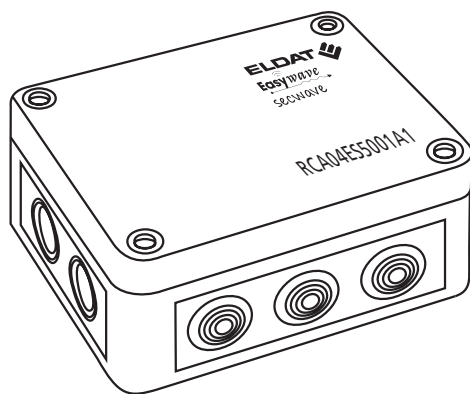


Model



RCA04ES5001A1

Technical Details

Frequency:	868.30 MHz
Modulation:	FSK
Coding:	Easywave secwave
Memory locations:	999
Supply voltage:	230 V AC, 50 Hz
Output:	1 potential-free relay contact (SPDT)
Power consumption:	1.5 W in standby mode
Max. contact load:	
- Ohmic load	16.0 A / 3,680 VA
- Inductive load	3.0 A / 690 VA
- Non- or serial-compensated fluorescent lamps with ferromagnetic ballasts	3.0 A / 690 VA
- Parallel-compensated fluorescent lamps with ferromagnetic ballasts	3.0 A / 720 VA
- Electronic ballast capacity	4.0 A / 920 VA
Protection class:	IP55 (when delivered)
Button lock:	3-digit PIN code
Operating temperature:	-20 °C to +50 °C
Dimensions (W/L/H):	130/94/57 mm
Weight:	350g
Specification SD card:	Micro SDHC card or micro SD card 4 to 32 GB

Scope of delivery

RCA04 Radio Control Access, operating instructions, mounting materials

Intended use

The radio access control was developed and manufactured exclusively as a receiving device for Easywave or secwave radio telegrams.

The manufacturer is not liable for any damage caused by improper or unintended use!

Backward Compatibility

Data exported from the previous version (RCA04E5001A01) can be imported into this radio access control. The only requirement is that no data from the current version has been exported to the same memory location. The files are automatically detected and can be imported as described in section B4.1, „Import data.“

However, importing data from the current version into the previous version is not possible.

Safety information



Before connecting this device, please read these instructions carefully!

- **Note: The electrical installation and programming must be performed by a licensed and qualified electrician. Failure to observe this requirement presents a risk of electric shock or fire.**
- The controller and connection terminals will be under live voltage during the programming process. Avoid touching live parts.
- As well as the device, a suitable, easily accessed isolation device must be present in the permanent electrical installation.
- Before mounting or maintenance of connecting cables, ensure that the device is electrically disconnected and isolated.
- Observe any applicable laws, standards and regulations as well as manufacturer instructions pertaining to the devices being connected!
- Ensure any malfunctioning devices are inspected by the manufacturer
- Ensure that children and unauthorized persons cannot use the controller or temperature sensors.
- Do not perform unauthorized modifications to the device!



Function

The RCA04 wireless access controller is designed for the potential-free control of door openers or gate control systems. Up to 999 transmitter codes can be programmed and managed. During initial setup, the unit can be configured to accept either Easywave or secwave transmitters. The mode selection is finalized upon programming the first transmitter and can subsequently only be changed by performing a reset.

When the code from a programmed transmitter is received, the relay output emits a switching pulse. The duration of this pulse is adjustable between 0.5 seconds and 998 (999) seconds. In Easywave mode, the controller can also operate in “dead-man” mode. To do this, set the pulse duration value to “999”. The relay will then remain active as long as a transmitter button is pressed. The total transmission duration is limited to a maximum of 36 seconds. In secwave mode, this setting results in a switching pulse lasting 999 seconds.

Each memory slot can be individually locked, unlocked, or deleted; access to the corresponding transmitter is not required for this. All stored transmitter codes and memory slot settings can be backed up to a microSD card, and saved data can be restored to the controller.

To prevent unauthorized use, the controller can be protected with a user-defined access code (PIN). If the PIN is lost, the controller can only be unlocked using a previously programmed master transmitter or by the manufacturer.

The RCA04 is programmed via a menu-driven display interface.

secwave mode

secwave is a 128-bit AES-encrypted wireless system designed for applications with heightened security requirements. To ensure system integrity, only secwave transmitters can be programmed in secwave mode. Simultaneous operation with Easywave transmitters is **not** possible!

The mode is selected before the first transmitter is paired and can subsequently only be changed by performing a reset.

Specific features of secwave mode:

- Dead-man operating mode is not available.
- Transmitters are paired using a special learning telegram. Please refer to the secwave transmitter operating manual for instructions on how to transmit the learning telegram!

Preparing the controller for operation

A	Installing the access control.....	1
A1	Select location	1
A2	Device overview.....	2
	A2.1 Display and control elements ..	2
	A2.2 Storage medium	2
A3	Start-up	2
	A3.1 Connect access control	2
B	Setup access control	3
B1	Functional overview	3
B2	Programming	4
	B2.1 Program/overwrite transmitter	4
	B2.1.1 Program master transmitter	5
	B2.2 Delete transmitter	5
	B2.3 Lock/unlock transmitter	6
B3	Settings.....	6
	B3.1 Set pulse duration	6
	B3.2 Assign PIN.....	7
	B3.3 Select language	7
B4	Memory.....	7
	B4.1 Import data	7
	B4.2 Export data	8
	B4.3 Reset	8
C	General information	8

A Installing the access control

A1 Select location

When choosing the location for the installation please take into account that the reception quality and sensitivity can be disturbed by equipment and systems without interference suppression, other transmitters within the frequency range, atmospheric conditions and other factors.

Transmitter and receiver should be located in such a way that the shortest distance between them is not disturbed or only slightly disturbed by brick walls or other absorbing materials or any disturbance.



Do not mount the receiver or the aerials on the back of metal surfaces on the floor or in recesses, in order to avoid radio shadows.

When mounting the unit on a metal surface, a minimum distance of 10 cm should be adhered to between the unit and the surface.

If any problems arise contact your retailer or for more information see “www.eldat.de”

Where environmental conditions are unfavorable, the external antenna ACC-ANT50-03-21P can be connected to improve wireless reception. This is not included as standard with the product, but can be ordered separately.

A Installing the control access

A2 Device overview

A2.1 Display and control elements

Power supply display

Once the power supply is switched on, the LED POWER lights up continuously in red.

Radio signal display

If a radio signal of the currently selected mode (Easywave / secwave) is registered in the range of the control, an antenna symbol (Y) is shown on the display.

In addition, the signal strength is displayed next to the symbol, ranging from 1 (weak) to 9 (strong).

Displaying settings

All settings to be programmed are selected and shown in the display, as well as the RCA04 stand-by mode and lock mode.

Menu select button

You can use this button to scroll down in the menu:

- ▼ tap: go forward one menu item (when the last entry is reached, switch to the first entry),
- ▼ press and hold: go back one menu level,
- ▼ tap in the menu area: cancel action,
- ▼ press and hold in main menu: operating mode.

Confirmation button OK

To select menu items and confirm menu selection.

Tap: Select and deselect menu item in turn.

100, 10, 1 decimal buttons

100 button: set the 100s decimal place

10 button: set the 10s decimal place

1 button: set the 1s decimal place

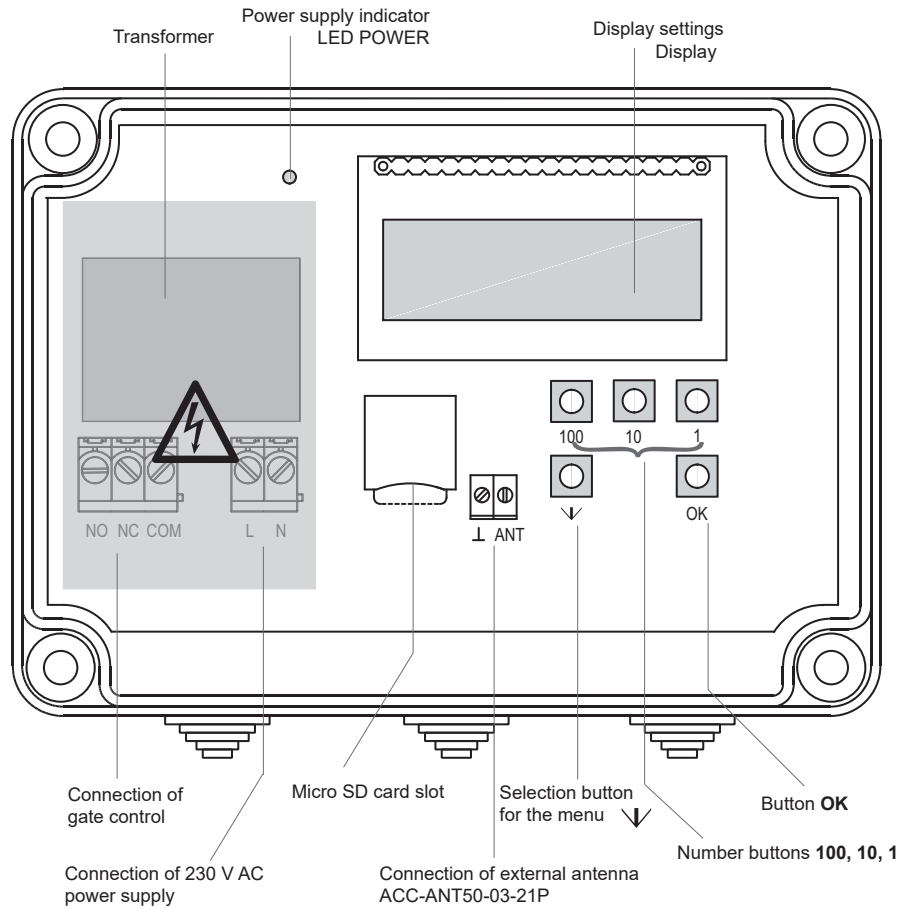
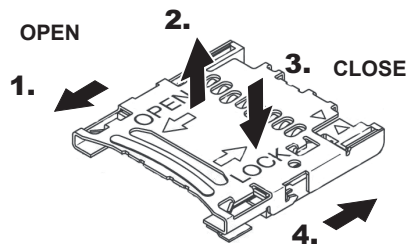


Fig. 1 device overview

A2.3 Storage medium

A micro SD card can be used to import or export transmission codes and saved memory locations. The opening and closing of the slot are shown in figure 2.



The controller must be disconnected from the power supply, before inserting the SD card.

Fig. 2 Micro SD card slot

A3 Start-up

A3.1 Connect access control

1. Remove the housing cover.
2. Fix the access control in place at the installation location. Use the screw threads for the cover screws for this purpose.
3. Cut the stepped nipple accordingly based on the diameter of the connecting cable.



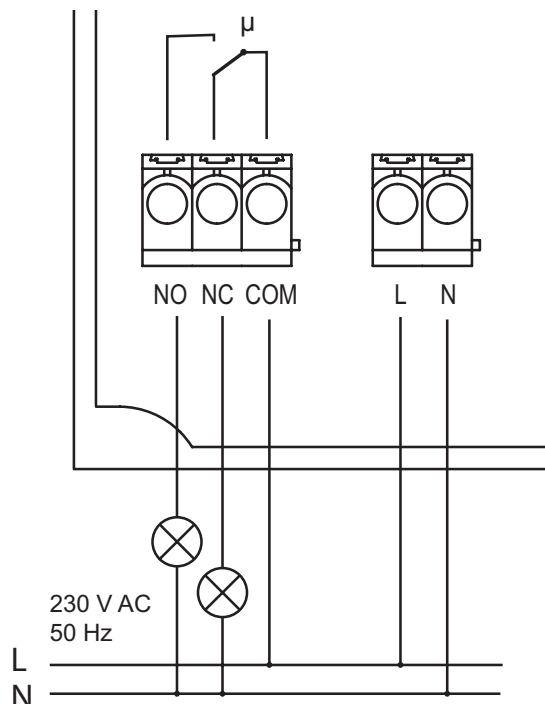
The cable must create a tight seal with the graded nub.

4. Switch off the power supply.
5. Connect the cable for the power supply and the gate control as per connection diagram, Figure 3.
6. Switch on the power supply.
7. Program the transmitter codes into the RCA04 (see section: "Programming"; "Program/overwrite transmitter")



The control access is under live voltage during programming!

8. Screw the housing cover back onto the lower part of the housing.



The control is live during programming! Do not touch the terminals! There is a risk of electric shock!

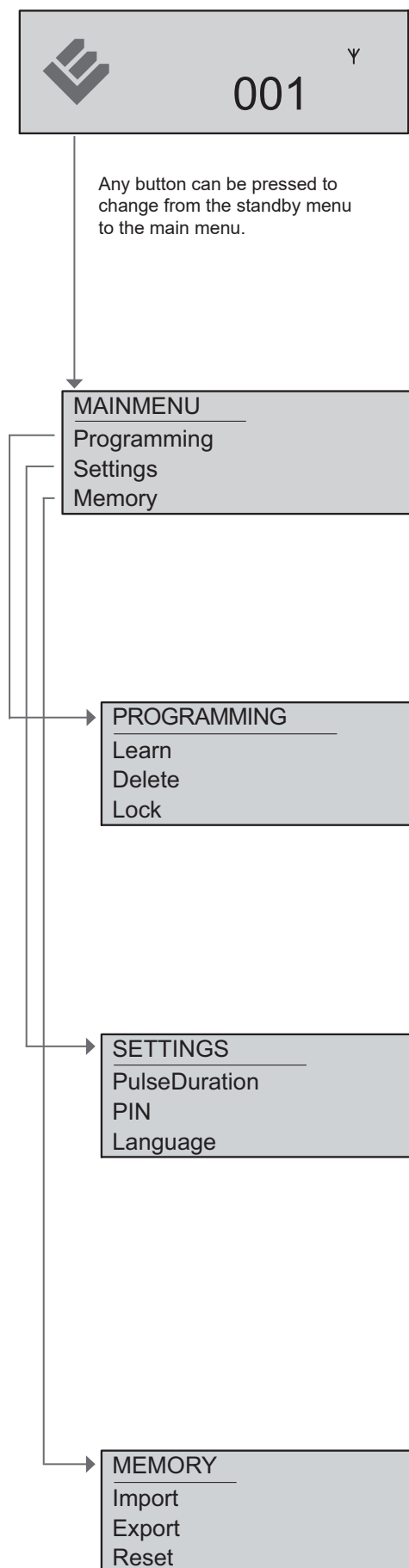
Cable cross-section:

0.5 – 5.0 mm²

If flexible cables are used, then wire-end ferrules must be used and the required cross-section observed.

The stripping length of the connecting wires is 6 to 7 mm.

Fig. 3 Connection diagram



STANDBY menu

The memory location (e.g. 001) of received and programmed telegrams is displayed in the standby menu for the duration of the relay pulse.

If a valid radio signal for the currently selected mode (Easywave or secwave) is received, this is indicated by the antenna symbol (Ψ).

A request to enter the PIN will appear in standby mode if a PIN code has been assigned and a button is pressed. If the wrong PIN is entered, ERROR will be signaled and further attempts to enter the PIN will be limited as follows:

- 3 failed attempts: locked for 1 minute,
- 4 failed attempts: locked for 3 minutes,
- 5 failed attempts: locked for 5 minutes,
- 6 failed attempts: locked for 10 minutes.

The lock time will be extended by 5 minutes for every additional failed attempt. The maximum lock time is 60 minutes. Alternatively, the lock can be canceled at any time using a programmed master transmitter (see B2.1.1, "Program master transmitter", page 5).

MAINMENU

Programming: Here you can program, overwrite, delete and lock the transmission codes of transmitters.

Settings: Set the duration of the switch pulse for the relay, set your three-digit access PIN and choose German or English as the system language.

Memory: You can import or export all saved transmission codes and memory location settings to a micro SD card. In addition, a "reset" may also be executed which will return the RCA04 to factory default settings.



If nothing is entered in the main menu within 60 seconds, the control will automatically go into standby mode. Standby mode can also be manually triggered by pressing and holding the button.

PROGRAMMING menu

see section B2

Learn: Here you can program or overwrite the codes of the transmitter buttons onto the selected RCA04 memory location and program a master transmitter.

↳ **Modemenu:** Only during initial setup or after a reset. Select once whether the controller should receive signals from Easywave **or** secwave transmitters. Simultaneous operation is not possible!



If you have forgotten your access code, you can only unlock the control again using a programmed master transmitter.

Delete: Each programmed transmission code can be individually deleted. The transmitter does not necessarily have to be available for this to be done.

Lock: A transmission code can be temporarily disabled from operation. This allows you to stop unwanted access via this transmitter for a time.

SETTINGS menu

see section B3

PulseDuration: Here you can set the relay switching duration. The range of values for the PULSE operation is between 0.5 seconds and 998 seconds. The switching duration is retriggerable, i.e. each time the button is pressed again, the switching time resets to the set value. The factory default setting is 0.5 seconds.

If you select the value '999', the DEAD MAN mode is activated. The relay is active for as long as the transmitter button is held down. The transmission length is limited to a maximum of 36 seconds. Dead man operation is only available in Easywave mode.

PIN: Here you can set your personal 3-digit access PIN for the access control. If you want to make changes to the control settings, the PIN must be entered in standby mode and confirmed by pressing the OK button.



If an access PIN is used, it is recommended to program an additional master transmitter in order to be able to unlock the control if the PIN is lost. If both PIN and master transmitter are lost, the control can only be unlocked again by the manufacturer.

Language: You can specify whether you wish to use German or English as the system language.

MEMORY menu

see section B4

Import: You have the possibility of writing saved data (transmission codes, locked memory locations) from a micro SD card back to the RCA04. In the process, the original programming is overwritten.

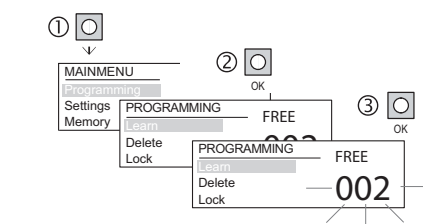
Export: You can back up data saved on the RCA04 (transmission codes, locked memory locations) to a micro SD card. The SD card is not included in the scope of delivery.

Reset: All programmed settings and values will be reset to the factory default settings (pulse length 0.5s, language German, all memory locations empty, PIN deleted, mode selection).

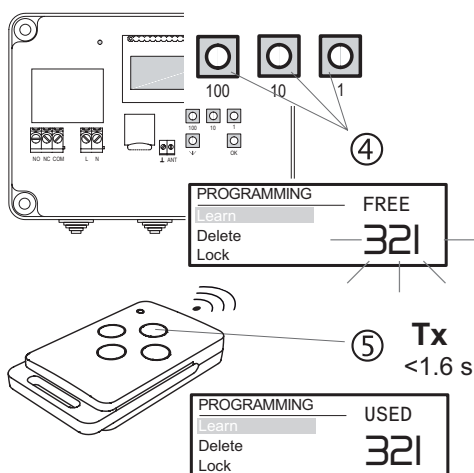
B Setup Access Control

B2 Programming

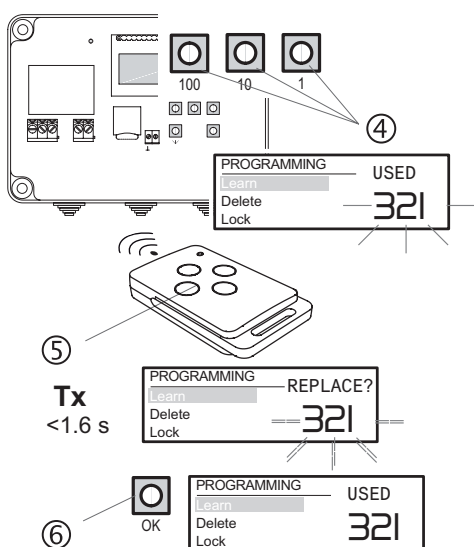
B2.1 Program/overwrite transmitter



Program the transmitter code to free memory location



Overwrite or replace transmit code



Press button	Operation	Display	Remark
① Button	select "Programming"	main menu	
② Button OK	confirm "Programming"	FREE	The number of the first free memory slot is shown. If you already know which memory slot you want, you can enter it directly here using the decimal buttons.
③ Button OK	confirm "Learn"	FREE number flashes	



During initial setup, you must first select whether the controller should be programmed with Easywave or secwave transmitters.

Once the first transmitter has been programmed in the selected mode, this setting can only be changed after a reset!

④ Button 1 or 10 or 100	optional: Enter the desired memory slot.	FREE number flashes	Memory slot "000" is reserved for the master transmitter.
⑤ Transmitter button Tx < 1.6 s	The transmission code is programmed to the selected memory slot.	LEARNED USED	secwave transmitters must send a learning telegram to be programmed! (PTx+Tx) (see transmitter instructions)
		ERROR	The transmission code is already programmed to another memory slot.



If you wish to program further transmission codes, please repeat steps ③ to ⑤. To switch to operating mode, press and hold the button 2x longer than 1.6 seconds.

If no button has been pressed for 60 seconds, the control will automatically switch to operating mode.

④ Button 1 or 10 or 100	input desired memory location	USED number flashes	
⑤ Transmitter button Tx < 1.6 s	The transmitter is programmed to the selected memory slot.	REPLACE? number flashes quickly	Confirmation request: should the existing transmission code be overwritten with the new code? secwave transmitters must send a learning telegram to be programmed! (PTx+Tx) (see transmitter instructions)
		ERROR	The transmission code is already programmed to another memory slot.
⑥ Button OK OR Button	The memory slot will be overwritten. The memory slot will not be overwritten.	USED number is displayed	

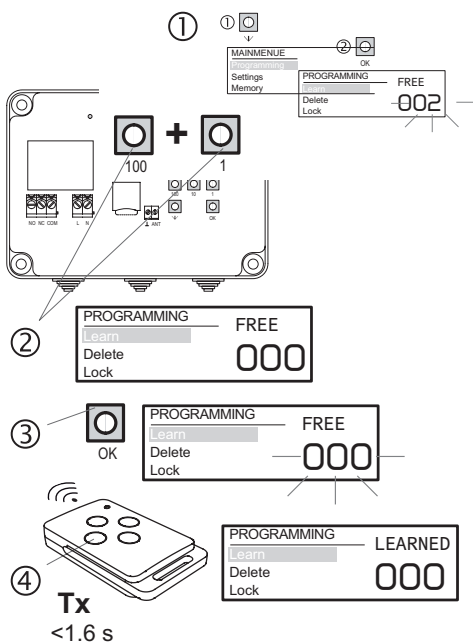


If you wish to program further transmission codes, please repeat steps ③ to ⑥. To switch to operating mode, press and hold the button 2x longer than 1.6 seconds.

If no button has been pressed for 60 seconds, the control will automatically switch to operating mode.

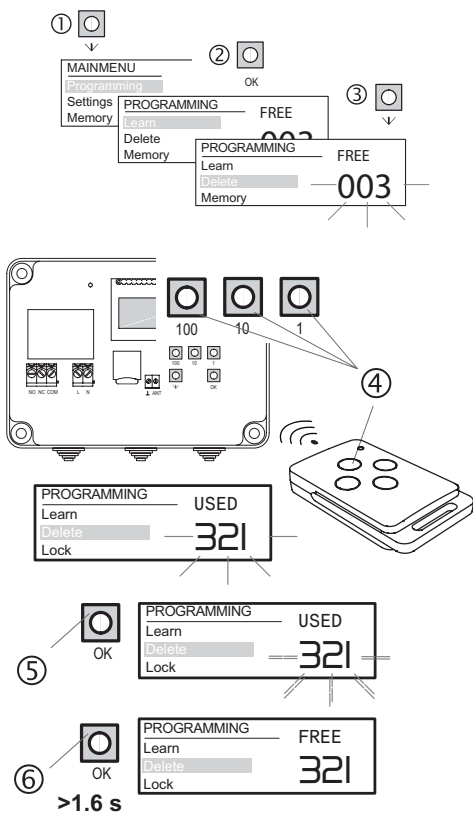
B2 Programming

B2.1.1 Program master transmitter



Press button	Operation	Display	Remark
①	see "Program a transmitter", steps 1-2	FREE number flashes	
②	Buttons 100 and 1 simultaneously > 1.6 s	FREE 000	OCCUPIED The memory slot is already occupied, but can be overwritten anyway.
③	Button OK	FREE 000 flashes	
④	Transmitter button Tx < 1.6 s	LEARNED 000	secwave transmitters must send a learning telegram to be programmed! (PTx+Tx) (see transmitter instructions)
		REPLACE? 000 flashes quickly	Confirmation request when the memory slot is occupied. Replace by pressing OK. Cancel by pressing the V button.
⑤	Button V > 1.6 s	Return to the main menu. 1)	main menu
			To switch to operating mode, press and hold the V button 2x longer than 1.6 seconds.

B2.2 Delete transmitter



Press button	Operation	Display	Remark
①	Button V	select "Programming"	main menu
②	Button OK	confirm "Programming"	FREE
③	Button V	select "Delete"	FREE
④	Transmitter button Tx < 1.6 s	USED number is displayed	Delete master transmitter: Select memory slot 000 (press 100 button and 1 button simultaneously) and delete, as described in items ⑤ and ⑥.
	OR Button 1 or 10 or 100	USED number is displayed	
⑤	Button OK	confirm "Delete"	USED number flashes quickly
⑥	Button OK > 1.6 s	transmitter is deleted	DELETED FREE



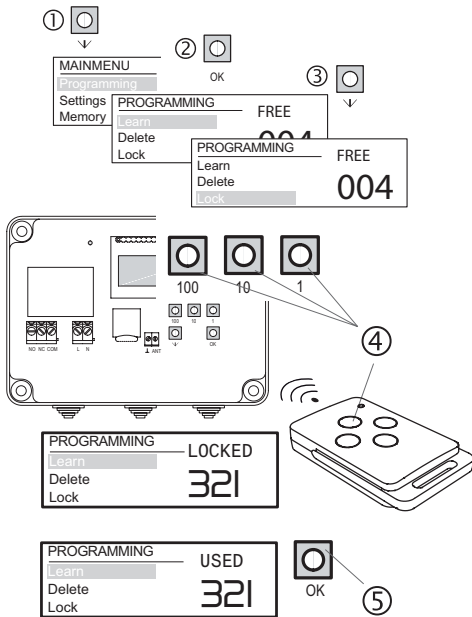
If you wish to delete further transmission codes, please repeat steps ③ to ⑥. To switch to operating mode, press and hold the **V** button 2x longer than 1.6 seconds.

If no button has been pressed for 60 seconds, the control will automatically switch to operating mode.

B Setup Access Control

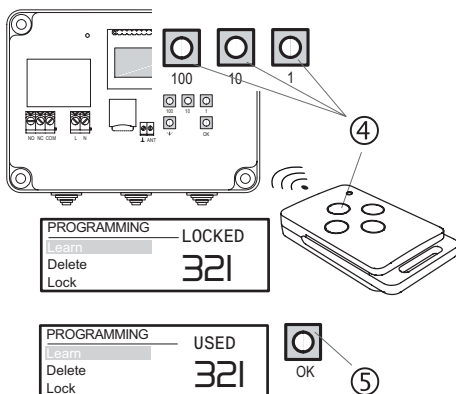
B2 Programming

B2.3 Lock/unlock transmitter



Press button	Operation	Display	Remark
① Button ∇	select "Programming"	main menu	
② Button OK	confirm "Programming"	FREE	The number of the first free memory slot is shown.
③ Button ∇	select "Lock"	FREE number is displayed	
④ Transmitter button Tx < 1.6 s OR Button 1 or 10 or 100	memory slot is selected. select the memory slot to be locked	USED number is displayed	
⑤ Button OK	execute "Lock"	LOCKED The number of the locked memory slot is displayed.	The transmission code is unlocked again by pressing the OK button again.
		ERROR	An attempt has been made to lock a free memory slot.

Unlock the transmitter



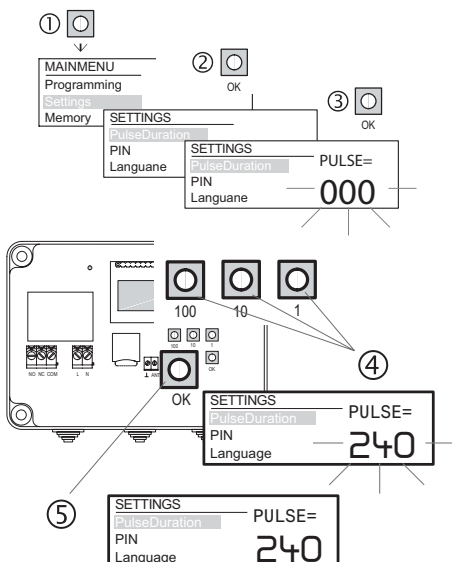
④ Transmitter button Tx < 1.6 s OR Button 1 or 10 or 100	select the memory slot to be unlocked	LOCKED number is displayed	The number of the locked memory slot is shown.
⑤ Button OK	Unlock the transmission code	USED number is displayed	The transmission code is locked again by pressing the OK button a further time.



If you wish to lock/unlock further transmission codes, please repeat steps ④ to ⑤. To switch to operating mode, press and hold the ∇ button 2x longer than 1.6 seconds. If no button has been pressed for 60 seconds, the control will automatically switch to operating mode.

B3 Settings

B3.1 Set pulse duration



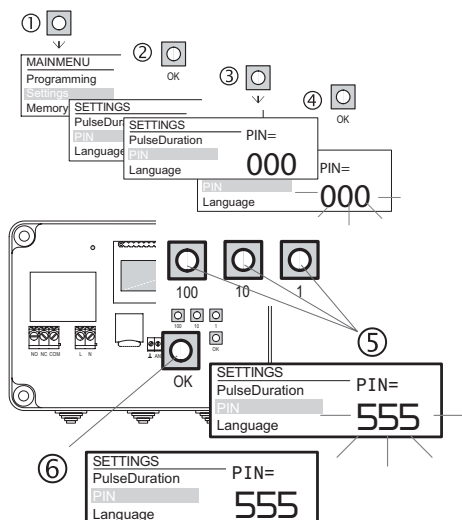
Press button	Operation	Display	Remark
① Button ∇	select "Settings"	main menu	
② Button OK	confirm "Settings"		
③ Button OK	confirm "PulseDuration"	PULSE = number flashes	
④ Button 1 or 10 or 100	Set the desired switching time in seconds.	PULSE = number flashes	value "000" = 0.5 s pulse duration value "001" to "998" = pulse duration in seconds Only Easywave: value "999" activates DEAD MAN mode
⑤ Button OK	confirm "Settings"	PULSE = number is displayed	
⑥ Button ∇ > 1.6 s	Return to the main menu. 1)	main menu	To switch to operating mode, press and hold the ∇ button 2x longer than 1.6 seconds.

1) If no button has been pressed for 60 seconds, the control will automatically switch to operating mode.

B Setup Access Control

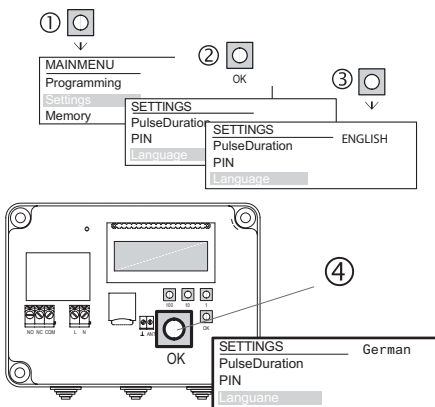
B3 Settings

B3.2 Assign PIN



Press button	Operation	Display	Remark
① Button	select "Settings"	main menu	
② Button OK	confirm "Settings"		
③ Button	select "PIN"	PIN = Number is displayed	„000“ = PIN deactivated.
④ Button OK	confirm "PIN"	PIN = Number flashes	
⑤ Button 1 or 10 or 100	set the desired code number	PIN = Number flashes	To deactivate a PIN, the number must be overwritten with "000".
⑥ Button OK	confirm settings	PIN = displayed number	
⑦ Button > 1.6 s	Return to the main menu. 1)	main menu	To switch to operating mode, press and hold the button 2x longer than 1.6 seconds.

B3.3 Select language

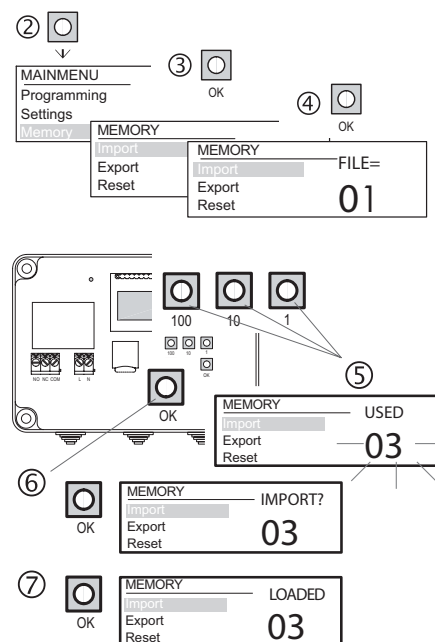


Press button	Operation	Display	Remark
① Button	select "Settings"	main menu	
② Button OK	confirm "Settings"		
③ Button	select "Language"	GERMAN	
④ Button OK	change language	ENGLISCH	The displayed language is selected.
⑤ Button > 1.6 s	Return to the main menu. 1)	main menu	To switch to operating mode, press and hold the button 2x longer than 1.6 seconds.

1) If no button has been pressed for 60 seconds, the control will automatically switch to operating mode.

B4 Memory

B4.1 Import data



Press button	Operation	Display	Remark
①	insert SD card		The contact surfaces must be facing downwards.
② Button	select "Memory"	main menu	
③ Button OK	confirm "Memory"	FILE = 01	
④ Button OK	confirm "Import"	FILE = 01	The first existing file is displayed.
⑤ Button 1 or 10 or 100	select file	USED file number flashes EMPTY	Only occupied files can be imported. No files are available to import.
⑥ Button OK	confirm the selection	IMPORT? file number	Confirmation request: should the file with this file number really be imported?
⑦ Button OK	the import process is running.	LOADED file number is displayed	LOAD is displayed during the import process. All settings of the RCA04 have been overwritten by the imported settings.
OR			
Button	the import process is aborted.		
⑧ Button > 1.6 s	Return to the main menu. 1)	main menu	To switch to operating mode, press and hold the button 2x longer than 1.6 seconds.

1) If no button has been pressed for 60 seconds, the control will automatically switch to operating mode.

