Customer Service

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

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66975 0608 GB

Universal Receiver (3-Channel)

Operating Instructions

RCU04

ELDAT

Technical Details

Frequency
RCU04-4103M-01: 433.92 MHz
RCU04-5003M-01: 868.30 MHz
Power supply: 12-24 V DC (-5%/+10%)
230 V AC (+/- 10 %)

Current consumption
12-24 V DC: max. 400 mA
230 V AC max. 20 mA

Output: potential-free relay contacts

Max. contact rating: see load table

Degree of Protection: IP54

Response time: approx. 0.5 seconds

Operating temperature: -10 °C to +50 °C

Dimensions: 150x110x50 mm

Weight: approx. 500 g

Intended Use

The unit may only be used as a radio control in connection with low voltage or mains voltage!

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

General Information

Interference factors can be:

location, transmitter
equipment and systems without interference suppression
other transmitters in the frequency range
atmospheric conditions and other factors

In case of malfunctions please contact the supplier or the manufacturer.

Scope of Delivery

Universal Receiver (incl. antenna),
PG-11 set of cable glands,
Fixing material,
Operating instructions

Safety Advice

Please read these instructions carefully before connecting and programming this unit.

Electrical installation and programming of this control unit may only be carried out by qualified electrician.

During programming the unit is under voltage. Programming only with protective cover!

Have faulty units checked by the manufacturer!

Do not manipulate or make any unauthorized changes to the unit!

Consider the manufacturer references of the devices, which would like to operate you!

For indoor use only!

While mounting, remove the fuses for the connecting wires!

Observe the requirements of the standard EN 60669!

If the switching current exceeds 13 A, use connecting wires with a cross-sectional area of more than 2.5 mm²!

Function

This product is a three channel receiver for universal use.

The connected devices can be operated with an external impulse button, if necessary.

For each channel a different function (operation mode) can be programmed:

- Pulse (1 sec.),
- ON/OFF,
- Timer 30 seconds,
- Timer 3 minutes,
- Continuous operation (dead man´s control),
- Awning function,
- Two-Buttons ON/OFF control.

Deleting Transmitters

1. Turn the rotary switch S104 to position 5.
2. To delete a memory location use the receiver group switch S105 following page 6, Table 2 and Table 3.
3. To delete press the programming button of the channel (S101, S102 or S103) until the LED H101 lights up for approx. 2 s.

Cleaning

Carefully wipe the housing with a damp lint free cloth.

Do not use solvent-based cleaning agents. These can damage your health and destroy the surface of the housing.

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 non-authorized alterations 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 is available on the Internet at: www.eldat.de

Functional Check

After switching on the supply voltage, LED H101 lights up for approx. 1 s.

Now the functional check can be carried out:

Activate the transmitter. A signal is sent to the receiver. The LED H101 needs to be flashing rapidly.

Programming the Operation Mode

For each channel a different operation mode can be programmed.

1. Select the operation mode with the rotary switch S104.
2. Then press the corresponding programming button of the channel (S101 or S102 or S 103) and hold it, until LED H101 lights up.

S104	Operation mode	Effect
0	Pulse	Channel is activated for approx. one second.
1	ON/OFF	1st transmission: consumer on 2nd transmission: consumer off
2	30 sec.	The consumer is switched on for approx. 30 s. If a new signal is transmitted within this period, the 30 s timer is restarted.
3	3 min.	As for setting 2, but with a period of 3 minutes.
4	Memorize transmitter	
5	Delete transmitter	
6	Continuous operation (Dead Man´s Mode)	Relay is activated as long as transmitter sends a signal.
7	Awning	1st transmission: channel 1 on 2nd transmission: channel 1 off 3nd transmission: channel 2 on 4nd transmission: channel 2 off
8	not used	-
9	2-button	On/Off switching with two buttons

Advice:

The operation mode 7 (awning) is controlled by the relays K101 and K 102. To program this operation mode, only one of the programming buttons S101 or S102 has to be pressed. Both channels are programmed at the same time.

In case these channels shall be used for other applications, each of the channels will have to be reprogrammed.

Memorizing Transmitters

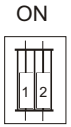
1. Turn the rotary switch S104 to position 4.
2. Use the receiver group switch S105 to select a memory location (4 transmission codes can be memorized for each channel).

Table 2: Operation mode 4

Memory location	1	2
location 1	off	off
location 2	on	off
location 3	off	on
location 4	on	on

Table 3: Operation mode 9

Trans-mitter	1	2	Function
button 1	off	off	channel off
button 2	on	off	channel on
button 3	off	on	channel off
button 4	on	on	channel on



3. Select the channel: Press the corresponding programming button S101, S102 or S103 until LED H101 starts to flash.
4. Press the transmitter button that is supposed to switch this channel within 10 s. The memorization is successful when the LED H101 lights up for approx. 2 s.

Mounting Place

Transmitter and receiver should be located in a way that the shortest distance between them (air line distance) is not or only slightly disturbed by brick walls or other absorbing materials or any disturbance. This way losses due to absorption which influence the operation range of your system can be reduced to a minimum.

Following values can be taken for reference:

Material	Operating range
air/no obstacle	100%
wood, hard plaster	80–95%
brick/concrete	60–90%
reinforced concrete	10–50%
metal walls, metal gratings	0–10%

Do not mount the receiver or the aerials on the back of metal surfaces on the floor or in recesses to avoid radio shadows.
When mounting the unit on metal surfaces, a min. distance of 0,1 m should be kept.

Rod aerials or flexible aerial cables and the electronic receiving devices of the receiver form an optimized unit. Changes such as lengthening , shortening, bending etc. may influence the receiving properties considerably.

For more information see: www.eldat.de

Mounting Advice

Exclusively connect **either** low voltage **or** mains voltage devices!

Lead the cables for low voltage and mains voltage through separate PG-screw fittings!

Any connecting cables may not exceed a maximum of 3 m length.

The relay electric circuit must be fused in the permanent installation (fixed installation). The rated current of the safeguard/protection circuit breaker may not exceed the ratings according to the table of loads (see page 5, Table 1).

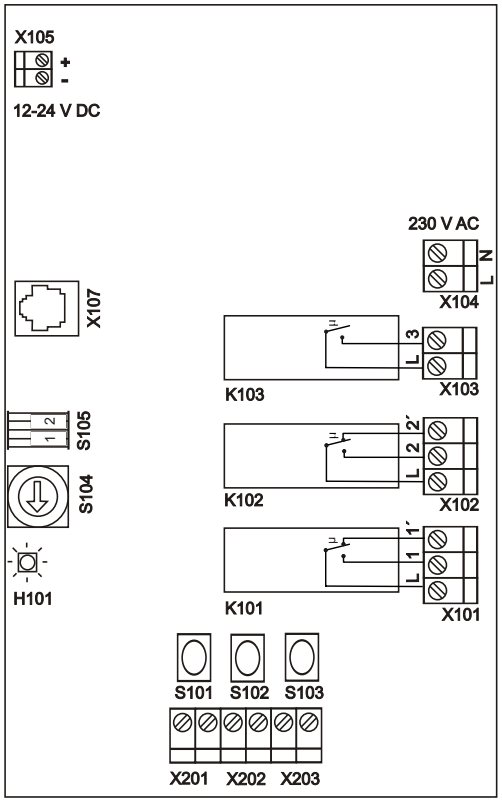
Installation

During programming the unit is under voltage!

Programming may only be performed with the protective cover installed!

1. Open the unit and remove the protective cover.
2. Mount the enclosed cable glands.
3. Fix the housing to the wall with the screws.
4. Connect the supply cable and the consumers to be switched according to the connection plan.
5. If necessary connect the external pulse buttons (connection terminals X201 - X203).
   Only use floating contacts!
6. Reinstall the protective cover.
7. Switch on the power supply and carry out a functional check (see page 6, "Functional Check").
8. Program the operating modes and memorize the transmission codes in the receiver following page 6, "Programming the Operation Mode" and "Memorizing Transmitters".
9. Close the receiver.

Connection Diagram



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Floating relay contact, only suitable for 1-phase power supply 16 A, 230 V 50 Hz, for a normally open contact.

H101	LED yellow	X101	Connection terminal channel 1
K101	Relay channel 1	X102	Connection terminal channel 2
K102	Relay channel 2	X103	Connection terminal channel 3
K103	Relay channel 3	X201	Connection ext. pulse button channel 1
S101	Programming button channel 1	X202	Connection ext. pulse button channel 2
S102	Programming button channel 2	X203	Connection ext. pulse button channel 3
S103	Programming button channel 3	X104	Connection terminals 230 V AC
S104	Rotary switch for programming	X105	Connection terminals 12 - 24 V DC
S105	Receiver group switch	X107	Plug-in socket for HF receiver unit

Table of Loads

Type of load	Symbol	max. load 230 V 50 Hz / 60 Hz
Resistive load: Bulbs, 230 V halogen lamp etc.		16 A / 3,680 VA
Inductive load: halogen lamps with wound transformers (Transformers at least 85 % loaded)		2.6 A / 600 VA
Non-compensated or series-compensated fluorescent lamps with ferro-magnetic loads		10 A / 2,300 VA
Parallel-compensated fluorescent lamps with ferro-magnetic loads		2.6 A / 600 VA
Capacity EB: electronic ballasts, electronic transformers etc.		4 A / 920VA

Table 1: Table of Loads

Connecting Example

Connecting the Universal Receiver to an awning with electrical locking.

Read the connection regulations of the motor.