Radio universal transmitter 2
Order No. : 0521 00

Operating instructions

1 Safety instructions

Electrical equipment may only be installed and fitted by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. Always disconnect before carrying out work on the devise or load. In so doing, take all the circuit breakers into account, which support dangerous voltages to the device and or load.

The radio communication takes place via a non-exclusively available transmission path, and is therefore not suitable for safety-related applications, such as emergency stop and emergency call.

Do not connect any motors in parallel with the transmitter. Device can be damaged.

Do not shorten, extend or strip the antenna. Device can be damaged.

These instructions are an integral part of the product, and must remain with the end customer.

2 Device components

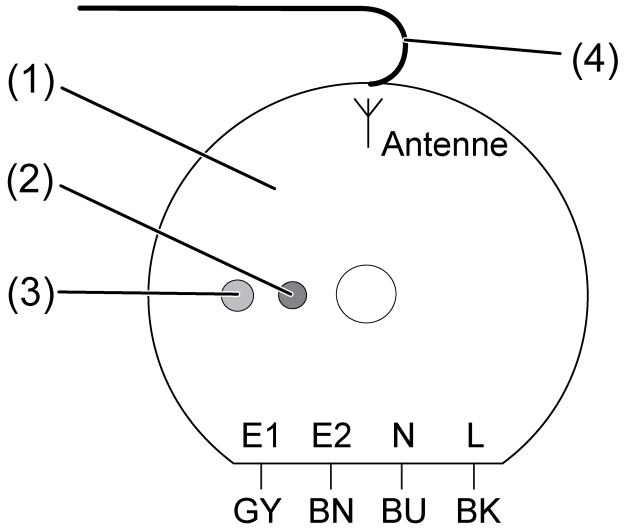

Figure 1

(1) Radio-Transmitter
(2) LED
(3) Operating mode button
(4) Antenna

3 Function

System information

By statute, the transmitting power, the reception characteristics and the antenna cannot be changed.

The range of a radio system from the transmitter to the receiver depends on various circumstances.

The range of the system can be optimised by selecting the optimal installation location, taking into account the structural circumstances.

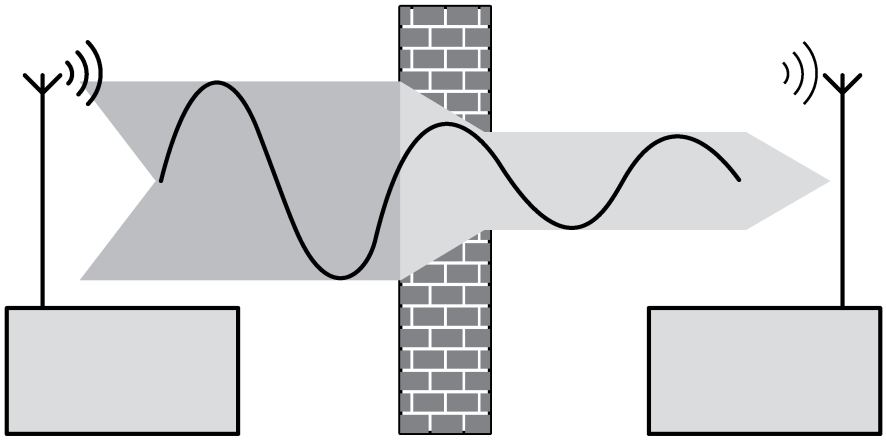

Figure 2: Reduced range due to structural obstacles

Example of penetration of various materials:

Material	Penetration
Wood, Plaster, Plasterboard	approx. 90%
Brick, Chipboard	approx. 70%
Reinforced concrete	approx. 30%
Metal, Metal grid	approx. 10%
Rain, Snow	approx. 1-40%

Intended use

- Radio transmitter for transmission of switching, dimming or blind movement commands to suitable radio receivers
- Control via suitable switches or push-buttons
- Installation in appliance box to DIN 49073

Product characteristics

- When the inputs are controlled with mains voltage, the device transmits radio telegrams to radio receivers which have been taught
- One or two radio channels, depending on the operating mode set
- Four operating modes can be set

Overview of the operating modes

- Operating mode A: 2-channel dimming, toggle
- Operating mode B: 2-channel switching
- Operating mode C: 1-channel dimming, blind
- Operating mode D: 1-channel blind

4 Operation

Dimming in operating mode A

This operating mode makes it possible to independently control two dimmer actuators each via its own installation button, NO contact.

- Press connected push-button briefly or for a longer time.

  Receiver responds depending on the length of the button-press:

less than 1 second	Switch on/off
longer than 1 second	Dim brighter/darker

i Pressing the installation button causes the telegram type in the radio transmitter to change-over. Therefore after local control on the radio receiver or control by another radio transmitter the installation button may have to be pressed twice in order to achieve the desired response.

Switching in operating mode B

This operating mode makes it possible to independently control two switch actuators via switches or installation buttons, NO contact.

- Press connected switch or push-button.

  The radio transmitter transmits switch-on telegrams upon closing and switch-off telegrams upon opening.

  Operation with a push-button executes the special function "bell operation".

Dimming and blind control in operating mode C

This operating mode makes it possible to control a dimmer actuator or a blind actuator via two installation buttons, NO contact.

- Press connected push-button (Figure 4) briefly or for a longer time.

  Receiver responds depending on the length of the button-press:

Press	Dimmer actuator	Shutter actuator
Push-button 1, less than 1 second	Switch on	Slat Up
Push-button 1, longer than 1 second	Dimming brighter	Blind moves up
Push-button 2, less than 1 second	Switch off	Slat Down
Push-button 2, longer than 1 second	Dimming darker	Blind moves down

i For suitable dimmers, pressing push-button 2 for longer than 1 second when the load is switched off causes switch-on at minimum brightness.

Blind control in operating mode D

This operating mode makes it possible to control a blind actuator via a blind switch (Figure 6) or blind control (Figure 7).

- Operate connected switch.

  When the switch closes the radio transmitter transmits telegrams to move the blind up or down. When it opens the blind stops.

5 Information for electrically skilled persons

5.1 Fitting and electrical connection

DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Before working on the device, disconnect all the corresponding miniature circuit breakers. Cover up live parts in the working environment.

Connecting and mounting the devices

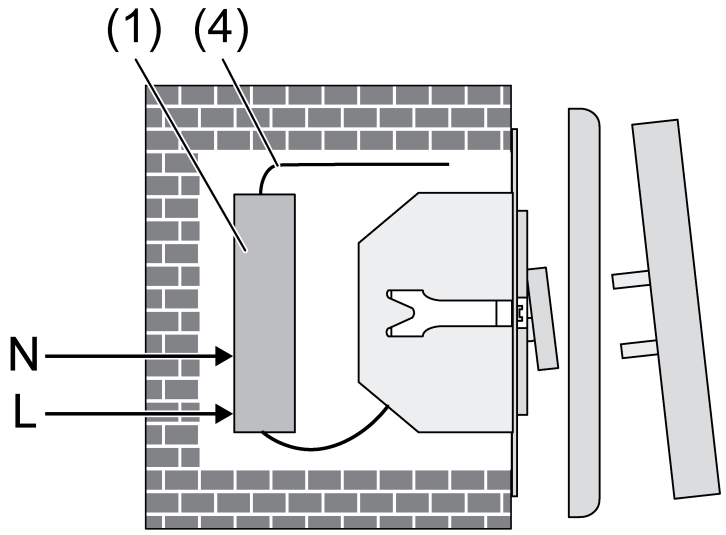

Figure 3

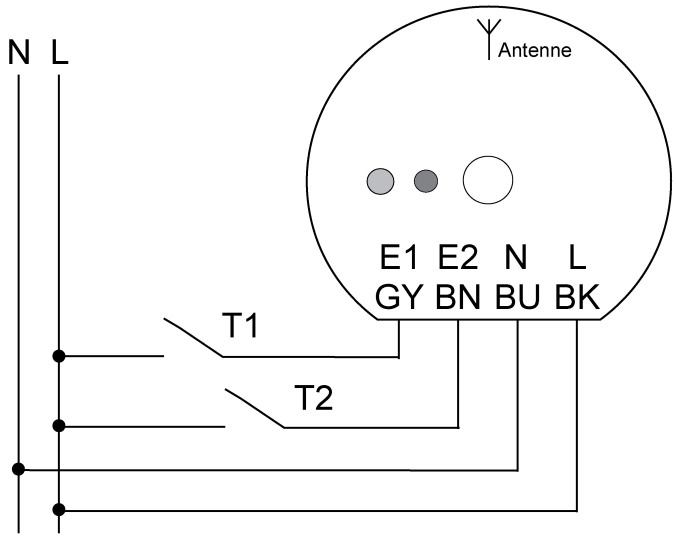

Figure 4: Push-button connection diagram, operating modes A, B, C

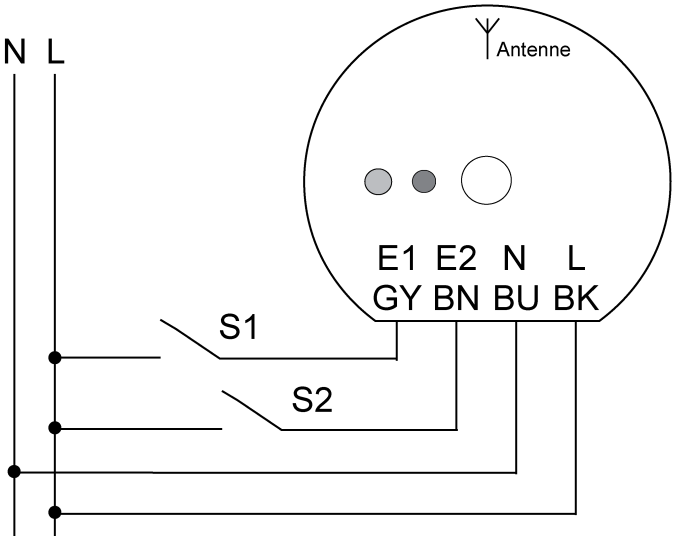

Figure 5: Switch connection diagram, operating mode B

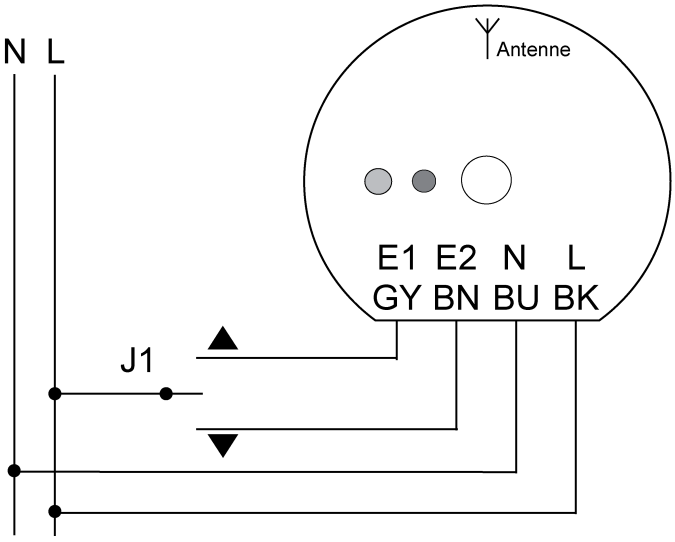

Figure 6: Blind switch connection diagram, operating mode D

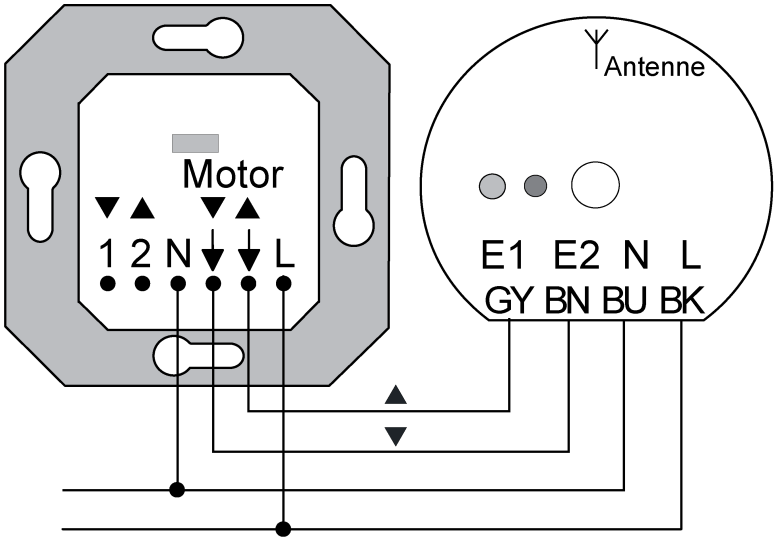

Figure 7: Blind control connection diagram, operating mode D

i For mounting outside of an appliance box, e.g. installation in surface-mounted junction boxes, ensure sufficient protection against electric shock.

i The radio transmitter may not be connected in parallel with a blind motor.

Maintain distance from large-area metal objects, e.g. metallic door frames.

- Connect radio transmitter according to connection diagram (Figure 4), (Figure 5), (Figure 6) or (Figure 7). The connecting cables should be assigned as follows:

E1 (GY)	Input 1 (grey)
E2 (BN)	Input 2 (brown)
N (BU)	N conductor (blue)
L (BK)	External conductor (black)

- If multiple miniature circuit breakers supply dangerous voltages to the device or load, couple the miniature circuit breakers or label them with a warning, to ensure release is guaranteed.
- Set operating mode (see Commissioning chapter). The set operating mode can be changed at any time.
- Insert radio transmitter into appliance box.
- Mount control and switch on mains voltage.

i Lay the antenna stretched out freely if possible.

Using the lamp terminals

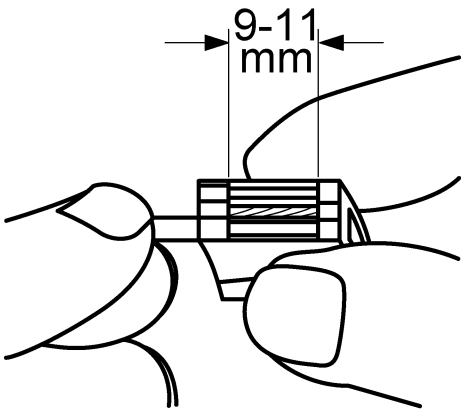

Figure 8: Stripping length

- Strip 9 - 11 mm of the cable (Figure 8).

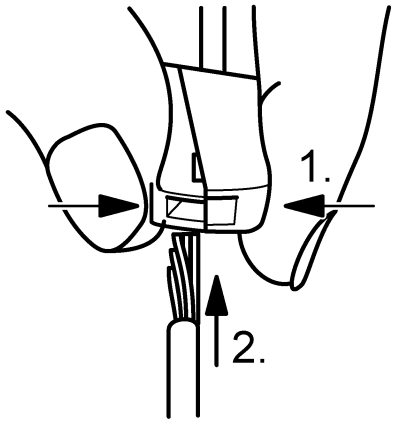

Figure 9: Connection of the fine-wire cable

- Push the terminal together on the side with the square opening and connect a fine-wire cable (Figure 9).

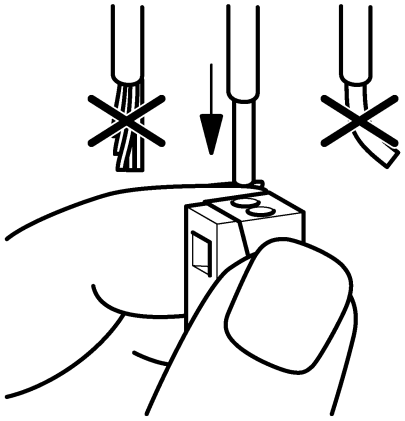

Figure 10: Connection of the single-stranded cable

- Push the single-stranded cable into the round opening on the installation side up to the stop (Figure 10).

5.2 Commissioning

DANGER!
Electrical shock when live parts are touched.
Electrical shocks can be fatal.
Before working on the device, cover up live parts in the working environment.

Poll operating mode

The transmitter has 4 operating modes that can be polled and changed using the operating mode buttons.

- Press operating mode button (3) (Figure 1) briefly.
  The operating mode currently set is indicated by flashing of the LED (2) (Figure 11).

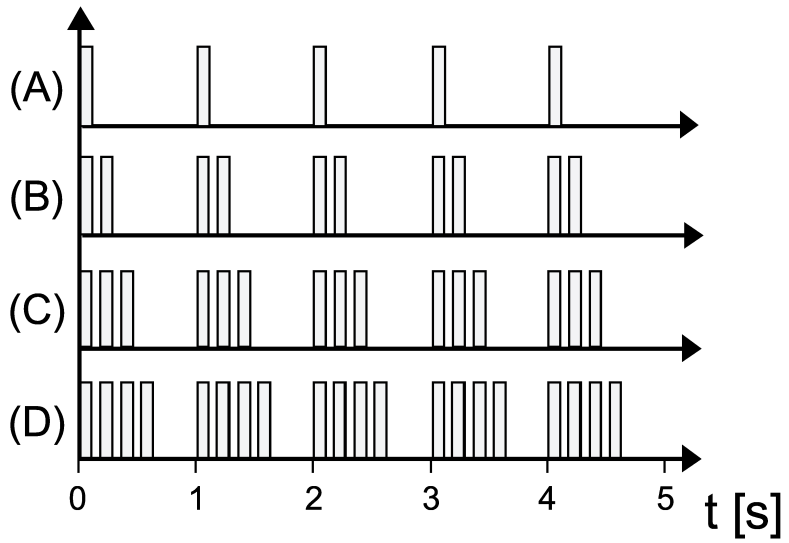

Figure 11: LED indication of the operating modes

LED	Operating mode / Function	Control
1× brief flash per second for a total of 5 seconds	A: 2 channel dimming, **E1** and **E2**	Push-button
2× brief flash per second for a total of 5 seconds	B: 2 channel switching, **E1** and **E2**	Push-button or switch
3× brief flash per second for a total of 5 seconds	C: 1 channel dimming, **E1**/**E2** Venetian blind, **E1**/**E2**	Push-button
4× brief flash per second for a total of 5 seconds	D: 1 Channel blind, **E1**/**E2**	Blind switch or blind control

Presetting the mode of operation

- Press operating mode button (3) longer than 1 second (Figure 1).
  Radio transmitter changes over to the next operating mode.

i Wait for indication of the operating mode by the LEDs (2) before pressing the operating mode button again.

- In order to change further between operating modes A, B, C and D, press operating mode button again for longer than 1 second.

Teaching radio transmitter in receiver in operating modes A, C or D

In order for a radio receiver to understand a radio telegram from the radio transmitter, the receiver has to "learn" this radio telegram. A channel of the radio transmitter can be taught in any number of receivers. The teaching procedure only results in an assignment in the radio receiver.

When teaching a transmitter, the range of the receiver is reduced to about 5 m. The distance between the receiver and the transmitter being taught should therefore be between 0.5 m and 5 m.

- Switch receiver to programming mode (see instructions for radio receiver).
- Press connected push-button or switch for longer than 1 second.
- Exit programming mode of the receiver (see instructions for the radio receiver).

  The radio transmitter has now been taught in the radio receiver.

Teaching radio transmitter in receiver in operating mode B

i Because the switching telegrams in operating mode B are not suitable for teaching, the operating mode has to be changed temporarily.

i This operating mode is not suitable for activation of radio push-button actuators.

- Set transmitter to operating mode A.
- Switch receiver to programming mode (see instructions for radio receiver).
- Press connected push-button or switch for longer than 1 second.
- Exit programming mode of the radio receiver (see instructions for the radio receiver).
- Set radio transmitter to operating mode B.

  The radio transmitter has now been taught in the radio receiver.

6 Appendix

6.1 Technical data

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	-20 ... +55 °C
Dimensions Ø×H	52×23 mm
Radio frequency	433.05 MHz ... 434.79 MHz
Transmission capacity	< 10 mW
Transmitting range in free field	typ. 100 m

6.2 Troubleshooting

Radio receiver does not respond, or only sometimes.

Cause: Radio range exceeded. Structural obstacles reduce the range.

Check the installation situation.

Check routing of antenna. Laying the antenna stretched out increases the range.

Using a radio repeater.

6.3 Conformity

Gira Giersiepen GmbH & Co. KG hereby declares that the radio system type
Order No. 0521 00
corresponds to the directive 2014/53/EU. You can find the full article number on the device. The complete text of the EU Declaration of Conformity is available under the Internet address:
www.gira.de/konformitaet

6.4 Warranty

The warranty follows about the specialty store in between the legal framework as provided for by law

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade). They will forward the devices to the Gira Service Center.

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