BLAUPUNKT

User Manual

WIRELESS TRIPLE BEAM DETECTOR OUTDOOR 60M, RF 500M
BP-WBD60-3B

Enjoy it.

Swivel Bracket Wireless Photoelectric Triple IR Beam Detector

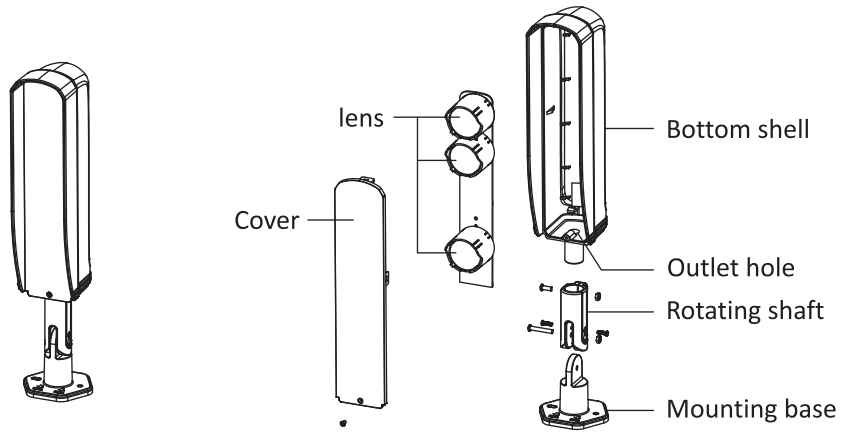
◆ Thanks for purchasing photoelectric IR beam detector, please read the user manual carefully before installation.

WARNING	Do not use the product for purposes other than the detection of moving objects such as people and vehicles. Do not use the product to activate a shutter etc. which may cause an accident.
	Do not touch the unit base or power terminals of the product with a wet hand (do not touch when the product is wet with rain etc.) It may cause electric shock.
	Never attempt to disassemble or repair the product. It may cause fire or damage to the devices.
	Do not exceed the voltage or current rating specified for any of the terminals during installation, doing so may cause damage to the devices.
CAUTION	Do not pour water over the product with a bucket, hose etc. The water may enter which may cause damage to the devices.
	Clean and check the product periodically for safe use. If any problem is found, do not attempt to use the product as it is and have the product repaired by a professional engineer or electrician.

1.Features

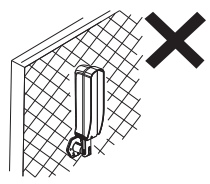
- All in one pure wireless design, free cable, easy for installation and connection.
- Low Power consumption, low current, long standby time, battery life>2.5years,
- As soon as Voltage <2.9V , detector output low voltage alert to user.
- Frequencies support 4Channels, selectable for long distance and stacking installations.
- Interruption time: 50ms~700ms adjustable, able to set it depend on different environment.
- Different mode with indicator with different color, simple and accurate optical correction;
- Digital filters, high environment adaptability to eliminat false alarm.
- Waterproof grade: IP65
- Alignment angle horizontally 360°(±180°), vertically 180°(±90°);
- The design of the brim extending outward makes the anti-sunlight interference ability stronger.

2.Part Description

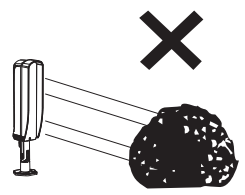


3.Installation Notes

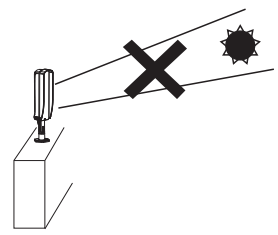
(1).Please avoid below situations to assure performance



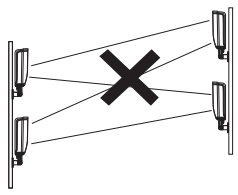
1. Do not install on an unsteady or moveable base



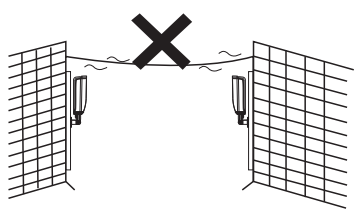
2. Do not install the unit where objects can block the beams like plants and laundry moving in the wind.



3. Prevent direct sunlight onto the receiver



4. Avoid cross talk. Use frequency select (stack installation only for the same model)



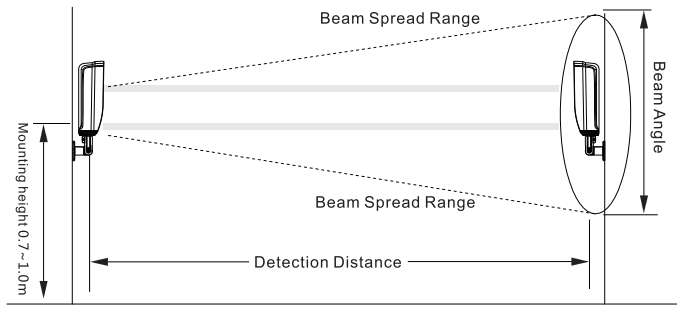
5. Avoid exposing wiring.

(2).Normal installation

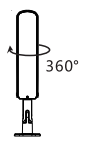
◆ Detection distance

Model	Detection Distance	Beam Angle
Triple Beams	60m	1.2m
	100m	1.8m
	100m	1.8m

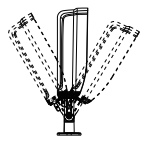
◆ Mounting height



◆ Adjusting angle



Horizontal 360° (±180°)

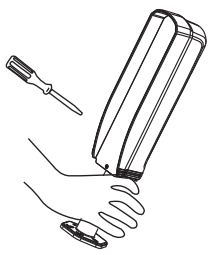


Vertical 180° (±90°)

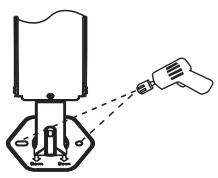
Notice: For best testing results, please avoid testing in 45°

4.Setting Method

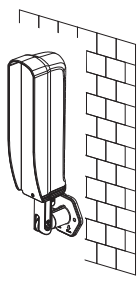
◆ Wall mounting



1. Loosen the screw and remove the cover

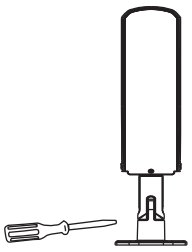


2.According to the size of the base mounting hole, make two mounting holes on the wall.



3. Attach beam to the base

4. Connecting wires to the terminals (please refer to “beam alignment”)



5. Review and reset the cover

5.DIP Switch Explanations

DIP switch show on the left side of the main PCB, as shown in following figure.

1, Power Switch (RX , TX) : DIP 1

2, Frequency setting(RX, TX) : DIP 2, 3

When setting the beam frequencies, the pair of RX&TX DIPs must be same.(When two pairs or more pairs of beam detectors mounted on the same horizontal line or the same surface, it is recommended that the adjacent pairs of beam detectors set to a different frequency to prevent the intereference.

3. Interruption Time Setting(RX) DIP 4&5.

Interruption time: a set of beam detector interrupted how long time, it will be trigger alarm. The range: 50-700ms adjustable, this function able to set the speed time of interruption the beams.

In the case of birds or leaves that may accidentally interrupted the infrared beam, a longer interruption time can be set; after adjusting the it, please verify.

4, Indicator Status.

Signal strength indicator(RX)

Alarm indicator(ALARM): When alarm occured or signal weaken, the indicator will turn red.

Signal indicator(LEVEL) : 4status for setting: OFF, slow blinking, fast blinking, and keeping lighting. When RX received infrared signals from weak to strong, the signal strength indicator will turn from weak to lighting.

"LEVEL" indicator(blue) through the 4 status to show the signal strength.

Indicator (GOOD) : best signals, 4status : OFF, slow blinking, fast blinking and keeping lighting. When RX received infrared light indicator is strong and best, the blue "LEVEL" indicator will turn OFF,

the green (GOOD) indicator indicator will will into slow blinking mode, when signal stronger, the "GOOD" indicator will fast blinking, until the signals reach the best, the green (GOOD) indicator will keeping lighting.

5, Power indicator(T_LED2) (TX): after powered on, the green indicator will blinks three times and then OFF.

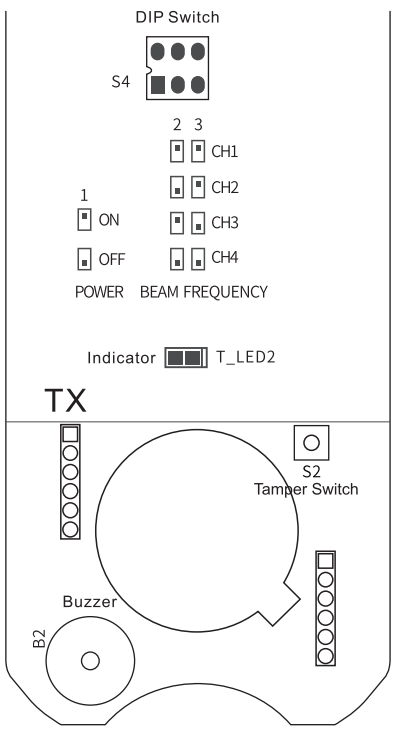
Attention: After powered on 10munites, or the anti tamper triggered within 10munites, its into beam calibration mode, and the" ALARM", "GOOD","LEVEL" indicators will keeping lighting.

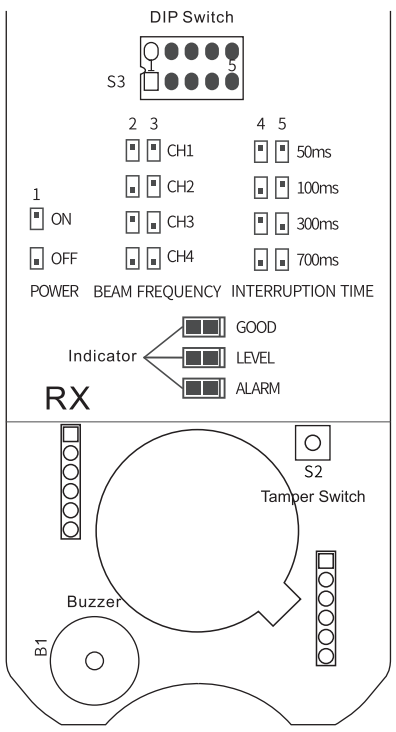
After finished the calibration mode(after powered on 10munites) will be automatically into normal working mode, all indicators will be OFF.

If want to turn ON all indicators, triggered alarm for the RX or triggered the Tamper, also can be restart the power switch for the RX and then will be ON again.) indicator will keeping lighting.

6. Anti-tamper (RX, TX).

When the lid is opened, the tamper alarm will be triggered. When the tamper alarm is triggered, the buzzer will sound three times. After the lid is closed, the tamper will reset.



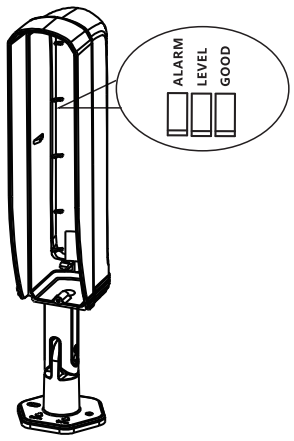


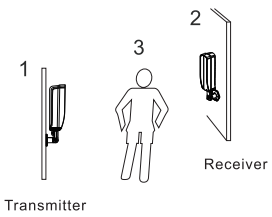
6.Optical Axis Correction

1. Set the infrared beam frequency, the TX frequency must be consistent, such as the TX frequency jumper cap inserted in the band 1, the RX's jumper cap must also be inserted in the band 1.

2. Adjust the shaft so that the TX and RX are aligned as much as possible.

3. Rotate the TX and RX shafts to correct the direction of the infrared beam. When the signal intensity blue **(LEVEL)** indicator changes from slow flash to fast blinking, it indicates that the optical axis alignment accuracy is higher. Until the light is normal on. Continue to adjust, the blue indicator is off, and the green **(GOOD)** indicator changes from slow blinking to fast flash until the green indicator is on, which means the signal strength is optimal



Alarm Status	Please make sure that the alarm indicator is off. If the infrared beam is not blocked, the red alarm indicator will still light up. Please perform optical correction again.
	Please do the test at the 3 following positions 1. At the transmitter side 2. At the receiver side 3. In the middle
Alarm Status	Alarm indicator turns on when beam is interrupted, test finished successfully.

Note: If the alarm LED indicator is OFF even though the beams are completely blocked, refer to the “Trouble Shooting”.

7.Beam Detector add to alarm panel.

When your alarm panel is under adding(pairing) wireless detector status, meanwhile wireless beam detector is normal working(no triggered alarm in 6seconds), block all of the 3beams and triggered alarm, the TX will send out wireless signal, alarm panel will voice report: added (pairing) successfully. Then finished the adding.

8.Troubleshooting

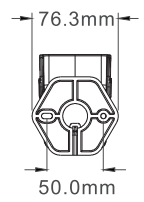
Symptom	Possible cause	Remedy
Power on, but power LED off	1.Battery voltage is low. 2. Battery holder is loose. 3. Circuit is shortcut.	1.Check the battery status. 2: Check the battery holder if work well. 3.Check the PCB wire connection
When beam is blocked, the alarm LED does not indicate, nor does the alarm relay switch	1. There is reflection or cross-talk from other transmitters 2. Walk speed set too long 3. Alarm output cable is shorted or damaged	1. Change beam path or change TX/RX frequency channel 2. Ensure 2 beams all blocked 3. Change walk-speed setting 4. Check RX terminal and output cable
When beam is not blocked, alarm LED indicates activation	1. Beam is out of alignment; optical axis does not overlap 2. There are objects between TX and RX 3. Frequency is incorrect 4. The cover is dirty or capped by snow, frost and ice 5. TX is faulty or OFF	1. Adjust optical axis 2. Check objects between TX and RX 3. Ensure the frequency of TX and RX is the same 4. Clean cover or user heater 5. Check the voltage or wiring of TX
False alarm	1. Bad wiring and fluctuant power voltage 2. Randomly blocked, like birds, paper or leaves 3. The beams base is unstable 4. Out of alignment	1. Check power, current and wiring 2. Change installation location 3. Strengthen installation base 4. Re-align

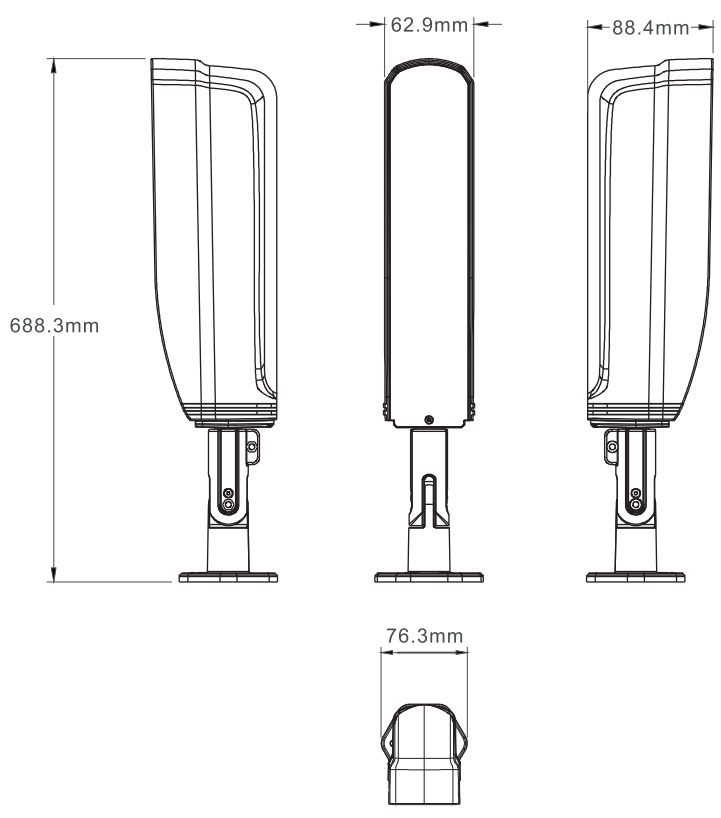
9.Specifciations

Model	BP-WBD60-3B
Detection Distance	60m
wireless frequency	433MHz default(zigbee/868mhz is available.)
Transmission Distance	100m(in the open air)
Detection Method	Simultaneous interruption of 3 infrared beams
Interruption time	50ms~700ms(adjustable)
Battery Voltage	3.6V
Frequencies	4CH Frequencies selectable(TX+RX must be same freq)
Alarm Period	⩾6s
Working Current	RX:200ua TX:320ua
Battery Endurance	2.5Years
IP Grade	
Working Temperature	-25℃~55℃
Humidity	95%RH Max
Correction angle	Horizontal 360°(±180°) , Vertical adjustable 180°(±90°)
Installation location	Indoor/outdoor, wall/pole
Weight	1070g
Accessories	
Wall mounting screws	4X KA4*30mm
Expansion pipe	4*Φ6*28mm,white

10.Dimensions

BP-WBD60-3B





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