

sygonix®

Operating instructions

RSL Mini Wireless Built Dimmer, 2-wire

Item no. 1761764

Up-to-date Operating Instructions

Download the latest operating instructions at www.conrad.com/downloads or scan the QR code shown. Follow the instructions on the website.



Explanation of Symbols



The symbol with the lightning in the triangle is used if there is a risk to your health, e.g. due to an electric shock.



The symbol with the exclamation mark in the triangle is used to indicate important information in these operating instructions. Always read this information carefully.



The arrow symbol indicates special information and advice on operation.



This product must only be used in dry, enclosed indoor areas. It must not become damp or wet, as this may result in a fatal electric shock!

Delivery Content

- RSL mini wireless built dimmer
- Operating Instructions

Intended Use

The built-in wireless built dimmer can be used to dim a connected light or switch it on and off wirelessly using a suitable radio transmitter of the RSL system.

The built-in wireless built dimmer is intended to be installed behind a normal wall switch (no buttons!). The wall switch can still be used via two connection cables of the built-in wireless dimmer switch; these cables also enable a dimming function.

The built-in wireless built dimmer is suitable for use only on mains voltage (230 V/AC, 50 Hz). You can connect incandescent bulbs with a total power rating of 5 - 150 W or energy-saving/LED bulbs with a total power rating of 5 - 20 W (as long as these are dimmable).

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 result in short circuits, fires, electric shocks or other hazards. Read the instructions carefully and store them in a safe place. 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.



Warning!

This product may only be installed by a qualified technician (e.g., an electrician) who is familiar with the relevant regulations (e.g., VDE)!

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.

a) General Information

- The device is not a toy. Keep it out of the reach of children and pets. There is a risk of a life-threatening electric shock!
- 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, steam and solvents.
- Do not place the product under any mechanical stress.
- 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 product must be turned off and precautions must be taken to ensure that it is not used unintentionally. Do not touch the built-in wireless dimmer switch or any device connected to it.

- Disconnect the built-in wireless dimmer 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.

Safe operation can no longer be guaranteed if the product:

- the product shows visible signs of damage
- the product does not work at all or works poorly (leaking smoke or a smell of burning, audible cracking noises, discolouration to the product or the adjacent surfaces)
- the product was stored under unfavourable conditions
- it was exposed to heavy loads during transport

- Please handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.

- The product may be used in dry, enclosed indoor areas only; it must not get damp or wet!

- Only install and use the product when it is firmly mounted. Use the product e.g. - in a suitable flush-mounting or surface mounting or other suitable housing, so that the required protection against contact is ensured.

- The product must not be exposed to extreme temperatures, strong vibrations or heavy mechanical stress. Keep the product away from strong magnetic fields generated by machines, electric motors or loudspeakers.

- Do not operate the device in environments where there are high levels of dust, flammable gases, vapours or solvents. There is a danger of fire and explosion!

- Do not use this product in hospitals or medical institutions. Although the transmitter of the RSL radio system emits only relatively weak radio signals, these could lead to malfunction of life-sustaining systems. The same may also apply to other areas.

- This product should never be touched or operated with wet hands. There is a risk of a life-threatening electric shock!

- Carry out the installation only when all the mains cables to the built-in wireless dimmer switch are disconnected from the mains voltage. Otherwise, there is a risk of a life-threatening electric shock!

- During installation, all poles must be disconnected from the mains voltage (e.g. via RCD).

- 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). The condensation 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. Note the maximum connected load in the chapter "Technical Data".

- Use the product only in a temperate climate, never in a tropical climate.

- Consult an expert when in doubt about operation, safety or connection of the product.

- Maintenance, modifications and repairs must only be completed by a technician or an authorised repair centre.

- If you have questions which remain unanswered by these operating instructions, contact our technical support service or other technical personnel.

b) LED light

Attention, LED light:

Do not look directly into the LED light!

Do not look into the beam directly or with optical instruments!

c) Connected devices

Also observe the safety and operating instructions of any other devices which are connected to the product.

Preparations for installation



Please consult the section: "Safety Instructions"!

- To use, install the wireless dimmer switch in a suitable flush- or wall-mounted box or other suitable housing.

- Install the wireless dimmer switch only when the switch is disconnected from the mains. First, switch off all poles of the mains supply by switching off at the associated circuit breaker or removing the fuse and then also switch off the associated RCD (residual current device).

Secure it against unauthorised reconnection, e.g. with a danger sign. Afterwards, check the mains connection for absence of voltage using a suitable tester.

Connection and installation



Please consult 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 systems cannot be installed without expensive upgrading of the wiring and the resulting necessary masonry work.

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



Because of this technology, however, the full mains voltage is not present at the light. As a rule, the difference in brightness is hardly noticeable.

The built-in wireless dimmer switch can be used as a complementary component providing an additional wireless switching and wireless dimming function for a conventional wall switch (no buttons!). This means you can keep your existing wall switch, and the light, can now also be operated and dimmed using a radio transmitter of the RSL system.



You can still use the wall switch to turn the light on and off as before; now a dimming function is also available.

For installation, the flush socket has to provide sufficient space to place the wireless dimmer switch behind the existing wall switch.



Therefore, ensure appropriate protection against accidental contact when connecting, installing and subsequently using the wireless dimmer switch. Otherwise, there is a risk of a life-threatening electric shock!

- Remove the cover of your existing wall switch and remove the switch from the wall socket.

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

The screw clamp labelled with "L" is the connection of phase/L; the screw terminal "∞" is the output of the wireless dimmer switch to the light.

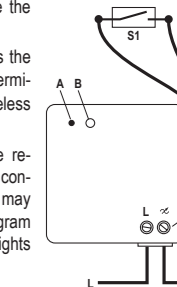
If the "L" and "L'" connections are reversed or if the Neutral "N" cable is connected instead of the Phase "L", this may mean it may not be possible to program the wireless dimmer switch or LED lights might malfunction.

- Connect the two wires (C) on the wireless dimmer switch to the two switch contacts on your wall switch ("S1"; see the diagram).

- Position the wireless dimmer switch in the flush socket so that the LED (A) and the push button (B) are pointing towards you.

- The push button is used to programme to a radio transmitter of the RSL system (or to test whether the connected light can be switched on/off).

During installation, make sure there is enough free space around the control button and that it will not be pressed by accident (when the wall switch later sits in front of the wireless dimmer switch).



Before mounting wall switch and cover, perform first the teach-in procedure.

- Now, switch on the mains voltage.



Never touch bare contacts of the connection wires during the programming process; there is a risk of fatal electrical shock!

Function test: Switching the connected light on/off & dimming the light using the control button

- Briefly press the push button on the wireless dimmer switch to switch the connected light on or off.

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

LED on: Light is switched on (with the last brightness selected)

LED off: Light is off

- To dim the light, first switch it on using the push button on the wireless dimmer switch. The LED on the wireless dimmer switch lights up.

Now press and hold the push button for longer than 3 seconds; the dimming function starts. When you have reached the desired brightness, release the button again.

Programming the wireless dimmer switch to a radio transmitter

→ The wireless dimmer switch can be programmed to any radio transmitter of the RSL radio system.

Before programming, observe the operating instructions of the radio transmitter you intend to use.

During programming, maintain a minimum distance of 20 - 30 cm between the wireless dimmer switch and the transmitter. Failing to do this may result in a registration failure.

- After the mains voltage is switched on, the wireless dimmer switch is in programming mode; the LED on the wireless dimmer switch flashes.
- Press and hold the "I" button on a wireless wall switch or the corresponding "ON" button e.g. on a wireless remote control of the RSL system until the LED on the wireless dimmer switch stops flashing and stays lit.

The light connected to the dimmer is switched on. The programming process has been completed successfully.

→ If you take too long to start the programming process with a wireless transmitter after switching on the mains voltage, the LED on the wireless dimmer switch goes out and the programming mode ends. To restart the programming process on the wireless dimmer switch, press and hold the push button on the wireless dimmer switch until the LED flashes again.

Programming the wireless dimmer switch to recognise multiple wireless transmitters

→ Up to 10 wireless transmitters of the RSL system can be programmed on the wireless dimmer switch.

- Switch off the light connected to the wireless dimmer switch (either at a wireless transmitter/wall switch that is already registered or briefly press the push button so that the LED next to the push button is not lit).

- Press and hold the push button on the wireless dimmer switch until the LED begins to flash red. Release the push button again.

- Press and hold the "I" button on a wireless wall switch or the corresponding "ON" button e.g. on a wireless remote control of the RSL system until the LED on the wireless dimmer switch stops flashing and stays lit.

The light connected to the dimmer is switched on. The programming process has been completed successfully.

Deleting programmed wireless dimmers from a wireless transmitter

- Switch off the light connected to the wireless dimmer switch (either at a wireless transmitter/wall switch that is already registered or briefly press the push button so that the LED next to the push button is not lit).

- Press the "I" and "O" buttons on a wireless wall switch at the same time, or on a wireless remote control, the "ON" and "OFF" buttons for the switching channel to which the wireless dimmer switch was programmed.

Then the LED on the wireless dimmer switch starts flashing.

- Now press the "O" button on the wireless wall switch or the "OFF" button for the switching channel to which the wireless dimmer switch was programmed.

- The wireless dimmer switch is deleted and no longer reacts to the operation of the wireless wall switch or the wireless remote control.

Switching the light on/off & dimming

a) Using the wall switch

- The light can be switched on or off as usual using the wall switch connected to the built-in wireless dimmer switch.

→ The light is switched on at the last selected brightness.

- If you want to dim the light, first switch the light on with the wall switch.

Then use the wall switch to switch the light off again and back on within 2 seconds. The dimming process begins.

When the desired brightness is reached, use the wall switch to turn the light off and back on. The brightness level has been saved.

b) Using a transmitter

→ You can turn the light connected to the built-in wireless dimmer switch on and off or dim it by radio only after it is registered on a wireless transmitter of the RSL system. Follow the description above and the operating instructions of the radio transmitter that will be used.

Example for a 16-channel hand-held radio transmitter of the RSL radio system:

- Briefly press the "ON" button on the hand-held radio transmitter on which the built-in wireless dimmer switch is to be registered.

The light is switched on at the last available brightness.

- If you briefly press the "ON" button again while the light is on, the wireless dimmer switch starts a continuous dimming process.

If you briefly press the "ON" button again, the dimming process stops; pressing the "ON" button yet again starts the dimming process in the opposite direction.

- Briefly press the "OFF" button on the hand-held radio transmitter on which the built-in wireless dimmer switch is to be registered. The light is switched off.

- With the "ALL-ON" or "ALL-OFF" button, the light connected to the built-in wireless dimmer switch is switched on or off (at the same time, all other programmed channels are likewise turned on or off). A dimming process does not occur in this case (the light is always switched on with the last selected brightness).

Example for a 1-channel wireless wall switch of the RSL radio system:

The function corresponds to that of the 16-channel hand-held wireless transmitter.

The difference is that the "I" button is to be pressed instead of the "ON" button and the "O" button is to be used instead of the "OFF" button.

Range

The transmission range of the radio signals between a transmitter of the RSL system and the built-in wireless dimmer switch is up to 70 m under optimum conditions.

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

In practice, however, there are walls, ceilings, etc. between the transmitter and receiver, thus the range is reduced accordingly.

Due to the different influences on the wireless 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 floors, drywall walls with metal frame construction
- Coated/metallised insulated glass
- Proximity to metallic & conductive objects (e.g., heating elements)
- Proximity to human bodies
- Other devices on the same frequency (e.g. wireless headphones, wireless loudspeakers)
- Proximity to electric motors/appliances, transformers, power supplies, computers

Care and Cleaning

The product does not require any maintenance. You should not open/disassemble it. 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

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 Product



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 in accordance with applicable regulatory guidelines.

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

Technical Data

Operating voltage 230 V/AC, 50 Hz

Standby power consumption <0.4 W

Power rating Incandescent bulbs: 5 - 150 W
LED/energy-saving bulbs:
5 - 20 W

→ Use only LED/energy-saving bulbs that are specially marked as dimmable. Also observe the minimum load of 5 W.

Overload protection yes

Excess temperature safety device yes

Transmission frequency 433.05 - 434.79 MHz

Transmission range 70m (see chapter "Range")

Ambient conditions -10 to +55 °C, 10 - 80% RH
(non-condensing)

Dimensions (H x W x D) 42 x 42 x 13 mm

Weight approx. 22 g

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