

dimax

SENSOR DE HAZ IR INALAMBRICO,
3 HACES 100M

A316

dimax

FOTOCÉLULA IR
PARA EXTERIOR

MODELO: A316

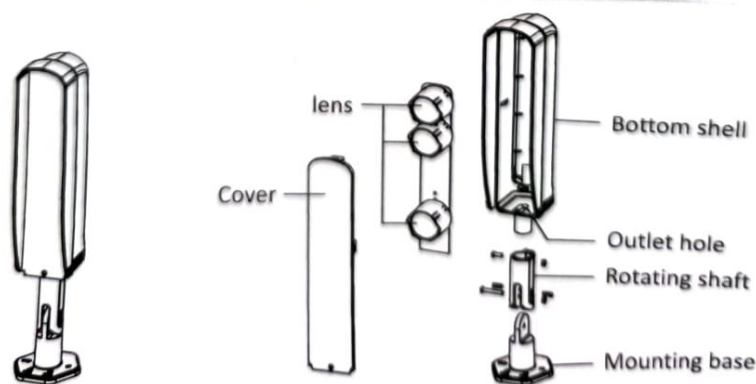
- ◆ Thanks for purchasing photoelectric IR beam detector, please read the user manual carefully before installation.

 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

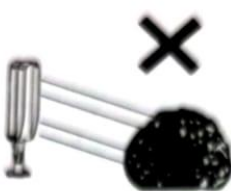


3. Installation Notes

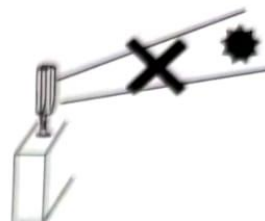
(1). Please avoid below situations to assure performance



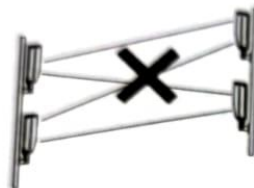
1. Do not install on an unsteady or moveable base



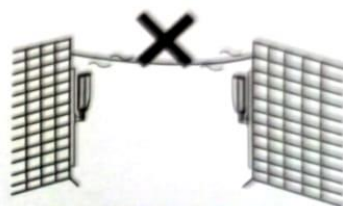
2. Do not install the unit where objects can block the beams like plants and laundry moving in the wind.



3. Prevent direct sunlight onto the receiver



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



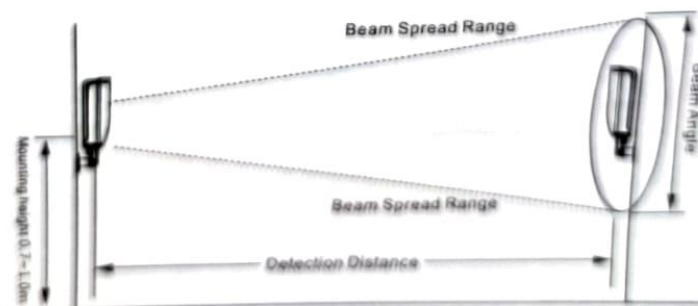
5. Avoid exposing wiring.

(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°



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

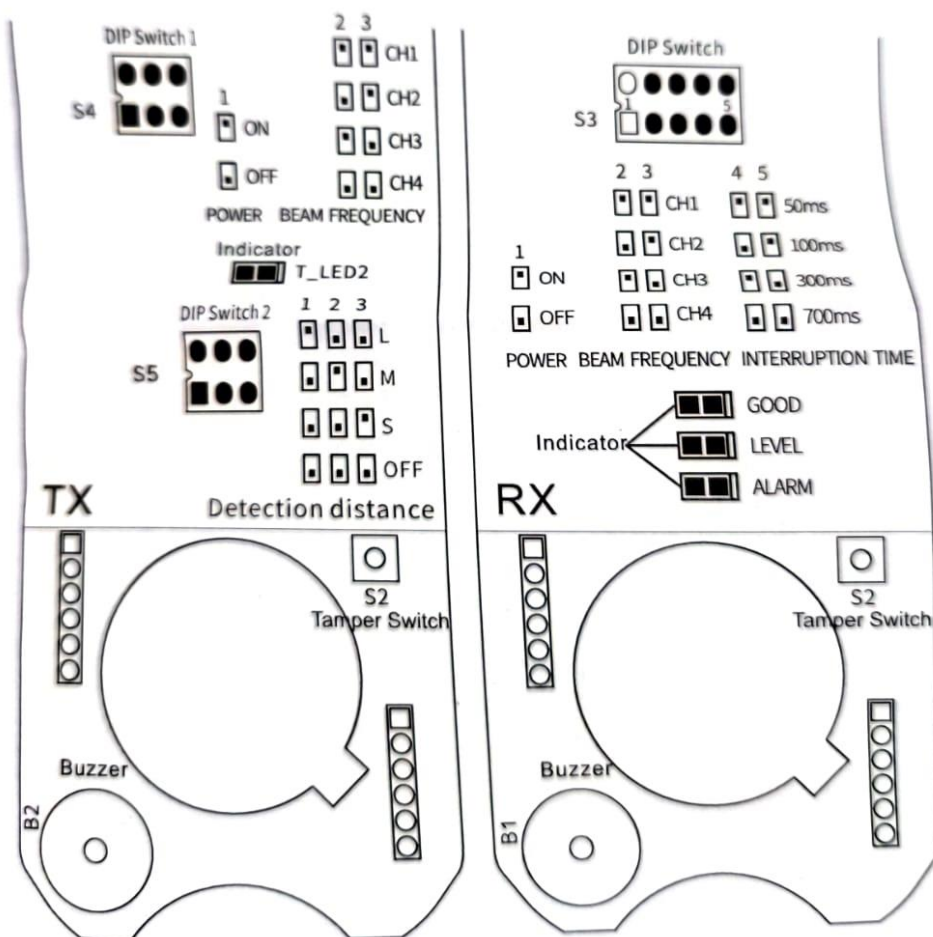
Dip-switches on PC-Board, as shown below.

TX DIP Switch Explanations

S4	DIP 1	TX Power Switch; Set DIP 1 to ON and power on; Otherwise power off;
	DIP 2, 3	TX Frequency Setting, 4 status for setting; When setting the beam frequencies, the pair of RX&TX DIPs must be same; Note: When two 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 interference;
		L Set S5 to L, and the Detection distance is 100% of the calibrated distance.
		M Set S5 to M, and the Detection distance is 60% of the calibrated distance.
S5	S	Set S5 to S, and the Detection distance is 30% of the calibrated distance.
	OFF	Set S5 to OFF, and the Detection distance is 0 (NO transmit)

TX DIP Switch Explanations

S3	DIP 1	RX Power Switch; Set DIP 1 to ON and power on; Otherwise power off;
	DIP 2, 3	RX Frequency Setting, 4 status for setting; When setting the beam frequencies, the pair of RX&TX DIPs must be same; Note: When two 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 interference;
	DIP 4, 5	Set the interruption time; support 50ms, 100ms, 300ms and 700ms;

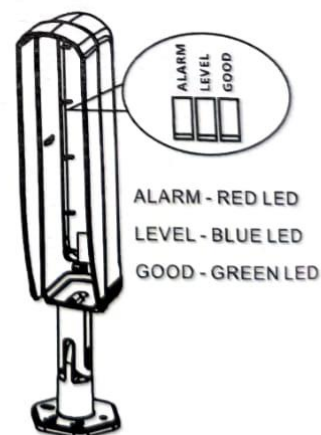


6.LED

TX	Power indicator(T_LED2)	After powered on, the green indicator will blinks three times and then OFF.
RX	Alarm indicator (ALARM)	When alarm occurs or signal becomes weak, ALARM (red) on.
	Medium signal indicator (LEVEL)	4 status: OFF,slow blinking, fast blinking and keeping lighting, corresponding signal strength from weak to strong; When the RX receives the signal from nothing to something, the signal strength changes from weak to strong," LEVEL" indicator(blue) through the 4 status show the signal strength.
	Good signal indicator(GOOD)	4 status: OFF,slow blinking, fast blinking and keeping lighting, corresponding signal strength from weak to strong; When the signal reaches a certain strength, the blue "LEVEL" indicator will turn OFF, the green(GOOD) indicator indicator 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.
Note:The optical axis correction mode is used within 30 minutes after the device is powered on or 30 minutes after the tamper is triggered. During this period, the indicators will be on. After 30 minutes, all the indicators will be turned off. The light can be turned on by triggering the tamper or re-energizing the device.		

7.Optical Axis Correction

1. Power up both RX & TX on Dip-switch 1, you will hear a beep tone on RX & TX.
2. Make sure the Beam RX & TX Frequency -Dip-switch 2 & 3 is set to the same channel - Channel 1/ 2/ 3 OR 4 can be selected if Beams does get stacked on a pole or wall.
3. Adjust both RX & TX - Vertical and Horizontal to ensure that Beam RX & TX does face each other in order for Alignment procedure to start.
4. Follow LED Indicators - Blue (Level) & Green (Good). Start Rotating the RX & TX when the Blue LED (Level) Indicator lid up and start to Flicker you will now have the correct direction of the Beam RX & TX, keep on rotating RX & TX until the blue LED is ON solid. now the Blue LED will switch off & The Green LED (Good) Indicator will switch ON to indicate that Beam RX & TX Alignment is optimal.



RED ALARM BLUE LEVEL GREEN GOOD Alarm Status	Make sure that the RED alarm indicator is off. If the RED alarm indicator is still ON & the beam pathway is clear re-look at alignment procedure.
	Test at 3 Positions 1. Transmitter side 2. Receiver side 3. Middle of RX & TX
ALARM LEVEL GOOD Alarm Status	Alarm indicator will switch on once the beam was interrupted, Alignment complete & successful.

Note: If Beam Alarm indicator stays off please refer to the "Trouble Shooting guide".

8. Beam Detector add to alarm panel.

First of all, the alarm panel enters the pairing state, and then when the wireless IR Beam detector works normally, it is blocked to trigger the alarm, and RX will emit a wireless alarm signal, which can complete the pairing of the detector and the alarm panel.

9. Troubleshooting

Symptom	Possible cause	Solution
Power on, but power LED off	1. Battery voltage is low. 2. Battery holder is loose. 3. TX wiring might be incorrect.	1. Check the battery status. 2. Check the battery holder if Battery was connected properly. 3. Check the TX PCB wire connection. refer to Manual.
When beams was interrupted & the alarm LED does not indicate, nor does the alarm activates	1. There might be cross-talk from another transmitter. 2. Walk speed set too long. 3. no power on TX OR RX. 4. Check TX fitted in Beam RX.	1. Change beam path or change TX/RX frequency channel 1/2/3/4. 2. Ensure 3 beams were blocked. 3. Change walk-speed setting. 4. Check TX connected to Beam RX.

when beam is not blocked, alarm LED indicates activation	1. Beam is out of alignment optical axis does not overlap 2. There might be objects between TX and RX . 3. Frequency is incorrect 4. The front lid might be dirty. 5. Beam TX might be 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 5. Check the voltage or wiring of TX
False alarm	1. Poor alignment. re-align. 2. Beam might be obstructed. 3. The beams base might not be tightened.	1. Re-Align 2. Change installation location 3. Strengthen installation base

10.Specifications

Model	A316	
Detection Distance	60m	100m
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	IP-65	
Working Temperature	-25°C~55°C	
Humidity	95%RH Max	
Correction angle	Horizontal 360°(±180°) , Vertical adjustable 180°(±90°)	
Installation location	Indoor/outdoor, wall/pole	
Weight	1050g	
Accessories		
Wall mounting screws	4X KA4*30mm	
Expansion pipe	4*Φ6*28mm,white	

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11. Dimensions

