



## GB Operating instructions RS2W radio-controlled switch

Item no. 1761754

### Latest operating instructions

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### Explanation of symbols



The lightning symbol inside a triangle is used when there is a potential risk of personal injury, such as electric shock.



An exclamation mark in a triangle indicates important instructions in this operating manual that absolutely have to be observed.



The arrow symbol indicates specific tips and advice on operation.



The product is only intended to be installed and used in dry, indoor rooms; it must not get damp or wet.



Observe the operating instructions!

### Delivery content

- RS2W radio-controlled switch
- Operating instructions



### Intended use

The radio-controlled switch can be used to remotely switch a connected consumer on and off using a suitable radio transmitter of the RS2W system.

The radio-controlled switch may only be used on mains voltage (230 V/AC, 50 Hz). The maximum load for the connected devices is max. 300 W/1.3 A (resistive load) or max. 30 W/0.13 A (inductive load).

The special design does not require a neutral conductor, which makes installation in existing electric installations very easy.

It is intended for indoor use only. Do not use it outdoors. Contact with moisture, e.g. in bathrooms, must be avoided under all circumstances.

For safety and approval purposes, you must not rebuild and/or modify this product. If you use the product for purposes other than those described above, the product may be damaged. In addition, improper use can cause hazards such as short circuiting, fire, electric shock etc. Read the instructions carefully and keep them. Make this product available to third parties only together with its operating instructions.

This product complies with the statutory national and European requirements. All company names and product names are trademarks of their respective owners. All rights reserved.

### Safety instructions



**Read the operating instructions carefully and especially observe the safety information. If you do not follow the safety instructions and information on proper handling in this manual, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.**



- The device is not a toy. Keep it out of the reach of children and pets.

- Do not leave packaging material lying around carelessly. This may become dangerous playing material for children.
- Protect the product from extreme temperatures, direct sunlight, strong jolts, high humidity, moisture, flammable gases, vapours and solvents.
- Do not place the product under any mechanical stress.
- If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use. Safe operation can no longer be guaranteed if the product:
  - is visibly damaged,
  - is no longer working properly,
  - has been stored for extended periods in poor ambient conditions or
  - has been subjected to any serious transport-related stresses.
- Please handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.
- Also observe the safety and operating instructions of any other devices which are connected to the product.
- This product may only be installed by a qualified technician (e.g., an electrician) who is familiar with the relevant regulations (e.g., VDE, German electrical wiring regulations)!
- Improper work carried out on the mains voltage endangers not only your own life, but also the life of others!
- If you do not have the expertise required for the installation, do not install it yourself but ask a qualified technician.
- Only use the product when it is securely installed and steady. Install the product e.g. in a suitable flush socket, surface socket or another suitable enclosure so that the required protection against contact is ensured.

- Keep the product away from strong magnetic fields occurring near machines, electric motors or loudspeakers.
- Do not use this product in hospitals or medical institutions. Although transmitters of the RS2W system only emit relatively weak radio signals, these may lead to the malfunctioning of life-support systems. The same may also apply to other zones.
- Never touch or operate the product with damp or wet hands. There is a risk of a life-threatening electric shock!
- Only carry out the installation when all the mains cables to the radio-controlled switch are disconnected from the mains voltage. Otherwise, there is a risk of a life-threatening electric shock!
- An all-pole disconnection from the mains voltage (such as a surge protector) must be provided as part of the wiring set-up.
- Never connect the product to the power supply immediately after it has been transferred from a cold room into a warm one (e.g., during transport). Condensation water that forms might destroy the device. Moreover, there is danger of electric shock!  
Allow the device to reach room temperature before switching it on. Wait until the condensation has evaporated. This might take several hours. Only after this should it be plugged in to the mains supply and put into use.
- Never overload the product. Observe the maximally admissible connected load in the chapter "Technical Data".
- Do not use the product if it is damaged. There is a risk of a life-threatening electric shock! In this case, dispose of the product in an environmentally correct manner.
- If it can be assumed that safe operation is no longer possible, the device must be turned off and precautions must be taken to ensure that it is not used unintentionally. Do not touch the radio-controlled switch or any device connected to it.

Disconnect the radio-controlled switch from the mains by switching off at the appropriate circuit breaker or by pulling out the fuse. Furthermore, turn off the earth leakage circuit breaker to disconnect all the poles of the mains supply.

- Use the product only in a temperate and not in a tropical climate.
- Consult an expert when in doubt about operation, safety or connection of the device.
- Maintenance, modifications and repairs are to be performed exclusively by an expert or at a qualified shop.
- If you have questions which remain unanswered by these operating instructions, contact our technical support service or other technical personnel.

### Preparations for installation



Please consult the section "Safety instructions"!

- To use the radio-controlled switch, install it in a suitable flush or surface socket or other suitable enclosure.
- The radio-controlled switch must be disconnected from the power supply during installation. First, switch off all poles of the mains supply by switching off at the circuit breaker or removing the fuse and then also switch off the associated ground-fault circuit breaker. Secure it against unauthorised reconnection, e.g., with a danger sign. Afterwards, check the mains connection for absence of voltage using a suitable tester.

### Installation and connection



Refer to the section "Preparations for Installation".

In older domestic electric installation systems, there is frequently no neutral wire in the existing wall sockets. In these cases conventional wireless switch systems cannot be installed without expensive upgrading of the wiring and the resulting necessary masonry work.

Thanks to the special 2-wire design of the radio-controlled switch you do not need the neutral wire - the two existing wires (phase "L" and switched phase "L'") are sufficient.

The radio-controlled switch can be used as a complementary component providing an additional wireless switching function for a wall switch. This means you can keep your existing wall switch, and the light, which has been switched on and off until now at the wall switch, can now also be operated using a radio transmitter of the RS2W system.

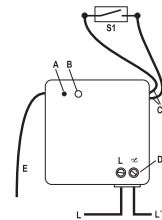
The flush socket has to provide sufficient space to install the radio-controlled switch behind the existing wall switch.



Therefore, ensure a suitable protection against contact with connecting, installing and using the radio-controlled switch. Otherwise, there is a risk of a life-threatening electric shock!

- Remove the cover of your used wall switch and remove it from the flush socket.

- Remove the two cables (phase "L" and switched phase "L'") from the wall switch and connect them to the two screw clamps (D) on the radio-controlled switch; see the diagram on the right.



The screw clamp labelled with "L" on the radio-controlled switch is for connection of phase/L; the screw clamp "⚡" is the switched output of phase/L.

If the "L" and "L'" connections are reversed or, instead of the Phase "L", the Neutral "N" cable is connected, this may mean it may not be possible to program the radio-controlled switch or LED lights might malfunction.

- Connect the two wires (C) on the radio-controlled switch to the two switch contacts on your wall switch ("S1"; see the diagram on the right).
- Position the radio-controlled switch in the flush socket so that the LED (A) and the push button (B) are pointing towards you. Lay the antenna (E) inside the flush socket so that it is not kinked/wound.

→ The push button is used to programme to a radio transmitter of the RS2W system (e.g. to test whether the consumer can be switched on/off).

During installation, take care that there is enough free space around the push button so it will not be switched on by accident.

Before installing the wall switch and its cover, the programming procedure must be conducted.

- Now, switch on the mains voltage.

## Function test: Switching the connected consumer on using the push button

Briefly press the push button on the radio-controlled switch to switch the connected consumer on or off.

An LED next to the push button indicates the current switch state:

- LED on: Load switched on
- LED off: Load is switched off

## Programming the radio-controlled switch to a radio transmitter

→ The radio-controlled switch can be programmed to every transmitter of the RS2W system.

Before programming, observe the operating instructions of the used transmitter.

During programming, keep a minimum distance of 20 - 30 cm between the radio-controlled switch and the transmitter. Otherwise, programming may fail.

- If the radio-controlled switch is switched on (LED next to the push button is on, the connected load is activated), switch of the radio-controlled switch.

To do this, briefly press the push button, the LED next to the push button must go out.

→ The radio-controlled switch must be switched off (LED next to the push button is out); otherwise, the programming procedure cannot be done.

- Start the programming procedure at the radio transmitter.

Example: Both buttons "ON" and "OFF" of the desired switch channel at the 12-channel hand-held transmitter of the RS2W system must be pressed simultaneously until the red LED of the hand-held transmitter starts flashing. Release both buttons, the red LED continues to flash, the programming mode is activated.

- Press the button at the radio-controlled switch pressed until the programming process at the transmitter is complete.

Example: The LED at the 12-channel hand-held transmitter of the RS2W system lights up blue and then goes out. Release the button at the radio-controlled switch.

- The radio-controlled switch switches ON to indicate the end of the programming process.

→ Up to 5 receivers can be programmed to one switch channel of a transmitter of the RS2W system. That means you can switch up to 5 radio-controlled switches on or off simultaneously pressing one button.

It is also possible to programme the radio-controlled switch to several transmitters.

However, the dimmer available for the RS2W system must not be programmed together with a radio-controlled switch to a single switch channel! Always programme it to a separate channel of the radio transmitter.



## Deleting a programmed radio-controlled switch from a transmitter

The procedure is exactly the same as for programming the radio-controlled switch to the transmitter. You can find further information in the operating instructions of the used radio transmitter of the RS2W system.

## Switching the consumer on/off

The radio-controlled switch and the connected load can only be switched on or off remotely, if they are programmed to a transmitter of the RS2W radio system. Observe the operating instructions of the used transmitter.

The consumer can be switched on or off as usual using the wall switch connected to the radio-controlled switch.

## Range

The range of the radio signals between a transmitter of the RS2W system and the radio-controlled switch is up to 150 m under optimum conditions.

→ This value, however, is the so-called "open space range" (the range when transmitter and receiver are visible to each other, without interfering influences).

In practice, however, there may be walls, room ceilings, etc. between the transmitter and the receiver which reduce the range accordingly.

Due to the different influences on the radio transmission, no specific range can be guaranteed. However, trouble-free operation is usually possible in a single family house.

## Sometimes the range can be considerably reduced due to:

- Walls, reinforced concrete ceilings, light-weight walls with metal post
- Coated/metallised insulated glass
- Proximity to metallic & conductive objects (e.g., heating elements)
- Proximity to human bodies

- Other devices using the same frequency (e.g. wireless headphones, wireless loudspeakers)
- Proximity to electric motors/devices, transformers, power adapters, computers

## Care and cleaning

The product does not require any maintenance and should never be opened or disassembled for any reason. Repair or maintenance work must be carried out by a specialist.

## Declaration of Conformity (DOC)

Conrad Electronic SE, Klaus-Conrad-Straße 1, D-92240 Hirschau hereby declares that this product conforms to the 2014/53/EU directive.

→ Click on the following link to read the full text of the EU declaration of conformity: [www.conrad.com/downloads](http://www.conrad.com/downloads)

Select a language by clicking on a flag symbol and enter the product order number in the search box. You can then download the EU declaration of conformity in PDF format.

## Disposal



Electronic devices are recyclable waste and must not be disposed of in the household waste. At the end of its service life, dispose of the product according to the relevant statutory regulations.

You thus fulfil your statutory obligations and contribute to the protection of the environment.

## Technical data

Operating voltage ..... 230 V/AC, 50 Hz

Connected load ..... Resistive load: max. 300 W (max. 1.3 A)  
Inductive load: max. 30 W (0.13 A)

→ Devices with mainly resistive load are e.g., light bulbs, heaters, etc.

Devices with inductive load are, e.g., engines, control gears, conventional transformers, energy saving bulbs, etc.

Transmission/receiving frequency ..... 868.000 - 868.600 MHz

Transmission/receiving range ..... max. 150 m (in open area)

Transmission power ..... <14 dBm

Ambient conditions ..... 0 to +45 °C,  
0 - 90 % RH (non-condensing)

Dimensions (W x H x D) ..... 41 x 41 x 13 mm

Weight ..... approx. 25 g

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