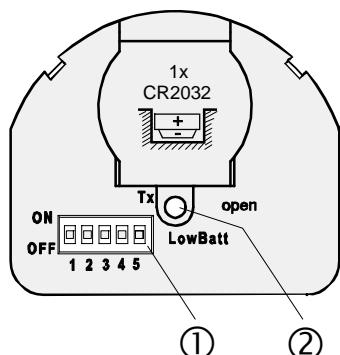


## Flush-Mounted Four-Channel Multifunction Radio Transmitter

Order No.: 0441 00

A



### Function

This multifunction radio transmitter (Fig. A: Front view) is a battery-operated four-channel radio transmitter for the extension of an existing radio control installation.

At its four inputs E1 to E4 (see Fig. C), the multifunction radio transmitter detects switching states of potential-free installation switches or push-buttons.

It transmits radio data telegrams which can be decoded by all radio control receivers.

A 5-digit microswitch (Fig. A ①) facilitates the selection of eight different modes of operation.

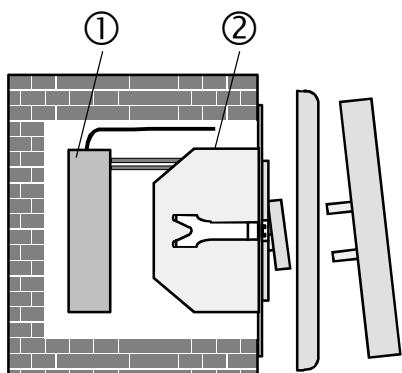
A red LED (Fig. A ②) indicates the transmission of radio telegrams (slow unsymmetrical blinking, 4 Hz) or an empty battery "LowBatt" (quick symmetrical blinking, 10 Hz).

## Safety instructions

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

To avoid possible damage to the electronic circuitry by electrostatic discharge, observe the precautions for the handling of components sensitive to electrostatic discharge when changing the battery or operating the microswitches.

B



### Installation

Install the multifunction transmitter (Fig. B ①) in a surface-mounted or flush-mounted box behind a potential-free installation switch or push-button (Fig. B ②). The multifunction transmitter has no pull-relief.

#### Important

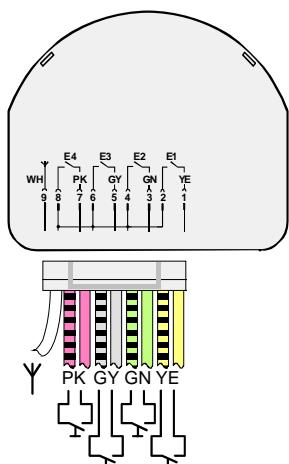
To avoid saturation of the radio receivers (actuators), the distance between the transmitter and the receiver must be approximately 1 m.

#### Cable

The eight-wire cable serves to connect potential-free installation switches and push-buttons.

Wires not used should be insulated and must **not** be brought into contact with live parts to prevent the device from being irreparably damaged.

C



Plug the connector of the eight-wire multi-colour cable and the white antenna into the multifunction transmitter (Fig. C: Rear view).

Wire colour assignment:

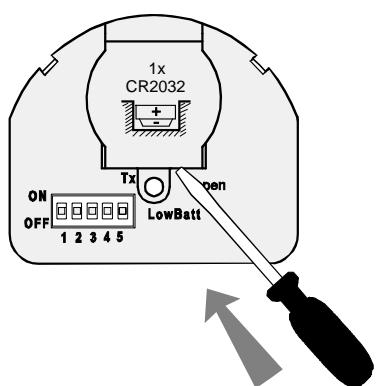
Yellow (YE) and yellow/black: input E1.  
Green (GN) and green/black: input E2.  
Grey (GY) and grey/black: input E3.  
Pink (PK) and pink/black: input E4.

The black-striped wires form a common reference potential.

#### Antenna

To obtain maximum radio transmitting power unroll and install the antenna in a straight line. Keep away from large-surface metal parts (e. g. metal door frame). Do not strip, shorten or extend the white antenna.

D



#### Battery

The multifunction transmitter is powered by a lithium button cell (CR 2032). The device comes with the battery inserted.

#### Safety and disposal instructions

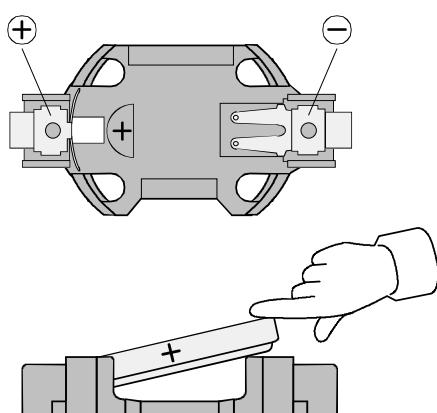
##### Attention:

Keep button cells away from children. Seek medical advice immediately when button cells have been swallowed.

Remove used batteries immediately and discard without polluting the environment.

Replace battery by identical or equivalent types only.

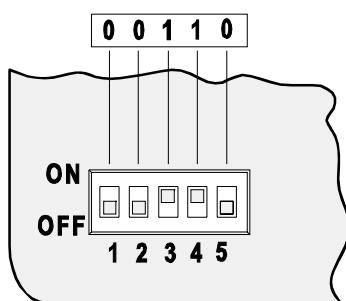
E



#### Battery Change

1. Use a screwdriver and open the battery compartment (Fig. D) carefully.
2. Remove the exhausted battery.
3. Put a fresh battery on the + contact of the battery holder first, as shown in Fig. E. Then press slightly to snap the battery in place. Ensure correct polarity (+ = up). Keep the battery grease-free.
4. Close the battery compartment.

F



## Modes of operation

The following pages explain the eight selectable modes of operation with their associated microswitch positions. They are divided into:

Modes 1-2: Connection of installation push-buttons.

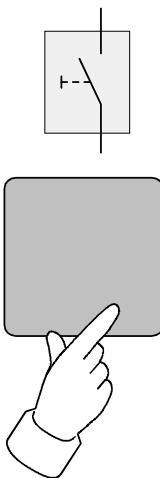
Modes 3-4: Connection of installation switches.

Modes 5-8: Lightscape operation using installation push-buttons.

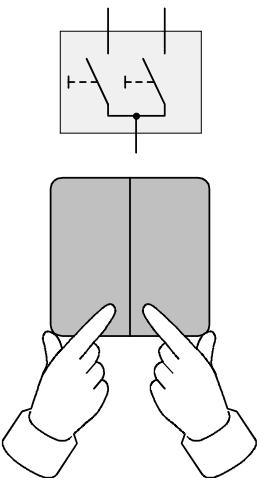
For the microswitches, position 1 is ON and position 0 is OFF.

For example, Figure F shows microswitch position 00110 for mode 4.

G1



G2



## Operation

For the connection of installation push-buttons, a distinction is made between single-rocker and double-rocker operation:

**Single-rocker operation using installation push-buttons:**  
Connection of a push-button to a wire pair of the multifunction transmitter. The rocker of the push-button can be used for switching on and off, or for increasing or lowering of the brightness (Fig. G1).

**Double-rocker operation using installation push-buttons:**

Connection of a dual push-button, for example, to two wire pairs of the multifunction transmitter. One rocker serves to switch on, increase the brightness or move up a blind; the other one to switch off, dim the lights or to lower a blind (Fig. G2).

## Actuation Times

When installation push-buttons are connected, a distinction is made between long (> 1 s) and short actuation (< 1 s). Accordingly, different reactions of the radio receivers are possible:

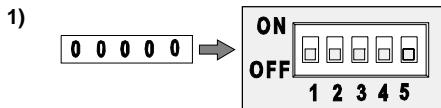
	short	long
Switching actuator	Switching on/off	Switching on/off
Dimming actuator	Switching on/off	Brighter/darker
Venetian blind actuator	Slat adjustment	Cont. up/down run

### Important

Venetian blind operation is only possible with the double rocker element (no. 2) and in the lightscape (nos. 5-8) modes.

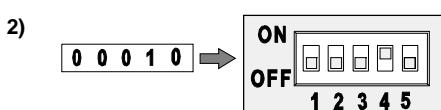
The maximum transmission time is 12 s, even though another push-button connected is still being pressed.

## Mode Selection



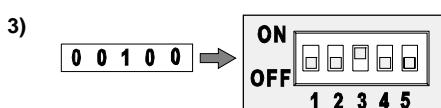
### 1) Single-rocker operation using installation push-buttons

Single-rocker switching or dimming using up to four installation push-buttons (E1-E4). Actuation leads to switching over (toggling) of the telegram type (on/off, brighter/darker) in the multifunction transmitter. Toggling takes place in the transmitter. Therefore, to obtain the desired response, the multifunction transmitter will possibly have to be actuated twice after local operation or when the receiver has been controlled by a different transmitter.



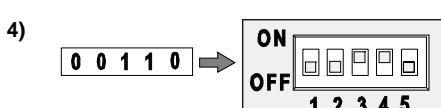
### 2) Double-rocker operation using installation push-buttons

Double-rocker switching, dimming or blind operation using installation push-buttons. Inputs E1/E2 and E3/E4 form one channel each.



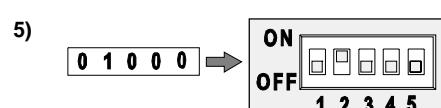
### 3) Connection of installation switches (normally open contacts)

Inputs E1 to E4 form one switching channel for controlling radio receivers with installation switches (normally open contacts). The switching contact acts in the same way as the switch connected to the multifunction transmitter.



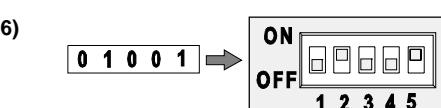
### 4) Connection of installation switches (normally closed contacts)

Inputs E1 to E4 form one switching channel for controlling radio receivers with installation switches (normally closed contacts). The switching action of the contact is opposed to that of the switch connected to the multifunction transmitter.



### 5) ALL-ON, ALL-OFF, lightscapes 1 and 2

- E1: Switching ON all programmed receivers.  
(ALL-ON function).
- E2: Switching OFF all programmed receivers.  
(ALL-OFF function).
- E3: Calling or saving lightscape 1.
- E4: Calling or saving lightscape 2.

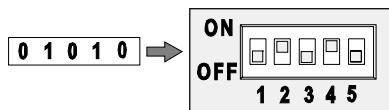


### 6) ALL-OFF, lightscapes 1 to 3

- E1: Switching OFF all programmed receivers.  
(ALL-OFF function).
- E2: Calling or saving lightscape 1.
- E3: Calling or saving lightscape 2.
- E4: Calling or saving lightscape 3.

## 7) ALL-OFF, lightscapes 3 to 5

7)

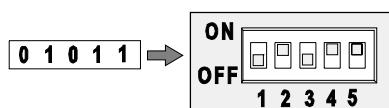


E1: Switching OFF all programmed receivers.  
(ALL-OFF function).

E2: Calling or saving lightscape 3.  
E3: Calling or saving lightscape 4.  
E4: Calling or saving lightscape 5.

## 8) Lightscapes 1-4

8)



E1 to E4: Calling or saving lightscapes 1 to 4.

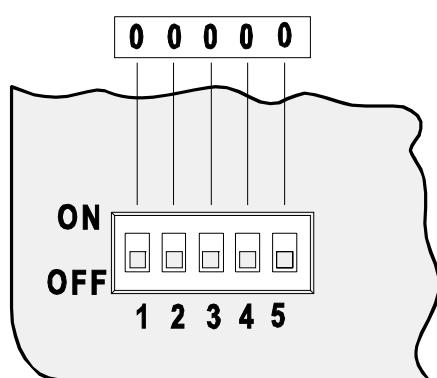
Other microswitch positions not described are without function.

## Programming of radio receivers

A multifunction transmitter channel can be programmed into any number of radio receivers. Programming affects only the radio receiver.

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

H



## Procedure

1. Switch the radio receiver into the programming mode. (Refer to the "Radio Receiver" operating instructions).
- 2a. **Programming of modes 1 and 2:**
  - Set microswitch to the desired position.
  - Press the installation pushbutton of the desired input for at least 1 s.
  - Note:** For double rocker modes, press one push-button per radio channel only.
- 2b. **Programming of modes 3 and 4**
  - Set microswitch first to position 00000 (refer to Fig. H).
  - Press the connected switch of the desired input for at least 1 s.
  - Now, set the associated microswitch position.
- 2c. **Programming of modes 5 to 8:**
  - Set microswitch to the desired position.
  - Depending on the function selected, press the lightscape key for at least 3 s or the ALL-ON or ALL-OFF key for at least 10 s.
- Important:**  
When a lightscape key is programmed, the ALL-ON or ALL-OFF key will be stored automatically by the radio receiver.  
(Refer to the "ALL-ON/ALL-OFF" or "Calling/ Saving a Lightscape" chapters.)
3. Set the radio receiver to the operation mode. (Refer to the "Radio Receiver" operating instructions).

## Clearing of channels

Reprogramming of the transmitting channel to be deleted cancels the old assignment in the radio receiver.

## ALL-ON/ALL-OFF (for modes 5 to 7 only)

When programming the ALL-ON or ALL-OFF key, make sure the lightscape is on or off if ALL-ON or ALL-OFF assignments are already available. Otherwise, the existing lightscape will be changed. (Refer to "Changing ALL-ON/ALL-OFF".)

## Changing ALL-ON/ALL-OFF

**Example:**

One of the receivers (bathroom light) is supposed not to respond to the ALL-ON function, while all the other receivers switch on the light.

### Procedure

1. Press the ALL-ON key for at least 1 s. This switches on all programmed radio receivers.
2. Set your lights in the way you expect them to respond later when the ALL-ON key is pressed, i. e. since all receivers are on, now switch **OFF** the light in the bathroom, for example.
3. Press the ALL-ON key for at least 10 s to save the light setting.

**Important**

First of all, the previous light setting is recalled (do not release the key). After approx. 10 s, the new setting will be activated and saved.

This completes the new assignment of the ALL-ON key. To change the ALL-OFF key, proceed accordingly.

## Recalling/saving a lightscape (for modes 5 to 8 only)

Before you can save (long actuation for at least 3 s) or call (short actuation) a lightscape, the lightscape key must have been programmed (refer to "Programming of Radio Receivers") and the lightscape set.

## Setting or changing a lightscape

1. Set your desired lightscape (e. g. light 1 = 50 % brightness, light 2 = 70 % brightness, Venetian blind up).
2. Press the desired lightscape key for at least 3 s.

**Important**

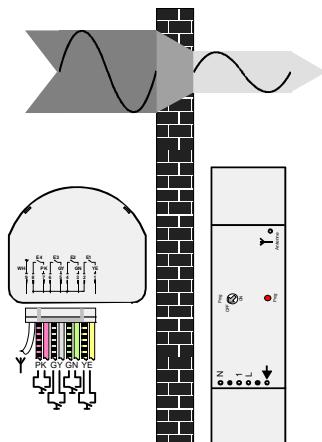
First of all, the previous lightscape is called (do not release the key). After approx. 3 s, the new lightscape will be activated and saved.

**Important for Venetian blinds**

If a Venetian blind is not in one of its end positions or not on its way to such position while a lightscape is being saved, this blind will not be stored in the lightscape.

1

## 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.

### Dry Materials

Timber, gypsum, gypsum plaster boards  
Brickwork, particle boards  
Reinforced concrete  
Metal, metal grating, aluminium cladding

### Penetration

approx. 90 %  
approx. 70 %  
approx. 30 %  
approx. 10 %

## Notes on radio operation

- For interconnection of this radio installation with other communication networks, please observe the respective telecommunication legislation in your country.
- This radio installation must not be used for communication across estate boundaries.
- For operation within Germany, observe the instructions of the General Approval published in Amtsblatt. Vfg 73/2000.

**This multifunction transmitter controller is approved for use in all EU and EFTA states.**

## Specifications

Power supply:	3 VDC
Battery:	1 x CR 2032 lithium cell
Length of connecting lines:	approx. 290 mm
Transmit frequency:	433.42 MHz, ASK
Transmitting range:	100 m max. (in the free field)
Coding:	> 10 <sup>9</sup> different possibilities
Protective system:	IP 20
Temperature range:	approx. -20 °C to +55 °C
Relative atmospheric humidity:	65 % max. (without condensation)
Dimensions (L x W x H):	45 x 40 x 10 mm

## **Acceptance of 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:**

Gira  
Giersiepen GmbH & Co. KG  
**Service Center**  
Dahlienstrasse 12  
D-42477 Radevormwald

---

 The CE sign is a free trade sign addressed exclusively to the authorities and does not include any warranty of any properties.

Gira  
Giersiepen GmbH & Co. KG  
Postfach 1220  
D-42461 Radevormwald

Telefon: +49 / 21 95 / 602 - 0  
Telefax: +49 / 21 95 / 602 - 339  
Internet: [www.gira.de](http://www.gira.de)