



ECRU.W

Receiver with 2+2 channels 12/24V 433 MHz

ECRU.W

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WARNINGS FOR THE INSTALLER

Carefully read all instructions and warnings in this document as they provide important information regarding safety during installation, operation and maintenance.

After removing the packaging, check the condition of the appliance. The packaging must not be left within reach of children as it is potentially harmful. Installation must be carried out in accordance with national safety regulations.

This appliance must be used only for the purpose for which it was expressly intended, i.e. for gate and garage door automation systems. Any other use is considered improper and therefore hazardous. The manufacturer declines all liability for damage caused by improper, incorrect or unreasonable use.

Always disconnect the appliance from the power supply at the main switch before performing maintenance or cleaning procedures.

In the event of faults and/or malfunctions, disconnect the appliance from the power supply immediately at the switch and do not tamper with any of its parts. For repairs, contact only a service centre authorized by the manufacturer. Failure to observe the above may jeopardize the safety of the device.

All appliances within the system must be used exclusively for the purpose for which they are intended.

This document must always be kept with all paperwork regarding the installation.

Directive 2002/96/EC (WEEE).

The crossed out bin symbol on the appliance indicates that the product, at the end of its useful working life, must be disposed of separately from normal household waste, and as such must be taken to a waste sorting and recycling centre equipped to deal with electric and electronic equipment, or returned to the dealer when a new appliance of the same type is purchased.



The user is responsible for ensuring the appliance is disposed of through the correct channels when no longer in service. Proper sorted waste collection for subsequent recycling, processing and environmentally conscious disposal of the old appliance helps to prevent any possible negative impact on the environment and human health while promoting the practice of recycling materials used in manufacture. For more detailed information regarding available waste collection systems, contact your local waste disposal service or the shop from which the appliance was purchased.

Risks associated with substances considered hazardous (WEEE).

According to the new WEEE Directive, substances which for some time have been widely used in electrical and electronic equipment are considered hazardous to human health and the environment. Proper sorted waste collection for subsequent recycling, processing and environmentally conscious disposal of the old appliance helps to prevent any possible negative impact on the environment and human health while promoting the practice of recycling materials used in manufacture.

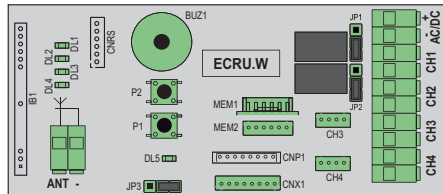
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1 - Product features:

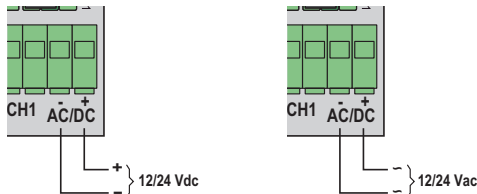
External radio receiver 433 MHz for Elvox Rolling-code or fixed code remote controls, with 2 outputs on board + 2 expandable outputs via modules ECRU.W.CA can operate with outputs in impulsive, two-position stable or timed mode, can be programmed from a smartphone via Wi-Fi with the addition of an EMC.W connection module equipped with push buttons and programming and diagnostics LEDs can be locked for data protection

Technical characteristics:

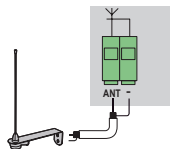
Power supply	12/24 Vac/dc
Max absorption (stand-by) @24 Vdc	10 mA (40 mA)
Frequency	433 MHz
Code	Elvox Rolling-code or fixed code
Memory	4032 radio codes
Number of outputs	2 on board + 2 optional (ECRU.W.CA module)
Output state	NO or NC, selectable for each output
Relay contacts rating	30 Vdc 1 A max (resistive loads)
Receiver frequency	433 MHz
Antenna input impedance	50 Ω
Sensitivity	-100 dBm
Protection rating	IP44
Dimensions	156x62x46 mm
Operating temperature	-20 to +60°C



2 - Power supply:



3 - Connecting the antenna



4 - Expansion of number of outputs:

The ECRU.W receiver has 2 on board outputs and can be increased to 4 by adding the ECRU.W.CA module to connect to the connectors:

CH3 to enable the output on terminal block CH3




CH4 to enable the output on terminal block CH4

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5 - Configuration of outputs and programming of activation time:

The outputs are configurable independently as:





- impulsive
- two-position stable
- timed

Output configuration	Description
Impulsive (default setting) 	The selected output is activated only while the control button is pressed. The relay closing time is equal to 0.5 s.
Two-position stable 	The outputs are controlled in the following way: First command => output activated Second command => output deactivated
Timed 	The selected output is activated when you press the remote control button and it remains active for the set time interval (independent for each output). The activation time default value is 20 s.


To configure the outputs proceed as described in the following table:

Step	Action		Signal	
1	Press P1 for 3 s to enter the output configuration programming	P1 3 s 	DL1 flashes with green light	DL1 
2	Press P1 to select the required output: 0 presses => output 1 1 press => output 2 2 presses => output 3 3 presses => output 4	P1 x n 	The flashing green LED indicates the selection of the corresponding output: DL1 => output 1 DL2 => output 2 DL3 => output 3 DL4 => output 4	DLX 
3	Press P2 to select the output operation setting as per the LED signal.	P2 x n 	The LED remains on with the light flashing the colour corresponding to the setting of the output: green => impulsive red => two-position stable orange => timed	DLX 

For timed output settings, you will be asked to programme the output activation time:

4	Press P2 for 3 s until the blue LED DL5 comes on	P2 3 s 	DL5 comes on fixed	DL5 
5	Press P2 to select the output activation time: 1 press => 20 s 2 presses => 40 s 3 presses => 60 s 4 presses => 2 min 5 presses => 3 min 6 presses => 4 min 7 presses => 5 min	P2 x n 	LED DL3 flashes the number of times equal to the activation time setting: 1 flash => 20 s 2 flashes => 40 s 3 flashes => 60 s 4 flashes => 2 min 5 flashes => 3 min 6 flashes => 4 min 7 flashes => 5 min	DL5 

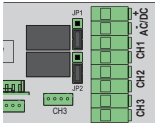
Timing programming ended



6	Press P1 to scroll through the outputs after the one selected Complete other configurations or scroll through the outputs to the output affected by the procedure	P1 x n 	All the LEDs go out	
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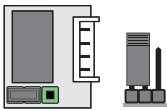
6 - Setting the output status:

It is possible to select the output state (NO or NC) using the jumpers on the receiver, as shown in the table below:

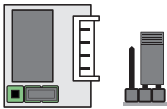


Jumper position	Output state	Jumper	Output
	Normally Open (NO)	JP1 JP2	CH1 CH2
	Normally Closed (NC)	JP1 JP2	CH1 CH2

For outputs CH3 and CH4 the output state is set directly by the jumper on the ECRU.W.CA module



ECRU.W.CA module with output normally open (NO)







ECRU.W.CA module with output normally closed (NC)

7 - Deleting the output configurations

Deleting the output configuration, the following settings are restored :

- all outputs to impulsive mode
- activation time of each output 20 s

To configure the outputs proceed as described in the following table:

Step	Action		Signal	
1	Switch off the ECRU.W receiver			
2	With the receiver off, hold down P1			
3	Holding down P1, switch on the receiver		LEDs DL1, DL2, DL3, DL4 come on fixed with red light	
4	Keep holding down P1 (10 s)		LEDs DL1, DL2, DL3, DL4 go out	
5	Release P1 to complete the deletion			

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






8 - Saving the remote controls:

Note:

The receiver can save rolling-code and fixed code remote controls. The first saved remote control determines the code accepted by the receiver. The receiver will not save a mixed code.

To change the code accepted by the receiver you must delete all the remote controls in the memory.

To save the remote controls, proceed as described in the following table:

Step	Action		Signal	
1	Press P1 to enter the remote control programming	 P1 x 1	DL1 flashes quickly with green light	DL1 
2	Press P1 to select the required output for saving the remote control: 0 presses => output 1 1 press => output 2 2 presses => output 3 3 presses => output 4	 P1 x n	The quick flashing green LED indicates the selection of the corresponding output: DL1 => output 1 DL2 => output 2 DL3 => output 3 DL4 => output 4	DLX 
3	Press the push button on the remote control to be saved		LEDs DL1, DL2, DL3, DL4 remain fixed with a green light for 1 s to signal that the remote control has been saved.	DL1 DL2 DL3 DL4 
4	Repeat point 3 to save other remote control buttons			
5	Press P1 to scroll through the outputs after the one selected Complete other savings or scroll through the outputs to the output affected by the procedure	 P1 x n	All the LEDs go out	

9 - Saving the remote controls via radio:

The saving via radio function is used to save remote controls not in the memory without directly intervening on the receiver programming button, having available only the first saved remote control or a remote control already saved in the memory.




This function is available only for remote controls with rolling-code.

Caution:

The saving remote controls via radio function can only be enabled on the board using jumper JP3. This function cannot be modified using the Wi-Gate APP on Smartphone using the Wi-Fi EMC.W connection module.







Note: when the receiver is blocked by the Wi-Gate app, the saving via radio function is always off, whatever the position of jumper JP3.

To enable or disable the saving of remote controls via radio, do the following on jumper JP3:

Jumper position JP3	Type of saving via radio
	Saving via radio function not enabled
	Saving via radio enabled only with the first remote control in the memory
	Saving via radio enabled with all the remote controls in the memory





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To save the remote controls via radio, proceed as described in the following table:

Step	Action		Signal	
1	Press button 1 and button 2 on a remote control already in the memory to activate the programming procedure via radio Note: the programming via radio procedure remains active for 10 s, after these 10 s, the receiver automatically exits the programming		The receiver buzzer emits an intermittent beep. Note: as long as the buzzer emits a beep, the programming via radio is active	
2	Press the button on the remote control already in the memory to be copied onto the new remote control. The receiver buzzer beeps to indicate which output is associated to the pressed button		1 beep => output 1 2 beep => output 2 3 beep => output 3 4 beep => output 4	
3	Press the push button on the remote control to be saved		The buzzer emits a long beep to signal that it has been saved	
4	Repeat point 3 to save other buttons on other remote controls		The buzzer continues to emit intermittent beeps to signal the button on the remote control already in the memory to copy	
5	Wait for the buzzer to go off, signalling the output from the programming via radio		The buzzer goes off	

10 - Deleting a single remote control:

To delete a single remote control proceed as described in the following table

Step	Action		Signal	
1	Press P2 to enter the remote control deletion	 P2 x1	LEDs DL1, DL2, DL3, DL4 flash quickly with a red light	DL1 DL2 DL3 DL4 
2	Press the push button on the remote control to be deleted		LEDs DL1, DL2, DL3, DL4 remain fixed with a green light for 1 s to signal that the remote control has been deleted.	DL1 DL2 DL3 DL4 
3	Repeat the procedure to delete other remote controls		All the LEDs go out	








Note:

The delete procedure for a single remote control deletes all the buttons on the remote controls associated to the receiver

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11 - Deleting all the remote controls:

To delete all the remote controls, proceed as described in the following table:

Step	Action		Signal	
1	Press and hold down P1 and P2	P1+P2 	LEDs DL1, DL2, DL3, DL4 flash quickly with a red light	DL1 DL2 DL3 DL4 
2	Keep holding down P1 and P2	P1+P2 	LEDs DL1, DL2, DL3, DL4 remain fixed with a red light for 1 s	DL1 DL2 DL3 DL4 
3	Keep holding down P1 and P2	P1+P2 	LEDs DL1, DL2, DL3, DL4 remain fixed with a green light for 1 s	DL1 DL2 DL3 DL4 
4	Deletion successful	P1+P2 	All the LEDs go out	

Note:

It is now possible to change the type of coding of the remote controls accepted by the receiver

12 - LED signals in normal operation:

Event	LED	Colour	Signal
Reception of a radio signal from a remote control present in the memory on output CH1-4	DL5	Blue	1 blink
	DL1-4	As per output configuration	As per output state
Reception of a radio signal from a valid remote control not present in the memory	DL5	Blue	1 flash for impulsive pressing Several flashes for maintained pressing
	DL1-4	-	No signalling
Reception of a radio signal from an invalid remote control	DL5	-	No signalling
	DL1-4	-	

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13 - Saving and resetting the remote control memory:

If it is necessary to create a back-up of the remote control memory or reset the memory, process as described below using a second MEM.W memory module, inserted in the specific connector MEM2.






Note:

To save a remote control memory, you must first of all completely delete the secondary memory.

1) Deleting the secondary memory:






Step	Action		Signal	
1	Switch off the power, insert a second MEM.W memory module in the connector MEM2 if it is not present			
2	Press and hold down P2 and switch on the receiver		LEDs DL1, DL2, DL3, DL4 flash quickly with a red light	DL1 DL2 DL3 DL4 
3	Keep holding down P2 (approx. 10 s)		LEDs DL1, DL2, DL3, DL4 come on with fixed light for 2 s to signal: Green light: deletion OK Red light: error (memory absent)	DL1 DL2 DL3 DL4 
4	Deletion successful		All the LEDs go out	

2) Back-up saving of the remote control memory

1	If the secondary memory is not present, switch off the power and insert a second MEM.W memory module in connector MEM2			
2	Run the secondary memory deletion procedure (see previous table)			
3	Press and hold down P2 for 6 s		LEDs DL1, DL2, DL3, DL4 flash slowly with red light	DL1 DL2 DL3 DL4 
4	Press and hold down P2 for 3 s		LEDs DL1, DL2, DL3, DL4 come on in sequence with red light, 5 times	DL1 DL2 DL3 DL4 
7	With the LEDs still flashing in sequence, release P1		LEDs DL1, DL2, DL3, DL4 come on with fixed light for 2 s to signal: Green light: saving completed successfully Red light: error (memory absent or full)	DL1 DL2 DL3 DL4 

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3) Resetting the remote control memory from a secondary memory

1	If the secondary memory with the remote controls to be reset is not present, switch off the power and insert an MEM.W memory module in connector MEM2 and switch the power back on			
2	Press and hold down P2 for 6 s	 P2 6 s	LEDs DL1, DL2, DL3, DL4 flash slowly with red light	DL1 DL2 DL3 DL4 
3	Press and hold down P1 for 3 s	 P1 3 s	LEDs DL4, DL3, DL2, DL1 come on in sequence with red light, 5 times	DL4 DL3 DL2 DL1 
6	With the LEDs still flashing in sequence, release P2		LEDs DL1, DL2, DL3, DL4 come on with fixed light for 2 s to signal: Green light: reset completed successfully Red light: error (memory absent or empty)	DL1 DL2 DL3 DL4 

14 - Receiver management via Smartphone or Tablet:

The receiver can be configured/managed via Smartphone/Tablet with the special Elvox Wi-Gate app to facilitate the receiver programming phases.

To enable programming via Smartphone/Tablet insert the EMC.W Wi-Fi communication module in the connector CNX1, connect to the Wi-Fi network generated by the Wi-Fi module and access the receiver via the Wi-Gate App.

When programming via Smartphone/Tablet the additional receiver programming lock function is accessible via a password, to prevent unauthorised access and modifications to the programming.



ECRU.W installer EN 01 1706



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