

Operating Instructions Radio-control unit



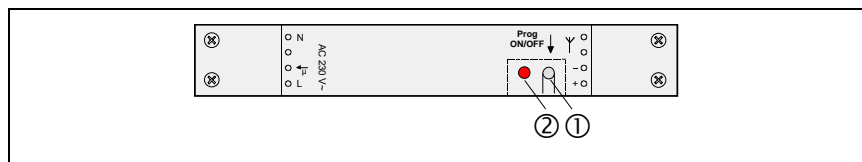
1. Function

The radio-control unit permits radio controlled switching and dimming of electronic ballasts or transformers with a 1-10 V interface. The switch-on brightness can be stored in the device as memory brightness.

The control unit is operated from a programmed radio-control transmitter (e.g. hand-held transmitter, etc.) or directly on the device (only switching). Depending on the operation of the radio control transmitter, the unit performs either switching of the lamps (short depression of key) or dimming (long depression of key).

On reception of a telegram from a programmed radio detector and corresponding darkness, the control unit switches on a shut-off delay of approx. 1 minute.

The control unit can be programmed for up to 30 radio channels. The device is equipped on the front with a programming key (1) and a programming LED (2).



2. Lightscapes

The control unit can be included in up to five lightscapes which are activated with the corresponding radio-control transmitters (e.g. hand-held transmitter 'Komfort') and stored. The desired lightscape key must be programmed beforehand into the control unit.

All-ON / All-OFF

The programming of a radio channel (e.g. hand-held transmitter 'Komfort') always includes the automatic storage of the functions of the All-ON or All-OFF key, if any. The All-ON or All-OFF key of a radio control transmitter switches the lamps connected to the control unit on or off.

Light control

In combination with a programmed radio-control presence detector (Art.-Nr. FPM 360 WW) or light sensor (Art.-Nr. FLS 100) the control unit can be used for lighting control functions. For more information, refer to the operating instructions of the radio presence detector or light sensor.

3. Fitting

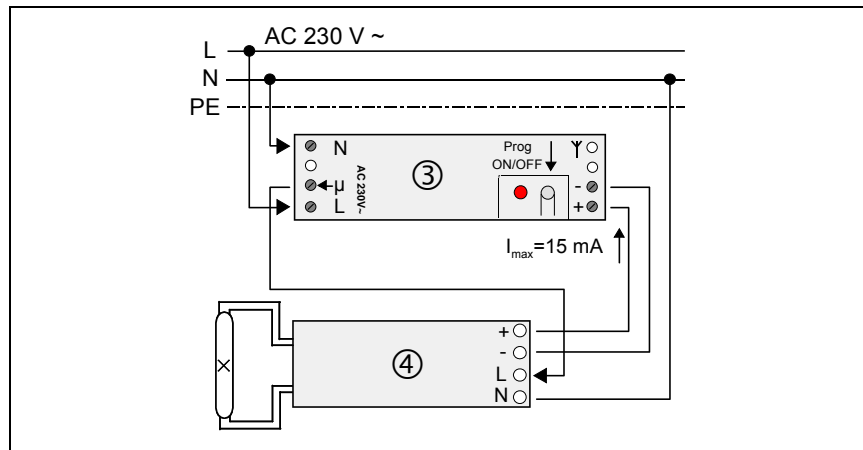


Safety instructions

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

Connection

Connect the control unit (3) and the electronic ballast (4) in acc. with the fig. below.



Installation instructions

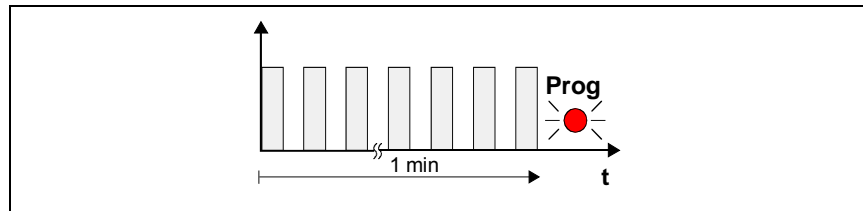
- The distance from electrical appliances (e.g. microwave oven, hi-fi and TV sets) must be at least 0.5 m.
- To prevent saturation of the radio receiver (actuator), the control unit must be at least 1 m away from the nearest transmitter.
- Use only electronic ballasts or transformers with a standardized 1-10 V interface in acc. with DIN EN 60928 (electrical isolation between power supply and 1-10 V input).
- Check the electronic ballast before the installation for suitability. Use only electronic ballasts and fluorescent lamps or transformers of the same manufacturer, the same type and the same rating.
- Some electronic ballasts switch the fluorescent lamps for a short time to maximum brightness when the supply voltage is being supplied. Only after this time does such an electronic ballast respond to the control voltage applied and sets the brightness of the lamp accordingly.
- Lay the control cable (type, cross-section) in acc. with the VDE regulations for 250-V-lines (control voltage has base insulation). Do not use a common cable for the load and the control lines.
- The maximum number of electronic ballasts or transformers to be controlled by the control unit depends on the maximum power rating. A total control voltage of $I = 15 \text{ mA}$ must not be exceeded (see Technical data of the electronic ballasts or transformer manufacturers).
- To protect the device, connect a 10 A circuit breaker in the supply line.

4. Programming of a radio-control transmitter

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

Procedure

1. Switch off the lamp connected to the control unit by depressing the programming key briefly.
2. Depress the programming key for about 4 seconds to switch over to the programming mode. The LED flashes for about 1 minute. During this time, a channel can be programmed.



3. Send a radio telegram from the selected transmitter; see „Radio-control transmitter“ operating instructions:

Programming a channel

Depress the channel key for more than 1 second.

Programming a lightscape key

Depress the lightscape key for more than 3 seconds.

Programming a detector

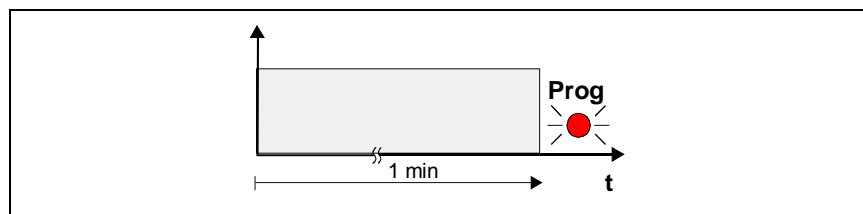
Remove the battery for about 2 minutes from the detector. Put the battery back in place and make a movement inside the detection range of the detector within the next 15 minutes.

Programming a presence detector or a light sensor

Remove the battery (ies) for about 2 minutes from the transmitter. After putting the battery back in place, the device starts transmitting programming telegrams for about 30 s.

❗ **Important:** It is not possible to program a combination consisting of presence-control detector, light sensor and detector.

4. The control unit confirms a successful storage operation by a permanently lit LED.



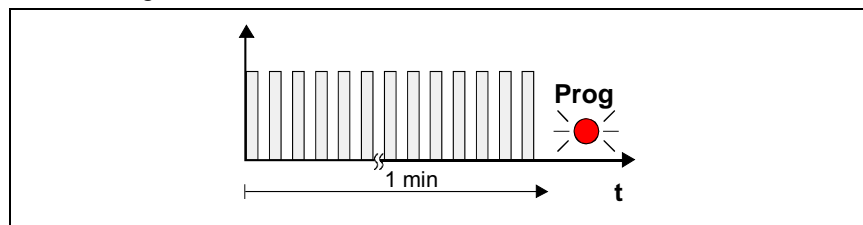
5. The programming mode ends automatically after about 1 minute or can be terminated by a short depression of the programming key (load is switched on). The control unit is then again in the normal operating mode.

Important: When all 30 memories are occupied, it is necessary to delete an already stored transmitter before a new one can be programmed.

Programming of a radio channel (e.g. hand-held transmitter 'Komfort') always includes automatic storage of the functions of the All-ON or All-OFF key.

5. Deleting a radio-control transmitter

A radio-control-transmitter in the dimmer's memory is deleted when the same transmitter is programmed again into the memory (see „Programming of a transmitter“). All channels and lightscape keys etc. must be deleted one by one. Successful deletion is signalled by the LED flashing faster.



6. Deleting all radio-control transmitters

It is also possible to delete all transmitters in the control unit. In this case, the control unit is reset to the state of delivery.

1. Switch off the lamp connected to the control unit.
2. Depress the programming key (1) for about 20 s. After about 4s, the programming LED (2) starts flashing. After 20 s, flashing is replaced for about 6 s by brief periodic light pulses.
3. Release the programming key for a short time during these 6 s and then press the button again for 1 s to start deletion.
4. During deletion, the LED is permanently lit. Successful deletion is then signalled by the LED flashing faster. Flashing ends after about 1 min or after a brief press on the programming key.

Operation

The control unit can be operated as follows:

1. locally from the device itself (only switching) or
2. through radio-control telegrams.

1. Local operation

The control unit can be switched alternately on and off by brief depressions (approx. 1 second) of the programming key.

2. Operation with radio-control transmitter

Depending on how a programmed radio control transmitter (e.g. hand-held transmitter) is operated, the lighting is either switched on or off (short depression of key) or dimmed (long depression of key).

After reception of a data telegram from a programmed radio-control detector, the control unit is switched on for about 1 minute with the preset memory brightness.

After reception of a data telegram from a programmed presence detector or light sensor, the control unit performs light control functions. For more information, refer to the operating instructions of the radio presence detector (Art.-Nr. FPM 360 WW) or light sensor (Art.-Nr. FLS 100).

7. Memory function

The selected brightness can be stored in the control unit as memory brightness. This memory brightness is then recalled as starting brightness when the dimmer is switched on.

Storing the memory brightness value

1. Select the desired brightness of the lighting.
2. Depress the programming key for at least 4 seconds. This is confirmed by a soft-start, i.e. the lighting is shut off briefly and then increased in brightness up to the stored memory value.

❶ Important:

- In as-delivered condition, the memory value is set to maximum brightness.
- A saved memory value is not lost after a mains failure.

8. Lightscape

Before storing or recalling a lightscape, the lightscape key of the radio-control transmitter must be programmed into the control unit (see „Programming of a radio transmitter“).

The data pertaining to a lightscape (brightness of lamp) can then be stored in the control unit. A lightscape can be changed at any time by storing it again.

Storing a lightscape

1. Select the desired brightness of the lamp.
2. Depress the lightscape key of the radio transmitter for at least 3 seconds. The old lightscape is now recalled (keep key depressed). The new lightscape will be activated and stored only after about 3 seconds and short tone signal is heard.

9. Radio transmission

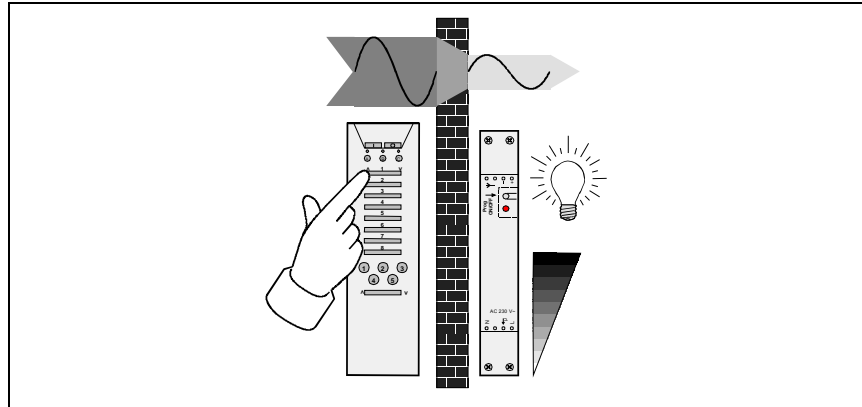
The radio signals are transmitted on non-exclusive frequencies. Transmission disturbances can therefore not be excluded. The transmission by radio is not suitable for safety applications such as emergency shut-off and emergency calling functions.

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

wood, plaster, gypsum-plasterboards	Abt. 90 %
brickwork, chipboards	abt. 70 %
reinforced concrete	abt. 30 %
metall, metal grids	abt. 10 %
rain, snow	abt. 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.
- If utilized in conformity with its designated use, this unit fulfills the requirements of the R&TTE Directive (1999/5/EG). The complete declaration of conformity can be found in the internet under: www.jung.de/ce.

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

10. Technical Data

Supply voltage	: 230 V AC, 50/60 Hz
Control voltage	: 1 - 10 V
Control current	: 15 mA max.
Electrical isolation for 1-10 V	: 2 kV basic insulation
Switching contact	: μ -relay contact
Power rating	
Resistive load	: 1800 W max.
Electronic ballast, transformer	: depending on type
Supply-line protection	: 10 A

Receive frequency	: 433.42 MHz, ASK
Degree of protection	: IP 20
Dimensions (LxWxH)	: 187x28x28 mm
Temperature range	: approx. 0 ... +55 °C

Technical specifications subject to change.

11. Guarantee

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

Bitte schicken Sie das Gerät portofrei mit einer Fehlerbeschreibung an unsere zentrale Kundendienststelle:

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