BBC BIRCHER XRF-R.2 Dual Channel Wireless Receiver Instruction Manual

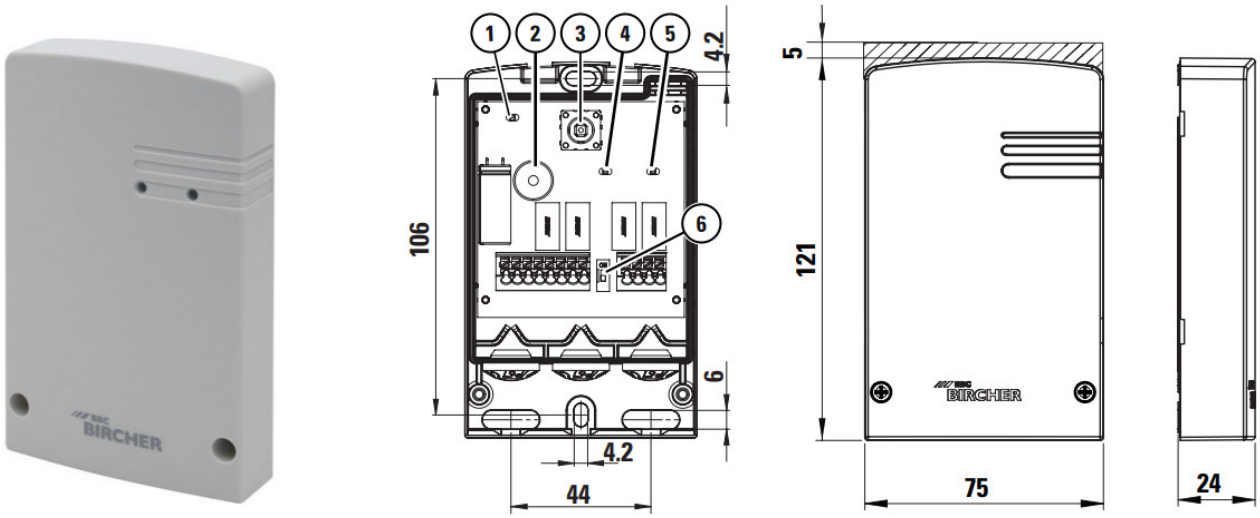
BBC BIRCHER

Smart Access
XRF-R.2 Dual Channel Wireless Receiver
Instruction Manual

Contents

XRF-R.2 Dual Channel Wireless Receiver

Dual output receiver to XRF wireless transmission system
ORIGINAL OPERATING INSTRUCTIONS



1. LED SYS
2. Buzzer
3. Joystick
4. LED 1
5. LED 2
6. DIP-switch

Description

1.1 Intended use
Monitoring safety edges and switches on industrial doors and gates.
1.2 Typical Application
Transmitter Tx1 (input 1) corresponds to receiver output 1
Transmitter Tx2 (input 1) corresponds to receiver output 2

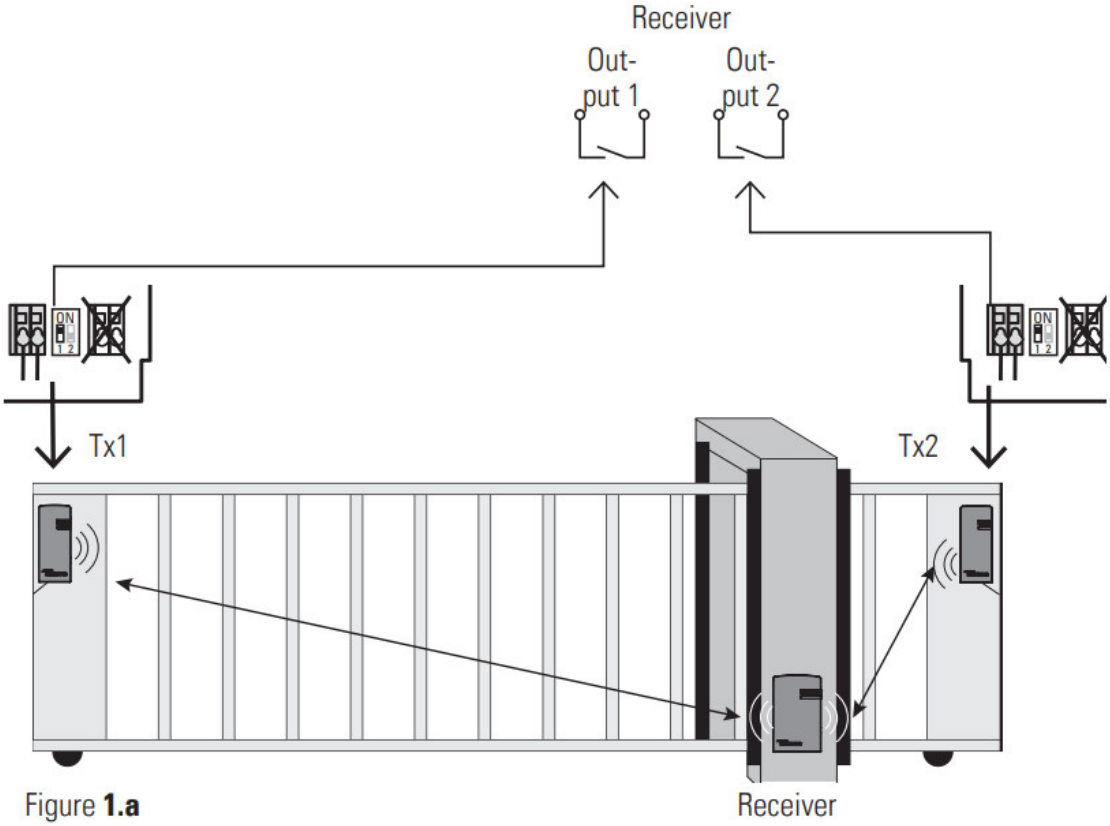


Figure **1.a**

Transmitter Tx1 (input 1) corresponds to receiver output 1
Transmitter Tx2 (input 1) corresponds to receiver output 1

Transmitter Tx2 (input 2) corresponds to receiver output 2

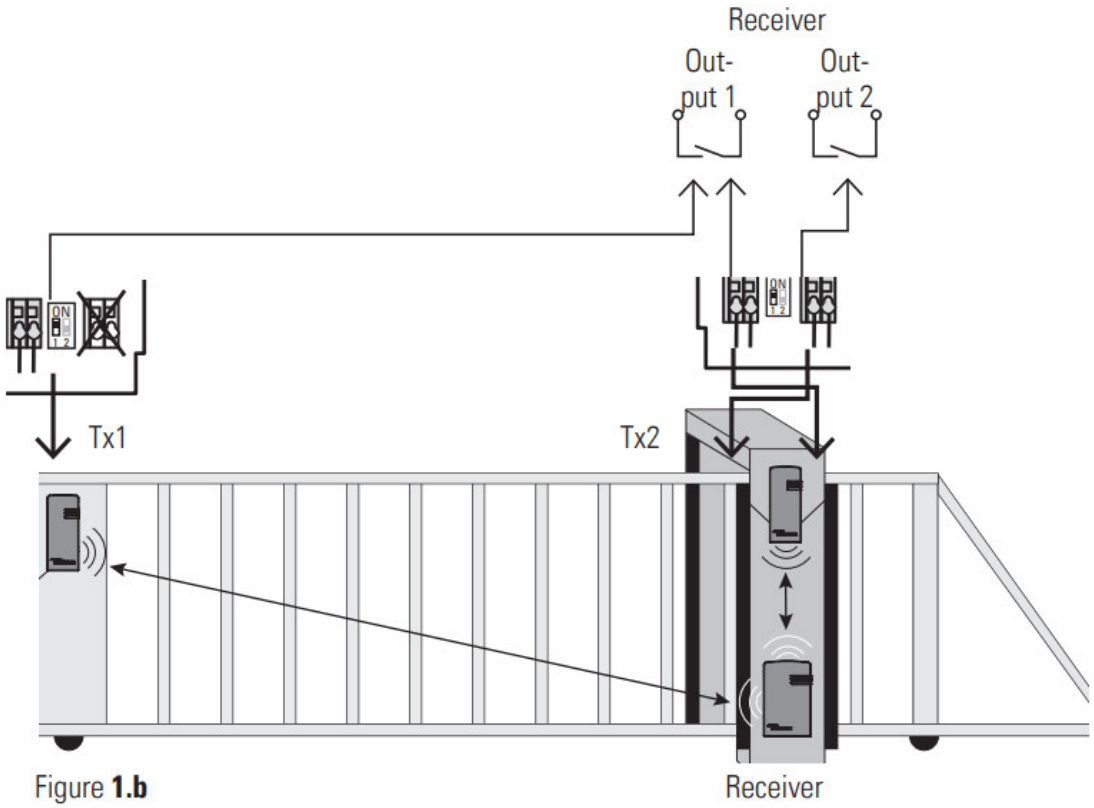


Figure **1.b**

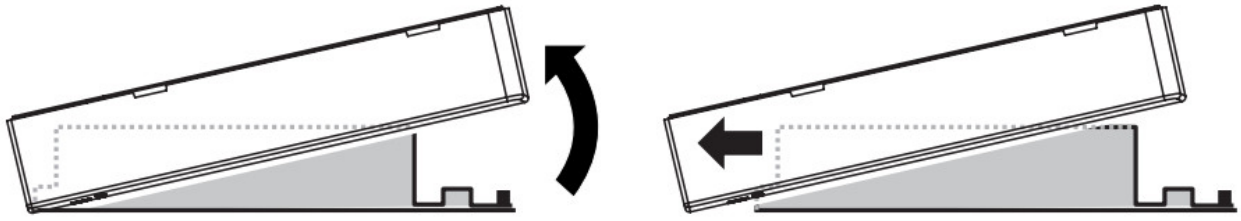
⚠ Safety instructions

- Read these operating instructions thoroughly before putting the device into operation and keep them for future reference.
- Follow all the recommendations given in this manual to avoid serious danger to persons.
- Do not use this product other than for its specified application.
- Pay attention to all local relevant electrical safety regulations.
- Only trained and qualified personnel may install and initialize the device.
- The installer is responsible for testing the system to ensure it meets all applicable safety standards.
- After accessing the inside of the device, ensure the cover/protection seal is closed tightly to achieve designated protection rating. The device must not be used without the cover mounted.
- For compliance with EU standards: Operate the sensor from a safety extra low voltage (SELV) system with safe electrical separation according to EN 61558. The wiring must be protected against mechanical damage.
- Disconnect device from mains in the event of a fault.

Installation

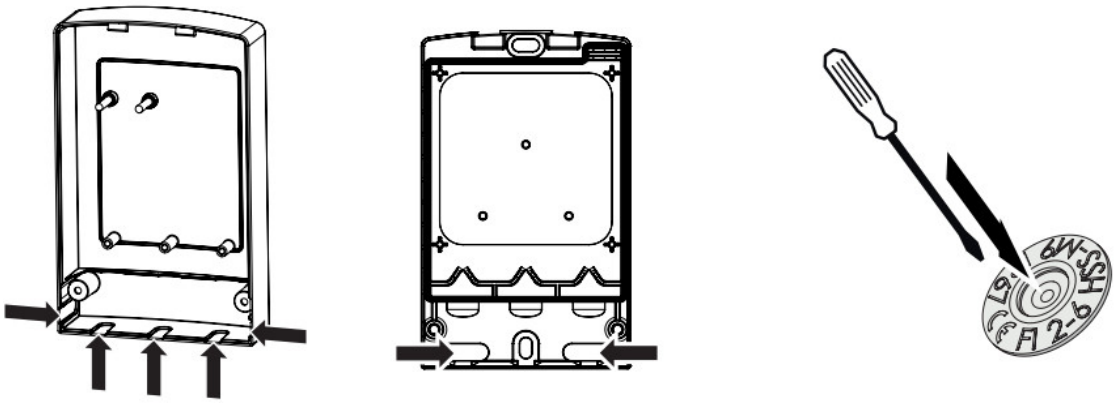
3.1 Opening cover

▷ Lift cover at screw end, then slide away.



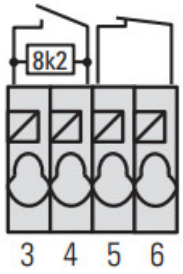
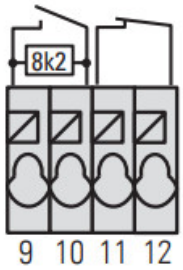
3.2 Cable routing, strain relief

1. Determine the cable routing.
2. Break out the respective part of the cover if necessary.
3. Punch hole into the grommet.
4. Insert cable (cable Ø: 3.1 – 5.2 mm).



Either break out a piece of the cover…… or use holes in the base plate ….. Use Screwdriver to punch hole

3.3 Wiring / set-up
Wire cross section: 0.25 – 0.75 mm

VIN	Output 1	Test	Output 2
			
Power supply (12–36 V AC/DC)	36 V 1 A Do not wire 3/4 and 5/6 simultaneously	(Uth > 10 V AC/DC, < 11 mA @ 36 V) Only to be wired in case of a Cat. 2 application	36 V 1 A Do not wire 9/10 and 11/12 simultaneously

Note: When using the NC outputs (5/6, 11/12) in Cat. 3 set-up, the wiring with the control must be permanently installed and protected against external damage according to EN ISO 13849-2 Tab.D.4. Otherwise Cat. 2 applies and a test signal is required.

3.4 Configuration

Pairing transmitter with receiver

In normal state when no safty edge is pressed, the LED SYS lights permanently green. To pair transmitter with receiver, perform each of the following actions until the receiver responds with a buzzer signal and orange flashing LED.

1. Set receiver in pairing mode by pressing joystick.
2. Start pairing transmitters
   a) to receiver output 1 by moving joystick to the left
   b) to receiver output 2 by moving joystick to the right
   c) to both receiver outputs by moving joystick upwards and press button of each transmitter that is to be paired to this output.

3. Leave pairing mode by pressing joystick or waiting 1 min. The system responds by 2 buzzer signals and the LED SYS lights permanently green again.

Clear pairings
▷ Press joystick (min. 5 sec.) until buzzer responds with 5 signals.ystem
Mandatory after each set-up!

1. On Tx make sure that the LED flashes when activating the sensor element (pressing the sensing edge).
2. On Tx make sure that the LED flashes again when releasing the sensor element.
3. Make sure that the door/gate stops when the sensing element is activated.

3.5 Trouble shooting

Warning and error indicators			
		LED SYS flashing	Buzzer signals
Transmitter warning	low battery voltage	green	3x per min.
Transmitter error	signal lost	lx red	
	broken cable between safety edge and input, resistor out of range	2x red	
	empty battery	3x red	
System error		30 s red	
	▷ To identify transmitter that causes indication, press each safety edge		
Test while transmitter warning	tested battery ok		
	tested battery to be changed		
Test while transmitter error	tested transmitter function ok		
	tested transmitter causes error		

Bircher signal indicator (BSI)
To solve problems with signal strength, use the BSI mode. For details see supplementary sheet.

			Output 1			Output 2	Buzzer
Status indication	LED SYS	LED 1	3–4	5–6	LED 2	9–10	11–12
No power supply	–	–	closed	open	–	closed	open
Power up	red	red	closed	open	red	closed	open	ends with 4x beep
No sensor paired	green	red	closed	open	red	closed	open
System ready, no sensor pressed	green	green	8k2	closed	green	8k2	closed
Sensor 1 pressed (main closing edge)	orange	red	closed	open	green	8k2	closed
Sensor 2 pressed (secondary closing edge)	orange	green	8k2	closed	red	closed	open
Wicket door open (XRF-TW to output 2)	orange	green	8k2	closed	red	closed	open
Configuration (Pairing)	orange flashing	orange flashing	closed	open	orange flashing	closed	open	upon action
Configuration, memory full	orange flashing	orange flashing	closed	open	orange flashing	closed	open	10x
Low battery	green flashing	green	8k2	closed	green	8k2	closed	3x every min.
Test input active	green	red	closed	open	red	closed	open
Error (transmitter or system)	red flashing	red	closed	open	red	closed	open

Compliance

4.1 EU and UK declaration of conformity

This device complies with the requirements of directives and standards according to the attached declarations.

4.2 FCC approval

NOTICE: this device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

NOTE: this equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following

measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.
WARNING: changes or modifications made to this device may void the FCC authorisation to operate this device.

4.3 Disposal / WEEE

 Devices with this symbol must be treated separately during disposal. This must be done in accordance with the laws of the respective countries for environmentally sound disposal, processing and recycling of electrical and electronic equipment.

Technical data

Transmitter

Supply voltage	12–36 V DC; 12–36 V AC, 48–62 Hz
Power consumption	max. 0.8 W
Safety outputs (2 x 2 relays)	max. 36 V AC/DC; 1 A
Test input	max. 36 V DC; 36 V AC, 48–62 Hz max.11 mA Uth > 10 V AC/DC
Number of supported sensors	max. 14

System

Operating frequency	◦ 868.3 MHz (variant 1) ◦ 867.6 MHz (variant 2) ◦ 921.5 MHz (USA, Canada)
Reaction time	Typ. 15 ms
Range	100 m (at optimal condition)
Performance level EN ISO 13849-1	PLd for Cat. 3 applications + test input for Cat. 2 applications
Protection class IEC 60529	IP65
Operating temperature	–20 °C to +60 °C

Contact

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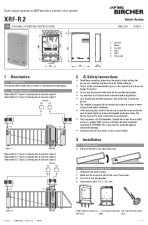
Designed in Switzerland / Made in China

04.2023

XRF-R.2

Documents / Resources

	BBC BIRCHER XRF-R.2 Dual Channel Wireless Receiver [pdf] Instruction Manual TBZ-XRFR29, TBZXRFR29, xrfr29, 404304, XRF-R.2 Dual Channel Wireless Receiver, XRF-R.2, Dual Channel Wireless Receiver, Wireless Receiver, Receiver

References

- Bircher.com
- Bircher.com