1 Product description

Receiver rolling code RTHSE (Roger Technology High Security Encryption) allows a very high degree of safety for the remote control of the access, thanks to 144-bit processed using multi-level encryption.
For a correct understanding of the following instruction are defined
- MAIN transmitter: is the transmitter as it comes from the factory
- SECONDARY transmitter: is the transmitter obtained by copying in it the code from a MAIN transmitter. It is recognizable by the flashing LED slower during transmission
- Receiver in BASIC mode: jumper "J1" closed (**picture 1**, detail "A"): possibility of adding transmitters by storing them only on the receiver
- Receiver in AVANCED mode: jumper "J1" cut (**picture 1**, detail "B"); possibility of adding transmitters up to maximum 3 pieces, by simple copy with the transmitters already in memory (does not require operation on the receiver)

2 Outputs

The receiver has 2 outputs open collector type: the control unit configuration in which it is installed, determines the function associated with each output.

3 Receive a code

If you receive a code stored with the P1 button, the LED 1 lights and activates the output No. 1 for all the duration of the transmission (it is the same for output 2).
If you receive a code that is not memorized both LEDs light up briefly; if the radio transmission continues, the flashing is repeated at intervals of about 1 ".

4 Alarm notifications

MEMORY FULL
If trying to memorize a code the two LEDs flash quickly for 4 " it means that the memory is full and the code cannot be stored.
MEMORY DAMAGED
If the two LEDs flash quickly without stopping means that the memory is faulty: the receiver cannot work.

5.1 Resetting the memory

Press and hold the two buttons P1 and P2 for 4": 5 short flashes contemporaries of the two LEDs indicate the complete resetting.

5.2 Deleting a code

1. Locate the RX output activated by the button of the transmitter that you want to delete.
2. Press the button (P1 or P2) associated with it, keeping it held for 4": at the beginning the LED lights fixed, and then starts to flash quickly.
3. Release the button: The LED continues to flash quickly (for 4").
4. Activate the button of the transmitter to delete: the cancellation is signaled by the LED that lights for 1 ". If the code is not in memory you receive the error message (faster flashes).
5. To delete any other code return to step 1.

6.1 Storing of a transmitter in basic mode

NOTE: the first installation it is advised to do a complete deletion of the memory before beginning to store codes.
1. Press the P1 button if you want to store button of the transmitter associated with the output 1 of the receiver, or the P2 button for output 2 (the storing procedure is the same). When you release the button, the corresponding LED flashes 4 times slowly
2. During this time, press the button of the transmitter you want to store
3. A prolonged power of LED (1") indicates that it is stored in memory, while few quick flashes indicate that the button of the transmitter is already stored. **You cannot store the button of the transmitter on both outputs of the radio.**
4. The LED continues with another 4 slow flashes waiting for other storages (return to step 2). If during this time you press the other button on the radio, you go to storage on the other RX output; if other codes are not transmitted the receiver leaves the storage phase.

Note: storing both MAIN and SECONDARY remote controls, to add new transmitters will always be necessary to take the action on the receiver.
If you want to change the operating mode from BASIC to ADVANCED, proceed as follows:

- completely delete the memory of the receiver
- cut the jumper "J1"
- Re-store only the transmitter MAIN type; the SECONDARY transmitters obtained by coping, will already be working on the receiver

6.2 Activation of the advanced mode

With the receiver **not powered on**, cut the jumper "J1" (**picture 1**, detail "B"). Advanced functionality finds its best use in the following cases:
- EXPANDABILITY WITHOUT INTERVENTION ON SITE: manually store all the MAIN transmitters up to a maximum of 250. You will be able to add up to 3 new transmitters for each of those already stored, by simply copying the code from one of the already available: then SECONDARY transmitters are created, which will already be working on the receiver and will have the same functions of the transmitter from which they were copied.
- INSTALLATIONS WITH COMMON ACCESS FOR SEVERAL USERS: are those installations where there are more receivers that activate common and not common automation; use the ADVANCED mode where there is a common access (example: a sliding gate in a condominium) and use the BASIC mode where accesses are individual (example: the receiver, which activates the individual overhead door).

Description of a typical situation: family of three people who have to activate the individual sliding gate and the individual overhead door.
What to do:
1. Cut the jumper "J1" on the receiver of the sliding gate in condominium: ADVANCED mode is activated; the jumper on the receiver of the overhead door must be maintained
2. Store the first transmitter (MAIN type) on both receivers
3. Copy the MAIN transmitter in other two transmitters, which become type SECONDARY: These transmitters are already in operation on the receiver of the sliding gate of the condominium.
4. Store the two SECONDARY transmitters on the receiver of the individual overhead door (it operates on basic mode and then you can add them only storing manually)
ADVANCED functionality allows to increase the maximum number of transmitters operating on a receiver from 250 (stored manually one by one) up to 1000.

6.3 Storing of a transmitter in advanced mode

NOTE: the first installation it is advised to do a complete deletion of the memory before beginning to store codes.
Before proceeding, verify that the jumper J1 is open, after that, follow the same procedure as described for mode "BASIC" (paragraph 6.1), being careful to use only transmitters of MAIN type.
Warning: if you try to store a SECONDARY transmitter copied from a MAIN transmitter that is not part of the installation, you will have an error message (quick flashes of both the LEDs for the duration of the transmission) indicating the inability to do the operation.

SECONDARY transmitters copied from MAIN transmitters already stored in the receiver, must be enabled (recognized) by the receiver: the authorization is obtained at the first transmission that is successful.
To ensure the safety, the time allowed for the SECONDARY transmitter to store in the receiver is limited. Then do as soon as the first transmission of the SECONDARY transmitters with activation of the receiver: only at this point the operation is finished.
If you do not complete the storing of the SECONDARY transmitter on the receiver, there are two alternatives to use the remote control in the installation:
1. store the SECONDARY transmitter acting on the receiver
2. take a new transmitter and repeat the copying of the code of the MAIN transmitter, ensuring that the enabling on the receiver is then completed in a short time. This operation has the following consequences:
   a. makes it impossible to install the first transmitter copied, unless we proceed as in step 1
   b. if you want to use it as SECONDARY transmitter, you have to copy on it the code of another MAIN transmitter

The SECONDARY transmitters, once enabled on the receiver, inherit the same functions of the buttons stored for the MAIN transmitter in that moment: the buttons of the MAIN transmitters or SECONDARY transmitters will activate the same outputs of the receiver. It is possible to vary the configuration of the SECONDARY transmitter acting on the receiver (please refer to paragraphs regarding the deleting and storing of a code).

6.4 Troubleshooting

Description of the problem	Notifications and checks	Resolution
You are not able to store a transmitter	The two LEDs flash quickly for 4" when you try to store	The memory is full: you cannot add other codes.
	the receiver activates quick flashes of the LED associated with the button P1 or P2	The code of the remote control is already stored
	In storing, transmitting by transmitter both LEDs flash quickly, then back to flash the LED corresponding to the pressed button (P1 or P2)	You are trying to store a SECONDARY transmitter but has been enabled on the receiver the ADVANCED mode this mode, you cannot store by hand a SECONDARY transmitter (are accepted only SECONDARY transmitters derived from the copy of the code from a MAIN transmitter already in memory).
You cannot delete a transmitter	By activating the deletion and transmitting with the transmitter to delete, the LED of the receiver continues to flash quickly	you are trying to delete a button of the transmitter not stored on that RX output. Leaving the deletion procedure, transmitting with the transmitter, you can check which output is activated by the button, noting which LED lights up on the receiver during transmission

7 Disposal

The product should always be uninstalled by qualified technical staff using appropriate procedures for the correct removal of the product.
This product is made from various kinds of materials, some can be recycled others must be disposed of through recycling or disposal systems established by local regulations for this category of product.
It is prohibited to dispose of this product as household waste. Do the "separate collection" for disposal according to the methods established by local regulations; or return the product to the seller when buying an equivalent new product.
Local regulations may provide for heavy penalties for illegal disposal of this product.
Caution: Parts of the product may contain pollutants or hazardous, if disperse could cause harmful effects on the environment and human health.

8 Declaration of conformity

The undersigned, representing the following manufacturer
Roger Technology
Via Botticelli 8. 31020 Bonisiolo di Mogliano V.to (TV)
DECLARES that the equipment described below:
Description: Radio receiver
Model: H93/RX2RC/I
Is in conformity with the legislative provisions that transpose the following directives:
- 1999/5/CE and subsequent changes
- Direttiva RoHS (2011/65/EU)
And has been designed and manufactured to meet all the following standards or technical specifications:
EN 60950-1:2006 + A11:2009 + A1 :2010 + A12 :2011 + AC :2011
EN 300 220-1 V2.4.1:2012-05; EN 300 220-2 V2.4.1:2012-05
EN 301 489-3 V1.4.1:2002; ETSI EN 301 489-1 V1.9.2:2011
Last two figures of the year in which the CE mark was affixed is 14.
Place: Mogliano V.to
Date: 12-05-2014   Signature

9 Specifications

	H93/RX2RC/I
POWER SUPPLY VOLTAGE	5Vdc
CURRENT ABSORPTION	18mA
NUMBER OF OUTPUTS	2
TYPE OF OUTPUT	open collector
NUMBER OF TRANSMITTERS STORABLE	
IN ADVANCED MODE	1000
IN BASIC MODE	250
FREQUENCY RECEPTION	433.92 MHz
MODULATION	AM / ASK
SENSIBILITY	-107 dBm
INPUT IMPEDANCE	50 Ω
OPERATING TEMPERATURE	-10°C ÷ +55°C
PRODUCT DIMENSIONS	60,6 x 32,0 x 11,6 mm Weight: 9 g

10 Illustrazioni e schemi - Pictures and schemes

MODALITA' BASE BASIC MODE

MODALITA' AVANZATA ADVANCED MODE