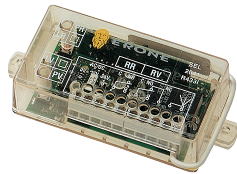# CDVI

RADIUM
WIRELESS TECHNOLOGY

WR2
Stand-Alone Wireless Receiver
Instruction Manual

CE

RECEIVER INTRODUCTION

The WR2 stand-alone wireless receiver is a superheterodyne single conversion receiver with integrated rolling-code decoding. The receiver can control devices like; gate, garage door, rolling shutters, awnings, anti-burglar appliances, lighting, etc.

SPECIFICATIONS

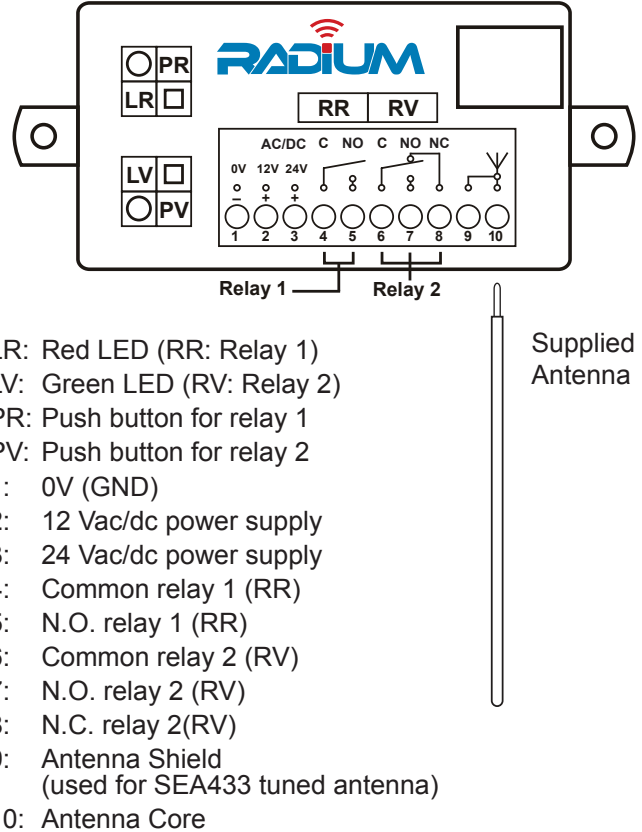|	
Memorization:	Up to 85 transmitter keys
Outputs:	2 (1NO, 1NO or NC), pulse
Operating frequency:	433 MHz
Power supply :	12 or 24 Vac/dc
Current consumption:	25 mA (relay excited: 55 mA)
Operating temperature:	-20 to +70 °C
Dimensions:	105 x 45 x 28 mm
Weight:	65 g

⚠ **IMPORTANT**

Receiver location is crucial for optimal system performance. Place the receiver far from interference sources such as magnetic fields or radio emissions (neon ballasts, electric motors, etc.). Ensure quality signal reception by doing range tests before permanently mounting the receiver.
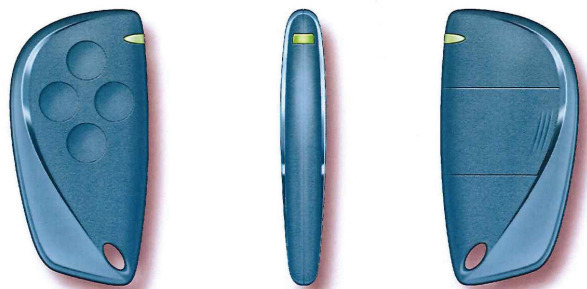
WARRANTY

The warranty period for this product is 60 months, beginning from the manufacturer date. During this period, if the product does not work correctly, due to a defective component, the product will be repaired or substituted at our discretion. The guarantee does not cover the plastic container integrity. After-sale service is supplied at the factory.

TERMINAL CONNECTIONS

Relay 1 — Relay 2

Supplied Antenna

LR: Red LED (RR: Relay 1)
LV: Green LED (RV: Relay 2)
PR: Push button for relay 1
PV: Push button for relay 2
1: 0V (GND)
2: 12 Vac/dc power supply
3: 24 Vac/dc power supply
4: Common relay 1 (RR)
5: N.O. relay 1 (RR)
6: Common relay 2 (RV)
7: N.O. relay 2 (RV)
8: N.C. relay 2(RV)
9: Antenna Shield
   (used for SEA433 tuned antenna)
10: Antenna Core

COMPATIBLE TRANSMITTERS

R1	1-Channel Transmitter
R2	2-Channel Transmitter
R4	4-Channel Transmitter

Also available with CDVI or HID built-in proximity badge

TRANSMITTER MEMORIZATION

To activate Relay 1 (RR)

1) Press **PR** until **LR** LED turns ON, then release **PR**

2) Press the key of the transmitter you want to memorize. **LR** LED will turn off and relay 1 **(RR)** will activate for a while.

3) Press the key of the transmitter again to verify relay 1 **(RR)** activation, **LR** LED will turn ON and **LV** LED will flash.

   At each activation, and for all the transmission time, **LR** LED will turn on , **LV** LED will flash and relay 1 **(RR)** remains activated.

To activate Relay 2 (RV)

1) Press **PV** until **LV** LED turns ON, then release **PV**

2) Press the key of the transmitter you want to memorize. **LV** LED will turn off and the relay 2 **(RV)** will activate for a while.

3) Press the key of the transmitter again to verify relay 2 activation, **LR** LED will turn ON and **LV** LED will flash.

   At each activation, and for all the transmission time, **LV** LED will turn on , **LR** LED will flash and relay 2 **(RV)** remains activated.

NOTE : The memory capacity is up to 85 transmitter keys. A 4 keys transmitter needs 4 memory positions, if all 4 buttons are used. The receiver memory is full when, at the end of step 2 of transmitter memorization, **LV** and **LR** LED flash 3 times.

TRANSMITTER CODE OVERWRITE

NOTE : Before starting, obtain the memory position and relay activation (1 or 2) of the transmitter key you wish to overwrite.

1) Press down **PR** or **PV** for 4 sec. until the corresponding LED remains lit, then release it.

2) Within 2 sec., press down **PV** for 1 sec (LED will turn off)

3) Within 2 sec., start to enter the memory position sequence by using **PR** (red LED) and **PV** (green LED). See memory position table.

4) At the end of the sequence **LV** or **LR** LED will turn on.

5) Within 4 sec., press the key of the new transmitter you wish to memorized.

MEMORY POSITION

1) Press transmitter key to verify if its associated to the receiver. **LR** or **LV** will turn ON and the associated relay will activate.

2) Press and hold **PR** for 1 sec. and then release it. A sequence of 7 flashes of the LEDs (**LR** and **LV**) starts. Note the LED color sequence. Refer to the following table to decode the sequence.

Flash sequence	1	2	3	4	5	6	7
LV (green LED)	1	2	4	8	16	32	64
LR (red LED)	0	0	0	0	0	0	0

LR=0 all the time.

Add the value of **LV** (where it flashes in the sequence) to obtain the memory position. See example below.

Example 1:

Flash sequence	1	2	3	4	5	6	7
LV (green LED)	-	-	Flash	Flash	-	-	-
LR (red LED)	Flash	Flash	-	-	Flash	Flash	Flash
Sequence Value	0	0	4	8	0	0	0

Memory position= 0 + 0 + 4 + 8 + 0 + 0 + 0= 12

The transmitter key is located at memory position #12.

ENROLLED TRANSMITTER KEYS

1) Press down **PV** for 1 sec. **LR** and **LV** LED starts a sequence of 7 flashes. Note the color sequence and refer to the above table to obtain the number of enrolled transmitter keys.

MEMORY RESET (FACTORY DEFAULT)

1) Press **PR** until **LR** LED turns on.

2) Release **PR** and within 1 sec. press **PR** and **PV** simultaneously until **LR** and **LV** LED starts to flash 3 times (about 4 sec.)

At this point all settings are erased and the receiver is reset to factory default.

FACILITY CODE AND SERIAL NUMBER LOCATION

Facility code (FC): 001

Serial Number(SN): 28886
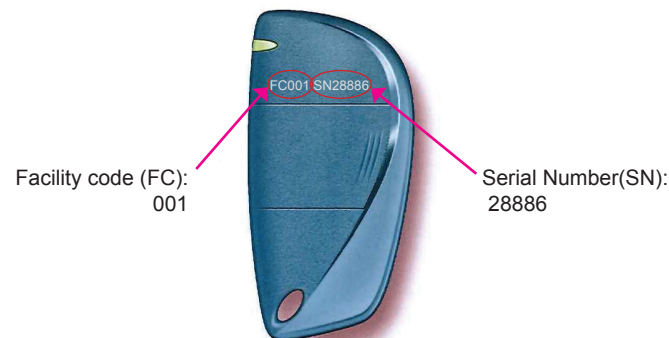
RELAY CONFIGURATION

RELAY STATUS:

Note: The receiver factory default setting is pulse for both relay

Press down **PR** or **PV** for 4 sec. and note the LED state (LR or LV). The following table determine the relay status :

Relay operating mode (RR or RV)	LED operating mode (LR or LV)
Pulse	LED ON
Latched (**RR** only)	Slow blinking
Timed	Fast blinking

RELAY SETTING:

The relay operating mode is cyclic, change the mode according to the following rules:

Relay operating mode cycle	
If the relay is set as pulse	1- it becomes latching 2- it becomes timed if you press the timing sequence after step 2
If the relay is set as latching	it becomes pulse
If the relay is set as timed	it becomes pulse

Relay Configuration Not Allowed
Relay 1 (**RR**) latching and Relay 2 (**RV**) timed
Relay 1 (**RR**) timed and relay 2 (**RV**) timed (with different delay time)

To change the mode follow these steps:

1) Press **PV** or **PR** for 4 seconds. LED will illuminate displaying relay status. Use Table above to determine the status.

2) Within 1 sec., press **PR** to change the relay mode. The relay mode will change according to the relay setting table above.

Note: To configure the relay output time, enter the timing sequence after step 2, see relay timing table below.

RELAY TIMING:

Important: To set or modify relay timing, the relay has to be set as pulse before.

1) Press **PR** for 4 sec. The **LR** LED will turn ON (if not, set the relay operation to pulse, see **Relay Setting** section).

2) Press **PR** for 1 sec. and **LR** LED switche to OFF. Within 2 seconds, start the seven digit, **PR** and **PV** sequence, to set the relay timing (See table below)

PR= not seclected (0)   **PV**= selected (1)

PR and PV pressing se-quence	1	2	3	4	5	6	7
Seconds	1	2	4	8	16	PR	PR
	10	20	40	80	160	PV	PR
Minutes	2	4	8	16	32	PR	PV
	20	40	80	160	320	PV	PV

Example 1: 8 sec. relay activation

PR and PV pressing se-quence	1	2	3	4	5	6	7
Seconds	PR	PR	PR	PV	PR	PR	PR
	10	20	40	80	160	PV	PR
Minutes	2	4	8	16	32	PR	PV
	20	40	80	160	320	PV	PV

Input sequence= PR + PR + PR + PV + PR + PR + PR= 8 sec.

Example 2: 2 min. relay activation

PR and PV pressing se-quence	1	2	3	4	5	6	7
Seconds	1	2	4	8	16	PR	PR
	10	20	40	80	160	PV	PR
Minutes	PV	PR	PR	PR	PR	PR	PV
	20	40	80	160	320	PV	PV

Input sequence= PV - PR - PR - PR - PR - PR - PV= 2 min.

Relay 1 (Red LED):_____

Relay 2 (Green LED):_____

#	FC Code	Serial #	Key Button				Relay		User Name
1			A☐	B☐	C☐	D☐	1☐	2☐	
2			A☐	B☐	C☐	D☐	1☐	2☐	
3			A☐	B☐	C☐	D☐	1☐	2☐	
4			A☐	B☐	C☐	D☐	1☐	2☐	
5			A☐	B☐	C☐	D☐	1☐	2☐	
6			A☐	B☐	C☐	D☐	1☐	2☐	
7			A☐	B☐	C☐	D☐	1☐	2☐	
8			A☐	B☐	C☐	D☐	1☐	2☐	
9			A☐	B☐	C☐	D☐	1☐	2☐	
10			A☐	B☐	C☐	D☐	1☐	2☐	
11			A☐	B☐	C☐	D☐	1☐	2☐	
12			A☐	B☐	C☐	D☐	1☐	2☐	
13			A☐	B☐	C☐	D☐	1☐	2☐	
14			A☐	B☐	C☐	D☐	1☐	2☐	
15			A☐	B☐	C☐	D☐	1☐	2☐	
16			A☐	B☐	C☐	D☐	1☐	2☐	
17			A☐	B☐	C☐	D☐	1☐	2☐	
18			A☐	B☐	C☐	D☐	1☐	2☐	
19			A☐	B☐	C☐	D☐	1☐	2☐	
20			A☐	B☐	C☐	D☐	1☐	2☐	
21			A☐	B☐	C☐	D☐	1☐	2☐	
22			A☐	B☐	C☐	D☐	1☐	2☐	
23			A☐	B☐	C☐	D☐	1☐	2☐	
24			A☐	B☐	C☐	D☐	1☐	2☐	
25			A☐	B☐	C☐	D☐	1☐	2☐	
26			A☐	B☐	C☐	D☐	1☐	2☐	
27			A☐	B☐	C☐	D☐	1☐	2☐	
28			A☐	B☐	C☐	D☐	1☐	2☐	
29			A☐	B☐	C☐	D☐	1☐	2☐	
30			A☐	B☐	C☐	D☐	1☐	2☐	
31			A☐	B☐	C☐	D☐	1☐	2☐	
32			A☐	B☐	C☐	D☐	1☐	2☐	
33			A☐	B☐	C☐	D☐	1☐	2☐	
34			A☐	B☐	C☐	D☐	1☐	2☐	
35			A☐	B☐	C☐	D☐	1☐	2☐	
36			A☐	B☐	C☐	D☐	1☐	2☐	
37			A☐	B☐	C☐	D☐	1☐	2☐	
38			A☐	B☐	C☐	D☐	1☐	2☐	
39			A☐	B☐	C☐	D☐	1☐	2☐	
40			A☐	B☐	C☐	D☐	1☐	2☐	
41			A☐	B☐	C☐	D☐	1☐	2☐	
42			A☐	B☐	C☐	D☐	1☐	2☐	