

Operating Instructions Universal radio-control transmitter with L conductor

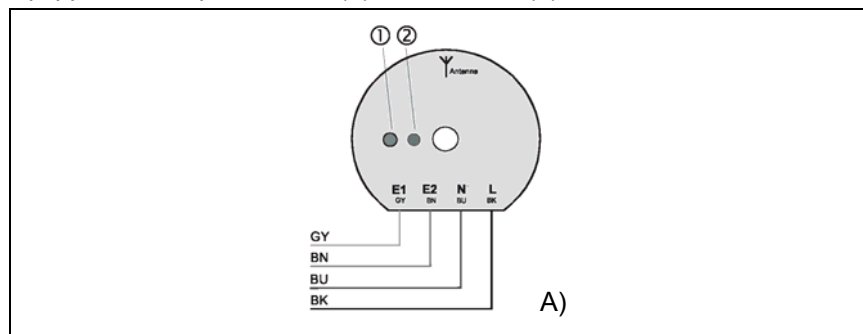


1. Function

The universal radio-control transmitter can be used to extend an existing electrical installation by the possibility of transmitting 230 V control commands by radio. The transmitter can be operated for switching, dimming or blind/shutter control functions.

When mains voltage (AC 230 V~) is applied to inputs (E1, E2), the universal radio-control transmitter transmits radio telegrams which are evaluated by all radio-control receivers.

For selection and indication of the mode of operation, the device is equipped with a pushbutton (1) and an LED (2).



The universal radio-control transmitter has 4 modes of operation:

- Mode A: 2 Kanal Dimmen (Toggle) (E1 und E2)
- Mode B: 2 Kanal Schalten (E1 und E2)
- Mode C: 1 Kanal Dimmen (E1/E2)
- Mode D: 1 Kanal Jalousie (E1/E2)

2. Safety Instructions



Attention: Electrical equipment must be installed and fitted by qualified electricians only.

Do not connect motors in parallel with the universal radiocontrol transmitter.

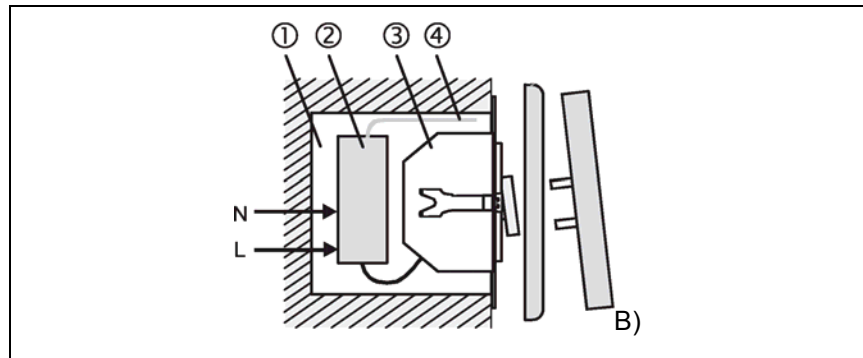
3. Fitting

Install the universal radio-control transmitter (2) in a deep flushmounting box (1) behind a flush-mounting insert (3) (60 mm-deep mounting box recommended).

Important: When installed outside flush-mounting boxes, the device must be sufficiently protected against shock hazards by installing it, for instance, in a surface-mounted distribution box.

Antenna

For maximum transmission range, the antenna (4) should be stretched out to full length and not be left coiled up. Keep away as far as possible from large metal surfaces such as metallic door frames. Do not shorten or lengthen the antenna and do not strip off the insulation.

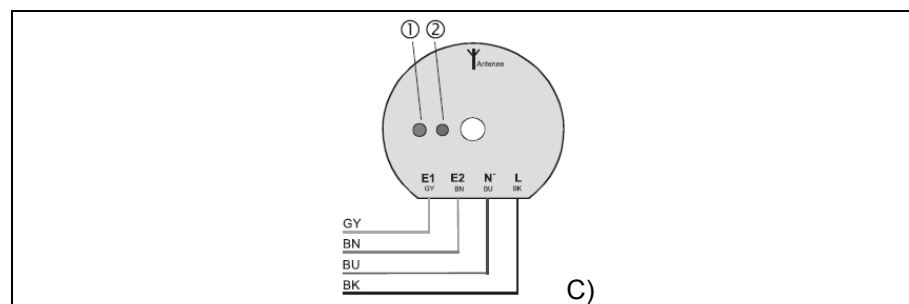


4. Installation and adjustment

Depending on wiring and on the selected mode of operation, the universal radio-control transmitter transmits radio telegrams, e.g.: „channel 1 = switch on“.

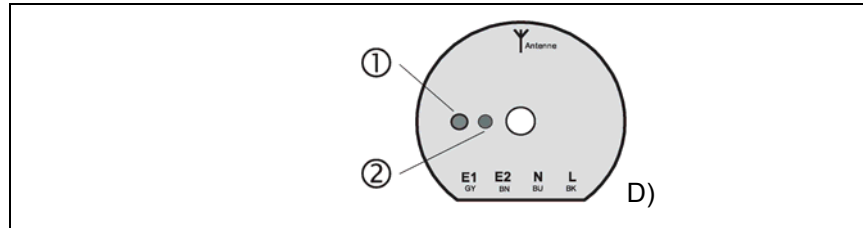
Connect the wires as follows:

- E1:** input 1 (grey)
- E2:** input 2 (brown)
- N:** N-conductor (blue)
- L:** phase conductor (black)



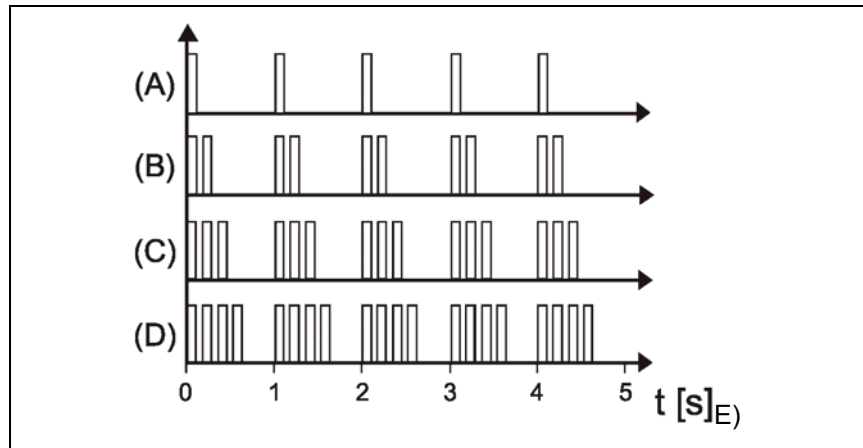
5. Modes of operation

The universal radio-control transmitter has 4 modes of operation which can be selected or indicated with pushbutton (1).



The modes are signalled by the LED ② as follows:

- A) **2-channel dimming, toggling (E1 and E2)**
1 brief flashes per second for 5 s altogether
- B) **2-channel switching (E1 and E2)**
2 brief flash per second for 5 s altogether
- C) **1- channel dimming (E1/E2))**
3 brief flashes per second for 5 s altogether
- D) **1- channel blind/shutter (E1/E2)**
4 brief flashes per second for 5 s altogether



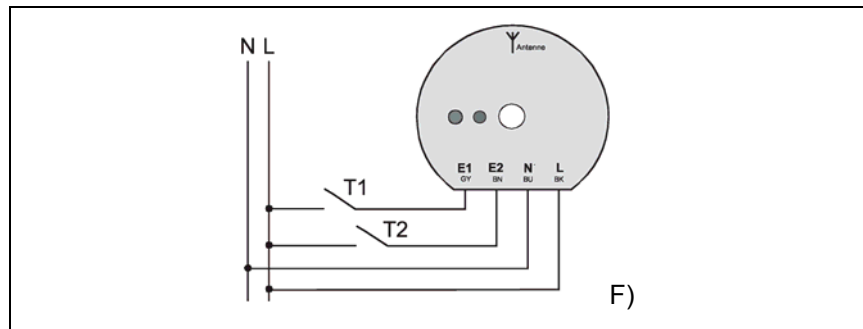
Indicating actual mode of operation

To indicate the actual mode of operation, depress pushbutton (1) briefly (< 0,5 s). The mode in which the device is actually operating is then signalled by the LED (see previous page).

Changing the modes of operation

Depress pushbutton ① for at least 1 s. With each long press of the button, the universal transmitter changes between A, B, C and D. Wait until signalling has ended before pressing the pushbutton again.

Mode A: 2-channel dimming, toggling (E1 and E2)



For independent control of two radio-control dimming actuators.

Connection of conventional pushbuttons (n.o. contacts):

a press on the button switches over (toggles) the type of telegram from the transmitter:

brief press (< 1s): switching on / off

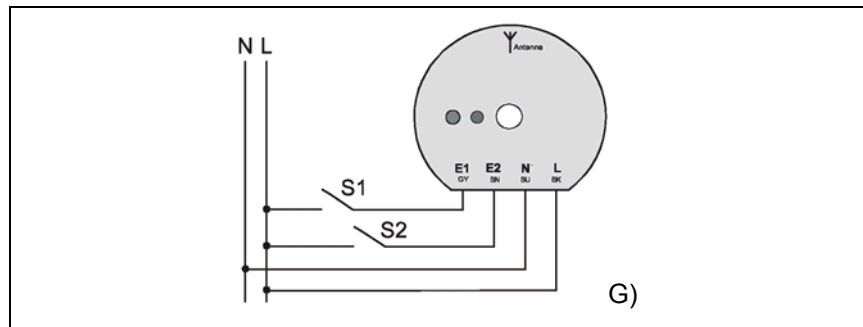
lon press (≥ 1 s): lamp brighter / darker

Important: Switching over (toggling) of the telegram type (on/off, brighter/darker) is effected in the transmitter. When a receiver has been operated locally or by another transmitter, it may therefore be necessary to actuate the universal radio-control transmitter twice in order to obtain the desired reaction.

Mode B: 2-channel switching (E1 and E2)

For independent control of two radio-control switching actuators.

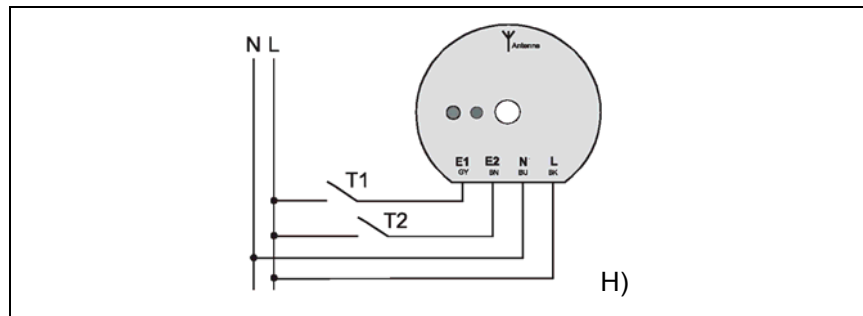
Connection of conventional switches (n.o. contact):



the universal transmitter transmits switch-on telegrams when closed and switch-off telegrams when opened (see fig. G).

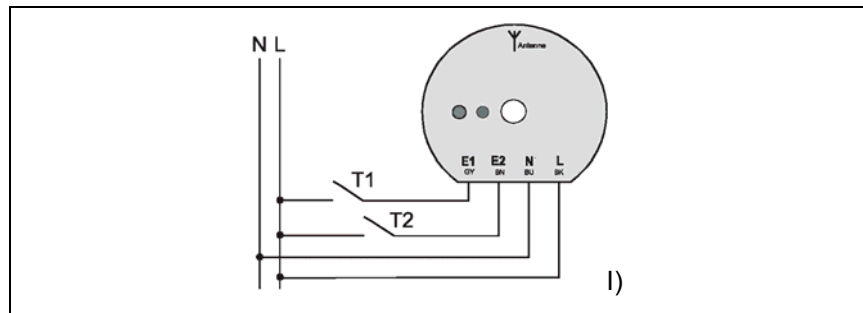
Connection of conventional pushbuttons (n.o. contact):

the transmitter is in the special „doorbell“ mode and transmits switch-on telegrams when closed and switch-off telegrams when opened (see fig. H).



Important This mode of operation is not suited for radio-control pushbutton actuators.

Modus C: 1 channel dimming (E1/E2)



For operation of one radio-control dimming actuator.

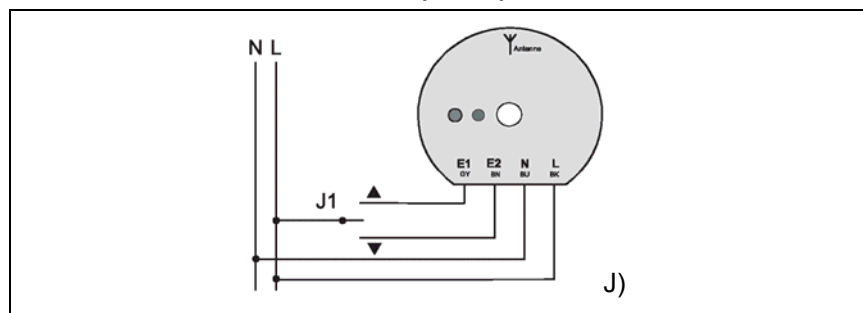
Connection of conventional pushbuttons (n.o. contacts):

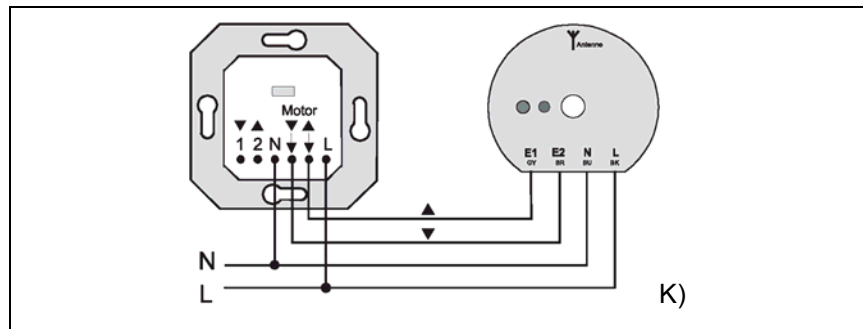
Actuation:

- T1 < 1s: switch on
- T1 ≥ 1 s: lamp brighter
- T2 < 1 s: switch off
- T2 ≥ 1 s: lamp darker

Important: A long press (≥ 1 s) of T2 when the load is off causes suitable dimmers to switch on with their minimal brightness (night light).

Mode D: 1-channel blind/shutter (E1/E2)





For controlling of a radio-control blind/shutter actuator.

Connection of a blind/shutter switch (fig. J) or a motor control insert (fig. K):

On closing of switch J1, the radio-control universal transmitter transmits telegrams for raising / lowering blinds and shutters. The blind/shutter stops when the switch is opened.

Important: The radio-control universal transmitter must not be connected in parallel with blind/shutter motor.

6. Programming of radio-control receivers

A universal radio-control transmitter channel can be programmed into an unlimited number of radio receivers. Programming information is stored only in the radio-control receiver.

During programming of a radio-control transmitter, the sensitivity of the receivers is reduced to approx. 5 m. The distance between the receiver and the transmitter to be programmed should therefore be between 0.5 m and 5 m.

Procedure

1. Switch the radio-control receiver into the programming mode (see „Radio-control receiver“ operating instructions)

2a. Programming of operating mode A, C or D

Actuate the connected pushbutton or switch for at least 1 s.

2b. Programming of operating mode B

The switching telegrams of operating mode B are not suitable for programming. Set the flush-mounted radio-control transmitter with L conductor therefore at first to operating mode A. Press or actuate the corresponding buttons or switches for at least 1 s. Then go back to operating mode B.

3. Switch the radio-control receiver back into the operating mode (see „Radio-control receiver“ operating instructions).

7. Clearing a programmed channel

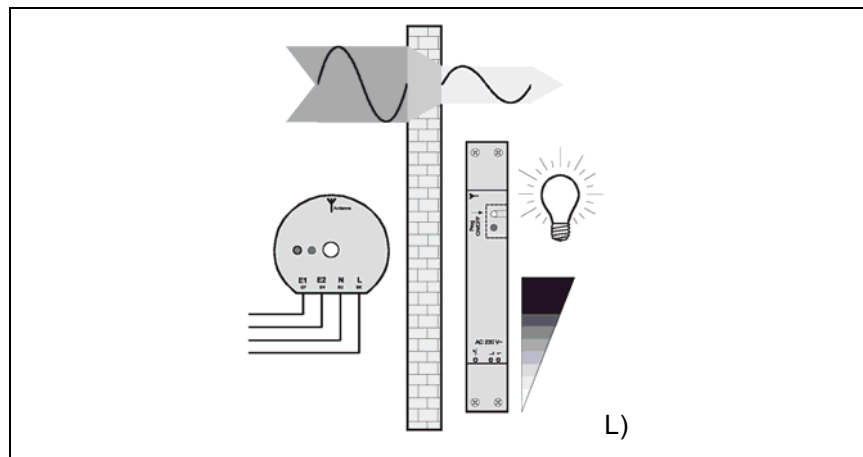
Reprogramming of the transmit channel to be cleared in the same mode of operation deletes the assignment stored in the radiocontrol receiver.

8. Radio Transmission

Radio transmission takes place on a non-exclusive path. Therefore, interference cannot be excluded. This type of radio transmission is not suitable for safety applications such as emergency stops or emergency calls.

The range of a radio-control system depends on transmitter power, receiver characteristics, air humidity, fitting height and building conditions. The figure illustrates the penetration of building materials by radio waves:

Dry material	Permeability
Timber, gypsum, gypsum-plasterboards	approx. 90 %
Brickwork, particle boards	approx. 70 %
Reinforced concrete	approx. 30 %
Metal, metal grating, aluminium lamination	approx. 10 %
Rain, snow	approx. 0 – 40 %



Radio operation

- The inter-connection of this radio system with other communication networks must comply with national legislation.
- This radio system must not be used for communication beyond property boundaries.
- Operation in Germany is subject to the relevant regulations (Amtsblatt Vfg 73/2000).
- If utilized in conformity with its designated use, this unit fulfils the requirements of the R&TTE Directive (1999/5/EC). The complete declaration of conformity can be found in the Internet under: www.jung.de/ce.

The universal radio-control transmitter may be operated in all countries of the EU and the EFTA.

9. Specifications

Power supply	: AC 230 V ~
Transmit frequency	: 433.42 MHz, ASK
Transmitting range	: appr. 100 m (in free space)
Operating temperature	: ca. -20 °C ... +55 °C
Type of protection	: IP 20
Dimension (Ø x H)	: 52 mm x 23 mm

Technical specifications subject to change.

10. Guarantee

We accept the guarantee in accordance with the corresponding legal provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault:

ALBRECHT JUNG GMBH & CO. KG

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D-44532 Lünen

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KNX equipment

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