

RB3 R868

User's Manual

GB

Introduction

The RadioBand system is designed of Commercial and Domestic door 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. When an obstacle is detected, the RadioBand system puts its output in a safety state, switching off the receiver relay.

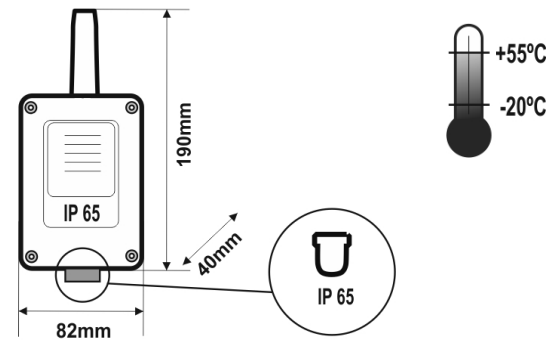
Up to three transmitters per output can be connected to the receiver. There are two outputs on each receiver that can be connected to the control panel as 8k2 or NC contact.

The system complies with EN ISO 13849-1:2008, category 2, PLd.

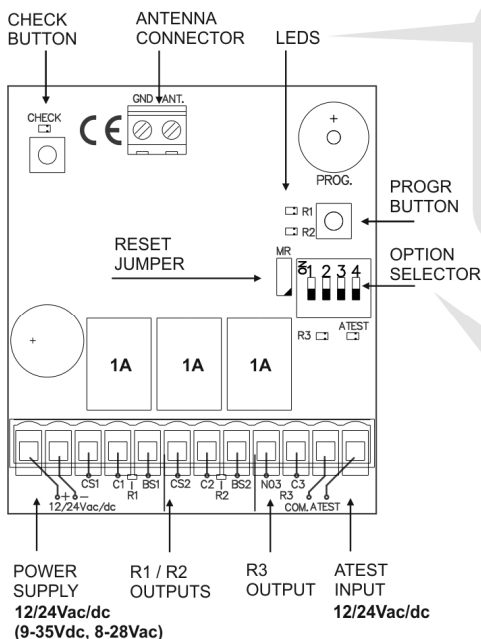
The manufacturer reserves the right to change the specification of the equipment without prior warning.

Technical data

Frequency	Multifrequency system 868 MHz auto-adjustable (Channel 1: 868,700 -869,200MHz, Channel 2: 868,000 -868,600MHz; Channel 3: 869,400 -869,650MHz; Channel 4: 869,400 -869,650MHz)
Memory	6 transmitters (3 on relay 1, 3 on relay 2)
Operating consumption	Max 255mA
Radiated power	< 25mW
Range (in open field)	50 m
Reaction time (typical)	35ms
Maximum reaction time when interferences	220ms



The glands have to be installed to ensure IP65.
Die Drüsen installiert werden IP65 zu gewährleisten.



LED	ON	OFF
R1	Safety edge on relay 1 activated or not connected <i>Sicherheitsleiste auf Relais 1 aktiviert oder nicht angeschlossen</i>	Normal use <i>Normaler Gebrauch</i>
R2	Safety edge on relay 2 activated or not connected <i>Sicherheitsleiste auf Relais 2 aktiviert oder nicht angeschlossen</i>	
R3	SW1:3 ON - Low battery indicator / <i>Warnanzeige bei niedriger Batteriespannung</i> SW1:3 OFF - Same as R1 / R2 / <i>Gleiche wie R1 / R2</i>	
CHECK	See signal coverage table / <i>Siehe Funkfeldabdeckung Tisch</i>	

OPTION	FUNCTION	ON	OFF
SW1:1	Autocheck period <i>Autocheck Zeitraum</i>	7s	30s
SW1:2	Operating mode <i>Betriebsart</i>	ON	WORK
SW1:3	R3	Low battery / <i>Schwache Batterie</i>	R3 = R1 or R2
SW1:4	ATEST polarity <i>ATEST Polarität</i>	12/24V 0V	12/24V 0V

In order to comply with the EN 12978:2003 product standard and assure the correct operation of the system, it is mandatory to follow the instructions below, to avoid serious dangerous to persons.

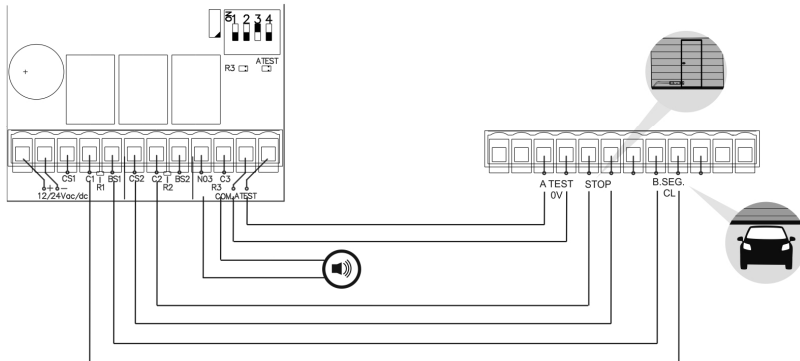
- SW1:1 is allowed to be set at ON, only if the door cycle is between 7s and 30s.
- SW1:1 is allowed to be set at OFF, only if the door cycle is greater than 30s.

Note: If the door cycle is smaller than 7s, this system must not be used.

Connection

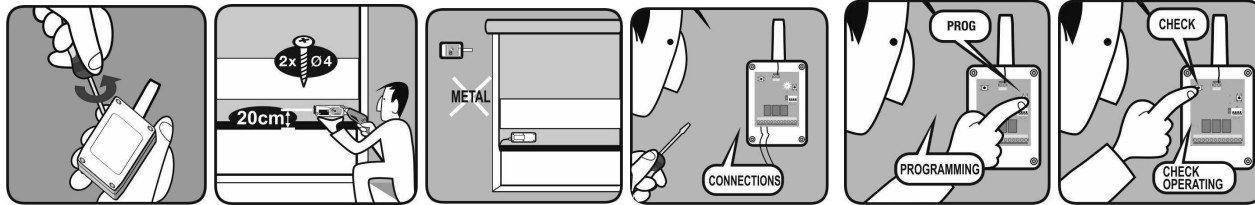
Connection / Anschluss

DOOR WITH 8K2 SAFETY EDGE IN BS1 AND AUXILIARY CONTACT FOR PEDESTRIAN DOOR IN CS2
 ATEST POSITIVE POLARITY AND LOW BATTERY INDICATION IN R3
 TÜR MIT 8K2 SICHERHEITSLITEN IN BS1 UND HILFSKONTAKT FÜR FUBGÄNGER DOOR IN CS2
 ATEST POSITIVER POLARITÄT UND BATTERIESTANDANZEIGE IN R3



Starting up

Installation



Programming transmitter to receiver

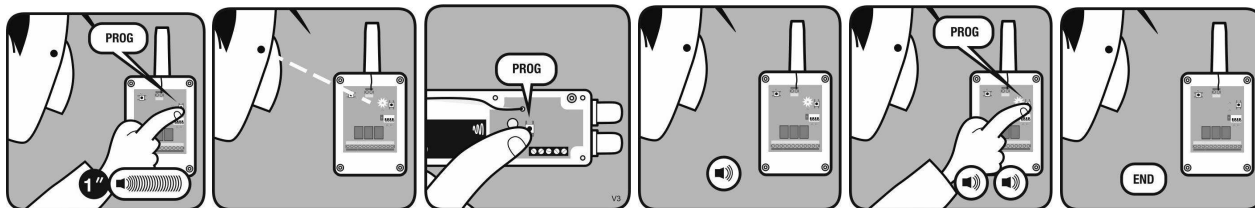
Before programming, place the options selectors in the desired position. Any subsequent changes will entail reprogramming. Press PROG button and keep pressed until desired mode selected.

Programming of one safety transmitter (IN1 input)

Mode	Configuration of transmitter programming in the receiver.	Led R1	Led R2
1	Safety edge activates relay 1 on the receiver	ON	OFF
2	Safety edge activates relay 2 on the receiver	OFF	ON
3	Safety edge activates the two relays 1 and 2 at the same time	ON	ON

Programming of two safety transmitters (IN1 and IN2 input)

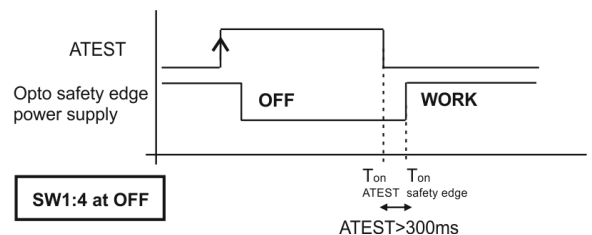
Mode	Configuration of transmitter programming in the receiver.	Led R1	Led R2
4	Safety edge in IN1 activates relay 1 and safety edge in IN2 activates relay 2 (with switch SW1: 2 to OFF, the IN2 input is not tested)	Flashing	Flashing



ATEST Signal

ATEST signal is used to test the system, and depending on the switch SW1: 2 to turn off the optical safety edge and thus save power.

If SW1: 2 is ON, the response time of the signal is 150ms.
 The optical safety edge is always active.
 If SW1: 2 is OFF, the response time will be 300ms.
 The optical safety edge is turn off to save power. (Only four transmitters can be programmed into each receiver).



In order to comply with the EN ISO 13849-1:2008 safety standard, it is necessary to connect the autotest signal.

Maintenance

Leds and beeps indication table

R1/R2 Led	ATEST Led	Beeps	Equipment	Message / error	Solution
ON	OFF	No beeps	RB3 T	Detection of the safety edge	Verify that the IN1/IN2 led of the RB3 T is at ON when you press PROG button of RB3 T, to check the correct operation.
			RB3 R	Communication failure between RB3 R and RB3 T	Verify the radio signal with the Check function.
ON	ON	No beeps	RB3 R	WORK state. The control panel is asking that the output puts in safety state.	---
OFF	OFF	4 beeps each 20s	RB3 R	RB3 T low battery	Verify the batteries of the transmitter
ON	OFF	4 beeps each 20s	RB3 R	RB3 T only one battery connected	Verify and connect the second battery.
OFF	OFF	No beeps	RB3 R	Check function. See coverage and signal quality table.	---

System Check

Press the receiver's CHECK button for at least 1 second to enter check mode. The indicator light will come on and four beeps will be heard.

Perform a complete door opening and closing manoeuvre. During the system check a beep will be heard every 1,5 seconds.

To exit Check mode, press the CHECK button or wait 5 minutes. On exiting check mode, seven consecutive beeps will be heard and the indicator light will flash continuously.

If the communication fails, halt the door manoeuvre and press the safety edges installed to detect what has failed.

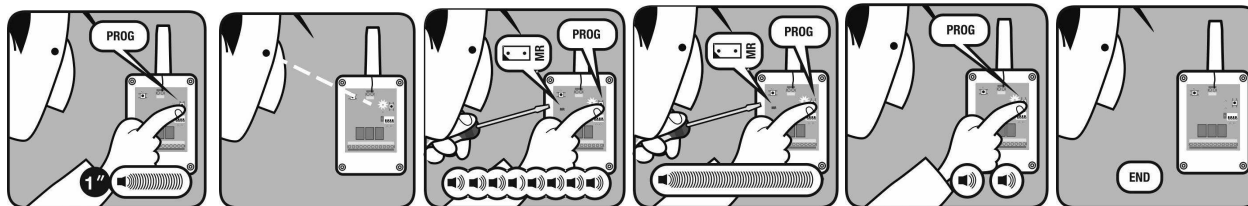
Perform another system check until the result is correct.

Press the safety edges	N° flashes check led	Signal coverage	Result of check	Solution
Three consecutive beeps are heard	1	Very weak	Safety edge failure	Change the orientation of the transmitting-receiving aerials or install an AED-868 or FLAT-868 outdoor aerial to ensure the desired range.
	2	Weak	OK	The battery consumption will be higher
A single beep is heard	3	Normal	OK	
A single beep is heard	4	Good	OK	
A single beep is heard	5	Very good	OK	

Replacing a transmitter

If a transmitter becomes damaged the whole system must be reset and replaced, and non-damaged transmitters must then be re-programmed into the receiver.

Reset



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 3.8mm² 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.

Follow all the recommendations given in this manual to avoid serious dangerous to persons.

JCM TECHNOLOGIES, S.A. declares herewith that the product **RB3 R868** complies with the requirements of the 1999/5/ CEE R&TTE Directive, and complies with the fundamental requirements of the 2006/42/CE Machine Directive, 2004/108/EC Directive on electromagnetic compatibility and 2006/95/EC on low voltage, insofar as the product is used correctly.

EC Declaration of conformity See web www.jcm-tech.com