



DANESMOOR SYSTEM BOILER

12-14, 15-19, 20-25

FLOOR-STANDING OIL-FIRED PRESSURE-JET BOILERS

USER INSTRUCTIONS & CUSTOMER CARE GUIDE

 **WORCESTER**
Bosch Group



EXCELLENCE COMES AS STANDARD

Thank you for purchasing a Danesmoor oil-fired central heating boiler.

Danesmoor oil boilers are made by Worcester Heat Systems and the strictest quality control standards ever demanded are applied throughout every stage of production.

Indeed, Worcester Heat Systems have led the field in

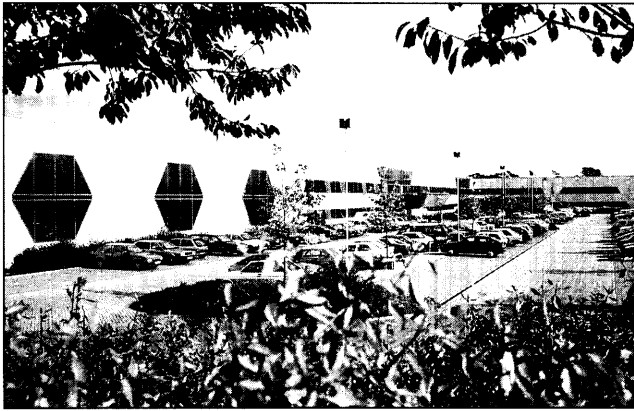
innovative boiler design and performance for more than 30 years.

The result is that your new Danesmoor boiler offers you the very best of everything – quality, efficiency, economical running costs, proven reliability and value for money.

What's more, you also have the assurance of our no-nonsense 2 year parts and labour guarantee.

And it's backed up by Worcester Care Call – a complete maintenance scheme to keep your boiler operating at peak condition and efficiency.

No wonder that more and more people are agreeing that when it has to be oil, it has to be Danesmoor.



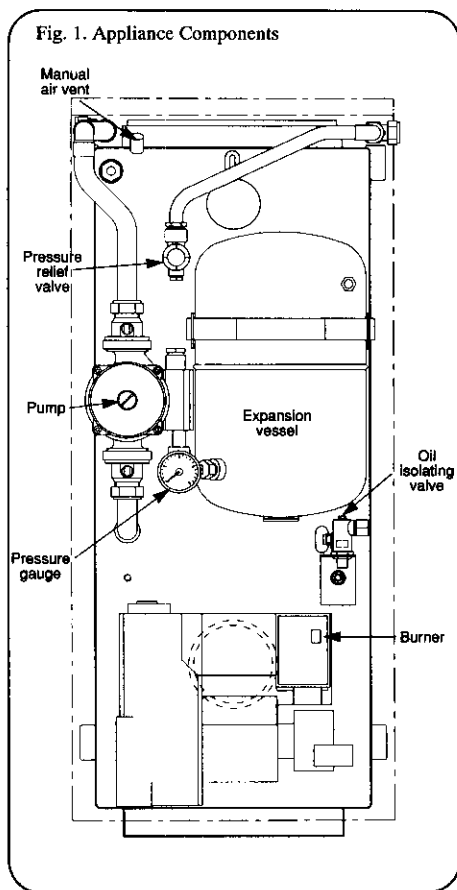
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GENERAL INFORMATION

To ensure you get the very best from your new Worcester Danesmoor oil boiler, please read these notes and instructions carefully.



ELECTRICAL CONNECTION

A mains cable should be connected to a double pole isolator with a contact separation of 3 mm on all poles and supplying the appliance and controls only.

The mains supply for your Danesmoor boiler is 230/240 volts AC-50Hz.

Your boiler must be earthed and protected by a 5-amp fuse.

OPEN-FLUED BOILERS

Your installer will create airways (in walls or doors) to ensure an adequate supply of fresh air to the boiler for combustion. Do not block these airways, and never hang clothes or other combustible materials over the boiler or against the flue pipe.

Never place anything on top of the boiler.

ROOM-SEALED BALANCED FLUE BOILERS

Air for this type of boiler is supplied via the balanced flue terminal, and no other air supply is required, except for ventilation if the boiler is installed in a cupboard or compartment.

ROUTINE MAINTENANCE

It is essential that your boiler is installed and serviced by a competent heating engineer, and Worcester Heat Systems will be pleased to arrange a regular servicing and a comprehensive maintenance contract.

Alternatively, the Oil Firing Technical Association for the petroleum industry (OFTEC) will gladly advise you of engineers trained by and registered with OFTEC.

Servicing should be carried out at least once a year for boilers which burn 28-second kerosene, and twice a year for boilers which burn 35-second gas oil.

SERIAL NUMBER

Your boiler serial number and model number should always be quoted in any contact with Worcester Heat Systems. This will help identify spare parts and also avoid confusion and delays during any service call-out. You will find these numbers on top of the electrical control box cover plate, and access can be gained by removing the top panel of the boiler casing.

TECHNICAL INFORMATION

Worcester Danesmoor system boilers can provide both domestic hot water and full central heating, with outputs ranging from 12kW to 25kW (40,000 to 85,000 Btu/h). Domestic hot water must be supplied via a conventional indirect hot-water system, utilising an indirect double-feed cylinder.

The Danesmoor system boiler is supplied complete with a circulating pump and all necessary components to connect directly to a sealed heating system.

A user operating switch is provided for selection of central heating or hot water as desired. This may be replaced with a twin channel colour coordinated programmer (sold separately) to give improved control.



CENTRAL HEATING SYSTEM OPERATION

The Danesmoor system boiler is designed to be used on a sealed central heating system.

During the first operation of the central heating system, check that all radiators are heated evenly. If the top of a radiator is at a lower temperature than the bottom, vent it by releasing air through the vent screw at the top of each radiator and re-pressurise the system as described below. Make sure your installer shows you how to carry out this operation.

Should any leaks be found in the system or excessive venting be required from any radiator, your installer should be contacted to correct the system.

It is important that the minimum system pressure is maintained so as to ensure correct operation of the appliance.

The minimum pressure required for your appliance is indicated by the preset pointer located on the pressure gauge. The pressure gauge can be viewed by removing the cabinet front panel. (See Fig. 1).

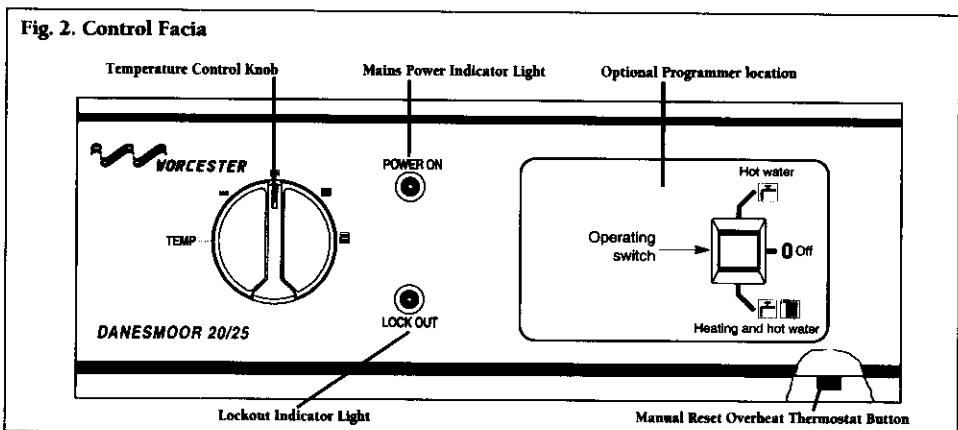
If the pressure falls below the minimum level the system must be re-pressurised using the method described by your installer.

Contact your installer if the system continues to lose pressure as this may indicate a leak.

HOW TO START YOUR BOILER

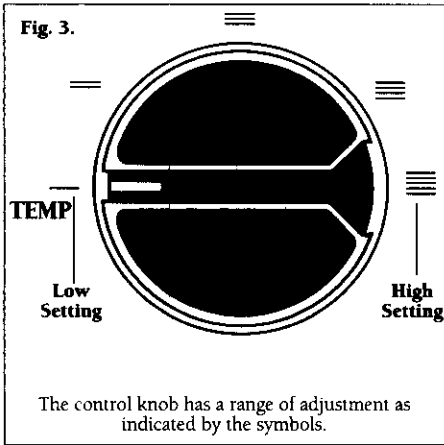
(See Fig. 2.)

- (a) Switch on the electrical mains supply to the boiler.
- (b) Ensure that any external controls connected to the boiler, such as a room thermostat, are on a high setting.
- (c) Set the user operating switch to heating and hot water or, if a programmer is fitted, set it to the correct time of day and position the selectors to ON. The Power On lamp in the control facia will light up.
- (d) Turn the thermostat control knob to the desired position (see Fig. 3: temperature control).
- (e) Your boiler will now commence a start sequence, in which a pre-ignition period of approximately 15 seconds is followed by a supply of atomised oil being introduced into the combustion chamber. Ignition then occurs, followed by a post-ignition period of approximately 20 seconds.
- (f) Your boiler is now in a steady run condition and will remain so until the water temperature reaches the temperature set on the control thermostat. At this point the burner will stop and the boiler will shut down. The sequence will continue until the boiler is programmed – either manually or by an automatic programmer – for a period of shutdown.





TEMPERATURE CONTROL



The temperature control knob gives you control over the water temperature in your central heating radiators, and you can adjust it to any position within the indicated range (as shown in Fig. 3.).

Higher settings obviously mean hotter radiators and rooms will reach the required temperature quicker. The ideal setting varies from property to property, and can only be established by trial and error and experience: a setting of medium to high should serve as a good initial guide.

PLEASE NOTE: The control knob must not be set below the first indicating bar.



SAFETY THERMOSTAT

HIGH LIMIT THERMOSTAT

Your boiler is fitted with a high limit cut out thermostat, designed to protect the central heating system in the event of the boiler running beyond a safe temperature level due to a control malfunction. This is indicated by excessive operating temperature and the mains power indicator lamp going off. The thermostat will reset itself when the boiler cools to a safe operating level.

MANUAL RESET OVERHEAT THERMOSTAT

Sealed system installations require the use of an overheat thermostat which has to be reset by hand. Your boiler is fitted with this thermostat as standard and may be reset by pressing the button shown in Fig. 2. Access is gained by removing the case front panel.

If the thermostat persistently cuts out then your boiler requires attention and you should call either your installer or a service engineer.



LOCKOUT

A flame failure device is incorporated into the control system of your boiler. So, should the flame fail for any reason, or should ignition fail to initiate a satisfactory start, the boiler is automatically locked out for safety. This lockout condition is indicated by two signal lamps coming on: one is located in the boiler fascia and the other on the burner control box.

To cancel the burner lockout condition, remove the boiler front cover (see installation and servicing instructions) and allow two minutes before pressing the illuminated lockout reset button, which is mounted on the burner control box. Provided the system is still calling for heat, the burner will then operate and commence another start cycle.

Persistent lockout indicates a fault and an engineer should be called, so do not attempt to repeatedly restart the boiler.



FUEL

Your Worcester Danesmoor pressure-jet boiler is set to burn 28-second kerosene fuel. Some appliances can be converted to burn 35-second gas oil. If this conversion has been made your installer will inform you.

PLEASE NOTE: Danesmoor room-sealed and conventional low-level discharge appliances **MUST NOT** be used with 35-second gas oil.



OPERATING YOUR PROGRAMMER CONTROLS

Full instructions on how to install and operate the optional facia-mounted programmer are included with the programmer kit.

If your boiler operates on gravity feed, the system will only function correctly on heating if the programmer switches on the hot water programme at the same time. To ensure that this is always the case, the programmer is supplied with a gravity system switch on the rear of the unit; this switch must be set to G by your installer.

The programmer gives fully independent programmes for central heating (CH) and hot water (HW) when the switch on the rear of the unit is set to P and the boiler is installed with a fully-pumped system.



FAULTS & BREAKDOWNS

Many calls made to Worcester Heat Systems to report boiler faults or breakdowns prove to be false alarms, as there is often a simple explanation for the apparent malfunction.

So, to help you save time and money – not to mention frustration and inconvenience – a quick-reference fault finder is included on page 11.

If, after checking through the points suggested, there is still a fault you should call your local Worcester Heat Systems Service Centre. Arrangements will be made for an engineer to call as soon as possible.

CALL-OUT CHARGES

All of Worcester Heat Systems' field service engineers are factory trained.

If you request a visit from an engineer and your boiler has been installed within the last 24 months, no charge will be made for parts and/or labour providing:

- The appliance was commissioned correctly on installation and a completed Guarantee Registration Card returned to Worcester Heat Systems.
- An appliance fault is found and the appliance has been installed within the past 24 months, provided that the first annual service has been carried out on a boiler which is more than 12 months old. Reasonable evidence of this must be supplied on request.

A call-out charge will be made where:

- The appliance has been installed for over 24 months
- The appliance has been installed for more than 1 year but less than 2 years and has not had a first annual service by an approved company.

OR

- Our Field Service Engineer finds no fault with the appliance (see note).

OR

- The cause of breakdown is misuse or with other parts of your plumbing/heating system, or with equipment not supplied by Worcester.

NOTE: Invoices for attendance and/or repair work carried out on your Worcester Danesmoor boiler by any third party will not be accepted.



FAULT FINDER

If your boiler is not operating, it is suggested that you go through the following simple checks before either calling your installer or Worcester Heat Systems.

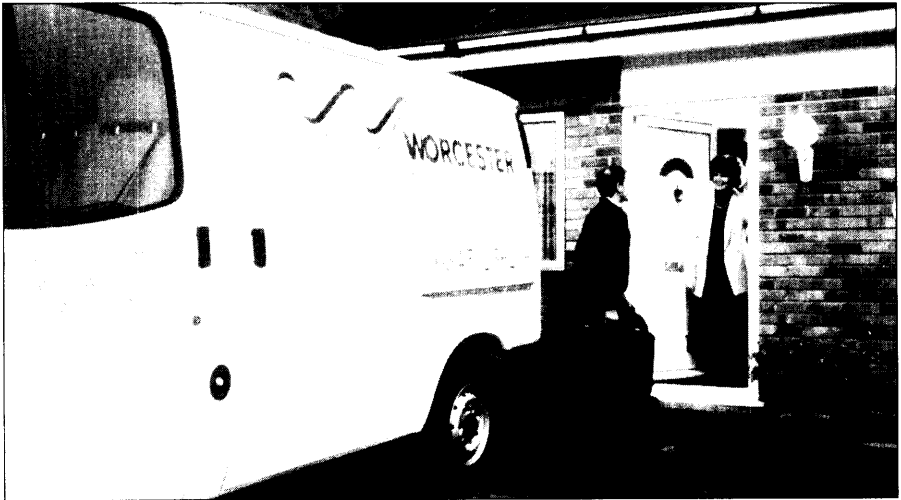
SYMPTOM	POSSIBLE CAUSE	CHECK/REMEDY
Red 'Power On' Indicator is not illuminated.	<p>There is no electricity supply to the boiler.</p> <p>Boiler overheat thermostat has operated</p>	<ul style="list-style-type: none"> • Operating switch is on (See Fig. 2). • Power supply is switched on. • Check the fuse has not blown. • If self resetting, allow time to reset • Press the reset button. <p>(See section "Safety thermostat".)</p>
'Power On' Indicator illuminated only.	There is no demand requiring the boiler to operate.	<ul style="list-style-type: none"> • Check boiler thermostat is set on medium to high. • Check the user operating switch is set correctly. • Check the programmer is programmed for hot water and/or central heating and re-programme if necessary. <p>(See programmer operating instructions.)</p> <ul style="list-style-type: none"> • If the boiler is programmed for central heating, check the room thermostat is turned on.
'Power On' & 'Lockout' indicators both illuminated.	The boiler has attempted to ignite, but has gone to lockout.	<ul style="list-style-type: none"> • Remove the appliance front cover and depress the lockout reset button on the burner. (See section "Lockout".) • Check the level in your oil tank and replenish if necessary.

CARE
CALL

MAINTAINING YOUR BOILER'S EFFICIENCY & PERFORMANCE

Your new Worcester Danesmoor oil-fired boiler represents a long-term investment in a reliable, high quality product.

In order to realise its maximum working life, and to ensure it continues to operate at peak efficiency and performance, it is essential that your boiler receives regular, competent servicing and annual maintenance checks beyond the initial 24 month guarantee period.



Regular service contracts can be arranged with your installer – however if you have difficulty making a satisfactory arrangement simply contact Worcester Heat Systems on **0345 256206** for help.

If you would like to know more about Worcester's extended warranty options please tick the appropriate box on your Guarantee Registration Card.



SERVICE CENTRES

Region	Telephone	Fax	Operating Hours (Mon-Fri)
N. Ireland	0345 256206	(01506) 441687	8.30am TO 4.30pm
Scotland		(01506) 441687	
North West		(01625) 614308	
East		(01246) 861853	
Central		(01905) 754701	
South East		(01494) 432690	
South West		(01392) 493561	

NOTE:

Should you have a service request outside normal office hours, please leave a recorded message giving as much information as possible to assist the administrator to deal with your request.

If the visit of an engineer is necessary your administrator will confirm any arrangement made.



YOUR WORCESTER DANESMOOR GUARANTEE

This appliance is guaranteed against faulty materials or workmanship for a period of twenty four calendar months from the date of installation subject to the following conditions and exceptions.

1. That during the currency of this guarantee any components of the unit which are proved to be faulty or defective in manufacture will be exchanged or repaired free of material charges and free of labour charges by Worcester Heat Systems Limited.
2. That the householder may be asked to prove the date of installation, that the boiler was correctly commissioned and, where appropriate, the first 12 month service has been carried out to the satisfaction of Worcester Heat Systems Limited when requested.
3. That any product or part thereof returned for servicing under the guarantee must be accompanied by a claim stating the Model, Serial Number, Date of Installation, proof of commissioning, proof where appropriate of the first 12 month service and the address of the householder.
4. That Worcester Heat Systems Limited will not accept responsibility for damage caused by faulty installation, neglect, misuse or accidental damage, the non-observance of the instructions contained in the installation and Operating Instructions Leaflets.
5. That the appliance has been used only for normal domestic purposes for which it was designed.
6. That this guarantee applies only to equipment purchased and used in Mainland Great Britain and Northern Ireland.

This guarantee is given in addition to all your normal statutory rights.



GUARANTEE REGISTRATION

You should complete and return the postpaid Guarantee Registration Card within 14 days of purchase.

The card will register you as the owner of your new Worcester Danesmoor boiler and, while this will not affect your statutory rights in any way, it will assist us to maintain an effective and efficient customer service by establishing a reference and permanent record for your boiler.

FOR YOUR OWN RECORD

MODEL

SERIAL NUMBER

(See identity label inside appliance casing)

TYPE/SIZE

DATE OF INSTALLATION



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EXCELLENCE COMES AS STANDARD

Worcester Heat Systems Limited. Cotswold Way, Warndon, Worcester WR4 9SW.

Telephone: (01905) 754624 Fax: (01905) 754619.