

MARS, MARS DR

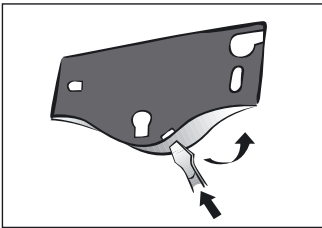
Operating instructions Microwave motion detector

English

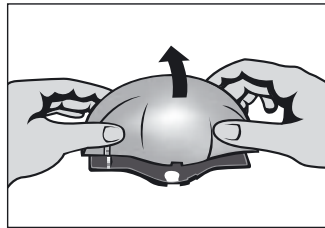
1 Safety instructions

The device must only be operated at a protective low voltage with safe electrical isolation. Interventions and repair work must only be performed by your supplier!

2 Opening cover

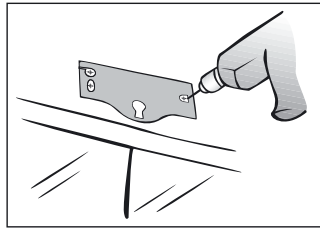


When not mounted.

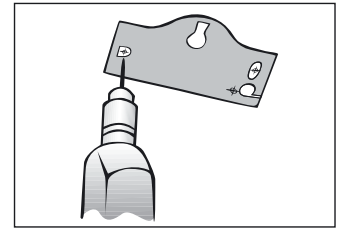


When mounted to wall.

3 Drilling holes

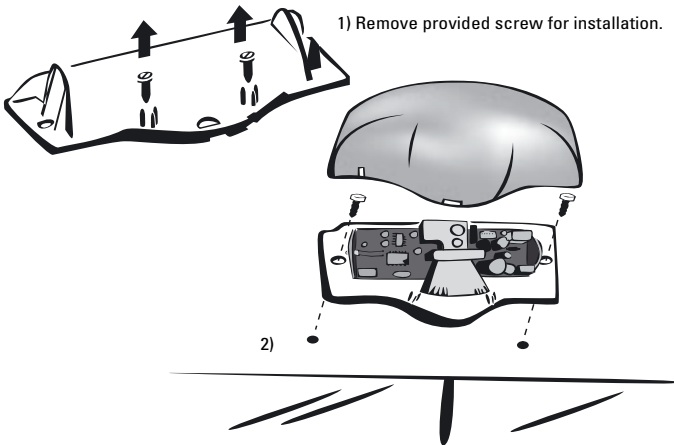


Wall mounting: Use provided template.

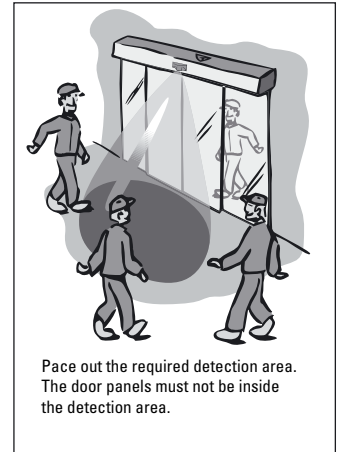
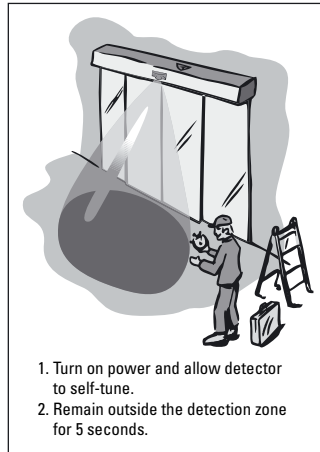


Ceiling mounting: Use provided template.

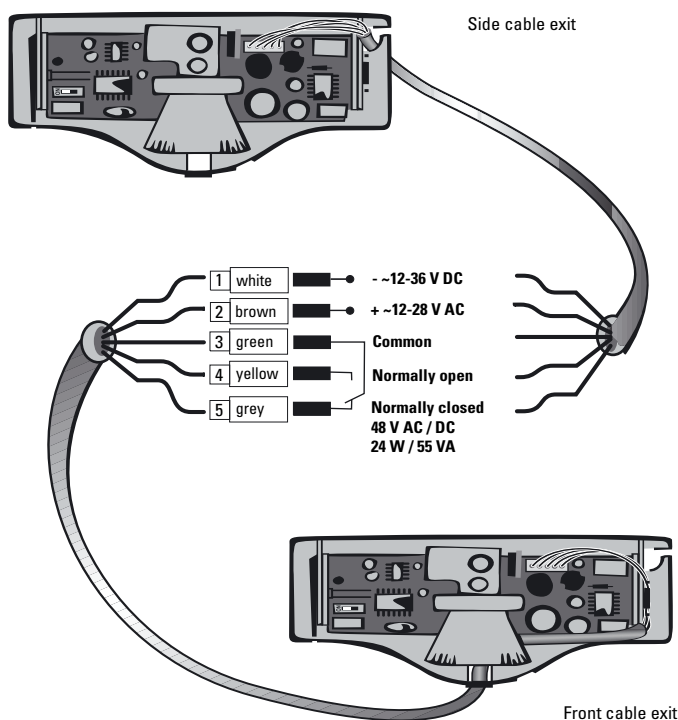
4 Mounting



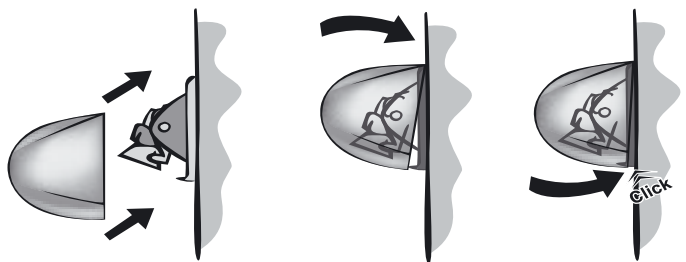
6 Putting into operation / Testing factory setting



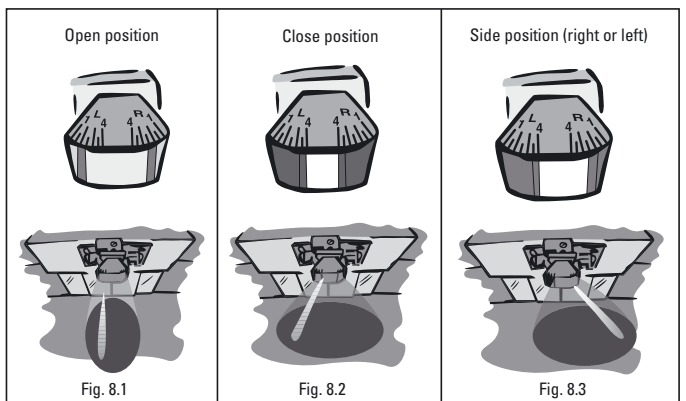
5 Wiring diagram



7 Install cover



8 Changing shape of pattern on adjustable horn antenna



9 Changing detection field

<p>Adjustable antenna Open position (see fig. 8.1)</p> <p>Sensitivity potentiometer</p> <p>Minimum field dimensions 1.0 x 0.5 m (3' 3" x 1' 8")</p> <p>Maximum field dimensions 2.5 x 2.5 m (8' 2" x 8' 2")</p> <p>Min. _____ Max. _____</p>	<p>Adjustable antenna Close position (see fig. 8.2)</p> <p>Sensitivity potentiometer</p> <p>Minimum field dimensions 1.5 x 1.0 m (4' 11" x 3' 3")</p> <p>Maximum field dimensions 3.5 x 2.0 m (11' 6" x 6' 7")</p> <p>Min. _____ Max. _____</p>
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Experience value at 2.2 m (7' 3") mounting height. Maximum mounting height is 4 m (13' 1").

General note: radar fields will increase with lower temperatures.

10 Changing position of pattern

Top view

+1 Step

5°

0 point

15°

25°*

35°

45°

3 Steps

5 Steps

9 Steps

*Factory settings

Note:

Commissioning the sensor at external temperatures > 0°C: Having positioned the module in its best-possible position, it should be tilted forward (away from the door) by an additional 5°. This is done to avoid the door reversing due to the increase of the radar field at low temperatures. (If the sensor is set up at external temperatures < 0°C, this additional tilting of the module is not necessary.)

FCC/IC

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions: This device (1) may not cause harmful interference, and (2) must accept any interference received, including interference that may cause undesired operation.



Warning: Changes or modifications made to this equipment not expressly approved by Bircher Reglomat AG may void the FCC authorization to operate this equipment.

EC Declaration of Conformity

Bircher Reglomat AG herewith declares the products MARS and MARS DR to be in conformance with the basic requirements and other relevant regulations as contained in the 1999/5/EC directive. The full version of the Declaration of Conformity can be viewed at the following internet site:

Function switch

OFF* Digital filter off, normal setting, maximum sensitivity.

ON Digital filter on, when filtering of vibration and/or reflective surfaces is necessary. Detection will be less sensitive, requiring more motion to activate detector.

Function switch Sensitivity Output hold time

min. max. * 0.5s max. 4s

1 LED (function indication) 5 Internal side panels (flaps)
2 Cable connector 6 Function switch
3 Sensitivity potentiometer 7 Output hold time potentiometer
4 Adjustable horn antenna

Movement detection (Adjustment on output hold time potentiometer):

- Min. 5 cm/s velocity: Set potentiometer to 7 o'clock (hold time fix at 0.5 s)
- * • 10 cm/s velocity: Set potentiometer to 10 o'clock onwards (various hold time from 0.5 s to 4 s)

*Factory settings

11 Possible interferences



12 Technical data

Power supply	12–28 V AC / 12–36 V DC
Current consumption	approx. 100 mA @ 24 V AC, +20° C
Temp. range	–20° C to +60° C
Humidity	0 to 90%, non condensing
Microwave module	K-band 24.125 GHz +/- 100 MHz
Output	≤ 20 dBm
Relay output	1x changeover contact
max. switching voltage	48 V AC / DC
max. switching current	0.5 A AC / 1.0 A DC
min. switching current	1 mA
max. switching power	55 VA / 24 W
Weight	255 g
Protection class	IP 54

Electromagnetic compatibility

CE0682

according to:
1999/5/EC: R&TTE directive
89/336/EEC: EMC directive + amendments

Warranty and Liability

1. The warranty and liability of Bircher Reglomat AG are based on the sales contract.
2. The warranty and liability shall expire prematurely, should the client or third parties not use and/or operate the product in compliance with existing operating instructions, should incorrect changes or repairs be made by the client or third parties, should the client or third parties, when a fault has occurred, not take suitable steps at once for a reduction of possible damage/losses and offer Bircher Reglomat AG a chance for remedying the said fault.
3. The warranty and liability shall exclude any damage for which there is no proof that it is due to poor materials, faulty construction, poor workmanship, and any damage caused by other reasons, for which Bircher Reglomat AG cannot be held liable.
4. No liability can be assumed for any consequential damage, provided this is not governed otherwise by applicable product liability laws and regulations.
5. Warranty claims made against the seller on the basis of the sales agreement are not affected by these regulations.
6. For the benefit of its customers Bircher Reglomat AG constantly develops its products further. Bircher Reglomat AG reserves the right to make changes to any of the products described in this document without prior notice.