Technical Details

Frequency:	868.3 MHz or 433.92 MHz
Power supply:	24 V AC/DC ± 10 %
Current consumption:	approx. 3 VA
Relay output:	1 relay contact (N.O.)
Max. contact rating:	DC: max. 60 V / max. 1 A/ max. 30 W
Opertg. temperature:	-20℃ to +60℃
Type of protection:	IP66
Dimensions:	180 x 94 x 59 mm
Weight:	approx. 480 g

Disposal

Waste electrical products may not be disposed of with household waste!

Dispose of the waste product via a collection point for electronic scrap or via your specialist dealer.

Put the packaging material into the recycling bins for cardboard, paper and plastics.

Warranty

Within the statutory warranty period we undertake to rectify free of charge by repair or replacement any product defects arising from material or production faults.

Any unauthorized tampering with, or modifications to, the product shall render this warranty null and void.

Conformity

This product complies with the essential requirements of the R&TTE Directive 1999/5/EC.

The Declaration of Conformity can be acquired from the supplier referred to in the delivery documents.

Customer Service

If, despite correct handling, faults or malfunctions occur or if the product was damaged, please contact the company at the address below:

ELDAT GmbH
Im Gewerbepark 14
15711 Zeesen/Deutschland
Telefon: + 49 (0) 33 75 / 90 37-310
Telefax: + 49 (0) 33 75 / 90 37-90
Internet: www.eldat.de
E-Mail: info@eldat.de

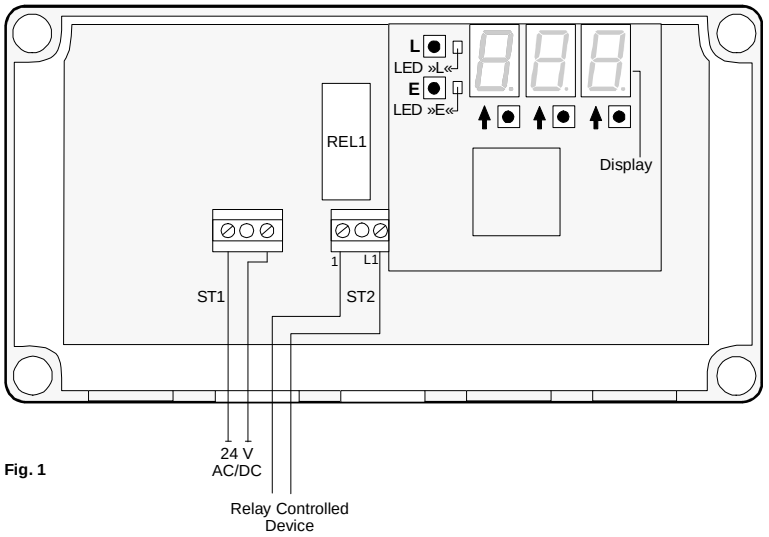


Fig. 1

Radio Access Control

Operating instructions

RCA02

ELDAT

Model

RCA02-4101M-01	**433,92 MHz**
RCA02-5001M-01	**868,30 MHz**

Scope of Delivery

Radio Access Control

PG screw fittings set

Mounting accessories

Safety Advice

Before connecting and starting-up the unit, carefully read through the operating instructions!

We will not accept any liability for personal injury or damage to property caused by failure to observe the operating instructions and in particular the safety advice!

Caution! Electrical installation may only be carried out by a qualified electrician!

While installing, make sure that the electric circuit into which the radio access control is to be integrated is at zero-voltage!

Warning! When being programmed, the Radio Access Control is live!

Programming may only be performed with the protective cover installed!

Do not make any unauthorized alterations or modifications to the unit!

Have faulty units checked by the manufacturer!

Intended Use

The RCA02 Radio Access Control is exclusively developed and manufactured as a receiving unit for 48-bit radio telegrams.

The manufacturer does not assume any liability for damage caused as a result of improper or non-intended use.

General Information

The Radio Access Control works within a frequency range which is also used by other radio services.

The operation and range can therefore be affected by devices working on the same or an adjacent frequency.

The reception quality can be affected by a number of factors:

- location
- equipment and systems without interference suppression
- other transmitters within the frequency range
- atmospheric conditions and other factors.

In the case of malfunctions, contact your specialist dealer or the manufacturer.

Function

The RCA02 Radio Access Control is an 868 MHz or 433 MHz receiving unit. It receives up to 700 individual 48-bit telegrams.

When a memorized radio telegram is received, a relay impulse is generated and a relay is switched.

4 History

After switching to the history menu, »*H_ _*« is displayed.

Press the right ↑ button.
Each time the button is pressed, the memory location numbers of the last 10 telegrams are displayed counting down.

Note:
This is how to end programming without saving data:

- Switch to the next additional function: press button »E«
- Switch to operating mode: press buttons »L« and »E« simultaneously

5 Deleting the Memory Completely

After switching to the »Deleting the Memory Completely« menu, »*E A*« is displayed.

- Press the left and right ↑ buttons simultaneously.
  The entire contents of the memory are deleted. During the deleting procedure (approx. 8 s), the display flashes.

Note:

It is not possible to interrupt the deleting procedure!

After the deleting procedure:

- Switch to the next additional function: press button »E«
- Switch to operating mode: press buttons »L« and »E« simultaneously

6 Entering/Altering the Numerical Code

You can use this function if you want to release the programming modes (learn-delete mode and additional function mode) using a numerical code.

After switching to the numerical code menu, »*C_ _*« is displayed.

How to enter a new numerical code:

1. Using the ↑ buttons, select the desired numerical code.
2. Confirm the new code by pressing button »L«.

How to delete a numerical code:

1. Using the ↑ buttons, select the numerical code »*000*«.
2. Confirm the new code by pressing button »L«.

Note:
If a code with less than three digits is selected, the error message »*err*« is displayed.

Note:
This is how to end programming without saving data:

- Switch to the next additional function: press button »E«
- Switch to operating mode: press buttons »L« and »E« simultaneously

Additional Function Mode

In order to enter the additional function mode, first press buttons »L« and »E« simultaneously.

Then switch from one additional function to the other by pressing button »E«.

In order to quit the additional function mode, press buttons »L« and »E« simultaneously.

1 Length of the Relay Impulse

After switching to the impulse menu, an »*I*« (left) and the impulse length in seconds (right) is displayed. A standard value of 1 sec is set at the factory.

You can set another impulse length between 1 and 99 seconds. If no relay impulse shall be generated, select the impulse length »0«.

1. Using the middle and/or right ↑ button, select the desired impulse length (in s). The display flashes.
2. Confirm the new impulse length by pressing button »L«.
   Once the new value has been memorized, the display stops flashing.

Note:
This is how to end programming without saving data:

- Switch to the next additional function: press button »E«
- Switch to operating mode: press buttons »L« and »E« simultaneously

2 Blocking Specific Memory Locations

After switching to the blocking menu, the memory location »*001*« is displayed.

Using the ↑ buttons, select the memory location to be blocked.

The current status of the memory location is displayed via the two LEDs »LED-L« and »LED-E«:

Status:	occu-pied	non-occupied	blocke d
LED »L«:	OFF	ON	ON
LED »E«:	ON	OFF	ON

In order to alter the status of the selected memory location, press button »L«:

- Case a) memory location is occupied -> memory location is blocked
- Case b) memory location is blocked -> blocking is cancelled

Note:
It is not possible to block non-occupied memory locations.

Note:
This is how to end programming without saving data:

- Switch to the next additional function: press button »E«
- Switch to operating mode: press buttons »L« and »E« simultaneously

3 Function Test

After switching to the function text menu, »*F*« is displayed and the set impulse length of the relay impulse in seconds.

Press button »L«.
The radio access control generates a relay impulse and the relay is switched. The display flashes for the period of the impulse length.

Note:
This is how to end programming without saving data:

- Switch to the next additional function: press button »E«
- Switch to operating mode: press buttons »L« and »E« simultaneously

Function Modes

There are three function modes:

- Operating Mode
- Learn-Delete Mode
- Additional Function Mode

Operating Mode
(*Details in chapter »Operating Mode«*)

In the operating mode the access control receives radio telegrams and generates a relay impulse.

Learn-Delete Mode
(*Details in chapter »Learn-Delete Mode«*)

In the learn-delete mode you can memorize transmitter telegrams and delete specific memory locations.

Additional Function Mode
(*Details in chapter »Additional Function Mode«*)

The additional function mode offers the following additional functions:

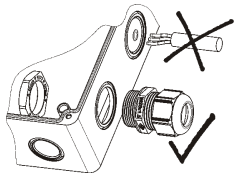
Additional Function	Display	Application
1 Length of the relay impulse	*I..*	Changing the impulse length of the relay impulse (standard value: 1 sec) or deactivating the relay output
2 Blocking specific memory locations	e.g. *001*	Time-limited access authorization for particular visitors
3 Function test	*F..*	Generating a relay impulse
4 History	*H*	Display of the last 10 telegrams
5 Deleting the memory completely	*E A*	Reprogramming the radio control
6 Entering/altering the numerical code	*C*	Release of programming modes (learn-delete mode and additional function mode) using a numerical code

Mounting and Connecting

1. Unscrew the housing cover.
2. Remove the protective cover.
3. Mount the Radio Access Control .
4. Connect the device to be switched (e.g. garage door opener) to the ST2 connecting terminals (see title, **fig. 1**).
5. Connect the power supply cable to the ST1 connecting terminals (see title, **fig. 1**).

   The permissible supply voltage is 24 V AC/DC ± 10%.

   Note: All the cables must be fed into the device via the M 16/20 openings using watertight PG screw fittings supplied with the Radio Access Control.



6. Screw on again the cover plate.

Start-Up

1. Switch on the supply voltage. The Radio Access Control first carries out an LED check.
   »_ _ _« is displayed.

   The Radio Access Control is then in the operating mode (see also section „Operating Mode“).

1. *If a relay impulse is longer than 1 sec or no relay impulse should be transmitted:* Change the preset impulse length. The details are in the chapter »Additional Function Mode > Length of the Relay Impulse«.
2. Memorize the individual transmitter telegrams into the Radio Access Control.
   The details are in the chapter »Learn-Delete Mode > Memorizing Transmitter Telegrams«.
3. If needed, set additional functions.
   For this, read the chapter »Additional Function Mode«.
4. Switch back to operating mode by pressing buttons »L« and »E« simultaneously.
   The Radio Access Control is now ready to operate.
5. Screw on the housing cover.

Operating Mode

When a radio telegram is received, LED »L« lights up.

After receiving a memorized telegram,

- the memory location of the telegram is displayed,
- a relay impulse is generated.

Learn-Delete Mode

In the Learn-Delete Mode you can memorize a total of 700 individual transmitter telegrams (memory locations 000 to 699) or you can delete specific memory locations.

Note: If you have protected access to the programming modes (Learn-Delete Mode and Additional Function Mode) with a numerical code (see chapter »Additional Function Mode > Entering/Altering the Numerical Code«), the display flashes »*000*«.

Select the code using the ↑ buttons and press button »L«. When the correct code is entered, the first non-occupied memory location is displayed.

Memorizing Transmitter Telegrams

A) Memorizing automatically

1. Press one of the ↑ buttons once. The first non-occupied memory location is displayed.
2. Press button »L« for 1 sec. LED »L« flashes for 30 s. During this time, a transmitter telegram can be memorized.
3. Press the button of the transmitter which code is to be memorized. Once the Radio Access Control has memorized the transmitter telegram, »*rdy*« is displayed.

   After approx. 2 s the next free memory location is displayed.
4. If you want to memorize additional transmitter telegrams please repeat Step 2 and Step 3.

Switch to operating mode: press buttons »L« and »E« simultaneously

B) Memorizing manually:

1. Use the ↑ buttons, to select the desired memory location.

   Note: If you selected a memory location already used, the error message »*err*« is displayed. Afterwards a free memory location is suggested.
2. Press button »L« for 1 s. LED »L« flashes for 30 s. During this time, a transmitter telegram can be memorized.
3. Press the button of the transmitter which code is to be memorized. Once the radio access control has memorized the transmitter telegram, »*rdy*« is displayed.

   After approx. 2 s the next free memory location is displayed.
4. If you want to memorize additional transmitter telegrams please repeat Step 1 and Step 3.

Switch to operating mode: press buttons »L« and »E« simultaneously

Notes: If no button is pressed on the transmitter within time of learning, after 30 s the error message »*err*« appears for approx. 3 s.

You can abort and quit the programming within the time of learning and return to the operating mode by pressing button »L«. The display will show »*rdy*« for approx. 3 s and then »_ _ _«.

Deleting Specific Memory Locations

1. Using the ↑ buttons, to select the memory location to be deleted.
2. Press button »E«.
   LED »E« flashes for approx. 5 s. When a transmitter telegram has been deleted, »*rdy*« is displayed.

Note:
It is not possible to delete non-occupied or blocked memory locations (see chapter »Additional function mode > Blocking specific memory locations«). In such instances, the error message »*err*« is displayed.

In order to quit the deleting mode, press buttons »L« and »E« simultaneously.