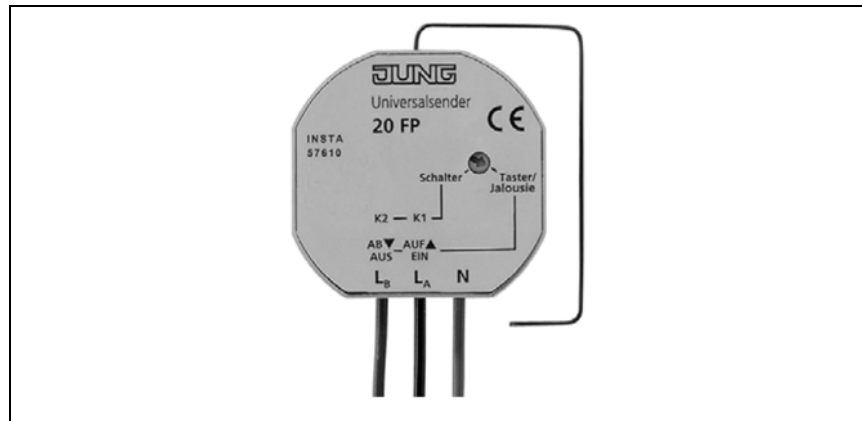


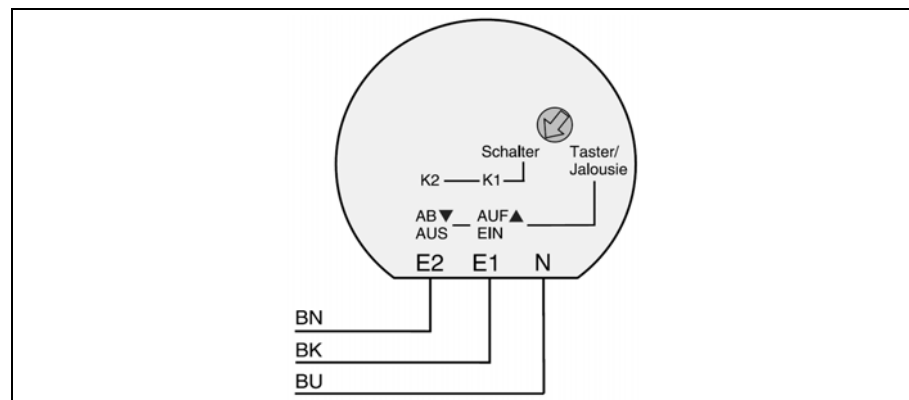
Operating Instructions Universal radio control Transmitter



1. Function

The universal radio control transmitter is designed to enlarge existing installations by wireless transmission of control commands. The radio data telegram of the radio control transmitter is understood and executed by all radio receivers of the Funk-Mangement system (exception: radio-controlled switching amplifier). The radio control transmitter can be operated from a switch, pushbutton or louver control switch.

The inputs (E1, E2) are operated with mains voltage (230 V AC).



1.1. Function: two-channel switch (channel 1/channel 2)

The radio control transmitter transmits the switching commands (On, Off) for two independent channels (channel 1, channel 2).

The inputs are controlled by switching commands issued, for instance, by a conventional switch (n.o. contact).

The special function „doorbell operation“ permits transmission of the radio data telegram after brief actuation (0.2 seconds) of a pushbutton (n.o. contact).

1.2. Function: single-channel pushbutton (On/Off)

The radio control transmitter transmits the control commands (On, Off) for one channel. The inputs are controlled by two independent push-button commands issued, for instance, by a rocker button (n.o. contact).

1.3. Function: louver contact

The radio control transmitter transmits the louver control commands for one channel. The inputs are controlled from the external switching contacts of a blind/shutter control switch or a motor control insert.

2. Fitting

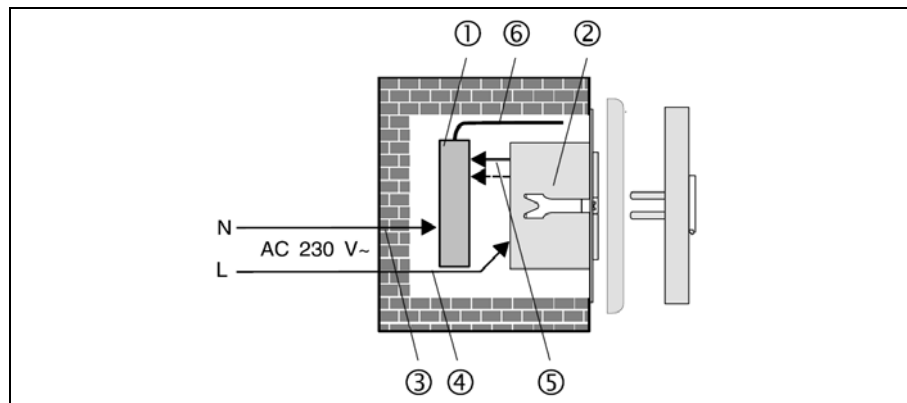


Safety instructions

Attention: Electrical appliances may be installed and fitted by qualified electricians only. Do not connect motors in parallel with the radio control transmitter.

The radio control transmitter ① is installed in a flush-mounting box acc. to DIN 49073 behind a flush-mounted insert ② (60-mm deep box recommended).

- ① For installations outside a flush-mounting box pay attention to adequate shock-hazard protection, for instance, by installing the transmitter in a surface-mounted distributor box.



3. Installation

1. Select the desired function, see „function setting“.
2. Connect the blue wire of the radio control transmitter to the neutral conductor **N** of the mains voltage ③ (AC 230 V~).
3. Connect the flush-mounted insert to phase conductor **L** of the mains voltage ④.
4. Connect switching signal conductors (e.g. from two-circuit switch) for channel 1 (black wire) or channel 2 (brown wire) to flush-mounted insert ⑤.

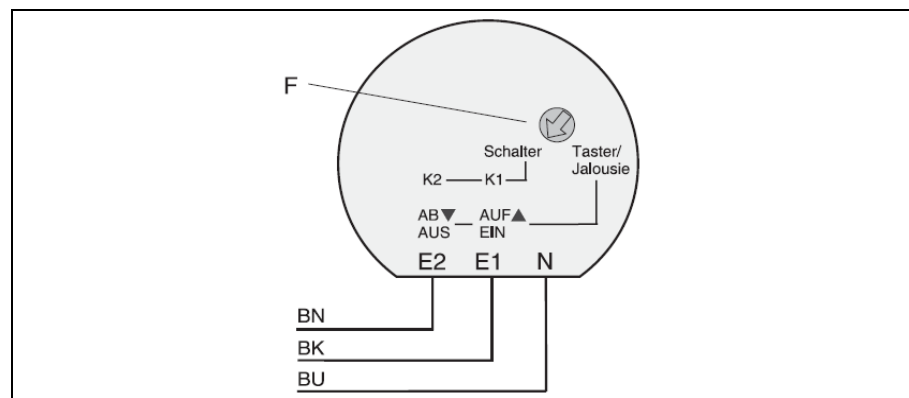
4. Antenna

For best transmission results, the antenna © should be unrolled and laid as far away from the transmitter as possible. The antenna must be as far away as possible from large metal parts (e.g. metal door frames). Do not shorten or lengthen the antenna wire and do not strip off the insulation.

5. Function setting

Depending on wiring and adjustment, the radio control transmitter transmits a radio data telegram, e.g.: „channel 1 = on“. Select the desired function with rotary switch F.

The connecting wires are represented in the figures as follows:



N :	blue connecting wire	BU
E1 :	black connecting wire	BK
E2 :	brown connecting wire	BN

The delay between application of the mains voltage (for instance by depressing the pushbutton in the supply line) and switching on of the load at the radio receiver (lighting on) is abt 0.3 seconds.



Attention

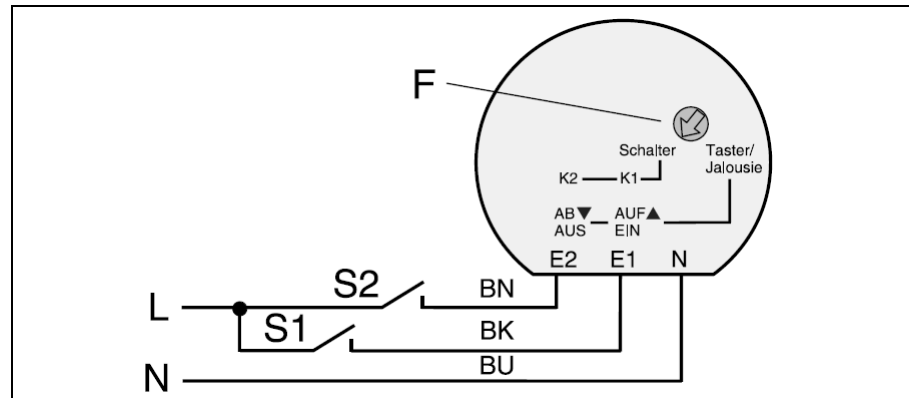
The radio control transmitter must be operated for at least 2 seconds (pushbutton contact closed during abt. 2 seconds) Shorter operation may result in malfunctions.

In such case, the radio control transmitter must be isolated from the power supply for abt. 10 minutes (by not depressing the pushbutton during abt. 10 minutes)

6. Function: two-channel switch

Turn rotary switch F to „Schalter“ (Switch)

Connect a switch (n.o. contact) as shown in figure A1



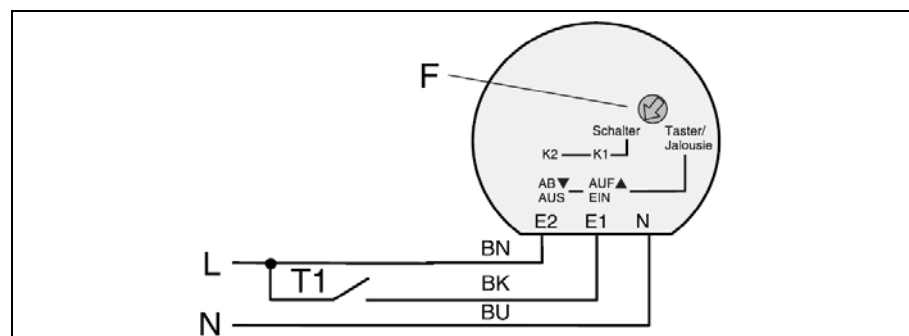
- S1 closed → Channel1 = on
 - S1 opened → Channel 1 = off
 - S2 closed → Channel 2 = on
 - S2 opened → Channel 2 = off
 - S1 and S2 opened at the same time → Channel 1 = off and Channel 2 = off
- ① Connect only the wire for the channel (e.g. E1, black = channel 1) that is actually being programmed.
Connect the wire of the non-programmed channel (e.g. E2, brown = channel 2) to neutral conductor N.

6.1. Special function "doorbell mode"

This special function permits transmission of a radio data telegram after brief actuation (0.2 seconds) of a pushbutton.

Connect a pushbutton (n.o. contact) as shown in figure A2

Connect E2 (brown wire) to phase conductor L of the mains voltage.

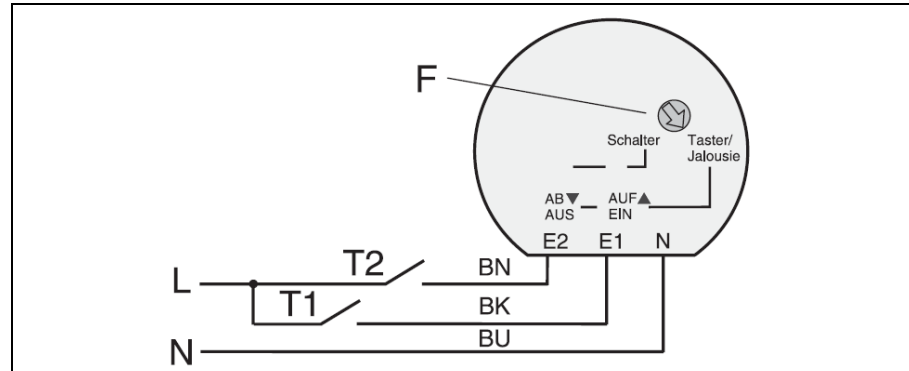


Programming of this special function see „Learning procedure for doorbell mode“.

- T1 closed → Channell 1 = on
- T1 opened → Channel 1 = off

7. Function: single-channel pushbutton

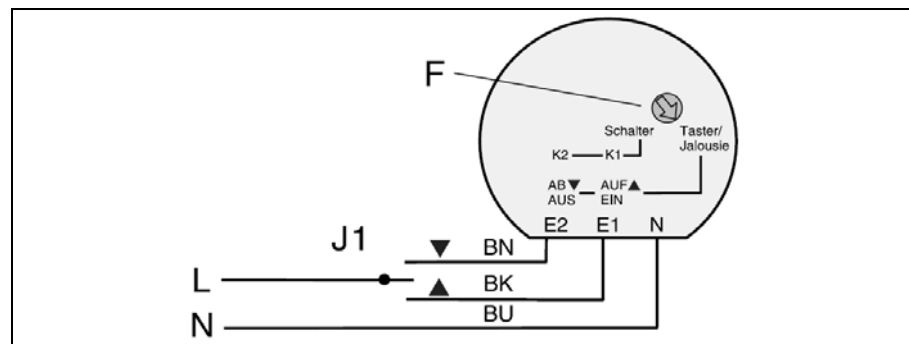
Turn rotary switch **F** to „Taster/Jalousie“ (Pushbutton / Louver)
Connect a pushbutton (n.o. contact) as shown in figure **B**



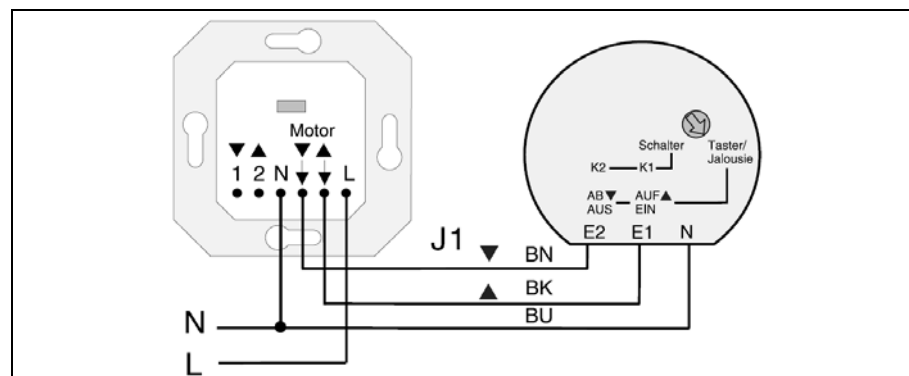
- T1 closed → Channel 1 = switched on
 - T2 closed → Channel 1 = switched off
 - T1 and T2 closed → Channel 1 = switched on
- ① The dimming function is not supported.

8. Function: louver

Turn rotary switch **F** to „Taster/Jalousie“ (Pushbutton / Louver)
Connect to louver control switch as shown in figure **C1**



Connect to motor control insert as shown in fig. **C2**.



- J1 ▲ closed → Louver = UP
 - J1 ▼ closed → Louver = DOWN
- ① The „slat adjustment“ function is not supported.

9. Programming a receiver to identify a transmitter

In order to enable a radio receiver to understand a radio data telegram transmitted by the radio control transmitter, the receiver must "learn" to identify this radio data telegram. The number of receivers that can be assigned to a special channel of the radio control transmitter is unlimited. Learning causes the channel information to be stored only in the radio receiver.

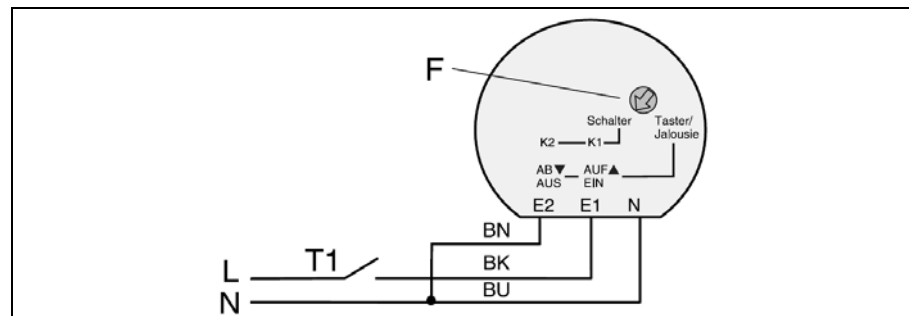
Learning procedure

1. Switch the radio receiver into the learning mode (see "Radio receiver" operating instructions).
2. Connect the signal input line (either E1 or E2) for at least 2 seconds to the mains voltage.
3. Switch the radio receiver into the normal operation mode (see "Radio receiver" operating instructions).

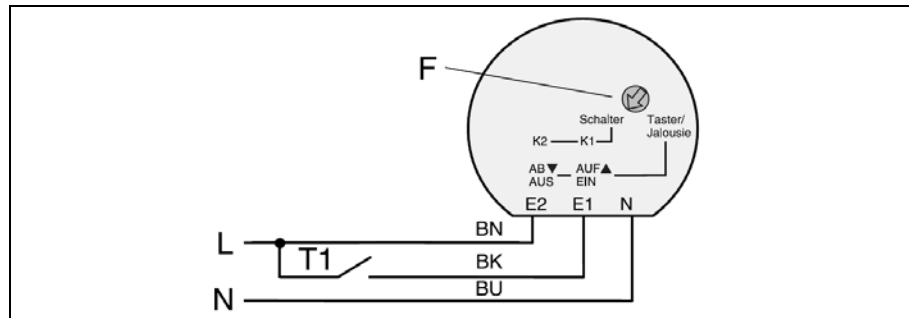
The learning procedure is terminated

9.1. Learning procedure for "doorbell mode"

1. Isolate the radio control transmitter from the power supply.
2. Connect E2 (brown wire) to neutral conductor N (figure D1).



3. Re-activate the radio control transmitter.
4. Switch the radio receiver into the learning mode (see "Radio receiver" operating instructions).
5. Close T1 (E1 = black wire) for at least 2 seconds.
6. Switch the radio receiver into the normal operation mode (see "Radio receiver" operating instructions).
7. Isolate the radio control transmitter from the power supply.
8. Connect E2 (brown wire) to the mains voltage as shown in figure D2.
9. Re-activate the radio control transmitter.



The "doorbell mode" learning procedure is terminated

10. Clearing of channels

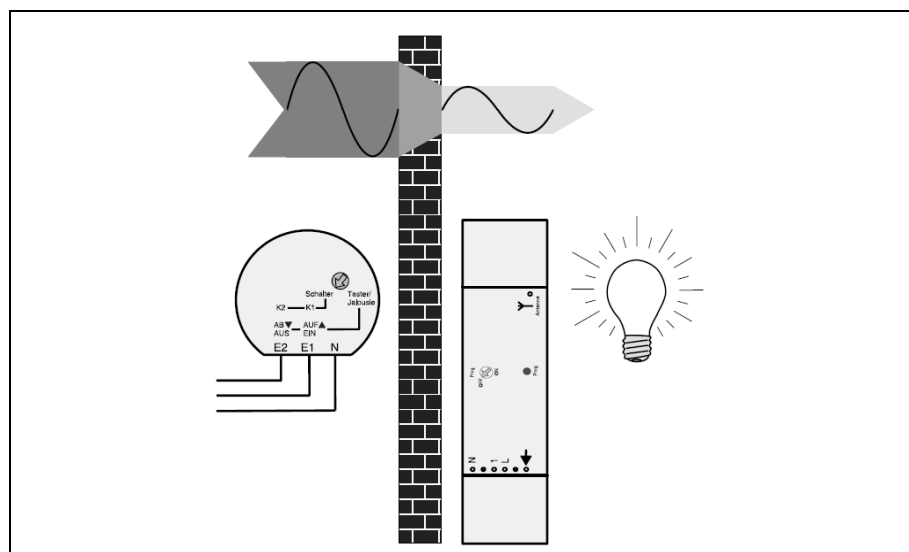
Reprogramming of a control transmitter channel (channel 1 or channel 2) clears the assignment stored in the radio receiver.

11. 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. Fig. E 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 EU and EFTA countries.

12. Technical specifications

Power supply :	AC 230 V ~
Transmitting frequency :	433.42 MHz, ASK
Transmission range :	abt. 100 m (in free space)
Delay :	abt. 300 ms
Temperature range :	-20 °C to +55 °C
Dimensions (Ø x H) :	52 mm x 21 mm
Subject to technical modifications.	

13. Guarantee

Our products are under guarantee within the scope of the statutory provisions.

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


ALBRECHT JUNG GMBH & CO. KG
Service-Center
Kupferstr. 17-19
D-44532 Lünen
Service-Line: +(49) 23 55 . 80 65 51
Telefax: +(49) 23 55 . 80 61 65
E-Mail: mail.vka@jung.de

General equipment

Service-Line: +(49) 23 55 . 80 65 55
Telefax: +(49) 23 55 . 80 62 55
E-Mail: mail.vkm@jung.de

KNX equipment

Service-Line: +(49) 23 55 . 80 65 56
Telefax: +(49) 23 55 . 80 62 55
E-Mail: mail.vkm@jung.de

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