



GB RSA Hz

Radio receiver for rolling garage door

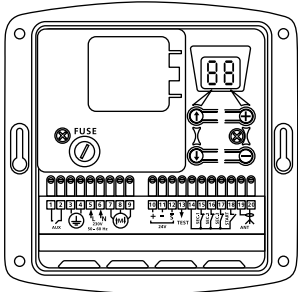
5069226C

Read carefully these instructions before any use.

S.A.S. au capital de 5 000 000 € - Z.I. Les Giranaux - BP71 - 70103 Arc-Les-Gray CEDEX - RCS GRAY B 425 650 090 - SIRET 425 650 090 00011 - n° T.V.A CEE FR 87 425 650 090

CE Hereby SIMU declare that this equipment "RSA Hz" is in compliance with the essential requirements and other relevant provisions of directive 1999/5/EC. A declaration of conformity is available at the web adress: www.simu.fr - Usable in **UE, CH**

1 Technical data

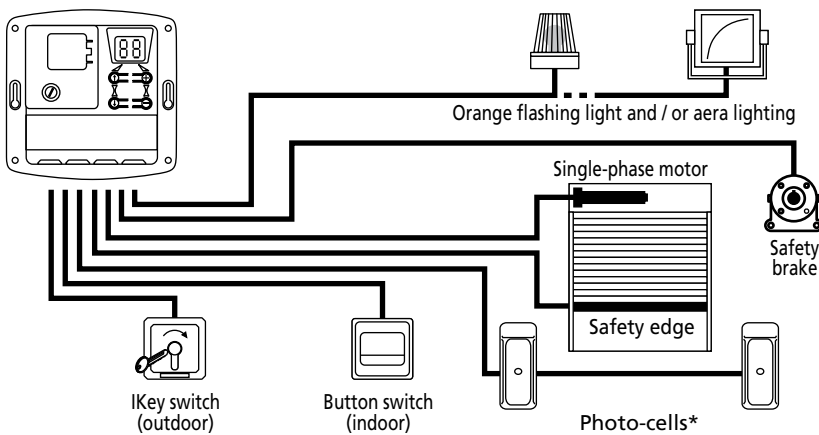


- Power supply voltage: 230Vac 50 Hz.
- Fuse: 250V 5A with timeout
- Max motor power: 230Vac 750W.
- Protection rating: IP 44.
- Ambient operating T° : -15°C to +55°C.
- Radio frequency: 433,42MHz
- Accessory power supply: 24Vcc (direct).
- Resistance values for resistive sensor bar: From 5 to 12KOhm
- Maximum current for accessories (cells, keypads, loops, sensor bar, etc...): 0.33A i.e. 8W max. or 13W intermittent (orange light 10W + accessories 3W).
- Orange light: 24V, 10W max ou 230V 40W max
- Area lighting: 230Vac, 500W.
- Auxiliary output: Contact NO, 250Vac 500W.
- Operating class: 1, the ground must be connected.
- Box dimension: 150 x 150 x 40 mm

- The RSA Hz receiver is used to control a rolling garage door fitted with a 230V motor with built-in endstops using the TSA range transmitters and Hz transmitters. Different safety and signaling systems can be connected to the RSA HZ (safety edge, photocells, flashlights, area lighting).
 - This product complies with the standard "Household and similar electrical appliances - Safety - Part 2-95: Particular requirements for drives for vertically moving garage doors for residential use" IEC 60335-2-95. This contributes to implementing installations complying with the standard "safety in using motorised doors" NF EN 12453. RSA Hz must be installed inside the garage with a motor equipped by a manual override system.

2 Wiring

Example of installation (wire section : 0,75mm²)

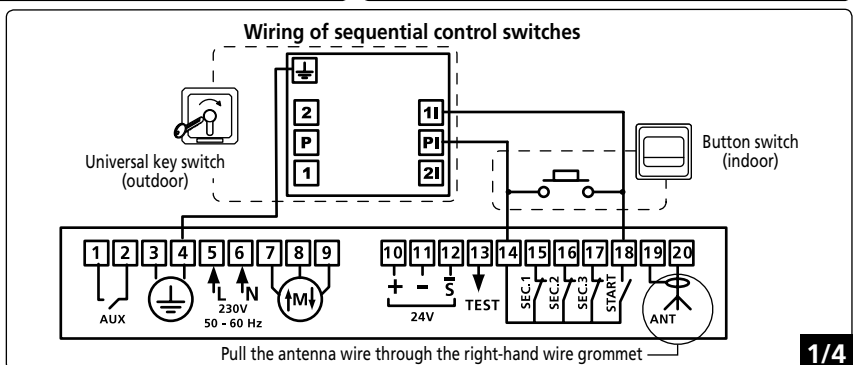
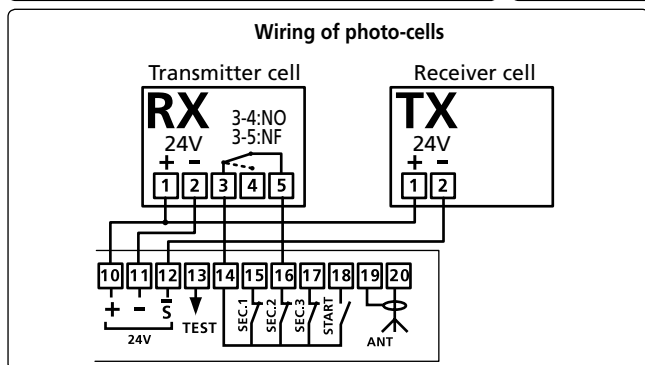
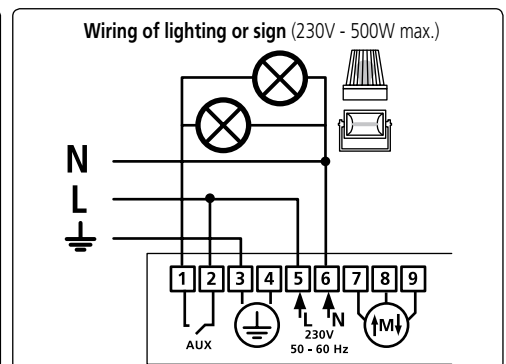
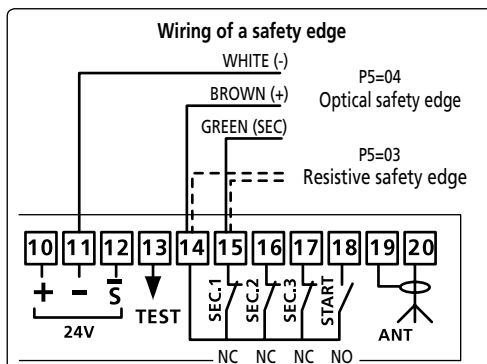
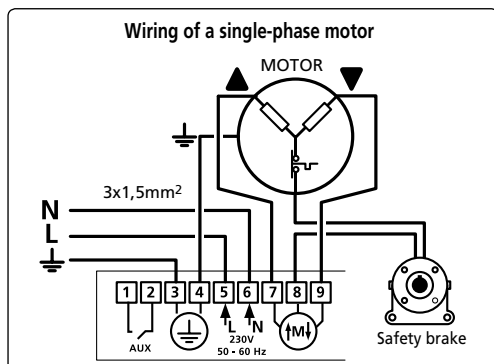


⚠

Apply the electric installation standards, as well as the following points:

- Switch off the mains before any intervention.
- Use flexible cables.
- Connect the ground cables.
- After installation, no traction must be applied to the terminal strips.

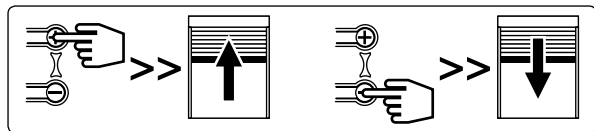
* Possibility of wiring a second photocell between terminals 14 and 17.



3 Checking the motor's rotation direction

3.1- Powering on the product: the display indicates the value $\boxed{E1}$

3.2- Check the motor's rotation direction using the \ominus et \oplus keys



- Press and hold the key \oplus to open the door.
- Press and hold the key \ominus to close the door.

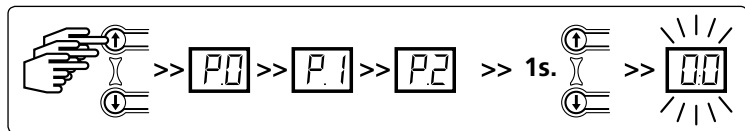
- If the operation is reversed, power off the product, and revert the motor's wiring (terminals 7 and 9).

- **Refer to the motor's installation manual to set the end stop system.**

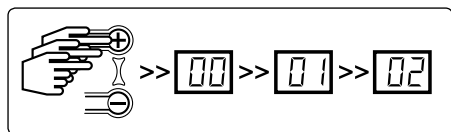
3.3- Measure the motor operating time using permanent running (e.g. 20sec. for rising), then set the parameter $\boxed{E0}$ with a value slightly above the time observed ($\boxed{E0}$: Motor operating time from $\boxed{00}$ to $\boxed{80}$, 1 sec. increments)

4 Parameters

The default modes adjusted a SIMU correspond to the main part of installations and uses of roller garage doors. Nevertheless, the SA Hz control box can be completely and easily programmed in order to obtain a personalized working according to the accessories connected and the specific working mode desired by the user.



- Use the \leftarrow and \rightarrow keys to browse the menu and display the parameter required. One second after releasing the key, the screen indicates the parameter value to change. (display blinks).



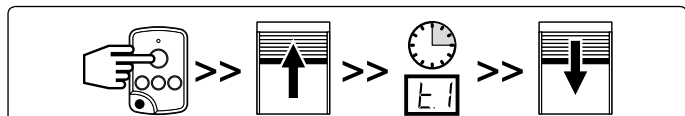
- Use the \oplus and \ominus keys to change the value of the parameter. The last value is recorded automatically (the display is fixed when pressing the keys).

- To return to the menu, press the \leftarrow or \rightarrow to return to value $\boxed{E1}$ (or any other value indicating the product's operation: see § 5) or after a one-minute waiting time.

4.1- **Configuring the operating mode: Parameter $\boxed{P0}$** (factory setting = $\boxed{05}$)

- Certain operating modes impose connecting safety accessories (NF EN 12453). Non compliance with these rules can lead to a facility hazardous for its users.

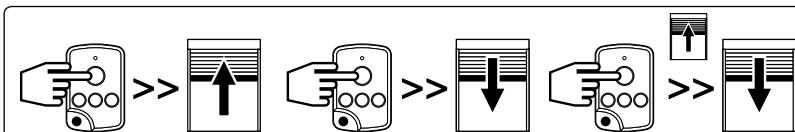
The RSA Hz has six operating modes:



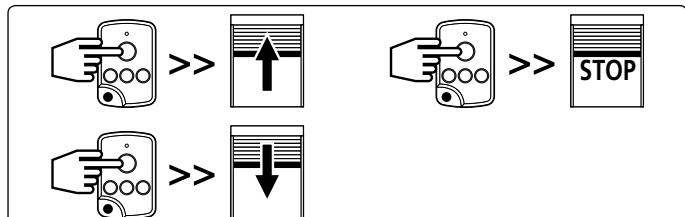
$\boxed{P0}$ - $\boxed{00}$: **Automatic mode:** Pressing the remote control opens and closes automatically after timeout $\boxed{E1}$. During closing, pressing the remote control again or the detection of an obstacle reopens the door.

- $\boxed{E1}$: Closing time of the door ($\boxed{00}$ to $\boxed{99}$, 1sec. increments)

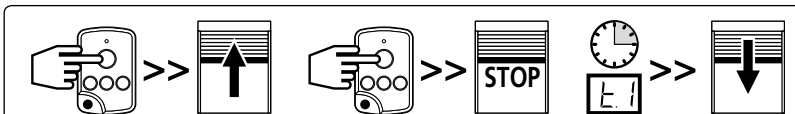
⚠ **Mandatory installation of safety accessories.**



$\boxed{P0}$ - $\boxed{01}$: **Semi-automatic mode:** Pressing the control triggers opening or closing. Pressing again during opening has no effect. Pressing during closing reopens the door.

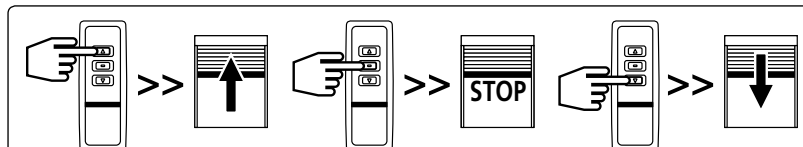


$\boxed{P0}$ - $\boxed{02}$: **Sequential mode:** Cyclic operation (up / stop / down / stop...). Pressing during opening or closing stops without reversion.

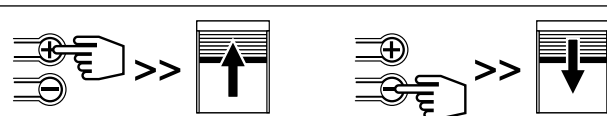


$\boxed{P0}$ - $\boxed{03}$: **Sequential mode + Timeout:** Similar to the sequential mode, but with automatic closing after timeout $\boxed{E1}$.

- $\boxed{E1}$: Closing time of the door ($\boxed{00}$ to $\boxed{99}$, 1sec. increments)



$\boxed{P0}$ - $\boxed{04}$: **3-button mode:** This mode is used to set separate controls for opening, closing, and stopping the door.



$\boxed{P0}$ - $\boxed{05}$: **Forced mode with the \oplus and \ominus keys on the keyboard (default mode):** This mode is used to control the door using the \oplus and \ominus keys on the RSA Hz box in the endstop adjustment phase.

- Press and hold \oplus to open the door.
- Press and hold \ominus to close the door.

⚠ **In this mode, the safety devices are not activated**

4.2- Safety input function: Parameters $P1$ $P2$ $P3$

- When using a resistive safety edge, the latter must be wired onto safety input 1. The opening safety device ($P1$ $P2$ $P3 = 01$) stops then recloses partially (non configurable action).

Configuration of safety input 1 (safety edge*): Parameter $P1$ (factory setting = 00)

$P1$ 00	No accessories connected to safety input 1 (default mode)	$P1$ 03	ADMAP** safety: active upon closing + forbids starting at opening
$P1$ 01	Accessory connected to safety input 1 enabled when opening the door	$P1$ 04	Contact for connecting an emergency stop device
$P1$ 02	Accessory connected to safety input 1 enabled when closing the door		

Configuration of safety input 2 (photocell*): Parameter $P2$ (factory setting = 00)

$P2$ 00	No accessories connected to safety input 2 (default mode)	$P2$ 03	ADMAP** safety: active upon closing + forbids starting at opening
$P2$ 01	Accessory connected to safety input 2 enabled when opening the door	$P2$ 04	Contact for connecting an emergency stop device
$P2$ 02	Accessory connected to safety input 2 enabled when closing the door		

Configuration of safety input 3: Parameter $P3$ (factory setting = 00)

$P3$ 00	No accessories connected to safety input 3 (default mode)	$P3$ 03	ADMAP** safety: active upon closing + forbids starting at opening
$P3$ 01	Accessory connected to safety input 3 enabled when opening the door	$P3$ 04	Contact for connecting an emergency stop device
$P3$ 02	Accessory connected to safety input 3 enabled when closing the door		

4.3- Safety action upon closing: Parameter $P4$

- The safety action at opening ($P1$ $P2$ $P3 = 01$) is not configurable (stopage followed with partial door reopening). However, safety actions upon closing ($P1$ $P2$ $P3 = 02$) can be configured.

$P4$ 00	Stop the door	$P4$ 01	Stop, then total reopening of the door (default mode)	$P4$ 02	Stop then partial reopening of the door(2 seconds operation)
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⚠ **Ensure you configure the safety input used for the appropriate self-test: safety 1: P1+P5, safety 2: P2+P6, safety 3: P3+P7 Once the safety accessories are connected and the safety inputs configured, check manually the proper operation of the accessories before the final start up of the facility.**

4.4- Configuration of the self-testing function: Parameters $P5$ $P6$ $P7$

- The self-test function is used to check proper operation of the safety accessories automatically at the end of closing.

Self-testing safety input 1: Parameter $P5$ (factory setting = 00)

$P5$ 00	No self-test of the accessory connected (default mode)	$P5$ 03	Self-test for resistive sensor bar (value comprised between 4 and 12 K Ω)
$P5$ 01	Self-test for photocells by power supply cutting. Caution : The transmitting cell must be supplied on terminals 10/12 and the receiver cells on terminals 10/11).	$P5$ 04	Self-test for optical sensor bar
$P5$ 02	Self-test for accessory fitted with a TEST input (cells or sensor bar).		

Self-testing safety input 2: Parameter $P6$ (factory setting = 00)

$P6$ 00	No self-test of the accessory connected (default mode)	$P6$ 02	Self-test for accessory fitted with a TEST input (cells or sensor bar).
$P6$ 01	Self-test for photocells by power supply cutting. Caution : the transmitting cell must be supplied on terminals 10/12 and the receiver cells on terminals 10/11).		

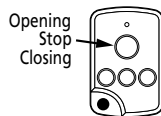
Self-testing safety input 3: Parameter $P7$ (factory setting = 00)

$P7$ 00	No self-test of the accessory connected (default mode)	$P7$ 02	Self-test for accessory fitted with a TEST input (cells or sensor bar).
$P7$ 01	Self-test for photocells by power supply cutting. Caution : the transmitting cell must be supplied on terminals 10/12 and the receiver cells on terminals 10/11).		

4.5- Programming remote controls : Parameter $P8$

- According to the type of operation chosen in chapter 3.1, the value of the $P8$ parameter does not produce the same effects.

Sequential mode $P8$ 02



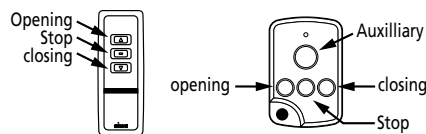
$P8$ 00	Opening / Closing Command (default mode).
$P8$ 03	Auxiliary output control (driving the accessory connected to the AUX output).

Select parameter $P8$ by pressing several time on the \odot key From the release of the key, the display indicates 00 and flashes.

- For programming the "UP / STOP / DOWN" order, select using the key \oplus or \ominus the functionality 00 then program the key associated with this order.

- For programming the auxilliary output order, select using the key \oplus or \ominus the functionality 03 then program the key associated with this order.

3 buttons mode $P8$ 04



$P8$ 00	Open command
$P8$ 01	Close command
$P8$ 02	Stop command
$P8$ 03	Auxiliary output control (driving the accessory connected to the AUX output).

Select parameter $P8$ by pressing several time on the \odot key From the release of the key, the display indicates 00 and flashes.

- For programming the "UP" order, select using the key \oplus or \ominus the functionality 00 then program the key associated with this order.

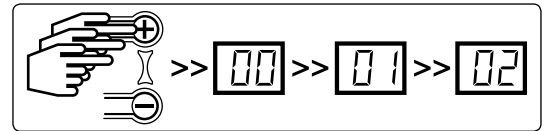
- For programming the "DOWN" order, select using the key \oplus or \ominus the functionality 01 then program the key associated with this order.

- For programming the "STOP" order, select using the key \oplus or \ominus the functionality 02 then program the key associated with this order.

- For programming the auxilliary output order, select using the key \oplus or \ominus the functionality 03 then program the key associated with this order.

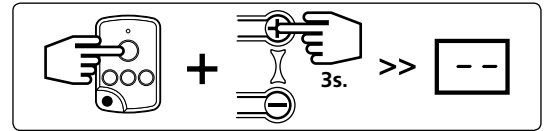
4.5.1- Choose the remote control key's function to program:

- Display the value of the function to program using and keys on the RSA Hz.



4.5.2- Save the channel (RSA Hz can save maximum 32 channels):

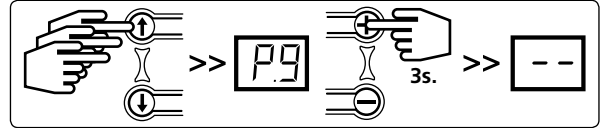
- Press simultaneously the remote control key to program and the key on the RSA Hz for three seconds until dashes appear



- The RSA Hz can be controlled in the three-button mode using a reverter with three keys wired onto the START, SEC2, and SEC3 inputs (if the latter are configured "non wired": chapter 4.2).

4.6- Clearing remote controls: Parameter (factory setting =)

- Clearing all remote controls is performed by pressing and holding for 3 seconds the key until dashes appear.



4.7- Configuration of auxiliary accessories: Parameter (valeur usine =)

- The auxiliary contact is a dry contact. A single accessory can be connected and power supplied according to the use configured.

	Contact to drive an electric latch (The latch must be supplied with an outside power supply)		Contact to drive a zone lighting (default mode, automatic switch off after timeout T3 - §4.8)
	Contact to drive an electromagnet latch		Contact to drive an open door indicator
	Contact to drive an Orange flashlight without notice (only during the door's operation)		Contact of the stable mono relay type to drive an automation system
	Contact to drive an Orange flashlight with notice (before starting and during the door's operation)		Contact of the unstable relay type to drive an automation system

4.8- Configuring the operating time: Parameters -

- : Motor operating time (factory setting =)

> (increments of 1 sec.) Adjust a time slightly longer than the actual operating time (opening time + 3s.).

- : Time for reclosing the door (valeur usine =)

> (increments of 1 sec.) Enabled in automatic operating mode (§ 4.1).

- : Delay time before motor reversion (factory setting =) **Check that the value of the parameter is equal to**

> (increments of 1 sec.) Particular case of motors not accepting reversion of the rotation direction without stopping phase.

- : Area lighting time after cycle end (factory setting =)

> (increments of 1 minute.)

To return to the menu, press the and keys to return to value (or any other value indicating the product's operation: see §5) or after a one-minute waiting time.

5 Operating information

List of operating information displayed by RSA Hz used to view and an easy diagnostic of the facility's status.

Event codes:

	Waiting for a command		ADMAP* cell hidden
	Opening door in progress		Door movement forced by keypad
	Delay before closing door		Emergency stop triggered
	Closing door in progress		Safety Self-testing
	Opening cell hidden		Permanent contact on "START" input
	Closing cell hidden		Delay before motor reversion

Default codes:

	Safety fault at opening (contact always open)		Self-test failed on safety input 2
	Safety fault at closing (contact always open)		Self-test failed on safety input 3
	ADMAP* safety fault (contact always open)		Intensity exceeded on 24V power supply (too many accessories connected)
	Self-test failed on safety input 1		Operating time "T0" too short or motor endstop not reached

Log of the last 10 faults: : See fault code above.

Cycles counter: Tens and units, Thousands and hundreds, Hundred and tens of thousands, (example : = 5249 cycles).

Accessories consumption: : Puissance consommée en watts de à

Reset of the RSA Hz after a fault: To clear the fault codes, select the parameter then press and hold the key for 3 seconds until dashes appear.

- **For the fault codes from to** : Once the fault is corrected, it is not required to clear the fault code of the log to return to normal operation.

- **For the fault codes from to** : Once the fault is corrected, you must clear the defect code for the log to return to normal operation.

*If the connection of accessories matches the diagram in chapter 1.

**Area Dangerous for Movement Accessible to the Public.