

Instructions for use  
turboMAX pro



*The code of practice for the installation,  
commissioning & servicing of central heating systems*

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## For your information

Thank you for choosing the Vaillant turboMAX pro boiler. The information given in this booklet will enable you to obtain the best performance from your boiler. TurboMAX pro 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. If, after reading these instructions, you have any questions on the operation of the boiler, please contact either your installer or Vaillant Technical Department.

The benchmark gas boiler commissioning checklist (in the installation manual) should be completed by the installer and/or the commissioning engineer. All CORGI Registered Installers carry a CORGI ID card, and have a registration number. Both should be recorded in the Benchmark gas boiler commissioning checklist. You can check your installer by calling CORGI direct on 01256 372300.

## Key to symbols



### Important Note



**This symbol is used to indicate important instructions.**

- This symbol is used to indicate a required step.

## Liability



**We can accept no liability whatsoever for damage or injury resulting from failure to observe these instructions.**

## Specified use

Vaillant turboMAX pro appliances are made to fulfil the latest technical specifications and official safety regulations. These appliances are designed as boilers for use in central heating and hot water supply systems. If the appliances are used for purposes other than or in excess of these specifications, this shall be classed as incorrect operation, and neither the manufacturer nor supplier will accept any liability for resulting damage or injury. Use of this type is entirely at the owner's risk. The term „specified use“ also covers observance of the operating and installation instructions, along with adherence to the servicing schedules.

## EC designation



The purpose of EC designation is to certify that the boiler complies with the requirements of the directives covering gasfired appliances (Council directive 90/396/EEC) and electromagnetic compatibility (Council directive 89/336/EEC). These appliances also comply with the requirements of the directive on operating efficiency (Council directive 92/42/EEC).

## Safety instructions

### Setup and adjustments

Installation and adjustment of the boiler as well as service maintenance and repair of the boiler may only be carried out by a competent person in accordance with the Gas Safety (Installation and Use) Regulations 1998. (In the U.K. „CORGI“ Registered installers undertake the work to a safe and satisfactory standard). 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.

### Gas smell

- If you smell gas or suspect a gas leak:
- Turn off the boiler
  - Do not switch any electrical switches in the hazardous area on or off

- Do not smoke in the hazardous area
- Turn off the gas supply at the gas meter
- Ventilate the room
- Consult your gas supplier, service agent or other competent person.

**Modifications in and around the boiler**

No modifications may be made to the following items:

- The boiler
- The gas, water and electrical supply
- The flue system
- The safety valve for the heating water
- Any structural changes around the appliance that could affect the operational safety of the boiler.

**Explosive and flammable materials**

Do not use or store any explosive or highly flammable materials (e.g. gasoline, paper or paint) near to the appliance.

**Inspection**

The boiler should be serviced annually. We recommend that you sign a service agreement with your service agent or Vaillant Ltd.

**Factory guarantee**

**Your guarantee**

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

**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.

**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.



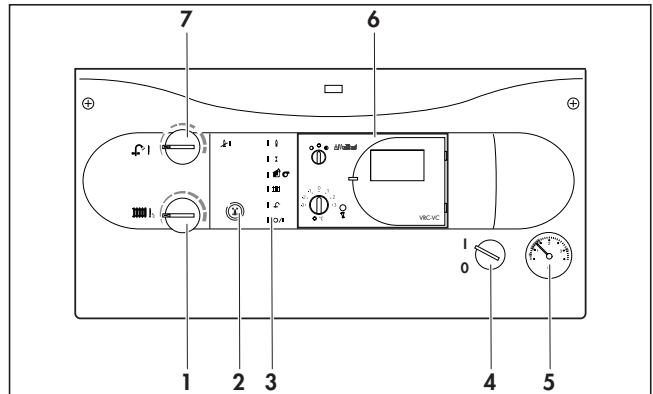
**Attention!**

**The device may only be used**

- for initial operation
  - for testing
  - for continuous operation
- with the chamber cover closed and with the flue system fully mounted and sealed.**

**Operation**

**Overview**

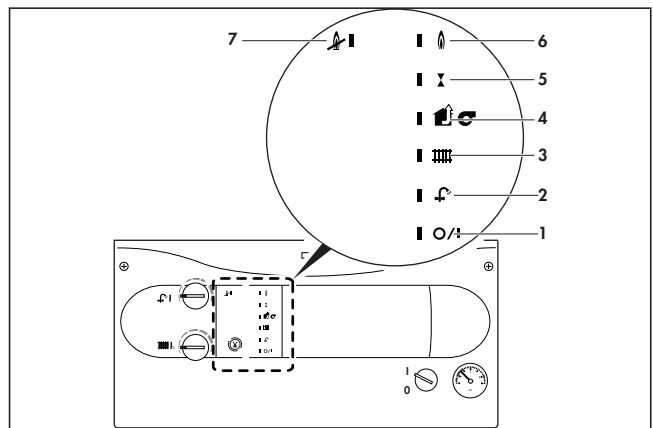


**Fig. B.1: Operating elements**

**Operating controls**

- 1 Maximum radiator temperature control
- 2 „Reset“ button
- 3 Indicator lights to display the current operating mode
- 4 Main ON/OFF control
- 5 Pressure gauge displaying the pressure in the heating system
- 6 Built in control/timer module (if fitted)
- 7 Maximum hot water temperature control

**Indicator lights**



**Fig. B.2: LED displays**


The lights indicate the following operating states under normal conditions:

- 1 On: The main ON/OFF switch is set to the ON position
- 2 On: A hot water tap is opened and there is a demand for hot water
- 3 On: There is a demand for central heating
- 4 On: Fan and flue system are functioning correctly
- 5 On: Gas valve opened, the boiler is trying to ignite
- Flashing: Lack of water in the system
- 6 On: Burner has lit to provide either central heating or hot water
- 7 On: Boiler has tried and failed to light

## Initial checks before turning ON

### Open the service valves

- Ensure the cold water service valve is open. This can be checked by opening a hot water tap and ensuring water flows.
- Ensure that the service valves in the heating flow and return (2 and 1) and the gas service valve (3) are open.

 **The flow, return and gas service valves are open when the line marking has the same direction as the pipe.**

- The pressure relief valve (4) is provided for safety reasons and must not be interfered with.

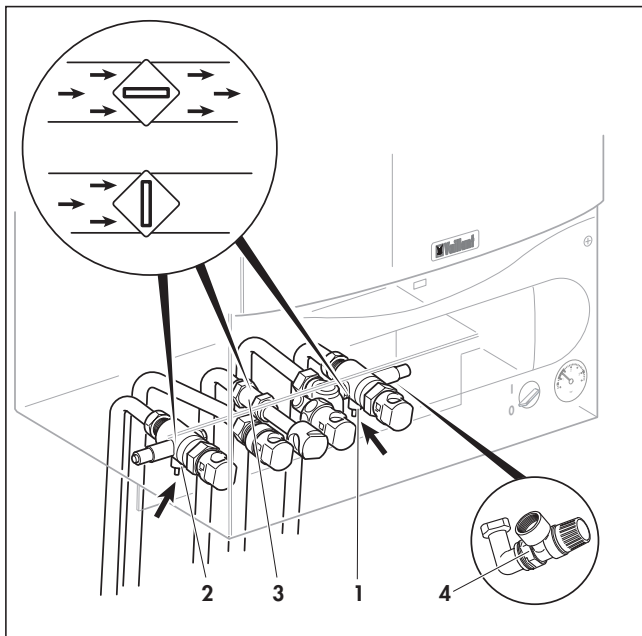


Fig. B.3: Opening service valves

### Check the water contents

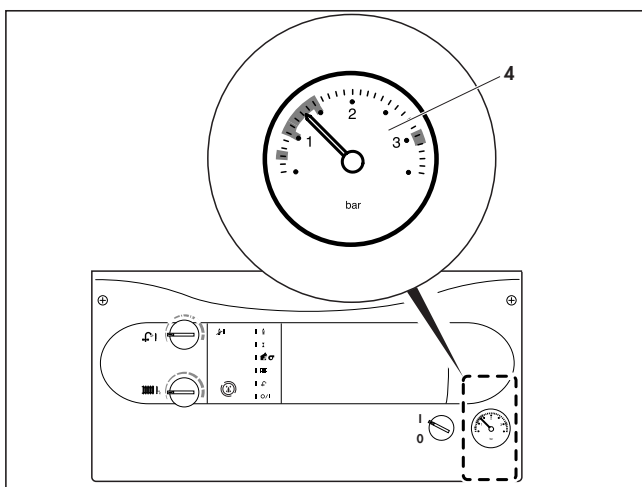



Fig. B.4: Checking the water level

- Check the water contents of the system on the pressure gauge (4).
- The needle on the pressure gauge should be within the green band (between 1 and 1.5 bar). If the needle displays a value below 0.8 bar when the appliance is cold, follow the instructions left by your installer to refill the system. Alternatively, your installer should be called to refill the system.

## Domestic hot water operation

 **The boiler should only be used when the heating system contains water. Use of the boiler without water may cause damage to the boiler or its components.**

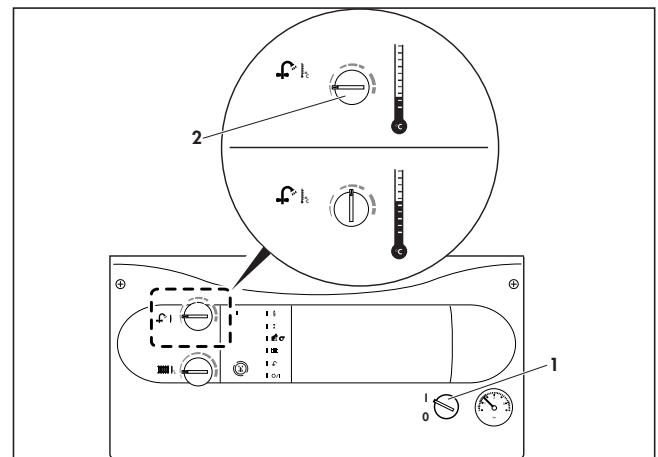


Fig. B.5: Domestic hot water supply


### Setting the maximum domestic hot water temperature control

- Turn the main switch (1) to the „I“ position.
- The domestic hot water temperature can be adjusted using the hot water temperature control (2).
- Turn the control clockwise to increase the temperature and anti-clockwise to decrease the temperature.

As a guide for normal circumstances set the knob to the 1 o'clock position.

#### 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.

 **If you live in a hard water area please do not set the control knob above the mid (12 o'clock) position to prevent excessiv scale formation (fig. B.5).**

**Obtaining hot water**

On opening a hot water tap (3) at a supply point (basin, shower, bath, etc.) the boiler will automatically operate to deliver hot water.

On closing the tap the boiler switches OFF (or continues to operate for central heating if required). The pump and fan will continue to operate for a short period.

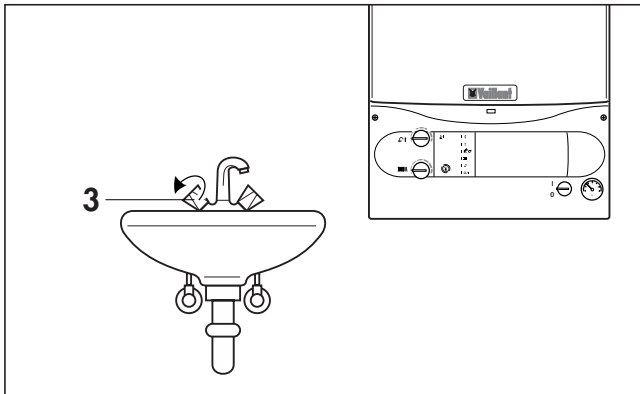


Fig. B.6: Drawing off hot water

**Setting the external controls**

- Set the room thermostat (3) and/or the thermostatic radiator valves (4) according to the instructions supplied with the control(s).



**Hint!**

**Vaillant offer room thermostat/time control accessories which give accurate and economic room temperature control as well as improved comfort. Ask your installer!**

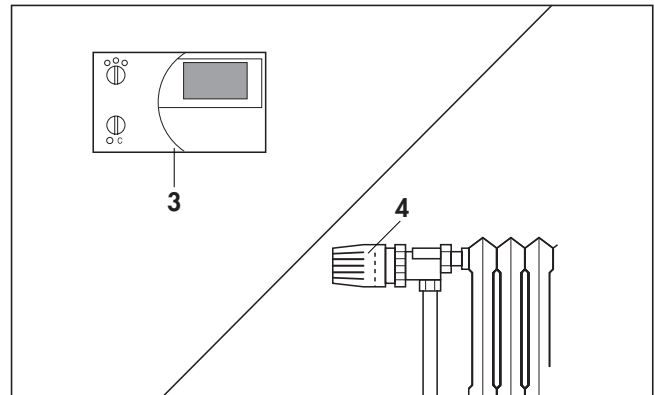


Fig. B.8: Setting the external controller

**Heating operation**

**Setting the maximum radiator temperature control**

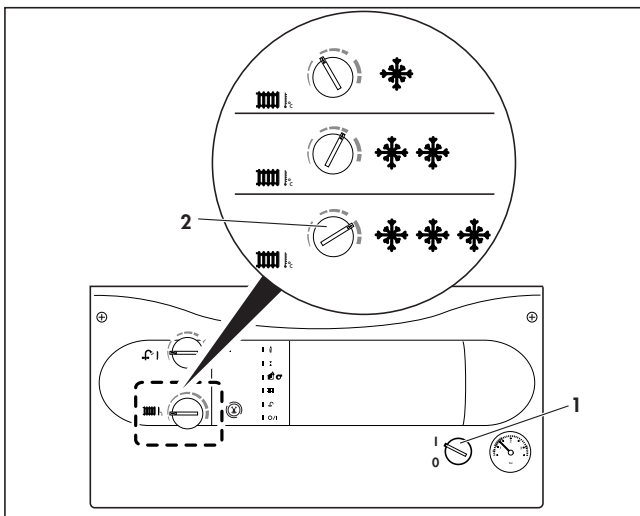


Fig. B.7: Setting the flow temperature

- Turn the main switch (1) to the „I“ position.
- Set the maximum radiator temperature control to the desired setting using the control knob (2).  
We recommend the following settings:
  - Left setting during spring and autumn,
  - Middle setting during mild winter,
  - Right setting during cold winter.

The boiler will now operate automatically to provide central heating for the conditions selected on the external controls (turboMAX pro will also provide domestic hot water on demand). After the boiler stops operating the pump and fan will continue to operate for a short period to fully disperse the heat from the boiler.



**Note:**

**The boiler incorporates an anticycling 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 to a higher setting there may therefore be a short delay before the boiler operates.**

## Resetting the appliance

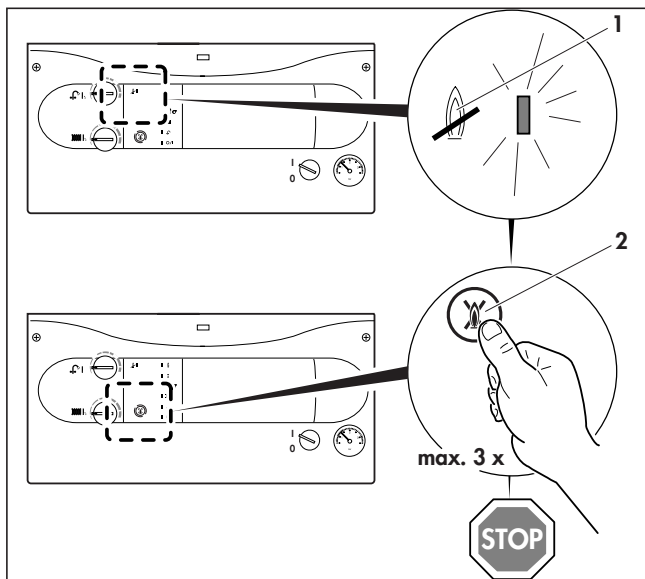


Fig. B.9: Reset

When a hot water tap or the central heating system requires heat, the boiler automatically ignites and starts to operate. If the automatic ignition is not successful within 10 seconds, then the boiler does not go into operation and switches to „Lock out“. This is indicated visually by the red indicator light (1). A new attempt to ignite the flame can then only be performed after pressing the „Reset“ button.

- Press the „Reset“ button (2) and hold for approx. 1 second.



**If the device still shuts off after a third attempt, then please consult your installer or Vaillant Service Solutions.**

## Turning the boiler OFF

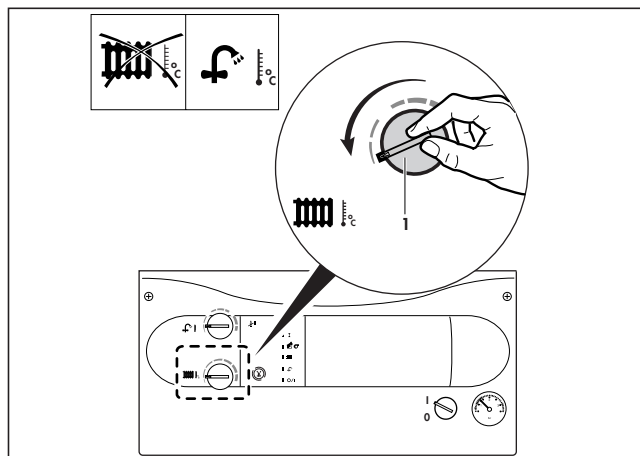


Fig. B.10: Setting the summer operating mode

### To turn OFF the central heating only (Summer mode)

- Turn the maximum radiator temperature control knob used to control the heating supply temperature (1) all the way to the left.



### Hint!

**You can switch off the heating operation in summer, for example, but the boiler will continue to provide domestic hot water whenever a hot water tap is opened.**

### To turn OFF central heating and hot water for short periods of time

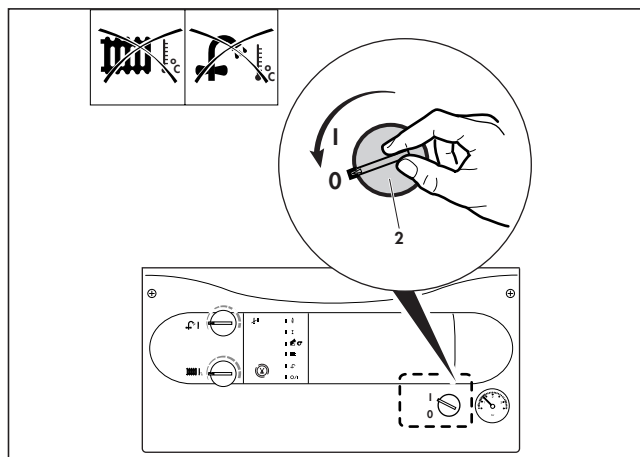


Fig. B.11: Shutting down the unit completely

- Turn the main ON/OFF control (2) to the „0“ position.



**If you want to turn the boiler OFF for a longer period of time (e.g. holidays), and there is no danger of frost, then you should also turn off the gas supply, the cold water service valve and the electrical supply. Please note the frost protection hints in this regard (next page).**

## Care and maintenance

Clean the outer casing of your boiler with a damp cloth and a little soap. Do not use abrasive or solvent cleaning agents that may damage the case or the plastic fittings. The appliance should be serviced at least once per year. To ensure regular servicing, it is strongly recommended that arrangements are made with your service agent or Vaillant Ltd. For further details please contact Vaillant Service Solutions: 0870 6060777.

## Frost protection

Your boiler is equipped with a frost protection function: If the heating water temperature drops below 5 °C when the main switch is ON, then the boiler goes into operation and heats the boiler circuit to approx. 30 °C.



**It cannot be guaranteed that water will circulate throughout the entire heating system.**

If the boiler is not operated for several hours during very cold weather there is therefore the possibility of the system freezing. Please ensure that if you are absent during a period of frost the central heating 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 boiler.



**Frost protection and monitoring devices can only function when the main switch of the unit is set to the „I“ position and the boiler is connected to the electrical supply.**

## Troubleshooting

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

### 1. Boiler fails to operate

- Is the gas supply turned on? (see page 4)
- Is the water supply turned on? (see page 4)
- Is there enough water in the heating system?
- Is the electrical supply switched on?
- Is the main ON/OFF control in the „On“ position? (switch position „I“)
- Is the burner lock out indicator light illuminated? (see page 6)

### 2. Hot water operates but no central heating

- Is the heating turned ON? (see page 6).
- Are all external heating controls ON?

If your boiler still does not operate then please consult your installer or Vaillant Service Solutions: 0870 6060 777.

**Vaillant Ltd**

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