

Microwave motion detector for automatic pedestrian doors with direction recognition

Questions? Call us at 800 - 252-1272, 8am - 5pm central standard time.

Safety instructions

- * The device must only be operated at a protective low voltage with safe electrical insulation. Product repairs must be performed solely by the manufacturer.
- * Shut off all power going to the sensor before attempting any wiring procedures.
- * Maintain a clean & safe environment when working in public areas.
- * Constantly be aware of pedestrian traffic around the door area.
- * Always stop pedestrian traffic through the doorway when performing tests that may result in unexpected reactions by the door.
- * Always check placement of all wiring and components before powering up to ensure that moving door parts will not catch any wires and cause damage to equipment.
- * Ensure compliance with all applicable safety standards (i.e. ANSI A156.10) upon completion of installation.

DO NOT LEAVE ANY PROBLEMS UNRESOLVED - NEVER SACRIFICE SAFETY FOR ANY REASON

Symbols meaning



= flash



= press



= on



= time



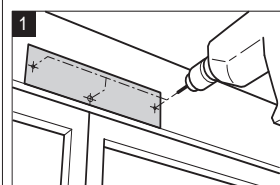
= Attention

A Installation

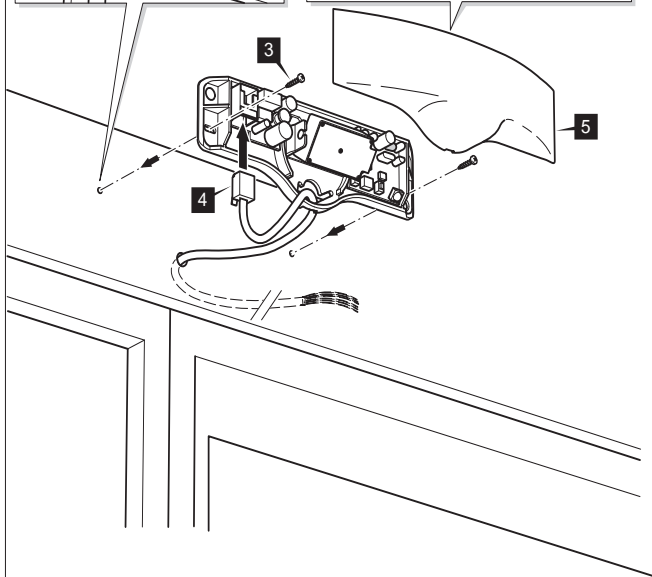
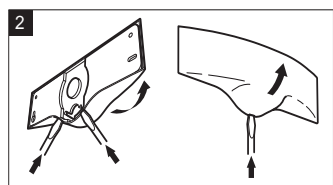
Physical installation

Mounting on a door header or wall

drill holes using template

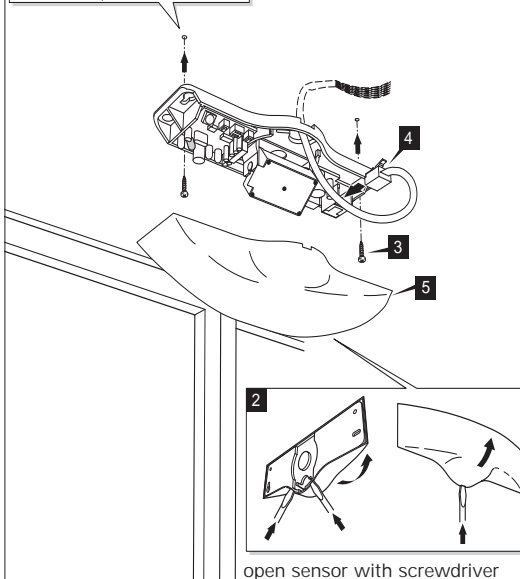
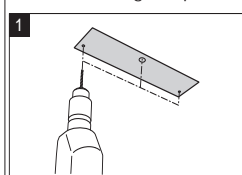


open sensor with screwdriver



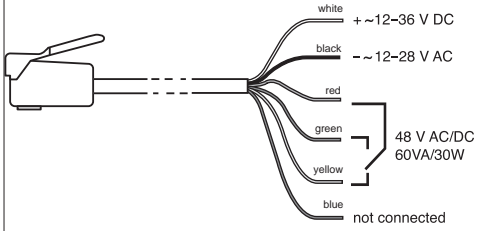
Mounting on a ceiling

drill holes using template

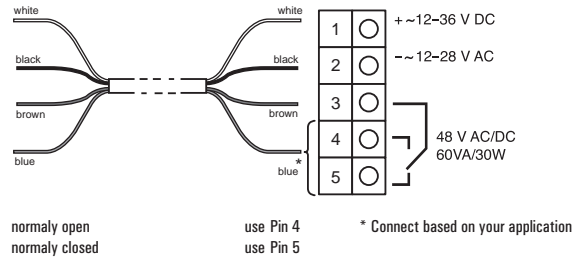


open sensor with screwdriver

RJ12



Plug-in screw terminal

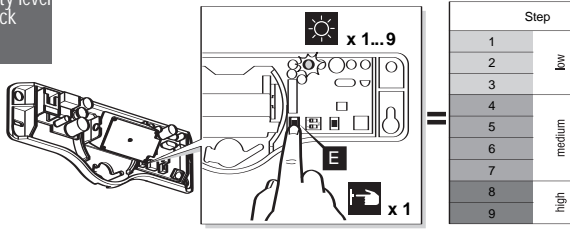


B Manual Set-up [w/o RC Duo remote control]

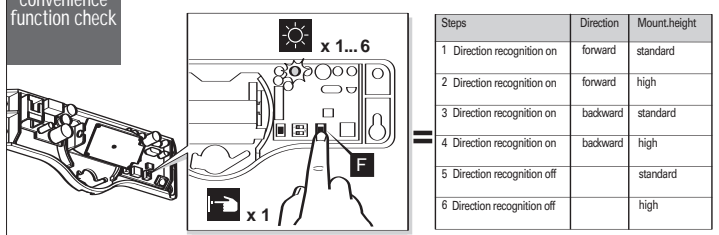


Set-up must be completed in 25 sec., or you will have to restart the set-up procedure from the beginning.

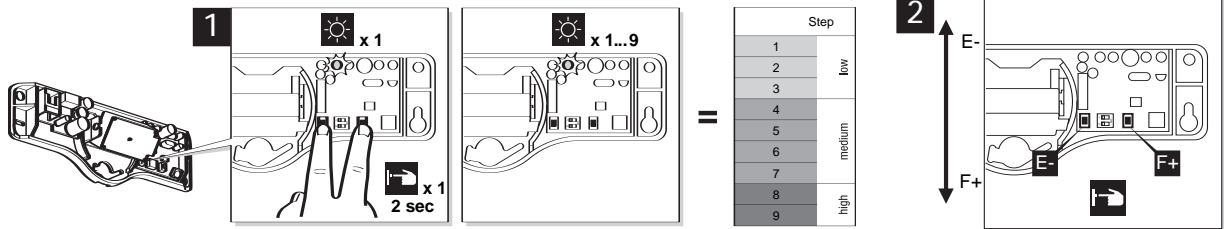
sensitivity level check



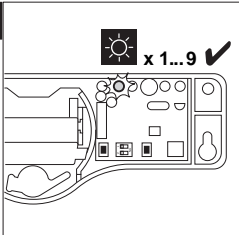
convenience function check



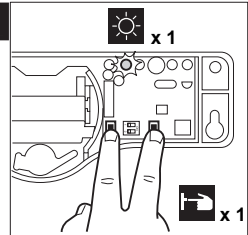
sensitivity setting



3



4

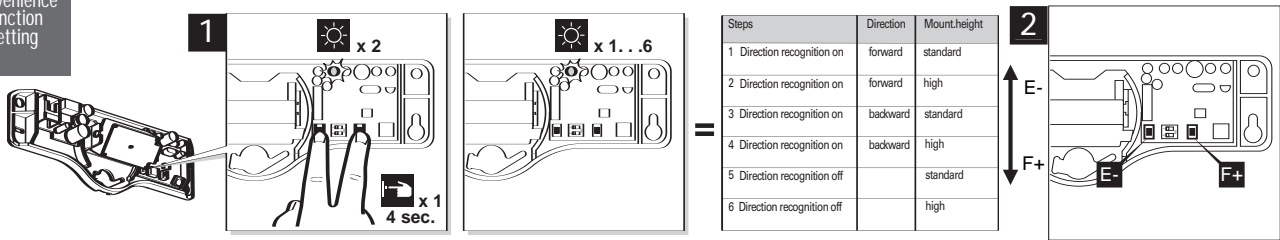


Sensitivity adjustment completion

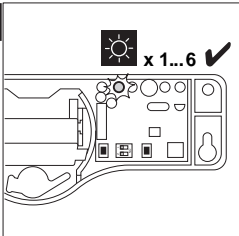


The size of the sensing field depends on the sensitivity level.

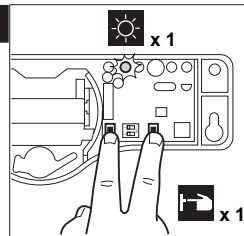
convenience function setting



3

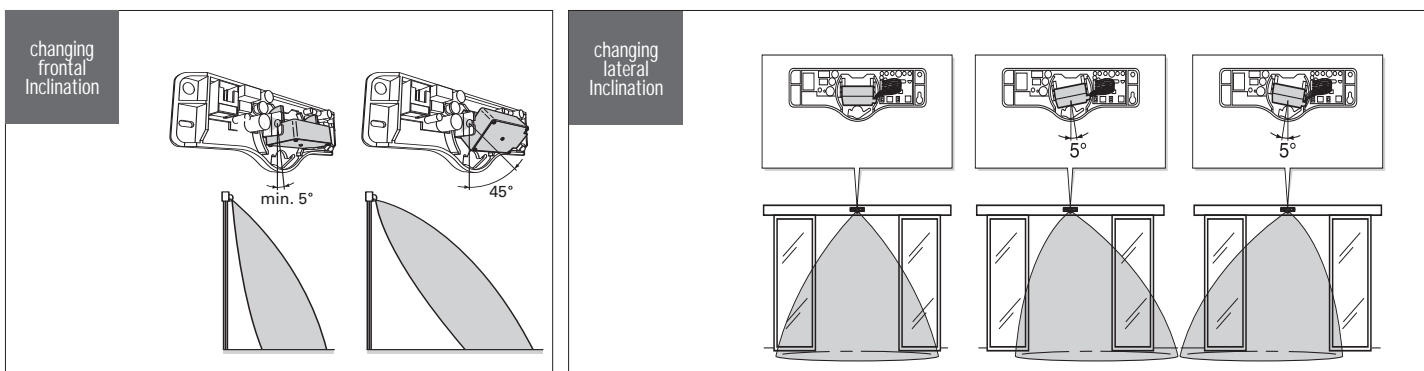


4

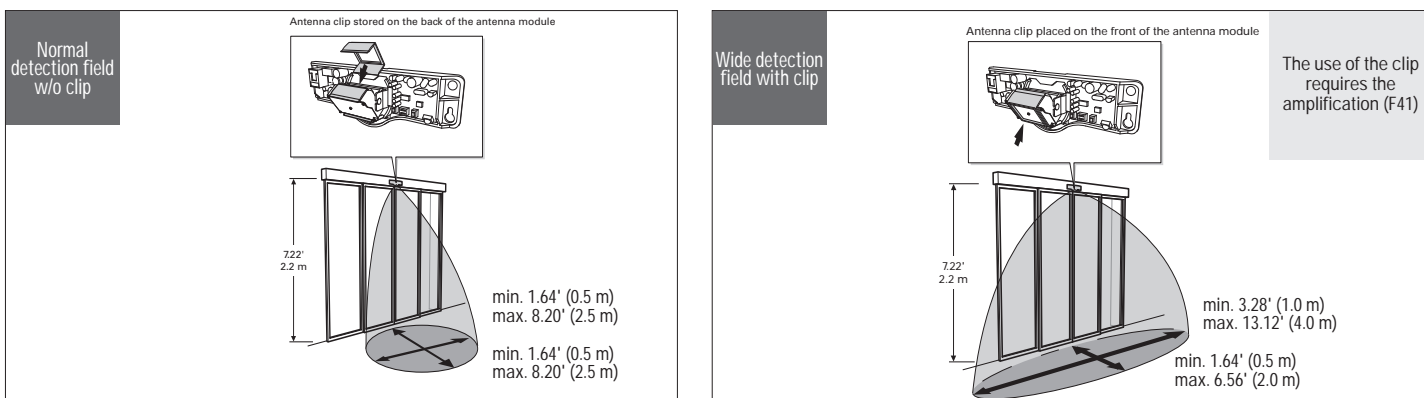


Function adjustment completion

C Other field adjustments - frontal and lateral inclination



Other field adjustments - normal and wide detection field

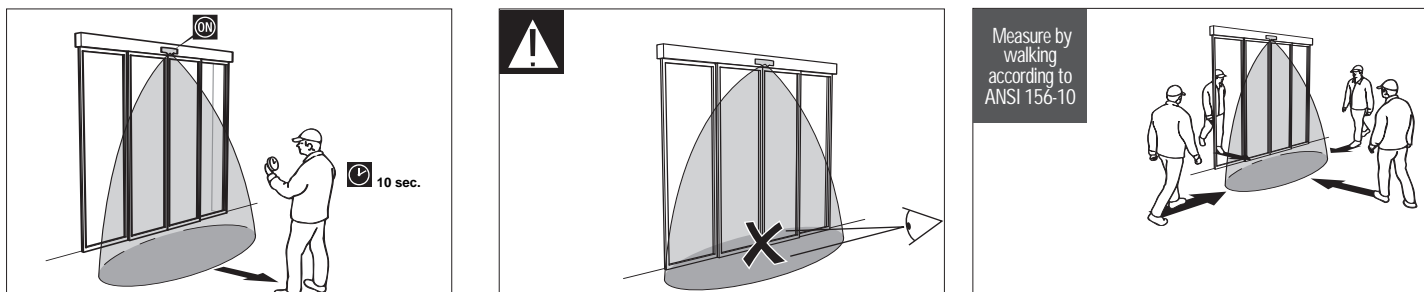


	Mounting height	
	<9.84' (3m)	>9.84' (3m)
Narrow field	without clip	without clip
Wide field	with clip	without clip

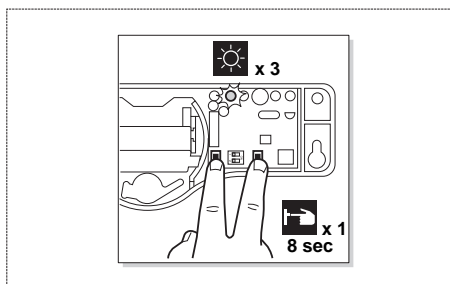
Use the clip for wide fields according to the table on the left.
 * At mounting heights above 10', wide fields are set using the frontal inclination angle (section C1) and the sensitivity (section H).

! After removing or putting the clip on the antenna, the power supply must be interrupted for min. 5 sec.

D Testing of the settings



How to reset to factory settings



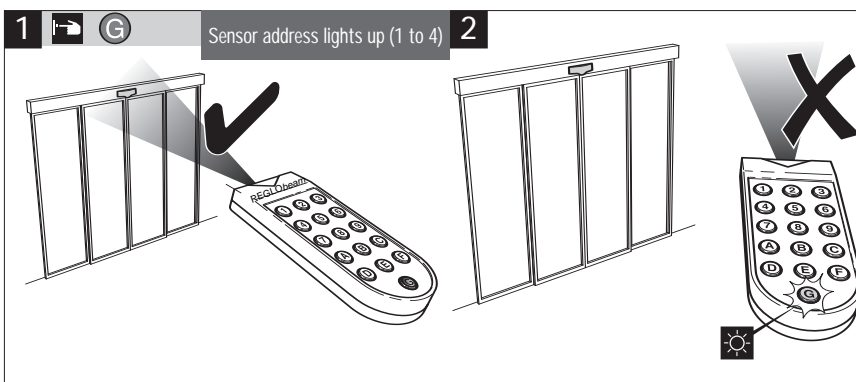
E Settings with RC Duo [Bi-directional remote control]



The RC Duo is bi-directional.
Flashing keys on the RC Duo indicate that the settings have not been saved yet.
Static lit keys on the RC Duo indicate that the settings have been saved.

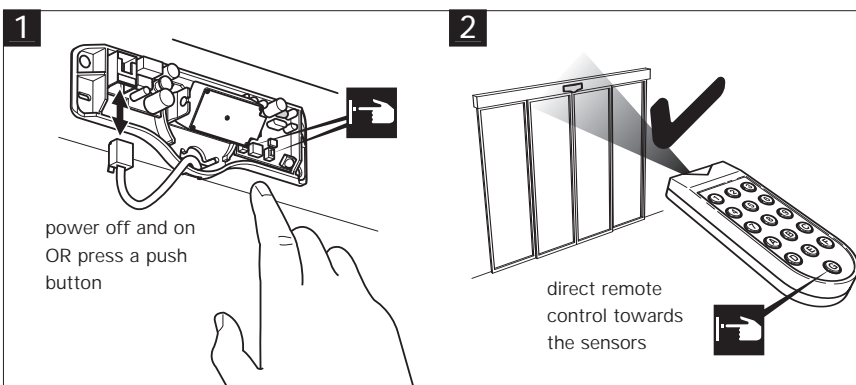
We recommend first programming the sensor with a convenience configuration and then fine tune settings if needed.

Establish connection between the RC Duo remote and the sensor

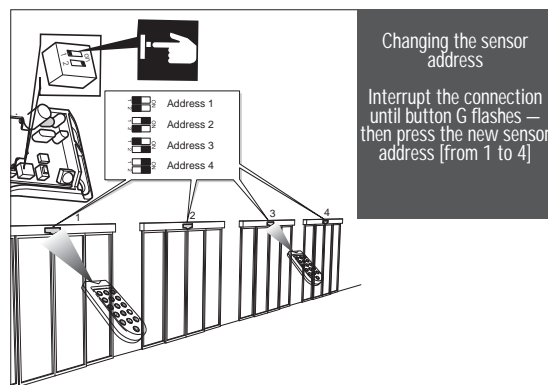


For safety reasons the connection is automatically interrupted after 30 min.
To restore the connection, see next.

Restore communication with the RC Duo [if it turned off after 30 minutes]



Multiple sensors set-up: assign a unique address to each



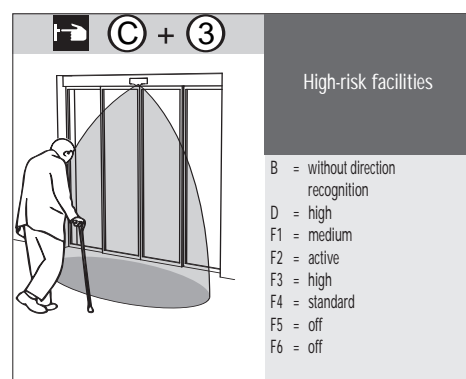
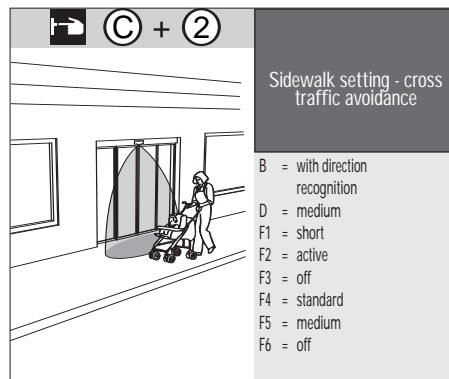
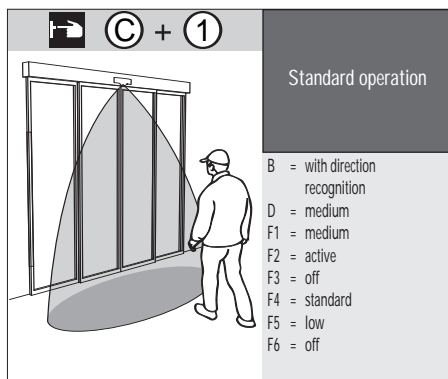
F Pre-programmed convenience configurations

B: direction recognition
D: field size
F1: additional output holding time
F2: output signal

F3: slow motion detection (SMD)
F4: mounting height
F5: cross traffic optimization
F6: interference suppression



If the convenience configuration does not fit your application, use custom settings.



C + 4

Vestibule

B = with direction recognition
D = medium
F1 = short
F2 = active
F3 = off
F4 = standard
F5 = low
F6 = off

C + 5

Retail

B = with direction recognition
D = high
F1 = medium
F2 = active
F3 = medium
F4 = high
F5 = off
F6 = off

C + 6

High mounting height setting

B = with direction recognition
D = high
F1 = medium
F2 = active
F3 = off
F4 = high
F5 = medium
F6 = off

> 9.84' (3 m)

G Direction recognition

B + 1 + E + 1

unidirectional towards the door

direction recognition

B + 1 + E + 2

unidirectional away from the door

no direction recognition

B + 2

bidirectional towards the door and away from the door

no direction recognition

H Sensitivity

D + 1...9

field without clip

7.22' (2.2 m)

min. 1.64' (0.5 m)
max. 8.20' (2.5 m)

D + 1...9

field with clip

7.22' (2.2 m)

min. 1.64' (0.5 m)
max. 6.56' (2.0 m)

I Special functions

Relay hold time setting

F + 1 + 1...9

Hold time setting

additional to smd

1	2	3	4	5	6	7	8	9
0.2 sec.	0.5 sec.	0.8 sec.	1 sec.	1.5 sec.	2 sec.	2.5 sec.	3 sec.	4 sec.

Slow motion detection setting & adjustment

F + 3 + 1...9

Slow motion detection [SMD]
(detects slower moving people/objects)

Slow motion detection Level	min. active time for static in sec.
1 no static	no static
2 static decreasing	0.5 %
3 static decreasing	1.0 %
4 static decreasing	1.5 %
5 static decreasing	2.0 %
6 static constant	0.5 %
7 static constant	1.0 %
8 static constant	1.5 %
9 static constant	2.0 %

F + 7 + 1...9

Adjusting the width of SMD-area

NO / NC

F + 2 + 1 = active

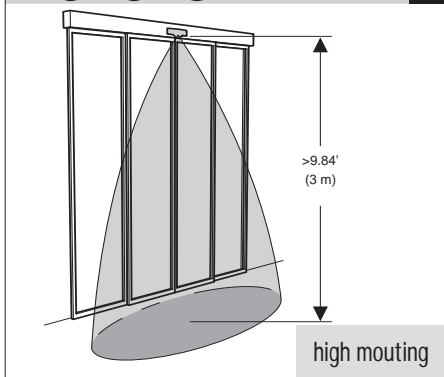
Relay switches on upon detection

F + 2 + 2 = passive

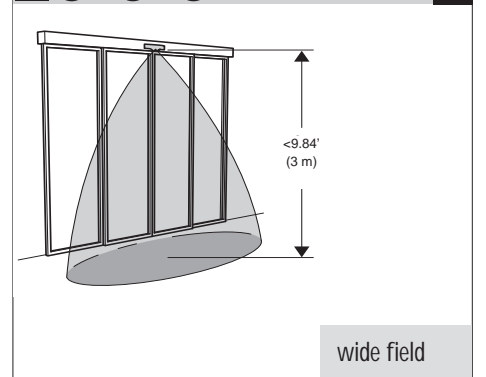
Relay switches off upon detection

Amplification level 1 for high mouting or wide field [max. mounting height 13 feet]

F + 4 + 1 > 9.84' (3 m) on

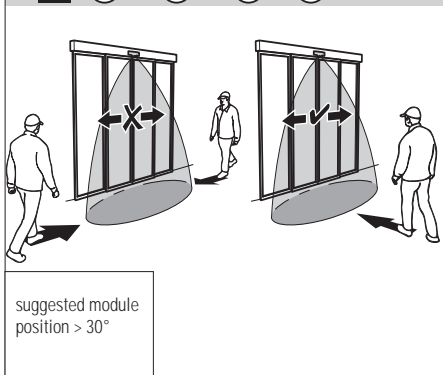


F + 4 + 2 < 9.84' (3 m) off



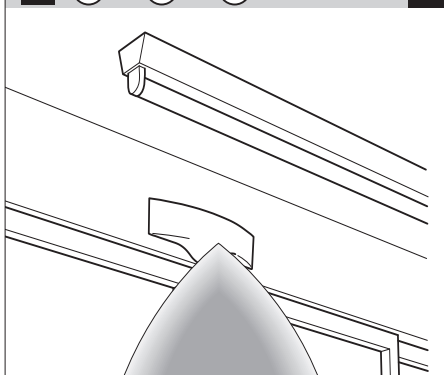
Cross traffic optimization

F + 5 + 1...9

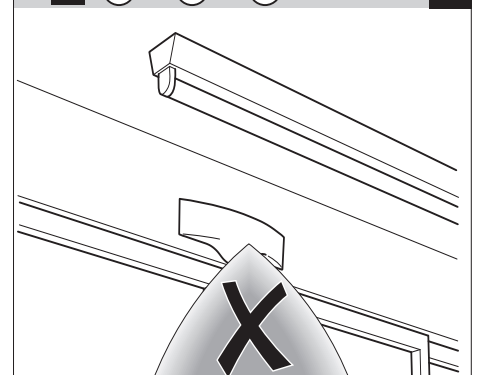


Interference filter

F + 6 + 1 on

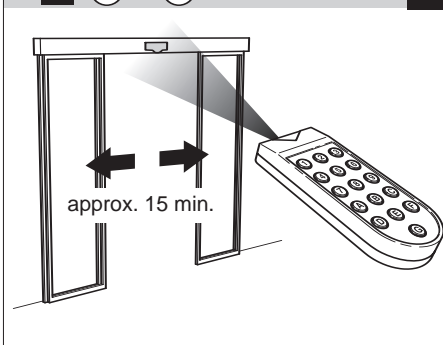


F + 6 + 2 off

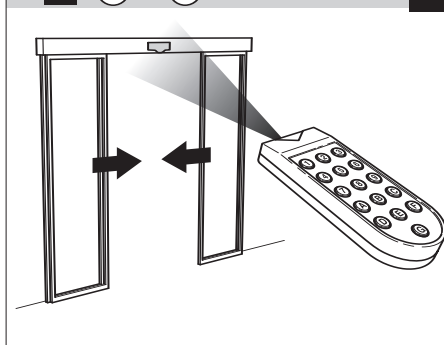


K Manual door opening & closing [through the sensor remote]

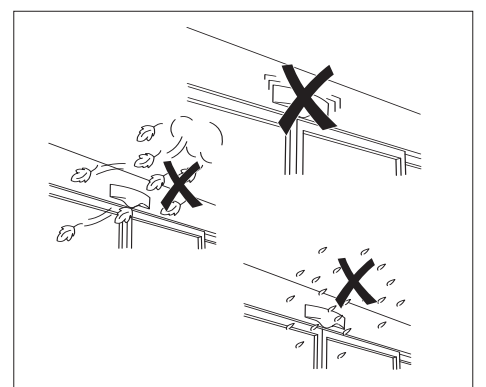
A + 1 on



A + 2 off



L Interferences avoidance: vibration, wind, rain.



M Technical data

Power supply 12–36 V DC / 12–28 V AC
 Current consumption approx. 70 mA at 24 V AC
 Temp. range –4 F to +140 F
 Humidity 0 to 90% rel.
 Microwave module K-band 24,125 GHz +/- 100 MHz
 Transmitting power < 20 dBm
 LED red = Detection activated green = for adjusting functions
 Relay output pot. free change-over contact
 Switching voltage 48 V AC/DC
 Switching current 0.5 A AC/1 A DC
 Switching power 60 VA / 30 W
 Protection class suitable for the application after IP 54
 Housing material ABS
 Recommended maximum mounting height 13.12'

N Contact

If after troubleshooting a problem, a satisfactory solution cannot be achieved, please call Bircher Reglomat at 800 - 252-1272 from 8am - 5pm central standard time. You may also visit our website at www.bircherreglomat.com

DO NOT LEAVE ANY PROBLEMS UNRESOLVED
 NEVER SACRIFICE SAFETY FOR ANY REASON

O Disclaimer

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For the latest version, please log on to www.bircherreglomat.com or call us at 847-952-3730 to request a copy of the current version.

FCC APPROVAL

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

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 to this equipment not expressly approved by Bircher Reglomat AG may void the FCC authorization to operate this equipment.