

For the operator For the competent person

Operating and installation instructions

VR 91

VR 91

GB, IE

Publisher/manufacture

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 **Vaillant**

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1 Safety

1.1 General safety information

1.1.1 Risk caused by inadequate qualifications

Assembly and disassembly, installation, start-up, maintenance, repairs and decommissioning must only be carried out by a competent person who is sufficiently qualified to observe all of the instructions that come with the product, to proceed in accordance with the current state of the art, and to comply with all applicable directives, standards, laws and other regulations.

1.2 For the competent person

1.2.1 Risk of material damage caused by frost

- ▶ Do not install the product in rooms prone to frost.

1.2.2 Requirements for lines

- ▶ Use standard commercial lines for the wiring.
 - Minimum cross-section:
 $\geq 0.75 \text{ mm}^2$
 - Maximum line length:
 $\leq 125 \text{ m}$

1.3 Intended use

In the event of inappropriate or improper use, damage to the product and other property may arise.

The product enables a zone to be controlled remotely via an eBUS interface.

The following components are required for operation:

- VRC 700

Intended use includes the following:

- observance of accompanying operating, installation and servicing instructions for the product and any other system components
- installing and fitting the product in accordance with the product and system approval
- compliance with all inspection and maintenance conditions listed in the instructions.

Intended use also covers installation in accordance with the IP class.

Any other use that is not specified in these instructions, or use beyond that specified in this document shall be considered improper use. Any direct commercial or industrial use is also deemed to be improper.

1 Safety

Caution.

Improper use of any kind is prohibited.

2 For the operator

2.1 Notes on the documentation

2.1.1 Observing other applicable documents

- ▶ You must observe all operating instructions enclosed with the system components.

2.1.2 Storing documents

- ▶ Keep this manual and all other applicable documents safe for future use.

2.1.3 Applicability of the instructions

These instructions apply only to:

VR 91 – article number

Great Britain	0020171334
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2.2 Product overview

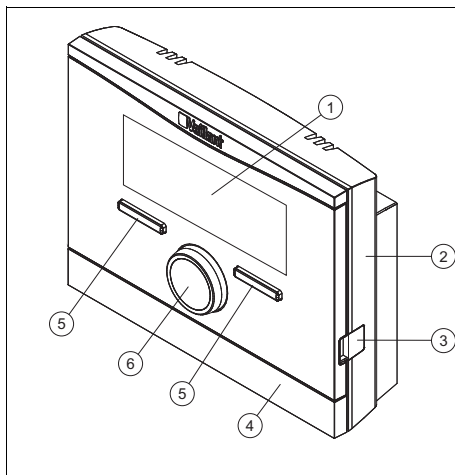
2.2.1 CE label



The CE label shows that the products comply with the basic requirements of the applicable directives as stated on the identification plate.

The declaration of conformity can be viewed at the manufacturer's site.

2.2.2 Design of the product



- | | |
|----------------------|----------------------------|
| 1 Display | 4 Wall-mounting base cover |
| 2 Wall-mounting base | 5 Selection button |
| 3 Diagnostics socket | 6 Rotary knob |

2.2.3 Identification plate

The identification plate is located on the product's PCB and cannot be accessed from the outside once the product has been mounted on the wall.

The identification plate contains the following information:

Information on the identification plate	Meaning
Serial number	For identification
VR 91	Unit designation
V	Operating voltage
mA	Current consumption
	Product complies with European standards and directives
	Proper disposal of the product

2.2.4 Serial number

The 10-digit article number can be found in the serial number. You can view the serial

2 For the operator

number under **Menu** → **Information Serial number**. The article number is found in the second line of the serial number.

2.2.5 Control function

The product is a wired remote control unit. Communication takes place over a 2-core eBUS line.

You can use the product to set and/or change the functions of a zone, such as the operating mode or times and temperatures.

2.3 Operating

You can only operate the remote control unit in combination with the **VRC 700** controller. This means that it is also necessary to read through the operating instructions for the **VRC 700** controller.

The operating instructions for the controller will provide you with


- Information on the operating structure.
- Information on the operating concept with examples.
- A detailed description of the operating and display functions that the remote control unit also has.

Overview of operating modes and functions

Operating modes (→ Page 12)


Operating levels (→ Page 12)

2.4 Service message

When maintenance is required, **Maintenance** and the  symbol will appear in the remote control unit display.

You can read the specific maintenance messages on the controller display and find out which measures you need to take from the controller operating instructions.

2.5 Fault message

If a fault occurs in the heating installation,  will appear in the display together with a fault message. The competent person must clear or rectify the fault in the heating installation, otherwise it could cause material damage or make the heating installation malfunction.

► Inform a competent person.

If you would like to see the basic display in the display again, press the left-hand selection button **Back**.

You can call up the current fault messages under **Menu** → **Information** → **System status** → **Fault status** → **Fault list**.

2.6 Detecting and rectifying faults

Fault	Cause	Remedy
Display is dark	Appliance fault	<ul style="list-style-type: none">– Switch off the mains switch on all heat generators for approx. 1 minute and then switch them on again– Inform the competent person if the fault persists or if you do not have the option of switching off the heat generator.
No changes in the display when the rotary knob is turned		
No changes in the display via the selection buttons are pressed		
Lines appear instead of setting and read-out values in the display	Communication fault	Inform the skilled tradesman

2.7 Caring for the product



Caution.

Risk of material damage caused by unsuitable cleaning agents.

- ▶ Do not use sprays, scouring agents, detergents, solvents or cleaning agents that contain chlorine.

- ▶ Clean the casing with a damp cloth and a little solvent-free soap.

2.8 Decommissioning

2.8.1 Replacing the remote control unit

The heating installation must be shut down before replacing its remote control unit.

- ▶ This work should be carried out by a competent person.

2.8.2 Recycling and disposal

- ▶ The competent person who installed your product is responsible for the disposal of the packaging.



If the product is identified with this symbol:

- ▶ In this case, do not dispose of the product with the household waste.
- ▶ Instead, hand in the product to a collection centre for old electrical or electronic appliances.



If the product contains batteries that are marked with this symbol, these batteries may contain substances that are hazardous to human health and the environment.

- ▶ In this case, dispose of the batteries at a collection point for batteries.

2.9 Guarantee and customer service

2.9.1 Guarantee

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).

2.9.2 Customer 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.

2.10 Technical data

Max. operating voltage	24 V
Current consumption	< 50 mA
Supply line cross-section	0.75 ... 1.5 mm ²
Level of protection	IP 20
Protection class	III
Maximum permitted ambient temperature	0 ... 60 °C
Curr. room air hum.	35 ... 95 %
Height	115 mm
Width	147 mm
Depth	50 mm

3 For the competent person

3 For the competent person

3.1 Notes on the documentation

3.1.1 Observing other applicable documents

- ▶ You must observe all the operating and installation instructions included with the system components.

3.1.2 Storing documents

- ▶ Pass these instructions and all other applicable documents on to the system operator.

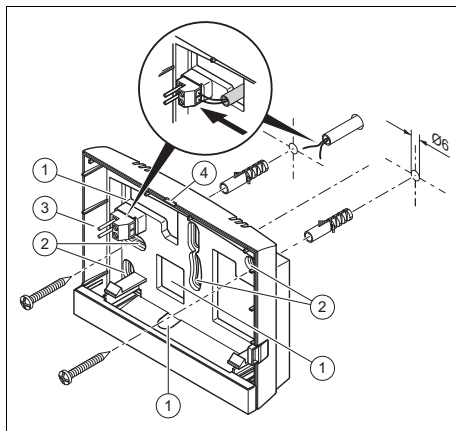
3.2 Product overview

3.2.1 Checking the scope of delivery

Quantity	Contents
1	Remote control unit
1	Fastening material (2 bolts and 2 wall plugs)
1	Operating and installation instructions

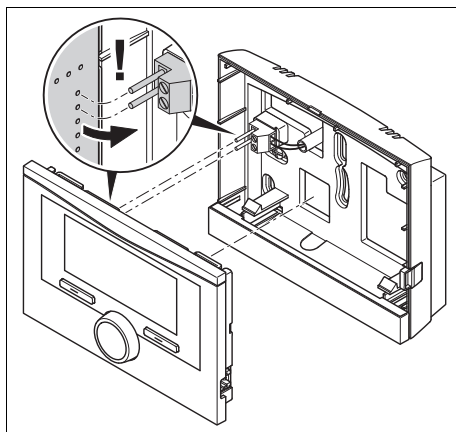
3.3 Installing the remote control unit in a living room

1. Mount the remote control unit on an interior wall of the main living room in a position that ensures accurate measurement of the room temperature.
 - Installation height: 1.5 m



- 1 Openings for cable duct
- 2 Mounting holes
- 3 Pin header with terminals for the eBUS line
- 4 Opening slot

2. Screw on the wall-mounting base as shown in the illustration.
3. Connect the eBUS line.



4. Carefully push the remote control unit into the wall-mounting base.

3.4 Electrical installation

When connecting the eBUS line, there is no need to pay attention to the polarity. If the two connections are switched around, communication is not affected.

3.4.1 Connecting the remote control unit to a heat generator

1. At lengths of over 10 m, 230 V supply lines must be laid separately from bus lines.
2. When opening the electronics box in the heat generator, proceed as described in the installation instructions for the heat generator.

Conditions: The heat generator is not connected to the eBUS via the **VR 32**.

- ▶ Connect the eBUS line to the eBUS terminals in the wall-mounting base of the remote control unit.
- ▶ Connect the eBUS line to the eBUS terminals in the heat generator.

3.5 Start-up

When the system is started up for the first time after completing the electrical installation, the installation assistants for the components and the **VR 91** remote control unit will start automatically.

All settings that you have applied using the installation assistant can be changed again at a later date via the level for the operator and competent persons.

Installation assistant (→ Page 14)

3.5.1 Selecting setting values

Conditions: Settings in the remote control unit

- ▶ Select the required language in the **Language** function.
- ▶ Enter an address for the remote control unit to communicate with in the **Remote control address** function.

Conditions: Settings in the controller

- ▶ If you would also like to use the room temperature sensor in the remote control unit, select the **Temp. mod.** or **Thermost.** value in the **Room temp. mod.** function.
- ▶ Specify in which zone the remote control unit has been installed.
- ▶ Scroll through the display to the zone in which the remote control unit has been installed.
- ▶ Set the value to **Yes** in the **Zone activated** function for this zone.
- ▶ In the **Zone assignment** function in this zone, assign the address for the remote control unit that should be triggered.

3.6 Handing over to the operator

- ▶ You must inform the operator about how to handle their product and how it works.
- ▶ Provide the operator with all relevant instructions and unit documentation for safe-keeping.
- ▶ Go through the operating instructions with the operator .
- ▶ Answer any questions the operator may have.
- ▶ In particular, draw the operator's attention to the safety information that they must follow.
- ▶ Inform the operator that room air must be able to circulate freely around the product, and that it should not be covered by furniture, curtains or other objects.
- ▶ Inform the operator that all the radiator valves in the room where the product is installed must be fully open.

3 For the competent person

3.7 Operating

You can find the operator setting and read-out options in the appendix.

Operating modes (→ Page 12)

Operating levels (→ Page 12)

The operating instructions for the controller will provide you with

- Information on the operating structure.
- Information on the operating concept with examples.
- A detailed description of the operating and display functions that the remote control unit also has.

Overview of functions

Installer level (→ Page 14)

3.7.1 Reading the fault status

Menu → **Installer level** → **System configuration [System ----]** → **Fault status**

- This function allows you to read the status of the heating installation. If there are no faults, the message **No fault** appears here. If there is a fault, the status **Fault list** is displayed. If you press the right-hand selection button, fault messages are displayed.

3.7.2 Reading the software version

Menu → **Installer level** → **System configuration [System ----]** → **Control modules**

- You can use this function to read the software versions of the remote control unit.

3.7.3 Setting the address for the remote control unit

Menu → **Installer level** → **System configuration [System ----]** → **Remote control address**


- You can use this function to set the address for the remote control unit.

Every remote control unit has a unique address, starting with Address 1. Increase the number in the address consecutively

for each additional remote control unit used.

3.8 Fault messages and faults

3.8.1 Fault messages

If a fault occurs in the heating installation,  will appear in the display together with a fault message.

You can also read all current error messages under the following menu point:

Menu → **Installer level** → **System configuration [System ----]** → **Fault status**

- If a fault has occurred, **Fault list** will appear in the **Fault status** function. Press the right-hand selection button to display a list of fault messages.



Note

Not all fault messages in the list will appear automatically on the basic display.

3.8.1.1 Overview of fault messages and faults

Fault messages (→ Appendix B.3)

Faults (→ Appendix B.4)

3.9 Decommissioning

3.9.1 Replacing the product

1. Decommission the heating installation if you want to replace the product.
2. Decommission the heat generator, as described in the heat generator's installation instructions.

3.9.2 Removing from the wall

1. Insert the screwdriver into the slot on the wall-mounting base.
2. Carefully lever the remote control unit from the wall-mounting base.
3. Unfasten the eBUS line from the pin header on the remote control unit and from the terminal block on the heat generator.

4. Unscrew the wall-mounting base from the wall.

3.10 Customer service

Customer service addresses can be found in the installation instructions for the controller.

Appendix

Appendix

A For the operator

A.1 Operating modes

Operating mode	Setting	Default setting
Operating mode		
Heating	Off, Auto, Day, Set-back	Auto
Cooling	Off, Auto, Day	Auto
Advanced functions		
1 day at home	Active	–
1 day away from home	Active	–
1 x ventilation boost	Active	–
Party	Active	–

A.2 Operating levels

A detailed description of the functions can be found in the operating instructions for the controller.

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
Information → System status →					
System ----					
Fault status	Current value			No fault, Fault list	
Curr. room air hum.	Current value		%		
Current dew point	Current value		°C		
ZONE1 ----					
Day temp. Heating	Current value		°C	0.5	20
	5	30			
Day temp. Cooling	Current value		°C	0.5	24
	15	30			
Set-back temp. heat.	Current value		°C	0.5	15
	5	30			
Room temperature	Current value		°C		
Information → Contact details →					
Installer Phone number	Current values				
Information → Serial number					
Unit number	Permanent value				
Desired temperatures → ZONE1 →					
Day temp. Heating	5	30	°C	0.5	20
Day temp. Cooling	15	30	°C	0.5	24
Set-back temp. heat.	5	30	°C	0.5	15

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
Time programmes → ZONE1: Heating →					
Individual days and blocks				Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday and Monday - Friday, Saturday - Sunday, Monday - Sunday	Mo - Fr: 06:00-22:00 Sa: 07:30-23:30 Su: 07:30-22:00
Time period 1: Start - End Time period 2: Start - End Time period 3: Start - End	00:00	24:00	h:min	00:10	
Time programmes → ZONE1: Cooling →					
Individual days and blocks				Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday and Monday - Friday, Saturday - Sunday, Monday - Sunday	Mo - Fr: 06:00-22:00 Sa: 07:30-23:30 Su: 07:30-22:00
Time period 1: Start - End Time period 2: Start - End Time period 3: Start - End	00:00	24:00	h:min	00:10	
Days away scheduling →					
Start	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
End	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
Temperature	5	30	°C	1	15
Days at home scheduling →					
Start	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
End	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
Basic settings → Language →					

Appendix

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
				Selectable language	Deutsch
Basic settings → Display →					
Display contrast	1	15		1	9
Button lock				Off, On	Off
Preferred display				Heating, Cooling	Heating
Basic settings → Offset →					
Room temperature	-3.0	3.0	K	0.5	0.0
Basic settings → Enter zone name →					
ZONE1	1	10		A to Z, 0 to 9, space	ZONE1
Installer level →					
Enter code	000	999		1	000

B For the competent person

B.1 Installation assistant

Setting	Values		Increment, select	Default setting
	Min.	Max.		
Language			Languages available for selection	Deutsch
Remote control address	1	8	1	1

B.2 Installer level

Setting level	Values		Increment, select	Default setting
	Min.	Max.		
Installer level →				
Enter code	000	999	1	000
Installer level → System configuration →				
System ----				
Fault status	Current value*			
Controller modules	Display		Software version	
Remote control address	1	8	1	1
* If there is no fault, the status is No fault . If there is a fault, Fault list appears and you can read the fault message in the Fault messages section.				

B.3 Fault messages

Message	Possible cause	Measure
Room temp. sensor fault	The room temperature sensor is defective	1. Replace the room temperature sensor.
No zone assignment for the remote control or the controller	No remote control address	1. Set the correct address on the remote control unit.
	No zone assignment	1. Set the correct address for the remote control unit on the controller.
System fault	Faults in the system	1. Assess the fault messages in the controller.

B.4 Faults

Symptom	Possible cause	Measure
Display remains dark	Software error	1. Switch the mains switch on the heat generator that feeds the controller off and back on again.
	No power at the heat generator	1. Check the power supply of the heat generator that feeds the controller.
	The product is defective	1. Replace the product.
No changes in the display when the rotary knob is turned	Software error	1. Switch the mains switch on the heat generator that feeds the controller off and back on again.
	The product is defective	1. Replace the product.
No changes in the display when the selection buttons are pressed	Software error	1. Switch the mains switch on the heat generator that feeds the controller off and back on again.
	The product is defective	1. Replace the product.
Lines appear instead of set and read-out values	Communication fault	1. Check the plug connection. 2. Replace the cable.



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