



Flexit

ART. NO. 116676

EN

INSTALLATION INSTRUCTIONS

Wireless pressure guard, 230 V

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1. Operation

The package consists of a pressure guard with a wireless transmitter, WBT-230, and a wireless receiver, WRR1. The units can be used to control the ventilation unit wirelessly from the extractor hood.

- The learning method permits simple programming/ deprogramming and eliminates interference that can occur with traditional mechanical programming.
- The red LED on the unit indicates signal transmission.
- The radio frequency 433.92 MHz permits a 30 m range with a free line of sight, reduces the risk of interference and provides stable transmission.
- A red LED indicates signal reception and status in connection with programming and deprogramming by flashing at various frequencies.
- Timer function.

 The WBT-230 is a 2-channel transmitter that can be linked to receivers for wireless ON/OFF control.

 The WRR1 is a receiver for wireless control (ON/OFF) of connected load indoors.

2. Installation

2.1. INSTALLATION SITE

The pressure guard and the wireless transmitter should be sited within one metre of the cooker hood's extract air duct, as shown in Fig. 1.

- The ground absorbs radio waves. Install the WBT-230 at least 1 metre above the floor. The higher the site, the better the signal transmission.
- Ensure that the WBT-230 is sited within range of the linked receiver(s).
- The WBT-230 should be installed at least 1 metre from conductive material such as reinforced walls, aluminium windows/doors or cables to avoid reduction in range.
- Do not install it on a thick wall, behind metal or reinforced concrete, as the range may be reduced.
- Site the WBT-230 and other units that use the same frequency at least 2 metres apart to minimise the risk of interference.

- Do not connect live cables to the aerial. This causes disturbance to it (see Fig. 2). Do not remove the aerial's sheath either (see Fig. 2).
- Transmission between the transmitter and the receiver is affected by air humidity, the installation site, the structure of the building, the environment, etc. The table on page 5 may be used as a guide to the negative impacts of various materials.
- Wireless thermometers/weather stations, garage openers, car alarms, etc. can disturb the signal, which is only transmitted when a pressure impulse is executed.
- The units are factory-paired. Otherwise, they are paired after the first flash of the lamp. The time for this may vary somewhat. The units should be paired before the components are installed.



All electrical connections must be made by an expert.

Both the WBT-230 and the WRR1 must be connected to earthed 230 V outlets.

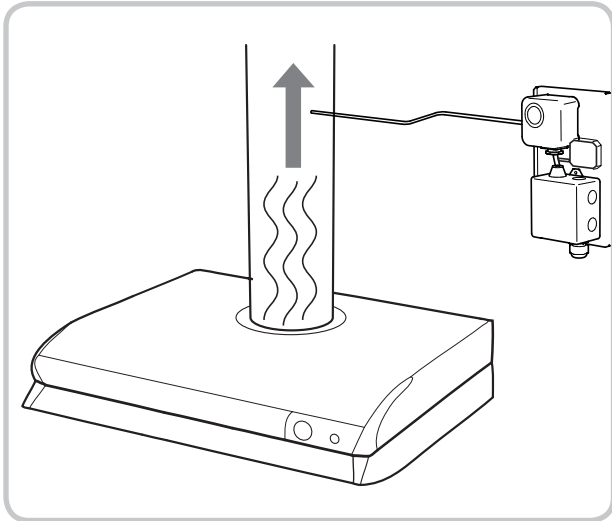


Fig. 1

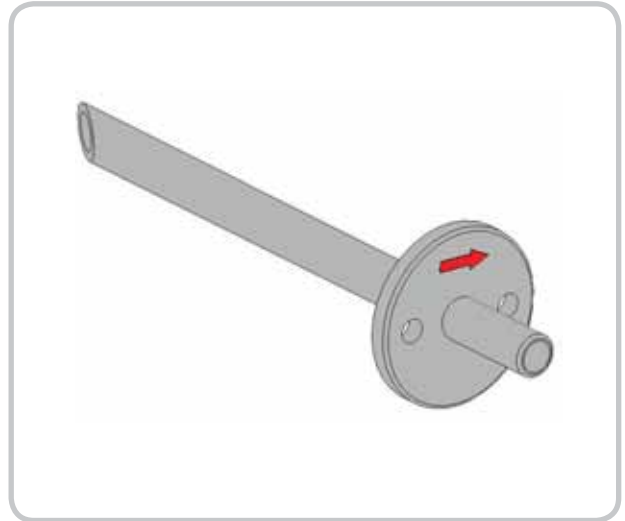


Fig. 1a

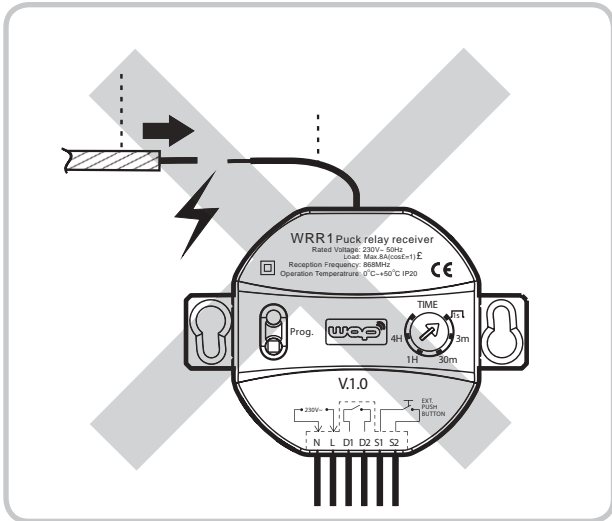


Fig. 2

Material	Attenuation
Free line of sight	0
Glass/Paper/Wood/Plaster	5 - 20%
Fibreboard/Brick/Concrete	10 - 40%
Reinforced concrete	50 - 90%
Rain/Snow	60 - 100%
Metal	90 - 100%

2.2. INSTALLATION OF THE PRESSURE GUARD AND TRANSMITTER

Attach the unit to the wall with the enclosed screws. Drill a $\varnothing 8$ mm hole in the duct and attach the pressure output so that the arrow on the output is in the direction of flow in the duct, as shown in Fig. 1 and Fig. 1a. Then connect the hose between the pressure output and the pressure guard's connection, as shown in Fig. 3. This point is important to ensure correct operation. The pressure guard's minus (-) connection must not be used. For adjustment of the pressure guard, see section 2.3.

2.3. ADJUSTMENT

The pressure guard's initial setting should be a value that ensures operation, Fig. 3. Undesired activation may be the result of a value that is too low. If you want the guard to be activated only when the extractor fan is running at high capacity, the value can be adjusted upwards. In such case, remove the protective cover on the pressure guard and turn the knob.



Fig. 3

2.4. INSTALLATION OF THE WRR1

The receiver should be installed near the unit (within approximately 0.5 m) as the cable that must be connected between the units is 1 m long.

Ensure that the box is sited on the outside of the air ducts to the unit as they may reduce signal reception (see Fig. 4).

The four conductors on the receiver are numbered and are connected to the central unit as shown in the table below. Capacity is increased on the supply air side and reduced from the extract air side to compensate for the increased air flow that an extractor fan entails when in use.

See the table below and Fig. 5 for connection.

Cable	Circuit board	Conductor no.	Description
Black (4)	P1-10	N	N - 230 V
Black (3)	P1-9	L	L - 230 V
Yellow/green	P1-1	PE	Protective earth
Black (1)	P5-9	D2	Speed 4
Black (2)	P5-10	D1	G0

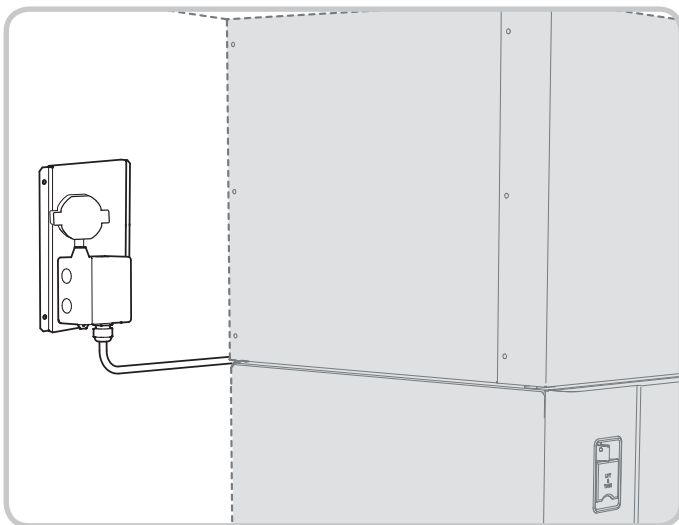


Fig. 4

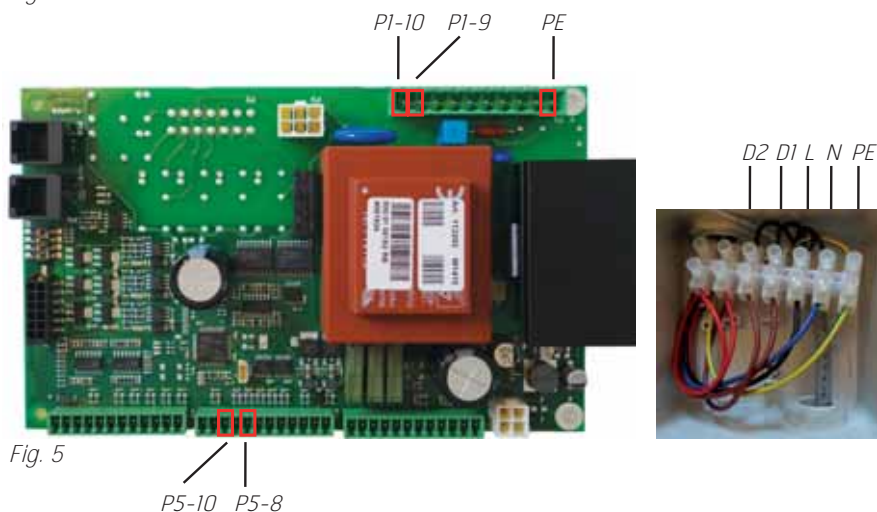


Fig. 5

2.5. SETTINGS



All settings are factory settings and must not be changed. Use this information only if correct operation is not obtained.

2.5.1. Timer function



The TIME knob must always be set to 4H as a safety function (See Fig. 6).

When the extractor fan starts, the receiver receives a start signal that causes the ventilation unit to increase the supply air flow. When the extractor fan stops, the ventilation unit returns to the operating mode previously selected.

The timer function means that the ventilation unit cannot enter operating mode with increased air flow for more than 4 hours.

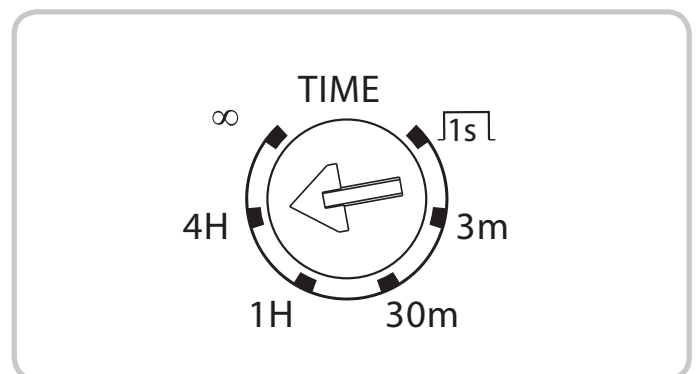


Fig. 6

2.6. PROGRAMMING



NB The units are factory-paired.

The receiver must undergo a learning procedure to identify the transmitter's ID number and thus establish a link. Each transmitter is assigned an individual ID number at the factory. The receiver must learn this to be able to perform the command sent by the transmitter.

The WBT-230 transmitter is used as an example (see Fig. 7).

- Ensure that the cables are properly connected.
- Install the transmitter and start the extractor fan so that the WBR-230 transmits a signal. Press the learning button, Fig. 7 WRR1.
- Learning mode lasts for approximately 1 min. Alternatively, it can be interrupted by briefly (< 1 sec.) pressing the learning button.

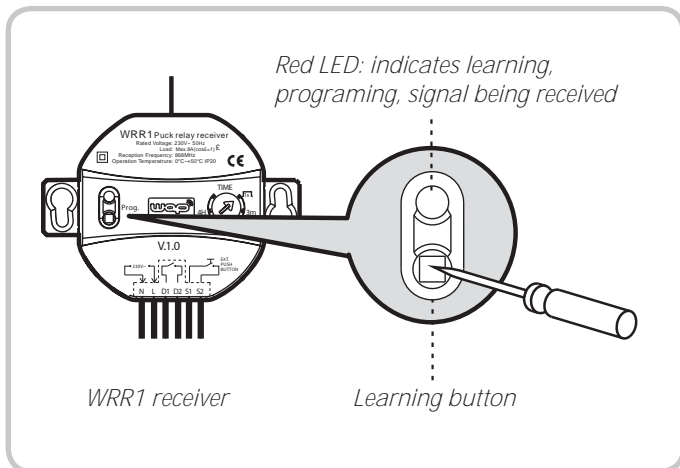


Fig. 7

2.6.1. Learning

Steps in the learning procedure:

Press the learning button for approximately 2 seconds. The LED flashes slowly to indicate learning mode (see Fig. 8).

Activate the maximum speed of the extractor fan. When the LED is permanently on, learning has been successful (see Fig. 9).

See 2.6.3 to interrupt the learning mode.

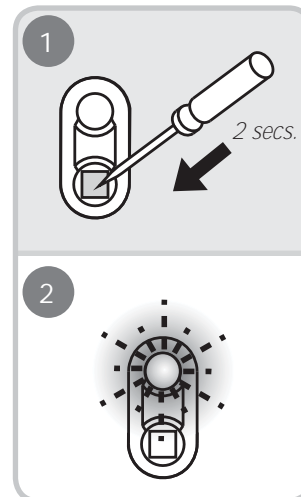
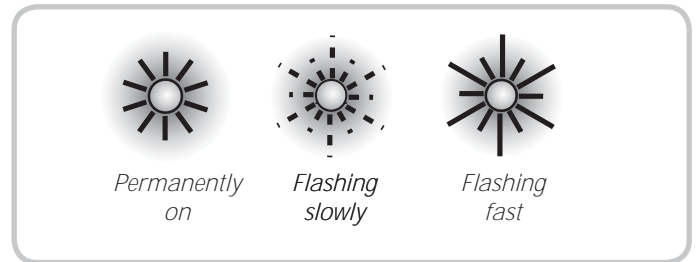


Fig. 8

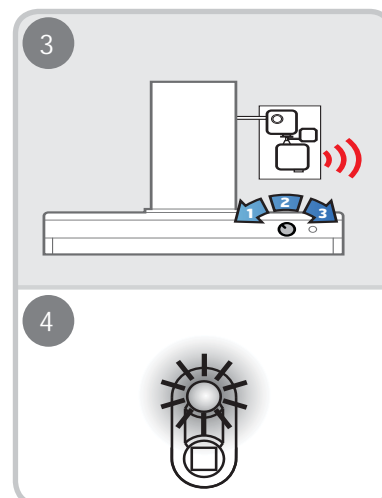


Fig. 9

2.6.2. Deletion of links



If learning needs to be repeated, existing links must be deleted.

Press the learning button for approximately 2 seconds to enter learning mode.

The LED flashes slowly to indicate learning mode (see Fig. 8).

Press the desired button (top or bottom part) until the LED flashes fast.

The LED flashes fast to indicate the deletion has taken place (see Fig. 10).

Deletion of all links

Press the learning button for more than 5 seconds.

The LED flashes slowly for approximately 3 seconds.

The LED then flashes fast, indicating that all links have been deleted (see Fig. 11).

See 2.6.3 to interrupt the learning mode.

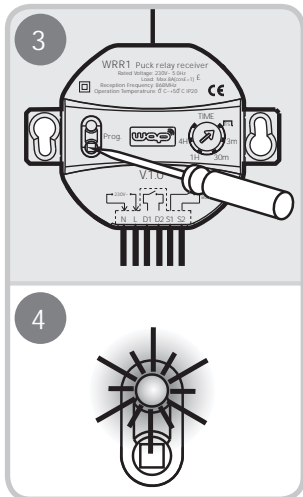


Fig. 10

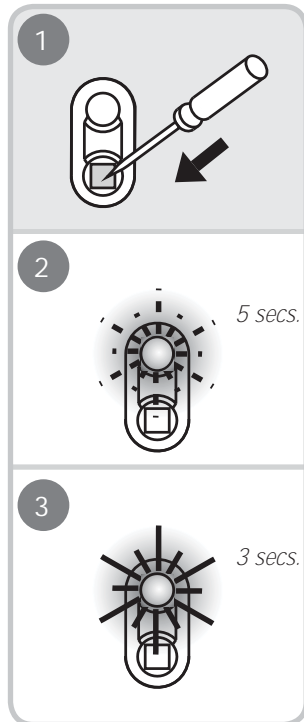


Fig. 11

2.6.3. Interrupting learning mode

Automatic:

Learning mode is interrupted automatically after 1 minute, regardless of whether anything has been learned. The LED goes out (see Fig. 12).

Manual:

Learning mode is interrupted by briefly pressing the learning button (< 1 sec.). The LED goes out (see Fig. 13).

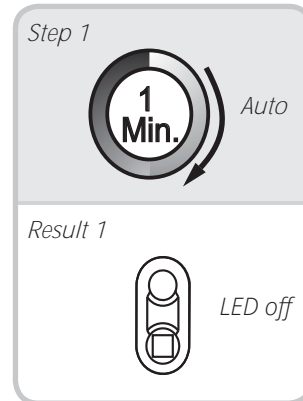


Fig. 12

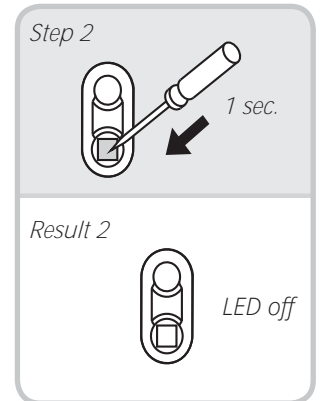


Fig. 13

3. Use

The pressure guard is always activated and will transmit signals to the ventilation unit as soon as the extractor fan is switched on (see Fig. 14).

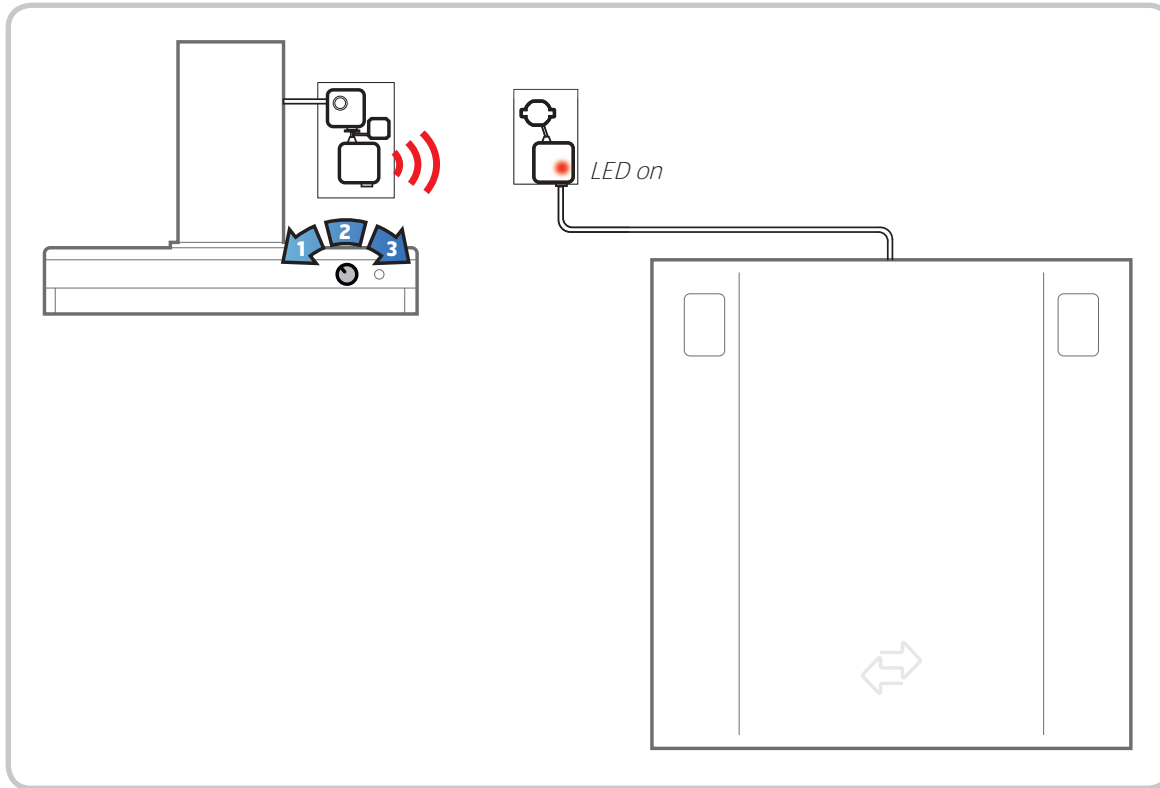
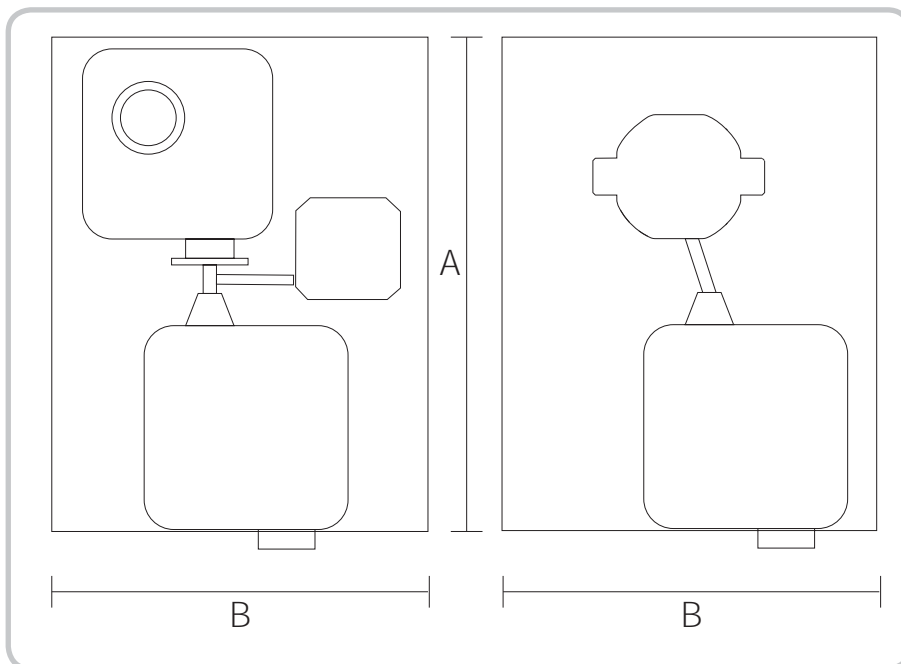


Fig. 14

4. Dimensioned drawing



Height (A)	230 mm
Width (B)	162 mm
Depth	60 mm

Fig. 15

5. Technical data

5.1. TRANSMITTER WBT-230

Rated voltage	230 V AC ~ 50 Hz
Range	Approximately 30 m (with free line of sight)
Radio frequency	433.92 MHz
Programming	Learning
Channels	2 channels
Compatible receivers	WRR1 (puck relay) WDR1 (puck dimmer)
Operating temperature	0° C to +45° C
Enclosure protection class	IP20
Indication	Red LED (concealed)

5.2. RECEIVER WRR1

Rated voltage	230 V AC ~ 50 Hz
Load	Max. 8 A (cos=1) For lighting type: Incandescent: max. 1500 W 230 V Halogen: max. 700 W Low-voltage halogen: max. 400 VA Fluorescent tube (uncompensated): max. 400 VA Compact fluorescent tube PL: max. 300 VA HVAC: max. 250 V AC or 30 V DC Motor: max. 75 W
Timer	1 sec./3 min./30 min./1 h/4 h/INFINITE
Range	Approximately 30 m (with free line of sight)
Radio frequency	433.92MHz
Storage of learned items	Max. 20
Operating temperature	0° C to +50° C
Enclosure protection class	IP40

6. Troubleshooting

Problem	Possible cause	Solution
The ventilation unit is not activated	1. 230 V cables are not connected or are incorrectly connected. 2. Connection of the load's cables is incorrect or the load is faulty.	1. Ensure that the receiver has a power supply and that the cables are correctly connected. 2. Ensure that the load's cables are correctly connected and the load is working.
WRR1 does not react to linked transmitter	1. The range has been exceeded. 2. Learning failed. 3. Learning has been deleted or replaced. 4. Serious obstacle between transmitter and receiver. 5. Interference. 6. Transmitter's mains voltage.	1. Adjust the distance between the WRR1 and the linked transmitter. Possibly add a signal amplifier. 2. Repeat the learning procedure. 3. Delete all learned items and repeat the learning procedure. 4. Remove the obstacle or choose a different site. 5. a. Remove the object causing interference. b. Choose a different site. 6. Check the mains voltage.
Short range	1. Transmitter's mains voltage. 2. Serious obstacle between transmitter and receiver. 3. Interference.	1. Check the mains voltage. 2. Remove the obstacle or choose a different site. 3. a. Remove the object causing interference. b. Choose a different site.
The timer function switches off after an unwanted time	The TIME knob is between two values.	Adjust the knob.



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