Berker

KNX radio receiver surface-mounted
Order No. : 7563 00 04

**Operation- and
Assembly Instructions**

1 Safety instructions

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

Failure to observe the instructions may cause damage to the device and result in fire and other hazards.

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 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.
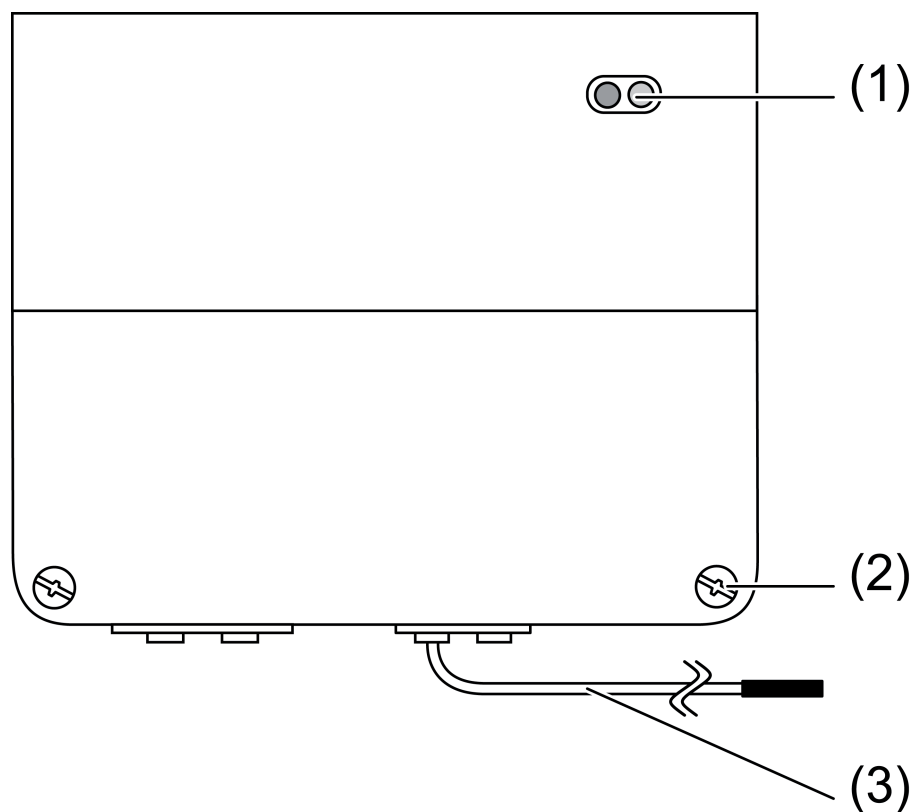
2 Device components

Figure 1: View, connection compartment closed

(1)   Operation LED and reception indication
         Lights up green: operation
         Flashes green: receiving telegrams
         Flashes red: telegram traffic

(2)   Screws for connection compartment

(3)   Antenna

3 Function

KNX system information

This device is a product of the KNX system and complies with the KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The function of this device depends upon the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer´s product database. Planning, installation and commissioning of the device are carried out with the aid of KNX-certified software. The latest versions of product database and the technical descriptions are available on our website.

Radio system information

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

The device may be operated in all EU and EFTA countries.

The declaration of conformity can be viewed on our website.

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.
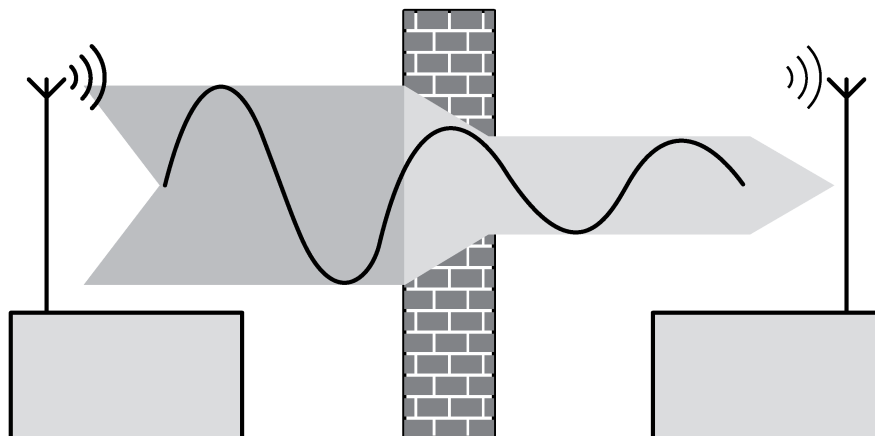

Figure 2: Reduced range due to structural obstacles

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

- Integration of radio transmitters into KNX installations
- Surface-mounting in indoor areas

Product characteristics

- Reception of radio telegrams and forwarding of commands in KNX installations
- 50 radio channels can be saved

- 100 control functions can be saved, e.g. hand transmitter rockers, motion detectors
- Functions:

Radio transmitter	KNX functions
Hand transmitter and wall transmitter: – Channel rockers/buttons	Switching, 2 x switchover, Dimming, Venetian blind, 2 x value transmitter, 2 x light scene extension
Hand transmitter and wall transmitter: – Light scene buttons	Switching, Switchover, Value transmitter, Light scene extension, Light scene
Hand transmitter: – All On button	Switching
Hand transmitter and wall transmitter: – All Off button	Switching
Hand transmitter: – Master dimming button	Switching, 2 x switchover, Dimming, Venetian blind, 2 x value transmitter, 2 x light scene extension
Universal transmitter – depending on operating mode set	1 x / 2 x switching, 2 x switchover, 1 x / 2 x dimming, Venetian blind, 2 x value transmitter, 2 x light scene extension
Radio motion detector	Switching, value transmitter

4 Information for electrically skilled persons

4.1 Fitting and electrical connection

Fitting the device
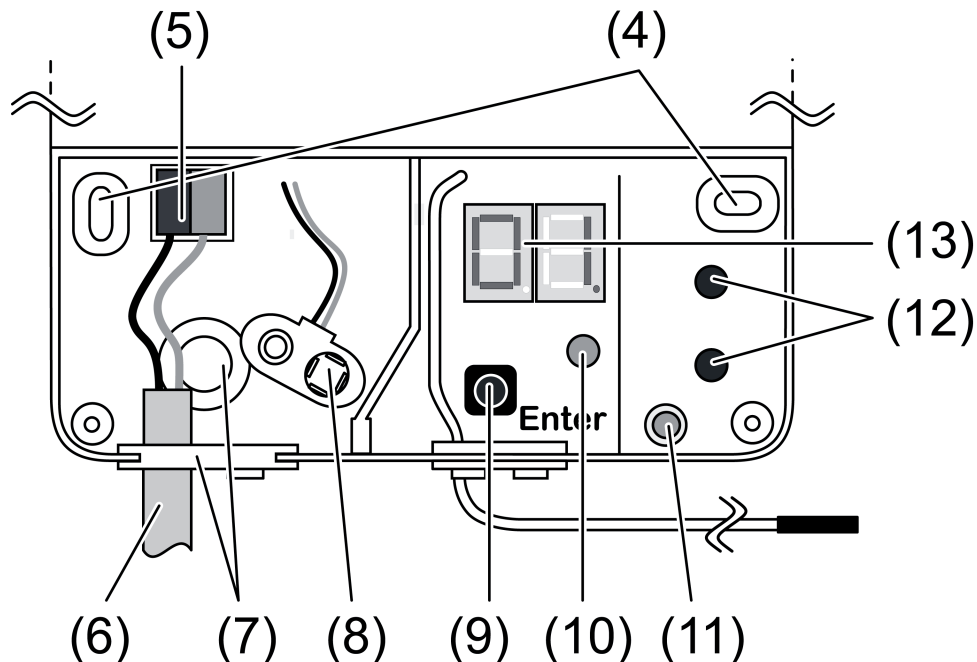

Figure 3: Connection compartment opened.

(4)   Fastening holes

(5)   KNX connection terminal

(6)   Bus cable

(7)   Cable bushing for bus cable

(8)   Connection clip for 9 V block battery

(9)   Button **Enter**

(10) Programming LED

(11) Programming button

(12) ▲ / ▼ buttons for selecting the radio channel

(13) Channel display

Maintain a distance of at least 0.5 m from metal surfaces and electrical devices, e.g. microwave ovens, hi-fi and TV systems, electronic ballasts or transformers.

Maintain a distance of at least 1 m between transmitter and receiver in order to prevent overmodulation of the receiver.

- Select the mounting place so that the device will still be accessible for maintenance purposes.
- Insert screws through the fastening holes (4) and screw devices to surface.

Connecting the device

- Insert bus cable (6) through one of the bushings (7) and connect to the device via terminal (5).
- ⓘ Lay antenna (3) as far as possible from bus cable and other metallic parts. Do not roll up, shorten, extend or strip the antenna.

4.2 Commissioning

ⓘ Assignment, transfer and deletion of radio transmitters requires a 9 V block battery.

Planning the configuration

For initial commissioning, especially with a view to later expandability, it is advisable to plan and document the configuration in stages.

- Record the desired state based on the following questions.

Question:	Example:
Where will operation be performed?	living room, office, hallway, entryway
What will be operated?	ceiling lamp, wall lamp, Venetian blind, roller shutter, exterior light, scene, All On/Off
How will operation be performed?	switching, switching and dimming, short/long operation of Venetian blind,
What will be used for operation?	hand transmitter rocker switch No. 3 right/left, motion detector, wall transmitter rocker switch No. 1 top/bottom, universal transmitter, scene button

ⓘ A radio transmitter can only be saved once.

ⓘ A radio channel can be operated from several radio transmitters.

ⓘ A radio transmitter can operate several more than one KNX device by linking them in the KNX configuration with the same group address.

At the end of planning it must be known which channel will be operated via which radio transmitter. Example:

Channel no. / application	Device	Radio transmitter
1 / Switching, dimming	Living room ceiling lamp	Hand transmitter, rocker switch A / 1
2 / Switching on, switching off	Ceiling fan	Hand transmitter, rocker switch C / 2
3 / 2 x switching	Switching 1: floor lamp Switching 2: hallway lamp	Wall transmitter, rocker switch 2
4 / Venetian blind	Bedroom roller shutters	Wall transmitter, rocker switch 3
5 / Radio motion detector, switching	Garage exterior light	Radio motion detector
...	...	...
50 / Switching	Cellar light	1gang wall transmitter Wall transmitter, rocker switch B / 1

- Create necessary channels in KNX commissioning software.
- Parameterise channels according to requirements.
- Assign group addresses according to KNX system.

Loading the physical address and application software

The device is connected and ready for operation.

The bus voltage is switched on.

- Press the Programming button (11).
  The programming LED (10) lights up.

- Assign physical address.

  The programming LED goes out.
- Write the physical address on the device label.
- Load the application software into the device.

Assigning the radio transmitter

Connection compartment is opened.

The application software is loaded into the device. The radio channels are configured.

ⓘ The reception range is reduced during assignment. The distance between the receiver and the radio transmitter is from 0.5 m to 5 m.

- Connect 9 V block battery to connection clip (8).

  The channel display (13) lights up and indicates the current radio channel (Figure 4).
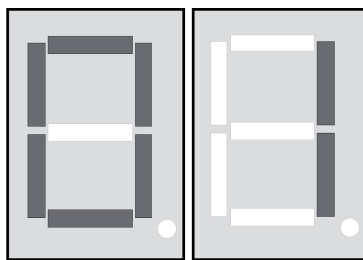

Figure 4: Channel display lights up

- Press the both buttons ▲ and ▼ (12) for approx. 5 seconds. The right-hand decimal point lights up additionally in the display (Figure 5).
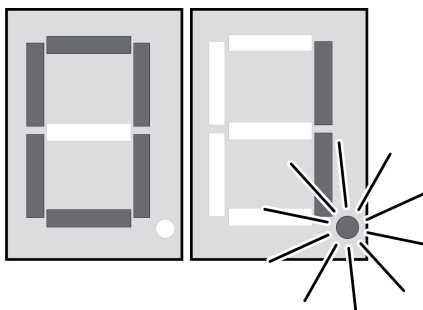

Figure 5: Assignment mode

- Use the ▲ / ▼ buttons (12) to select the desired radio channel in accordance with the planned and programmed configuration.

  The display (13) shows the desired radio channel.
- Trigger a teach telegram on the desired radio transmitter (see instructions for radio transmitter). Operate manually-operated transmitters until **LE** appears in the display (Figure 6).
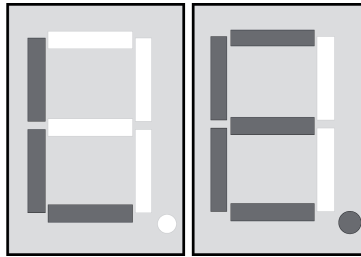
Figure 6: Indication LE – „Learn"

- Press the **Enter** (9) button briefly.

  The channel number flashes briefly in the display.

  The radio transmitter has been saved.

- [i] A channel can be operated from several radio transmitters.
- [i] Cancel operation: Press both buttons ▲ and ▼ (12) until the right-hand decimal point goes out in the display.
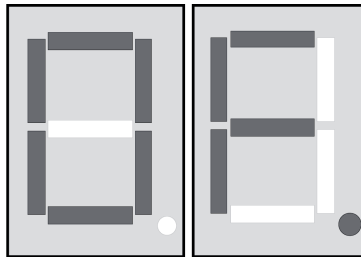- [i] If all 100 memory slots are occupies, the display shows **OF** (Figure 7).

Figure 7: Indication OF – „Overflow"

Transferring radio transmitters

Connection compartment is opened.

- Connect 9 V block battery to connection clip (8).

  The channel display (13) lights up (Figure 4).

- Press both buttons ▲ and ▼ (12) for approx. 5 seconds.

  The right-hand decimal point lights up additionally in the display (Figure 5).

- Use the ▲ / ▼ buttons (12) to select the desired new radio channel.

  The display (13) shows the radio channel.

- Trigger a teach telegram on the desired radio transmitter (see instructions for radio transmitter). Operate manually-operated transmitters until the still-current radio channel flashes in the display.

- Press **Enter** button (9) for approx. 3 seconds.

  The new channel number flashes briefly in the display.

  The radio transmitter has been transferred.

- [i] Cancel operation: Press both buttons ▲ and ▼ (12) until the right-hand decimal point goes out in the display.

Deleting individual radio transmitters of a radio channel

Connection compartment is opened.

- Connect 9 V block battery to connection clip (8).

  The channel display (13) lights up (Figure 4).

- Press both buttons ▲ and ▼ (12) for approx. 10 seconds.

The two decimal points light up additionally in the display (Figure 8). Deletion mode is active.
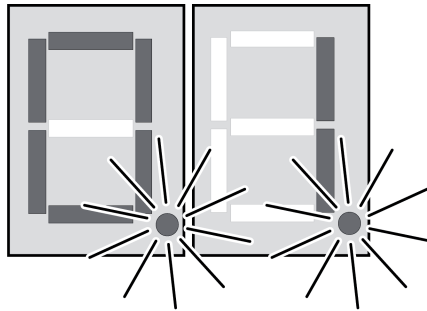

Figure 8: Deletion mode

- Trigger a teach telegram on the radio transmitter to be deleted (see instructions for radio transmitter). Operate manually-operated transmitters until the desired radio channel appears in the display (13).

  The display (13) shows the radio channel that will be deleted.

- Press **Enter** button (9) for approx. 3 seconds.

  The display (13) shows „- -" (Figure 9). The radio transmitter is deleted from the memory for this radio channel.

  The transmitter has been deleted as soon as the number of the radio channel appears again in the display (13).
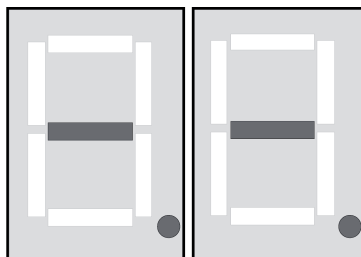
ⅰ Cancel operation: Press one of the ▲ or ▼ buttons (12).

Figure 9: Display „- - " – deletion of a radio transmitter

Deleting all radio transmitters of a radio channel

Connection compartment is opened.

- Connect 9 V block battery to connection clip (8).

  The channel display (13) lights up (Figure 4).

- Press both buttons ▲ and ▼ (12) for approx. 10 seconds.

  The two decimal points light up additionally in the display (Figure 8). Deletion mode is active.

- Use the ▲ / ▼ buttons (12) to select the desired radio channel in accordance with the planned and programmed configuration.

  The display (13) shows the radio channel that will be deleted.

- Press **Enter** button (9) for approx. 3 seconds.

  CE (Figure 10) appears on the display.

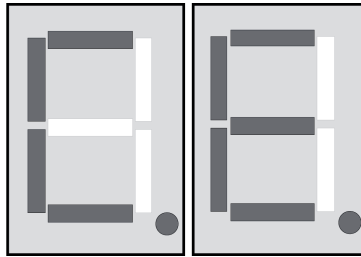 All radio transmitters for this radio channel have been deleted.

Figure 10: Indication CE – „Clear Entry"

Deleting all radio transmitters of all radio channels

Connection compartment is opened.

- Connect 9 V block battery to connection clip (8).

  The channel display (13) lights up (Figure 4).

- Press both buttons ▲ and ▼ (12) for approx. 10 seconds.

  The two decimal points light up additionally in the display (Figure 8). Deletion mode is active.

- Press **Enter** button (9) for approx. 15 seconds.

  AC (Figure 11) appears on the display. All saved radio transmitters of all created radio channels will be deleted.

  When the deletion operation is complete, **00** appears on the display.

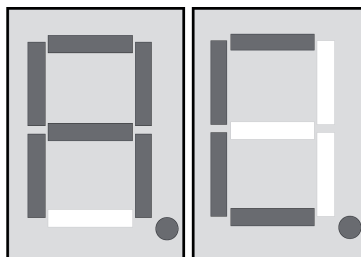 The device is in normal operating mode.

Figure 11: Indication AC – „All Clear"

Complete commissioning

- Remove 9 V block battery.
- Closing the connection compartment.
- Document saved radio transmitters.

5 Appendix

C E   The icon confirms the conformity of the product to the relevant guidelines.

5.1 Technical data

KNX
KNX medium	TP 1
Commissioning mode	S-mode
Rated voltage KNX	DC 21 ... 32 V SELV
Power consumption KNX	typical 170 mW
Connection mode KNX	Connection terminal

Radio
Carrier frequency	433.42 MHz (ASK)

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Teachable radio transmitter	max. 100
Channel display supply	
Battery type	Alkaline 6LR 61
Power consumption	approx. 140 mW
Connection	Battery clip
Ambient conditions	
Ambient temperature	-5 ... +45 °C
Protection class	III
Dimensions W×H×D	110×94×38 mm

5.2 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

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

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.

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