

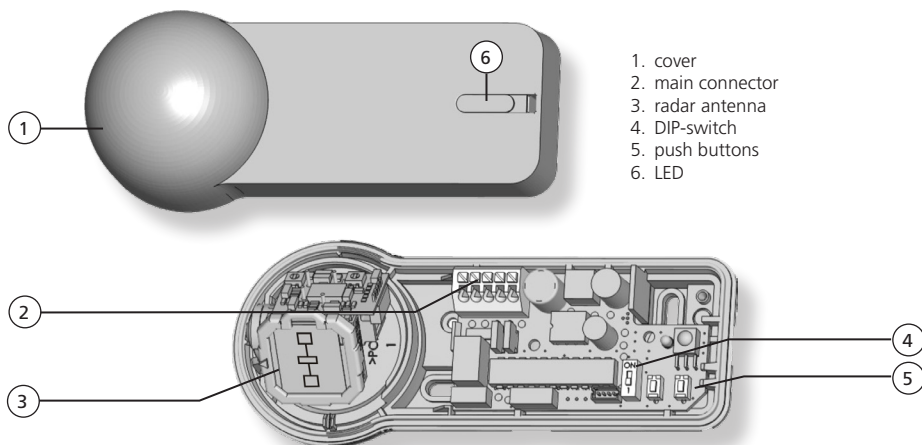


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# SPARROW

Motion activation sensor for  
automatic, industrial doors

## DESCRIPTION



1. cover
2. main connector
3. radar antenna
4. DIP-switch
5. push buttons
6. LED

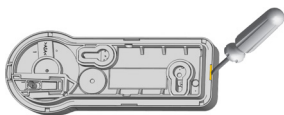
## TECHNICAL SPECIFICATIONS

Technology:	microwave
Transmitted frequency:	24.150 GHz
Transmitted radiated power:	<20 dBm EIRP
Transmitted power density:	< 5 mW/cm <sup>2</sup>
Detection mode:	motion
Min. detection speed:	2 in/s (measured in the sensor axis)
Supply voltage:	12 – 24 V AC ±10% 12 – 24 V DC +30% / -10%
Mains frequency:	50 – 60 Hz
Max. power consumption:	<2 W
Output:	relay (free of potential changeover contact)
max. contact voltage:	42V AC – 60 V DC
max. contact current:	1A (resistive)
max. switching power:	30W (DC) / 60VA (AC)
Mounting height:	6'6" – 20' (78" – 240")
Degree of protection:	IP64
Temperature range:	-22 – 140 °F
Dimensions:	5'5" x 2" x 2 1/4" ( L x H x W)
Tilt angles:	0 – 90° vertical -120 – 120° lateral
Material:	ABS
Weight:	5.8 oz
Cable length:	30'
Norm conformity:	R&TTE 1999/5/EC EMC 2004/108/EC

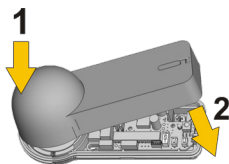
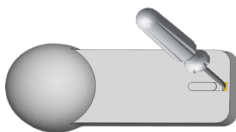
*Specifications are subject to change without prior notice.  
All values measured in specific conditions.*

## 1 OPENING & CLOSING

Before mounting:

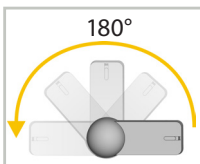


After mounting:

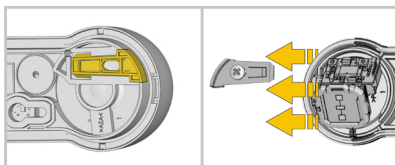


## 2 MOUNTING & WIRING

**TIPS**

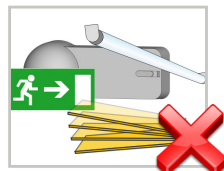


The sensor can be installed in various positions. Always verify the antenna position.

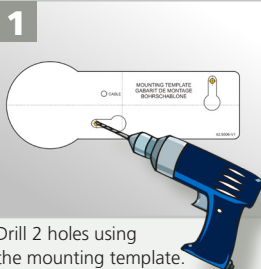


The sensor can easily replace other sensors by using the retrofit clip.

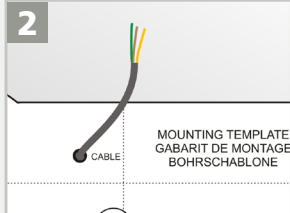
1. Remove the clip.
2. Mount it with the existing screw.
3. Slide the sensor onto the clip.



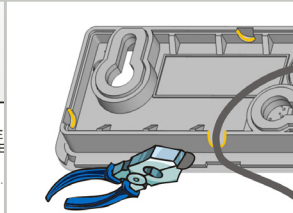
Avoid proximity to neon lamps or moving objects. Do not cover the sensor.



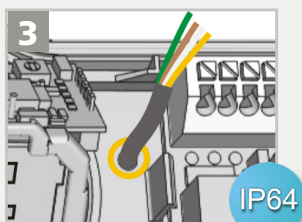
Drill 2 holes using the mounting template.



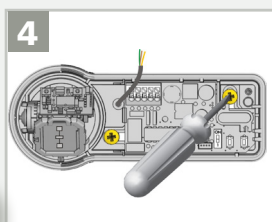
Drill a hole for the cable and pull tinned end through towards the sensor...



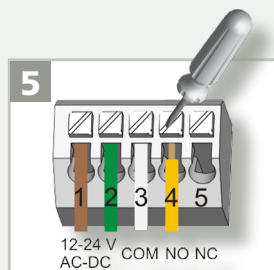
... or use one of the cable conduits. Avoid using the top conduit to ensure weatherproofing.



Pass the cable through the opening.



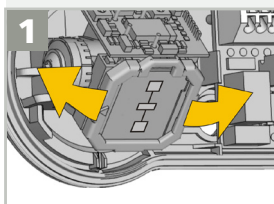
Mount the sensor securely to avoid vibrations.



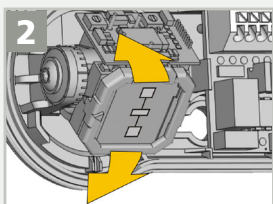
Connect the wires accordingly.

12-24 V AC/DC – brown, green  
COM – white  
NO/NC – yellow

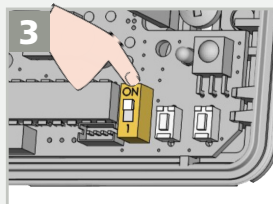
### 3 DETECTION FIELD



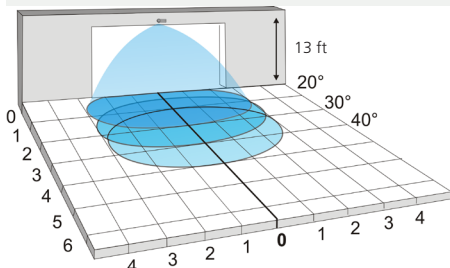
Adjust the lateral antenna angle.



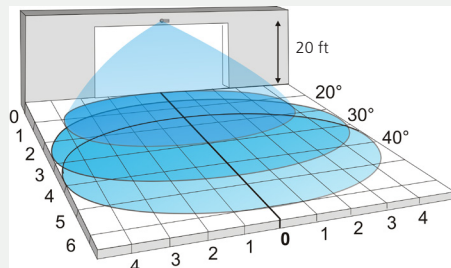
Adjust the vertical antenna angle.



If mounting height is above 14' 6" (174"), activate BOOST function by DIP switch.



Mounting height: 13 ft  
Boost function: OFF  
Factory values



Mounting height: 20 ft  
Boost function: ON  
Factory values

#### NOTES:

1. 1 x 1 grid is approximately 3.28 ft x 3.28 ft.

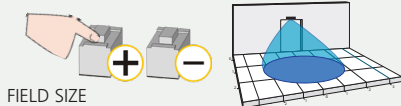
### 4 SETTINGS (by remote control or push buttons)

#### REMOTE CONTROL

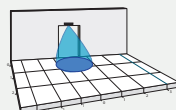
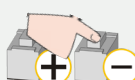


FIELD SIZE		XXS	XS	S	<	<	>	>	L	<b>XL</b>	XXL			Factory Values
IMMUNITY FILTER			<b>normal</b>	high										
DETECTION MODE			bi	<b>uni</b>	uni AWAY	bi = two-way detection uni = one-way detection towards sensor uni AWAY = one-way detection away from sensor								
OUTPUT CONFIG			<b>A</b>	P	A = active output (NO-contact) P = passive output (NC-contact)									

#### PUSH BUTTON



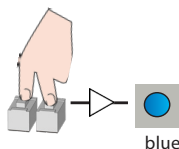
FIELD SIZE



RESETTING TO FACTORY VALUES:



OR



ACCESS CODE







The access code (1 to 4 digits) is recommended to program sensors installed close to each other.  
If you forget the access code, **cycle the power supply**.  
Within the first minute, you can access the sensor without introducing any access code.

SAVING OR CHANGING AN ACCESS CODE: 1 6 0-9 0-9 0-9 0-9 1 6

DELETING AN ACCESS CODE: 1 0-9 0-9 0-9 0-9 1 0 1 6

DELETING AN UNKNOWN ACCESS CODE: Cycle power 1 6 0 0 0 0

TROUBLESHOOTING

	Door will not open. LED is OFF.	Sensor power is OFF.	Check wiring and power supply.
	Door will not close. LED is OFF.	Improper output configuration on sensor.	Check output configuration setting on each sensor connected to the door operator. Verify door control is operational.
		Improper wiring at sensor.	Verify wiring at sensor.
	Door opens and closes constantly. Blue LED is ON.	Sensor is disturbed by door motion or vibrations caused by door motion.	Ensure sensor is mounted properly. Ensure detection mode is unidirectional. Increase tilt angle. Reduce field size. Increase immunity filter.
	Sensor detects objects outside its detection field. Blue LED is ON.	Metallic environment.	Increase immunity filter. Decrease field size.
		Incorrect tilt angle.	Change sensor tilt angle.
	Sensor detects for no apparent reason when raining. Blue LED is ON.	Sensor detects motion of rain drops.	Ensure detection mode is unidirectional. Increase immunity filter. Install the ERC (rain accessory).
	Blue LED flashes quickly after unlocking.	Sensor needs an access code to unlock.	Enter an access code. Cycle power supply to access the sensor. Change/Delete access code.
		Sensor does not respond to remote control.	Batteries in remote control are weak or improperly installed. Check and change the batteries, if necessary.
		Remote control is oriented incorrectly.	Point the remote control towards the sensor.



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BEA, INC. INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

BEA, Inc., the sensor manufacturer, cannot be held responsible for incorrect installations or incorrect adjustments of the sensor/device; therefore, BEA, Inc. does not guarantee any use of the sensor/device outside of its intended purpose.

BEA, Inc. strongly recommends that installation and service technicians be AAADM-certified for pedestrian doors, IDA-certified for doors/gates, and factory-trained for the type of door/gate system.

Installers and service personnel are responsible for executing a risk assessment following each installation/service performed, ensuring that the sensor/device system performance is compliant with local, national, and international regulations, codes, and standards.

Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer's recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – examples of these safety inspections can be found on an AAADM safety information label (e.g. ANSI/DASMA 102, ANSI/DASMA 107, UL294, UL325, and International Building Code).

Verify that all appropriate industry signage, warning labels, and placards are in place.

