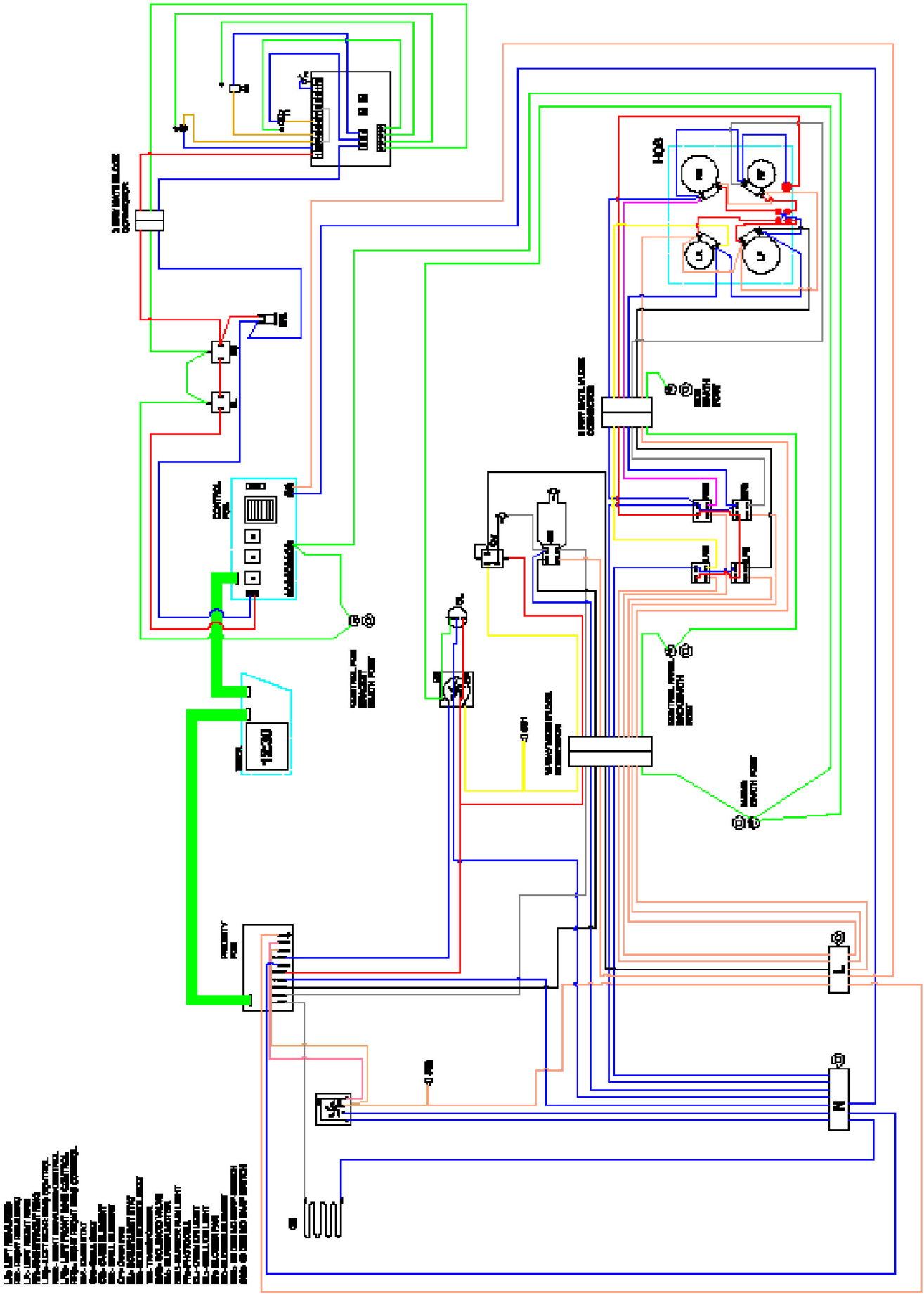
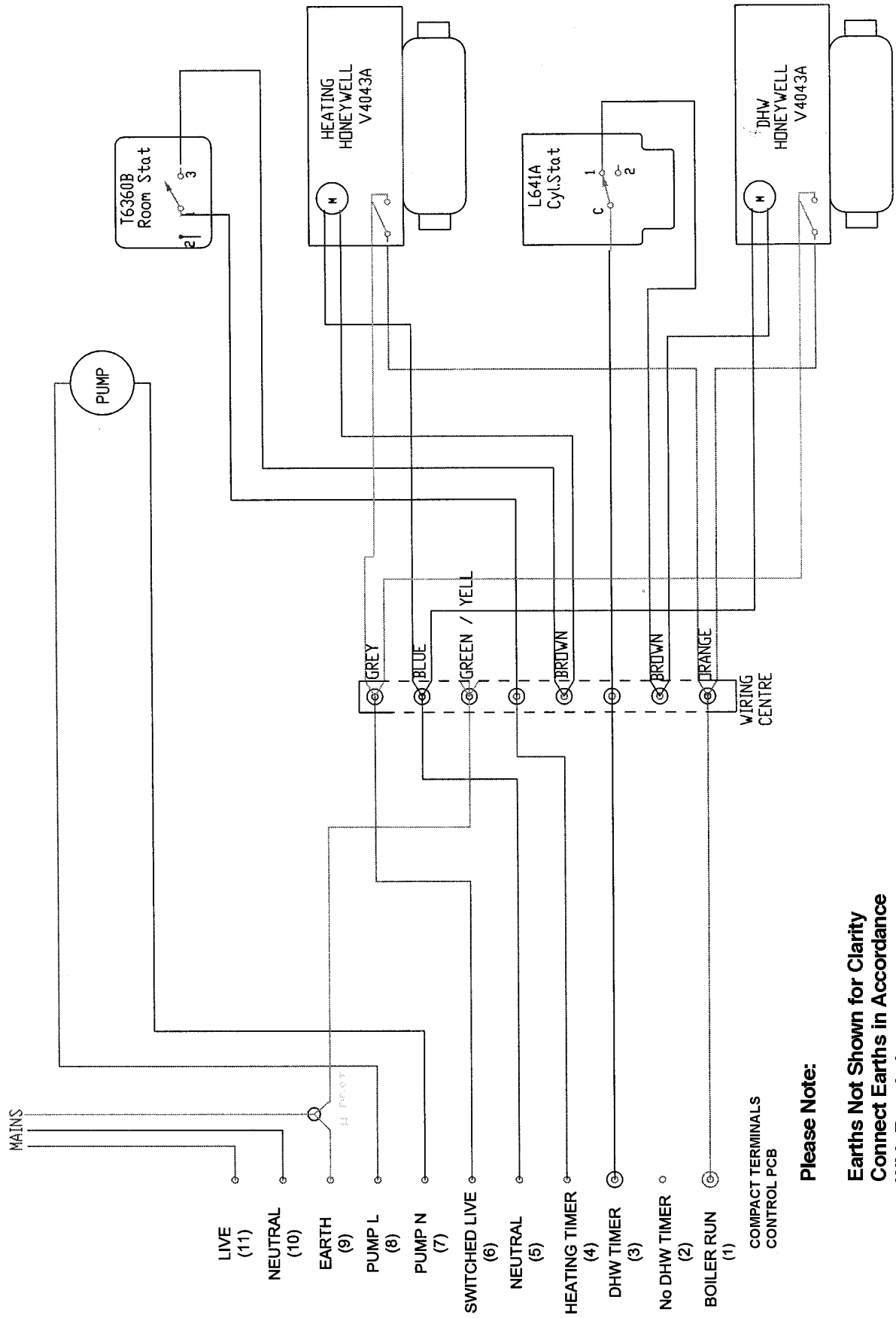


Fig.25

S PLAN WIRING DIAGRAM - UNDERFLOOR HEATING

Fig.26

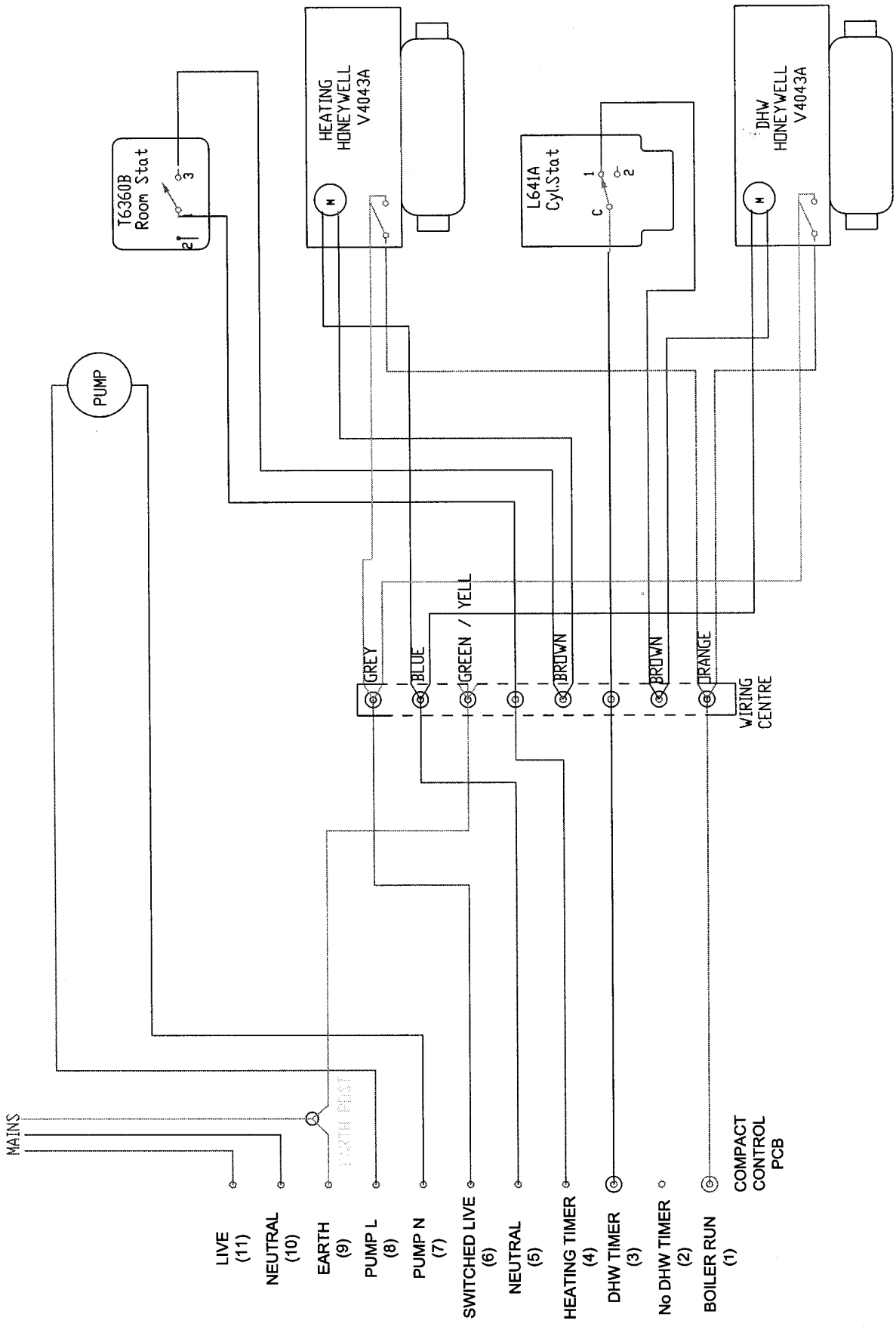


Please Note:

Earths Not Shown for Clarity
Connect Earths in Accordance With Regulations

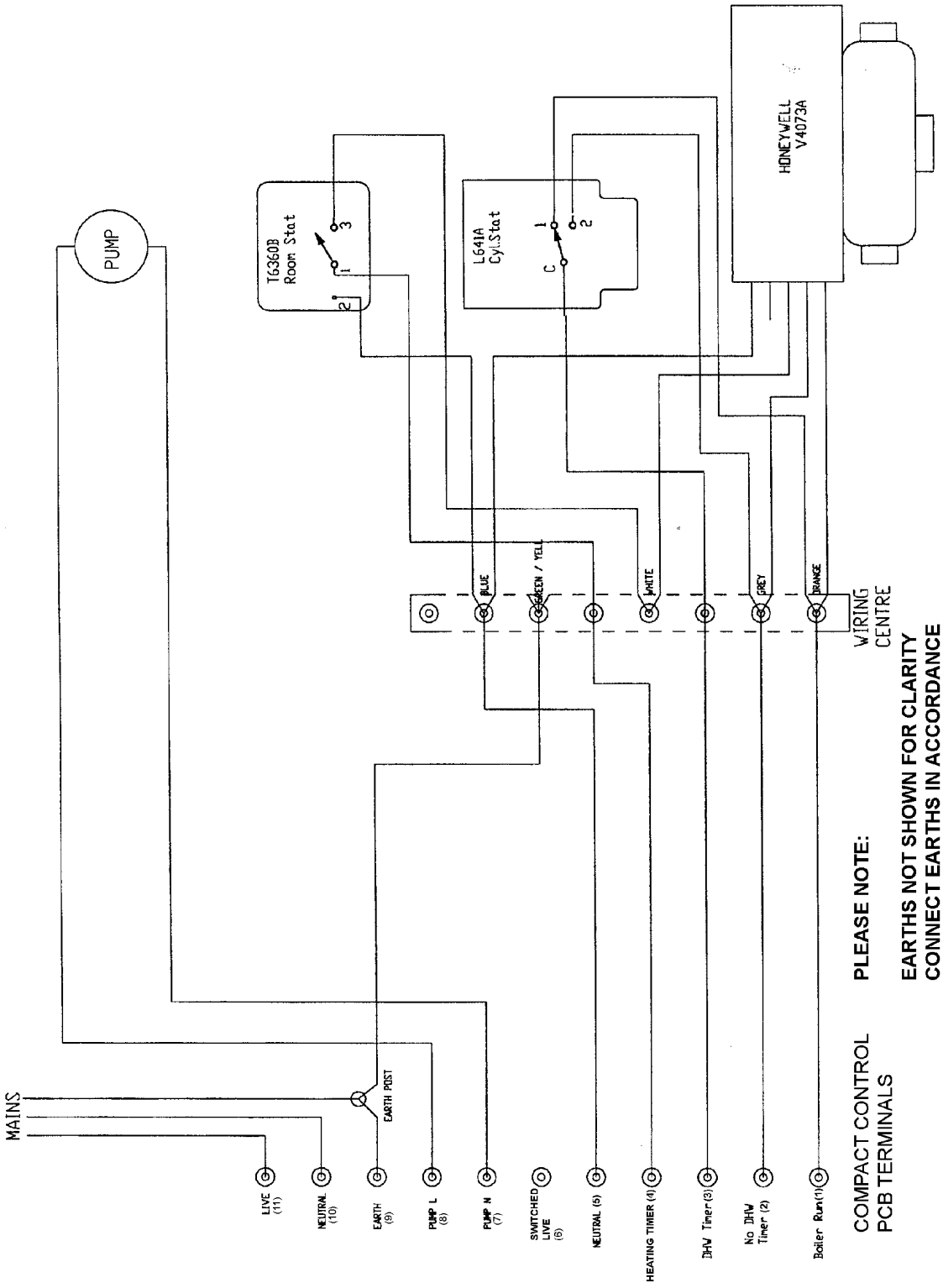
S PLAN WIRING DIAGRAM

Fig.27



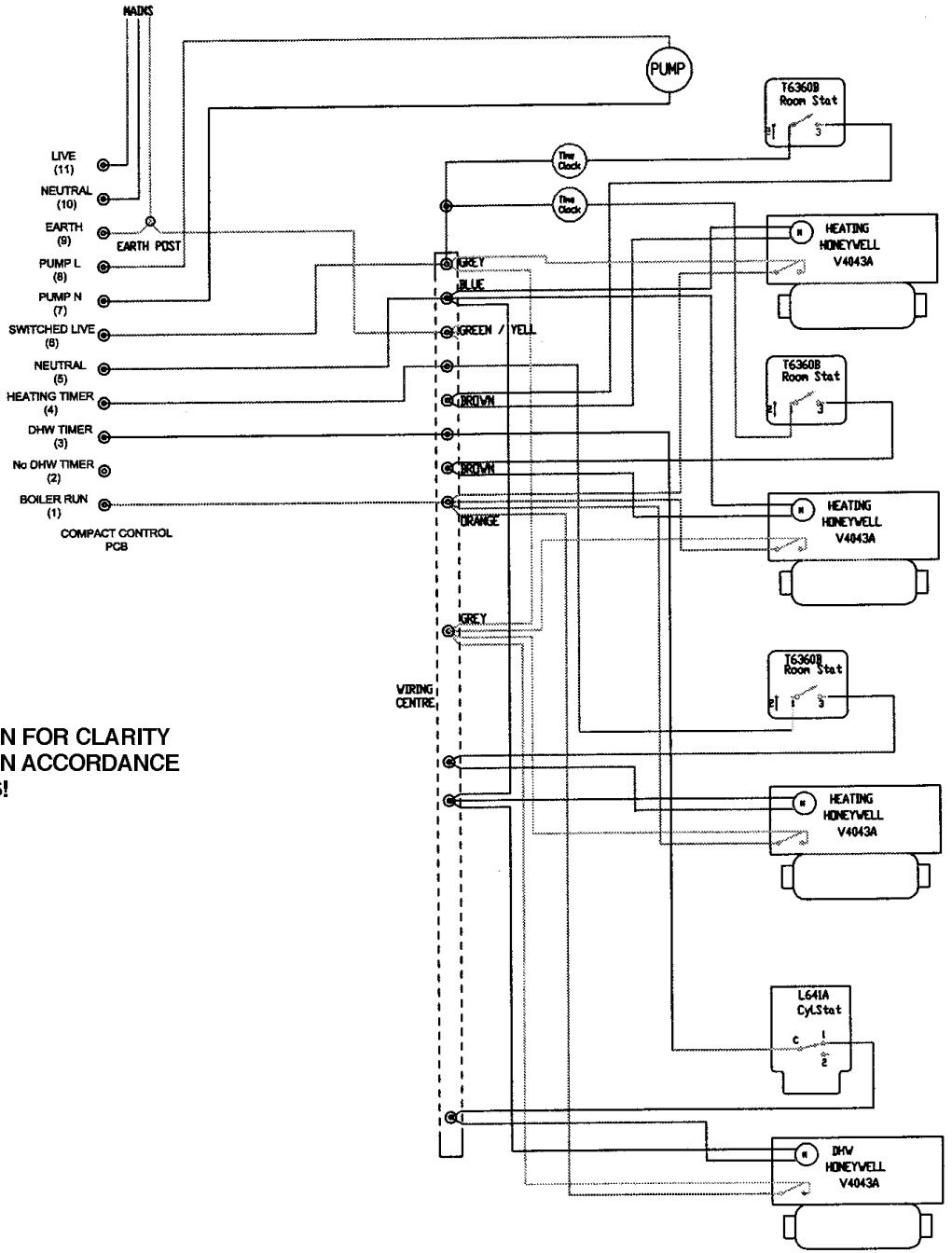
Y PLAN WIRING DIAGRAM

Fig.28



FOUR ZONE SYSTEM

Fig.29



4 ZONE HEATING SYSTEM.
FOR FULL COMPLIANCE, ZONES 3 AND 4 SHOULD HAVE INDEPENDENT TIMERS, AS SHOWN.
(OR A SINGLE 2 CHANNEL TIMER)
WIRING COLOURS AS GUIDES ONLY.

ZONE

ZONE 3

ZONE 2

ZONE 1

PLEASE NOTE:

EARTHS NOT SHOWN FOR CLARITY
CONNECT EARTHS IN ACCORDANCE WITH REGULATIONS!

GAS APPLIANCES

GAS METER

A suitable gas meter must be connected to the service pipe either by a representative of the gas supplier or by an appointed contractor. If using an existing meter, have it checked to ensure that the meter is capable of dealing with the rate of gas supply needed (see Technical Data).

GAS PIPE SIZE

It is important that the correct service pipe size is used in order to ensure an adequate gas supply of 29 litres/min for Natural Gas or 11.5 litres/min for L.P.G. This depends on the distance between the supply meter, the pressure drops caused by bends and the expected pressure drop in the gas mains at peak demand times.

GAS CONNECTION

A FLEXIBLE HOSE MUST NOT BE USED TO CONNECT THE GAS SUPPLY TO THE COOKER.

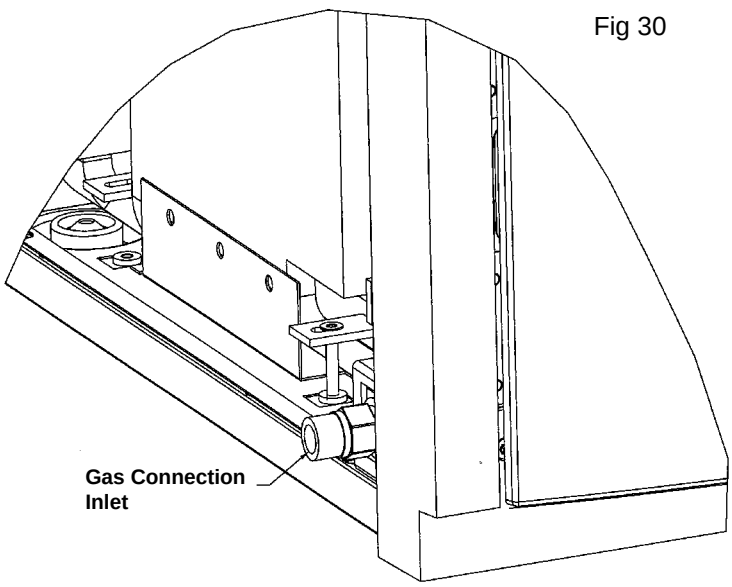
WARNING: To avoid pipe sealing compounds from entering into the gas train, do not apply sealing compound to the first two threads at the tip of the gas connection.

The gas supply line is connected to the burner gas train through the left hand side panel using a 3/4" BSP Male Connection (see Figure 30).

NOTE: Clean off any excess pipe compounds from connections.

A SHUT OFF VALVE MUST BE FITTED AS CLOSE AS POSSIBLE TO THE COOKER AND SHOULD BE ACCESSIBLE AT ALL TIMES.

Fig 30



GAS PIPES & FITTINGS

Materials used for installation work should be fire resistant and gas tight and should conform with the following or their equivalent:

* BS 2871: Part 1 & EN 1057 – Copper Tubes.
* BS 219, EN 29453 & ISO 9453 – Soft Solders.
* BS 669 – Flexible Hoses, Fittings & Sockets.
* BS 759 – Valves, Gauges & Other Safety Equipment.
* BS 1387 – Steel Tubes.
* BS 6362 & BS 4127 – Stainless Steel Tubes.
* BS 1740 – Wrought Steel Pipes.
* BS 4089 – LPG Hoses & Assemblies.
* BS 5295 & BS 6956 - Jointing Materials.
* BS 1552 – Manual Shut Off Valves.

OIL APPLIANCES

Oil storage tanks made of steel and all connecting equipment (e.g. filling pipes and vent pipes) should comply with BS 799 Part 5. Galvanised steel must not be used. Polyethylene (Plastic) tanks should comply with OFTEC standard OFS T100 and or equivalent. Oil should never be stored in translucent plastic containers.

An isolating valve should be fitted at the tank outlet, in an accessible position so that the oil supply to the appliance can be shut off if required. This isolating valve must be of the type suitable for use with oil. In order to enable the sediment and water to be removed from tanks, a drain valve should be fitted.

Oil storage tank support must be carried out in accordance with the tank manufactures recommendations. Tanks should be located in the most unobstructive position possible having taken safety, filling, maintenance and the need, if any, to provide a head of oil for the burner in consideration.

FUELS

The recommended fuel is **KEROSENE 28 SECOND VISCOSITY FUEL. (Oil Boiler Burner Only)**

FUEL SUPPLY LINE

The oil supply line from the oil storage tank to the appliance should be of an approved and suitable pipe with a minimum internal diameter of 9mm (3/8") using the end of the the flexible oil line as the final connection to the burner.

Note: This connection must be made inside the burner compartment.

Oil supply pipes are normally run in annealed copper tube complying to BS EN 1057. It can be obtained in coil or half-hard form for use with bending machines.

This pipe can also be obtained with protective plastic sheathing applied. Fittings for copper pipe should be compression of the flared manipulative type to BS 864: Part 2 1983. Steel pipes complying with BS 1387: 1985, if used, must be protected from corrosion. Galvanised pipe and fittings must not be used.

Screwed joints must only be made with tapered threads complying to BS 1740: Part 1: 1971.

Jointing materials must be of types intended for use with oil fuel. Special petroleum-resisting compounds and PTFE tape are suitable. External pipes should preferably be run with a continuous rise towards the direction of the flow, so that one can be vented off. It is important to avoid high points, which can cause air locks.

Exposed lengths of oil supply pipe must be properly supported by purpose made clips securely fixed in place. Metal clips formed so as to hold the pipe on to a saddle are preferred. Consideration should be given to avoiding routes, which expose the pipe to severe chilling which could cause freezing of the oil. Where pipes are buried, they must be protected from accidental damage. The use of joints underground should be avoided if at all possible. If joints have to be fitted in pipes laid below ground, access to them must be provided.

An oil filter (5-10 micron) and stop valve must be fitted to the fuel feed line and located near the supply tank and facilities should be provided to enable it to be serviced without draining down the oil supply system.

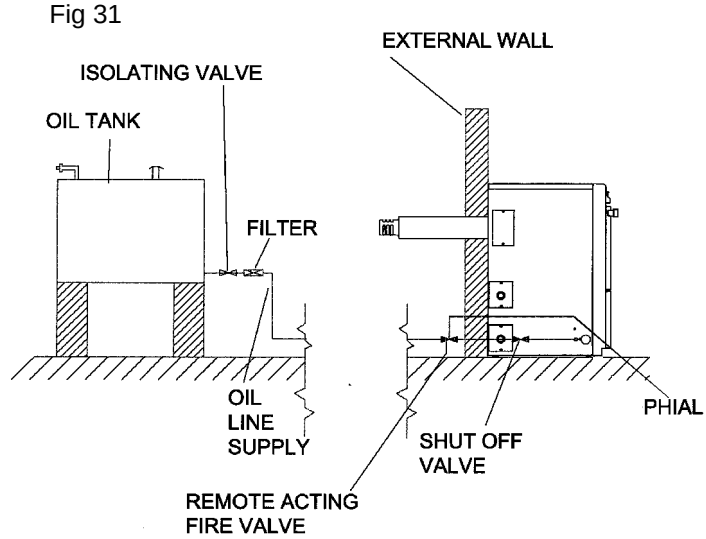
At the point where the oil line enters the building, the oil line must be fitted with an approved remote acting fire valve, which meets the requirements of BS 5410: Part 1, fitted with the appropriate length of capillary. The heat sensoring phial of the fire valve must be fitted to the clip provided in the burner compartment. It is absolutely essential that the fire valve is located externally and is as close as possible to the appliance. For existing installations where the oil supply is built into the structure internally, the remote acting fire valve should be fitted where the oil supply line is first exposed internally. This type of layout is not recommended for new installations.

NOTE: THE PUMP IS FACTORY SET FOR A SINGLE PIPE INSTALLATION TO CONVERT TO A TWO PIPE SYSTEM, CONSULT MANUFACTURERS INSTRUCTIONS.

SINGLE PIPE SUPPLY SYSTEM BOTTOM OF OIL STORAGE TANK ABOVE BURNER (see Fig 31)

Tanks servicing this appliance by means of a single pipe need to be positioned so that they will apply the minimum head of oil required, 1 meter (3' 3"), for the burner when the fuel level is at its lowest point. Refer to BS 5410, to calculate the additional head requirement relating to pipe length and size.

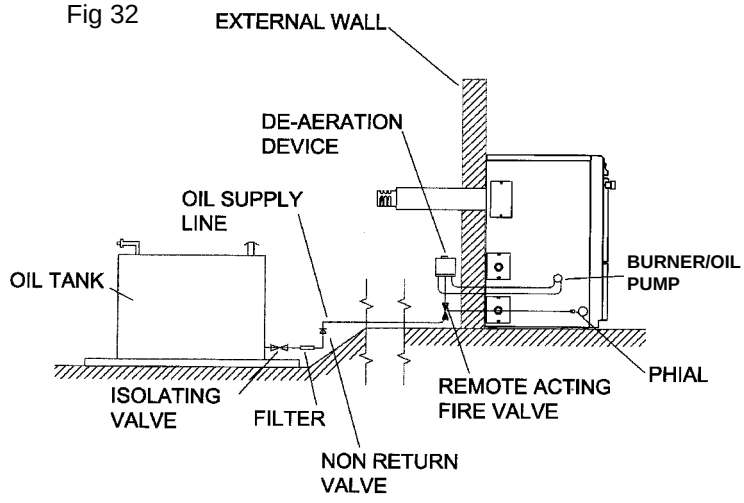
Fig 31



BOTTOM OF OIL STORAGE TANK BELOW OR LEVEL WITH BURNER (WITH DE-AERATION DEVICE) (see Fig 32)

This system can be used where the tank base is below the level at which the gravity feed to the burner can be maintained and the burner incorporates an oil pump. The chamber is fitted close to the burner and is linked to the tank by a single pipe. Any air in the oil brought up from the tank is bled off in the de-aeration chamber. De-aeration chambers must always be installed externally to buildings because they emit small quantities of vapour. The chamber is connected to the oil pump in the burner of the appliance by a normal two-pipe loop.

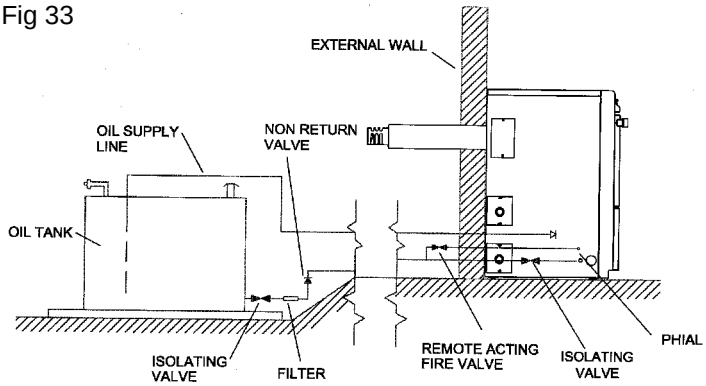
Fig 32



TWO PIPE SUPPLY SYSTEM: BOTTOM OF OIL STORAGE TANK BELOW OR LEVEL WITH BURNER (see fig 33)

If the tank base is below the level at which the gravity feed to the burner can not be maintained, a two-pipe oil supply system may be adopted. The non-return valve in the supply line of the two-pipe system is required to prevent oil running back from the burner and unpriming the oil pump. The non-return valve in the return line is only required if the top of the tank is above the burner. Its purpose is to prevent oil running back through the burner during maintenance.

Fig 33

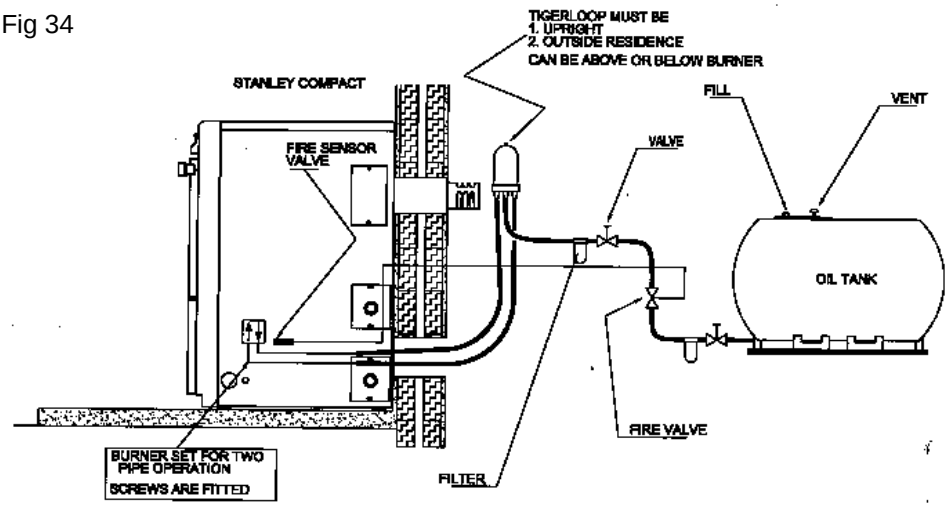


TIGER LOOP OIL SUPPLY (see fig 34)

For installations normally requiring a two-pipe system but have long or difficult return line runs, an alternative Tiger Loop De-aerator system can be used. Tiger Loop De-aerators remove air from a two pipe oil feed. Higher lift heights can be achieved than are possible with a conventional two pipe system.
These requirements are fully explained within the following documents:

* BS 5410: Part 1: Code of Practice for Oil firing Installations up to 45kW output capacity for space heating and hot water supply purposes.
* OFTEC – Technical Information Book Three. Installation requirements for oil fired boiler and oil storage tanks.
* The Building Regulations Part J: Ireland, Part F: Section 4 Scotland, Part L: Northern Ireland & Part J: England & Wales.

Fig 34



COMMISSIONING CHECK LIST

GENERAL CHECKS

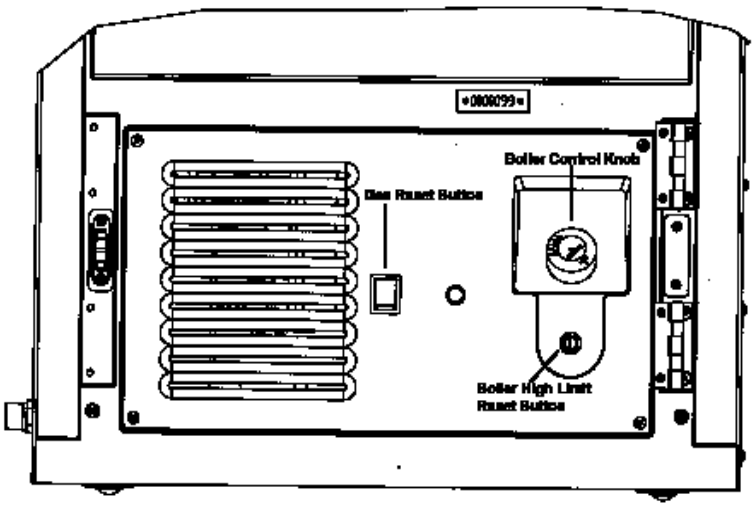
1. Check that all items of packaging are removed.
2. Check that the electrical wiring to the appliance is correct.
3. Make sure that specified clearances are adhered to, and that the cooker isolation box is easily accessible.
4. Check that the bus wire has been connected to the control PCB.
5. Turn on the electrical supply to the appliance. Turn on the oven thermostat and check that both the oven fan and oven heating element are working properly.
6. Turn on the grill thermostat and check that the grill element works.
7. Turn on the space heating and check that it works correctly (see Programmable Clock Section).
8. Check that the various clock functions work properly and set the clock time (see Programmable Clock Section.)

GAS BOILER BURNER CHECKS

1. Check that the gas supply is connected.
2. Turn on the mains gas supply ensuring that the burner is switched off. Test the whole gas installation including the meter for soundness and purge in accordance with BS 6891 (U.K) and IS 813 (I.E.). The purge must not exceed 50 mbar.
3. Check the gas supply and burner for escapes using an approved leak detector spray and tighten if necessary.
4. Turn on the electrical supply and check that the time clock and the boiler thermostat are on and calling for heat. (See Fig.35) The burner should now fire.

5. Turn off the mains gas supply, start the burner and complete the start sequence to lock out, observing the correct operating functions. The pre-purge time should run for up to 30 seconds.
6. Reinstate the gas supply and push the burner reset button. (See Fig.35).
7. With the burner operating on full flame, check for adequate gas supply by connecting a water manometer to the inlet gas point on the burner gas valve. (see Fig.36) If necessary, it is possible to adjust the gas rate using the rate adjustment screw on the venturi. Turn the screw clockwise to decrease the rate and anticlock wise to increase the rate. The adjustment of the rate will also create a change in CO_2 and it is essential to monitor the CO_2 when adjusting the rate.

Fig 35



8. Carry out a flue gas analysis after a minimum of 15 minutes of continuous operation of the burner. The flue gas test point is located on the top of the boiler flue connector (See Fig. 37) and is accessed through the top of the appliance by lifting the hob. See Technical Section for guideline combustion figures.

Fig 36

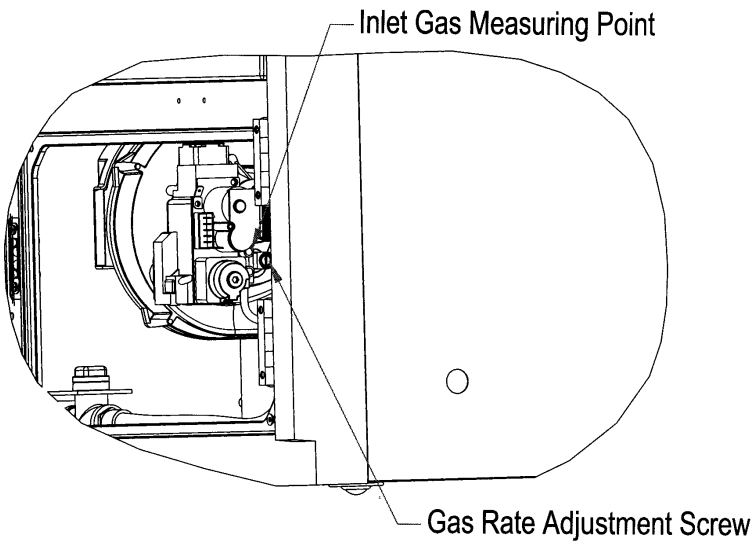
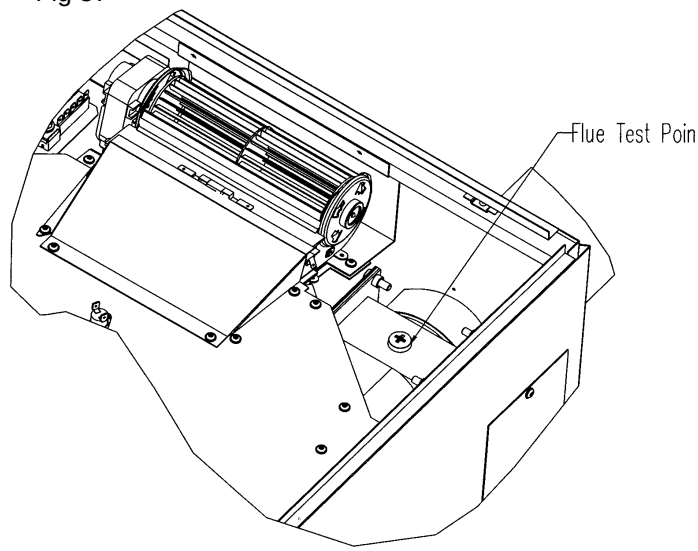


Fig 37



9. An adequate ventilation check should be carried out by closing all external doors and windows, running all extract fans and any other appliances requiring air and conducting the flue gas analysis again to ensure the combustion figures have not been affected.

   If the combustion figures have been affected, additional air will need to be provided before the appliance can be operated.(See Ventilation & Combustion Air Requirements Section).

10. Check that all the flue joints are sealed correctly.

OIL BOILER BURNER CHECKS

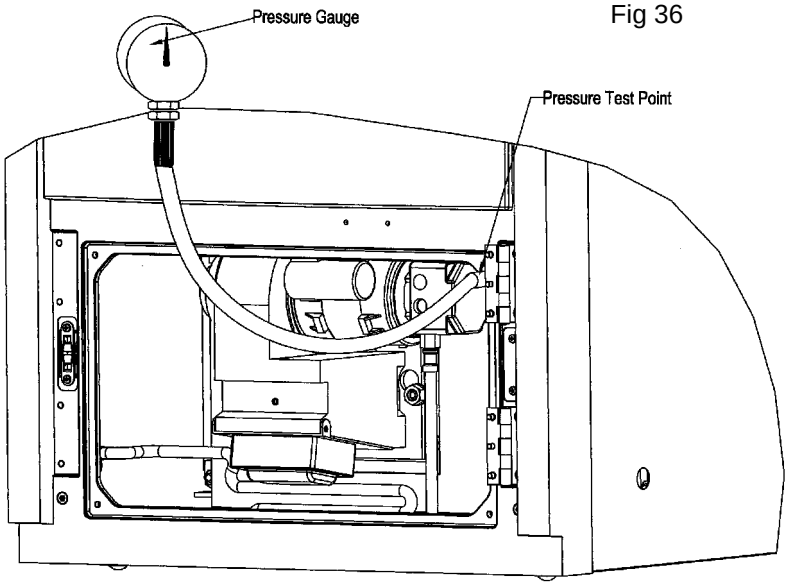
1. Check that the oil supply is connected, that all valves in the oil line are open and that the filter is purged of air. Check that the fire valve is open.
2. Check the oil supply for leaks.
3. Turn on the electrical supply and check that the timer unit and the boiler thermostat are calling for heat. The burner should now fire.
4. With the fuel supply off, switch on the burners. Complete the start sequence to lockout (8 seconds), observing the correct operating functions.
5. Re-instate the fuel supply and switch on the burner to ensure that it fires correctly.
6. Ensure the pump is purged of air. Check the pump pressure with a calibrated pressure gauge and adjust if necessary. (see Fig 38).
7. After the appliance has achieved its operating temperature, carry out a flue gas analysis and check the smoke and flue draught readings.
8. Find the correct position of the air control, which gives the highest reading of CO2 without exceeding a smoke number of between 0 and 1 (Bacharach Scale).
9. An adequate ventilation check should be carried out by closing all external doors and windows,

running all extract fans and any other appliances requiring air and conducting the flue gas analysis again to ensure the combustion figures have not been affected.

If the combustion figures have been affected, additional air will need to be provided before the appliance can be operated.(See Ventilation & Combustion Air Requirements Section).

10. Check that all the flue joints are sealed correctly.

Fig 36



HEATING SYSTEM CHECKS

1. Check that the cylinder and pipe-work are purged of air and full of water with a suitable safety valve fitted.
2. Turn on the burner and after the boiler has reached its operating temperature, check that the temperature differential between the flow and return is approximately 11ºC (20ºF) and adjust the pump or by-pass if necessary,
3. Check the heating circuit and balance if necessary.

ELECTRIC HOB CHECKS

Turn on each hob ring control individually. Check that each hob ring and its respective hob light is working properly.

(A) BOILER OPERATION

To operate the boiler burner, press the “CENTRAL HEATING” (or “HOT WATER”) button twice until the red “ON” light (positioned beside the button) is illuminated. Open the boiler door and set the boiler control knob to the desired temperature. When finished heating, push the "CENTRAL HEATING " button once and the light should go off. The boiler can also be run automatically using the programmable clock (see Programmable Clock Section).

(B) OVEN OPERATION

To operate the oven, press the “Manual” button so that the “Switch On” and “Switch Off” times on the screen are not visible (See Fig.41) and set the oven thermostat to the required temperature. The red light, positioned above the oven thermostat, will illuminate when the thermostat has been turned and when this light goes off, the pre-selected temperature has been reached and the oven is ready for use. The oven can also be operated using the programmable clock (see Programmable Clock Section).

(C) ELECTRIC HOB OPERATION

The ceramic hob has four separate boiling plates with an individual control for each plate. Each control provides various heat settings by selecting any number between 1 (minimum) and 6 (maximum). When the boiling plate control is turned to the desired setting, its red light on the hob light cluster (see Fig 39) will illuminate and the boiling plate should change colour (become red), indicating that it is working properly. The light goes off when the boiling plate is turned off and has cooled down. The power-on light will also illuminate when any of the boiling plates are energised.

WARNING: IF ANY PART OF THE HOB GLASS IS CRACKED, ISOLATE THE COOKER IMMEDIATELY AT THE WALL MOUNTED COOKER BOX SWITCH AND CONTACT YOUR STANLEY SERVICE AGENT. DO NOT USE ANY PART OF THE COOKER.

(D) GRILL OPERATION

When operating the grill, one of the steel shelves should be placed on the top shelf position and the grill pan should be then placed on the shelf. When the grill control is turned to the required setting, the red light positioned above the control is illuminated.

The following conditions must be adhered to when using the grill:

* The grill pan should be moved using the grill pan handle at all times.
* The oven door must be open when the grill is being operated.
* The grill can not be operated when the oven is in use.

NOTE: THE GRILL PAN SHOULD NEVER BE STORED IN THE OVEN WHILE THE OVEN IS IN USE.

(E) SPACE HEAT

To operate the space heat, press the “SPACE HEATING” button twice until the red “ON” light (positioned beside the button) is illuminated. When finished, push the “SPACE HEATING” button once and the light should go off. The space heat can also be run automatically using the programmable clock (See Programmable Clock Section).

RESET BUTTON/HIGH LIMIT STAT

The high limit stat is located on the boiler control panel and can be accessed by opening the boiler door. The thermostat button will pop out if the safety temperature in the boiler is exceeded. To reset, simply unscrew the protective cap and press the button inwards.

Fig 39

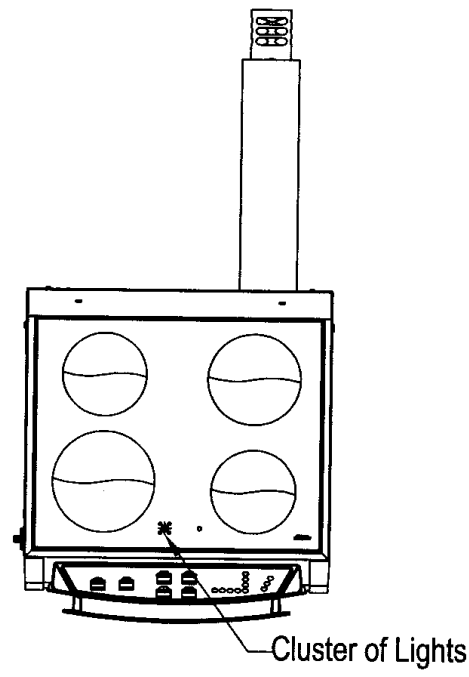
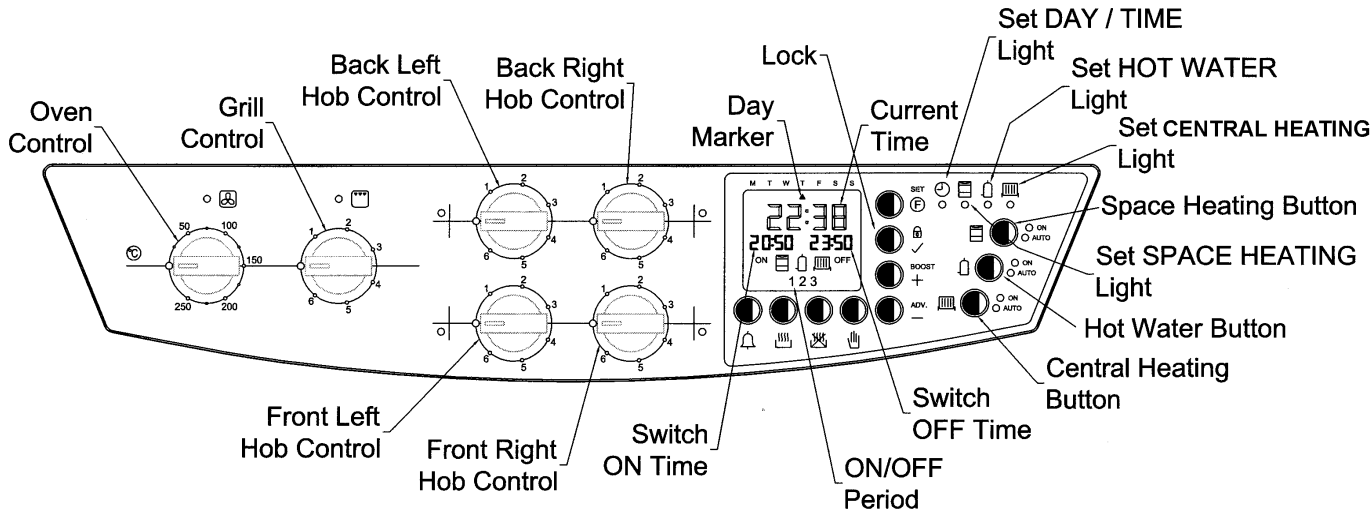


Fig.40

PROGRAMMABLE CLOCK



The programmable clock controls your central heating system and space heating function, and allows you to set your cooking times automaticaly. The clock offers the following features:

* 7-Day heating programme.
* Three ON/OFF switching times each day.
* Facility allowing a separate heating programme for Weekdays (MON-FRI) and a different programme for the Weekend (SAT-SUN).
* Separate programme facilities for Central Heating, Hot Water and Space Heating needs.
* Automatic Cooking Controls.
* Override button for Central Heating, Hot Water & Space Heat Functions.
* Boost Facility for Central Heating, Hot Water, and Space Heating functions.
* Alarm Timer allowing timing of cooking.
* Built-in battery to prevent loss of programmes during power cuts.

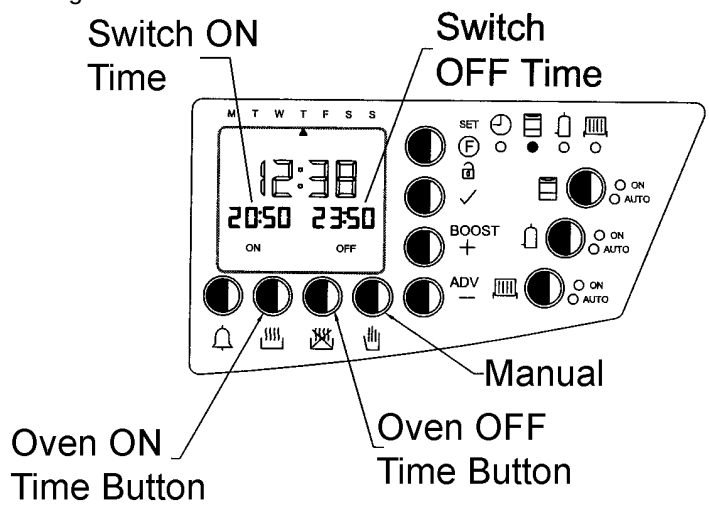
SETTING THE CORRECT TIME AND DAY

1. Press the "F" button and hold it for five seconds. The red "SET DAY/TIME" ◴ light will illuminate and the arrow signifying the day setting will flash.
2. Adjust the day setting by pressing the “+” or “-” buttons, until the day marker is pointing to the correct day.
3. Press the “√” button to accept the setting, then the hour figure will flash. Adjust the hour setting by pressing the ”+” or “-” buttons.
4. Press the "√" button and the minutes figure will flash. Adjust the minute setting by pressing the “+” or “-” buttons.
5. Press the "F" button four times to exit the setting time facility.

SETTING THE COOKING PROGRAMME

1. Press the "MANUAL" button and the “SWITCH ON” and “SWITCH OFF” times will appear below the current time display. (see fig 41)
2. To set the start time, press the "OVEN ON TIME" button and the “SWITCH ON” time will flash.
3. Adjust it to the desired start time using the “+” or “-” buttons.
4. To set the finish time, press the "OVEN OFF TIME" button and the “SWITCH OFF” time will flash.
5. Adjust it to the desired finish time using the “+” or “-” buttons.
6. Set the oven thermostat to the required temperature.

Fig. 41



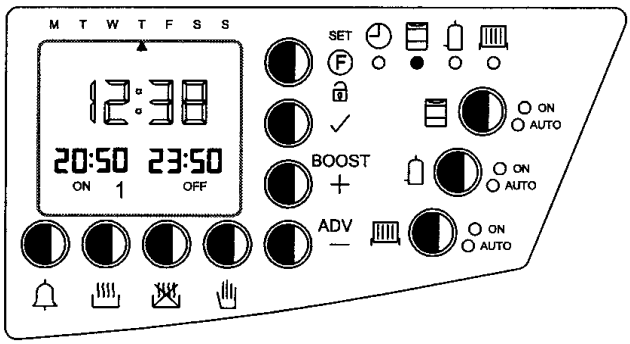
PROGRAMMING CENTRAL HEATING,( ) HOT WATER ( ) OR SPACE HEAT ( )

The heating can be set individually for both Central Heating, Hot Water, and Space Heat and each setting has 3 on/off programmes for each day. These can be set in three different ways:

A. All 7 Days simultaneously.
B. First Monday-Friday, then Saturday & Sunday.
C. Each Day Individually.

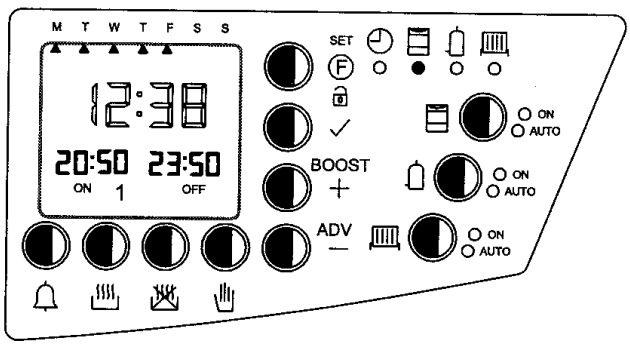
1. Press the "F" button and hold it for five seconds until the red "SET DAY/TIME" light illuminates.
   Press the “F” button again and the red light moves to set space heat . Each subsequent time it is pressed the mode will move on to the next position.
2. The display will be as shown in Fig 42, with the arrow flashing underneath the day, you wish to program for. The time on the bottom left and bottom right sides are the ON and OFF times respectively. The number “1” at the bottom of the display signifies that these are the times for the first ON/OFF setting for the day/days.

Fig. 42



3. The programs can be set for the individual days, for weekdays, for weekends and for the entire week. The days you wish to program for can be changed by moving the flashing arrow using the + and - buttons. Fig 43 (a) shows the day setting for setting the same programme for Monday to Friday, Fig 43 (b) shows it for setting the same programme for Saturday & Sunday and Fig 43 (c) shows it for setting the same programme for the entire week.

Fig. 43a



4. After selecting the day, press the “√” button and the 1st ON time will flash. This time can be adjusted in ten minute intervals using the + and - buttons.
5. Press the “√” button and the corresponding OFF time can be adjusted using the + and - buttons.
6. The 2nd & 3rd ON/OFF times can be viewed by pressing the “√” button and can be set by repeating Steps 4 & 5. To complete programming successfully the 3 ON/OFF times must be viewed, this will be followed by an audible bleep.
7. To exit press the “F” button three times.
8. To have the appliance operate on the programmed settings, press the appropriate button on the right hand side of the control panel once so that a light can be seen beside auto.

SETTING THE ALARM TIMER

The alarm timer allows cooking to be timed up to a period of 99 minutes. The alarm can be set by following the procedure below:

1. Press the “alarm” button and “00 ALARM” will flash in the bottom section of the display (See Fig 44).
2. Adjust the alarm time to the desired setting using the “+” or “-” buttons.
3. The timer will start five seconds after the time has been set.
4. When the time has elapsed, the acoustic signal will sound for 60 seconds. It can be cancelled by pressing the “OVEN OFF” button.

Note: This timer operates only when the oven is set to “manual” mode.

BOOST FUNCTION

By pressing the “BOOST” button, boost will be displayed and the symbols for central heating , hot water and space heat will flash then pressing either the “Space Heat”, “Hot Water” or “Central Heating” buttons will turn this mode on for 1 hour. The symbols will flash for 10 seconds, if none of the 3 options are selected then the display will revert to current time and day. If a mode is selected the symbol for this mode and the word “BOOST” will remain displayed for 1 hour, providing none of the oven control functions on the clock are used within this hour. To cancel the “Boost” push the button for the mode of heating previously selected.

Fig. 43b

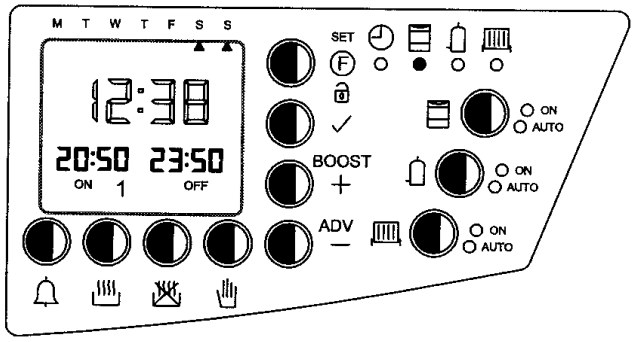


Fig. 43c

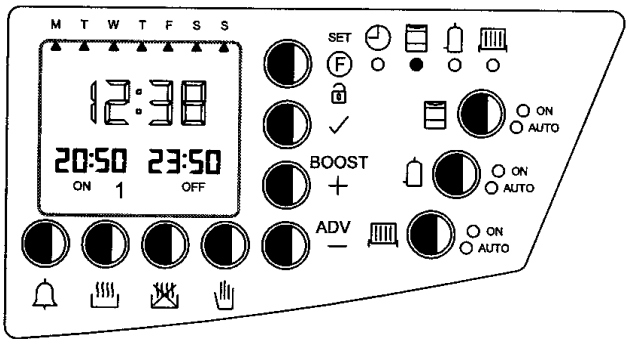
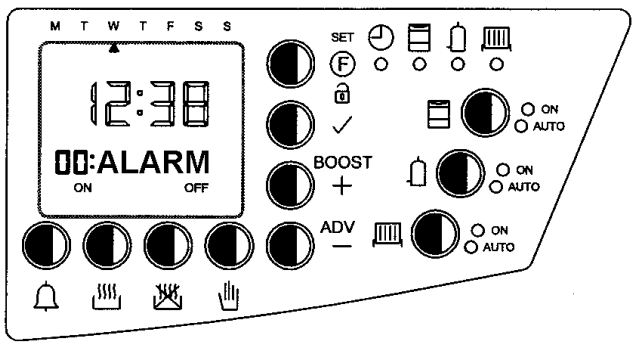


Fig. 44



ADVANCE FUNCTION

By pressing the “ADV” button, ADVANCE will be displayed and the symbols for central heating , hot water and space heat will flash then pressing either the “Space Heat”, “Hot Water” or “Central Heating” buttons will bring forward the next switching time for that mode. The symbols will flash for 10 seconds within which one of the 3 options must be selected before the display will revert to current time and day. To cancel, push the button for the mode of heating previously selected twice.

DISPLAY LOCK FUNCTION

By pressing and holding the “LOCK” Button for 5 seconds the display will become locked, and LOCKED will be displayed. To unlock the display press and hold the “LOCK” button for 5 seconds. If any button is pressed while the display is locked the word “LOCKED” will flash on the display.

POWER FAILURE

Your clock has a built-in battery to ensure correct operation after a mains supply power cut. No action should be necessary following a power cut up to 4 days. Longer power cuts may require you to re-programme.

IMPORTANT: ALWAYS SWITCH OFF THE COOKER AT THE WALL MOUNTED SWITCH AND ALLOW IT TO COOL BEFORE CLEANING.

ENAMEL SURFACES

To keep the enamel in the best condition, observe the following tips:

1. Wipe over daily with a soapy damp cloth, followed by a polish with a clean dry duster.
2. If milk, fruit juice or anything containing acid is spilt on an enamel surface, be sure to wipe it immediately or the enamel may be permanently discoloured.
3. Keep a damp cloth handy while cooking, to wipe up any spills as they occur, so they do not harden and become more difficult to remove.
4. 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 enamel.
5. Use only products recommended by the Vitreous Enamel Association. These products carry the Vitramel label.

VITREOUS ENAMEL ASSOCIATION

Tested and recommended for use on vitreous enamel

DO NOT USE ABRASIVE PADS OR OVEN CLEANERS CONTAINING CITRIC ACID ON ENAMELLED SURFACES. ENSURE THAT THE CLEANSER MANUFACTURERS INSTRUCTIONS ARE ADHERED TO.

CERAMIC HOB

The ceramic hob should always be cleaned after use with a clean damp soapy cloth while still warm. To remove stubborn stains or food deposits, use a glass scraper while the cooking plates are still warm.

GRILL PAN

The grill pan surface is enamelled and should be cleaned at regular intervals with a soap impregnated pad.

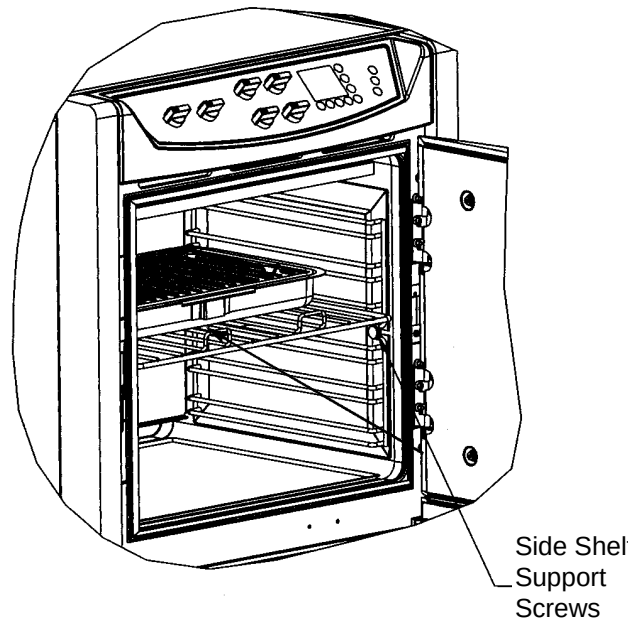
OVEN

The oven interior is enamelled and to assist in keeping your oven clean we suggest the following:

* Try cooking at lower temperatures for an increased length of time. You will save energy and often, if roasting meat, the joint will be more tender.
* Keep the use of fat to a minimum and surround the meat with aluminium foil.
* Use a meat tin with an anti-splash tray or cover meat with aluminium foil.
* After use, wipe clean the inside of the oven while it is still warm.

In the event of the oven being badly marked or stained, a nylon brush and warm water, to which a little detergent (carrying the vitramel symbol) has been added or a soap-filled steel wool pad should be used, before the oven cools. The oven back panel, the two side shelf supports, the two stay clean side panels and the stay clean base tray can be removed for cleaning if necessary. To remove the shelf supports and stay clean side panels, unscrew the two shelf support screws (on each side). The back panel can then be pulled forward when the shelf supports have been removed (See Fig.45) . By soaking them in hot water and detergent for about ten minutes, most burned on stains will soften and can be removed more easily.

Fig.45



COOKING GUIDANCE

GRILLING

WARNING: GRILLING SHOULD NEVER BE UNDERTAKEN WITH THE OVEN DOOR CLOSED. Assemble the grill pan by placing the wire mesh on top of the enamel tray. (Do not line the grill pan with aluminium foil.) Set the grill control knob to the required setting and pre-heat the grill for five minutes. Position the steel shelf onto the top shelf position and place the grill pan on the shelf. If you wish to slow down the grilling process, position the shelf on a lower shelf position. The grill pan handle should be used to move the grill pan at all times.

OVEN COOKING

Since a fan oven heats up more quickly and generally cooks food at a lower temperature than a conventional oven, preheating the oven is often unnecessary. However, foods such as bread or scones, do benefit from being placed in a pre-heated oven. We recommend that when cooking any recipes not designed for a fan oven, you reduce the temperature by about 25^{o}C and the time by about 10 minutes in the hour. If large quantities are being cooked, it will be necessary to increase the cooking time somewhat to compensate for the extra oven load.

Since the distribution of heat in the fan oven is very even, most foods will cook satisfactorily on any shelf position, but the shelves should be evenly spaced. To ensure even circulation do not use meat pans larger than 390 x 300mm (15ins x 12ins) and baking trays no larger than 330 x 255mm (13 ins x 10ins) and they should be positioned centrally on the oven shelf.

Guide to Grilling Successfully

Food	**Preheat Grill for 5 mins on:**	**Setting**	**Approximate Cooking Time**
Toasting of Bread Products	Setting 6	Setting 6	3-10 mins
Small cuts of meat – Sausages, Bacon	Setting 6	Setting 6 for 4 mins, then reduce to Setting 3	15-20mins
Chops, Gammon . Steaks etc	Setting 6	Setting 6 for 6-8mins, then reduce to Setting 2 or 3	25-30mins
Fish: Whole, Fillets, Fingers	Setting 6	Setting 6	10-30mins
Pre-cooked Potato	Setting 6	Setting 3	10-20mins
Pizzas	Setting 6	Setting 3	8-15mins

OVEN COOKING CHART

Kind of Food	Temp (˚C)	Timing
Beef - On the Bone (High Heat Roasting)	180	Rare: 10 mins + 15 mins - per 500g (1 lb 2 oz) Medium: 10 mins + 18 mins - per 500g Well Done: 10 mins + 25 mins - per 500g
- Off the Bone (High Heat Roasting	180	Rare: 10 mins + 12 mins at 150˚C - per 500g Medium: 10 mins + 15 mins at 150˚C - per 500g Well Done: 10 mins + 20 mins at 150˚C - per 500g
- On or Off the Bone (Slow Roasting)	130-140	Medium: 20-25 mins Well Done: 30-35 mins
- Stuffed Joints	130-140	Medium: 20-25 mins + 5-10 mins Well Done: 30-35 mins + 5-10 mins - per 500g
- Whole Fillet	180-190	Rare: 8 mins - per 500g Medium - 10 mins - per 500g
Veal - Roast	160	15 mins + 25-30 mins at 150˚C - per 500g
- Stuffed Joints	160	15 mins + 30-35 mins at 150˚C - per 500g
Lamb - High Heat Roasting	180-190	Rare: 10 mins + 10 mins at 150˚C - per 500g Medium: 10 mins + 15 mins at 150˚C - per 500g Well Done: 10 mins + 20 mins at 150˚C - per 500g
- Slow Roasting	130-140	25 mins + 25 mins per 500g
- Stuffed Joints	130-140	25 mins + 25 mins per 500g
Pork	150-160	30 mins + 30 mins per 500g
Stuffed Joints	150-160	30 mins + 35-40 mins per 500g
Chicken	150-160	20 mins + 15-20 mins per 450g (1lb)
Duck	160	20 mins + 20 mins per 450g
Goose	160	20 mins + 20 mins per 450g
Turkey - 2.7 - 4.5 kg (6-10lb) birds)	150-160	20 mins + 20 mins per 450g
- 4.5 - 8 kg (10-18 lb) birds)	150-160	15 mins + 15 mins per 450g
Rabbit - Up to 1 kg (2lb 4oz)	170	45-60 mins
Pheasant - Hen Birds	160	45-60 mins
- Cock Birds	160	60-90 mins
Grouse	160	30-40 mins
Partridge	160	30-45 mins
Baked Fish	160-170	20-25 mins

Please Note: All temperatures and times given are intended as a guide and may need to be altered to suit the cooking requirements.

Pastries	Temp (°C)	Bread, Scones, Cakes etc.	Temp (°C)
Short Crust	160 - 170	Basic Bread Dough	200
Sweet Short	150	Sweet Bread Dough	190
Puff Pastry	200	Victoria Sandwich Cake	150
Rough Puff	190	Swiss Roll	170
Strudel	150 - 170	Gingerbread	135
Flaky	190	Scones	200
Choux	150 - 190	Rich Fruit Cake	130 - 150
		Dundee	140 - 150
		Meringues	100 - 110

Note: These are general temperature guidelines only.

COOKWARE

It is advisable to check your cookware, prior to using your new cooker. Thin, lightweight saucepans are liable to buckle, so it is recommended that you use saucepans, which have a flat, thermic base. This design of saucepan will give you complete contact, with the boiling plate on the ceramic hob, and maximum heat retention for a good cooking performance. This design is usually of 18/20 stainless steel, with the thermic base encapsulated onto the bottom of the pan. The base will have a core of aluminium sandwiched between two layers of stainless steel. The aluminium does not come into contact with the food while cooking, but will very quickly pick up the heat and evenly distribute it over the base of the pan.

Many people prefer the look of cast iron cookware. This cookware is just as versatile as stainless steel, absorbing and distributing the heat evenly. They are available in a range of colours and designs, some with knobs and handles of a heat resistant material. Good quality saucepans can be expensive to buy, but the versatility they offer means that fewer items need to be purchased.

NOTE: MOST COOKWARE (ESPECIALLY CAST IRON COOKWARE) IS HEAVY AND CARE MUST BE TAKEN WHEN PLACING COOKWARE ON THE ELECTRIC HOB.

Oven-proof earthenware will produce satisfactory results. Your traditional cake tins, baking trays, loaf tins and any other favourite oven-ware you use, will be suitable. There is a bake-ware on the market of Continental design, which has a steel base, ideal for quickly absorbing the heat. It is covered with a magnum (enamel like) coating, which is safe to cut on, has a non stick effect and is easy to clean.

MAINTENANCE

WARNING: ALWAYS DISCONNECT THE APPLIANCE FROM THE POWER SUPPLY BEFORE ATTEMPTING ANY MAINTENANCE.

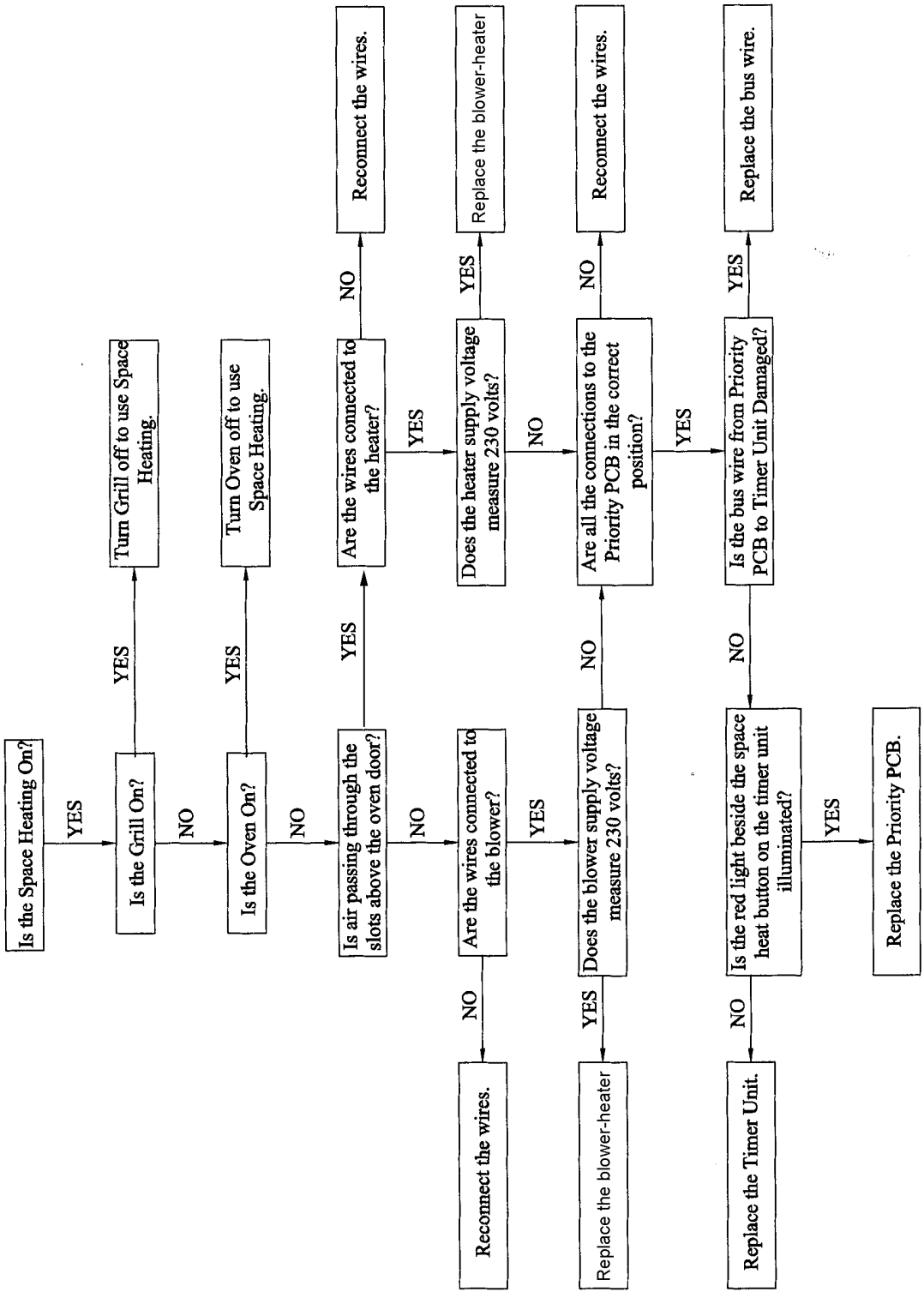
To ensure continued, efficient and safe operation of the boiler functions of the appliance, it is recommended that it is checked and serviced by an Authorised Stanley Service Engineer at least once a year. In the event that the cooker is not serviced by such an engineer, at least once a year, Waterford Stanley Limited regrets that it can not entertain claims whatsoever in respect of alleged problems in the efficiency or safety of the appliance.

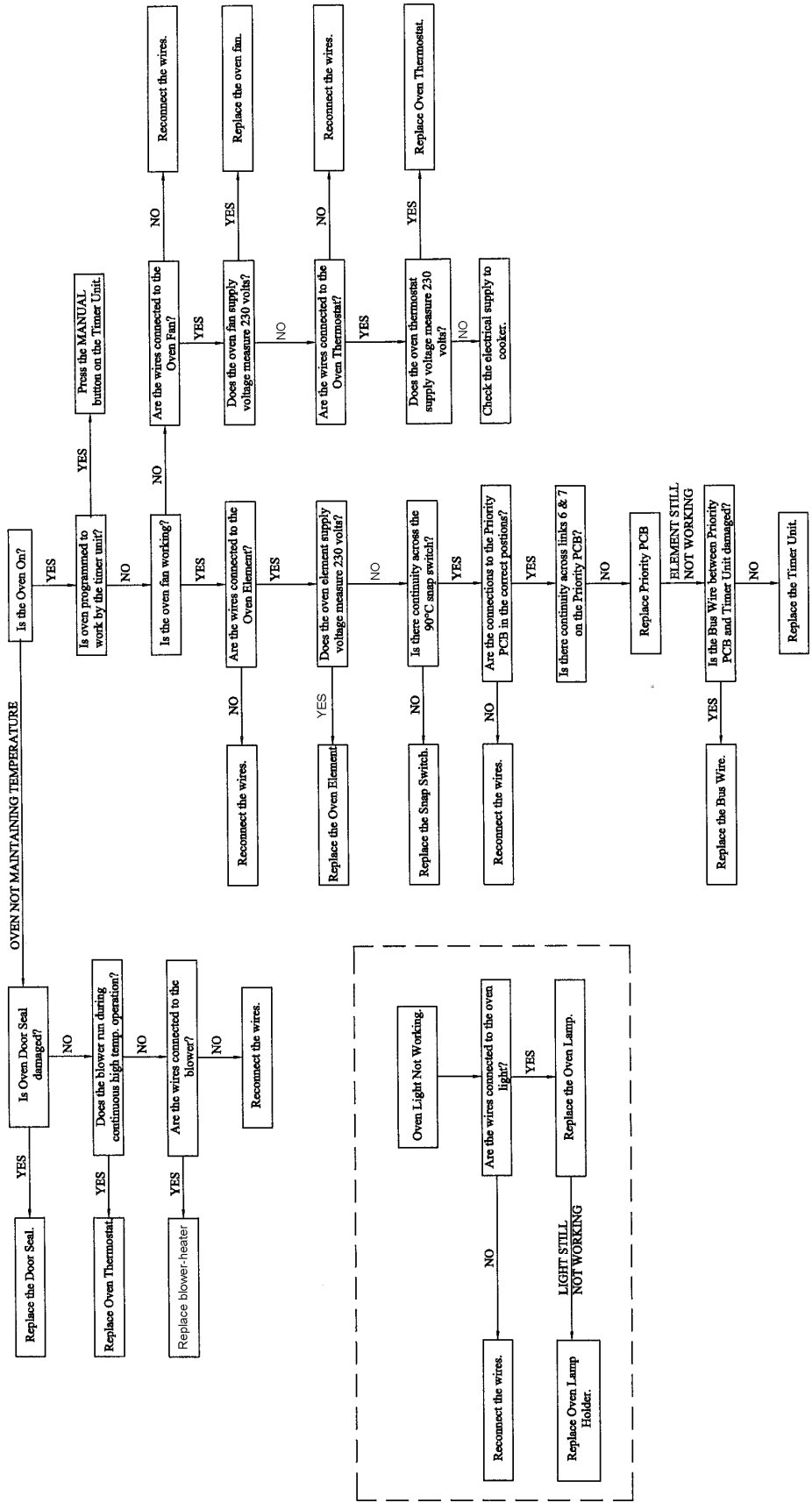
AFTER SALES SERVICE

Your product is guaranteed for one year from the date of purchase. We undertake to exchange or repair any part, free of charge, within this period. All enquiries for service should be directed in the first instance to the retailer from whom the product was purchased. Please do not initially return a faulty appliance or part of an appliance to us as this may result in transit damage and/or delay in providing service. Let us know your difficulty quoting the model number and series letter of the appliance. We will then take appropriate action.

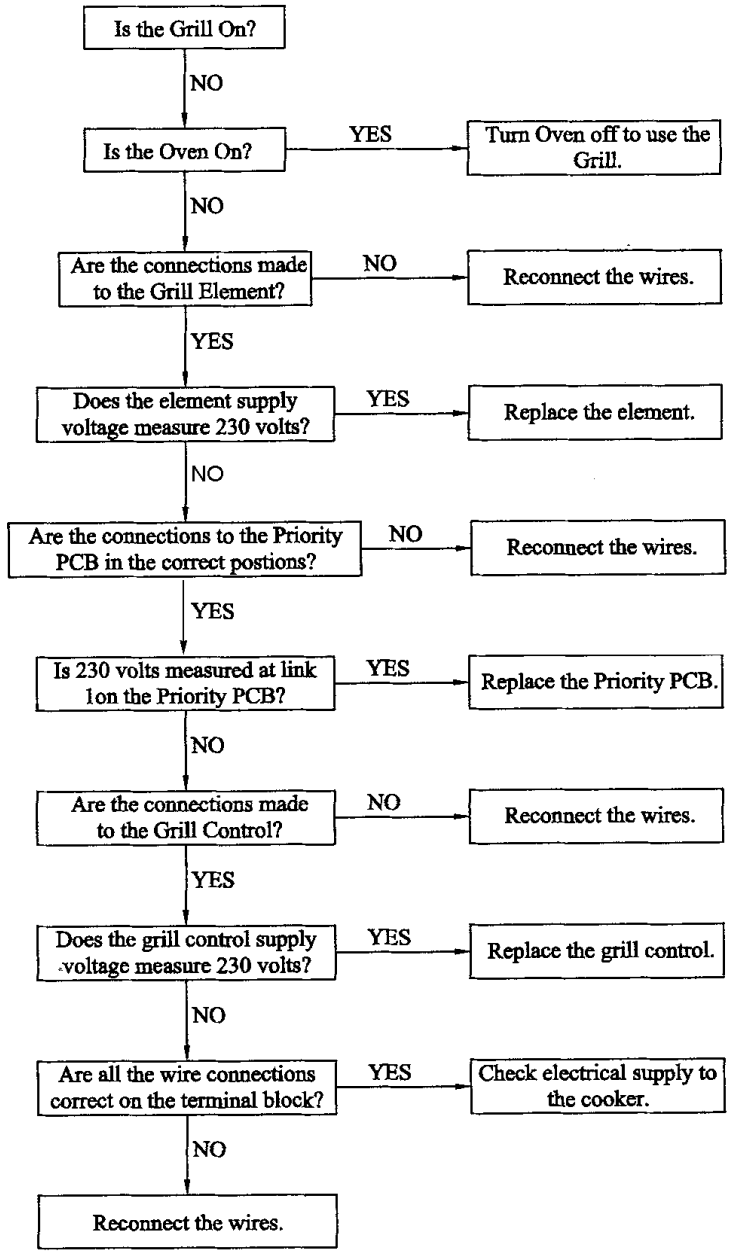
FAULT FINDING

	PROBLEM	CAUSE	REMEDY
1.	Nothing Works:	(a) No Power	(a) Check power supplies & fuses.
2.	Radiators Not Heating:	(a) Circulating pump not working.	(a) Check & replace if detective.
		(b) Air in system.	(b) Bleed system.
		(c) Pipe system faulty.	(c) Check pipe sizes and circuit.
		(d) Excessive number of radiators.	(d) Turn off un-needed radiators.
		(e) Radiator valves not balanced.	(e) Adjust valves to give an even flow.
		(f) By-pass incorrectly set.	(f) Adjust by-pass valve.
		(g) Burner starved of primary air.	(g) Provide air inlet in room.
		(h) Dirty burner.	(h) Service burner.
		(i) Faulty Boiler or Limit Thermostat	(i) Replace if defective
		(j) Motorised valve not opening	(j) Check and replace if defective.
3.	Domestic Hot Water Cylinder Not Getting Hot Enough:	(a) Cylinder too large.	(a) Use 180 litre cylinder.
		(b) Flow pipe too large.	(b) Use 28mm bore pipe.
		(c) Balancing valve is closed.	(c) Open balancing valve.
		(d) Cylinder thermostat set too low.	(d) Increase thermostat setting.
		(e) Circulating pump not working.	(e) Check & replace if defective.
		(f) Motorised valve not opening.	(f) Check & replace if defective.
4.	Burner Not Firing	(a) Various	(a) Refer to Oil Burner or Gas Burner Fault Finding Sections.
5.	Oven Not Working	(a) Various	(a) Refer to Oven Fault Finding.
6.	Oven Light Not Working	(a) Various	(a) Refer to Oven Fault Finding.
7.	Space Heat Not Working	(a) Various	(a) Refer to Space Heat Fault Finding.
8.	Grill Not Working	(a) Various	(a) Refer to Grill Fault Finding.
9.	Ceramic Hob Not Working	(a) Various	(a) Refer to Ceramic Hob Fault Finding.

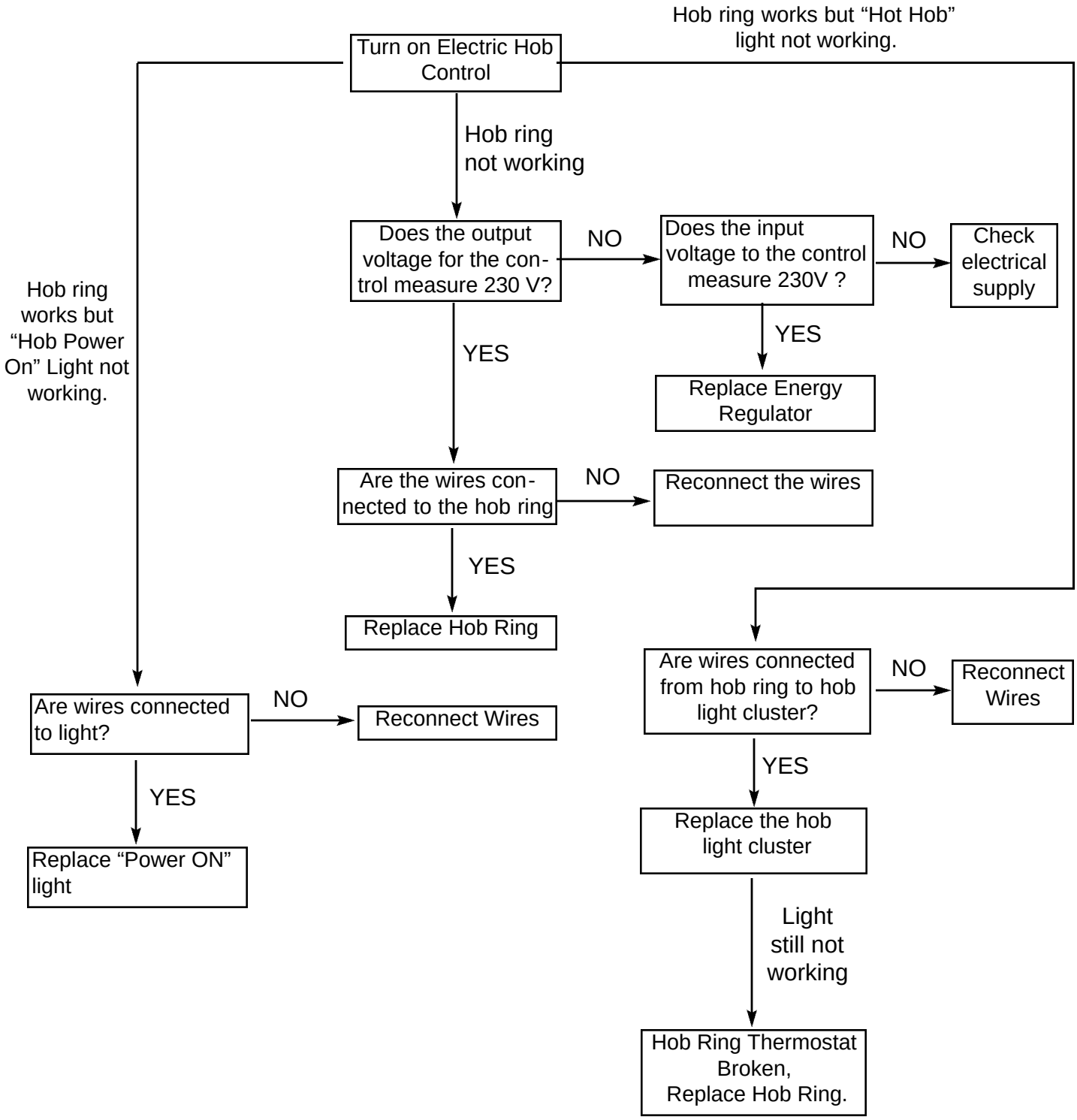

Is the Space Heating On?
YES
Is the Grill On?
YES
Turn Grill off to use Space Heating.
NO
Is the Oven On?
YES
Turn Oven off to use Space Heating.
NO
Is air passing through the slots above the oven door?
YES
Are the wires connected to the heater?
NO
Reconnect the wires.
YES
Does the heater supply voltage measure 230 volts?
YES
Replace the blower-heater
NO
Are the wires connected to the blower?
NO
Reconnect the wires.
YES
Does the blower supply voltage measure 230 volts?
NO
Are all the connections to the Priority PCB in the correct position?
NO
Reconnect the wires.
YES
Is the bus wire from Priority PCB to Timer Unit Damaged?
YES
Replace the bus wire.
NO
Is the red light beside the space heat button on the timer unit illuminated?
NO
Replace the Timer Unit.
YES
Replace the Priority PCB.
YES
Replace the blower-heater


OVEN NOT MAINTAINING TEMPERATURE
Is the Oven On?
YES
NO
Is oven programmed to work by the timer unit?
YES
NO
Press the MANUAL button on the Timer Unit.
Is the oven fan working?
YES
NO
Are the wires connected to the Oven Fan?
YES
NO
Reconnect the wires.
Does the oven fan supply voltage measure 230 volts?
YES
NO
Replace the oven fan.
Are the wires connected to the Oven Element?
YES
NO
Reconnect the wires.
Does the oven element supply voltage measure 230 volts?
YES
NO
Replace the Oven Element.
Are the wires connected to the Oven Thermostat?
YES
NO
Reconnect the wires.
Does the oven thermostat supply voltage measure 230 volts?
YES
NO
Replace Oven Thermostat.
Check the electrical supply to cooker.
Is there continuity across the 90°C snap switch?
YES
NO
Replace the Snap Switch.
Are the connections to the Priority PCB in the correct positions?
YES
NO
Reconnect the wires.
Is there continuity across links 6 & 7 on the Priority PCB?
YES
NO
Replace Priority PCB
ELEMENT STILL NOT WORKING
Is the Bus Wire between Priority PCB and Timer Unit damaged?
YES
NO
Replace the Bus Wire.
Replace the Timer Unit.
Is Oven Door Seal damaged?
YES
NO
Replace the Door Seal.
Does the blower run during continuous high temp. operation?
YES
NO
Replace Oven Thermostat.
Are the wires connected to the blower?
YES
NO
Reconnect the wires.
Replace blower-heater
Oven Light Not Working.
Are the wires connected to the oven light?
YES
NO
Reconnect the wires.
Replace the Oven Lamp.
LIGHT STILL NOT WORKING
Replace Oven Lamp Holder.

GRILL FAULT FINDING



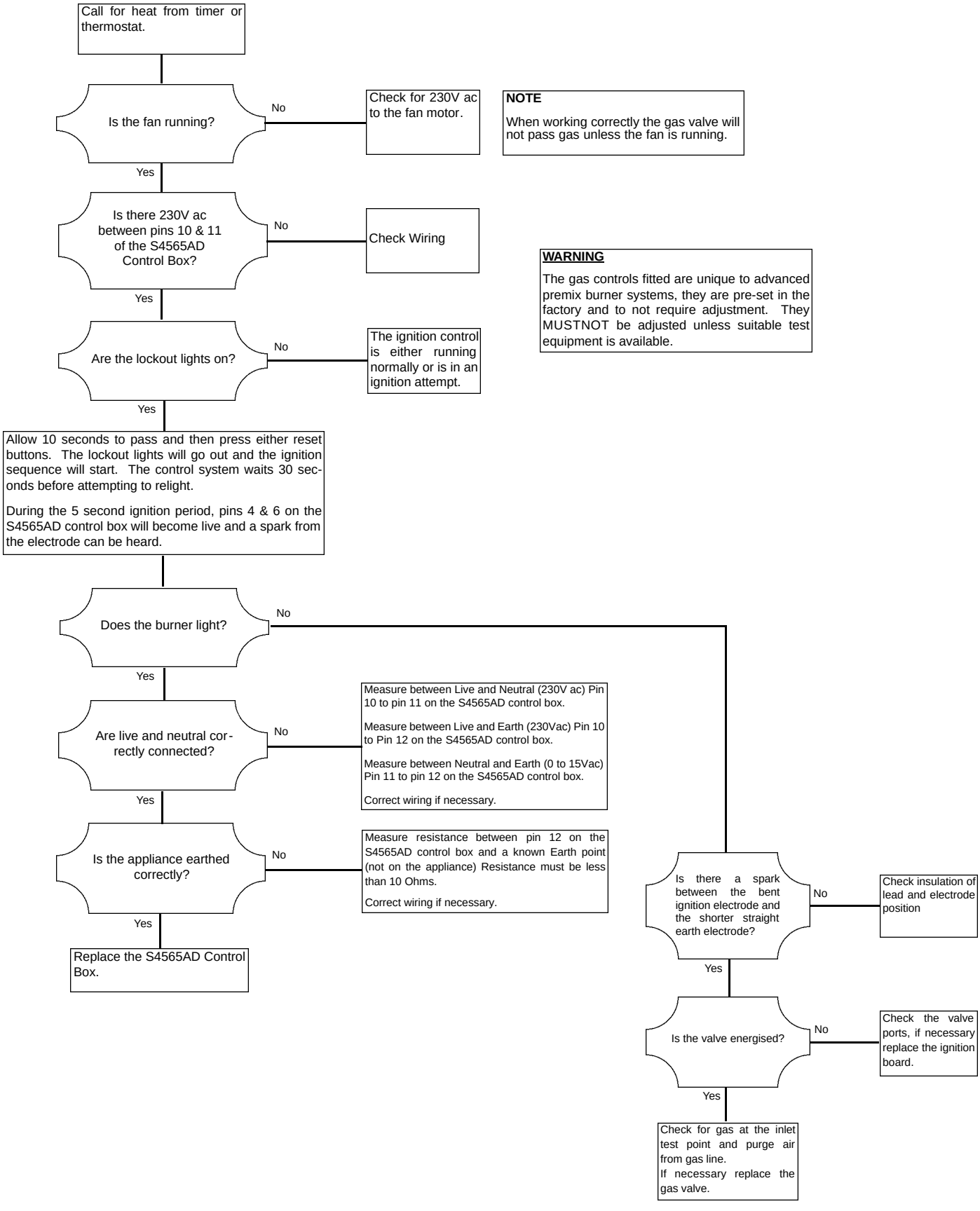
CERAMIC HOB FAULT FINDING SEQUENCE



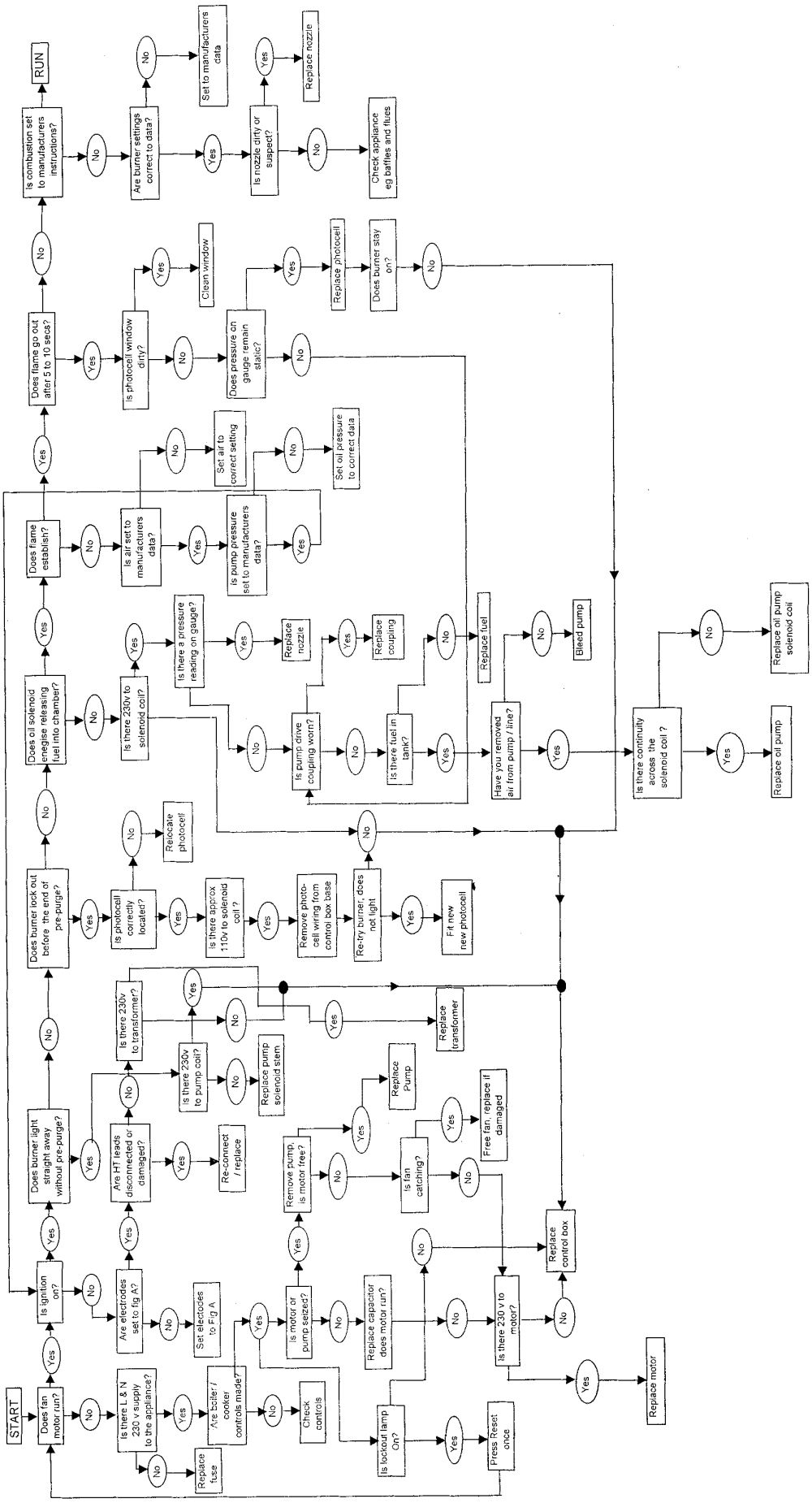
GAS BURNER FAULT FINDING SEQUENCE

Starting point, call for heat but no main burner ignition

Ignition board S4565AD

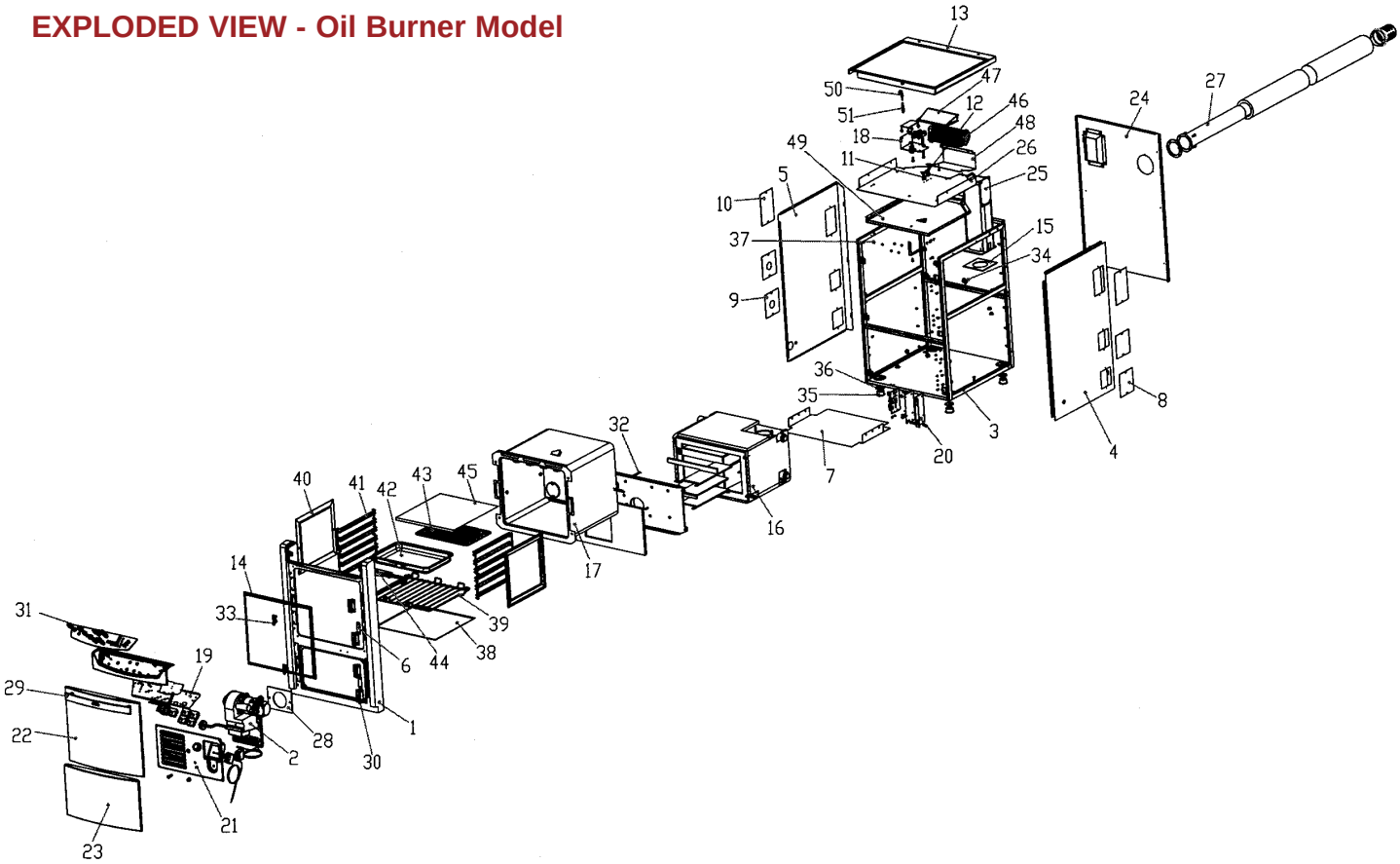


OIL BURNER FAULT FINDING



SAFETY STATEMENT GUIDELINES			
	DANGER	**RISK**	**PRECAUTIONS**
1.	Hot Surfaces	Burns	Supervise and Ensure children, aged and infirm are excluded from area of cooker when operating it.
2.	Oil & Flue Gas Leaks.	Fire & Suffocation	Stop Cooker immediately and repair leaks
3.	Oil supply line leaks.	Damage to Building & Smell	Repair leak asap
4.	Damaged Electrical cables.	Electrocution	Isolate and repair immediately
5.	Insulation Materials.	Skin & Lung irritation	Wear protective clothing and masks.
6.	No Water corrosion inhibitor.	Damage to boiler	Top up water system with inhibitor
7.	Frost damage when cooker swiched off.	Boiler & Pipe burst.	Add antifreeze to system
8.	Blocked air vent to cooker	Poor combustion. Build up of dirt in cooker.	Ensure vents are clean and clear
9.	Block pressure relief valve in Water Circuit.	Pipe & Boiler Damage	Check PRV'S monthly
10.	Inadequate lighting over cooker.	Scalding/Burns.	Provide proper lighting.
11.	Unsafe stacking of items on platerack.	Injury from falling items.	Do not stack items.
12.	High pressure or insufficient water in boiler.	Boiler Damage.	Fit PR Valves and ensure system is always topped up with water automatically.
13.	Operators not trained.	Injury, Burns and damage to cooker.	Read manual before operating.
14.	Not servicing cooker annually	Poor performance blocking of burners	Service cooker annually

EXPLODED VIEW - Oil Burner Model



1. Front Casting
2. Oil Burner
3. Chassis
4. RH Side Panel
5. Side Panel LH
6. Door Catch Blanking Plate
7. Boiler Slide Tray
8. Side Panel Blanking Plate
9. Boiler Connection Blanking Plate
10. Side Panel Flue Blanking Plate
11. Snap Switch
12. Snap Switch
13. Electric Hob
14. Rubber Oven Door Seal
15. Flue Terminal Gasket
16. Boiler Assembly
17. Oven
18. Mains Inlet Connector Assy
19. Control Panel Assy
20. Control PCB Bracket Assembly
21. Boiler Control Panel Assembly
22. Main Oven Door Assembly
23. Boiler Door
24. Back Panel Assembly
25. Flue Assembly Complete
26. Cooling Plate Top
27. Back External Flue Assy
28. Burner Gasket
29. Towel Rail
30. Door Hinge
31. Door knob
32. Roller Latch
33. Roller Latch
34. Push Mounted Tie
35. Ball Transfer Unit (522-0)
36. CL14-Fixing Clip
37. Compression Ring
38. Oven Drip Tray
39. Oven Shelf
40. Oven Stay-Clean Panel
41. Side Shelf
42. Roasting Tin
43. Roasting Tin Grill
44. Roasting Tin Handle
45. Heat Shield
46. Blower Heater
47. Deflector Plate
48. Blower Mounting Bracket
49. Cooling Plate Base
50. Hook Bolt
51. Hook Bolt Collar

WARRANTY

Your new cooker is guaranteed, the guarantee is only applicable if the cooker has been installed in accordance with the installation instructions.

IMPORTANT NOTICE: Any alteration to this appliance that is not approved in writing by Waterford Stanley will render the guarantee void.

Date purchased

Date installed

Model N^{o}

Serial N^{o}

Supplier (Name and address)

Purchaser (Name and address)

Installer (Name and address)

Date Purchased:_____

Date Installed:_____

Stanley Model N^{o}

Stanley Serial N^{o}

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STANLEY
TURNING YOUR HOUSE INTO A HOME