

# RBAND/OS GL

## ● INTRODUCTION

### DESCRIPTION

The RadioBand system is designed of Industrial, Commercial and Domestic door and gate applications where a safety edge is used. The system provides a wireless system replacing spiral cables or energy chain systems to provide the safety signal to the door or gate control panel. The receiver monitors the status of transmitters connected to it.

Up to three transmitters per output can be connected to the receiver. There are two outputs on each receiver. The system is compatible with 8K2 monitored safety edges and volt free safety contacts.

The system complies with EN ISO 13849-1.

### USO OF THE SYSTEM

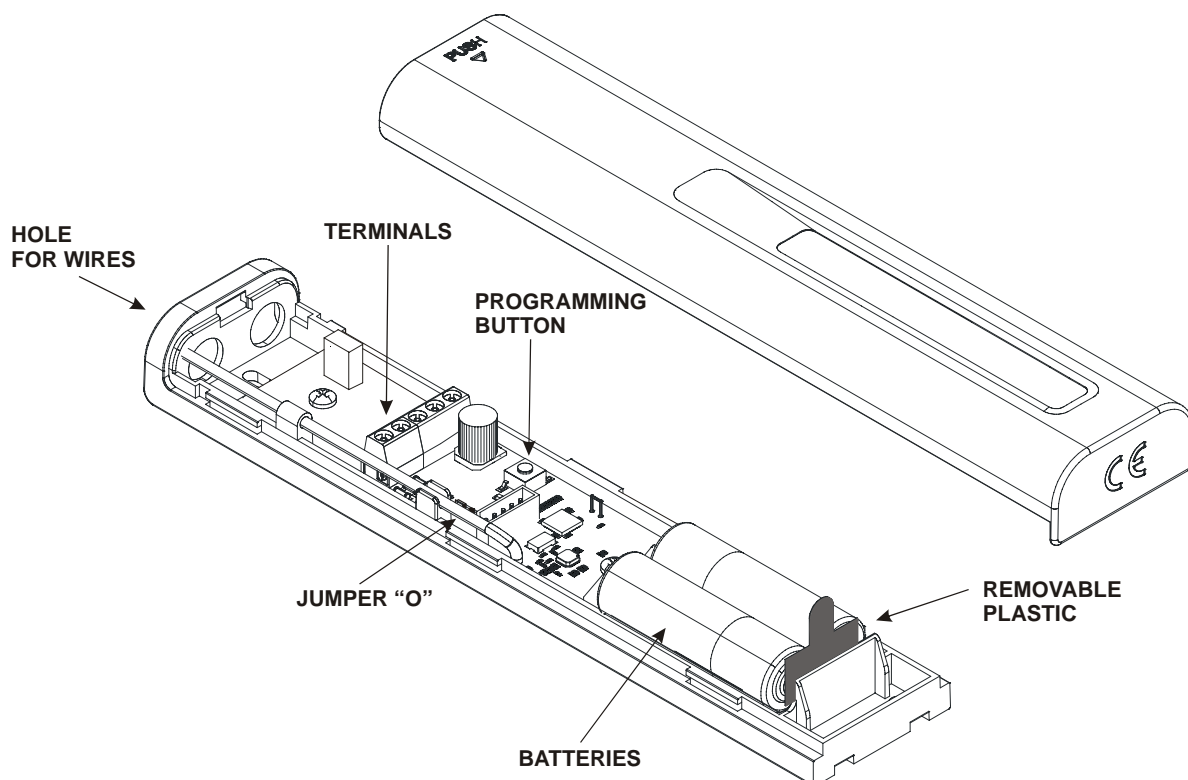
This equipment is designed to be installed with a safety edge for door and gate installations. It is not guaranteed for directly activating equipment other than that specified.

The manufacturer reserves the right to change the specification of the equipment without prior warning.

## ● TECHNICAL CHARACTERISTICS

Frequency	Multifrequency system (433 MHz, 868 MHz)
Power supply	3V DC (2 x 1.5V LR6 AA)
Operating consumption	12mA
Radiated power	< 25mW
Operating temperature	-20°C - +55°C
Watertighness	IP22
Size	40 x 194,5 x 20mm
Range (guaranteed)	10m
Battery life (aprox)	2 year

## ● INSTALLATION PROCEDURE AND BASIC WIRING



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## MECHANICAL INSTALLATION

Swipe the front cover following the indication of the box to open the equipment. Fix the back of the box to the door. Install the transmitter following the technical manual and avoid placing metallic surfaces between the receiver and the transmitter. Pass the cables through the holes indicated. Connect the safety edge following the electrical connections clause and ensure that the safety edge keeps totally waterproof. Swipe the front cover to the back to close the equipment.

## 8K2 MONITORED SAFETY EDGE CONNECTION

Connect the safety edge to the **S.EDGE** terminal. Electromechanical safety edges with 8k2 output are also considered 8k2 monitored safety edges.

## VOLTAGE FREE CONTACT CONNECTION

When a voltage free contact is to be connected, (eg. photocells or electromechanical safety edges without resistive output), connect it to the **SEC** terminal.

Note: In order to comply with the **EN 12453 safety standard for the use of motorized garage doors**, the device connected to this input must have some verification system to ensure its proper functioning.

## OPTO SAFETY EDGE CONNECTION

**The use of opto safety edges requires the autotest signal or the current detector signal from the receiver.**

Ensure the safety edge selection jumper is fitted in the **O** position.  
The system is only compatible with low power opto transmitter/receiver (3Vdc / 3mA).

The opto safety edge remains in standby mode (non functioning) until it receives an activation signal from the receiver. The activation signal is sent during the auto-test and it enables the opto safety edge for 60 seconds (by default) to allow the full travel of the door/gate.

When using the current detector signal instead of autotest, the opto safety edge will remain active during the motor movement.

The activation time of the opto safety edge can be modified. Before doing this operation it is necessary to know the door travel time.

1. Press the receiver **PROG** and **CHECK** buttons simultaneously until the three **CHECK, B1** and **B2** leds go light on.
2. Press the **PROG** button to begin the memorisation of the time the opto safety edge will be activated. You will hear a beep each second, to count the time easier.
3. Press the **PROG** button another time to memorise the total time the opto safety edge will be activated.
4. Program the transmitter to the receiver again (see paragraph PROGRAMMING).

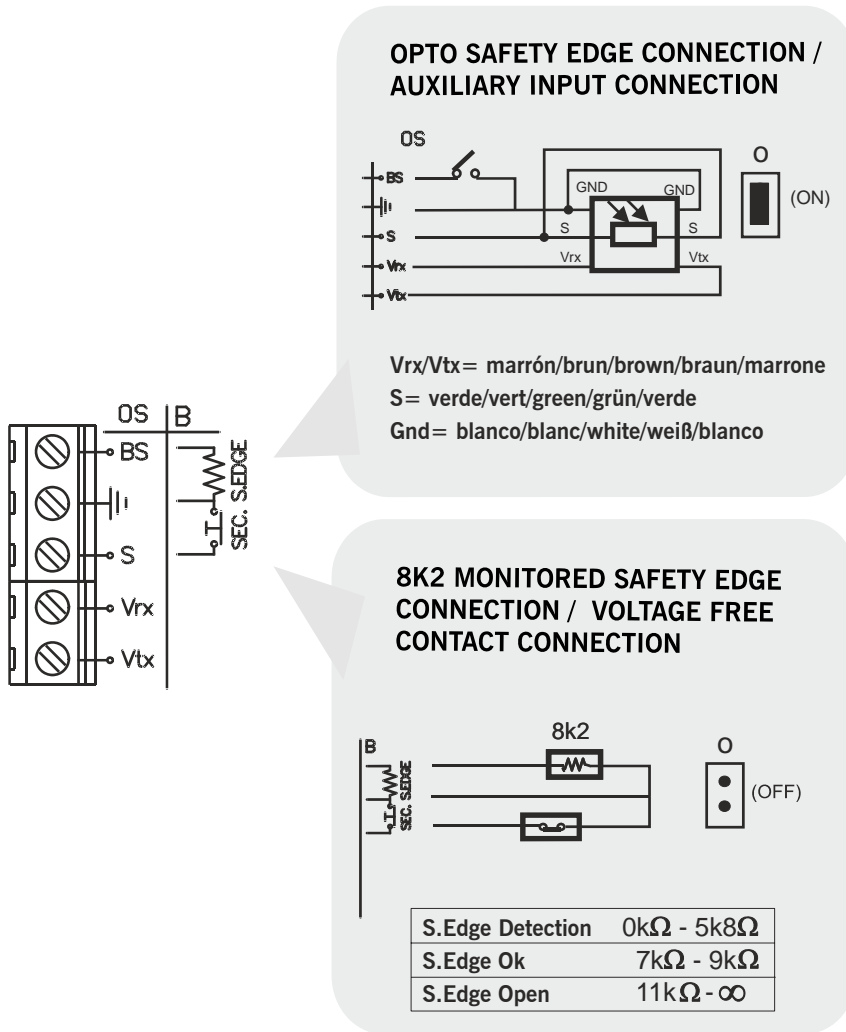
**The auto-test signal is needed to work with the opto safety edge.**

## AUXILIARY INPUT CONNECTION

When programming in the receiver the Mode 4 (See PROGRAMMATION clause), an auxiliary input turns available on the transmitter. The transmitter transmits the status of auxiliary input to the second relay of the receiver. This auxiliary input is a normally open contact and it will be programmed always in the relay 2 of the receiver.

In case of using an opto safety edge, this auxiliary input will be on the **BS** terminal.

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## ● OPERATING

The receiver checks that all the safety edges programmed are operating correctly. In case of activation of a safety edge or error in the operation, the receiver activates the output relay.

## ● PROGRAMACIÓN

While programming the receiver, press the PROG button on the transmitter to be programmed into the receiver. The receiver allows programming 6 RBAND2 transmitters (3 for Relay 1 and 3 for Relay 2).

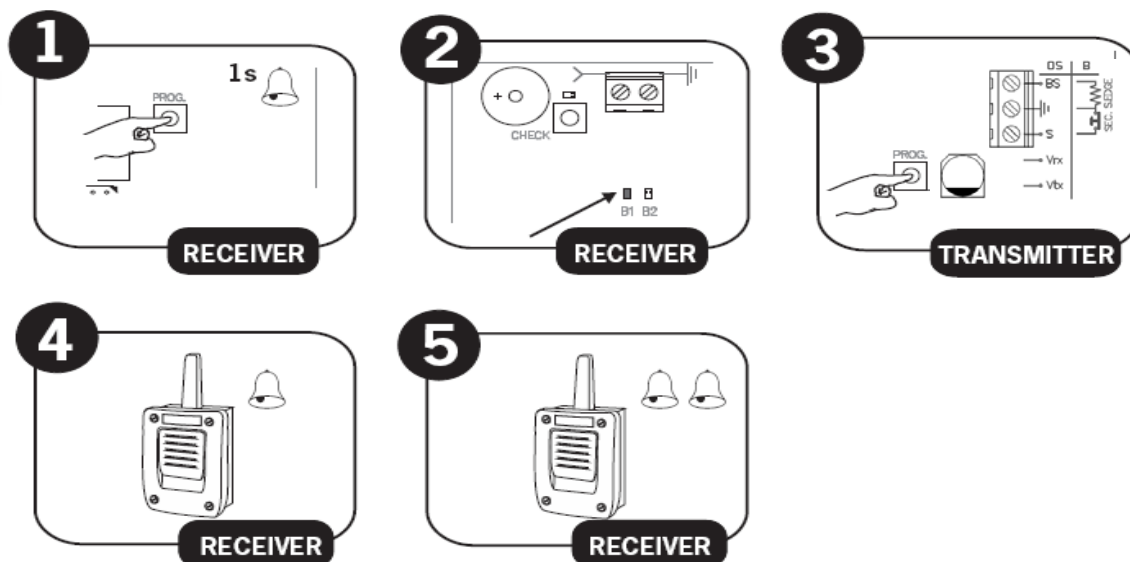
Each safety edge transmitter must be learnt into the appropriate relay of the safety edge receiver.

Mode	Confi guration of transmitter programming in the receiver.	Led R1	Led R2
1	By pressing the transmitter, relay 1 on the receiver will be activated	ON	OFF
2	By pressing the transmitter, relay 2 on the receiver will be activated	OFF	ON
3	By pressing the transmitter, the two relays will be activated at the same time	ON	ON
4	The relays are activated, relay 1 for channel 1 (normal operational functions for the connection of the security element) and relay 2 for channel 2 (functions as a normally open contact to connect an auxiliary input)	Intermittent	Intermittent

Notes:

- Modes 1, 2 and 3: Up to 6 transmitters (3 on output R1 and 3 on output R2) can be connected to the receiver in modes 1, 2 and 3.
- Mode 4: In this mode only 3 transmitters can be connected to the receiver. The relay 2 cannot make the function of indicating low battery.
- Each transmitter can be configured independently on the receiver.
- A Transmitter should only be connected to one receiver.

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If 10 seconds pass without programming a transmitter, the receiver will exit the programming mode.  
 If when programming a transmitter the receiver's memory is full then it will emit 7 beeps of 0.5 sec and exit the programming mode.

## • MAINTENANCE

### TRANSMITTER BATTERY LOW INDICATOR

If the battery of a transmitter programmed into the receiver becomes low, the receiver will beep 4 times every 20 seconds. If there is more than one transmitter programmed, each safety edge should be activated to identify, hearing the 4 beeps, which transmitter has a low battery. If the battery power is low, replace it immediately.

### REPLACING THE BATTERY

Remove the box cover. Replace the two used batteries with new ones, taking into account the polarity indicated by the connector.  
**Check that the new batteries support the same temperature range as those they are replacing.**

### IMPORTANT ANNEX

Disconnect the power supply whenever you proceed to the installation or repair of the control panel. In accordance with the European low voltage directive, you are informed of the following requirements:

- For permanently connected equipment, an easily accessible connection device must be incorporated into the cabling.
- This system must only be installed by a qualified person that has experience with automatic doors/gates and knowledge of the relevant EU standards.
- The instructions for use of this equipment must always remain in the possession of the user.
- Terminals with a maximum section of 3.8mm<sup>2</sup> must be used to connect the cables.
- The frequency of the RadioBand system does not interfere in any way with the 868 MHz remote control systems.

**JCM TECHNOLOGIES, S.A.** declares herewith that the product **RBAND/OS GL** complies with the requirements of the 1999/5/CEE R&TTE Directive and 2004/108/CE Directive on electromagnetic compatibility and 2006/95/CE on low voltage, insofar as the product is used correctly

### CE CONFORMITY DECLARATION

See web [www.motion-line.com](http://www.motion-line.com)