

INSTRUCTIONS FOR USE



Vaillant

TURBOmax VUW 242/1 E, 282/1 E



① **Your Guarantee**

Vaillant undertakes to rectify any manufacturing defect that occurs within twelve months of the installation date.

② **Registering with us**

Registration is simple. Just complete the Guarantee Registration Card and return to Vaillant within 30 days of installation. Your details will then be automatically registered within the Vaillant scheme.

Note: no receipt will be issued.

③ **Immediate help**

If your Vaillant boiler develops a fault your first action should be to contact your Installer, as his professional assessment is needed under the terms of our Guarantee. If you are unable to contact your installer, phone Vaillant Service Solutions: 0870 6060 777.

④ **Additional cover**

Vaillant operates a breakdown service known as **Options**. Vaillant also offers a range of annual service contracts. For further details please see the **Options** brochure included in the boiler instruction pack.

When contacting Vaillant the following information will help:

Date installed

Serial. No.

Boiler Type: TURBOmax VUW 242/1 E, 282/1 E

Important Notes: Please keep your proof of purchase. This will be required under the terms of the Guarantee. Returning the Guarantee Registration Card does not affect your statutory rights of purchase.

Contents

	Page
Guarantee	2
Introduction	4
Important Notes	5
Initial Checks Before Turning On	6
Domestic Hot Water Operation	8
Heating Operation	11
Indicator Lights	14
Reset Control	16
Turning the Boiler Off	17
Frost Protection	18
Care and Maintenance	18
Function checks	19
Operating Summary	20

Introduction

Thank you for choosing the Vaillant TURBOmax combination boiler. The information given in this booklet will enable you to obtain the best performance from the boiler.

The TURBOmax provides both central heating and domestic hot water, with the domestic hot water supplied directly from the boiler. The boiler will operate automatically to provide domestic hot water whenever a hot water tap is opened, and automatically adjusts to meet the demand for both central heating and domestic hot water in the most economical way.

Because the TURBOmax operates at a high efficiency, a plume of water vapour may be visible at the flue terminal in cold weather. This is quite normal and shows that the boiler is operating correctly.

If, after reading these instructions, you have any questions on the operation of the boiler, please contact either your installer or Vaillant Technical Department.

Please keep these instructions in the special pocket provided in the boiler front panel (5, page 20). In this way they will always be handy for future reference.

Important notes

- Please note that the TURBOmax must be installed and serviced by a competent person in accordance with the Gas Safety (Installation and Use) Regulations 1994. (In the U.K. "CORGI" registered installers undertake the work to a safe and satisfactory standard).
- If a gas leak or fault is suspected, turn off the boiler and consult your gas supplier, service agent or other competent person.
- If the boiler is installed in a compartment do not obstruct any purpose provided ventilation openings, and do not use the compartment for storage purposes.
- The following minimum clearances around the boiler case should be maintained:
5 mm either side 150 mm below 165 mm above
- Electricity Supply. Warning: This boiler must be earthed. The electricity connection to the boiler must be from a 230V~50Hz. supply. If a mains plug connection is used it must be of a three pin type and contain a 3A fuse.

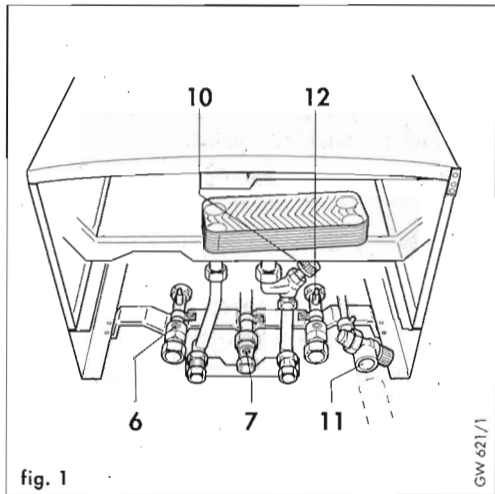
Initial checks before turning the boiler on

Check supply pipes

Ensure cold water shut off valve ⑩ is open (this can be checked by opening a hot tap and ensuring water flows). Also check that both the flow and return central heating service valves ⑥ and ⑫ and the gas service valve ⑦ are open. (The flow, return and gas service valves are open when the line marking is in the same direction as the pipe).

The pressure relief valve ⑪ is provided for safety reasons and must not be interfered with.

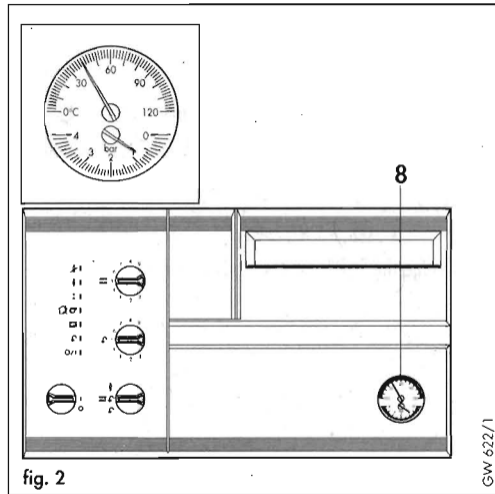
Note: A bottom cover is fitted to the appliance. The service valves can be seen at the rear of the cover.



Check water contents

Open the lower door by pulling outwards. Check the water contents of the system. The white hand on the lower scale of the pressure and temperature gauge ⑧ should be between 1 and 1.5 bar. If the hand is below 0.8 bar when the system is cold, the system should be refilled as advised by your installer. Alternatively your installer should be called to refill the system.

The top scale of the pressure and temperature gauge shows the temperature of water in the central heating circuit.



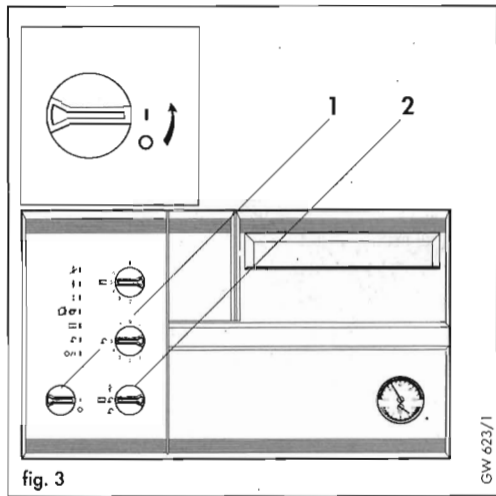
Domestic hot water operation

Turning on Main On/Off Control

With the main on/off control ① in the off position ('O'), and the central heating control ② in the 'F' position, turn on the electricity supply. Turn main on/off control ① into the 'I' position, the mains on indicator will illuminate.

Note: The main on/off control should only be operated if - as described under "Check water contents" on page 7 - the boiler is correctly filled with water.

At this stage the TURBOmax is ready to supply hot water.

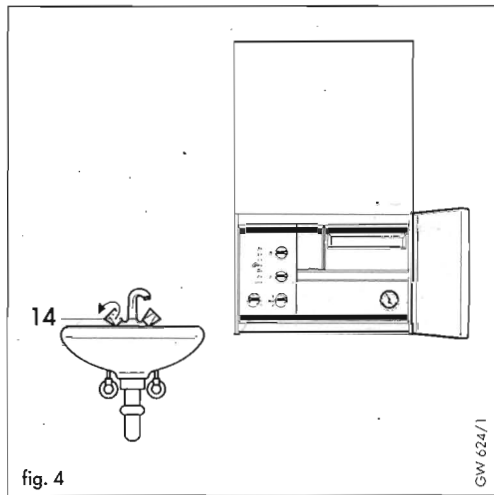


Obtaining hot water

On opening a hot water tap (14) at a supply point (basin, shower, bath, etc.) the boiler will operate automatically to provide hot water. (A short delay may be experienced in obtaining hot water at the tap, depending on the length of pipework and your system layout. This delay can be reduced by not fully opening the tap until the water is flowing at the desired temperature).

With the tap fully open you will receive the maximum flow rate of hot water. Should you require hotter water reduce the flow by partially closing the tap.

On closing the tap the boiler automatically switches off (or continues to operate for central heating if required). The pump may continue to operate for a short period.



Setting Maximum Domestic Hot Water Control

The maximum domestic hot water temperature can be adjusted using the hot water temperature control ④.

Turn the control:

Clockwise to Increase (maximum setting = 9)

Anti-clockwise to Decrease (minimum setting = 1)

As a guide, for normal circumstances the maximum hot water temperature should be set to 6

Note: This control adjusts the **maximum** domestic hot water temperature. If adjusting the control upwards appears to have no effect on the temperature, then the boiler is already operating at full output for the selected flow rate. If hotter water is required, the flow rate should be reduced by partially closing the hot water tap.

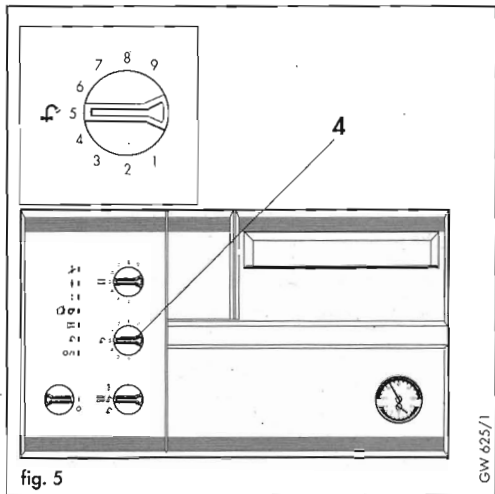


fig. 5

Heating operation

Setting the Maximum Radiator Temperature Control

The maximum radiator temperature control ③ maintains the temperature of water to the central heating circuit at the desired level. This temperature is indicated on the pressure and temperature gauge ⑧ during heating operation.

Turn the control:

Clockwise to Increase (maximum setting = 9)

Anti-Clockwise to Decrease (minimum setting = 1)

The following settings may be used as a guide:

Spring and Autumn 5 - 6 Winter (normal) 6 - 7 Winter (severe) 7 - 9

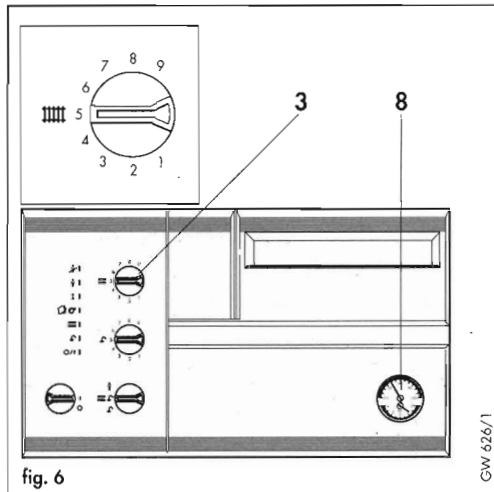


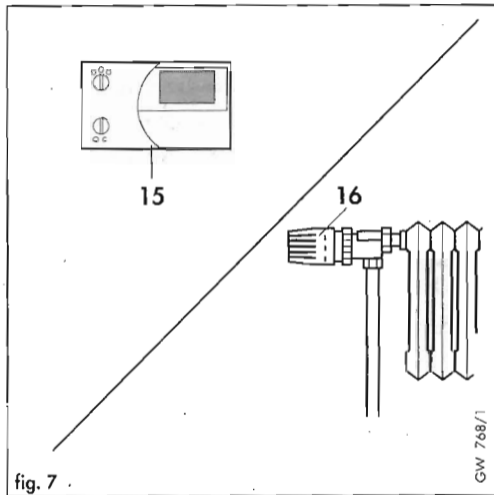
fig. 6

Setting external controls

Set the room thermostat ⑮ and/or thermostatic radiator valves ⑯ according to the instructions supplied with the control(s). Set the external time control to the desired on and off periods.

Note: A room thermostat or a room thermostat and thermostatic radiator valves will provide more accurate and economic control compared to a heating system without these controls.

If your TURBOmax is fitted with a built in time clock, set this according to the instructions supplied with the clock.



Switching on Central Heating Control

Turn the central heating control ② to '|||| ♀' position. The boiler will now operate automatically to provide central heating for the conditions selected on the external controls. (On this setting the TURBOmax will also provide domestic hot water).

The temperature gauge ⑧ indicates the temperature of water to the central heating circuit. After the boiler stops operating the pump may continue to operate for a short period to fully disperse the heat from the boiler.

Note: The boiler incorporates an integral 'anti-cycling' economiser control to prevent energy wasteful on and off operation of the boiler for short periods when in the central heating mode. When turning the room thermostat or boiler thermostat to a higher setting there may therefore be a short delay before the boiler operates.

In the summer time, when central heating is not required, turn the central heating control ② into the '♀' position.

Note: If a hot water tap is opened during central heating operation, the boiler will momentarily switch off before automatically igniting to provide hot water.

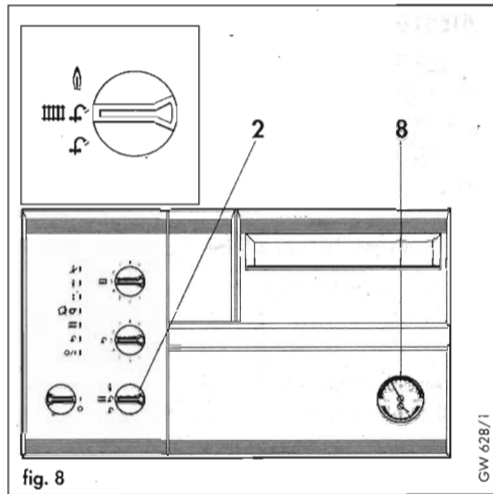


fig. 8

Indicator lights

The Vaillant TURBOmax incorporates indicator lights to show the operational status of the boiler. When the boiler is operating correctly the lights will illuminate in a given sequence, depending on whether heating or hot water is being supplied (see fig. 9).

power on indicator

illuminates whenever the main on/off switch is set to the on (I) position and electricity is being supplied to the boiler.

hot water demand indicator

illuminates whenever a hot tap is opened and there is a demand for hot water.

central heating demand indicator

illuminates whenever there is a demand for central heating.

Note: If the external controls are not calling for heat (e.g. the room thermostat has reached temperature) this indicator will go out. This is perfectly normal.

fan operation indicator

illuminates during boiler operation to show that the fan and flue system are functioning correctly.

ignition indicator

illuminates to show that the gas valve has opened and that the boiler is trying to ignite.

flame indicator

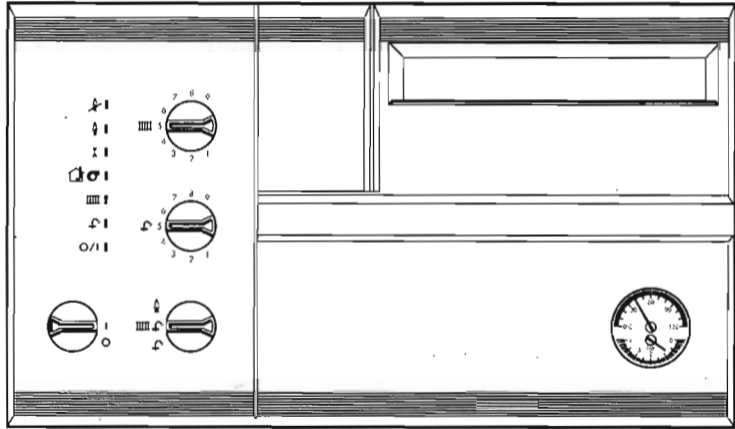
illuminates to show that the burner has lit to provide either central heating or hot water.

burner lock out indicator


illuminates whenever the boiler has tried and failed to light. Turn the central heating control to the reset position 'A' to restart the boiler. If the boiler repeatedly fails to light contact your service agent or Vaillant Service Solutions.

Note: In the unlikely event of a fault developing these indicator lights can be used to help rectify the problem. If contacting Vaillant Service Solutions please remember to advise which lights, if any, are illuminated.

fig. 9



Reset control

When a hot water tap is opened or the central heating system requires heat, the boiler automatically ignites and starts to operate. If no automatic ignition occurs within a set period of about 9 seconds the boiler will reattempt ignition after a further delay of approximately 10 seconds, if the boiler still does not start the lock out indicator will illuminate (see Indicator Lights) . A further ignition attempt can only take place once the central heating control ② has been turned briefly to the reset position  and released. If after attempting to light the boiler by turning to the reset position, the boiler shuts down again or if an indicator light is flashing, consult your service agent or Vaillant Service Solutions.

Note: Particularly when starting up for the first time, or after the boiler has been out of operation for a fairly long period, it may be necessary to turn the central heating control to the reset position several times before ignition takes place.

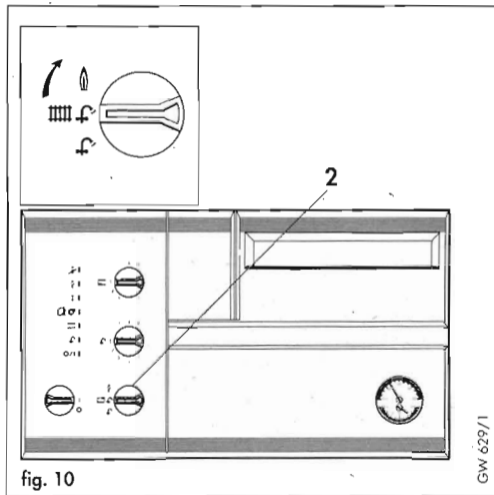


fig. 10

Turning the boiler off

To turn off the central heating only. Turn the central heating control ② to '⌘' position (Normal position during summer time).

To turn off the heating and hot water for short periods of time. Turn the main on/off control ① to the '●' position. Should you leave for a longer time, and there is no danger of frost (e.g. summer holidays), you should also switch off the electrical supply and turn off the gas supply.

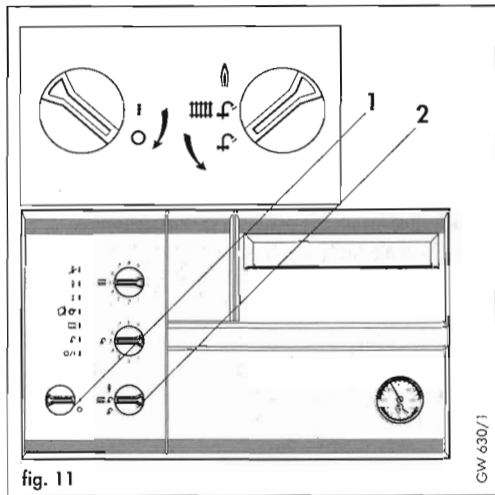


fig. 11

Frost Protection

If the boiler is not operated for several hours during very cold weather there is the possibility of the system freezing. Please ensure that if you are absent during a period of frost the central heating system remains in operation and all rooms are kept above freezing point. (It must be remembered, however, that the boiler will be automatically switched off by the built-in monitoring devices if certain faults occur, e. g. interruption in the gas or electricity supply or faults in the flue gas system. To overcome this possibility you can drain both the central heating system and the boiler).

Note: The boiler has an internal frost protection thermostat, and in very cold weather may therefore operate automatically to prevent damage to itself. This function is only available when the main on/off control is in the on position (I).

Care and maintenance

Clean the outer casing with a damp cloth and a little soap. Do not use any abrasives or solvent cleaning material which could damage the case or plastic fittings.

It is important that the boiler is serviced at least once a year by a competent service company. To ensure regular servicing it is strongly recommended that arrangements are made with your service agent or Vaillant Ltd. for a Maintenance Agreement. Please return the registration card if you would like further details.

Function checks.

In the unlikely event that a problem occurs with the operation of the TURBOmax combination boiler, the following points should be checked:

1. Boiler fails to operate

- Check gas supply is turned on (see page 6)
- Check water supply is turned on (see page 6)
- Check water contents (see page 7)
- Check electricity supply is switched on (see page 8)
- Check main on/off (O/I) control is turned to the on position (I) (see page 8)
- Check boiler reset control (see page 16)

2. Hot Water operates but not central heating

- Check central heating service valves are open (see page 6).
- Check external controls are calling for heat (see page 12)
- Check central heating control is in the (III) position (see page 13)
- The anti-cycling economiser control may be engaged, please wait a short time before trying to operate heating again.

If these actions do not result in the correct operation of the boiler please consult your installer.

If you are unable to contact your installer phone Vaillant Service Solutions: 0870 6060 777.

Operating summary

Key to Features

- ① Main on/off control
- ② Central Heating control and lock out reset
- ③ Maximum Radiator Temperature control
- ④ Maximum Hot Water Temperature control
- ⑤ Instructions for Use
- ⑥ Heating flow service valve
- ⑦ Gas service valve
- ⑧ Temperature and pressure gauge
- ⑨ Indicator lights

- ⑩ Cold water shut off valve
- ⑪ Pressure relief valve
- ⑫ Heating return service valve
- ⑬ Water outlet
- ⑭ Hot water tap
- ⑮ Room thermostat (if fitted)
- ⑯ Thermostatic radiator valves (if fitted)

We do not accept any liability for damage arising as a result of the non-observance of these instructions.

