Operating and installation instructions

Repeater

VR 52

GB, IE

Publisher/manufacturer

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Contents

1 Safety

1.1 Intended use

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

You can use the repeater to expand the range of the **ambiSENSE** radio network.

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.

This product can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capa-

bilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the product in a safe way and understand the hazards involved. Children must not play with the product. Cleaning and user maintenance work must not be carried out by children unless they are supervised.
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.

Caution.

Improper use of any kind is prohibited.

1.2 General safety information

1.2.1 Risk of death from electric shock!

Opening the product may lead to a lethal electric shock. The product does not contain any parts that need to be maintained by the end user.

- ➤ The product must only be opened by a competent person.
- ➤ If the product shows signs of damage from the outside, e.g. on the housing, on control elements, on the connection ports, or a malfunction occurs, the product must not be used.
- ➤ In the event of a fault, have the product checked by a competent person.

1.2.2 Danger caused by improper operation

Improper operation may present a danger to you and others, and cause material damage.

- ➤ Carefully read the enclosed instructions and all other applicable documents, particularly the "Safety" section and the warnings.
- ➤ Only carry out the activities for which instructions are provided in these operating instructions.

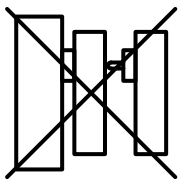
1.2.3 Risk of material damage caused by unsuitable environmental conditions.

The electronics may be damaged if you install the product in an unsuitable environment.

- ➤ Only install the product in dry, dust-free interior rooms.

- Ensure that the product is not exposed to constant solar or heat irradiation, vibrations or mechanical loads.

1.2.4 Risk of material damage caused by an unsuitable plug socket.

- Use the product only in permanently installed earthed plug sockets, and not in socket strips or with extension cables.
-  You cannot insert any further intermediate plugs into the product.

1.2.5 Risk of material damage due to lightning and overvoltage.

- Do not install the product during bad weather.

➤ Disconnect the product from the power grid during bad weather.

1.2.6 Risk of material damage caused by a missing on/off switch.

The product does not have an on/off switch and therefore has to be disconnected from the power grid.

➤ Only insert the product in a plug socket that is easy to access.

1.2.7 Risk of material damage caused by electrical overload.

➤ An overload may damage the product beyond repair, lead to a fire or lead to an electrical accident.

➤ Before connecting a consumer, observe the product's technical data, particularly the maximum power consumption

of the consumers that are being connected.

➤ Only load the product up to the specified power limit.

1.2.8 Regulations (directives, laws, standards)

➤ Observe the national regulations, standards, directives, ordinances and laws.

2 Notes on the documentation

2.1 Observing other applicable documents

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

2.2 Storing documents

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

2.3 Validity of the instructions

These instructions apply only to:

Product		article number
VR 52	Great Britain	0020253437

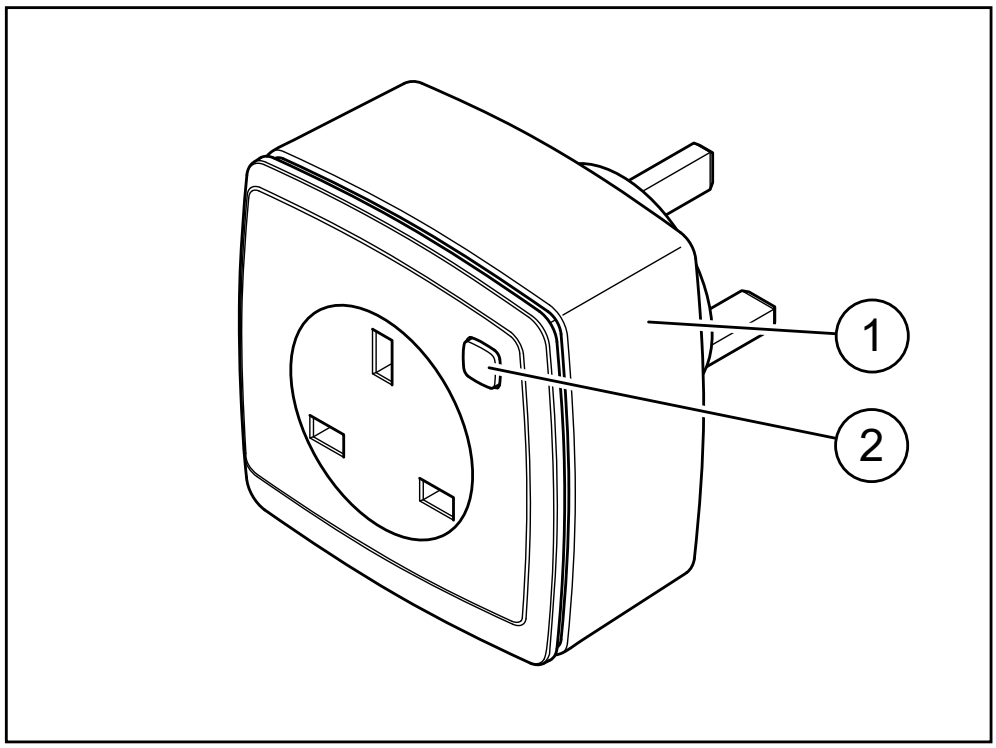
3 System and product description

3.1 Component of the ambiSENSE system

The product is part of the **ambiSENSE** room climate solution and communicates via a radio protocol. All products in the **ambiSENSE** room climate solution can be configured via the **VRC 700** app using a smartphone.
You can use the **ambiSENSE** repeater to expand the range of the **ambiSENSE** radio network in order to ensure the communication connection between the **ambiSENSE** units throughout the entire flat or house. If you are using **ambiSENSE** units outside of the direct range of the radio network, e.g. in the cellar or on the top floor of the building, the **ambiSENSE** repeater provides support when transmitting radio commands. You can use up to

two **ambiSENSE** repeaters in the **ambiSENSE** system. The product is easily paired to the VR 920 Internet gateway.

3.2 Design of the product



1 Repeater
2 System button

3.3 Radio operation

The radio signal is transmitted on a non-exclusive transmission path. Faults can therefore not be ruled out. Interferences may, for example, be caused by switching operations, electric motors or defective electrical units.
The range inside buildings may differ considerably from the range outdoors. Except for the transmission power and the reception properties of the transceivers, environmental influences (such as air humidity and structural elements) play an important role on-site.

3.4 Flashing sequence of the signal LED

Flashing sequence	Meaning	Explanation/ required activity
Brief period of flashing orange	Radio transmission/ transmission attempt/data transmission	Wait until the transmission has ended.
1 x long period of lighting up green	Process confirmed	You can continue with the operation.
1 x long period of lighting up red	Process failed or duty cycle limit reached	Try again.
Brief period of flashing orange (every 10 seconds)	Pairing mode active	Enter the digits of the unit number to confirm.

Flashing sequence	Meaning	Explanation/ required activity
6 x long period of flashing red	Product defective	Note the display in your app or contact your specialist dealer.
Lights up 1 x orange and 1 x green (after plugging into the plug socket)	Test display	Once the test display goes out, you can continue.

Flashing sequence	Meaning	Explanation/ required activity
Long and brief period of flashing orange (alternating)	Update to the unit software (OTAU = Over the Air Update)	New software is transferred. (Duration: Up to 12 hrs) This does not affect how the product works during this time.

3.5 Duty cycle limit

The duty cycle limit describes a legally regulated limit on the transmission time of units in the 868 MHz range. The aim of this regulation is to guarantee that all units that work in the 868 MHz range work correctly. In the frequency range 868 MHz that is used by the product, the maximum transmission time for each individual

unit is 1% of an hour (i.e. 36 seconds in 1 hour). The product complies with this directive.
In normal mode, the duty cycle limit is not normally reached. In individual cases, e.g. during start-up or the new installation of a system, increased and radio-intensive pairing processes may mean that this limit is not reached. If the duty cycle limit is exceeded, the signal LED lights up red for one extended period and may indicate that a function is temporarily missing from the product. After a short time (max. one hour), the product's function is restored.

3.6 CE marking

The CE mark shows that the products comply with the basic requirements of the

applicable guidelines as stated on the data plate.

The manufacturer hereby declares that the type of radio equipment that is described in these instructions complies with Directive 2014/53/EU. The complete text for the EU Declaration of Conformity is available at: http://www.vaillant-group.com/doc/doc-radio-equipment-directive/.

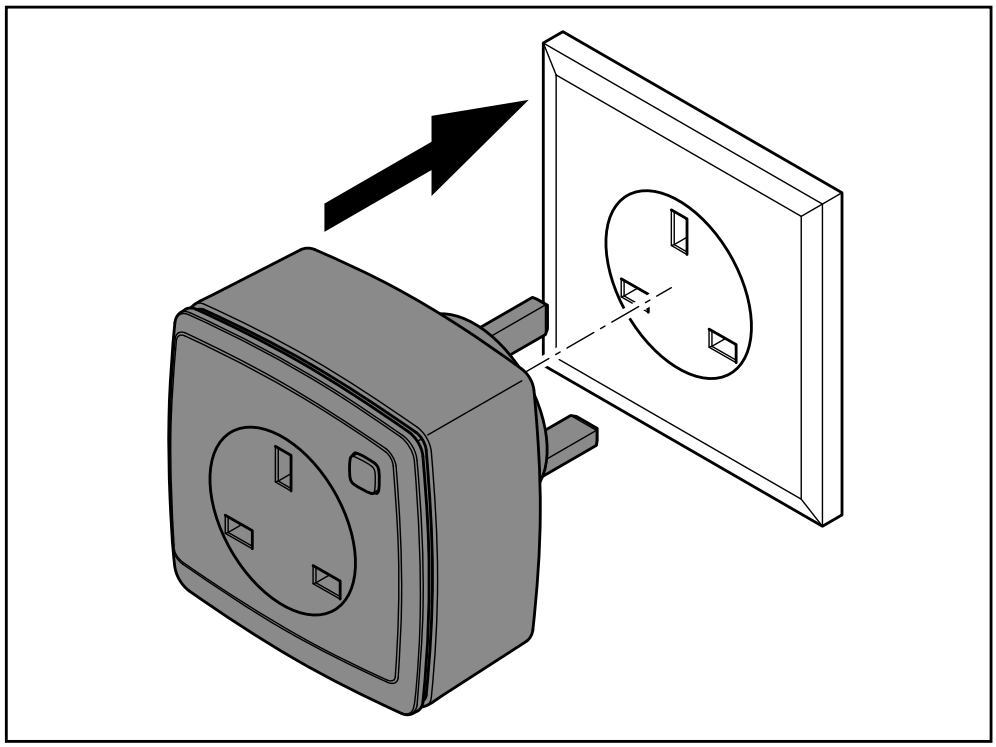
4 Integration into the ambiSENSE system

4.1 Pairing

To ensure that the **ambiSENSE** repeater is integrated into the **ambiSENSE** system and can communicate with other **ambiSENSE** units, it must first be paired to the VR 920 Internet gateway. You should therefore first set up the VR 920 Internet gateway via the **VRC 700** app in

order to be able to use other **ambiSENSE** units in the system.
Then pair the product via the **VRC 700** app.

- ➤ Open the **VRC 700** app on the smartphone.
- ➤ Select **Settings** on the bottom right.
- ➤ Select **ambiSENSE**.
- ➤ Select **Add Repeater**.
- ➤ Follow the installation assistant.



- ➤ Insert the product into the plug socket.
- ➤ If you are prompted to do so by the installation assistant for the app, enter the digits of the unit number (SGTIN = Serialised Global Trade Item Number) in the app to confirm or use the smart-phone to scan the QR Code.

Note
You can find the unit number and the QR code on the enclosed sticker and directly on the product.

➤ Wait until the pairing process is complete.
- The signal LED lights up green. The pairing process has been successfully completed.
- The signal LED lights up red. The pairing process has failed. Try again.

5 Operation

5.1 Behaviour following a voltage recovery

After inserting the product into a plug socket or recovering the mains voltage, the product carries out a self-test/restart (approx. 2 sec.). The LED briefly flashes orange and green (LED test indicator). Any

fault that occurs here is displayed by the LED flashing. If there is a fault, the selftest is repeated and the product does not perform its intended function. If the selftest runs through without any faults, the product sends a radio telegram with its status information.

6 Troubleshooting

6.1 Command not confirmed

If at least one transceiver does not confirm a command, the LED signal lights up red once the incorrect transmission is completed.

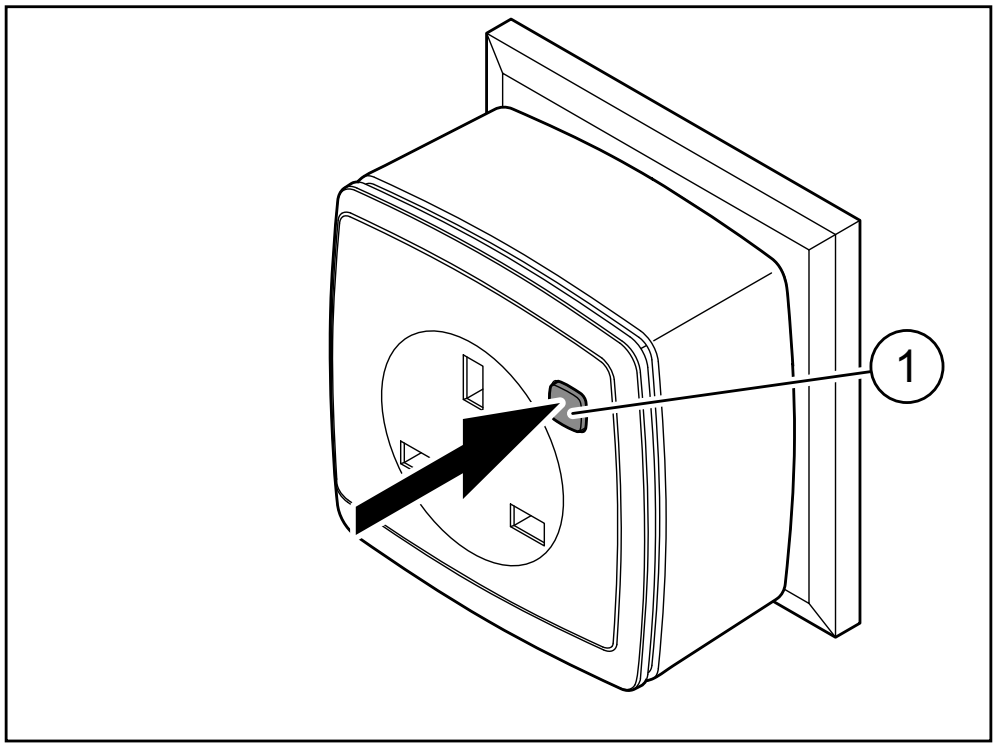
The reason for the incorrect transmission may be radio interference caused by one of the following:

- Transceiver cannot be reached
- Transceiver cannot implement the command (load failure, etc.)
- Defective transceiver

6.2 Resetting to factory setting

Note
All settings will be lost.

1. Remove the product from the plug socket.



2. Plug the product back into the plug socket, and press and hold the system button **(1)** for four seconds at the same

time until the signal LED starts to rapidly flash orange.
3. Release the system button.
4. Press the system button again for four seconds until the signal LED lights up green.
5. Release the system button to complete the process of restoring the factory settings.
   - The product restarts.

7 Decommissioning

7.1 Decommissioning the product

1. Delete the product in the **VRC 700** app.
2. Remove the product from the plug socket.

7.2 Recycling and disposal

If the product is labelled with this mark:

- ➤ 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 labelled with this mark, 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.

8 Customer service

The contact details for our customer service are provided on our website.

9 Technical data

Parameter	Value
Supply voltage	230 V AC / 50 Hz
Max. load current of the plug socket	≤ 8 A
Power consumption in standby mode	< 0.3W
Protection class	I
IP rating	IP20
Degree of contamination	2
Permissible environmental temperature	-10 ... 35 °C
Height	70 mm (2.76 in)

Parameter	Value
Width	70 mm (2.76 in)
Depth	39 mm (1.54 in)
Weight	154 g (5.43 oz)
Transmission frequency	868.00 - 868.60 MHz 869.40 - 868.65 MHz
Maximum transmission power	< 25 mW
Receiver category	SRD category 2
Range outdoors	400 m (1,312 ft – 4 in)
Duty cycle	< 1% per hr (868.00 - 868.60 MHz), < 10% per hr (869.40 - 869.65 MHz)
Rated surge voltage	2,500 V

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Supplier

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