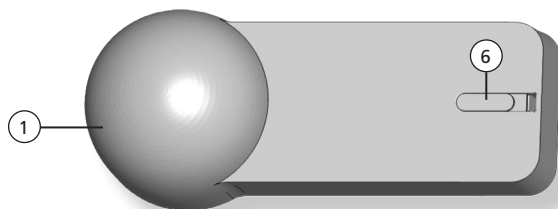


# SPARROW

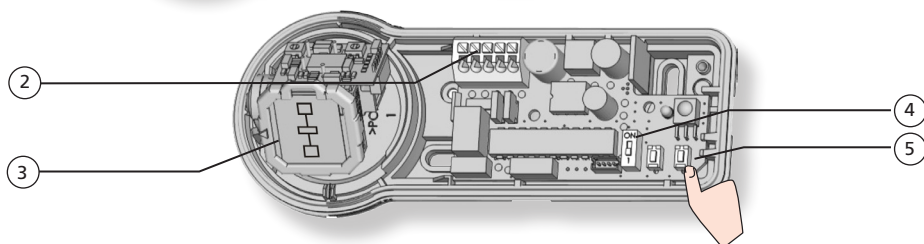
Motion activation sensor  
for automatic, industrial doors\*



## DESCRIPTION



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



## TECHNICAL SPECIFICATIONS

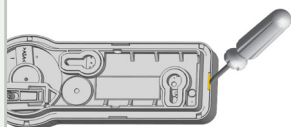
Technology:	microwave
Transmitted frequency:	24.150 GHz
Transmitted radiated power:	<20 dBm EIRP
Transmitted power density:	< 5 mW/cm <sup>2</sup>
Detection mode:	motion
Min. detection speed:	2 in/s (measured in the sensor axis)
Supply voltage:	12 – 24 V AC ±10% 12 – 24 V DC +30% / -10%
Mains frequency:	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.*

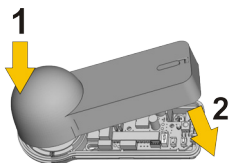
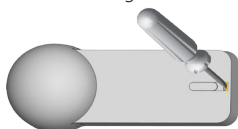
\* Use of this device outside of the intended purpose cannot be guaranteed by the manufacturer.

# 1 OPENING & CLOSING

Before mounting:

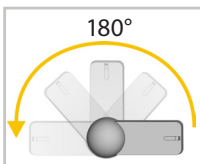


After mounting:

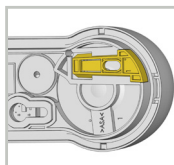


# 2 MOUNTING & WIRING

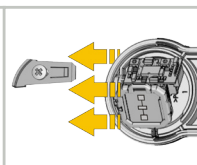
**TIPS**



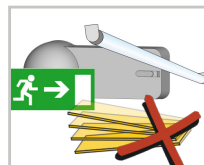
The sensor can be installed in various positions. Always verify the antenna position.



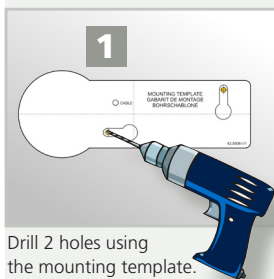
The sensor can easily replace other sensors by using the retrofit clip.



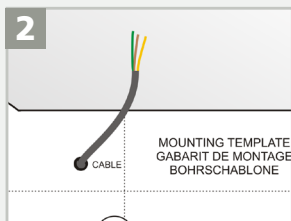
1. Remove the clip.
2. Mount it with the existing screw.
3. Slide the sensor onto the clip.



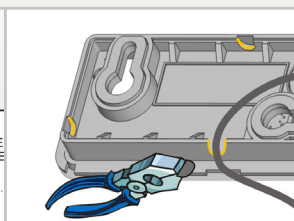
Avoid proximity to neon lamps or moving objects. Do not cover the sensor.



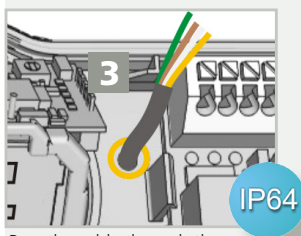
Drill 2 holes using the mounting template.



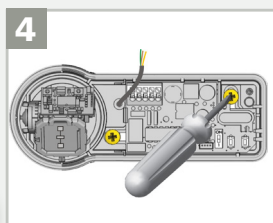
Drill a hole for the cable and pull tinned end through towards the sensor...



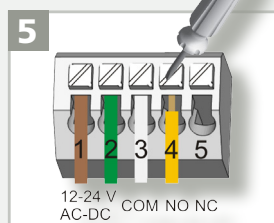
... or use one of the cable conduits. Avoid using the top conduit to ensure weatherproofness.



Pass the cable through the opening.

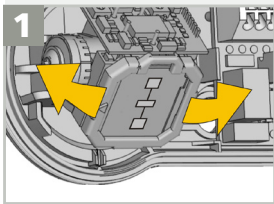


Mount the sensor firmly to avoid vibrations.

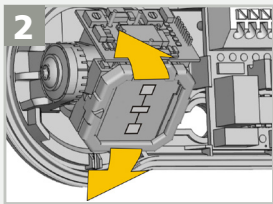


Connect the wires accordingly.  
12-24 AC/DC – Brown, Green  
COM – White  
NO/NC – Yellow

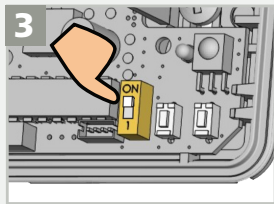
### 3 DETECTION FIELD



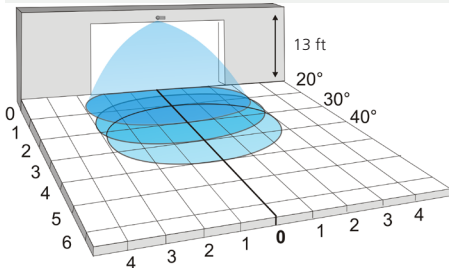
Adjust the lateral antenna angle.



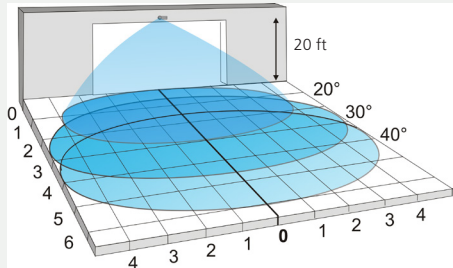
Adjust the vertical antenna angle.



If mounting height > 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	
IMMUNITY FILTER			normal	high								
DETECTION MODE			bi	<b>uni</b>	uni AWAY							
OUTPUT CONFIG			<b>A</b>	P								

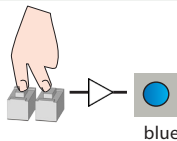
bi = two-way detection towards sensor  
uni = one-way detection towards sensor  
uni AWAY = one-way detection away from sensor

A = active output (NO-contact)  
P = passive output (NC-contact)

RESETTING TO FACTORY VALUES:



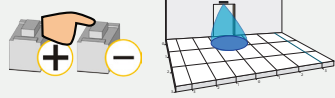
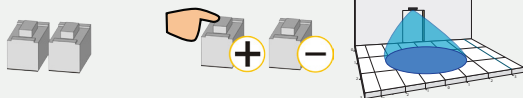
OR



= Factory Values

PUSH BUTTON

FIELD SIZE



## 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:

DELETING AN ACCESS CODE:

## 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.
	Door opens and closes constantly. Blue LED is ON.	Improper wiring at sensor.	Verify wiring at sensor.
	Sensor detects objects outside its detection field. 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 no apparent reason when raining. Blue LED is ON.	Metallic environment.	Increase immunity filter. Decrease field size.
	Sensor detects for no apparent reason when raining. Blue LED is ON.	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.
	Sensor does not respond to remote control.	Remote control is oriented incorrectly.	Point the remote control towards the sensor.

### PEDESTRIAN APPLICATIONS:

### ANSI / AAADM Compliance

Upon completion of the installation or service work, at a minimum, perform a daily safety check in accordance with the minimum inspection guidelines provided by AAADM. Provide each equipment owner with an owner's manual that includes a daily safety checklist and contains, at a minimum, the information recommended by AAADM. Offer an information session with the equipment owner explaining how to perform daily inspections and point out the location of power/operation switches to disable the equipment if a compliance issue is noted. The equipment should be inspected annually in accordance with the minimum inspection guidelines. A safety check that includes, at a minimum, the items listed on the safety information label must be performed during each service call. If you are not an AAADM certified inspector, BEA strongly recommends you have an AAADM certified inspector perform an AAADM inspection and place a valid inspection sticker below the safety information label prior to putting the equipment into operation.

### INDUSTRIAL APPLICATIONS:



Upon completion of the installation or service work, at a minimum, perform a safety inspection for the type of Door/Gate per the manufacturer recommendations and/or per ANSI/DASMA guidelines for best industry practices. Some examples but not limited to are ANSI/DASMA 102, ANSI/DASMA 107, UL 325. Make certain all appropriate industry warning labels are applied. It is the responsibility of the installer/service personnel to be familiar with national and local codes, standards, and regulatory requirements. BEA Inc. recommends for installers and service personnel to be factory trained for the type of door/gate system prior to performing installation or service.



OPEN UP NEW HORIZONS

Tech Support: 1-800-407-4545 | Customer Service: 1-800-523-2462 | General Tech Questions: Tech\_Services@beainc.com | Tech Docs: www.beasensors.com