



RCALGRF

Wireless flooding detector

090010910



IT08020000001624



FOREWORD

FOR INSTALLERS

Please follow carefully the specifications about electric and security systems realization further to the manufacturer's prescriptions indicated in the manual provided.

Provide the user the necessary indication for use and system's limitations, specifying that there exist precise specifications and different safety performance levels that should be proportioned to the user needs. Have the user read carefully the instructions provided in this document.

FOR USERS

Carefully check the system functionality at regular intervals making sure all enabling and disabling operations were made correctly.

Have skilled personnel make the periodic system's maintenance. Contact the installer to verify correct system operation in case its conditions have changed (e.g.: variations in the areas to protect due to extension, change of the access modes, etc.)

.....
This device has been designed, assembled and tested with the maximum care, adopting control procedures in accordance with the laws in force. The full correspondence to the functional characteristics is given exclusively when it is used for the purpose it was projected for, which is as follows:

Wireless flooding detector

Any use other than the one mentioned above has not been forecasted and therefore it is not possible to guarantee the correct functioning of the device. Similarly, any other use of this technical manual other than the one it has been compiled for - that is: to illustrate the devices technical features and operating mode - is expressly prohibited.

The manufacturing process is carefully controlled in order to prevent defaults and bad functioning. Nevertheless, an extremely low percentage of the components used is subjected to faults just as any other electronic or mechanic product.

As this item is meant to protect both property and people, we invite the user to proportion the level of protection that the system offers to the actual risk (also taking into account the possibility that the system was operated in a degraded manner because of faults and the like), as well reminding that there are precise laws for the design and assemblage of the systems destined to these kind of applications.

The system's operator is hereby advised to see regularly to the periodic maintenance of the system, at least in accordance with the provisions of current legislation, as well as to carry out checks on the correct running of said system on as regular a basis as the risk involved requires, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. The user must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.

Design, installation and servicing of systems which include this product, should be made by skilled staff with the necessary knowledge to operate in safe conditions in order to prevent accidents. These systems' installation must be made in accordance with the laws in force. Some equipment's inner parts are connected to electric main and therefore electrocution may occur if servicing was made before switching off the main and emergency power. Some products incorporate rechargeable or non rechargeable batteries as emergency power supply. Their wrong connection may damage the product, properties and the operator's safety (burst and fire).

DISPOSAL INSTRUCTIONS - USER INFORMATIONS



According to Directive 2012/19/EU on the Waste of Electric and Electronic Equipment (WEEE), it is here specified that this Electrical-Electromechanic Device started to be commercialized after 13th August 2005, and it shall be disposed of separately from ordinary waste products.

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1. GENERALS

RCALGRF product allows the water detection and it is designed for home environments; it can be installed in the kitchen for the protection of accidental water leakage by the dishwasher, near the washing machine in the laundry room, in the basement garage to turn on a submersible pump or in the boiler room.

RCALGRF product is an accessory for wireless systems such as Villeggio and Helios. It can managed also by RIVERRF concentrators or Halley and Halente head wireless connected to compatible intrusion detection control units. The very low consumption and the power supply with DC3.6V 1.2Ah Lithium battery allows a long battery life. The nice housing and the compact dimensions allows the installation in every environments. For the fixing are available screws and dowels or a tenacious biadhesive in order to not drill the delicate linings of the walls (such as the bathroom or laundry).

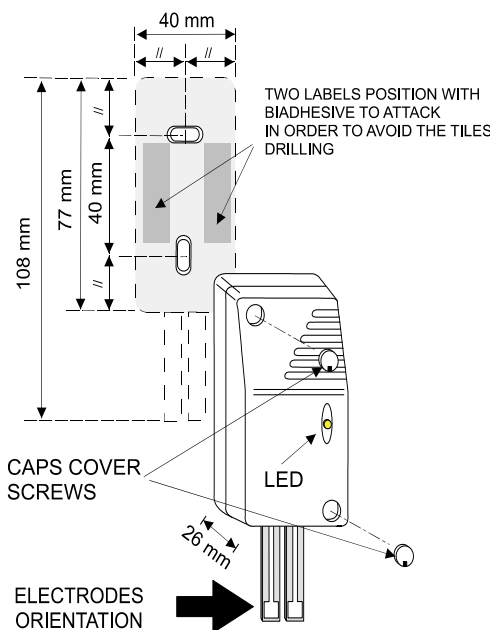
2. FEATURES

Model:	RCALGRF	Range:	150 meters in open space except limitations due to operating conditions.
IP class:	IP3X	Autonomy:	higher to 5 years.
Power supply:	DC3.6V by 1.2Ah type ER14250 or LS14250 Lithium battery	Viewings:	Yellow led for transmission in progress.
Power consumption:	8 µA, MAX. 17mA in alarm.	Sensitive zones:	two electrodes with gold plating surface
Low battery threshold:	2.4V, the minimum operating voltage 2.2V.	Selections:	S1 jumper for protocol setting. Closed = H Helios (default) Open = V Villeggio
TX frequency:	digital transmissions on device frequency for LPD devices (Low Power Devices).	Operating temperature:	+5°C : +50°C, 93 % U.r.
TX code:	supplied with a identification code, number of combinations > 2 billion (2 ³¹).	Dimensions:	W 40 x H 108 x D 26 mm
Transmissions for:	flooding status, low battery, supervision. Pressing the S1 button, it transmits the detector and flooding status and the learning code to the control unit.	Weight:	35 g without battery, 45 with inserted battery.
Supervisor time:	transmission every 25 minutes.	Parts supplied:	3.6V type ER14250 battery, two screws and dowels, two closing plugs front screws, 2 labels with double sided adhesive, manual.

Hereby, EL.MO. Spa declares that the radio equipment RCALGRF is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following Internet address: elmospa.com – registration is quick and easy.

3. INSTALLATION

View of the de-



ATTENTION
PLEASE BE CAREFUL TO NOT DAMAGE THE ANTENNA DURING THE INSTALLATION IN ORDER TO AVOID THE TRANSMITTER MALFUNCTION

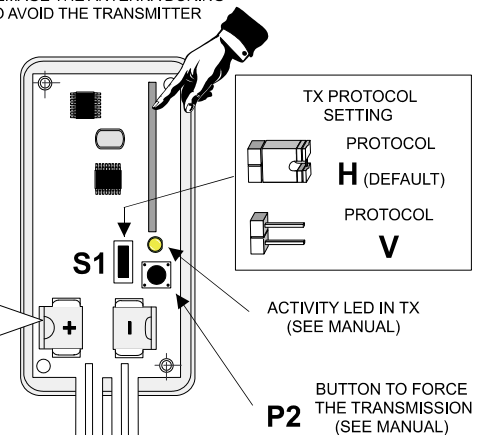
THE PRODUCT IS DELIVERED WITH THE BATTERY. AFTER THE PRODUCT INSTALLATION, INSERT THE BATTERY IN THE INDICATED CLIP RESPECTING THE POLARITIES. DURING THIS PHASE DON'T TOUCH THE BATTERY POLES WITH THE FINGERS.

LITHIUM BATTERY Er14250 TYPE OR EQUIV. 1/2AA REPLACE ONLY WITH A NEW BATTERY OF THE SAME MODEL

! DON'T INSERT THE BATTERY BACK-TO-FRONT PLEASE ATTENTION TO AVOID SHORT CIRCUIT.



ATTENTION
PLEASE PAY ATTENTION TO NOT DAMAGE THE ELECTRODES DURING INSTALLATION TO AVOID DETECTOR MALFUNCTION. INSTALL THE DETECTOR TO THE REQUIRED HEIGHT.





4. SETUP PROCEDURE

4.1 Communication protocol setting

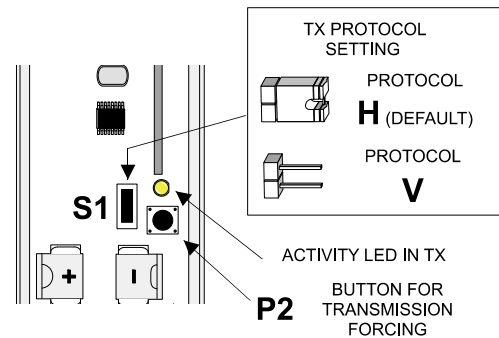
RCALGRF is an accessory for wireless systems with HELIOS, Villeggio or other compatible control units.

In order to successfully send codes of the generated events is necessary to set correctly the communication protocol.

For this purpose there is a **S1** selection jumper shown in the image at the side.

ATTENTION: the wrong position of the jumper will not allow an intelligible transmission with the compatible control unit.

Note: the use of the "V" protocol (only with compatible devices) improves the communication reliability and the battery life.



LED flashing = single flash for flooding and at the pressure of P2 button <3 seconds.

Single flash at the pressure of the P2 button >3 seconds with double flash releasing for learning and code storage.

5. PROCEDURE OF FIRST POWERED

The mod. RCALGRF detector requires special care during the first power supply, the procedures can be summarized in the following points:

- 1) Insert the battery, respecting the polarity as shown in the previous images.
- 2) Press and release 3-4 times the **P2** button.
- 3) Clear any battery memories in the control unit or in the compatible receiving device.

WARNING: when the battery is new or unused for a long period, there can sometimes be an erroneous signal of low battery during the first activations. This is due to the chemical features of Lithium Thionyl Chloride batteries and can be solved by performing the above operations. In case of exposure of the battery at low temperatures, it is advisable to keep the battery at room temperature before inserting it.

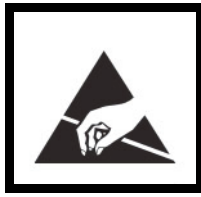
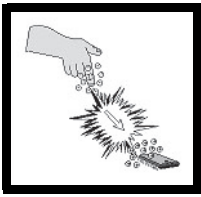
6. CODE STORAGE

6.1 Procedure for RCALGRF storage compatible with control unit

- A. Open the plastic housing of the detector.
- B. Check the battery presence.
- C. Enter in the programming of the control unit or compatible device in the acquisition menu of the wireless device.
- D. With the detector in idle status, cause a transmission **pressing the P2 button (for a time greater than 3 seconds)** and release it. This causes the transmission of the detector status, and after 3 seconds of the flooding event (alarm), the detector is restored (the transmission is signaled by two flashing with yellow LED).
- E. Install the detector in suggested positions. For this purpose is useful to consult the information in the "INSTALLATION" chapter, checking with the proper functioning of the test transmissions.
- F. Close the detector housing.



7. INSTALLATION

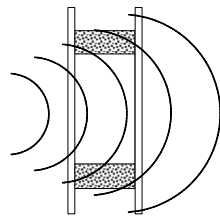


The installer must operate without electrostatic charges also at the housing opening, make sure that the electronic board of the product can be damaged by electrostatic discharge. The precautions must be observed during the installation phase and during maintenance.

The detector installation must comply some rules to prevent performance falls due to positioning errors. In fact it is very important to define with the greatest care the operational area of the receiving system in which the device is installed, the actual coverage and proper installation especially in relation to the nature of the used materials in the building construction. The images below show objects that can attenuate the RF signal and the attenuation of some building materials.

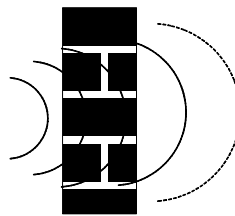
Attenuation of the wireless signal by some typical construction materials.

90% - 100%
FULL
POWER



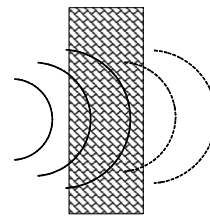
PLAYWOOD OR
HONEYCOMB WALLS

65% - 95%
FULL
POWER



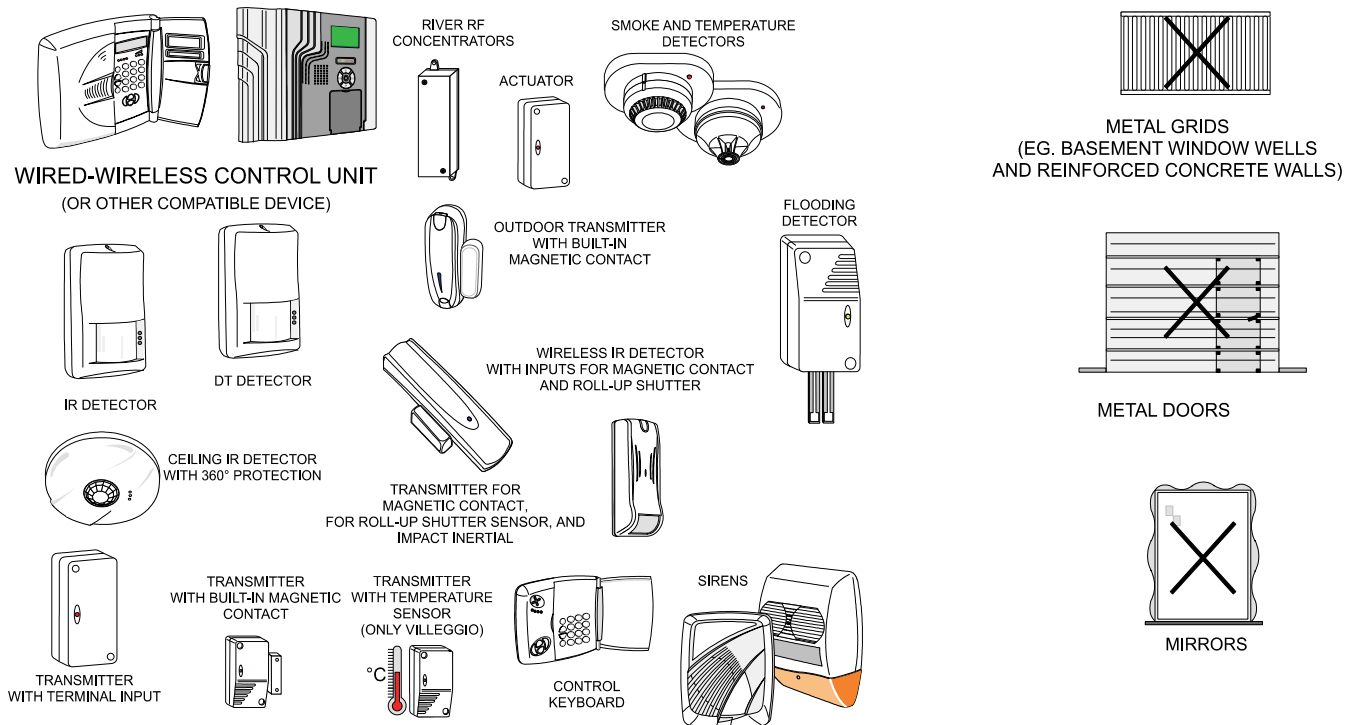
FULL OR DRILLED
BRICKS

0% - 70%
FULL
POWER



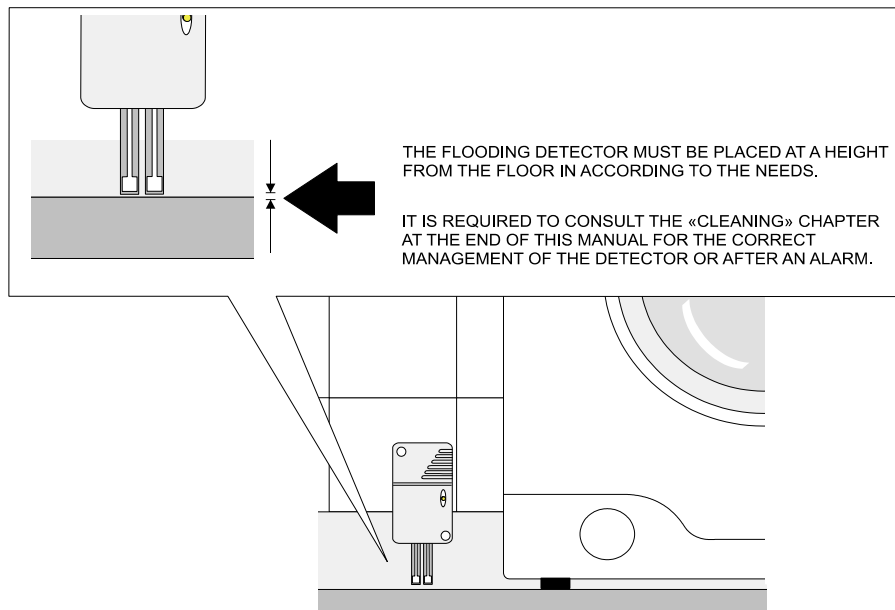
CONCRETE OR SHEET
METAL AND PLASTER

Details and objects which may limit the operating range.





Example of recommended positioning



8. OPERATION

In case of flooding, the detector transmits the event one time. Periodically, every 25 minutes, it transmits the operation status for supervision.

9. REPLACEMENT AND BATTERY DISPOSAL

In the RCALGRF detector is used 3,6V 1,2Ah Lithium battery of the ER14250 or LS1425 (1/2AA) type. It must be replaced with a new battery of the same model.

Respect the following insertion mode:

1. Remove the low battery.
2. Press and release 3-4 times the **P1** button to discharge any energized capacitors.
3. Insert the new battery, respecting the polarity as shown in the previous images.
4. Press and release 3-4 times the **P1** button.
5. Clear any memories of low battery in the control unit or in the receiving compatible device.

The disposal of the battery must be in compliance with the regulations and in the appropriate containers.

10. CLEANING

The product is equipped with plastic housing, for the cleaning use a soft cloth soaked with detergent. Do not spray directly on the container.

ATTENTION: be careful for the cleaning operations of the floor to not generate false alarms or damage the electrodes with the broom or the dust cloth.
Avoid the dirt accumulation in the electrodes area.
After an alarm, clean and dry carefully the electrodes.



Wireless flooding detector mod. RCALGRF - TECHNICAL MANUAL

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Products features as described above do not bind the manufacturer and may be modified without prior notice,

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