SWISSDOOR
DØRTEKNIK FOR PROFESSIONELLE

BIRCHER

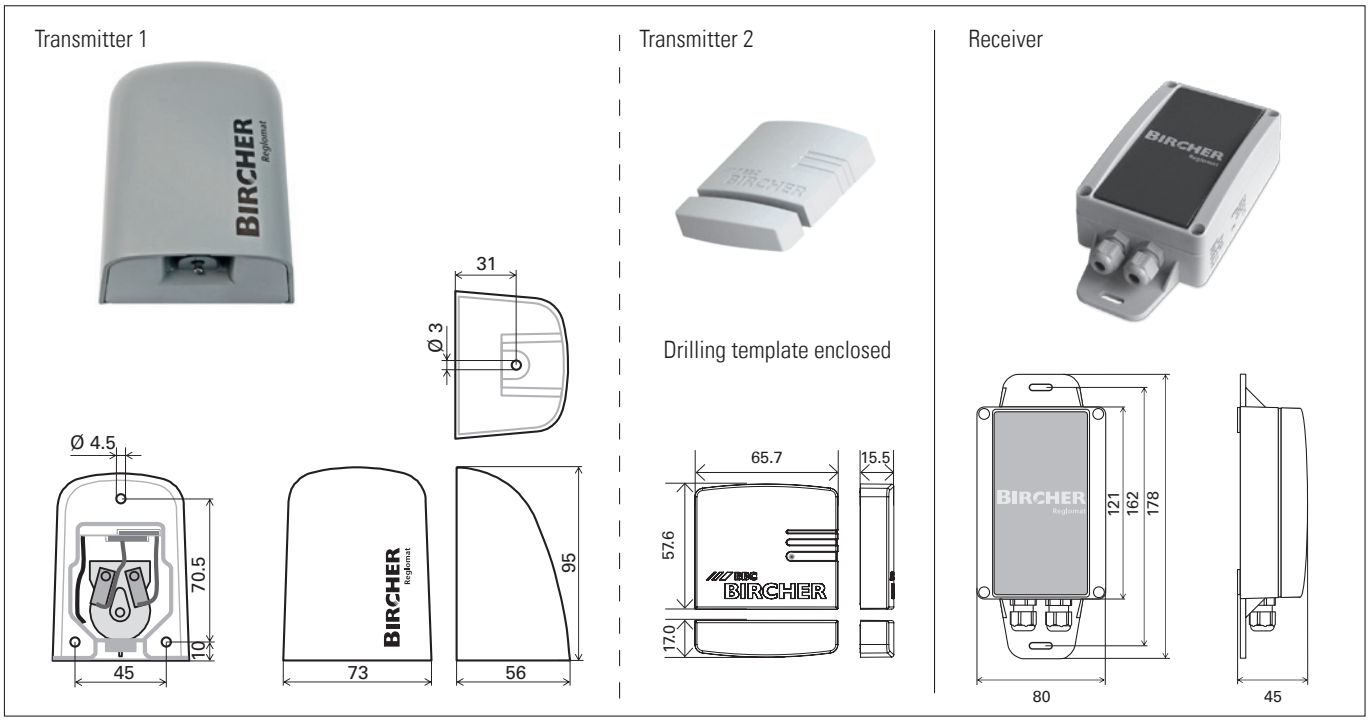
ENGLISH

AirMission 2.W2

Wireless signal transmission system with integrated pressure-wave- and wicket-door-switch

Translation of the original operating instruction

General



1 Safety instructions

Warning: Switch off the operating voltage before working on the system. Only trained, qualified personnel may perform installation and startup. The unit may only be opened and repaired by Bircher Reglomat employees. The switching unit may only be used to protect against dangers at crushing and shearing points and at automatic industrial doors (intended use). National and international regulations on industrial door safety must be complied with. Always consider the safety functions of your application as a whole, never just in relation to one individual section of the system. A risk assessment in advance is mandatory. The installer is responsible for installing the industrial door system correctly.

It is recommended to change the batteries every year.

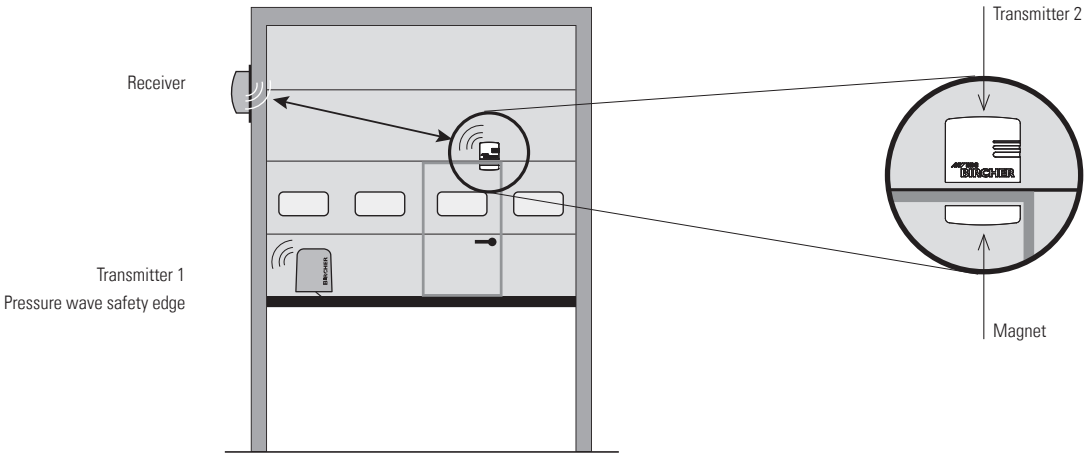
2 Common application

2.1 Industrial door with wicket door

Receiver

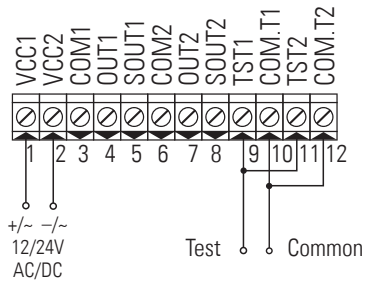
DIP switch 5 ON

Transmitter 1 input 1 corresponds to receiver output 1
Transmitter 2 input 1 corresponds to receiver output 2



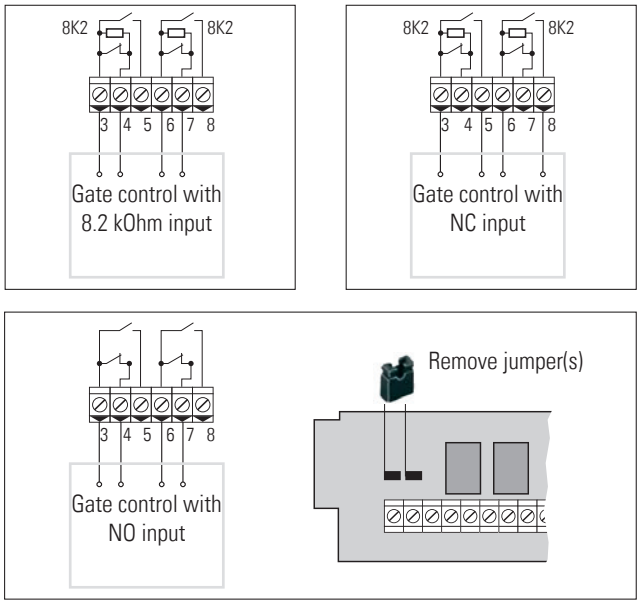
3 Receiver

3.1 Wiring: Power supply and test inputs



3.2 Wiring: Outputs and control

Relay contacts are shown unpowered



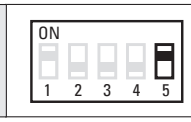
3.3 DIP switches

	*	**Safety application** Standard according to EN ISO 13849-1
		Inactive ➔ no safety function (Radio connection is not monitored)
		**Transmission frequency** 869.85 MHz: Set DIP-switch before pairing transmitter – receiver
	*	868.95 MHz: Set DIP-switch before pairing transmitter – receiver
		**Test input type** NC activated = contact open
	*	NO activated = contact closed
		**Automatic frequency adjustment** Active Used only in case of severe radio disturbance
	*	Inactive
	*	**Programming** (2 transmitters) Transmitter 1 corresponds to output 1 Transmitter 2 corresponds to output 2
		**Programming** (for 2-channel transmitter) Not for this application

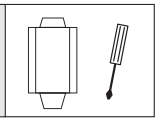
* = factory setting

4 Installation

1. Receiver: Check DIP switch settings

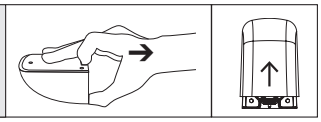


2. Install and wire receiver, see 3

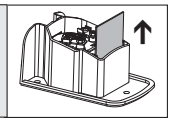


3. Receiver: Turn on power supply

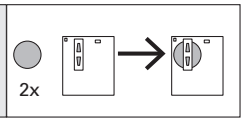
4. Transmitter 1 Open



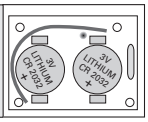
5. Carefully pull out PCB



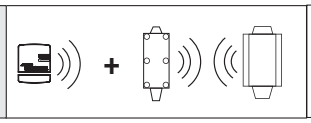
6. Insert both batteries (front/back)



7. Transmitter 2 Insert batteries

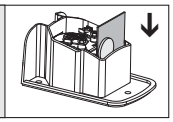


8. Programming (Chapter 5.1): Pair both transmitters with receiver

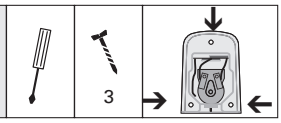


The distance between the transmitter and receiver and additional transmitters must be at least 1 m

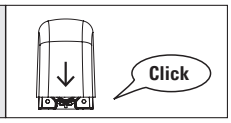
9. Transmitter 1 Slide PCB back into housing



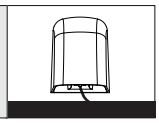
10. Install transmitter



11. Close

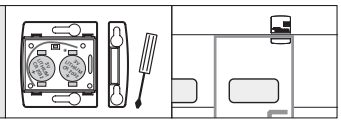


12. Connect safety edge with transmitter (rubber hose)



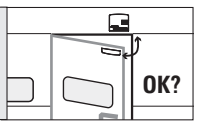
13. System test: Activate safety edge

14. Mount transmitter 2 and magnet



15. Note: Distance magnet / transmitter when doors are closed

16. System test: Open and close wicket door

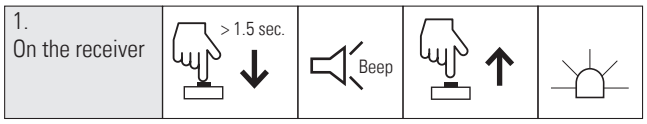


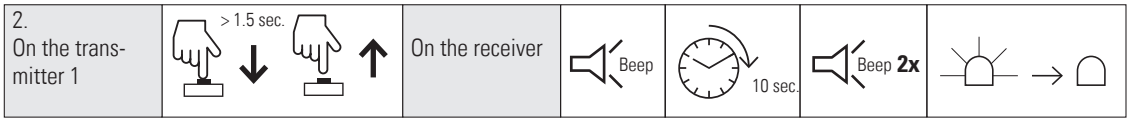
5 Programming

5.1 Pair transmitter with receiver

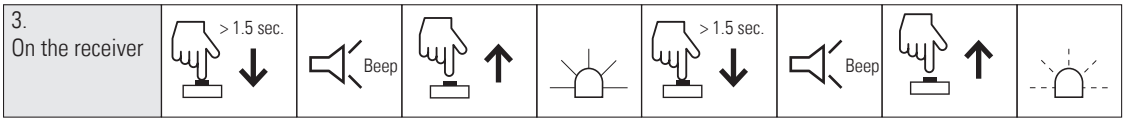
The distance between the transmitter and receiver and additional transmitters must be at least 1 m

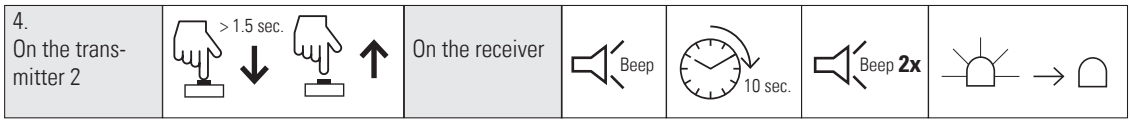
Channel 1:



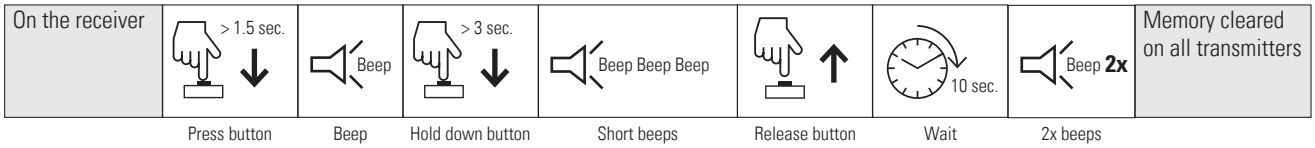


Channel 2:

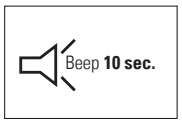




5.2 Transmitter reset (clear pairing between transmitters and receiver)

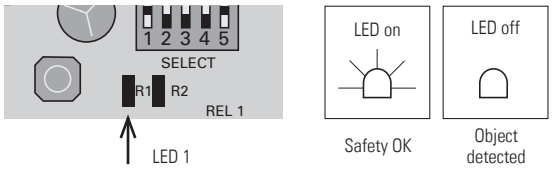


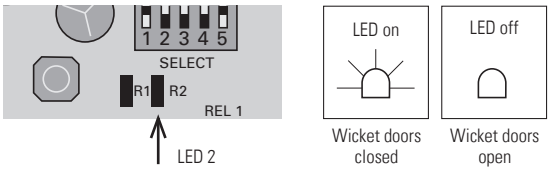
5.3 Memory full



6 Operation

6.1 Receiver LED indicators





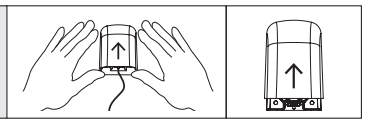
6.2 Warning indicator for low battery voltage

Signal sounds each time a transmitter is activated

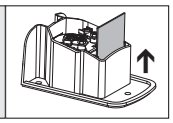
7 Battery change

7.1 Transmitter 1

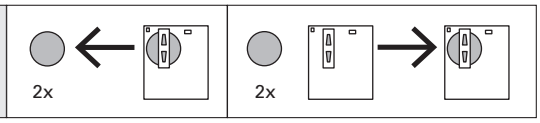
1. Open



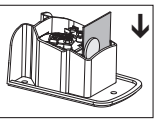
2. Carefully pull out PCB



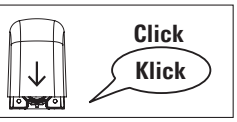
3. Replace both batteries (front/back)



4. Slide PCB back into housing

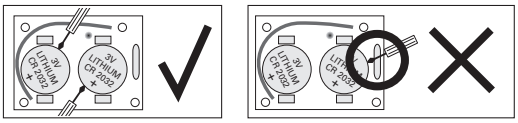


5. Close



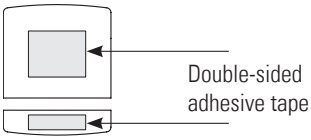
6. System test: Activate safety edge

7.2 Transmitter 2



8 Alternative installation with double sided tape (not supplied)

View of transmitter 2 (bottom)



Caution!
Ensure surfaces are clean, dry and free of dust and grease.

9 Technical data

System	
Frequency bands	868.95 MHz & 869.85 MHz
Range	Under optimum conditions up to 100 m
Pollution degree	2
Working temperature	-20 °C to +55 °C

Receiver	
Supply voltage	12/24 V ACDC
Transmitter memory	7 + 7
Output	2 relays 24 V, 0.5 A; micro-disconnection 1B
Power consumption	0.5 W @ 12 V; 1.2 W @ 24 V
Test signal input	12/24 VACDC
Protection class IEC 60529	IP55

Transmitter 1	
Battery power	2 x Lithium 3 V Type CR2032
Power consumption	Transmitting: 17 mA, standby: 16 µA
Protection class IEC 60529	IP54

Transmitter 2	
Battery power	2x Lithium 3 V type CR2032
Power consumption	Transmitting: 17 mA, standby: 16 µA
Protection class IEC 60529	IP65

10 Standards EN ISO 13856-2 and EN ISO 13849-1

The AirMission 2.W2 system itself is not able to check the function of the sensor in response to a pressure pulse. In accordance with D 3.5 of EN ISO 13856-2, a pressure wave system according to category 2 of EN ISO 13849-1 can be designed by checking the pressure wave system at every machine cycle. On the doors and gates the door/gate control must assure this function in order to satisfy category 2. (➔ Figure A.4 of EN ISO 13856-2).

11 EC-Declaration of Conformity

Manufacturer:	Bircher Reglomat AG, Wiesengasse 20, CH-8222 Beringen
Following directives have been observed:	MD 2006/42/EC, RoHS 2011/65/EU, RED 2014/53/EU
EC type-examination certificate:	E6945
Notified inspection centre:	Suva, technology division, SCESp 0008, ID no. 1246
Product variants:	AirMission 2.x

12 Contact / Danish seller

Bircher Reglomat AG, Wiesengasse 20, CH-8222 Beringen, www.bircher-reglomat.com

Swissdoor ApS, Stenhuggervej 2, DK-5471 Soendersoe, Denmark, Tel.: +45 86 28 00 00, mail@swissdoor.dk, www.swissdoor.dk