



**WORCESTER**

**Bosch Thermotechnik**

# **280 RSF**

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**WALL MOUNTED COMBINATION BOILER FOR CENTRAL HEATING  
AND MAINS FED DOMESTIC HOT WATER**

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## **USERS OPERATING INSTRUCTIONS**

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**IMPORTANT: THIS APPLIANCE IS FOR USE WITH NATURAL GAS ONLY**

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THESE INSTRUCTIONS APPLY IN THE UK ONLY

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THESE INSTRUCTIONS ARE TO BE LEFT WITH THE USER OR AT THE GAS METER

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## General Description

The Worcester 280 RSF is a combination boiler supplying mains fed domestic hot water plus central heating at an output of between 10.5 and 24 kW.

### HOT WATER PROVISION

When a tap is turned on, the burner will light and hot water will become available in a continuous supply at a constant temperature (after a short delay) depending on when the appliance was last fired.

### CENTRAL HEATING PROVISION

When a demand is made for central heating the burner will light and the appliance will automatically match output to the system load. If the system requires less than 10.5 kW, the burner will light only periodically to maintain system temperature.

### CENTRAL HEATING AND HOT WATER PROVISION

Hot water will take priority over the supply of heat to the central heating system.

## User Controls

The Worcester 280 RSF is fitted with an Operating Switch (or optional electronic programmer) which is fitted on the fascia panel and controls the domestic hot water and central heating.

### OPERATING SWITCH

The switch offers the following positions:

<b>WATER</b>	Domestic hot water will be provided when a tap or shower is turned on.
<b>OFF</b>	Central heating and domestic hot water remain off.
<b>HEATING &amp; WATER</b>	Central heating will operate in response to system controls and domestic hot water will be supplied when a tap or shower is turned on.

### ELECTRONIC PROGRAMMER

If the optional electronic programmer has been fitted refer to the Operating Instructions supplied with the programmer.

### CENTRAL HEATING TEMPERATURE CONTROL

The Central Heating Temperature Control Knob on the fascia panel allows control of the water temperature to the radiators.

### INDICATOR LIGHTS

The **STANDBY** (amber) light indicates that the mains electricity to the appliance is on. The **DEMAND** (green) light indicates that the appliance is supplying either domestic hot water or central heating.

### PRESSURE GAUGE (sealed systems only)

The green needle has been set to show the sealed system pressure which is required for the appliance to operate effectively. The white needle will show the actual pressure in your system.

### Open vent system

If your installer has fitted an open vent system he will tell you. The white needle on the pressure gauge will always point to zero.

## Hot Water Temperature Control

By slightly reducing the flow of domestic hot water from the tap, the temperature of the water will increase. This is of particular advantage in the winter, for example to increase bath water temperature and to remove heavy grease deposits on plates, etc. Also this will provide an added advantage of reducing the delay before hot water is obtained.

The maximum discharge temperature of hot water to the taps is preset at the factory.

## To Light and Stop the Appliance

### TO LIGHT THE APPLIANCE

Set the Operating Switch (or programmer) to **OFF**. Switch off the electricity supply. Your installer will have turned on the gas supply at the gas service valve.

Your installer will have checked that the water valves to the central heating supply are open. Check that the white needle on the pressure gauge is not below the required pressure as shown by the green needle (sealed systems only).

Switch on the mains electricity, indicated by the **STANDBY** light.

Pull down the plastic fascia cover and turn Central Heating Temperature Control Knob to **max**. Set the Operating Switch (or programmer) to **HEATING & WATER** and the burner will light. The burner flame is visible through the observation window which is accessible by removing the cabinet front panel. The front panel is removed by pulling forwards and lifting off.

Set the Operating Switch (or programmer) to the required position.

Set the room thermostat (if fitted) to the desired temperature.

Set the Central Heating Temperature Control Knob to the required position.

### TO STOP THE APPLIANCE

#### For Short Periods

Set the Operating Switch (or programmer) to **OFF**.

#### For Long Periods

Set the Operating Switch (or programmer) to **OFF**. Switch off the mains electricity. The **STANDBY** light will go out.

The fascia mounted programmer will retain its settings for about four weeks after which it will return to the factory set programme. The display will disappear after approx. 12 hours.

### OVERHEAT THERMOSTAT

An overheat thermostat is fitted to the appliance which interrupts the electricity supply in the event of overheating. For access to the overheat thermostat remove the front panel by pulling forwards and lifting off. The thermostat is reset manually. If the appliance fails to light, check that the overheat thermostat has not operated by pressing the reset overheat thermostat reset button. If the overheat thermostat stops the appliance again call a service engineer.

## System Operation

### SEALED WATER SYSTEM

To ensure that the appliance operates correctly, a minimum water operating pressure must be maintained. The minimum pressure is indicated by the green needle on the pressure gauge located on the fascia panel. If the pressure falls (as shown by the white needle) the system must be re-pressurised by your installer. Contact your installer or a maintenance engineer if the system continues to lose pressure as this may indicate a leak.

### CENTRAL HEATING SYSTEM

During the first operation of the central heating system check that all radiators are evenly heated. If the top of the radiator is at a lower temperature than the bottom, vent it by releasing air through the vent screw at the top of each radiator. Excessive venting may cause a drop in the system pressure (see previous paragraph).

### FLUE OPERATION

In cold weather, vapour may be emitted from the flue. This is a normal operating characteristic and no remedial action is necessary.

## Installation

### CLEARANCES

Space has been provided around the appliance for safety and servicing. It is important that you do not restrict this space.

The minimum clearances are:

Left hand side – 5 mm. Right hand side – 5 mm.

Top (above the flue bend) – 25 mm. Below – 200mm

In front – 600 mm.

### VENTILATION

Ventilation openings provided by the installer in a wall or door must not be blocked.

### FLUE TERMINAL

The flue terminal in the outside wall must not be obstructed or damaged.

### OPEN INSTALLATION

Do not place any combustible material on or around the appliance.

### CUPBOARD INSTALLATION

If the appliance is fitted in a cupboard and the cupboard is to be used for storage (as in an airing cupboard for clothes) the airing space must be separated from the boiler and flue so that no combustible material may come into contact with the appliance or the flue. **Do not restrict any permanent air vent which may have been provided.**

Consult your Gas Region or Worcester Heat Systems for advice should you wish to fit a compartment around the appliance after installation.

## System Fitting

### SERVICE

Regular servicing will maintain efficiency and prolong the life of your appliance. Worcester Heat Systems or your Gas Region can offer service contracts for the maintenance of your appliance.

### CLEANING

Use a damp cloth and a little detergent. Do not use abrasive cleaners on the casing.

### FROST PRECAUTIONS

The appliance has a built-in frost thermostat which will operate during periods of low temperature (day or night) although the Operating Switch (or Programmer) is in the **OFF** position.

Your installer may also fit a remote frost thermostat if parts of the system are exposed to exceptionally low temperatures.

If the appliance is not to be used for long periods during cold weather then the appliance and the central heating system should be drained.

### USE IN HARD WATER AREAS

The appliance has been designed to overcome scale accumulation in most normal conditions. However, in exceptionally hard water areas a descaler can be fitted to assist in the prevention of scale formation.

### ROOM THERMOSTAT

A mains voltage room thermostat should be fitted for improved control of the room temperature.

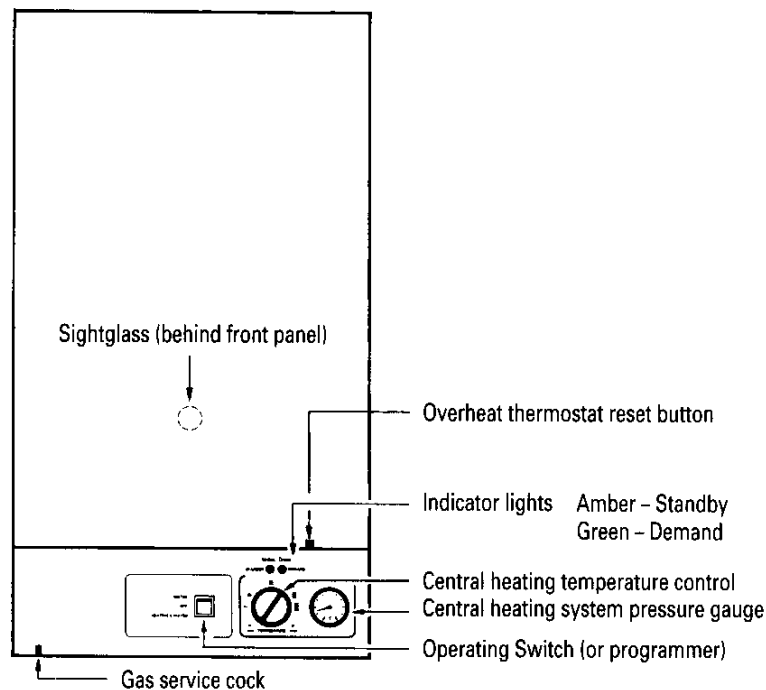
### THERMOSTATIC RADIATOR VALVES

Thermostatic radiator valves fitted to your central heating system must conform to BS2767.10.

### SHOWERS, BIDETS, TAPS AND MIXING VALVES

Taps and mixing valves must be suitable for operating at a mains pressure of up to 10bar. Thermostatically controlled or pressure equalising shower valves will give added comfort and safeguard against excessive temperatures. Hot and cold mains fed water can be supplied direct to an over-rim flushing bidet subject to local Water Company requirements. A loose-head shower hose must be fixed so as to stop the shower head coming within 25 mm of the top edge of the bath.

Fig. 1.



## Mains Service Interruptions

### **GAS LEAK**

If you suspect a gas leak, turn off the gas supply to the appliance and call your local Gas Region. Do not operate any electrical switches

### **WATER MAINS FAILURE**

In the event of mains water supply failure domestic hot water will not be available from the appliance. However, the central heating will continue to operate. If the appliance is fitted to an open vent system then there must always be water in the make-up tank for safe operation.

### **ELECTRICITY SUPPLY FAILURE**

If the electricity supply fails the appliance will not operate. Once the supply is restored the appliance will return to normal operation. If a programmer is fitted, check that the settings have been maintained.

## Appliance Fault

If a fault occurs, turn off the appliance and follow the instructions as detailed in paragraph 'To stop the appliance for long periods'.

## To Connect a Plug

The colour of the wires of the mains lead of the appliance may not correspond with the coloured markings identifying the terminals in your plug. In this case proceed as follows:

The wire coloured green and yellow must be connected to the terminal on the plug that is marked with the letter E, or by the earth symbol  $\perp$ , or coloured green or green and yellow.

The blue wire must be connected to the terminal which is marked with either the letter N or coloured black.

The brown wire must be connected to the terminal which is marked with the letter L or coloured red.

Electricity Supply: 240V~, 50Hz, 270 watts. Fuse at 3A.

## Mandatory Requirements

### **GAS SAFETY (INSTALLATION AND USE) REGULATIONS 1984:**

**All gas appliances must be installed by a competent person in accordance with the above regulations. Failure to install appliances correctly could lead to prosecution. The manufacturers notes must not be taken, in any way, as over-riding statutory obligations.**

### **IMPORTANT**

This appliance must be earthed and protected by a 3A fuse if a 13A plug is used. If any other type of plug is used a 5A fuse must be fitted in the plug or adaptor or at the distribution board.



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This booklet is accurate at the date of printing but will be superseded and should be disregarded if specifications and/or appearances are changed in the interests of continued improvement.

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