For the owner and heating engineer



Operating and Installation Manual  $VRT\ 360f$ 



Room temperature thermostat

VRT 360f

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#### Notes on the documentation

The following information is intended to help you throughout the entire documentation.

Other documents apply in combination with this installation and operation manual.

We accept no liability for any damage caused by failure to observe these instructions.

#### Storage of the documents

Please pass on this operating and installation manual to the owner of the system in order for him/her to store it so that it is available whenever it is required.

#### Symbols used

Please observe the safety instructions in this manual for the installation of the appliance.



Danger! Immediate risk of serious injury or death



#### Caution!

Potentially dangerous situation for the product and environment.



#### Note! Useful information and instructions.

Symbol for a necessary task

#### Safety

The room temperature thermostat must be installed by a suitably qualified heating engineer, who is responsible for adhering to the existing standards and regulations.

We accept no liability for any damage caused by failure to observe these instructions.

#### Operating manual

#### 1 Overview of the equipment

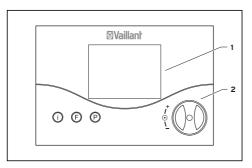


Abb. 1.1 Overview of equipment

#### Key

- l Display
- 2 Dial (turn and click)
- I Info button
- F Special functions button
- P Programming key/installer level

#### 2 Overview of the display

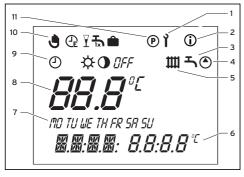


Fig. 2.1 Overview of the display

#### Key

- 1 Installer level and Service/Diagnosis level (Chapter 11.1)
  - 2 Info level (see 4.7)
  - 3 Hot water symbol
    - Circulation pump symbol
  - 5 Heating circuit symbol
  - 5 Time/temperature display
  - 7 Days of the week
  - B Actual temperature
- 9 Operating modes (see 4.1)
- 10 Special functions (see 4.6)
- 11 Setting timer programmes (see 4.3)

## 3 Description of the appliance

The VRT 360f is a programmable room temperature thermostat with weekly programme for heating, hot water and circulation pump for connection to Vaillant heating equipment with eBus. The connection between the room temperature thermostat and the heating unit is by radio link.

The VRT 360f enables you to specify the room temperature using heating programs. In addition, you can select special functions such as the party function, and control the timed

operation of a boiler and a circulation pump.

#### 4 Operation

The operating principle is based on the three buttons and an dial (Vaillant "turn and click" operating concept). The display normally shows the current operating mode (e.g. ② �), or, if activated, the special function and the current room temperature, the day of the week, the time and the symbol for heating, hot water and/or the circulation pump, depending on which is requested.

#### 4.1 Setting the operating modes

Table 4.1 provides you with an overview of the operating modes you can select. The selected operating mode affects the timer programmes both for heating and for hot water and the circulation pump.

- When the room temperature thermostat is in normal display mode. press the dial once - the symbol for the selected mode flashes in the display.
- Turn the dial until the desired operating mode appears on the display.

The display switches back to normal mode after five seconds.

Symbol	Meaning	
	Heating	Hot water
<b>(</b>	Automatic: The operation of the heating circuit changes between the operation modes Heating ♯ and Energy Saving ◑ . The heating circuit symbol is displayed if a heating requirement is detected.	The operation of the hot water storage cylinder/circulation pump changes between heating/ON ☼ and OFF OFF depending upon the time
<b>*</b>	Heating: The heating circuit is operated according to the room temperature, regardless of the programme set on the room temperature thermostat. The heating circuit symbol is displayed if a heating requirement is detected.	programme set on the room temperature thermostat. The hot water symbol and the circulation pump symbol are displayed if the time window is active.
•	Energy Saving: The heating circuit is operated according to the energy saving temperature "ECO", regardless of the programme set on the room temperature thermostat. The heating circuit symbol is displayed if a heating requirement is detected.	

Table 4.1 Operating modes

Symbol	Meaning		
	Heating	Hot water	
OFF	Off: The heating circuit is off, provided that the frost protection function (if the room temperature is below 5°C) is not activated. If the frost protection function is activated, the heating circuit symbol is displayed.	The boiler is not heated up, regardless of the set timer programme. The circulation pump is switched off. The hot water and circulation pump symbols are not displayed.	

Table 4.1 Operating modes (contd.)

### 4.2 Setting the current day and time

To set the current time and day of the week with the display in normal mode, you must perform the following steps:

- Press the dial until a day of the week starts flashing.
- Turn the dial until you see the current day of the week.

MO = Monday

TU = Tuesday

WE = Wednesday

TH = Thursday

FR = Friday

SA = Saturday

SU = Sunday

- Press the dial. The hours start flashing.
- Turn the dial until you see the current hour
- Press the dial. The minutes start flashing.
- Turn the dial until you see the current minute

The display switches back to normal mode after five seconds.

If the calendar is activated on the installer level (see 11.1), you can set the day, month and year in the same way after you set the time. This allows automatic switching from winter to summer time.

#### 4.3 Setting timer programmes

The room temperature thermostat is equipped with a basic program (see table 4.2).

Time window	Current day / Block of days	Start time	End time
H1	MO-FR	6:00	22:00
H2	_	-	-
H3	-	-	-
H1	SA	7:30	23:30
H2	_	_	-
H3	-	-	-
H1	SU	7:30	22:00
H2	-	-	-
H3	_	-	-

## Table 4.2 Default heating, hot water and circulation pump programmes

You can adapt the default programmes to suit your needs. There are six steps to setting the times you want.

- 1. Press the programming button P
- 2. Select the timer programme (heating, hot water or circulation pump)
- 3. Select the time window
- 4. Select the current day or week block
- 5. Set the start time.
- 6.Set the end time.

You can define three time windows for each day.

When you press the P button the display returns to basic mode.

The table below illustrates the individual steps again, using the example of the hot water timer programme. If you want to change the timer programme for heating or the circulation pump, after pressing the programming button P, select the corresponding symbol (heating circuit or circulation pump) and continue as shown in the example.

Display	Required steps
# 1 # 1 # 10 10 10 10 10 10 10 10 10 10 10 10 10	Press the programming button P. The cursor (black triangle) marks the value which can be changed (IIII), which also flashes. Turn the dial until the tap symbol appears.
** ** ** ** ** ** ** ** ** ** ** ** **	Press the dial. The cursor marks the adjustable value (H1), which also flashes. Select the desired time window by turning the dial. Settings: H1, H2, H3

Display	Required steps
© 5 H 1 ► 100 TO LET THER SA SU 0 0:00 0 0 0:00	Press the dial. The cursor marks the week block display, which also flashes. Select a block programme or a single day of the week by turning the dial. Settings: MO - SU MO - FR SA - SU MO = Monday TU = Tuesday WE = Wednesday TH = Thursday FR = Friday SA = Saturday SU = Sunday

Display	Required steps
# / # / *** ********************************	Press the dial. The cursor marks the start time and the hour display flashes. Select the start time by turning the dial. Press the dial again to set the minutes.
# / # / no to use there say su 0 0:00 0 • 0 0:00	Press the dial. The cursor marks the end time and the hour display flashes. Select the end time by turning the dial. Press the dial again to set the minutes.

Table 4.3 Setting time windows

If necessary, you can switch the room temperature thermostat from the week programme to a daily programme.

 With the display in normal mode, press the F button for about 10 seconds. When you programme time windows, days of the week will no longer be displayed.

# The current room temperature is shown in the basic display. You can set the room temperature directly from the basic display. If the temperature level function is activated on the installer level (different temperature settings for each heating

window see Chapter 11.1), the display shows the currently set room temperature (T-H1, T-H2, T-H3).

## Setting the required room temperature directly

 Turn the dial (with the display in normal mode).
 The set temperature display disappears, the sun symbol is displayed in the operating mode level and the set room temperature is displayed in the multi-function level (e.g. TEMP 20,0 °C).

 You can set the required room temperature directly (after about 1 second) to the desired value by turning the dial.

The display switches back to normal mode after five seconds.

## Setting the room temperature for time windows

(only possible if the "Temperature level" function is activated on the installer level - see 11.1). In this case, you can set different room temperatures for each time window.

 Press the dial several times until T-H1 appears in the multifunction display

- along with a set value. The set value flashes
- Turn the dial until you see the room temperature you want for the time window H1. The new room temperature is assigned to all time windows with H1.
- Press the dial. T-H2 is displayed along with a set value. The set value flashes.
- Turn the dial until you see the room temperature you want for the time window H2. The new room temperature is assigned to all time windows with H2.
- Press the dial. T-H3 is displayed along with a set value. The set value flashes.

 Turn the dial until you see the room temperature you want for the time window H3. The new room temperature is assigned to all time windows with H3.

The display switches back to normal mode after five seconds.

## Setting the set-back temperature "ECO"

- Push the dial until ECO appears.
   The set-back temperature is displayed and starts flashing.
- Turn the dial until the required setback temperature is displayed (e.g. ECO 15 °C).

The display switches back to normal mode after five seconds.

## 4.5 Setting the hot water temperature

You can set the hot water temperature from the basic display. Please note the set maximum hot water temperature on the boiler.

- Push the dial repeatedly until the DHW display appears. The set value flashes.
- Turn the dial until the required hot water temperature is displayed (e.g. DHW 60 °C).

The display switches back to normal mode after five seconds.

#### **4.6** Activating special functions You can access the special functions using the F button. You can activate the following functions:

Display	Required steps
•• • 0N 20.05	Quick veto The quick veto function allows you to adjust the room temperature for a short time (until the next time window). Press the special function button F - the quick veto symbol appears in the display along with the quick veto room temperature, which also flashes. Turn the dial until the quick veto temperature you want is displayed. The display switches back to basic mode after 10 seconds and the function is activated. To deactivate the function, all you need to do is press the F button.

the hot water and circulation pump programmes. Press the special function button three times. The party symbol appear in the display and the function activated after ten seconds. The function is deactivated automatically by reaching the next heating phase.  If you want to deactivate the function before, just press the function before, just press the function programmes.	Display	Required steps
back phase. This also applies to the hot water and circulation pump programmes. Press the special function button three times. The party symbol appear in the display and the function activated after ten seconds. The function is deactivated automatically by reaching the next heating phase.  If you want to deactivate the function before, just press the function before, just press the function before, in the second	► Ï	When you activate the party function the heating phase is
special function button three times. The party symbol appear in the display and the function activated after ten seconds. The function is deactivated automatically by reaching the next heating phase.  If you want to deactivate the function before, just press the function before, just press the function before, in the function before.	ON.	back phase. This also applies to
activated in automatic mode 🕘		special function button three times. The party symbol appears in the display and the function is activated after ten seconds. The function is deactivated automatically by reaching the next heating phase.

Display	Required steps
<i>™</i>	Once-only cylinder filling The once-only cylinder filling function allows you to fill the cylinder, regardless of the set timer programme. Press the special function button four times. The once-only cylinder filling symbol appears in the display and the function is activated after ten seconds. If you want to deactivate the function early, just press the F button.
I	l .

Display	Required steps
Display	Required steps  Holiday function The holiday function deactivates the controller, but not the frost protection function. The hot water and circulation pump are also deactivated. Push the special function button five times - the holiday function appears in the display along with set value of the number of days' holiday, which then flashes. Turn the dial until the required number of day's holiday appears. After 10 seconds the function is activated and the mode is set to OFF for the selected period
	(see Chapter 4.1). →

Display	Required steps
	→ Holiday function  If you want to deactivate the function before, just press the F button. If the anti-legionnaire's disease function is activated, it is performed on the last day of the holiday.

Table 4.4 Special functions

#### 4.7 Info level

Press the info button to access the info level. The info symbol appears in the display as soon as you open the info level. Each time you press the button, different information is displayed:

- The name of the room temperature thermostat (VRT 360f)
- The quick veto room temperature (if active)
- The set room temperature T-H1 (if activated - e.g. T-H1 20.0 °C)
- The set room temperature T-H2 (if activated - e.g. T-H2 23.0 °C)
- The set room temperature T-H3 (if activated - e.g. T-H3 18.0 °C)
- The required room temperature if the temperature level function is not activated (e.g. TEMP 20.0 °C)
- The set set-back temperature (e.g. ECO 15.0 °C)
- The set hot water temperature (e.g. DHW 60 °C)

- The day/month/year (if the calendar is activated)
- The timer programmes set for heating (every single time window per day)
- The timer programmes set for hot water (every single time window per day)
- The timer programmes set for the circulation pump (every single time window per day)

#### 4.8 Changing the battery

The regulator checks the battery condition itself, and the normal working life of the battery is approx. 1.5 years.

Approx. 4 weeks before the battery is fully discharged BATT appears in the multifunction display of the basic display. The battery chamber is located on the back of the regulator. The regulator must be taken off the wall plinth to change the battery.

 Carefully push the retaining hook to the side using a screwdriver (Fig. 4.1) and pull the regulator away to the front.

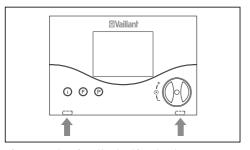


Fig. 4.1 Releasing the locking hook

 The batteries can now be changed (2x AAA-LRO3; Fig. 4.2). Make sure that the polarity of the batteries is correct.

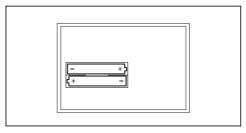


Fig. 4.2 Changing the batteries

If the batteries are not changed in time, the regulator switches over to operating mode "Heating"  $\stackrel{\leftrightarrow}{\Rightarrow}$ , to prevent the installation from freezing up.

# 5 Manufacturer's warranty and liability

#### Vaillant warranty

We only grant a Vaillant manufacturers warranty if a suitably qualified engineer has installed the system in accordance with Vaillant instructions. The system owner will be granted a warranty in accordance with the Vaillant terms and conditions. All requests for work during the guarantee period must be made to Vaillant Service Solutions (0870 6060 777).

#### 6 Recycling and disposal

Both your Valliant room temperature thermostat VRT 360f and its packaging consist mainly of recyclable raw materials.

#### **Appliance**

Do not dispose of your Valliant room temperature thermostat VRT 360f or any of its accessories with the household waste. Make sure the old appliance and any accessories are disposed of properly.

#### 6 Recycling and disposal

#### **Packaging**

Please leave the disposal of the transport packaging to the qualified servicing company which installed the appliance.

#### Installation instructions

# 7 Notes on the installation and operation

The assembly, electrical connection and the settings in the device as well as the commissioning must be carried out only by a suitably qualified heating engineer. Check the site of installation before fitting the unit with regard to possible radio interference by electrical equipment or building influences which may affect the functioning.

If the radio signal route is compromised then an alternative installation site must be chosen.

#### 7.1 CE label

The CE label shows that the VRT 360f room temperature thermostat, when connected to Vaillant boilers, meets the basic requirements of the Council of Europe's directive 89/336/EEC on electromagnetic compatibility and the low voltage directive 73/23/EEC.

Installation instructions VRT 360f GB 27

#### 7.2 Intended use

The Valliant room temperature thermostats VRT 360f are state-of-theart appliances which are designed in accordance with approved safety regulations. Nevertheless, there is still a risk of injury or death to the user or others or of damage to the device and other property in the event of im-proper use or use for which it is not intended. The VRT 360f room temperature thermostat is designed to control a heating system with or without a hot water system or circulation pump according to time and location, in connection with a Vaillant boiler with an eBus interface.

The connection between the room temperature thermostat and the heating unit is by radio.

Any other use or extended use is considered to be improper. The manufacturer or supplier is not liable for any resulting damage. The user alone bears the risk.

Use includes observance of the operating and installation manuals and all other applicable documents, as well as adherence to the maintenance and inspection conditions.



## Caution! Any improper use is forbidden.

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# 8 Safety instructions and regulations

The unit must be installed by a suitably qualified heating engineer, who is responsible for adhering to the existing standards and regulations. We accept no liability for any damage caused by failure to observe these instructions.

#### 8.1 Safety instructions



#### Danger!

Risk of fatal electric shock from touching live connections.
Before working on the appliance, turn off the power supply and secure against restart.
Only remove the room temperature thermostat from the wall mounting or from the plinth when it is potential free.

Installation instructions VRT 360f GB 29

#### 8.2 Regulations

Use standard commercial cables for wiring.

- Minimum cross-section of the wires: 0.75 mm<sup>2</sup>

Do not exceed following maximum wire lengths:

- Bus lines: 300 m

Connection lines at 230 V and bus wires must be laid separately when longer than 10 m.

The room temperature thermostat may only be installed in dry rooms.

All wiring must be in accordance with Building Regulations Part P and BS 7671 (IEE Wiring Regulations), and must be carried out by a suitably qualified person.

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#### 9 Installation

#### 9.1 Place of installation

The room temperature thermostat must be installed to ensure that it can properly record the room temperature (away from heat traps, not mounted on cold walls etc.).

The best place for installation is usually in the main living room on an inside wall at approx. 1.5 m height. There, the room temperature thermostat should able to record the circulating air, unhindered by furniture, curtains or other objects.

Choose a location where the room temperature thermostat is not affected by draughts from doors or windows, or by heat sources such as radiators, chimney walls, televisions and direct sunlight. All the radiator valves in the room where the thermostat is installed must be fully open.

#### 9.2 Fitting the receiver

The connection of the receiver to the boiler is via a 2-core bus cable (eBus).

Installation instructions VRT 360f GB 31

#### 9 Installation

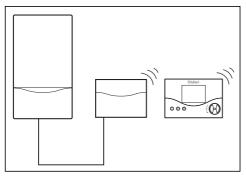


Fig. 9.1 Connection to one boiler

Install the receiver outside the heating unit using the plinth supplied (Fig. 9.1)

- Pull the receiver (1) off the wall plinth (2).
- Drill two holes (3) of 6 mm diameter (as shown in fig. 9.2) and put in the supplied wall plugs.
- Push the connection cable (4) through the cable ducting (5).
- Attach the wall plinth to the wall with the two screws provided.
- Connect the cable as described in Chapter 10.
- Place the receiver (1) on the wall plinth so that the pins on the back of the upper section fit into the receptacles.
- Push the receiver onto the wall plinth until it clicks.

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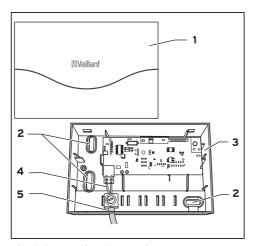


Fig. 9.2 Mounting the receiver

## 9.3 Mounting the room temperature thermostat

Check the site of installation before fitting the unit with regard to possible radio interference by electrical equipment or building influences which may affect the functioning. If the radio signal route is compromised then an alternative installation site must be chosen.

- Pull the room temperature thermostat (1) off the wall plinth (3).
- Drill two holes (2) of 6 mm diameter (as shown in fig. 9.3) and put in the supplied wall plugs.
- Attach the wall plinth to the wall with the two screws provided.

Installation instructions VRT 360f GB 33

#### 9 Installation

- Insert the batteries supplied into the battery compartment at the back of the regulator (Fig. 9.3, Item 4). Make sure that the polarity of the batteries is correct. Connect the connection cable as per Chapter 10.
- Push the room temperature thermostat onto the wall plinth until it clicks.

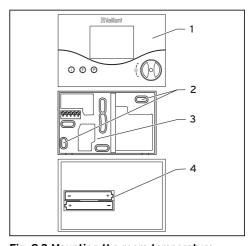


Fig. 9.3 Mounting the room temperature thermostat

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#### 10 Electrical installation

The electrical connection may only be carried out by a suitably qualified heating engineer.



#### Danger!

Risk of fatal electric shock from touching live connections. Before carrying out work on the controller, switch off the power supply and secure it against being switched on again.

#### 10.1 Connecting the receiver

Communication to the boiler takes place using a 2-core bus cable (eBus). All eBus connector plugs are designed to allow at least 2 x  $0.75 \text{ mm}^2$  (recommended) per connection terminal. This means that the wires can be swapped without impairing communication (fig. 10.1). Also follow the instructions for the boiler. Do not remove the jumper between terminals 3 and 4 on the boiler.

Installation instructions VRT 360f GB 35

#### 10 Electrical installation, 11 Start-up

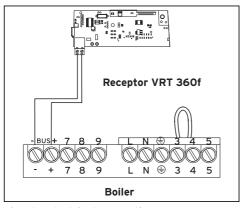


Fig. 10.1 Electrical connection

#### 11 Start-up

Certain system parameters have to be set in order for them to comply with the prevailing conditions. These system parameters are all together on one operating level and should only be set by the heating engineer.

The service/diagnostics level is also intended for the engineer and is designed to help during servicing.

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The receiver is equipped with two status LEDs. In order to see these you must remove the cover of the receiver housing. The LEDs provide the following information for the system:

LED	Condition	Function		
green	on	Operation OK		
	off	Operation fault		
red	off	Operation OK		
	on	Radio signal/eBus error		
	flashing	Reception of a radio signal		

Table 11.1 Displays

### 11.1 Installer level

Press the P button to access the installer level.

- Push the button P for approx. 10 seconds
   The spanner symbol and the first parameter appear in the display.
- Press the dial. You can select all the system parameters in turn.

Turn the dial to set the values you want. When you press the P button the display returns to basic mode.

You can select and change the following parameters:

# 11 Start-up

Display		Set by turning the dial	
	ì	Set-back temperature Factory setting: 15 °C Setting range: 5 30° C	
ţ <i>ECO :</i>	15.0°		
	ì	Set hot water temperature Factory setting: 60 °C Setting range 35 70 °C	
<b>ţ</b> ]HIJ :	<i>60</i> °		
	ì	Correction of current room temperature Adjustment of the displayed value by up to max.	
<u> </u>	0.0°	+/- 3 °C Factory setting: 0 °C	

Display		Set by turning the dial
ţLE5 :	r Ø	Anti-legionella function 1 = Activate the anti- legionnaire's disease programme. Every Wednesday, one hour before the first time window, a connected hot water cylinder is heated to 70 °C, and the circulation pump is switched on and operated at 70 °C for at least 30 minutes. Factory setting: 0 (off)

Display		Set by turning the dial
► Z/A :	ì D	Two-point/analogue operation 2-point/analogue mode change-over. The room temperature
V	2	thermostat is set in the factory as a 2-point regulation system (set value 0). You can set it to analogue mode by changing the parameter to 1.

Display	Set by turning the dial
î ; OPT : 0	Control characteristics/ route adjustment For optimum adaptation to the room size or radiator configuration Factory setting: 0 Setting range: -5 +5 (Positive values: slow reaction speed of the room temperature thermostat; negative values: faster reaction speed of the room temperature thermostat)

# 11 Start-up

Display	Set by turning the dial
ř	<b>Day setting</b> For activation of the calendar
• 11A7 : 0	
ř	Month setting For activation of the calendar
<u>*</u> M□N : 0	
Y	<b>Year setting</b> For activation of the calendar
<u> </u>	

Display		Set by turning the dial
ţ H 1-∃:	î O	Temperature level Activate the setting for different temperatures for each time window. O = Temperature level off 1 = Temperature level on Factory setting: O
• T-H !:	1 15.0°	Temperature level time window H1 (only when temperature levels are activated)

Display		Set by turning the dial
	ì	Temperature level time window H2 (only when temperature levels are activated)
<u>*</u> T-H2:	15.0°	
	ì	Temperature level time window H3 (only when temperature levels are activated)
<u>•</u> T-H∃:	15.0°	

Table 11.2 System parameters

## 11.2 Service/diagnostics level

Access the service/diagnostics level by pressing the P button and the dial.

 Press the P button and the dial simultaneously for approx. 3 seconds.
 First, a heating request for 50 °C is triggered to test communication with the holler

Then you can select all the test options by pressing or turning the dial (see table 11.3).

When you press the P button the display returns to basic mode.

You can select the following tests:

## 11 Start-up

Dial	Test	Test procedure
Press and push P button for approx. 3 seconds.	Heating request	A heating request of 50°C is simulated. The burner on the boiler starts up and the pump starts (only up to the maximum supply temperature of the boiler).
Turn	Circulation pump	The circulation pump is activated. All other elements are switched off.

Dial	Test	Test procedure
Press	Radio route	The radio route is tested. Radio signals are sent to the receiver every 5 seconds (max. 99). The number of correctly received radio signals is displayed.
Press	Display test	All display elements are displayed.
Press	Software version	The software version is displayed.

Table 11.3 Service/diagnostic level

### Restoring the default settings

 To return the room temperature thermostat to its default settings, press the P button for 15 seconds. As soon as the display lights up twice, the room temperature thermostat has been reset. This means that you will have to perform all individual settings again.

# 11.3 Handing over the appliance to the owner

The owner of the room temperature thermostat must be instructed about its functions and how to operate it.

- Hand over the manuals intended for the owner as well as the documents of the appliance.
- Go through the operating manual with him and answer his questions.
- Draw special attention to the safety instructions which the owner must follow.
- Tell the owner to keep the manuals nearby the controller.

# 12 Troubleshooting

The room temperature thermostat signals the following fault conditions:

Fault signal	Meaning	Troubleshooting
RF Err	No radio connection to the radio receiver on the heating unit	Check the site of installation.
BATT	low battery condition, replacement required	Replace the batteries.
BMU Err	Fault on heating unit.	Call the installer.
MAIN	Heating unit maintenance required	Call the installer.

Table 12.1 Fault signals

# 13 Technical data

Description	Unit	Sender	Receiver
Operating voltage	V	3V (2xAAA)	24
Maximum permissible ambient temperature	°C	50	50
Battery working life	Months	approx. 18	
Transmission frequency	MHz	868,35	868,35
Transmission capacity	mW	0,5	
Current consumption	mA	≤ 0,4 (readiness)	≤ 12 (readiness)
Minimum cross-section of the connection lines	mm2	0,75	
Level of protection		IP 20	IP 20
Protection rating for regulator		III	III
Dimensions			
Height/width/depth	mm	97/146/27	97/146/27

Table 13.1 Technical data

### 14 Vaillant Service

### Vaillant Service

To ensure regular servicing, it is strongly recommended that arrangements are made for a Maintenance Agreement. Please contact Vaillant Service Solutions (0870 6060 777) for further details.

### Vaillant Ltd

 $\begin{tabular}{lll} Vaillant House & $\blacksquare$ & Medway City Estate & $\blacksquare$ & Trident Close & $\blacksquare$ & Rochester & Kent ME2 4EZ \\ Telephone 01634 292300 & Fax 01634 290166 & www.vaillant.co.uk & info@vaillant.co.uk \\ \hline \end{tabular}$