

Product features

- PIR and ambient light sensor
- Supports presence, presence/absence and absence scenarios
- Ceiling surface mounting
- Battery life up to 10 years
- Battery-operated, suitable for battery type CR123A
- Built-in magnetic trigger for hands-free pairing and OTA upgrade

CASAMBI 



Product specifications

168392 NASSR PDS-BAT-CAS

Input voltage	Standby current	Detection angle	RF transmit power	CASAMBI Fixture ID	Dimensions Ø x H
2.5...3.3 Vdc	< 10 µA	110°	+4 dBm	40923	Ø 3.56 in x 1.05 in (Ø 90.5 mm x 26.7 mm)

Electrical specifications

Electrical parameters

Operating voltage	2.5...3.3 Vdc
Standby current	< 10 µA
Battery type	CR123A
RF transmit power	+4 dBm
Wireless protocol	CASAMBI, 2.4 GHz BLE-based proprietary mesh
Wireless range (line-of-sight, open field)	Up to 50 m

Sensor specifications

PIR axial distance (mounting height)	2.5...3.6 m
PIR axial coverage angle	110°
PIR tangential coverage angle	360°
Ambient light sensor detection range	0...3000 Lux

Control and indication

Sensitivity adjustment	4 levels, modified by buttons (see page 4 for details)
Occupied latency adjustment	4 levels, modified by buttons (see page 5 for details)
ALS (Ambient Light Sensor) latency	3 levels, modified by buttons (see page 6 for details)
Orange LED	Identification of devices and set mode indication
Green LED	Setting level indication

Environmental specifications

Operating temperature	0...+40 °C
Operating humidity	0...+90 % non-condensing
Operating environment	Indoor only

Dimensions

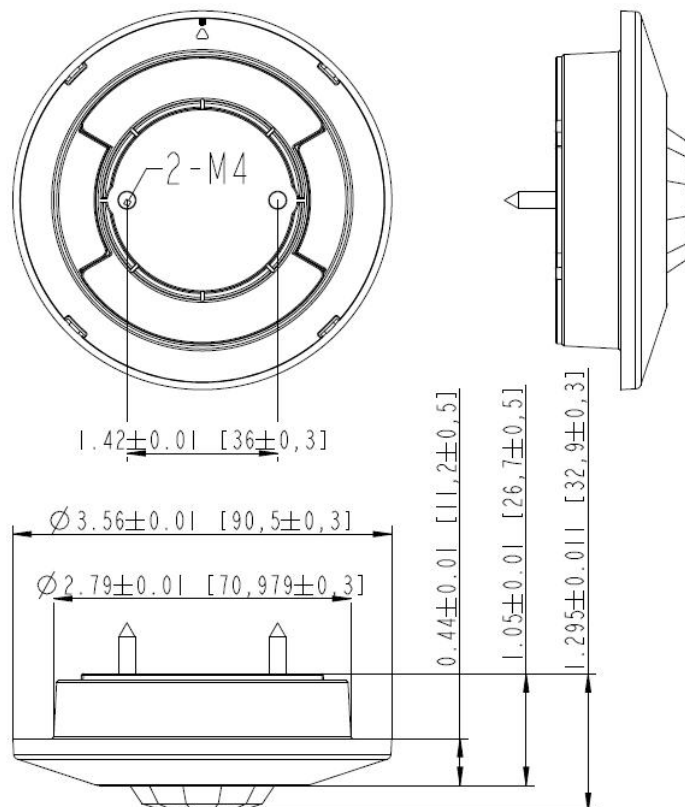
Housing dimensions

Diameter	3.56 in (90.5 mm)
Height (H)	1.05 in (26.7 mm)

For all dimensions: values in inches (mm)

Packaging details

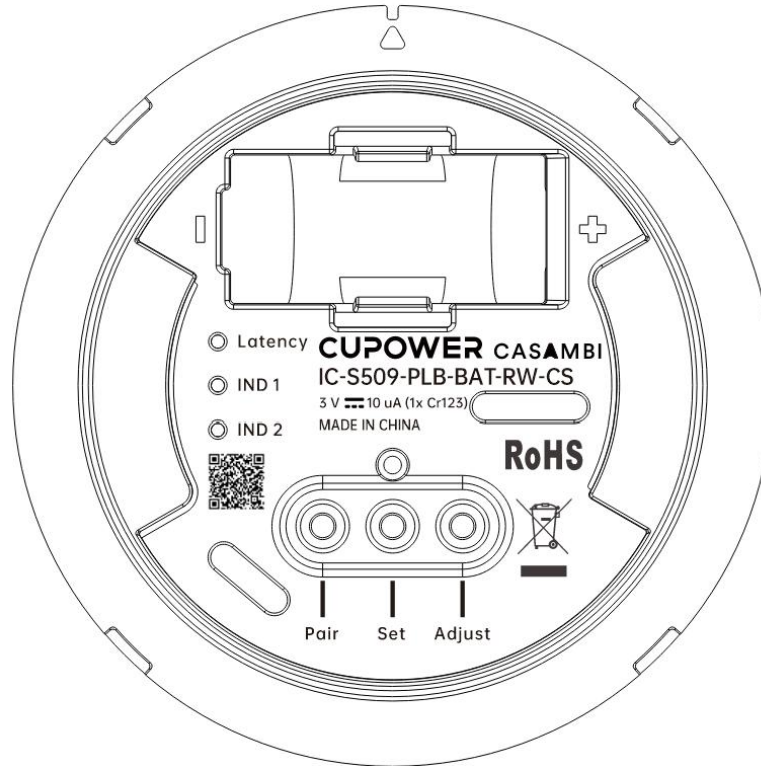
Packing units	24 pcs.
Carton size	12.32 in x 8.50 in x 7.95 in (313 mm x 216 mm x 202 mm)
Carton weight	4.56 lbs (2.07 kg)
Product weight	0.10 lbs (46 g, battery not included)



Caution

- This product is powered by CR123A battery.
- Start-up time is approximately 5 s.
- No wiring required.
- Install at least 1 m away from air-conditioning vents.
- Use at least 30 cm away from luminaires

Setting options



Button definitions

Button	Action	Function
Pair	Enter setup mode and short press the "Pair" button (0.5 s)	Unpair or discovery
Set	Press and hold for 1 s	Enter or exit setup mode.
	Short press	Switches between sensitivity, occupied latency, and ALS latency settings.
Adjust	Short press	Change the level of the selected setting.

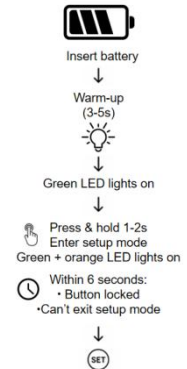
Note: See page 4, 5, and 6 for sensitivity, occupied latency, and ALS latency adjustment details.

Set on sensor

1. Power on

- Insert the battery into the battery compartment. The sensor will start up. The green LED will give a short flash after a 3 to 5-second delay.
- To enter setup mode wait for start-up mode to complete. Then press the "Set" button for 1 to 2 s and release it. You will see the green LED and orange LED indicators light up or blink.

Note: In setup mode, the orange LED turns on when it detects motion and turns off when there is no motion. If you use "Identify device" function in the CASAMBI App, it will tell you "The luminaire is blinking", on this sensor, the orange LED will stay on.



2. Sensitivity adjustment

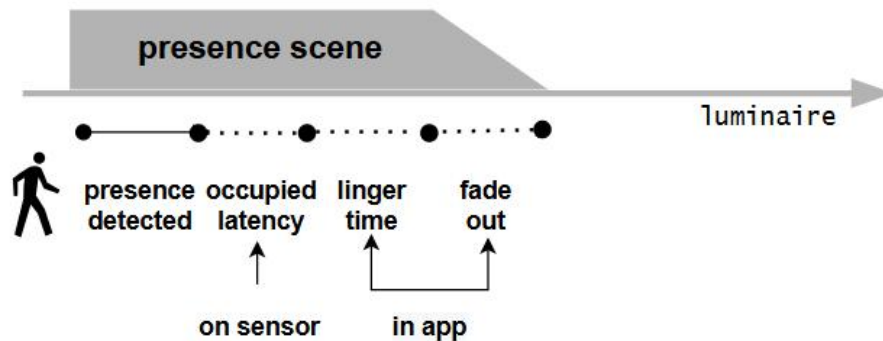
- Short press the "Adjust" button to set the sensor sensitivity or use the default levels.

Note: Your settings will not be lost after power off.

Level	Description	Indicator status	Note	Maximum ground coverage radius (at 3 m height)
1	IND2 blinking; Low sensitivity; Smaller detection range		By reducing the response sensitivity, interference in complex environments can be eliminated and false triggering can be avoided.	11.48 ft (3.5 m)
2	IND2 always on; High sensitivity; Smaller detection range		Smaller detection range, but fast response time, suitable for small spaces and environments with frequent human movement.	13.12 ft (4 m)
3	IND2 always on; IND1 blinking; Low sensitivity; Full detection range		Large detection range but slow response time for complex office environments	13.12 ft (4 m)
4	[Factory default] IND2 always on; IND1 always on; High sensitivity; Full detection range		Large detection range and fast response time for office environments without sources of interference	16.40 ft (5 m)

3. Occupied latency adjustment

- Once the sensitivity setting is complete, short press the "Set" button to switch to the Occupied latency setting mode and press the "Adjust" button to set the Occupied latency.



Note: Within the selected Occupied latency period, once the sensor has detected presence, any further detection will not generate additional BLE messages but will simply reload the selected Occupied latency timer, which reduces the BLE communication frequency and thus lowers power consumption.

This parameter is independent of the **Linger time** defined in the CASAMBI App:

- Occupied latency time:** Between presence detection and the sending of the absence signal.
- Linger time:** After the "absence" signal is sent.

The effective delay after presence ends = **Occupied latency time + Linger time**.

All configuration settings are retained after power loss.

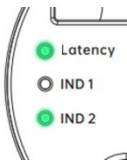
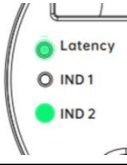
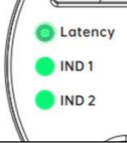
Level	Description	Indicator status	Note
1	[Factory default] Latency always on; Indicator IND2 blinking		Occupied latency is 0 seconds
2	Latency always on; Indicator IND2 always on		Occupied latency is 60 seconds
3	Latency always on; IND2 always on; IND1 blinking		Occupied latency is 5 minutes
4	Latency always on; IND2 always on; IND1 always on		Occupied latency is 15 minutes

4. ALS (Ambient Light Sensor) latency adjustment

- The continuous blinking of the “Latency” indicator indicates the illuminance acquisition setting. In setup mode, press the “Set” button to select this setting.
- Integrated 50Hz/60Hz light flicker rejection.

Note:

- 1. The ALS setting offers three levels, You can adjust it based on your requirements, For example: If you select the Close loop option in the light control settings in the CASAMBI App, set the sensor to Level 3; if you choose the basic on/off option, set the sensor to Level 1 or Level 2.
- 2. The different levels of the ALS latency setting only adjust the light acquisition period. The internal algorithm determines whether to send the data.
- 3. If the environment brightness changes frequently, using level 3 will severely reduce the battery life. In this case, it is recommended to set it to level 1.

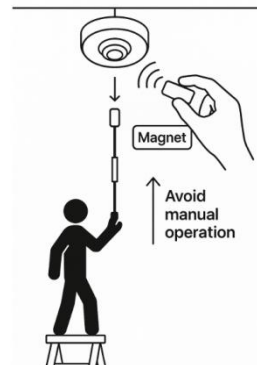
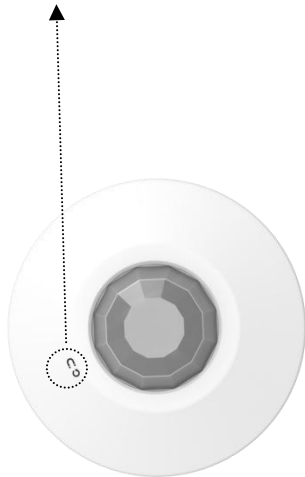
Level	Description	Indicator status	Note
1	[Factory default] Latency always blinking; Indicator IND2 blinking		One acquisition is triggered on each occupancy state change.
2	Latency always blinking; Indicator IND2 always on		Illuminance acquisition period is 30 seconds.
3	Latency always blinking; IND2 always on; IND1 always on		Illuminance acquisition period is 2 seconds.

5. Recommended settings for common scenarios

Scenario	Triggers (times/day)	Daily Operation (hours)	Weekly Operation (days)	Sensitivity Setting	Occupied Latency Setting	ALS Setting	Battery Life (years)
Low-Traffic Corridor/ Passageway (Hallways, pathways)	200...300	12...16	7	Level 4	Level 3 (5 minutes; Balances response speed and battery life, ensures lights turn off promptly.)	Level 1 ALS sampling when occupancy status changes; reduces unnecessary transmission of BLE to saves power, works for basic light on/off control.	9
Warehouse/ Factory Area (Industrial Buildings, Warehouses)	50...100	8...12	5...6	Level 4	Level 4 (15 minutes; Maximizes battery life, suitable for areas with little traffic.)	Level 1 (ALS sampling when occupancy status changes; reduces unnecessary transmission of BLE to saves power, works for basic light on/off control.)	10
Underground Parking/Public Entrance (Garages)	300...500	18...24	7	Level 4	Level 4 (15 minutes; Maximizes battery life, for areas needing long operation with minimal maintenance.)	Level 1 (ALS sampling when occupancy status changes; reduces unnecessary transmission of BLE to saves power, good for areas with stable natural light.)	10

Magnetic trigger operation

Magnetic trigger area



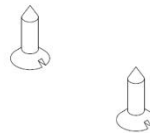
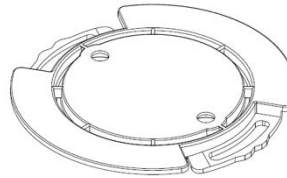
Magnetic trigger operation

The magnetic trigger provides a convenient way to re-pair or perform OTA upgrades after installation, eliminating the need to climb up and press physical buttons. If you want to use this more convenient operation, it is recommended that you purchase a magnetic pick up tool-telescopic magnet stick.

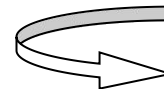
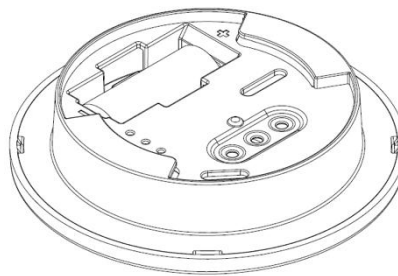
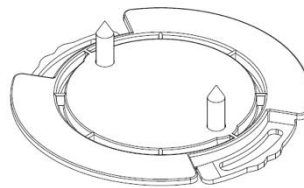
1. Place the magnet end of the tool close to the magnetic trigger area on the sensor surface.
Hold the magnet for 1 s, then remove it. The orange LED will turn on, and the sensor will enter setup mode.
2. Within 5 s, bring the magnet close to the trigger area again. After the orange LED lights up, remove the magnet.
Refresh the CASAMBI App; the "Unpair Device" will then appear.

Installation

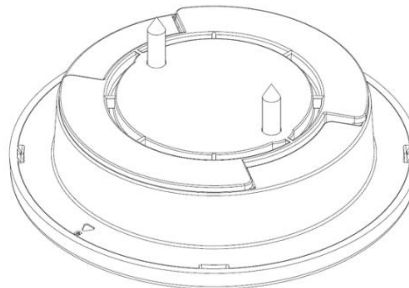
1. Attach the base to the ceiling using matching screws.



2. Install the battery, align the sensor with the base, and turn the sensor clockwise to lock it into the base.

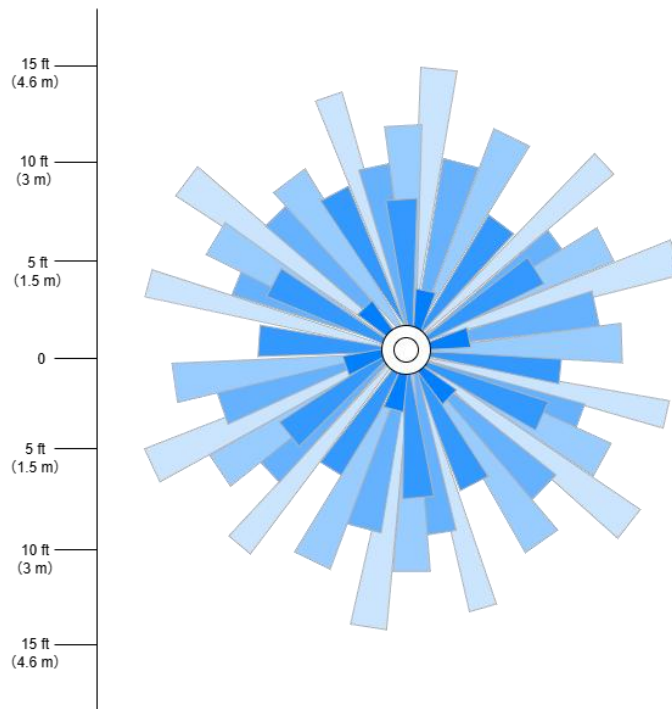


3. Installation complete, refer to setup options for sensitivity and latency adjustment.

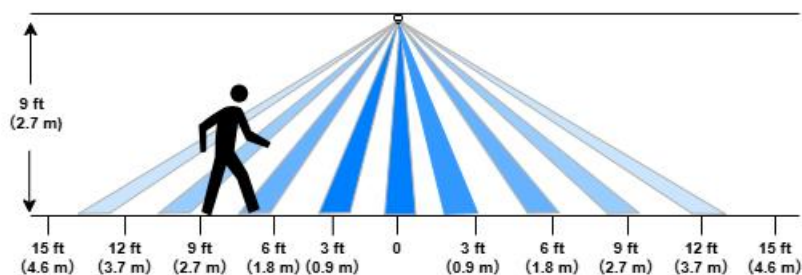


Coverage

Installation height	Coverage radius on the ground
6.56 ft (2.0 m)	9.84 ft (3.0 m)
8.20 ft (2.5 m)	12.30 ft (3.75 m)
9.84 ft (3.0 m)	14.76 ft (4.5 m)
11.48 ft (3.5 m)	16.40 ft (5.0 m)



Top view



Side view