Models

P Programming button **P** and	ON/OFF button **I/O**
Red/green LED	

RCP20EN5001A01

Technical Details

Frequency:	868.30 MHz
Radiated power:	17.5 mW
Modulation:	FSK
Coding:	Easywave neo, POTA
Power supply:	230 VAC, 50 Hz
Device type:	switch
Output:	1x potential-loaded relay contact (normally open)
Power consumption:	0.4 W standby 0.8 W max. w/o load
Connected load max.:	16 A / 230 VAC
Operating temperature:	-10 °C to +35 °C
Dimensions (H/W/D):	71.4 / 71.4 / 75.5 mm
Weight:	approx. 120.0 g

Scope of Delivery

Plug-in socket receiver RCP20,
operating manual, quick start guide

Intended Use

This unit may only be used as radio controller together with mains-powered devices and only indoors! It is operated using Easywave radio transmitters or a button on the RCP20.

The manufacturer will not be liable for damage caused by improper or inappropriate use.

Safety Advice

⚠ Before installing the device, carefully read through this operating manual! Failing to observe these instructions may result in fire or other hazards.

- The circuit on which the device is operated must be protected with a circuit breaker in accordance with EN60898-1 (tripping characteristic B or C) with a maximum rated current of 16 A.
- Caution: Do not plug in any plug-in device!
- 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!
- Observe the applicable laws, standards and regulations as well as the manufacturer's instructions for the devices to be operated!

Safety Advice

- The plug-in receiver is only de-energized when it is disconnected from the mains supply.
- The outlet in which the unit is operated must be easily accessible.
- Have faulty units checked by the manufacturer!
- Do not open the unit housing!
- Do not make any unauthorized alterations or modifications to the unit!

Function

The RCP20 plug-in socket receiver is used to control an electric device via radio transmitter or locally using the I/O button.

The operating modes ON/OFF, LOGIC, DEAD MAN and TIMER are available (see section "Operating modes").

32 transmission codes can be programmed into the receiver.

For local operation the device is controlled using the I/O button in ON/OFF 1-button operating mode.

The integrated POTA (Programming Over The Air) remote programming function can be used to reprogram an already-installed and no longer accessible receiver. A detailed POTA programming specification is available on our website:

https://www.eldat.de/pota_en.pdf

or you can request support from our customer service.

Operation

Briefly press button P to begin programming mode for the required operation type. Any Easywave transmitter can then be programmed under this operation type.

A separate operation type can be assigned to each transmitter / transmitter button.

When in 2-button operation (2-TB), transmitter buttons A and C switch ON. Transmitter buttons B and D switch OFF. Only one transmitter button must be taught-in to the receiver, as the code of the second button is automatically assigned.

In **1-button operation (1-TB)**, each function is triggered with just one transmitter button. Each button must be programmed individually into the receiver, there is no automatic assignment.

The receiver can be switched ON and OFF locally with the I/O button.

Timeout[1]

If no button is pressed within 30 seconds, the RCP20 automatically switches to standby. The settings are not saved.

Setting up the Receiver

1. Plug the plug-in receiver into a properly functioning earthed outlet.
2. With the programming button P, you can start the programming mode for the required operation type (see "Operating modes") and associate the transmitter.
3. Plug the mains plug of the device to be switched into the mains output of the receiver.

ᴗ **Make sure there is no interference with the wireless connection!** Do not mount the device in a distribution box, in metal casings and in direct proximity to large metal objects.

Operating modes

2-button operation

ON/OFF

Transmission code A or C switches ON.
Transmission code B or D switches OFF.

LOGIC

All taught-in transmission codes are linked in accordance with AND/OR logic.

OR linkage
If one of the programmed transmitters transmits an ON telegram (A/C), the receiver switches ON.

AND linkage
If **all** programmed transmitters which have previously transmitted an ON telegram (A/C) have transmitted an OFF telegram (B/D), the receiver switches OFF.

This operating mode is subordinate to all other operation types! This means that any command from a transmitter under another operation type will disable this operation type! If another operation type switches ON or OFF while logic is ON, the logic function is reset but can be restarted at any time.

1-button operation

ON/OFF

Each transmitter code A/B/C/D can switch ON and OFF alternately.

If the transmitter button is pressed for longer than 2 seconds, all receivers being programmed with the code of the button are switched OFF (status of switching is synchronized).

DEAD MAN

The output switches as long as the transmitter button is pressed, but for a maximum of 36 seconds.

TIMER
adjustable, retriggerable

The receiver switches ON and automatically OFF again after the set time (factory setting: 7 minutes). Any transmission code A/B/C/D can be used. Pressing the transmission button again before the timer finishes extends the switching time again to the set switching time. The TIMER function can be set by the user in a range from 1 second to 30 hours (see "Set TIMER").
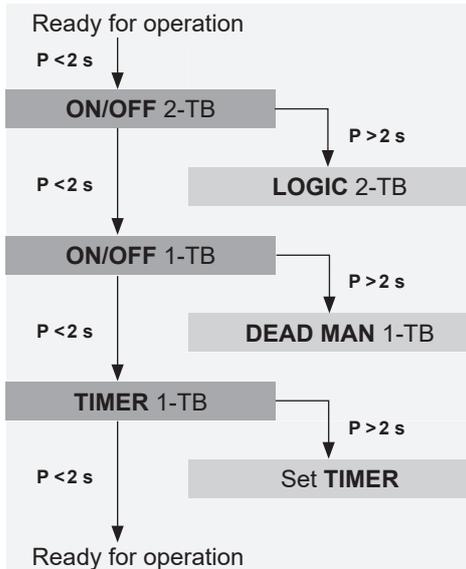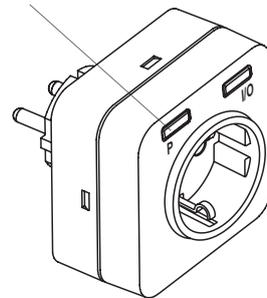
PROGRAMMING

Program transmitter

The RCP20 only responds to associated Easywave transmitters. In order to teach-in a transmitter, switch the RCP20 to programming mode for the required operation type, then press the transmitter button to be programmed. If a transmitter which has already been taught-in is then taught-in again, the previous operation type is overwritten by the new selections. 32 transmission codes can be programmed in.

Operation (1) [Press button]			Display	Note
ON/OFF 2-TB				
①	**P**	1x briefly	LED P flashes red	Operating mode **ON/OFF** 2-TB selected
②	**Tx**	Transmitter button 1x briefly	LED P lights 2 seconds red	Transmission code is programmed. If the LED goes out, the receiver is ready for operation.
LOGIC 2-TB				
①	**P** **P**	1x briefly 1x long	LED P flashes red LED P flashes green	Operating mode ON/OFF 2-TB Operating mode **LOGIC** selected
②	**Tx**	Transmitter button 1x briefly	LED P lights 2 seconds green	Transmission code is programmed. If the LED goes out, the receiver is ready for operation.
ON/OFF 1-TB				
①	**P**	2x briefly	LED P flashes red	Operating mode **ON/OFF** 1-TB selected
②	**Tx**	Transmitter button 1x briefly	LED P lights 2 seconds red	Transmission code is programmed. If the LED goes out, the receiver is ready for operation.
DEAD MAN 1-TB				
①	**P** **P**	2x briefly 1x long	LED P flashes red LED P flashes green	Operating mode ON/OFF 1-TB Operating mode **Dead Man** selected
②	**Tx**	Transmitter button 1x briefly	LED P lights 2 seconds green	Transmission code is programmed. If the LED goes out, the receiver is ready for operation.
TIMER 1-TB				
①	**P**	3x briefly	LED P flashes red	Operating mode **TIMER** 1-TB selected
②	**Tx**	Transmitter button 1x briefly	LED P lights 2 seconds red	Transmission code is programmed. If the LED goes out, the receiver is ready for operation.
Set TIMER				
①	**P** **P**	3x briefly 1x long	LED P flashes red LED P lights green	Operating mode TIMER selected set **TIMER** (see page 3)

A programming process can be cancelled by quickly pressing the **P** programming button several times. Once the LED goes out, the receiver returns to standby.

Programming structure

Ready for operation

P < 2 s

ON/OFF 2-TB → P > 2 s → LOGIC 2-TB

P < 2 s

ON/OFF 1-TB → P > 2 s → **DEAD MAN** 1-TB

P < 2 s

TIMER 1-TB → P > 2 s → Set **TIMER**

P < 2 s

Ready for operation

① **P** Select operating mode

Send transmission code

② **Tx**

ILLUSTRATION

LED displays

◯ off   ◯ light
◉ flashes   ◎ flashes quickly

Button press

briefly (< 2 s) = Press button for less than 2 seconds
long (> 2 s) = Press button longer than 2 seconds

Operation

1-TB = 1-button operation
**2-TB** = 2-button operation

Symbols

⧗ waiting time

Set TIMER

The user can set any switching time for the TIMER function. Here, the base time measured during setting of the TIMER is multiplied by the selected multiplier. The maximum base time is 30 seconds; the measurement then ends automatically. The switching time set applies to all transmitters programmed in TIMER operation type, even if they have already been programmed before the setting of the TIMER .
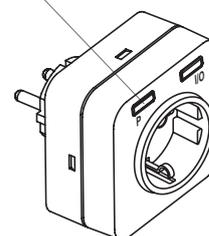
Operation (1)

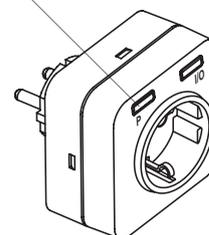| [Press button]	Display	Note
① **P** 1. 3x briefly 2. 1x long	LED P flashes red LED P lights green 🟢	Operating mode TIMER selected **Set TIMER**
② **P** 1x briefly	LED P flashes alternately red|green 🔴⚪🔴🟢	Start base time measurement between 1 and 30 seconds
③ ⏳ 1 to 30 s	LED P flashes alternately red|green 🔴⚪🔴🟢	Wait for required base time (30 seconds max)
④ **P** briefly 1 to 6 times within 5 s	LED P flashes green	Stop base time measurement and select required multiplier.
1x briefly	🟢⚪🟢⚪	multiplier 1 selected
2x briefly	🟢🟢⚪🟢🟢⚪	multiplier 10 selected
3x briefly	🟢🟢🟢⚪🟢🟢🟢⚪	multiplier 60 selected
4x briefly	🟢🟢🟢🟢⚪🟢🟢🟢🟢⚪	multiplier 600 selected
5x briefly	🟢🟢🟢🟢🟢⚪🟢🟢🟢🟢🟢⚪	multiplier 1,800 selected
6x briefly	🟢🟢🟢🟢🟢🟢⚪🟢🟢🟢🟢🟢🟢⚪	multiplier 3,600 selected
⑤ ⏳ Wait 5 s	LED P lights 2 seconds green 🟢	The measured base time is multiplied by the selected multiplier and saved as the new switching time for the TIMER.

① **P** Select operating mode "Set TIMER"
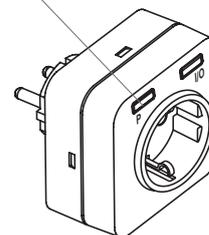
② **P** Start base time measurement

③ ⏳ Wait for required base time (1-30 s)

④ **P** Select multiplier (1 to 6x)

⑤ ⏳ Wait 5 seconds

☞ The base time measurement (point ③) is automatically canceled after 60 seconds. Breaking off the TIMER setting is NOT possible at any other point!

Conversion table

Base time [Sec.]	Multiplier					
	1	**10**	**60**	**600**	**1,800**	**3,600**
1	0:00:01	0:00:10	0:01:00	0:10:00	0:30:00	1:00:00
2	0:00:02	0:00:20	0:02:00	0:20:00	1:00:00	2:00:00
3	0:00:03	0:00:30	0:03:00	0:30:00	1:30:00	3:00:00
4	0:00:04	0:00:40	0:04:00	0:40:00	2:00:00	4:00:00
5	0:00:05	0:00:50	0:05:00	0:50:00	2:30:00	5:00:00
6	0:00:06	0:01:00	0:06:00	1:00:00	3:00:00	6:00:00
7	0:00:07	0:01:10	0:07:00	1:10:00	3:30:00	7:00:00
8	0:00:08	0:01:20	0:08:00	1:20:00	4:00:00	8:00:00
9	0:00:09	0:01:30	0:09:00	1:30:00	4:30:00	9:00:00
10	0:00:10	0:01:40	0:10:00	1:40:00	5:00:00	10:00:00
11	0:00:11	0:01:50	0:11:00	1:50:00	5:30:00	11:00:00
12	0:00:12	0:02:00	0:12:00	2:00:00	6:00:00	12:00:00
13	0:00:13	0:02:10	0:13:00	2:10:00	6:30:00	13:00:00
14	0:00:14	0:02:20	0:14:00	2:20:00	7:00:00	14:00:00
15	0:00:15	0:02:30	0:15:00	2:30:00	7:30:00	15:00:00
16	0:00:16	0:02:40	0:16:00	2:40:00	8:00:00	16:00:00
17	0:00:17	0:02:50	0:17:00	2:50:00	8:30:00	17:00:00
18	0:00:18	0:03:00	0:18:00	3:00:00	9:00:00	18:00:00
19	0:00:19	0:03:10	0:19:00	3:10:00	9:30:00	19:00:00
20	0:00:20	0:03:20	0:20:00	3:20:00	10:00:00	20:00:00
21	0:00:21	0:03:30	0:21:00	3:30:00	10:30:00	21:00:00
22	0:00:22	0:03:40	0:22:00	3:40:00	11:00:00	22:00:00
23	0:00:23	0:03:50	0:23:00	3:50:00	11:30:00	23:00:00
24	0:00:24	0:04:00	0:24:00	4:00:00	12:00:00	24:00:00
25	0:00:25	0:04:10	0:25:00	4:10:00	12:30:00	25:00:00
26	0:00:26	0:04:20	0:26:00	4:20:00	13:00:00	26:00:00
27	0:00:27	0:04:30	0:27:00	4:30:00	13:30:00	27:00:00
28	0:00:28	0:04:40	0:28:00	4:40:00	14:00:00	28:00:00
29	0:00:29	0:04:50	0:29:00	4:50:00	14:30:00	29:00:00
30	0:00:30	0:05:00	0:30:00	5:00:00	15:00:00	30:00:00

Convert seconds with multiplier to time (hours:minutes:seconds)

PROGRAMMING

Deleting the Transmitter

In delete mode, individual transmitters can be specifically deleted from the memory of the RCP20.

Operation (1)

| [Press button]		Display	Note
① **P**	1x long	LED P flashes quickly red ◎◎◎◎	Receiver in delete mode.
② **Tx**	1x briefly	LED P lights 2 seconds red ⬤	Transmitter has been deleted.

① **P** >2 s ② **Tx**
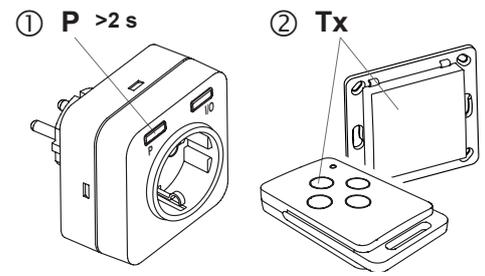
Reset

With RESET, all settings are reset to the factory settings. All programmed transmitters are deleted and the TIMER is reset to 7 minutes.

Operation (1)

[Press button]		Display	Note
① **P**	1x long	LED P flashes quickly red ◎◎◎◎	Receiver in delete mode.
② **P**	1x long	LED P lights 4 seconds red ⬤	All transmission codes have been deleted and the factory settings have been restored.

① **P** >2 s ② **P** >2 s
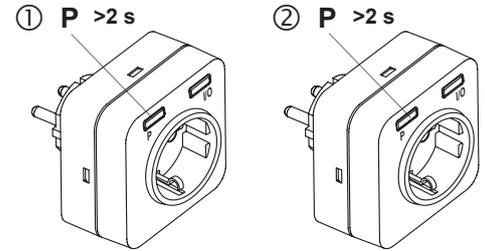
BI-DIRECTIONAL FUNCTIONS (Easywave neo)

An APC01 server can be taught-in to the RCP20 in order to use the bi-directional functions. The available functions are automatically detected, so no specific operation type needs to be selected when programming a server. Teach-in the APC01 server to the receiver according to the instructions in the Easywave app, by adding an ELDAT actuator as an "Easywave neo" device. After it is taught-in, the server receives feedback about each switching operation performed, even where this is triggered by another transmitter or manually via the I/O button on the RCP20. The current receiver state is therefore always displayed in the relevant app.

Program server

Add an actuator in the Easywave app as an Easywave neo device and follow the instructions in the app. Only one server can be programmed into the receiver. Any server that may have already have been taught-in is overwritten.

Operation (1)

[Press button]		Display	Note
①		Start the programming process via the Easywave app.	
② **P**	1x briefly	LED P flashes red ◉○◉○◉○	Receiver in programming mode any operating mode possible
③		Complete the learning process via the Easywave app.	

① Start programming in the Easywave app

② **P** Put the receiver in learning mode

⚠ Once a server is taught-in to the RCP20, an acknowledgement for each switching operation is transmitted via radio. If the server is not in use, delete it from the receiver to prevent unnecessary radio transmissions.
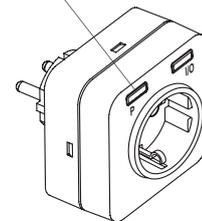
Delete the server

A server can be removed from the RCP20 by deleting the relevant device in the Easywave app. To delete the server, the receiver must be powered and within range of the server. As an alternative to deleting it via the app, the server can also be deleted by resetting the receiver.

① Delete the receiver or relevant Easywave neo actuator in the app while the receiver is powered and within range of the server.

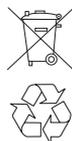③ Finish the learning process in the Easywave app

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GENERAL INFORMATION

Disposal

Waste electrical products should 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

We will remedy defects on the device based on material or production errors or exchange the device within the statutory warranty period.
Any unauthorized tampering with, or modifications to, the product shall render this warranty null and void.

Conformity

Hereby, ELDAT EaS GmbH declares that the radio equipment type RCP20 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.eldat.de

UK CA C E

Customer Service

If the device does not work properly despite proper handling or in case of damage, please contact the manufacturer or your retailer.

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