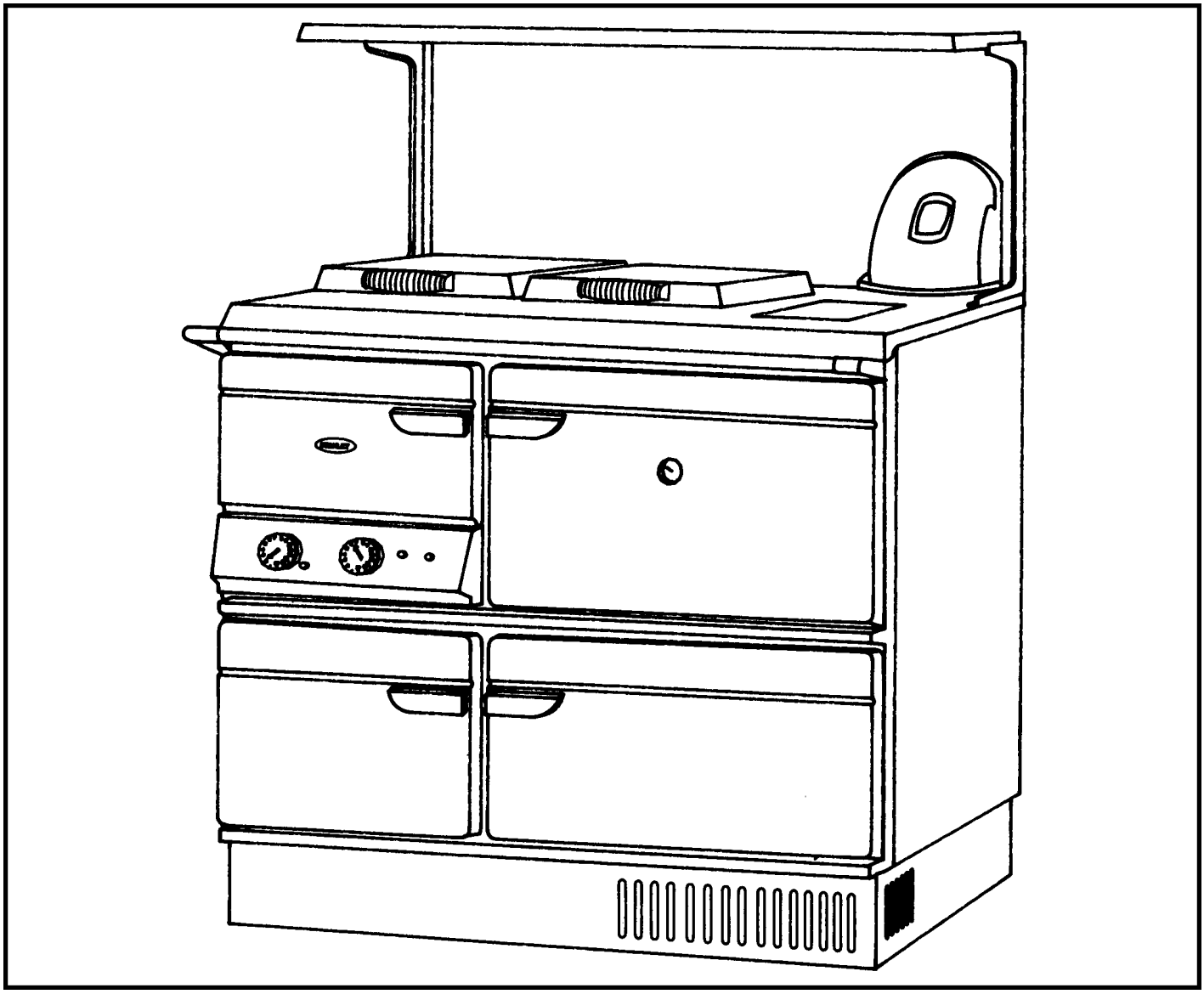
STANLEY

TURNING YOUR HOUSE INTO A HOME

DONARD 60K GAS FIRED

(SUPER STAR 60K GAS COOKER)



To ensure safety, satisfaction and reliable service, **this Cooker should be installed by a suitably qualified and competent person.** The provision of a Central Heating facility, requires that the hot water systems involved, conform fully to good plumbing practice and established standards.

INSTALLATION AND OPERATING INSTRUCTIONS

TO BE LEFT WITH END USER

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INTRODUCTION

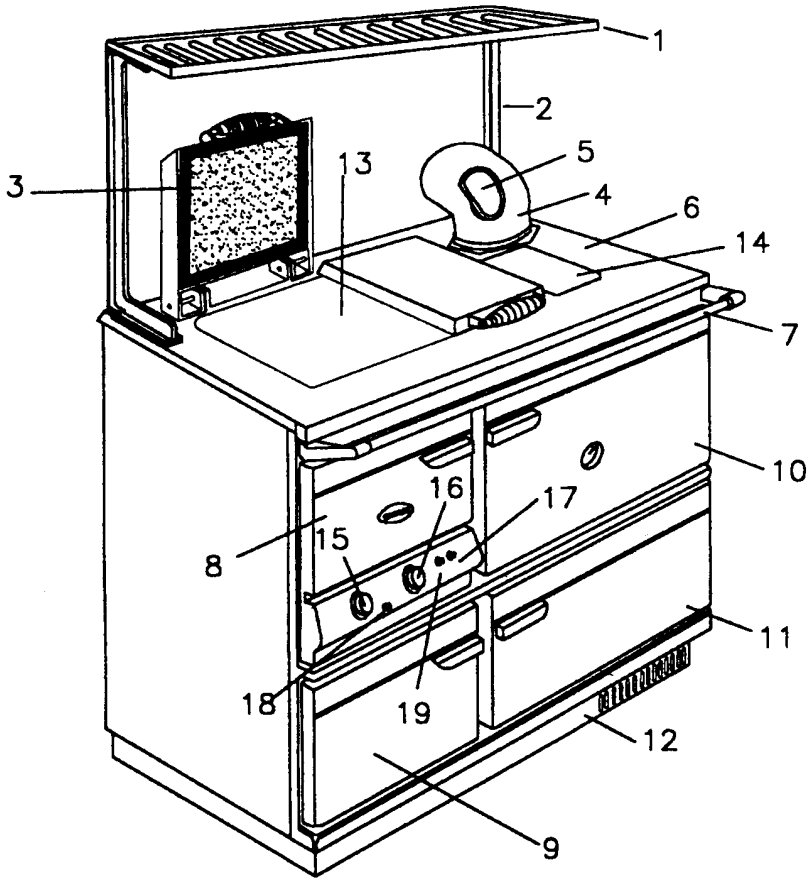
Congratulations on purchasing this fine Irish made Gas-Fired Central Heating Cooker. It is built to exacting standards and it will give you every satisfaction in use. We invite you to read carefully the operating and installation instructions provided. This will enable you to familiarise yourself with this appliance.

In your own interest and that of safety, it is the law that all gas appliances are installed and commissioned by competent persons in accordance with the Gas Safety Installation and Use Regulations 1998 (as amended).

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

This is a combination appliance capable of providing up to 17.6 kW (60,000 Btu's/hr) to water. Space heating to room in which the appliance is installed is 3.67 kW (12,000 Btu's/hr) approximately.

The complete installation must be done in accordance with current Standards and Local Codes. It should be noted that the requirements and these publications may be superseded during the life of this manual.



1. Plate rack (to order)
2. Splash back (to order)
3. Hotplate Covers
4. 150mm (6") 90° Bend
5. Bend Cleaning Plate
6. Hob
7. Towel Rail
8. Fire Door
9. Burner Door
10. Main Oven Door
11. Simmer Oven Door
12. Base Frame
13. Hotplate
14. Simmer and Cleaning Plate
15. Boiler Thermostat
16. Oven Thermostat
17. Green Neon Indicator Light
18. Reset Button / Limit stat
19. Red Lock Out Light

CE 0063

IMPORTANT - CONTROL OF SUBSTANCES HARMFUL TO HEALTH

It is the Users/Installers responsibility to ensure that the necessary personal protective clothing is worn when handling materials that could be interpreted as being injurious to health and safety.

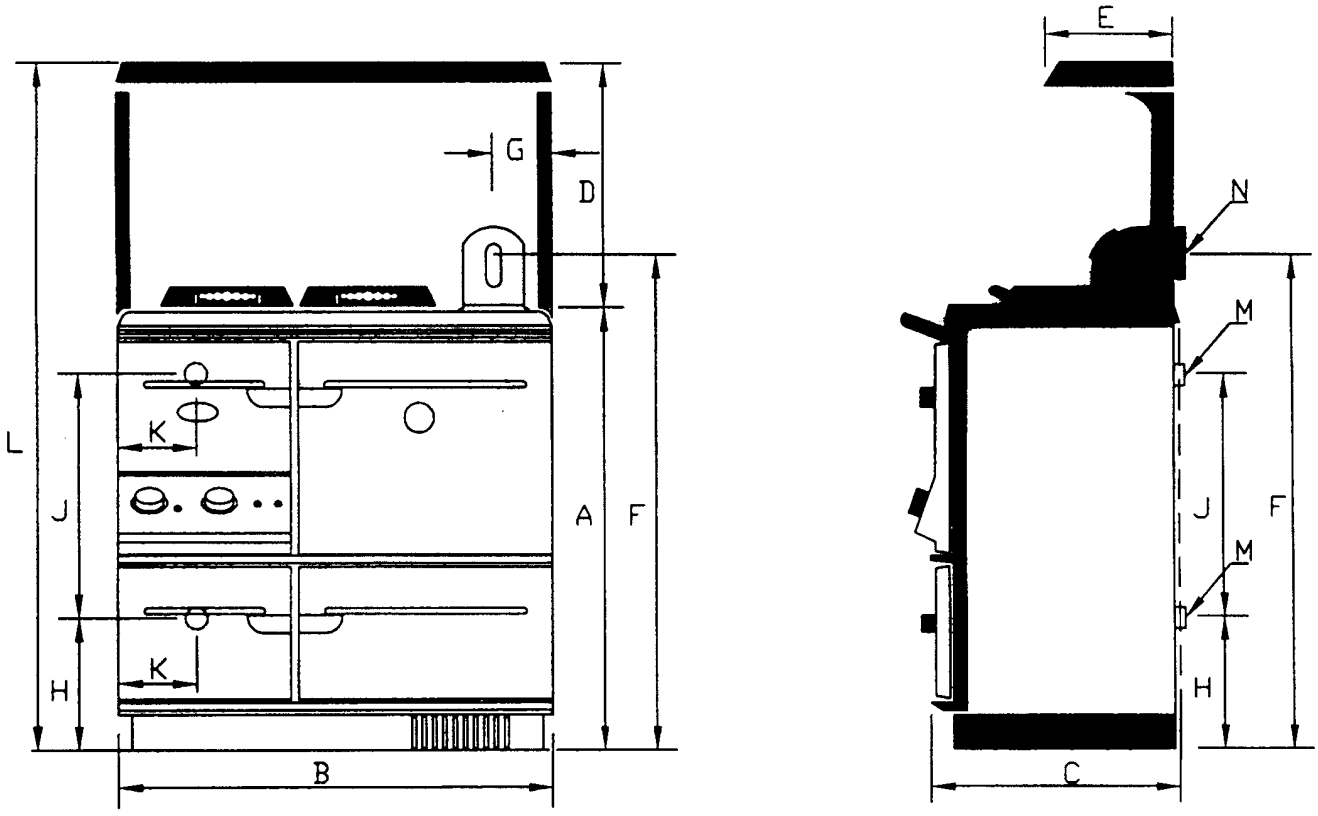
When handling Firebricks & Fire Cement, use disposable gloves. Exercise caution and use disposable masks and gloves when handling glues and sealants. When working with fibre glass, mineral wool, insulation materials, ceramic blanket/board, avoid inhalation as it may be harmful. Avoid contact with skin, eyes, nose and throat, use disposable protection. Installation should be carried out in a well ventilated area.

Note: These instructions are only valid if the country symbol appears on the appliance. If the symbol does not appear on the appliance, it is necessary to refer to the technical instructions concerning modifications of the appliance to the conditions of use of the country.

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.

SPECIFICATION



Note: dimensions stated below may be subject to a slight +/- variation

DIMENSIONS	A	B	C	D	E	F	G	H	J	K	L	M	N
METRIC (millimetre)	915	920	530	560	300	1047	130	325	525	190	1475	1" BSP	150
IMPERIAL (inches)	36	36 1/4	20 7/8	22	11 3/4	41 1/4	5 1/8	12 3/4	20 5/8	7 1/2	58	1"BSP Female	6

FEATURE	**METRIC**	**IMPERIAL**
HOT PLATE	555 x 325	22 x 13
ROASTING OVEN	400W x 320H x 410D	16W x 12 1/2H x 16D
SIMMERING OVEN	400W x 225H x 410D	16W x 9H x 16D

This appliance has been tested and approved in accordance with the Gas Appliance Directive (90/396/EEC), the Low Voltage Directive (72/23/EEC) and the Electromagnetic Compatibility Directive (89/336/EEC) as amended.

Differential Pressure Across the Boiler

Design flow rate through the boiler	23 Litres / min. (G.P.M)
Static differential across the boiler	52 mbar (21" W.G.)
Dynamic pressure differential across the boiler	6 mbar (2.41" W.G.)

Note: Water temperature rise for above test recorded at 16°C.

TECHNICAL DATA

FUELS:	N.G.	2nd Family, Natural Gas.(I.E., G.B., F.R., A.T., D.K.,E.S., F.I., I.T., P.T. & S.E)	
	L.P.G.	3rd Family, L.P.G.(I.E., G.B., B.E., F.R., E.S., & P.T.)	
PRODUCT IDENTIFICATION NO:		63AQ8500	
COUNTRY OF DESIGNATION:		I.E. & G.B., B.E., A.T., D.K., E.S., F.I., I.T., P.T., S.E., & F.R.	
GAS TYPES:	N.G.	I_{2H}, G20, 20 mbar & I_{2E+} (F.R. Only)	
	L.P.G.	I_{3P}, G31, 37 mbar	
MAINS GAS PIPE:	N.G.	min.13mm 1/2" BSP capable of 90 ft^3/hr from a domestic regulator.	
	L.P.G.	min. 13mm 1/2" coated copper capable of 45 ft^3/hr from an approved L.P.G. - Propane regulator.	
MAINS CURRENT:		230V - 240V, 50 Hz, A.C.	
SUPPLY FUSE RATING:		3A	
IONISATION CURRENT:		Minimum of 7µa.	
IP PROTECTION DEGREE:		IP 20.	
ELECTRICAL INPUT:		90 watts.	
MAINS GAS PRESSURE:	N.G.	20 mbar	8" wg
GAS RATE:		2.3 m^3/hr	81 $ft.^3$/hr
	L.P.G.	37 mbar	14" wg
FAN PRESSURE:		2.5 mbar	1" wg
MAXIMUM FLUE RESISTANCE:		0.8 mbar	0.32" wg
MANIFOLD PRESSURE:	N.G.	14.9 mbar	6" wg
	L.P.G.	7 mbar	2.8" wg
GROSS INPUT:		24.9 kW	85,000 Btu/hr
NET INPUT:	N.G.	22.5 kW	76,811 Btu/hr
	L.P.G.	23 kW	78,476 Btu/hr
BOILER OUTPUT:		17.6 kW	60,000 Btu/hr
SPACE HEATING:		3.67 kW	12,000 Btu/hr
BOILER CONSTRUCTION:		6mm & 4mm mild steel plate	
BOILER TYPE:		B_{23}	
MAX. BOILER WORKING PRESSURE:		1.9 Bar	27.3 P.S.I.
TEST PRESSURE OF BOILER:		2.7 Bar	40 P.S.I.
OPERATING TEMP. LIMIT IN BOILER:		96°C	205°F
BOILER CAPACITY:		9.1 Litres	2.5 Gallons
COOKER WEIGHT:		364kgs	800 lbs

Whilst the primary air and gas rate on this appliance have been set, combustion tests and the gas rating must be undertaken, during commissioning and adjusted accordingly.

NOTE: This appliance shall be installed in accordance with the regulations in force and only used in a well ventilated location. Read the technical instructions before installing this appliance. Read the user's instructions carefully before lighting this appliance.

As manufacturer's 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 requirement when properly used and installed.

United Kingdom

* Section 10 of the Consumer Protection Act.
* Gas Safety (Installation and Use) Regulations 1998 (as amended)
* Gas Appliance Safety Regulations (as amended).
* Health and 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).
* I.S. 813 (as amended).

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

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 system for domestic installation.
B.S. 7671: Requirements for Electrical Regulations.
Safety Document 635: The Electricity at Work Regulations.
B.S. 7074 Part 1 & 2: Hot Water Supply.
B.S. 4814: Sealed Systems.
B.S. 6891 Gas Pipe Sizing

I.S. 813 : Domestic Gas Installation
B.S. 5440 Parts 1 & 2 Installation & maintenance of flues and ventilation
B.S. 7593 Treatment of water in domestic hot water systems
PAS 33 : 1999: Product Assessment Specification for Design, Installation & Commissioning of Gas Fired Central Heating Systems in Domestic Premises.

LOCATION

Prior to installation, ensure that the local distribution conditions (nature of the gas and gas pressure) and adjustment conditions are compatible. The adjustment conditions for this appliance are stated on the data badge which is fitted inside the bottom burner door.

When choosing a location for this appliance you must have:

(a) Sufficient room for the installation (see clearances), a satisfactory flue, and an adequate air supply for correct combustion and operation. (See Ventilation & Combustion Air Requirements).

(b) Adequate space for maintenance and air circulation.

(c) Solid floor or base of non-combustible material which is capable of supporting the total weight of the appliance. (see Technical Data).

ELECTRICAL SUPPLY

All wiring external to the appliance must conform to the current BS 7671, B.S. 7462, Safety Document 635, ETC: Part 1 section 5.4.6. & The Electricity at Work Regulations. The cooker requires a 230V - 240V, 50Hz supply. Connection of the appliance and any system controls to the mains supply must be through a moulded on plug top, (with a 5?Amp fuse fitted), which is fitted to the appliance in accordance with EN 60335, Consumer Protection, - S.I. 1994 No. 1768, plug and sockets etc. (safety) Regulations 1994.

Always install in accordance with current local wiring regulations.

WARNING: THIS SUPPLY AND APPLIANCE MUST BE EARTHED (Refer to B.S. 7430 Code of Practice for Earthing)

Where a risk of low voltage can occur, a voltage sensitive device should be fitted to prevent start up of the burner so as not to endanger the installation. (see fig. 30)

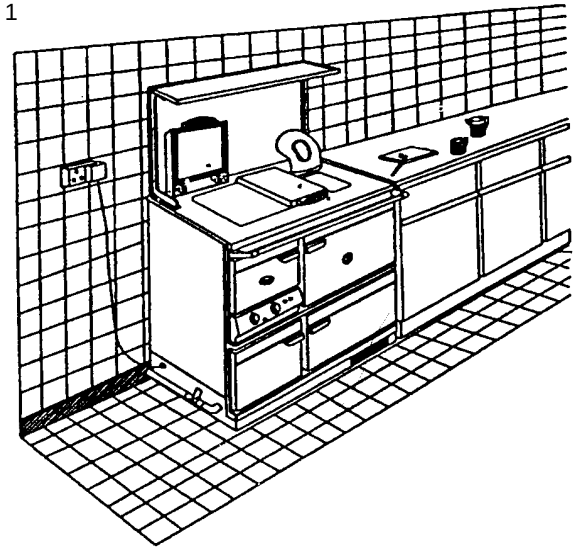
To isolate the appliance completely, unplug from the mains socket. Always ensure that this socket is easily accessible and close to the appliance. Persons in charge of this appliance should be aware of this socket outlet position.

GAS PIPES AND FITTINGS

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

* B.S. 2871 Part 1 & pr EN 1057 - Copper Tubes.

Fig. 1



* B.S. 219, EN 29453 & ISO 9453 - soft solders.
* B.S. 759 - Valves, gauges and other safety equipment.
* B.S. 1387 - Steel tubes.
* B.S. 6362 & B.S. 4127 - Stainless steel tubes.
* B.S. 1552 - Manual Shut of valves.
* B.S. 1740 - Wrought steel pipes.
* B.S. 5295 & B.S. 6956 Jointing Materials.
* B.S. 4089 - LPG hoses and assemblies.

METERS

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

GAS PIPE SIZE

It is important that the correct service pipe size be used in order to ensure an adequate gas supply. 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.

NOTE: The Donard has an input rating of 24.9 kW (85,300 Btu's/hr) approximately. See BS 6891. (If in doubt consult your gas supply company)

A $^{3}/_{4}$" gas shut off valve, which does not cause a restriction in flow or a pressure drop when open, must be fitted as close to the appliance as possible. This tap should be accessible at all times.

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.

HEARTH CONSTRUCTION

When a non-combustible floor surface is not available then we recommend that the cooker be placed on a slab of pre-cast concrete 40mm (1½") deep or a slab of other insulating material. This hearth must extend (150mm) 6" to either side of the appliance and (225mm) 9" to the front. The cooker must stand on a flat surface.

INSTALLATION

Flue Liner greater than (150mm) 6" Diameter

Fig.2

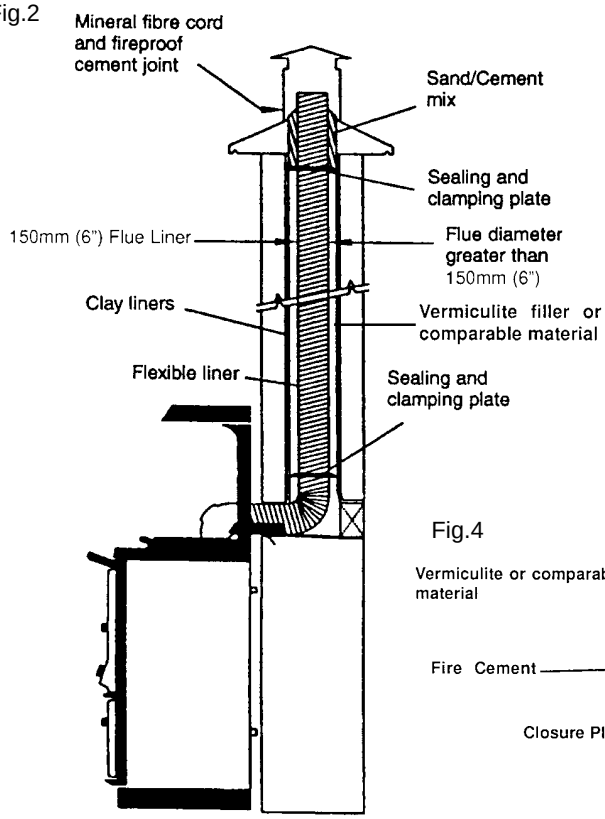
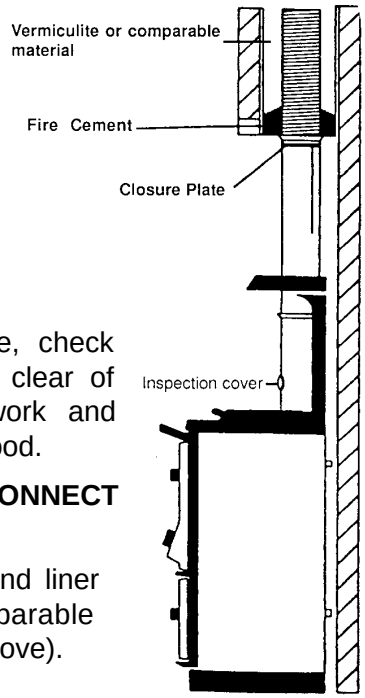


Fig.4



150mm (6") Salt Glazed Earthenware Flue & Purposely Made Pre-cast Sealed Concrete Chimney's

Fig.3

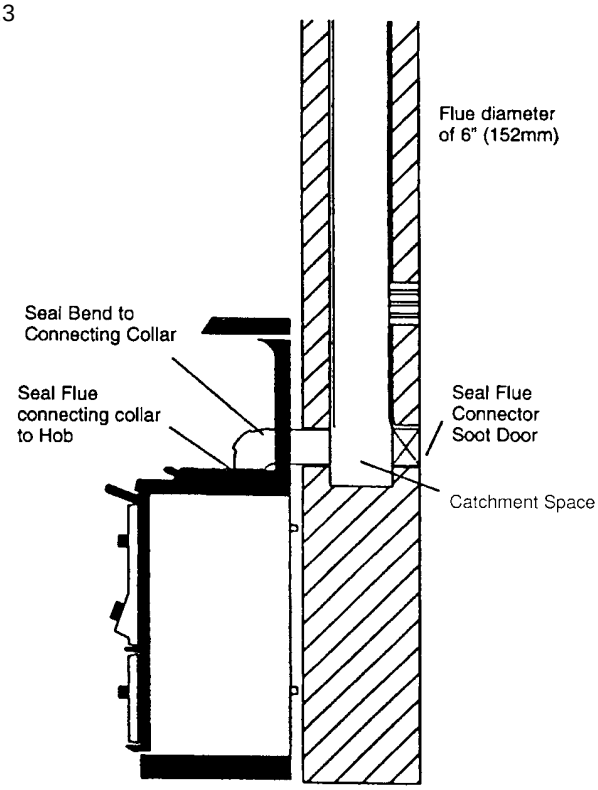


Fig.5

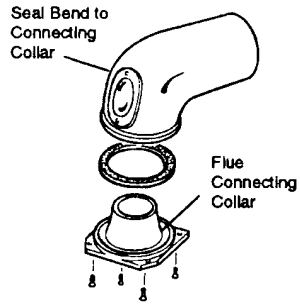


Fig.6

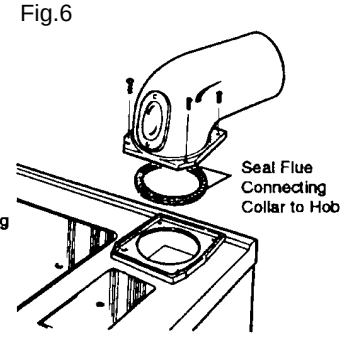


Fig.6a

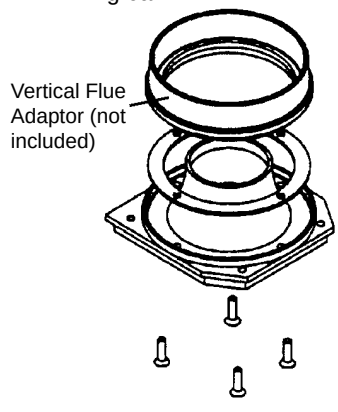
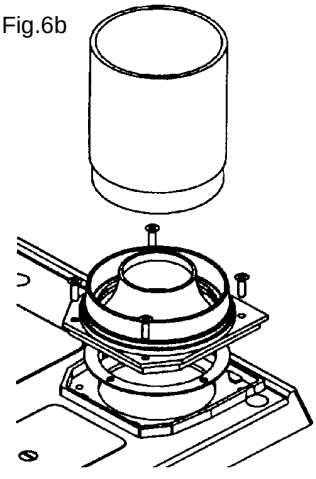


Fig.6b



PRE-INSTALLATION CHECK

Before installing your appliance, check that the chimney is clean and clear of obstructions. Cracked brick-work and leaking joints should be made good.

IT IS RECOMMENDED TO CONNECT TO A FLUE OF 150mm (6").

Note: Fill voids and area around liner with vermiculite or a comparable approved material. (See figs. above).

CHIMNEYS

Generally the most effective chimney for gas is one that is straight, avoid offsets and terminate an approved low resistance flue terminal.

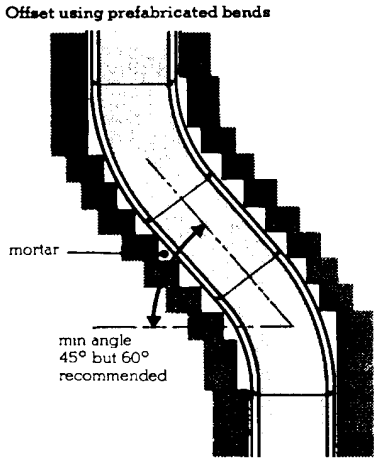
SEALING

This cooker and flue system operate under a positive pressure, it is essential that all flue joints are tightly sealed against flue gas leakage and tested accordingly (see figs. above).

FLUE HEIGHT

If it is necessary to offset the chimney, the recommended angle is 60° to the horizontal and the statutory minimum is 45°C.

Fig. 7



The height of the chimney or flue serving this appliance should not be less than 4m (13') measured vertically from the appliance outlet to the top of the flue terminal, and having a diameter of 150mm (6"). The terminal position should be in accordance with B.S. 5440 Part 1 and the Building Regulations.

Note: Never connect to a chimney or flue system serving another appliance.

FLUES

The chimney and flue pipes intended for use with this appliance should be mechanically robust, resistant to internal and external corrosion, non-combustible, and durable under the conditions to which they are likely to be subjected.

Flues require a suitable external terminal which should be designed to permit easy ingress of combustion products whilst providing protection against the entry of rain, birds and other foreign matter into the system. Flue pipes and accessories such as clips and stays should not be made of unprotected mild steel or other material which is likely to corrode.

Where flue piping passes through a closure plate with a sliding door, ensure that the pipe continues up and is ultimately connected to the flue liner and well sealed with fire cement.

Do not connect to a chimney serving another appliance. Always ensure that the connection is to a chimney of the same size. Chimneys wholly constructed of single skin pipe are not recommended under any circumstances. Due to their inability to retain heat such chimneys will inevitably give rise to the formation of condensation. (see figs 2,3,& 4).

SUITABLE MATERIAL

* Mineral Fibre cement pipes conforming to B.S. 7435.
* Sheet metal conforming to B.S. 715 & B.S. 4076.
* Insulated metal chimneys conforming to B.S. 4543 and B.S. 5440 (a galvanised finish is not suitable).
* Clay flue linings conforming to B.S. 1181.
* Pre-cast concrete chimney blocks, incorporated into the building structure. It is particularly important that the correct connection block be provided at the base of the flue. B.S. 3572. (see fig 3)
* Cast iron or acid resistant vitreous enamel lined mild steel to B.S. 41.

CONNECTIONS

This appliance can either be connected to an approved masonry chimney or gas flue. This appliance may be connected either direct vertical or horizontal.

A cast iron 90° bend with cleaning door is provided with the cooker. A vertical cast iron outlet pipe with cleaning door is available to order. (See Figs. 5 & 6)

ALL FLUE CONNECTIONS MUST BE THOROUGHLY SEALED. Blocked chimneys are dangerous, keep chimneys and flueways clean; read the operating instructions.

STANLEY CAST IRON PIPES AND BENDS ARE HIGHLY RECOMMENDED FOR INTERIOR USE. (see fig. 5 & 6)

NOTE: Maximum horizontal length should not be more than 300mm (12").

WHERE THE APPLIANCE SPIGOT OR FLUE PIPE PROTRUDES INTO THE CHIMNEY, CARE SHOULD BE TAKEN TO ENSURE THAT IT DOES NOT BLOCK THE CHIMNEY.

DRAUGHT REQUIREMENTS

While inadequate draught can seriously effect the efficient operation of the appliance, chimneys over (5.4m) 18ft. or houses built on high ground can experience excessive draught. The accepted draught reading for satisfactory operation is 1.5mm min. (06." w.g.) 2.5mm max. (0.1" w.g.).

FLUE CLEANING

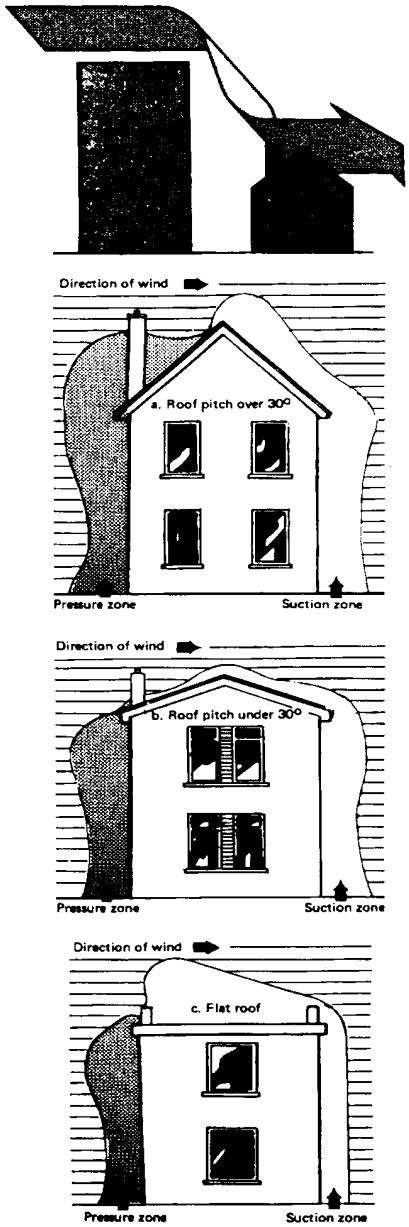
The flue pipe must be fitted with a cleaning plate, the flue must be inspected annually and cleaned when necessary.

DOWN DRAUGHTS

However well designed, constructed and positioned, the satisfactory performance of the flue can be adversely affected by down draught caused by nearby hills, adjacent tall buildings or trees. These can deflect wind to blow directly down the flue to create a zone of high pressure over the terminal.

A suitable anti-down draught terminal or cowl will usually effectively combat direct down blow but no cowl is likely to prevent down draught due to a high pressure zone. (see fig. 8) Ensure that any cowl used will not restrict the flue exit, or cause excessive back pressure, Refer to B.S. 5440: Part 1.

Fig.8



USE OF EXISTING CHIMNEYS AND FLUES

When connecting to an existing chimney it is necessary to line the flue using either 150mm (6") rigid or flexible stainless steel liner. An existing flue pipe or chimney that has proved to be satisfactory when used for solid fuel can normally be used for this appliance provided that its construction, condition, and dimensions are acceptable. Flues that have proved to be unsatisfactory, particularly with regard to down draught, must not be considered for this appliance until they have been examined and any faults corrected. If there is any doubt about an existing chimney a smoke test to B.S. 5440: Part 1 should be carried out.

Before connecting this appliance to a chimney or flue pipe which has previously been used with another fuel, the chimney or flue pipe must be thoroughly swept and lined accordingly.

All register plates, restrictor plates, damper etc. which could obstruct the flue at a future date must be removed before connecting this appliance.

Where a chimney is not to be lined a suitable void must be provided at the base to contain any debris which might fall from the inside wall, so as to prevent that debris from obstructing the appliance flue outlet. (Removal of debris should be facilitated by the provision of an access door). The void should have a depth of not less than 250mm (10") below the appliance connection.

The combustion products from this appliance will have a descaling effect on hardened soot deposits left from burning solid fuels.

ALTHOUGH THE CHIMNEY MAY HAVE BEEN CLEANED OF LOOSE SOOT PRIOR TO INSTALLATION, IT IS IMPERATIVE THAT THE CHIMNEY IS INSPECTED FOR SCALED SOOT PARTICLES AFTER THE FIRST MONTH OF OPERATION AND ANY LOOSE MATERIALS REMOVED TO AVOID BLOCKAGE.

FACTORY-MADE INSULATED CHIMNEYS

Factory-made insulated chimneys should be constructed and tested to meet the relevant standards and recommendations given in:

* B.S. 7566 – Installation of factory-made chimneys conforming to B.S. 4543 for domestic appliances.
  Part 1: Method of specifying installations design information.
  Part 2: Specification for installation design.
  Part 3: Specification for site installation.
  Part 4: Recommendation for installation design and installation.

FLUE LINERS

Chimney's lined with salt glazed earthenware pipes are acceptable if the pipes comply with BS 1181 and must be 150mm (6"). When lining an existing chimney, a liner approved to BS 715 & B.S. 4543 Parts 1, 2 & 3 should be used.

The liner should be secured at the top and bottom using a closure/clamping plate, firmly sealed and

secured and an approved low resistance terminal used at the top.

It is essential that every flue system be inspected and tested by a competent person upon completion, to ensure that the combustion products are completely discharged to the outside atmosphere. (see Fig. 2)

VENTILATION AND COMBUSTION AIR REQUIREMENTS

It is imperative that there is sufficient air supply to the burner of the cooker in order to support combustion.

Detailed recommendations for air supply are given in BS 5440 Part 2. The minimum effective air requirement for this appliance is 90 cm^2 . When calculating combustion air requirements for this appliance use the following equation: 5cm^2 per each kW of rated input above 7 kW.

If there is another combustion appliance fitted in the same or adjacent room, it will be necessary to refer to B.S. 5440: Part 2 to calculate the additional air supply.

All materials used in the manufacture of air vents should be such that the vent is dimensionally stable, corrosion resistant, and no provision for closure.

The effective free area of any vent should be ascertained before installation. The effect of any grills should be allowed for when determining the effective free area of any vent.

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 and BS 5440 Part 2 (see Technical Data) from any part of any flue terminal. These air vents must also be satisfactorily fire proofed as per Building Regulations.

Air vents in internal walls should not communicate with bedrooms, bedsits, toilets, bathrooms or rooms containing a shower.

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. 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.

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/flue while the fan is in operation. Refer B.S. 5440 Part 2 & I.S. 813 and the Gas Safety (Installation & Use) Regulations as amended.

Where such an installation exists, a test for spillage should be made with the fan or fans and other gas burning appliances in operation at full rate. (i.e. extraction fans, tumble dryers) with all external doors and windows closed.

If spillage occurs following the above operation, an additional air vent of sufficient size to prevent this occurrence should be installed. As a guide an additional 50cm^2 is generally sufficient for most situations.

OUTSIDE AIR CONNECTION

This appliance may be connected direct to the outside of the house for its combustion air supply.

1. If this option is used a special kit is available to order.
2. Additional combustion air is not required as indicated in BS 5440 Part 2.
3. Remove the blanking plate located at the back of the cooker and remove the primary air grill located at the front of the cooker base. Fix solid blanking plate over the front of the base (See Figs. 9 & 11). The primary air grill may be disregarded.
4. Connect the optional 125mm (5”) spigot to the rear. (See Fig. 10)
5. To connect this cooker to an outside air supply use 125mm (5”) kit to order. (See Fig. 10)
6. Air inlets 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. This duct must also be satisfactorily fire proofed as per Building Regulations.
7. Joints between air vents and outside walls should be sealed to prevent ingress of moisture.

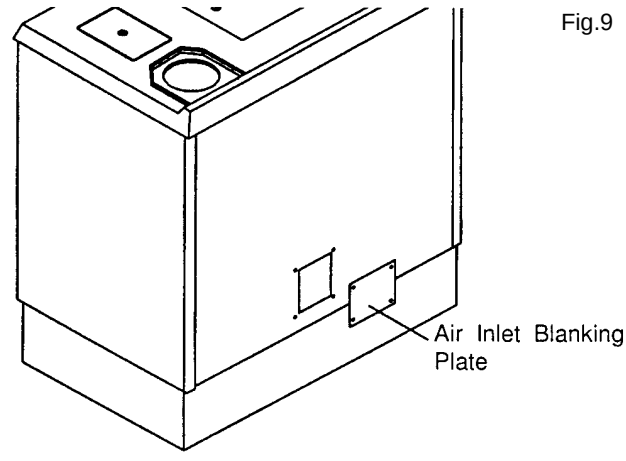


Fig.9

Fig.10

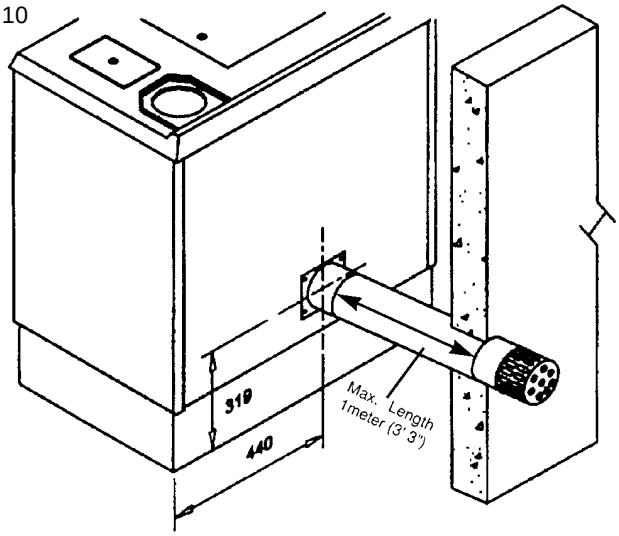
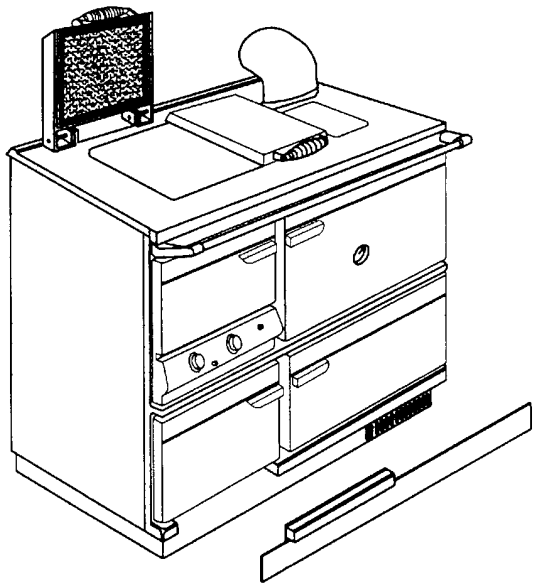


Fig.11



CLEARANCES TO COMBUSTIBLES

When using a tiled background and/or if you want to bring the Stanley to standard counter top depth (i.e. 600mm) (24") and leave no gaps at the back of the cooker use the back filler piece which is 85mm (3.25 ins) deep. There is a flue pipe collar available which surrounds the flue where it meets the wall, giving a tidier finish to a tiled background. The back filler piece and flue pipe collar are available to order. (see fig.11a).

When bringing the kitchen units up to the sides of the cooker hob, leave a 10mm (3/8") gap between the hob and adjacent units, this gap can be masked by fitting a filler strip up to the Stanley leaving a 5mm gap (see fig. 12 & 13).

Leave minimum 52mm (2") at rear of cooker to a combustible material (see fig. 10). Leave minimum 26mm (1") at rear of cooker to a non-combustible material (see fig. 13).

If optional hob rear filler piece is to be fitted leave 87mm clearance between hob and work surface.

If a filler strip is used to fill the gap between the units and the side of the cooker then a 3mm gap must be left. (see fig.12).

Fig.11a

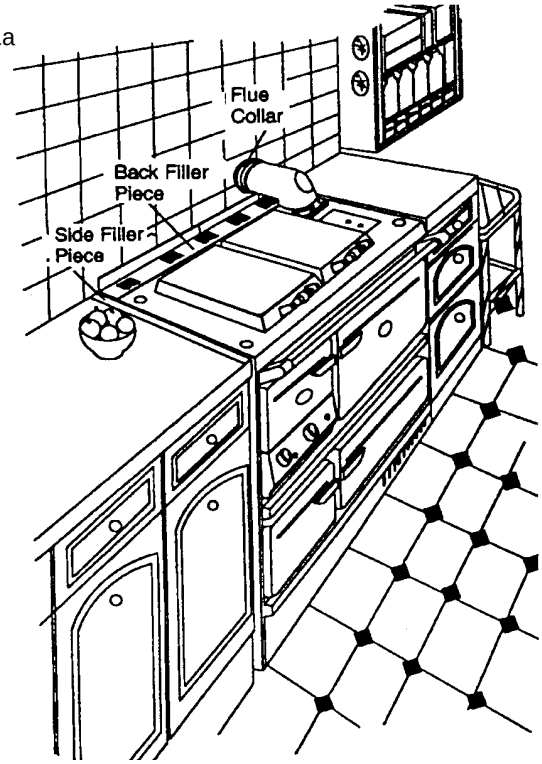
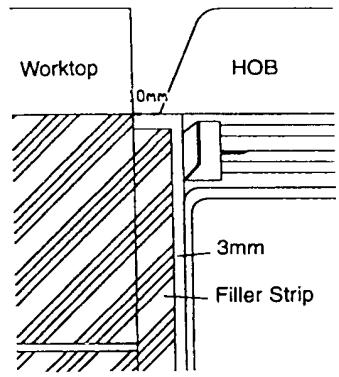
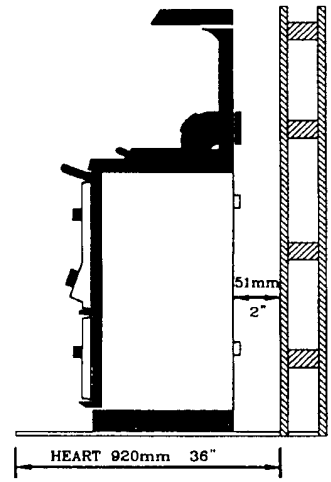


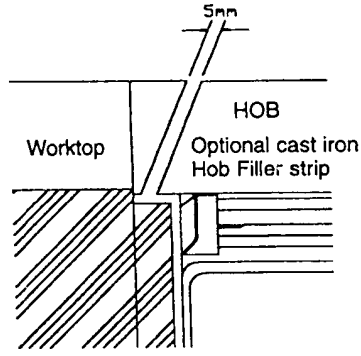
Fig.12

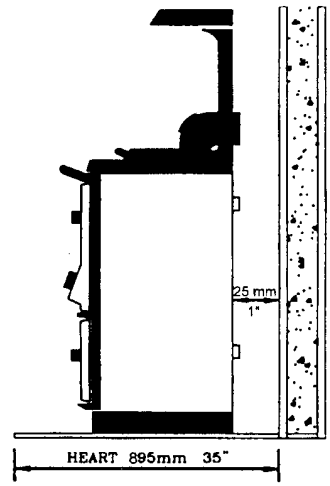




MINIMUM CLEARANCES
TO COMBUSTIBLES

Fig. 13

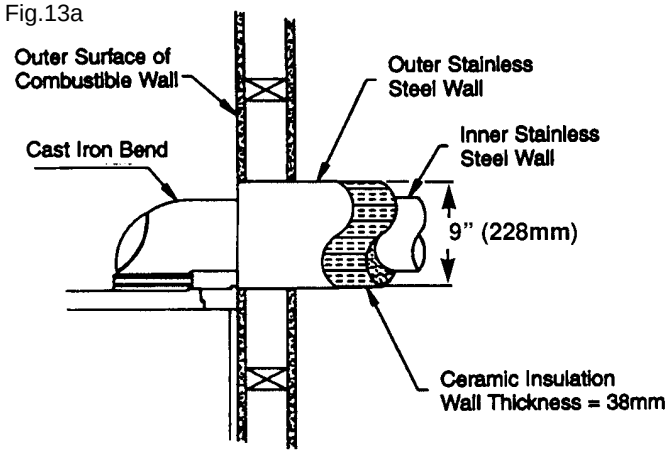




MINIMUM CLEARANCES
TO NON-COMBUSTIBLES

Where the flue passes through a combustible material a twin wall solid packed insulated chimney connector must be used and must come flush with the outer surface of the material and run all the way to the masonry chimney or to the point of termination of the factory made chimney. (See Fig.13a).

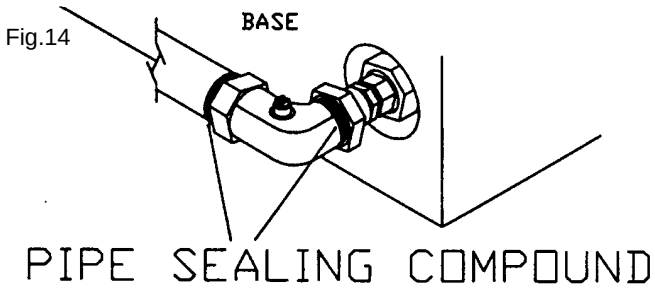
Fig.13a



GAS CONNECTION

The mains inlet gas connection is located at the bottom left hand side towards the front.

Fig.14



A shut off valve must be fitted as close as possible to the cooker and should be accessible at all times. A combined valve and elbow fitting is supplied with the appliance, located in the oven package. One end of this fitting simply fits onto the gas train located at the bottom left hand side of the cooker. The other end has a 3/4" BSP thread. If it is necessary to use an alternative valve, select a valve which does not cause a restriction in the flow or a pressure drop across it when open.

Step 1

Fit valve to the gas train pipe located at the bottom left side.

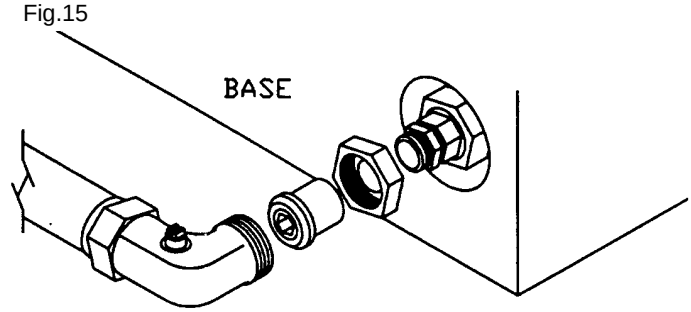
Step 2

Connect mains gas pipe to the valve.

Step 3

Check all joints for soundness.

Fig.15



NOTE: Clean off any excess pipe compounds from connections.

A flexible hose must not be used to connect the gas supply to the cooker.

HEATING

NOTE: This appliance must be connected to a fully pumped system.

Care should be taken to ensure that the heating system is correctly installed and that it complies with all relevant codes of practice (see installation section). 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 pipework is adequately insulated (where applicable).

(c) Check all controls, i.e. pump, motorised valves, time control, radiator valves etc. are operating satisfactorily and are compatible with the requirements of the cooker.

(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 situations where the temperature will dip 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 be 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.

(see fig. 16 - 24 inclusive)

WATER PIPE FITTINGS

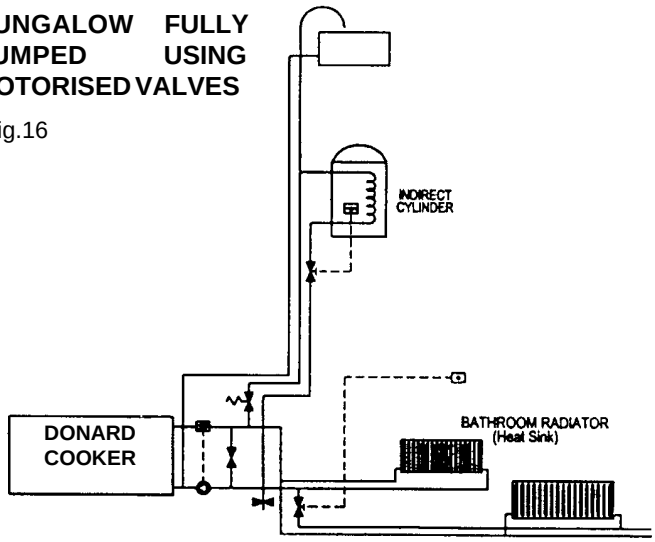
Materials used for installation work should be resistant, sound and should conform to the current editions of the following or their equivalent.

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 E.N. 1057 Copper and Copper Alloys.

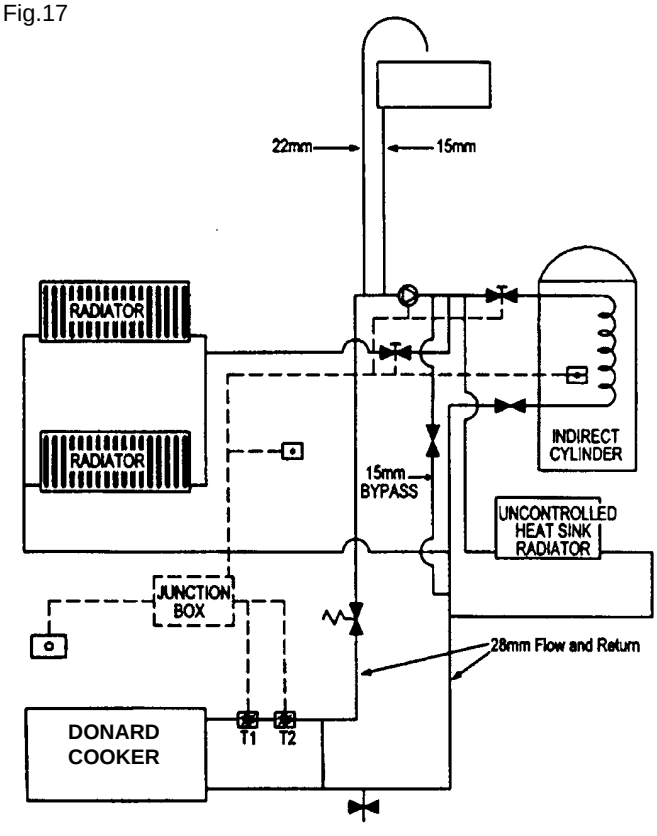
BUNGALOW FULLY PUMPED USING MOTORISED VALVES

Fig.16



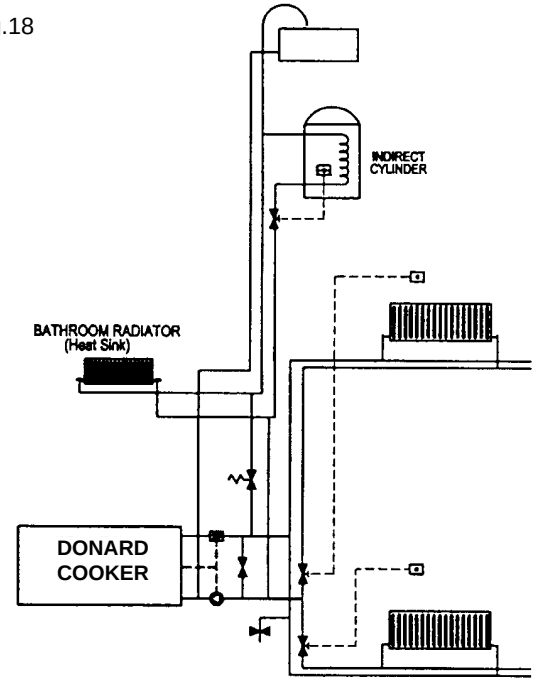
FULLY PUMPED S PLAN SYSTEM

Fig.17



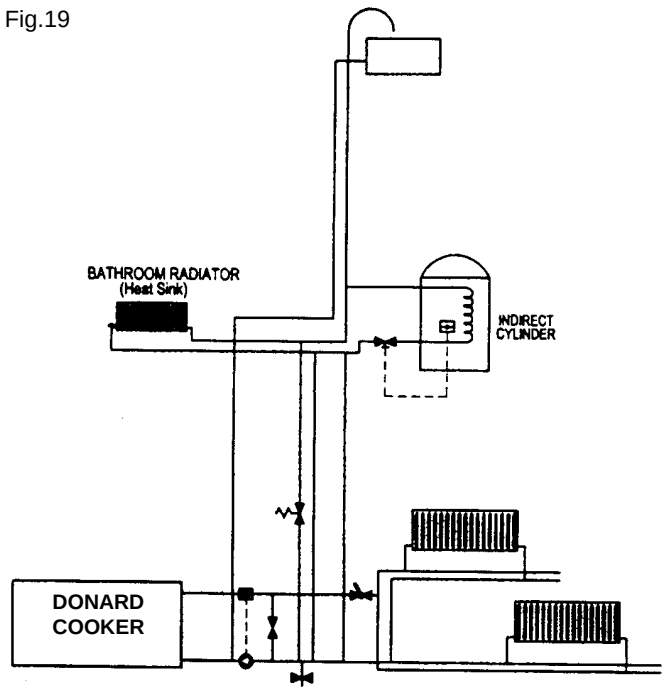
2 STOREY HOUSE FULLY PUMPED USING MOTORISED VALVES

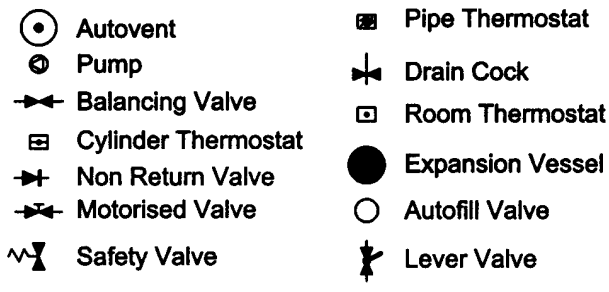
Fig.18



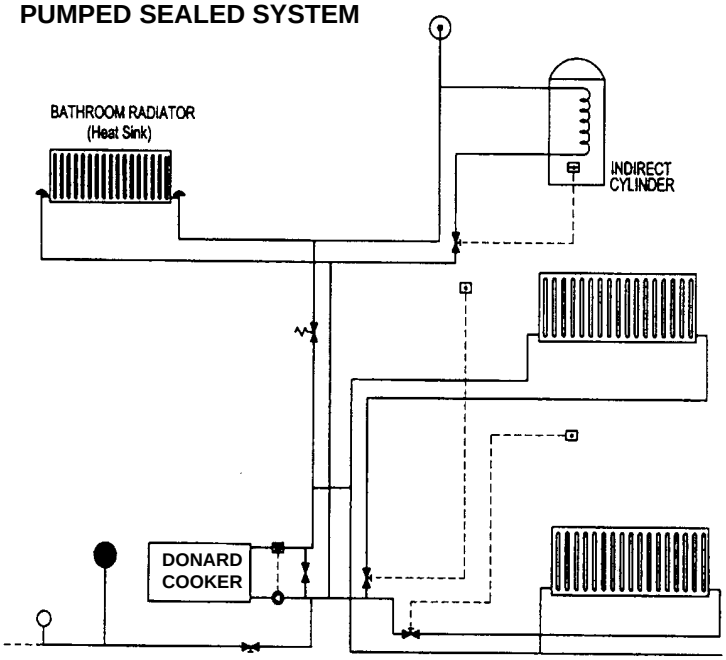
2 STOREY HOUSE FULLY PUMPED

Fig.19



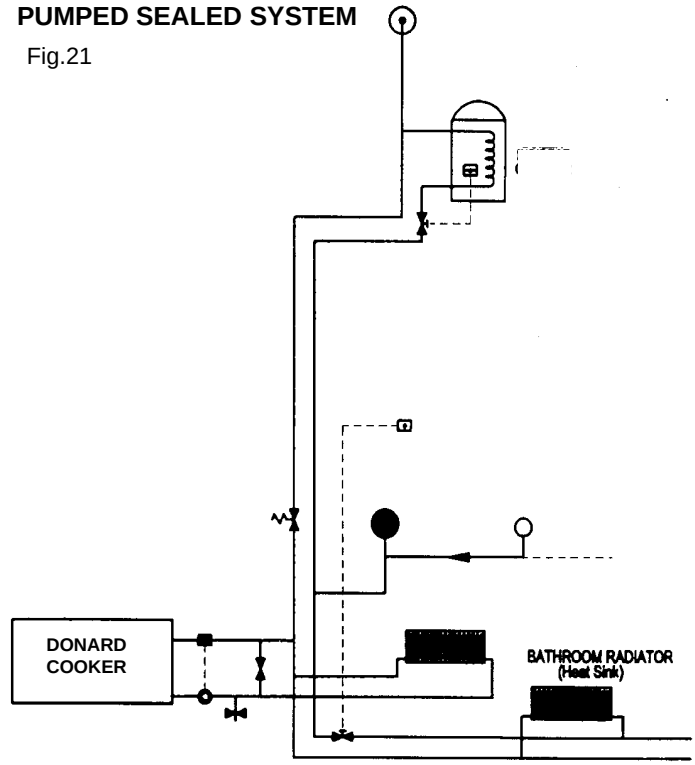


2 STOREY HOUSE: FULLY PUMPED SEALED SYSTEM Fig.20



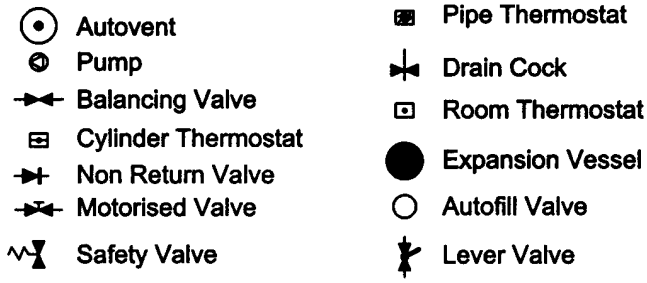
BUNGALOW: FULLY PUMPED SEALED SYSTEM

Fig.21



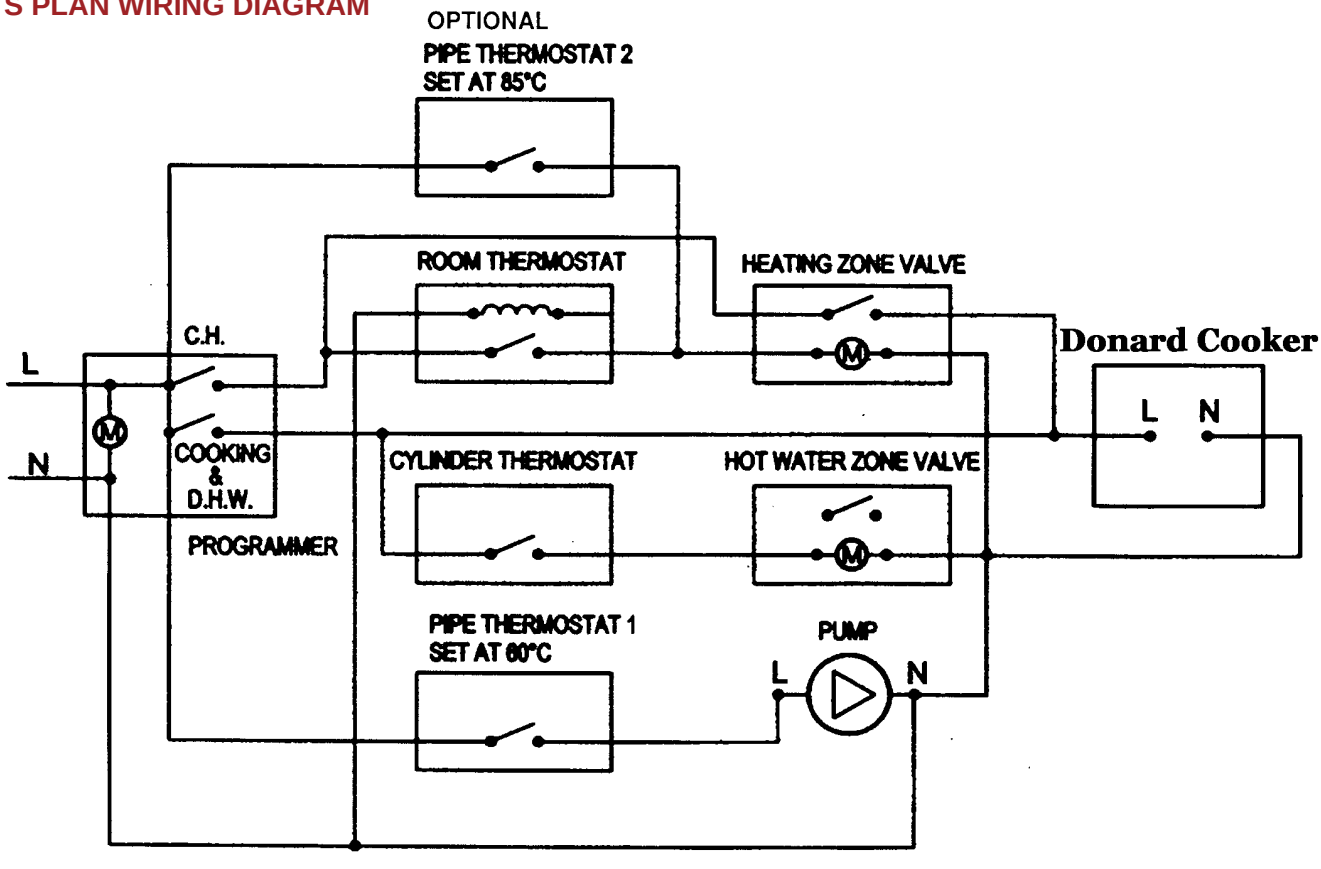
SAFETY VALVE

A non-adjustable 3 bar safety valve must 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.



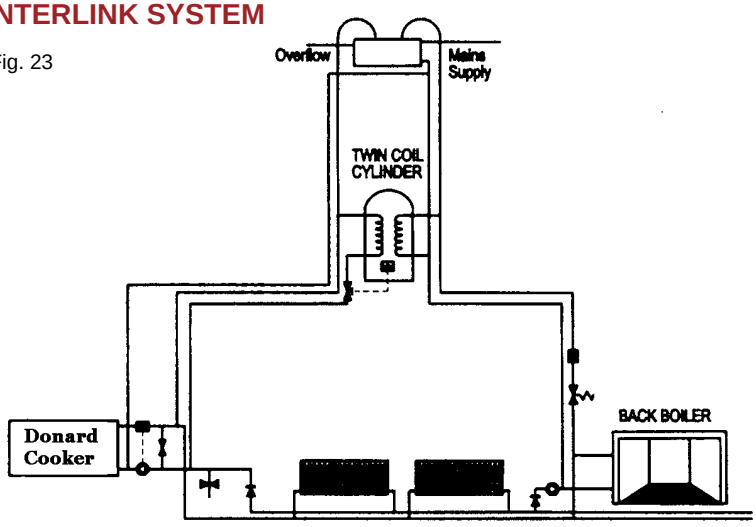
S PLAN WIRING DIAGRAM

Fig.22



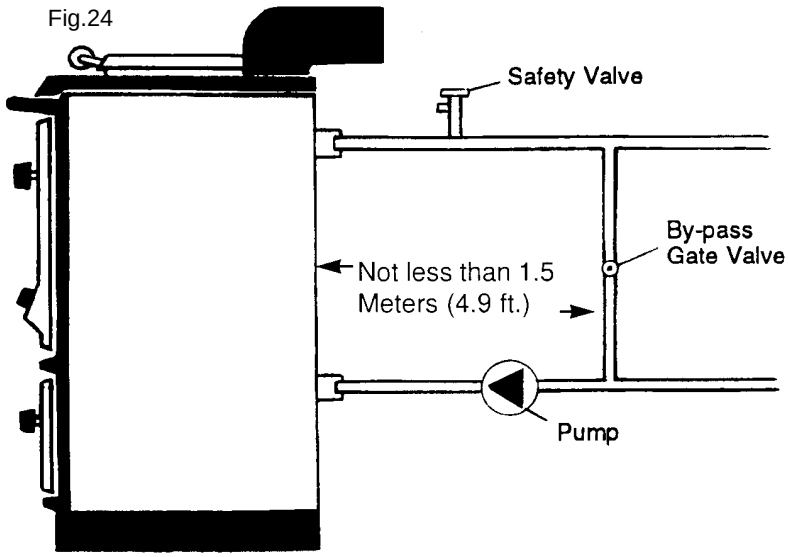
INTERLINK SYSTEM

Fig. 23



- Autovent
- Pump
- Balancing Valve
- Cylinder Thermostat
- Non Return Valve
- Motorised Valve
- Safety Valve
- Pipe Thermostat
- Drain Cock
- Room Thermostat
- Expansion Vessel
- Autofill Valve
- Lever Valve

Fig.24

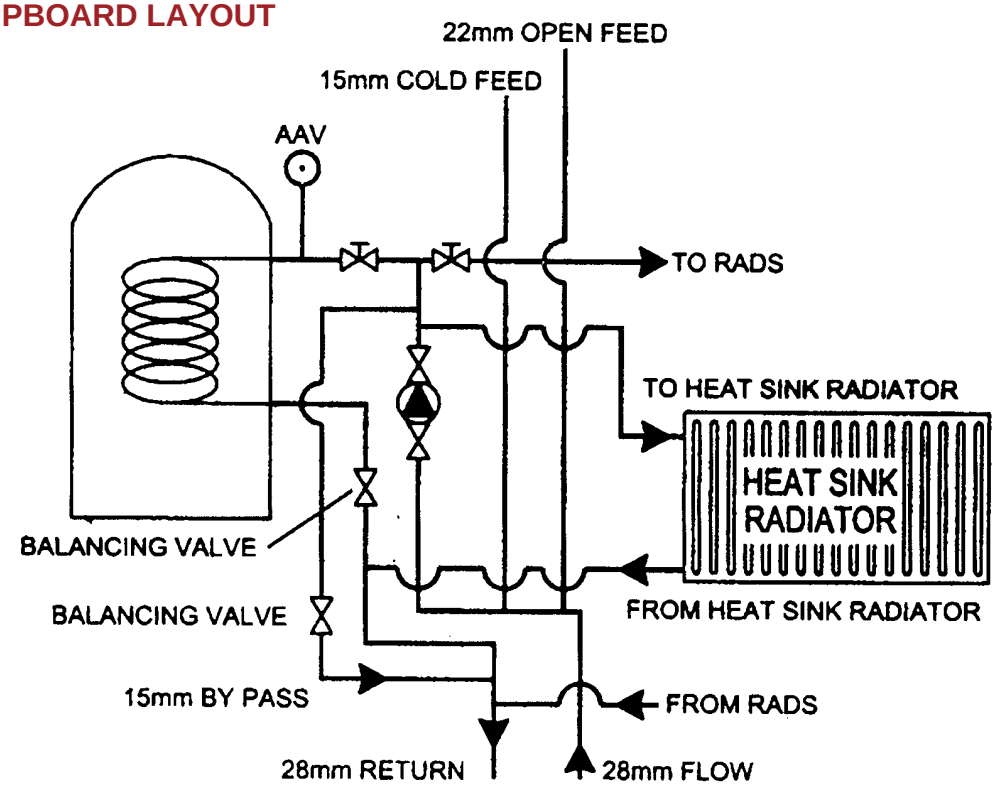


BY-PASS LOOP

A 15mm system by-pass must be fitted not less than 1.5 meters (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 must be installed in addition to the By-Pass Loop (See Fig.24 & 25)

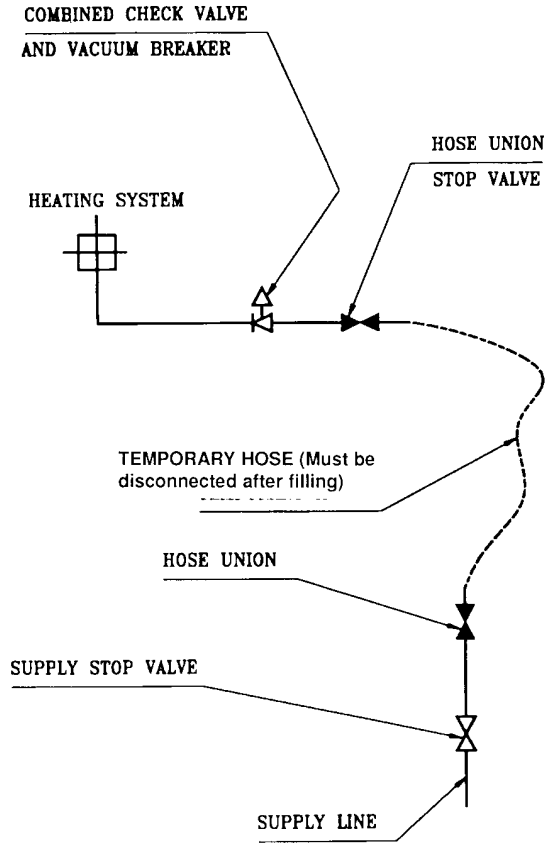
AIRING CUPBOARD LAYOUT

Fig.25



PROVISION FOR FILLING SEALED SYSTEM

Fig.26



WATER CIRCUIT TEMPERATURE

The return water temperature must be maintained at not less than 50°C so as to avoid condensation on the boiler and return piping. Fitting of a by-pass loop, and a pipe thermostat to the flow pipe and wiring it into the pump control will ensure rapid circulation of the hot water to avoid premature burner shut down being activated by the cooker thermostat when the central heating circuit is in use.

PIPE THERMOSTAT

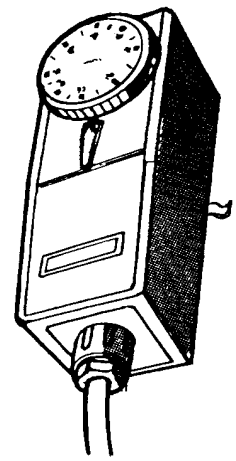
The fitting of a pipe thermostat to the common flow pipe within 150mm (6") of the cooker is required in order to activate the water circulation pump when water in the boiler reaches 60°C. This will ensure that return temperatures are maintained and the pump to "run on" to transfer any residual heat to prevent possible overheating. (see figs. 19 & 20)

When the flow temperature falls below 60°C the pipe thermostat will de-activate the circulating pump and allow the cooker to operate. (see fig. 20, 27 & Wiring Diagram)

If a second optional pipe thermostat is used see (S Plan fig.19 - 20) then it should be fitted within 200mm 8" of the cooker common flow. It must be set at 85^{o}C and wired to make temperatures rise to activate the central heating motorised valve should this temperature be achieved, this will ensure that any excessive heat is transferred from the boiler.

NOTE: Both thermostats must be connected to make on temperature rise.

Fig.27



CARE FOR YOUR CENTRAL HEATING SYSTEM

We strongly recommend the use of suitable corrosion inhibitors and anti-freeze solution in your heating system, in an effort 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.

GENERAL MAINTENANCE

It is important that the user is familiar with their heating system and that they ensure regular checks and maintenance which can limit unnecessary breakdowns.

SERVICING

To ensure continued efficient and safe operation of the appliance, it is recommended that it is checked and serviced by an Authorised Stanley Service Engineer at least once a year.

DRAINING

Key-operated drain taps to B.S. 2879 should be provided in an accessible position 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.

INDIRECT DOMESTIC CYLINDER

The cooker must only be connected to an indirect cylinder of recommended size of 180 litres using 28mm (1") diameter flow and return piping. It is recommended that the cylinder is lagged together with pipework with runs in excess of 4 meters (13').

NOTE: One radiator (normally the bathroom) should be selected for use as a heat sink, and connected to open circuit. (See Fig.25)

COMMISSIONING PROCEDURES AND CHECKS

1. Check that all items of packaging are removed from the ovens and the shelves are properly fitted.
2. Check that electrical wiring is correct.
3. Boiler and heating system to be purged of air and full of water with a suitable safety valve fitted.
4. Time switches and room thermostats to be on.
5. Baffles should be operating freely and locking in position correctly.
6. Check that boiler and oven thermostats are functional.
7. Check that the ignition electrode and ionisation probe are correctly set.
8. Connect burner gas train making sure that the connection is straight and properly connected.
9. Turn on the mains gas supply ensuring that the cooker is switched off. Test the whole gas installation including the meter for soundness and purge in accordance with B.S. 6891 (U.K.) and I.S. 813 (I.E.). Purge not to exceed 50 mbar.
10. Check the burner for leaks using an approved leak detector spray and tighten if necessary.
11. With the mains gas supply off switch on the burner.
12. Complete the start sequence to lock-out observing the correct operating functions.
13. Pre-purge time to run on for 30 seconds approximately.
14. Turn on mains gas supply and operate the burner.
15. With cooker operating on full flame check for adequate gas supply by connecting a manometer to the nipple near the main union.
16. Similarly check the manifold pressure by connecting the manometer to the test nipple nearest to the burner head. (See Technical Data).
17. Tighten all joints and re-check using an approved leak detector spray. Check gas rate. (See Technical Data).
18. After a minimum of 15 mins. of continuous operation and with the burner still running check flue gas analysis.
19. Correct position for the air shutter should be checked to give a CO_2 reading between 7.8% to 8.3% and a CO level of below 100 ppm.
20. Make sure specified clearances are adhered to correctly.
21. All air vents must be unobstructed and correctly sized.
22. A spillage test should then be carried out, with all windows and doors closed and all extract fans in full operation and any other appliances requiring air etc. Check flue joints are sealed correctly and that no leakages are occurring from the appliance to final termination.
23. When commissioning ensure that all doors of the appliance are closed while in operation.
24. Check ionisation current by disconnecting the link.
25. Disconnect the link to the probe and insert a micro amp meter for direct current. (min. 7 micro amps.)
26. If not satisfied check the trouble shooting guide.
27. If cooker is not operating correctly, postpone lighting and contact your local Stanley Dealer.

OPERATION

CONTROL PANELS

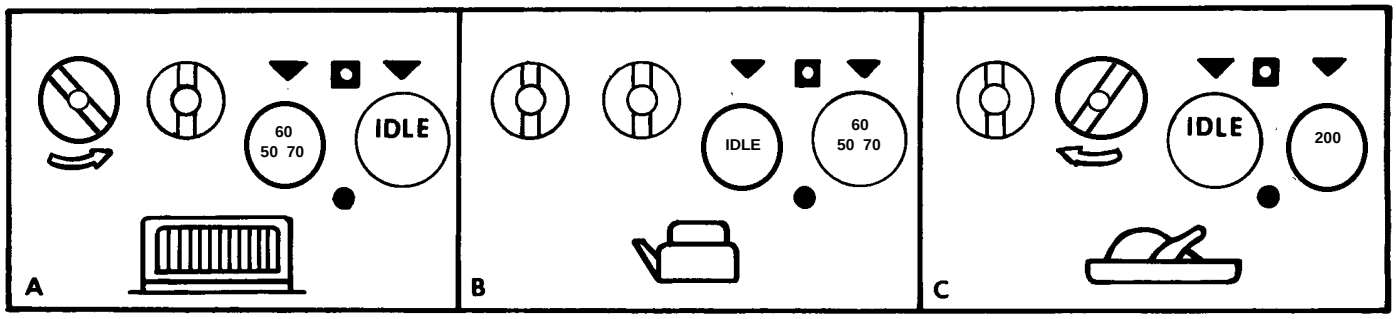
The control panel consists of:

Two thermostats.
One limit stat reset button.
One red lock-out light.
One green running light.
The green light is on when the burner is running and will go out when a selected temperature is reached.

The red light comes on when the burner goes to lock-out. (See service manual).

The high limit thermostat button will pop out when the thermostat settings are exceeded.
(see fig. 28 & 29)

The hotplate in this appliance is treated with a protective coating, which when heated will evaporate and will cause an odour for a short period.



RADIATOR SETTING *HOTPLATE SETTING* *OVEN SETTING*

LIGHTING

1. Ensure that the boiler and oven thermostats are in the “off” position.
2. Switch on the mains electricity supply.
3. Turn on the gas supply.
4. Turn on radiators as required.
5. Select the heating mode by opening the fire door and by turning the baffle control knobs with the tool provided to the required position.

HEATING MODES

There are three main heating modes as follows, determined by the positioning of the baffles, which are operated by rotating the control knobs.

Setting A:

High Boiler Output with Hot Plate and Oven.

1. Set the oven thermostat to idle.
2. Turn the left hand boiler baffle control knob anti-clockwise until it engages.
3. Set the boiler thermostat to required temperature.

Setting B:

High Hot Plate Output with Boiler and Oven.

1. Set the boiler thermostat to idle.
2. Turn both boiler baffle control knobs to down position.
3. Set the oven thermostat as required to control hot plate temperature.

Fig.28

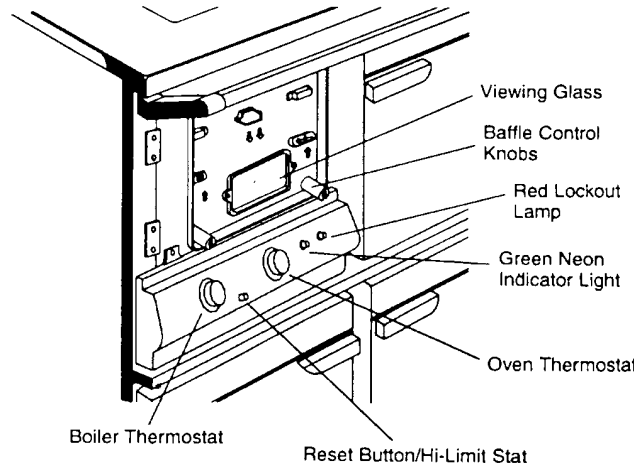
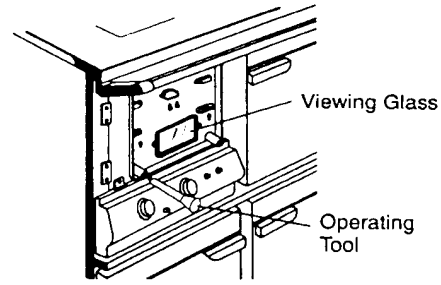


Fig.29



Setting C:

High Oven Output with Hot Plate - Low Boiler Output.

1. Set the boiler thermostat to idle.
2. Turn the right hand boiler baffle control knob clockwise until it engages.
3. Set the oven thermostat to the required cooking temperature.

OVENS

The MAIN OVEN is heated on all four faces and it can be used for baking or roasting on Setting C, Oven Mode.

The SIMMERING OVEN is heated on top face only. The temperature will be about half that of the main oven and is ideal for slow cooking, casseroles, stews, soups etc. (see fig. 30)

CENTRAL HEATING

The boiler output is determined by the position of the boiler baffle as follows:

Setting A Boiler	Max. Output 17.6 kW (60,000 BTU's/hr).
Setting B Hotplate	Max. Output 11 kW (38,000 BTU's/hr). Min. Output 6 kW (20,000 BTU's/hr).
Setting C Oven	Max. Output 7 kW (25,000 BTU's/hr). Min. Output 2.6 kW. (9,000 BTU's/hr).

(The above may vary slightly depending on individual installation conditions)

The boiler therefore will operate at its maximum output at setting A of the controls with the thermostat turned up to 90°C. A range of outputs from the boiler may be obtained to suit individual requirements, normal operating setting 75/80°C by adjusting the thermostat between 50°C and 90°C. In this mode hot plate and oven cooking temperatures are achieved but will vary depending on central heating conditions.

SUMMER SETTING

For summer use and lowest Boiler Output use setting C. When using the oven in this position turn the oven thermostat to the required temperature.

HOTPLATE

The hotplate is machine ground for maximum heating efficiency and is temperature graded, the left hand side over the burner being the hottest at setting A and B and the right hand side is suitable for simmering.
For maximum hotplate temperature use setting B.

HOTPLATE INSULATING COVERS

The insulating covers retain most of the heat that would otherwise be radiated into the kitchen. They also retain the heat in the hotplate so that rapid heating of cooking utensils will occur when one or both of them are lifted for cooking purposes.
(see fig. 31)

Fig.30

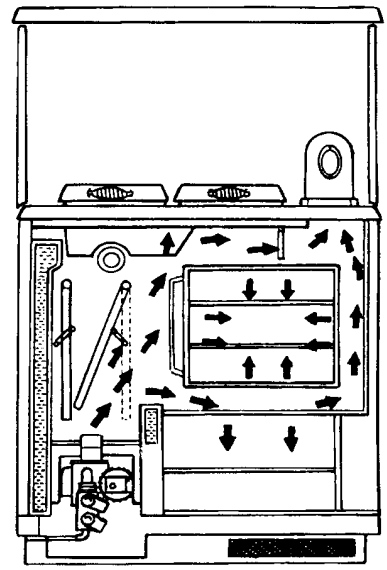
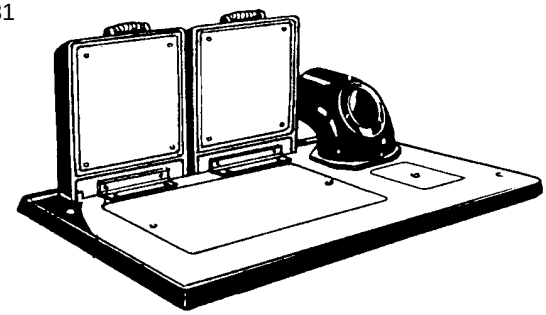


Fig.31



IMPORTANT: WHEN HOTPLATE IS NOT IN USE ENSURE THAT HOTPLATE COVERS ARE IN A DOWN POSITION.

COOKING UTENSILS

For best cooking results and economy of operation use heavy based, flat bottomed utensils.

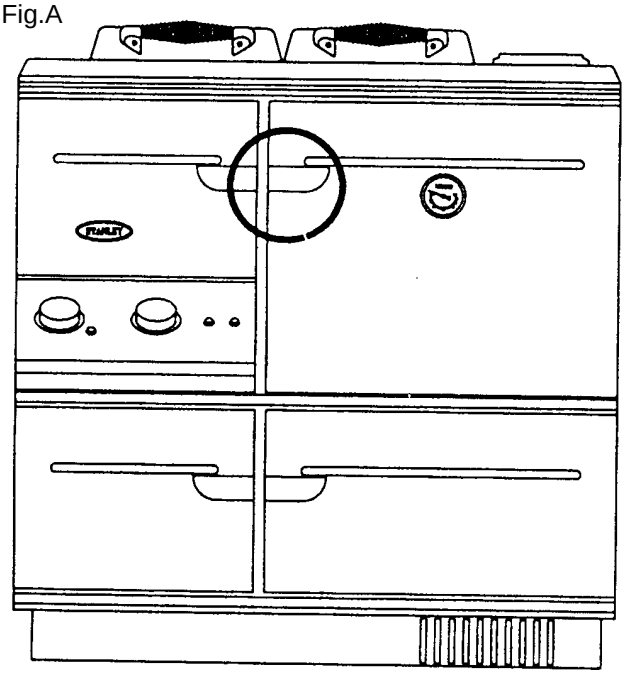
IMPORTANT: DO NOT USE MIS-SHAPED PANS WHICH MAY BE UNSUITABLE. DO NOT USE ROUND BASED WOKS.

HEATING SYSTEM CONTROLS

We recommend the use of zone control valves especially in larger systems (see plumbing schematics).

OPENING COOKER DOOR

Fig.A



To open the cooker door grip the door handle between the fingers and thumb as per Fig.C, swing the door handle in an outwards and upwards direction as shown in Fig. D.

Fig.B

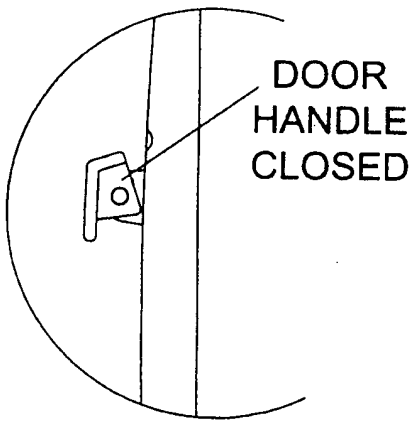


Fig.C

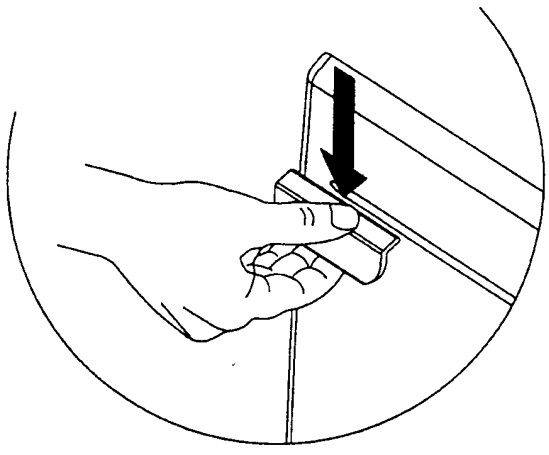


Fig.D

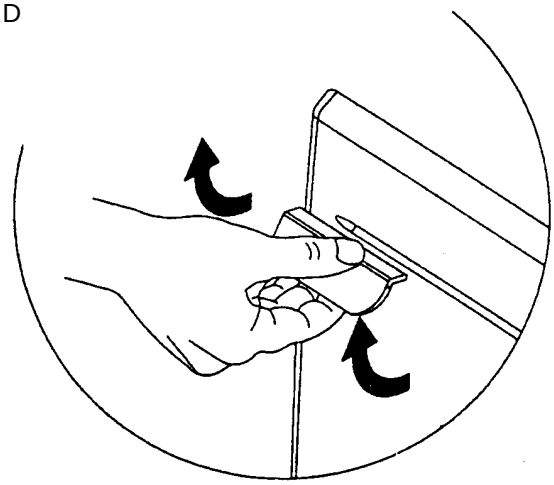
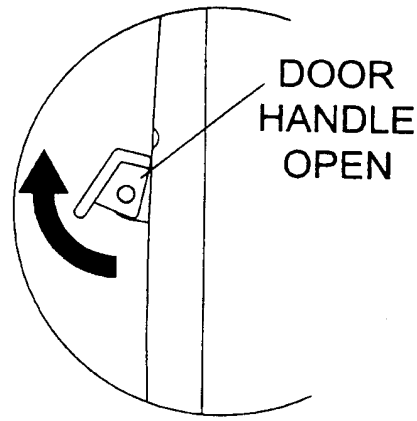


Fig.E



CLEANING

IMPORTANT: BE CAREFUL OF THE HOT APPLIANCE.

General cleaning must be carried out when the cooker is cool.

Stanley cookers are finished in a high gloss vitreous enamel. 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 the hob or down the cooker, be sure to wipe it immediately or the vitreous enamel may be permanently discoloured. Jam and preservatives containing sugar can permanently damage the vitreous enamel.
3. Keep a damp cloth to hand while cooking, to wipe up any spills as they occur, so they do not harden and become more difficult to remove later.
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 vitreous enamel.

5. Use only products recommended by the Vitreous Enamel Association, these products carry the Vitramel label.

6. In the oven, spills and fat splashes are carbonised at high temperatures: occasionally brush out with a stiff brush. The shelves can be soaked and cleaned with a cream cleanser.
7. Both insulating covers should be raised and allowed to cool before cleaning the enamel with a soapy damp cloth. Use a wire brush to keep the cast iron hotplate clean.

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

MILD STEEL

The steel side panels and splash back must not be cleaned with steel wool. Use only washing-up liquid in hot water with a lint free cloth. Dry off and apply a coat of good quality furniture polish.

EXTERNAL AUTOMATIC TIMESWITCH

We recommend that this appliance be connected to an external automatic timeswitch (not supplied) which will control the light-up and shut-down operation period.

CONDENSATION

If this appliance is run for extended periods on the low settings the unit can cool down to an extent that vapour in the flue gases may condense. This will make the inside of the flueways damp, creating a sooty deposit which will reduce the efficiency of the appliance.

It is best to run this appliance occasionally at the higher setting in order to prevent the formation of condensation.

OVENS

Grease spillages will burn off from the oven interior when the oven is hot and any other loose materials can be wiped out with a cloth. When cold, stubborn stains in the oven and on the shelves can be cleaned off with a paste of bread soda and water.

HOTPLATE

The hot plate may be cleaned by using a small amount of paraffin oil or fine steel wool to remove rust or cooking stains, dry off with a lint-free cloth and apply a light coat of cooking oil to preserve the finish.

WARNING: THIS APPLIANCE MUST NOT BE INCORRECTLY USED.

IMPORTANT: WE DO NOT RECOMMEND DEEP FAT FRYING ON THIS APPLIANCE**.**

SERVICING AND CLEANING OF THE APPLIANCE

It is recommended that this appliance is serviced annually. (see fig. 32 & 33)

1. Ensure all electrical and fuel supplies are isolated.
2. Ensure that a dust sheet is placed in front of the cooker.
3. Remove pipe bend cleaning plate.
4. Check the chimney and flue liner for damage or leaks.
5. Remove the retaining screws from the hot plate and also the simmer cleaning plate screws.
6. Lift off hot plate and cleaning panels.
7. Cover the blast tube within the firebox.
8. Carefully brush through the cleaning pipe.
9. All deposits to be brushed down the left or right side of the oven.
10. Deposits on the oven to be brushed downwards.
11. To remove the deposits, thoroughly clean out the residue from the side flues and base plate, through the oven passage cleaning door located at the top of the warming oven.
12. Remove cover over blast tube in fire box.
13. Vacuum out the fire box area.
14. When cleaning this appliance be careful not to damage ceramic baffles.
15. Re-assemble the cooker and carry out each commissioning check as specified.
16. When replacing the cleaning and hot plates, check soundness of gaskets and replace if necessary.

WARNING: IF YOU SMELL GAS:

1. Do not light any appliance.
2. Do not touch any electrical switch.
3. Do not use any phone in the building.
4. Open windows.
5. Turn off gas supply at service cock.
6. Call your gas supplier from a neighbour's phone.

Fig.32

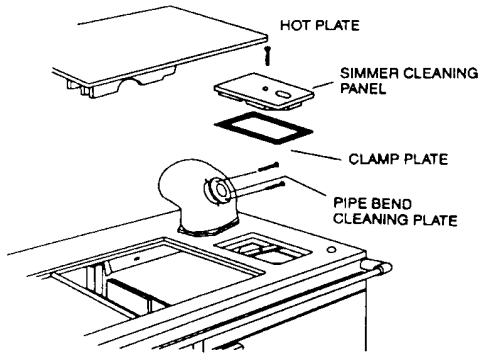
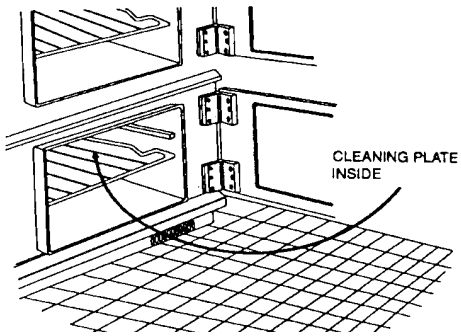


Fig.33



CHIMNEY CLEANING

Whichever type of flue is chosen, there must be cleaning access to the whole of the flue system.

The flue liner and the chimney will need to be examined regularly. The combustion products of any burning appliance will have a descaling effect on hardened soot deposits left from burning solid fuels, if applicable.

Although the chimney may have been cleaned of loose soot prior to installation, it is imperative that the chimney is inspected for scaled soot particles after the first month of operation an any loose materials removed to avoid blockage. The frequency of cleaning thereafter will depend a lot on how your cooker is run, but, to start with, make a point of inspecting the flue system every six months. This period may well be extended as time goes by if there is little sign of deposits.

BURNER REMOVAL (See figs. 34, 35 & 36)

1. Take four screws from the base frame.
2. The air grill and cover plate will fall away.
3. Remove the four outer screws from the cover plate of the front of the burner area.
4. Slacken the unions on both sides of the base frame and disconnect the tube from the air pressure switch.
5. Remove the screws on the retaining plate and withdraw the pipe work through the base.
6. Slacken the two screws holding the burner in place.
7. Drop the burner down carefully and withdraw the burner assembly complete.
8. Be especially careful not to damage the electrical and fuel connections to the burner.

Fig.34

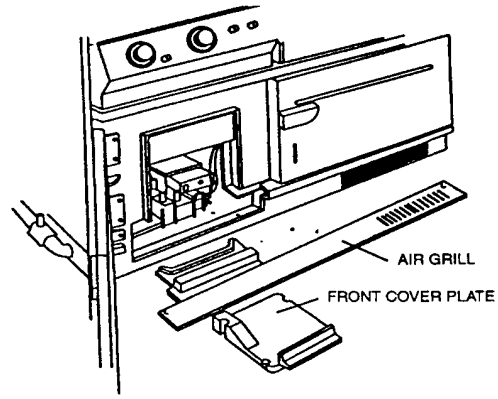


Fig.35

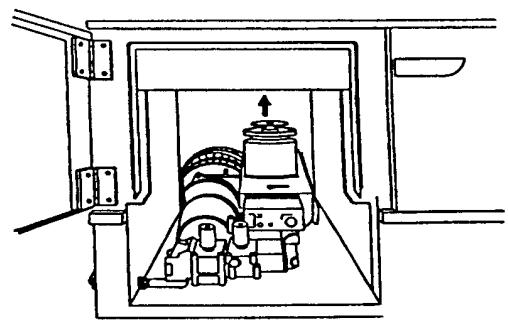
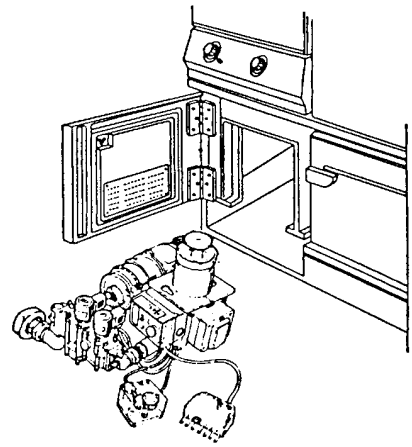


Fig.36



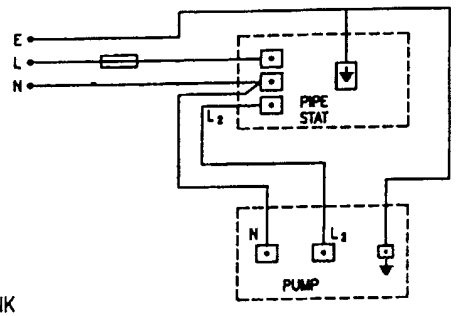
DONARD GAS

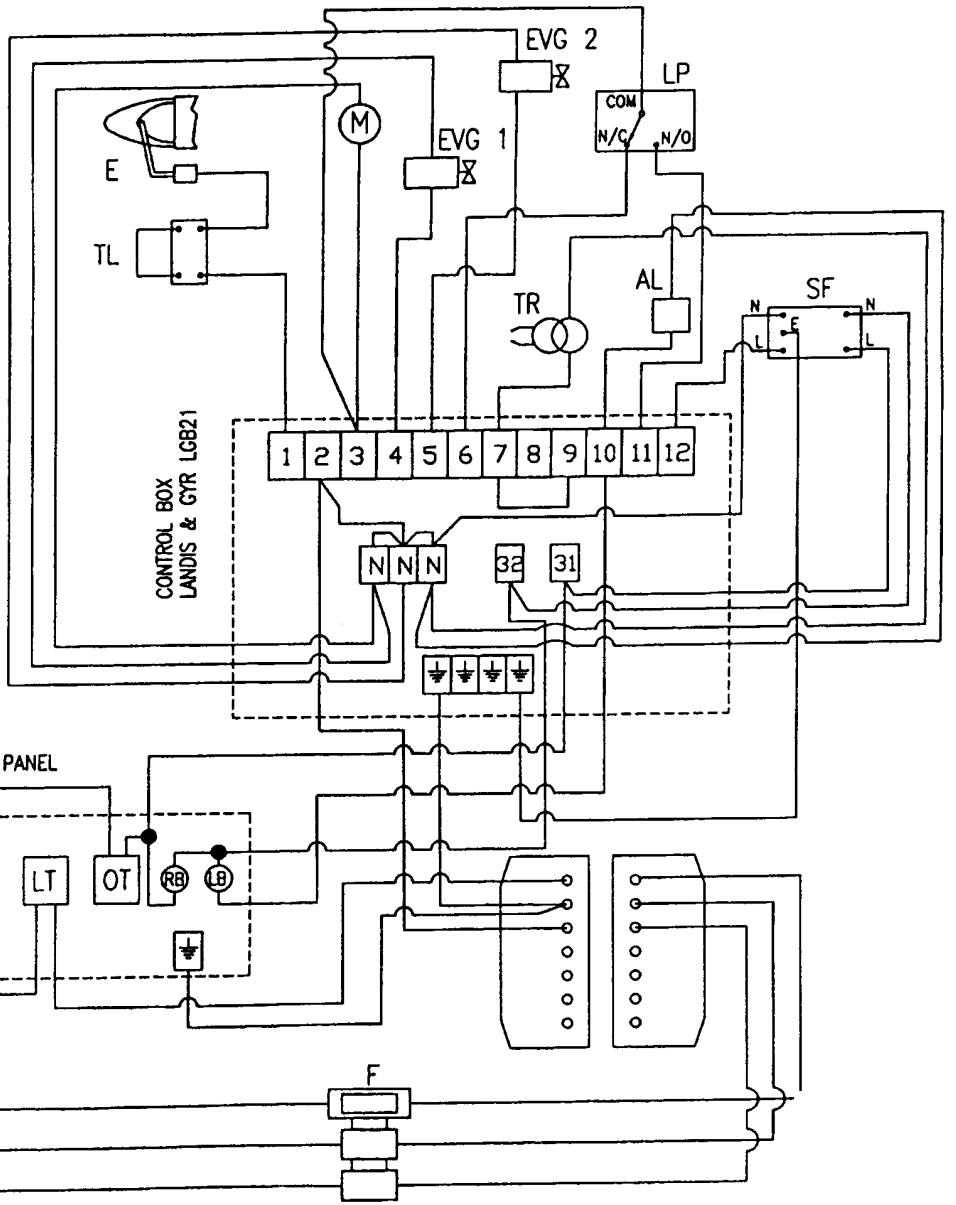
Fig.37

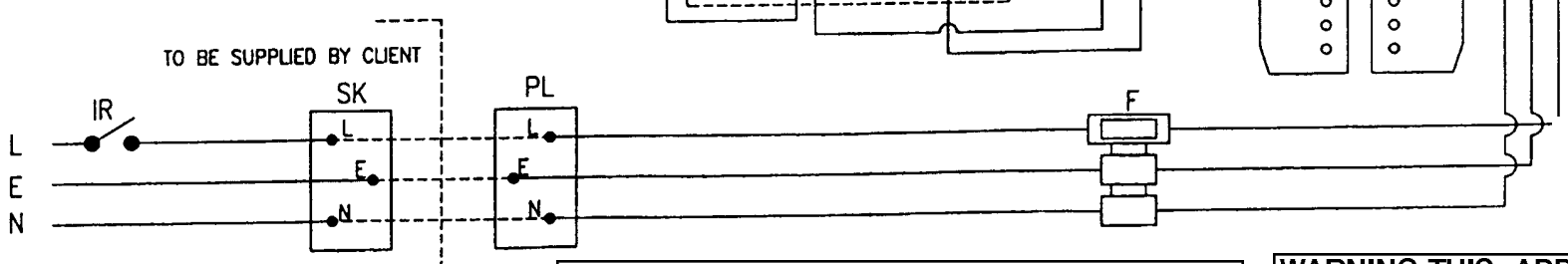
WIRING DIAGRAM
60K, 80K & D.H.W. DONARD GAS
220/240V A.C. 50Hz

LT – HIGH LIMIT THERMOSTAT
BT – BOILER THERMOSTAT
OT – OVEN THERMOSTAT
RB – RUNNING LAMP
LB – LOCK OUT LAMP
LP – AIR PRESSURE SWITCH
TR – TRANSFORMER
M – BURNER MOTOR
TL – PROBE CIRCUIT TEST LINK
E – IONISATION PROBE
EVG1 – LOW FIRE SOLENOID VALVE
EVG2 – HIGH FIRE SOLENOID VALVE
AL – ALARM
SF – SUPPRESSION FILTER
F – FUSE BLOCK COMPLETE WITH 3 AMP FUSE
PL – 13 AMP PLUG TOP

IR – MAIN SWITCH
SK – 13 AMP SOCKET
} To be supplied by client



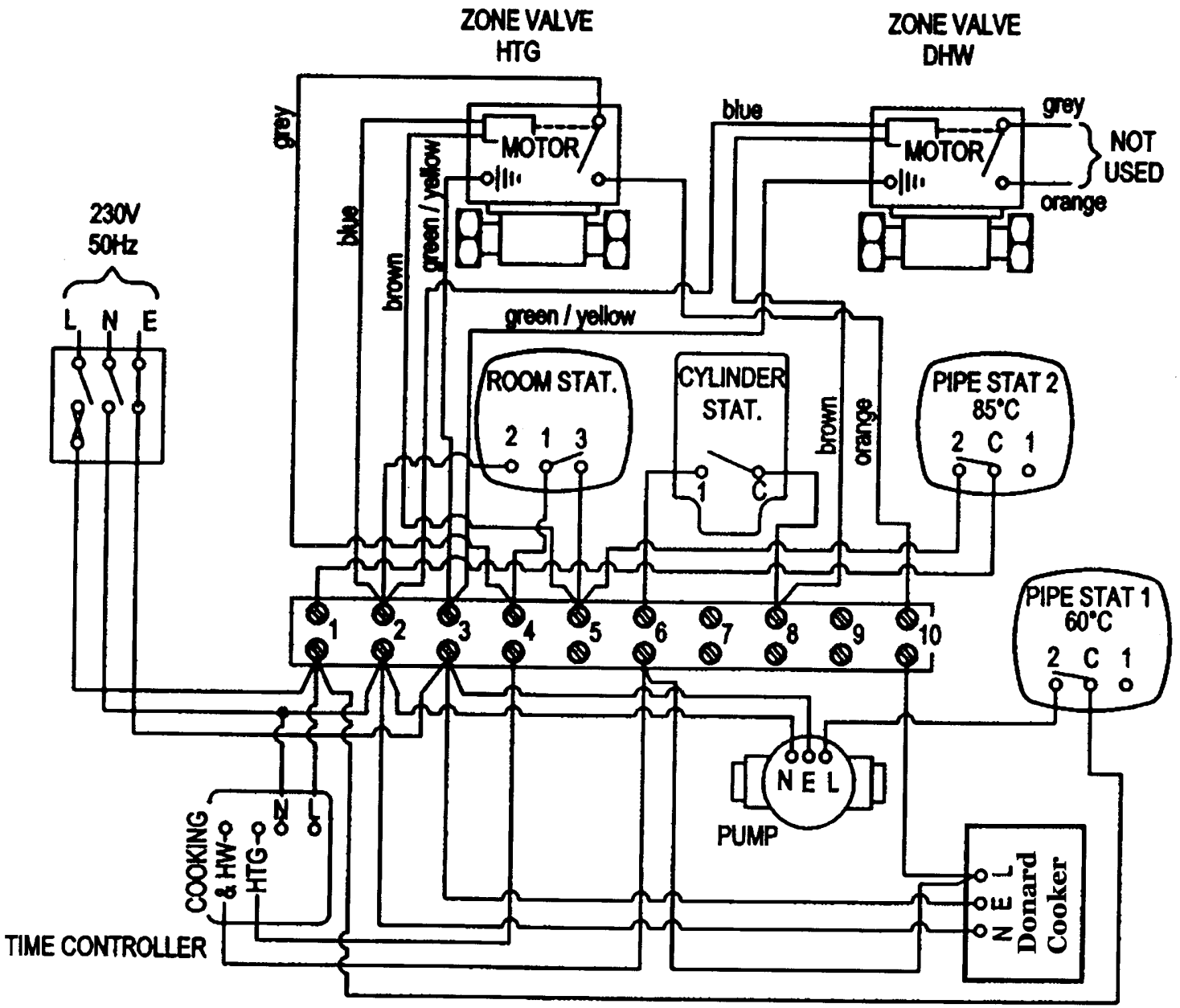




WARNING: Before carrying out any service or maintenance isolate cooker from mains supply, as switching off the time switch will not break constant live circuit.

WARNING:THIS APPLIANCE MUST BE EARTHED

WIRING DIAGRAM Fig.38



TROUBLE SHOOTING GUIDE

Fault and Control Programme Indication

The position of the cam can be read through the sight glass on the control box. This indicates the position in the programme run and the type of fault.

No start because control loop is interrupted.

||‖ Specified time for air pressure signal.

P Fault condition due to absence of air pressure signal.

Pre-purge

1. ››› Fault condition because no flame signal is available.

2. Release of 2nd stage gas valve. (If applicable)

Partial or full load operation.

Trouble-Shooting

Burner will not start, control programme indicator does not rotate.

1. Check that external wiring is correct.
2. Check for electric supply on terminal 12, which will also determine if the control thermostats are calling for heat. Check that the incoming neutral conductor is wired into terminal 8.
3. Press reset button to ensure that the box is not in lockout.

Burner will not start, control programme indicator rotates continuously.

1. Check wiring to air proving switch across terminals 3, 6 & 11.
2. Check air proving switch.

Burner motor runs for 5 seconds and then control box locks out indicating the symbol **P**.

1. Check air proving switch setting and burner air setting.
2. Check wiring to air proving switch.
3. Check air proving switch.
4. Check for adequate air supply to the appliance.
5. Check for blockage in chimney.

Burner motor starts and goes to lockout at the end of pre-purge. Symbol **1.** *indicated.*

1. Check that gas supply is on.
2. Check that ignition is present after end of pre-purge period.
3. Check that the start gas valve is energised and is opening during safety time.
4. If necessary change control box.

Burner starts, flame established, control box locks out displaying symbol **1.**

1. Check polarity of wiring for live and neutral to control box base. Live to terminal 12, neutral to terminal 2.
2. Check that flame detection probe is correctly positioned in the flame. Ensure that the probe insulation is sound, free from cracks or moisture. Check that probe is not in contact with other metallic parts of the burner.
3. Check that burner is effectively earthed and bonded to the incoming earth wire from the mains supply.
4. Check for interference to the flame signal from the ignition spark. This can be determined by the flame signal current with a D.C. microammeter. Correct polarity of the meter connections must be observed, with the positive side of the meter connected into terminal 1. If the flame is established and the meter tends to move in a reverse direction, this can be an indication that the ignition is causing interference to the flame signal. It may also be an indication that there is insufficient earth contact with the flame.
5. Change the control box if necessary.

Causes of lockout can be :

1. Inadequate air supply to air proving switch, switch wired incorrectly.
2. No ignition, ignition electrode incorrectly positioned or cracked insulator.
3. Flame probe incorrectly positioned, cracked insulation, flame probe in contact with earth moisture present on probe affecting insulation.
4. Live and neutral connections reversed. (Reversed polarity)
5. Inadequate earth contact with flame signal.
6. Gas valves not properly closed in shut down position.
7. Faulty control box.

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