

SELECT MK11 P80 MODEL

INSTALLATION & COMMISSIONING INSTRUCTIONS



THE AUTHENTIC ORIGINAL SINCE 1854

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GENERAL

The installation of the cooker, the chimney, hearth and walls adjacent to the cooker must conform with local or national regulations currently in force. In the United Kingdom, the appropriate sections of the Building Regulations must be conformed to.

HEARTH

The cooker weighs 335 kg. Approx. The hearth must be solid, level and of incombustible material.

SPACE REQUIREMENTS

Allow at least 150mm clear space between the left hand end of the cooker and any adjacent unit or wall to enable the lower left hand panel to be removed for maintenance. An extension top, to form a continuous working surface, or a removable infill panel can be fitted provided the space formed is freely ventilated. The air inlets in the lower left hand end must not be obstructed in any way.

ELECTRICITY SUPPLY

An electrical supply from an adjacent fused socket is required. 230/250 volts AC50Hz. Fuse rating 3 amps. A pre-wired programmer is incorporated into cooker. Two cables, one live into programmer, and one timed live out to Junction Box (Pump / Stats). See wiring diagram, figs 7 & 8.

OIL SUPPLY

The cooker is supplied for use on Commercial Kerosene. 28 sec's to BS2869: 1983 Class C2. Incoming oil supply should not be less than 8mm copper. Lower L.H. side panel is

removed for access to the fitting. See Fig 2 for further details.

VENTILATION

A supply of fresh air is necessary for correct combustion via a purpose made air brick or grid. The minimum effective air requirement for the appliance is 110 cm of free air space delivery.

It should be noted that the cooker will emit a certain amount of convected heat and ventilation arrangements should allow for this.

Where an extract fan is provided to vent the room of cooking smells, steam, etc. arrangements must be made to avoid any possibility of reversing the flow in the chimney. Arrangements for ventilation must always comply with any local by-laws or Code of Practice relevant to the installation.

CHIMNEY / FLUING ARRANGEMENT

The fluebox is suitable for 5" cast iron smoke pipe to BS 41. Either top or rear connection is achieved by fitting the blanking plate supplied. The flue should run into a chimney of not less than 6" internal diameter.

A conventional chimney should not be less than 6" internal diameter. A continuous flexible metallic liner (06") suitable for oil, may be used to line an existing chimney. Alternatively a clay liner to BS 1181 may be used.

A proprietary, fabricated chimney should conform to BS 4343.

In all cases the chimney should conform to relevant Building Regulations.

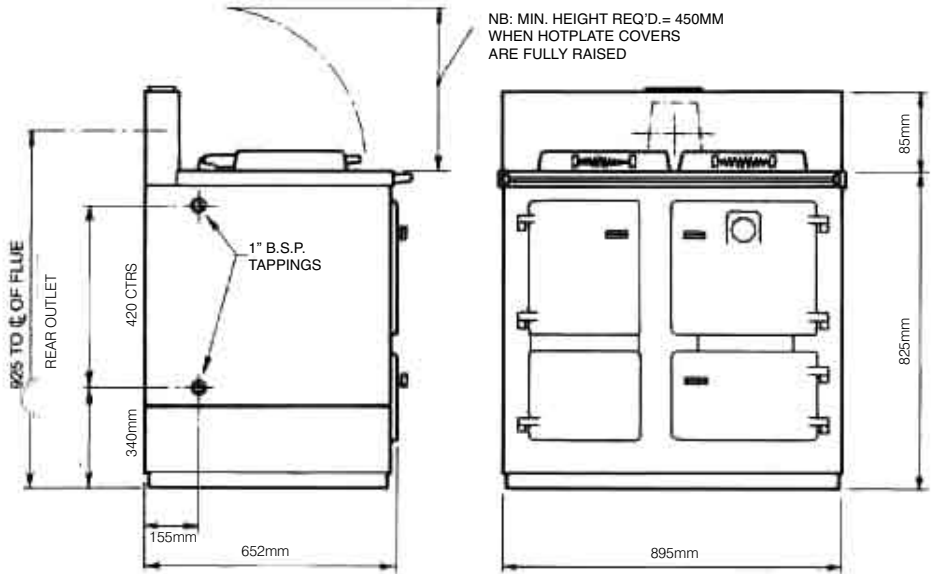


Fig. 1 The company policy is one of continual development. Sizes are approximate and variations may occur during manufacture.

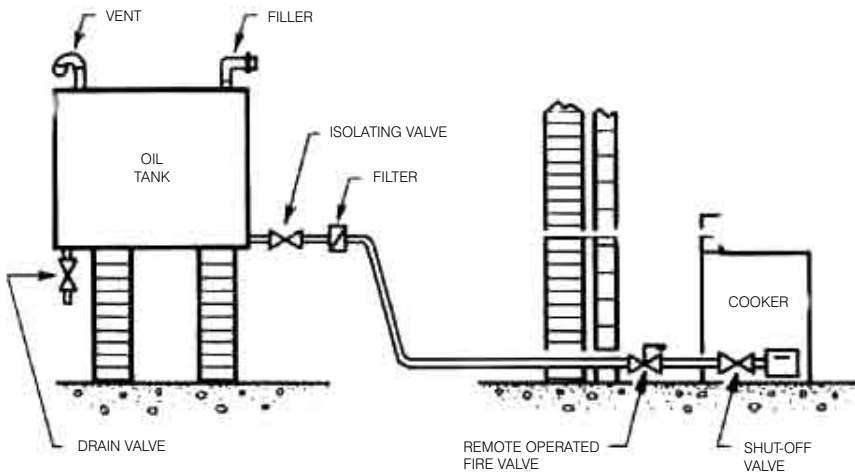


Fig. 2 - OIL INSTALLATION

The following General Points should be noted:-

1. The fabric of the chimney must be sound and the internal surface smooth and free from obstructions. Any air leaks and bad joints must be rectified.
2. The chimney should be capped to prevent ingress of rain.
3. The chimney must serve the cooker alone and not be shared with any other appliance.
4. External flues of asbestos or cast iron pipe must not be used. Excessive exposure will result in heat loss and poor performance.
5. Include means of sweeping.

Important: For the burner to function correctly, a steady chimney draught not exceeding 0.10" w.g. and not less than 0.06" w.g. is required. The draught should be assessed with a reliable manometer after running the burner at a high control setting for at least thirty minutes.

Where the draught exceeds 0.10", or is fluctuating, a stabiliser must be fitted.

Down draught cannot be tolerated and

arrangements must be made to overcome this condition where it occurs.

Connect the flue pipe with good quality fire cement to make sure of an air tight seal between the flue box and the flue pipe. Any soot door, register plate etc. must also be sealed to form an air tight joint.

Three schematic diagrams of installation methods are shown in figures 3, 4 and 5, but modifications may be made to suit site requirements. In all cases, however, the important principle that no air must enter the chimney except through the inlets provided on the cooker, must be adhered to.

Move the cooker into position, connect to water. Remove lower left hand panel and connect oil supply. Fit mains cable to a suitable supply point. Either a fused switched socket or a fused plug in a switched socket. Fuse rating not to exceed 3 amps. Replace lower left hand side panel. Remove the plastic covering from the underside of the covers.

Fit towel rail as follows: Attach one towel rail bracket to the hob using one screw, leaving the bracket just slack; the graphite gasket goes between bracket and hob. Repeat for right-hand bracket. Slip towel rail over square projections and tighten the fixing screws from the back of the using a 1/4" BSW spanner.

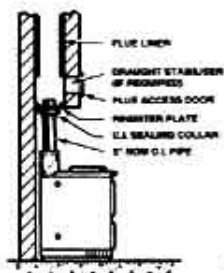


Fig. 3-RECESS WITH FLUE CAVITY

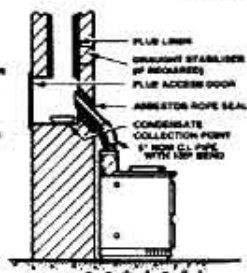


Fig. 4-PLAIN WALL USING TOP CONNECTION

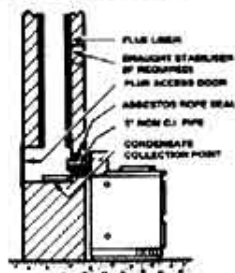


Fig. 5-PLAIN WALL USING REAR CONNECTION

WATER SYSTEM

The maximum boiler output is 80,000 Btu/h. The boiler will produce hot water when the cooker is in use irrespective of central heating demand, and therefore some primary absorption is essential.

This must be gravity operated to allow heat from the boiler to be absorbed at all times. This primary system must be used to provide domestic hot water on an indirect system only. The primary system must be able to accommodate the minimum boiler output of 12,000 Btu/h.

A 35 - 40 gallon Indirect Cylinder is preferred incorporating a 2,500 Btu Heat - Leak Radiator. See fig 6.

The secondary system i.e. central heating circuit should be pumped. The static head must not exceed 60 feet of water. Under no circumstances should this appliance be fitted to a pressurised system.

WATER CIRCUIT TEMPERATURES

The Select P80 in a combined cooker and boiler and some hot water is produced irrespective of the mode in which the appliance is run.

It is important that the water circuit includes a pipe thermostat on the flow pipe to switch on the pump in the event of the boiler water temperature reaching the selected temperature whilst another operation is being carried out i.e. when cooking at elevated oven temperatures.

It is also important to make arrangements to prevent return water below 49°C (120°F) entering the boiler and causing condensation on the lower faces. See Figs 6 & 7.

The layout must follow established heating engineering practice. To avoid trapping air in the boiler a 1" BSP connection must be used on the primary flow tapping and any reduction in pipe size thereafter being made on a vertical rising pipe.

The cooker must be level when fitted and the flow pipe must rise from the boiler. A drain cock must be fitted on the lowest point of the return pipe and a vent to atmosphere at the highest point of each circuit.

COMMISSIONING

This appliance is fitted with a pressure jet burner and must be commissioned by an experienced pressure jet engineer (oftec) with the necessary equipment available for setting up the burner and checking that combustion characteristics and chimney draught comply with those detailed in the text.

Failure to comply will lead to incorrect operation, nuisance shutdown, equipment failure or damage to appliance.

WARRANTY claims may also be impaired.

Important: Ensure the mains supply is isolated by withdrawing plug or fuse from fused socket, and that both thermostats are at the off position.

Remove fascia panel (2 nuts and bolts top, 4 self tapping screws hood, 2 1/4" screws fascia base).

Connect combined air bleed manifold and pressure gauge to pump.

Re-establish the electricity supply to the cooker. **Warning - The power is now live. Extreme caution must be exercised.**

Check that any ancillary controls-room thermostat, programme etc., are in an ON position.

With boiler and oven damper closed turn both stats to '0'. Burner should start ignition sequence.

When the burner motor starts on one pipe system it may be necessary to temporarily open the air bleed screen on test manifold.

Once burner is firing check and if necessary adjust oil pressure to 120 psi. Carry out combustion checks by inserting probes into sampling points provided at the flue box.

Check the smoke number and alter the air setting progressively until a number between 0 and 1 is achieved.

Note: from cold and particularly on a new installation, there will be a condensation of the flue gases and this may affect the paper.

Allow cooker to heat up for a further 10 minutes then check smoke No. Adjusting the air if necessary. Monitor the flue draught at the same point and check a steady updraught is obtained.

Turn both stats to OFF. Isolate mains supply, remove the pressure gauge and replace the fascia panel. Fill in details on guarantee form and hand to customer.

SPARE PARTS LIST

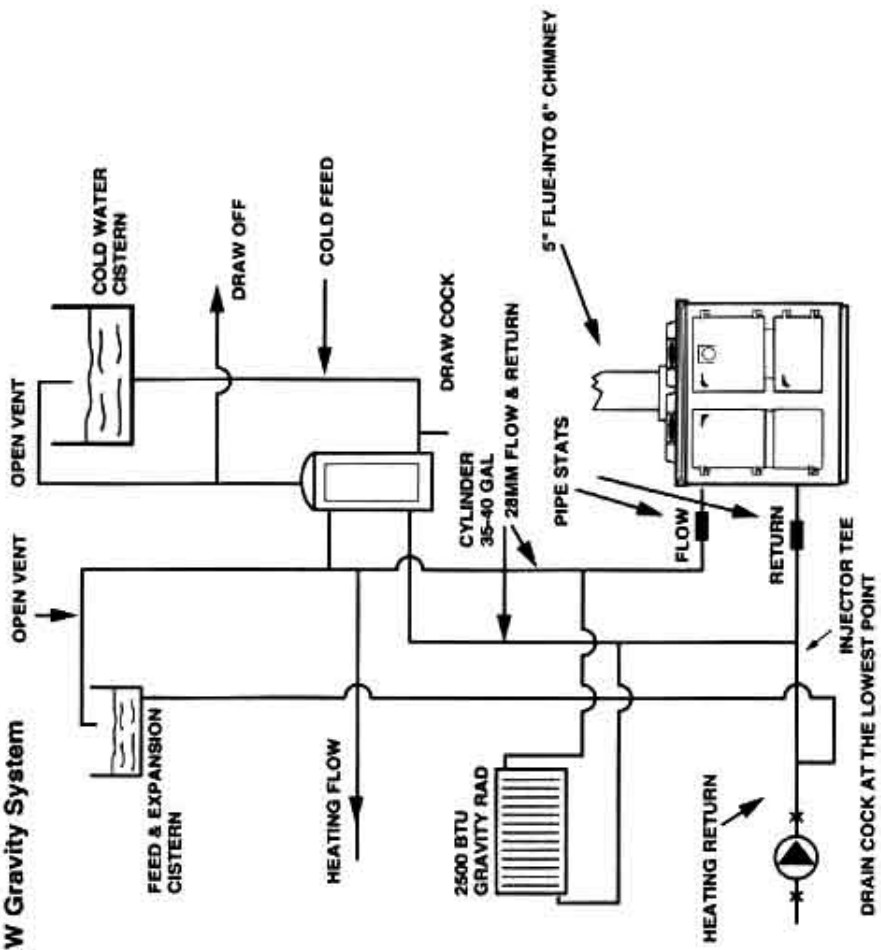
BOILER DAMPER	2041 -001
BOILER INSULATION KIT	-002
BURNER COMPLETE	-003
BURNER BLAST TUBE	-004
BURNER PHOTO CELL	-005
BURNER CONTROL BOX	-006
BURNER NOZZLE(QUOTE SIZE)	-007
BURNER MOTOR	-008
BURNER PUMP	-009
BURNER PUMP DRIVE COUPLING	-010
BURNER TRANSFORMER	-011
BURNER ELECTRODES	-012
BOILER DAMPER HANDLE COMPLETE	-013
BOILER DAMPER HANDLE ONLY	-014
SEVEN DAY PROGRAMMER	-015
STANDARD PROGRAMMER	-016
BOILER THERMOSTAT	-017
OVEN THERMOSTAT	-018
HIGH LIMIT THERMOSTAT	-019
THERMOSTAT KNOB	-020
NOZZLE CONNECTOR COMPLETE	-021
NOZZLE CONNECTOR BOX ONLY	-022
NOZZLE CONNECTOR BOX	-023
LIFT OFF DOOR	-024
OVEN/ BOILER FLUE OUTLET	-024

COMPONENT SPECIFICATION

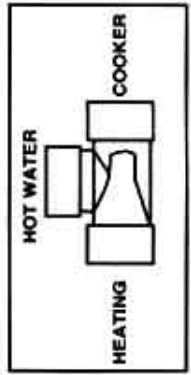
Burner Monoflame	MINOR 1
Pump pressure	120Psi
Nominal Heat Input	49 ccm
Nozzle Danfoss	0.85 x 80s

Fig.6

Typical DHW Gravity System



INJECTOR TEE



The **Low Limit** stat will prevent the central heating pump operating until boiler temperature is above 49°C. This inhibits condensation on boiler face, also allowing the gravity circuit to heat up to 49°C before the central heating pump operates ensuring domestic hot water is always given priority.

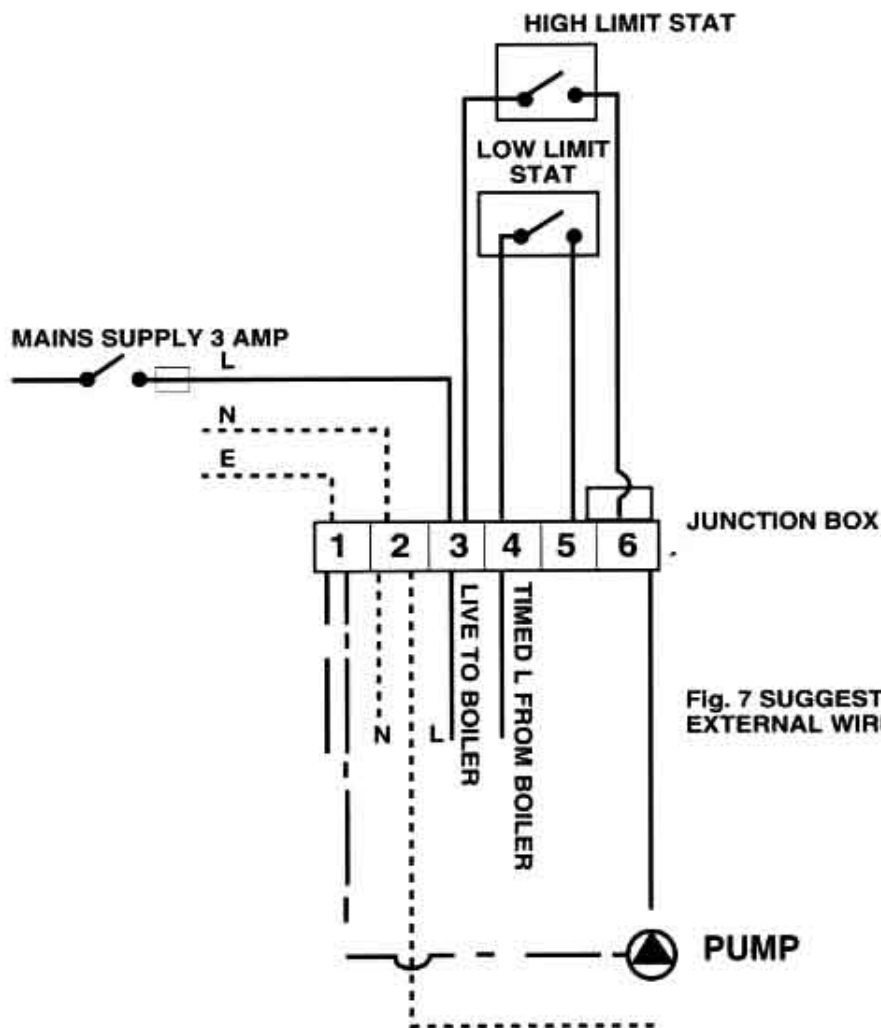
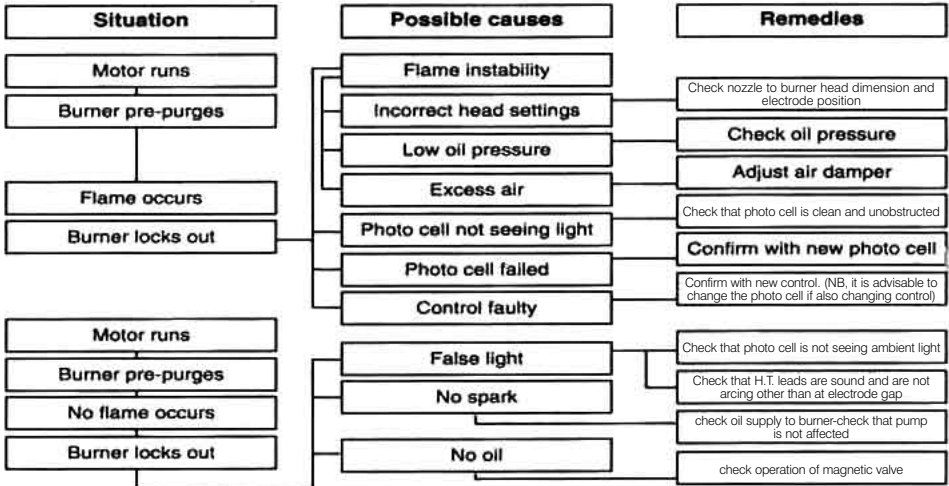


Fig. 7 SUGGESTED EXTERNAL WIRING

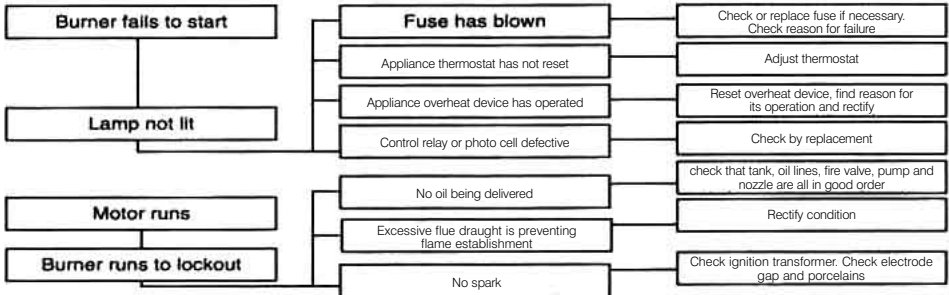
High Limit stat monitors the maximum temperature of water from the boiler and will override all other controls to energise central heating pump on reaching the selected temperature

FAULT LOCATION

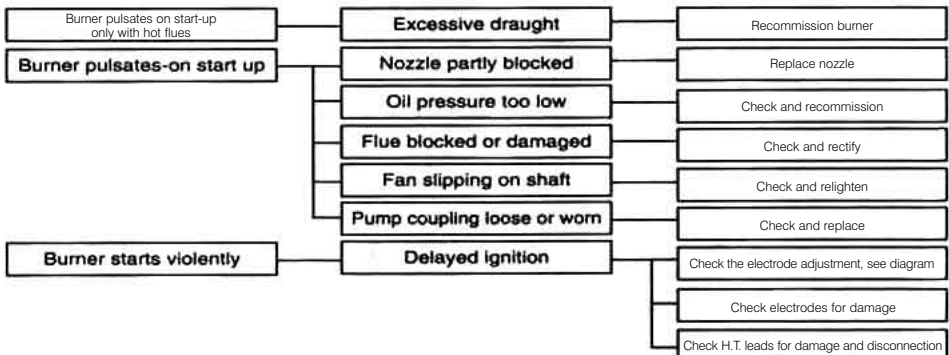
BURNER FAILS TO START



BURNER FAILS TO START AFTER NORMAL OPERATION



DELAYED IGNITION, BURNER STARTS VIOLENTLY



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