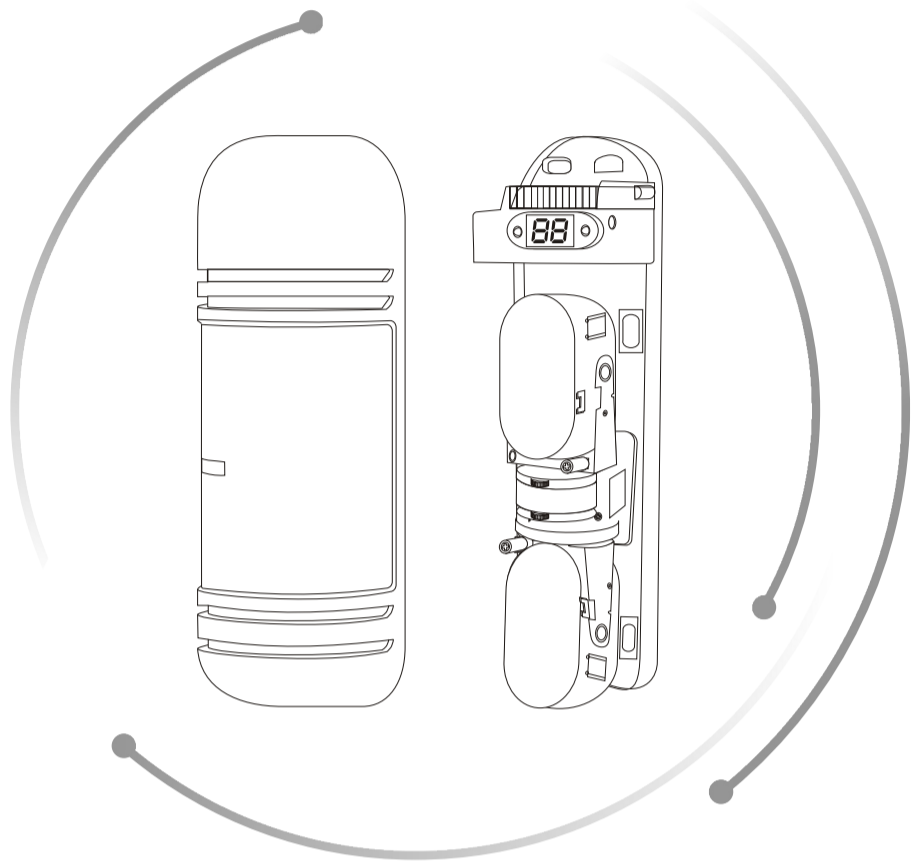


# Bus/Wired Passive Infrared Intruder Detector with Four Beams

## ABH Series

### User Manual

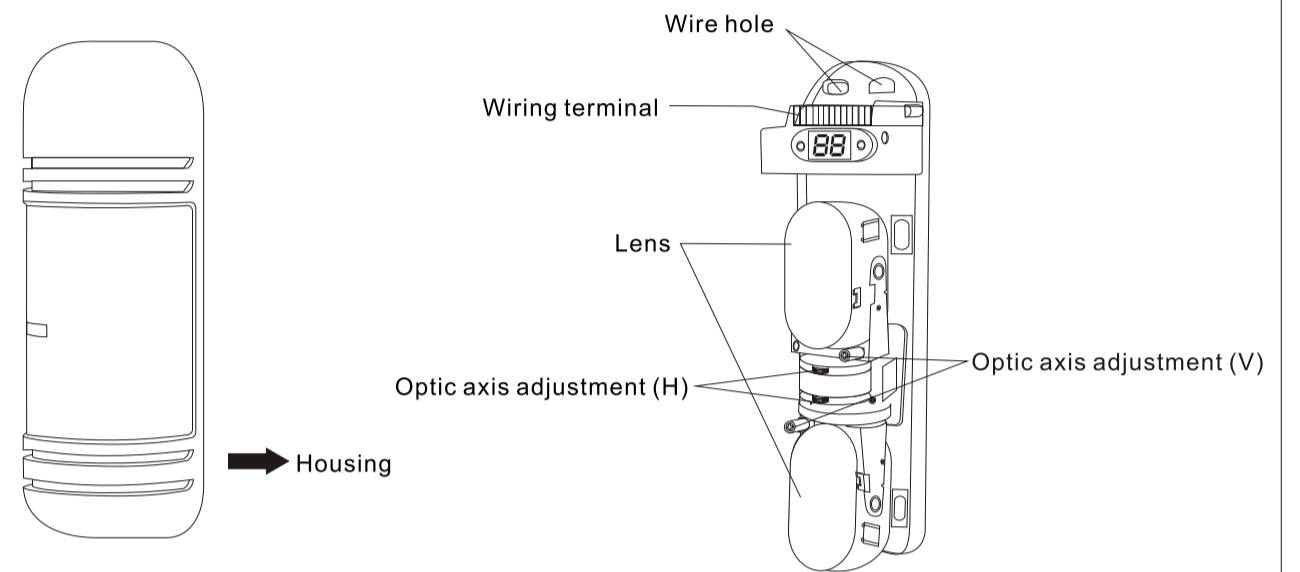


Designed by ZUDEN

### I. Model and specifications

Model		ABH-50	ABH-100	ABH-150	ABH-200	ABH-250
Detection range	Outdoor	50m	100m	150m	200m	250m
	Indoor	150m	300m	450m	600m	750m
Beams		Four beams				
Detection method		Four beams blocked simultaneously				
Light source		Infrared digital pulse				
Response time		50-240ms( Non-adjustable)				
Alarm output		Relay output, NO-NC,able to connect AC, DC30V 30mA Max.				
Power supply		DC13.8-24V				
Power consumption		95mA	100mA	100mA	100mA	105mA
Temperature& humidity		-25℃~55℃ 5%~95% (relative humidity)				
Tamper output		NC, able to connect AC,DC24V 0.3A Max				
Optic axis adjustment(H)		180° (±90° )				
Optic axis adjustment (V)		20° (±10° )				
House Material		PC				
Net weight		2000g(Transmitter+receiver)				
Gross Weight		2500g				

### II.Part name

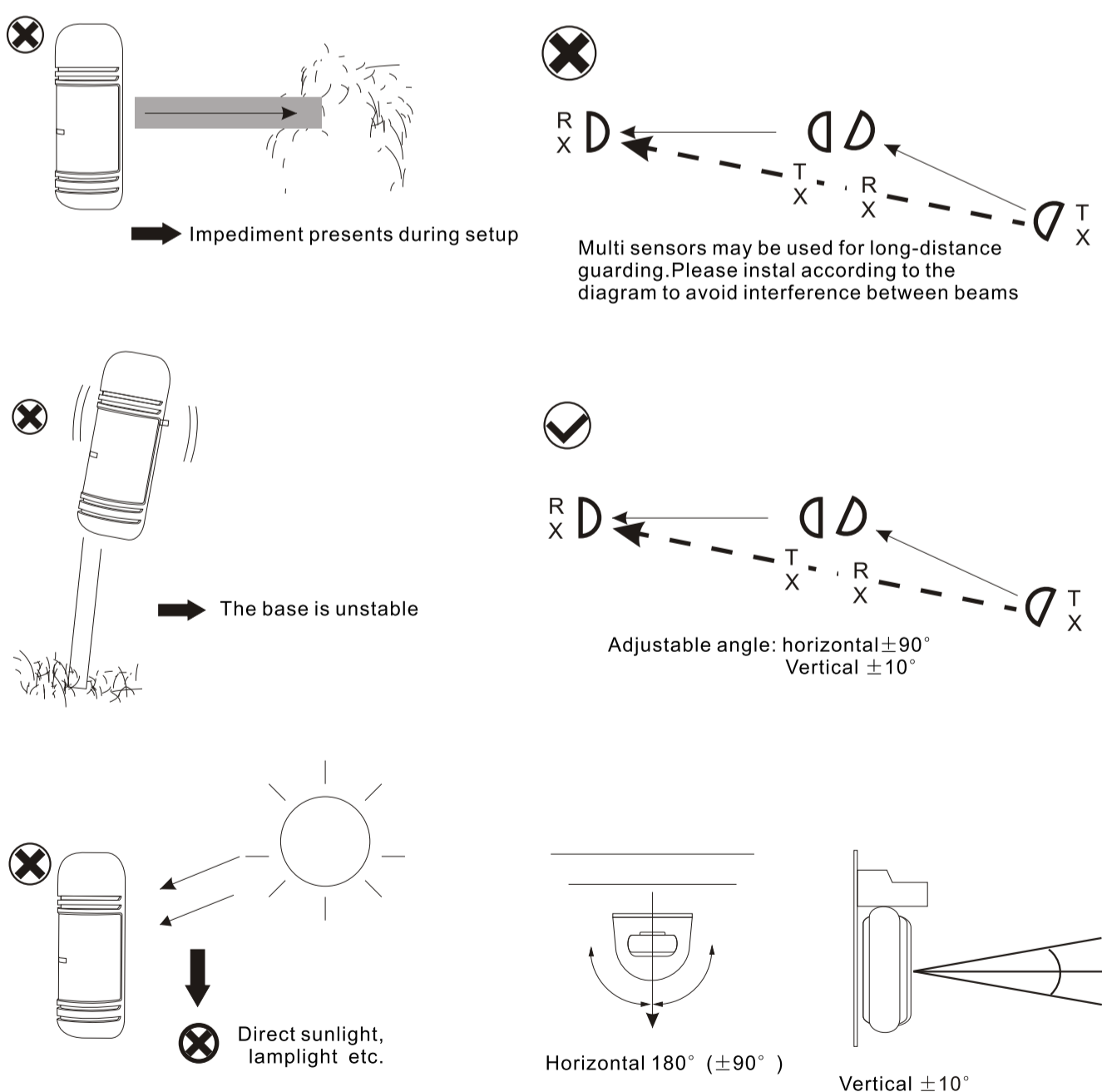


#### Feature:

- Under bus connection mode: the digital display of RX synchronize with the TX after the RX receive the signal from bus.
- Anti-fog function: when signal strength decrease slowly to 0.8V the detector will active anti-fog alarm( TBL output, when signal decrease to 0.4V, will active alarm. When signal back to 1.2V cancel alarm.

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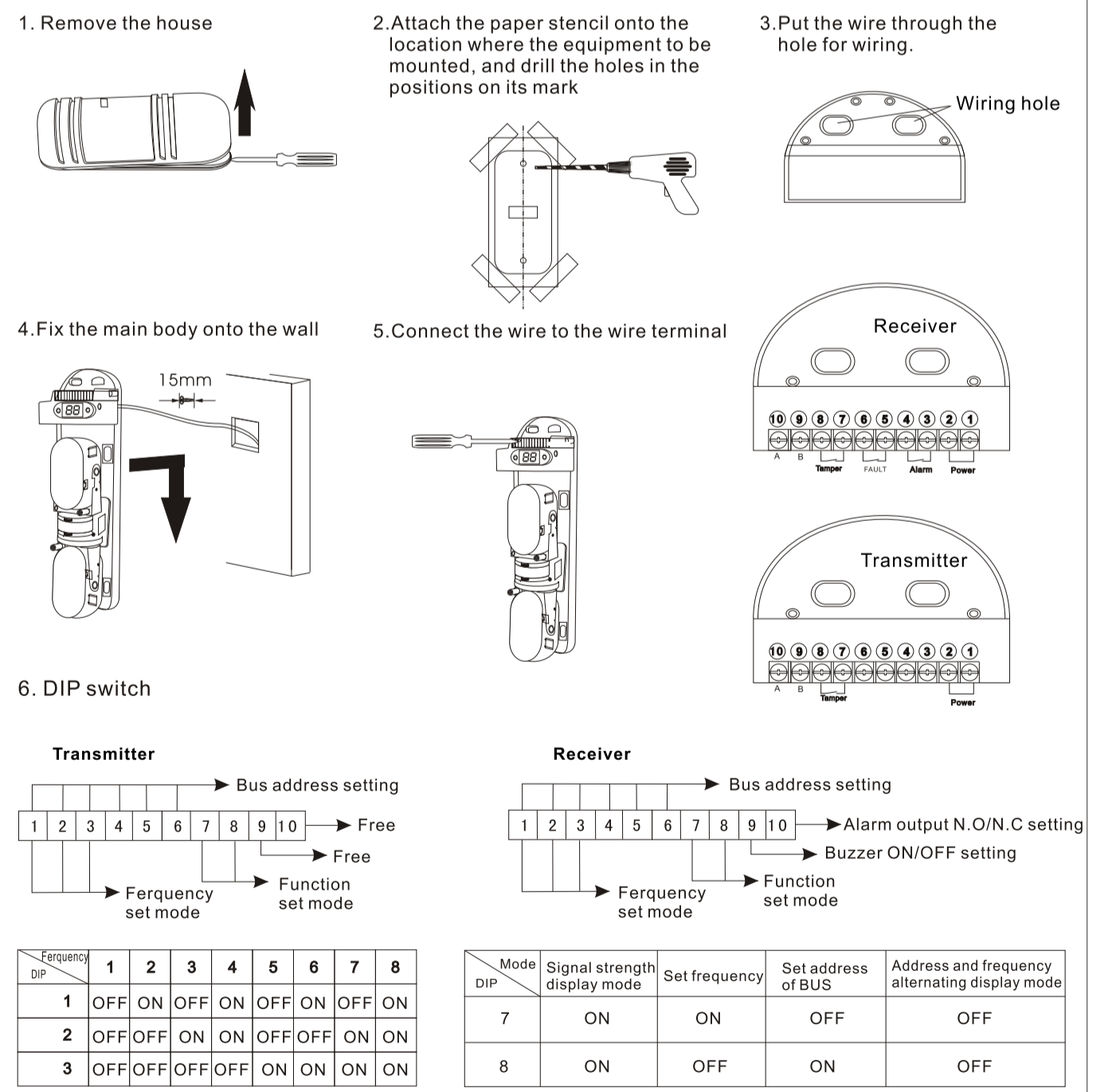
### III. Precautions for installation



Model	Distance	Beam diameter
ABH-50	50m	0.8m
ABH-100	100m	1.6m
ABH-150	150m	2.4m
ABH-200	200m	3.2m
ABH-250	250m	4.0m

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### IV. Setting procedure

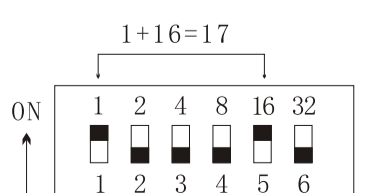


#### Function setting(table 2)

- Set frequency mode: the digital shows the frequency, set it on DIP 1,2,3, refer to table 1.
- Set address of bus: the digital display shows the address number, set it at DIP 1,2,3,4,5,6
- Set signal strength display mode: the digital display shows the signal strength of beams, The DIP 1,2,3,4,5,6 under this mode is free.
- Address and frequency alternating display mode: the digital display take turns to show the address and frequency. The DIP 1,2,3,4,5,6 under this mode is free.

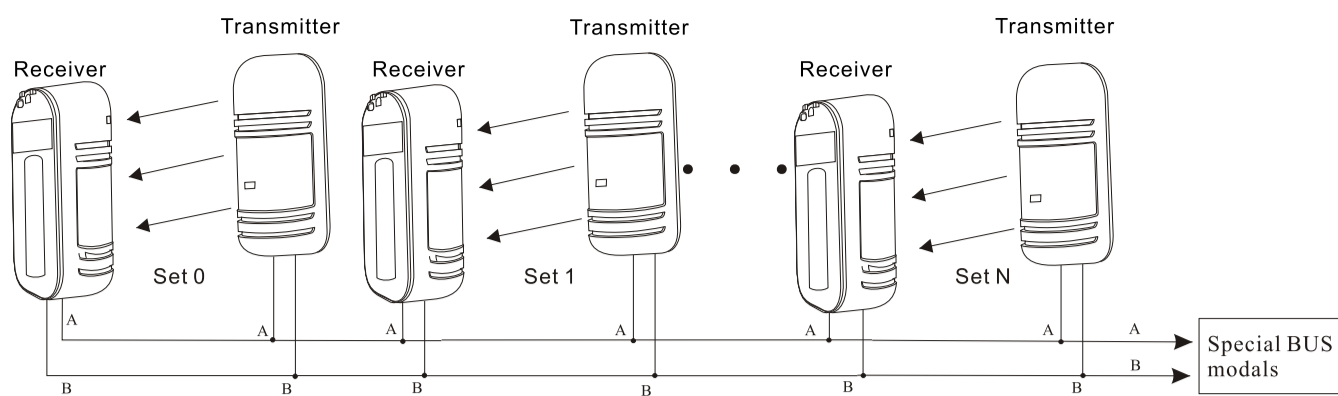
Frequency setting: first enter the frequency setting mode ( refer to table 2), then set DIP 1,2,3 to set the frequency. ( refer to table 1)

Zone address setting(first enter the address setting mode, refer to table 2. Under address setting mode, switch the DIP 1-6 to set the detector' s zone address, first set the DIP at ON, the number of the one DIP which set ON plus the other one, then plus 1, the final result of number is the zone number, Example this is zone 18 (17+1)



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### 7. Bus wiring

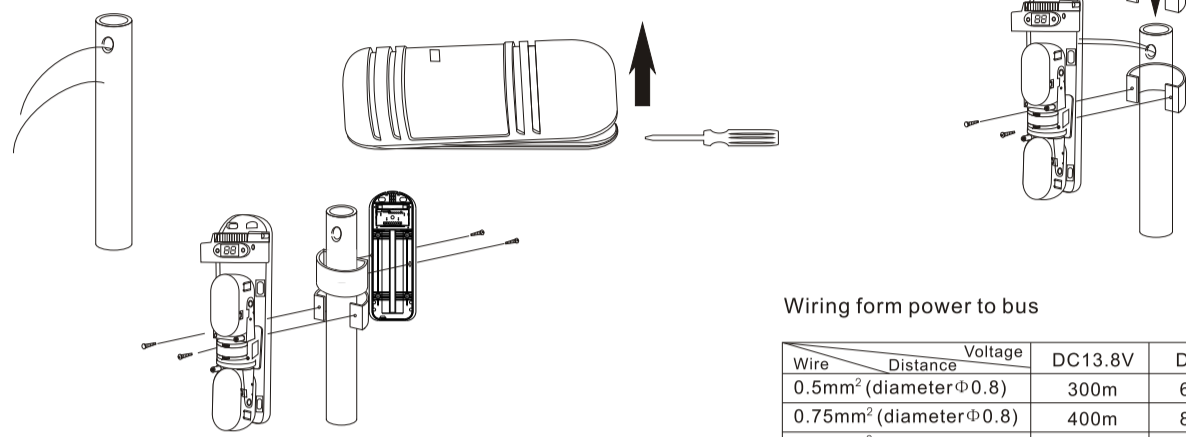


Note: it is possible for transmitter not to connect the blue wire, but if in this case, it will not display the strength of signal, and can not adjust the transmitting frequency automatically according to signal strength.

8. Take back the cover after the adjustment of the response time.

### Installation of the fixed bracket

1. Drill a hole on the bracket and extend out the cable from it
2. Take off the cover
3. Fasten the base-plate the bracket



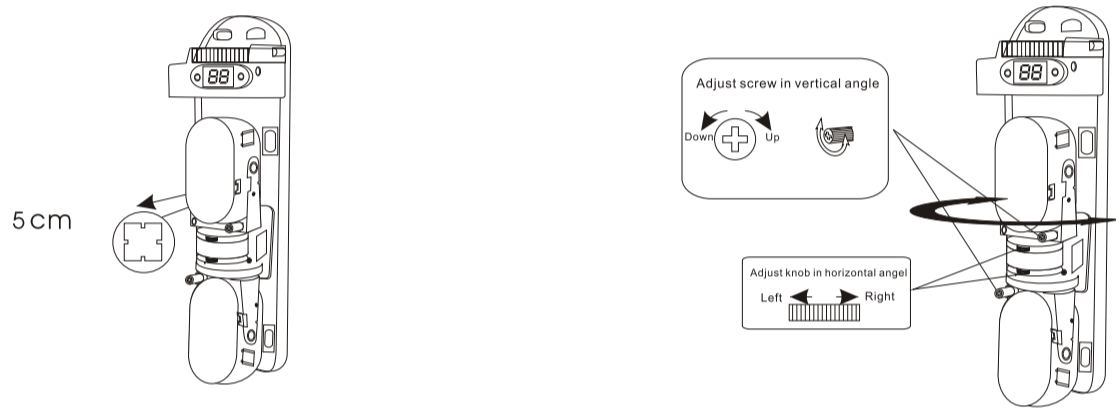
Wiring form power to bus

Wire	Distance	Voltage	DC13.8V	DC24V
0.5mm <sup>2</sup> (diameterΦ0.8)			300m	600m
0.75mm <sup>2</sup> (diameterΦ0.8)			400m	800m
1.25mm <sup>2</sup> (diameterΦ0.8)			700m	1400m
2.0mm <sup>2</sup> (diameterΦ0.8)			1000m	2000m

Note: please insert waterproof stopper into the hole of screw. Back to back installation guiding diagram

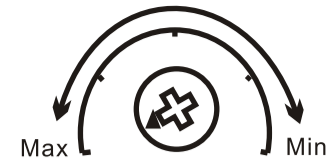
### V. Optic axis adjustment

1. Observe the collimation on effect at a distance of 5cm from the view finder, enable the image of detector shown in the view finder.
2. Adjust the vertical and horizontal optic axis following the picture below in order to get a best signal strength. If the signal is less than 1.8, please adjust again to get a better signal strength.

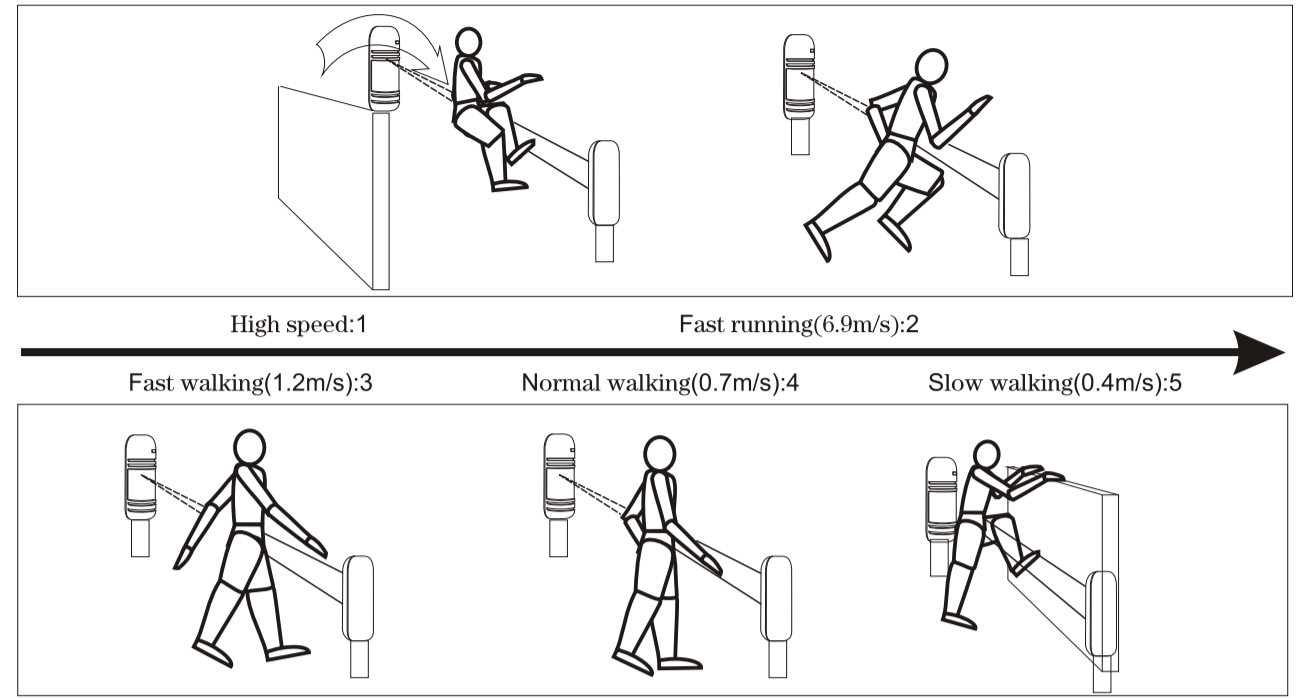


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### VI. Beam response time adjustment.



Please see the diagram to adjust the response time of the receiver. Usually, the time set shall be less than the time when the intruder crosses the guarding area. The min point is the shortest time. Time:50-240m see without degree.

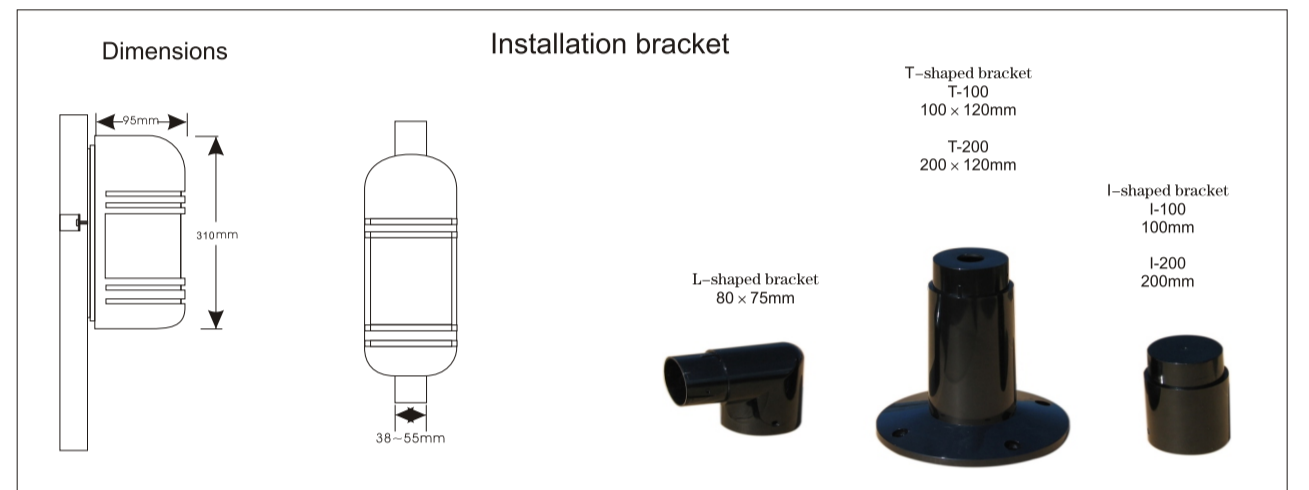


### VII. Physical test

Walking test required after the setting, accordance to below diagram

	State	Signal
Transmitter	Transmitting	The indicators of green LED light up
	Guarding	SIG LEVEL indicators light up
Receiver	In alarm	The red ALARM indicator light up

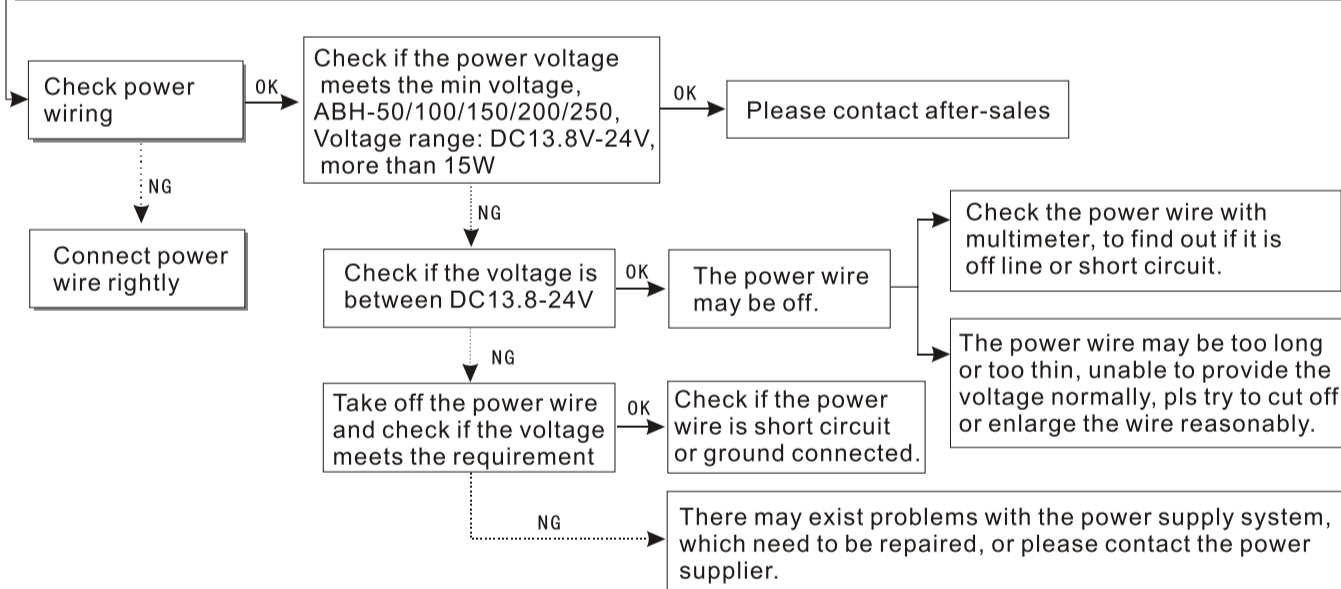
### VIII. Structures & dimensions



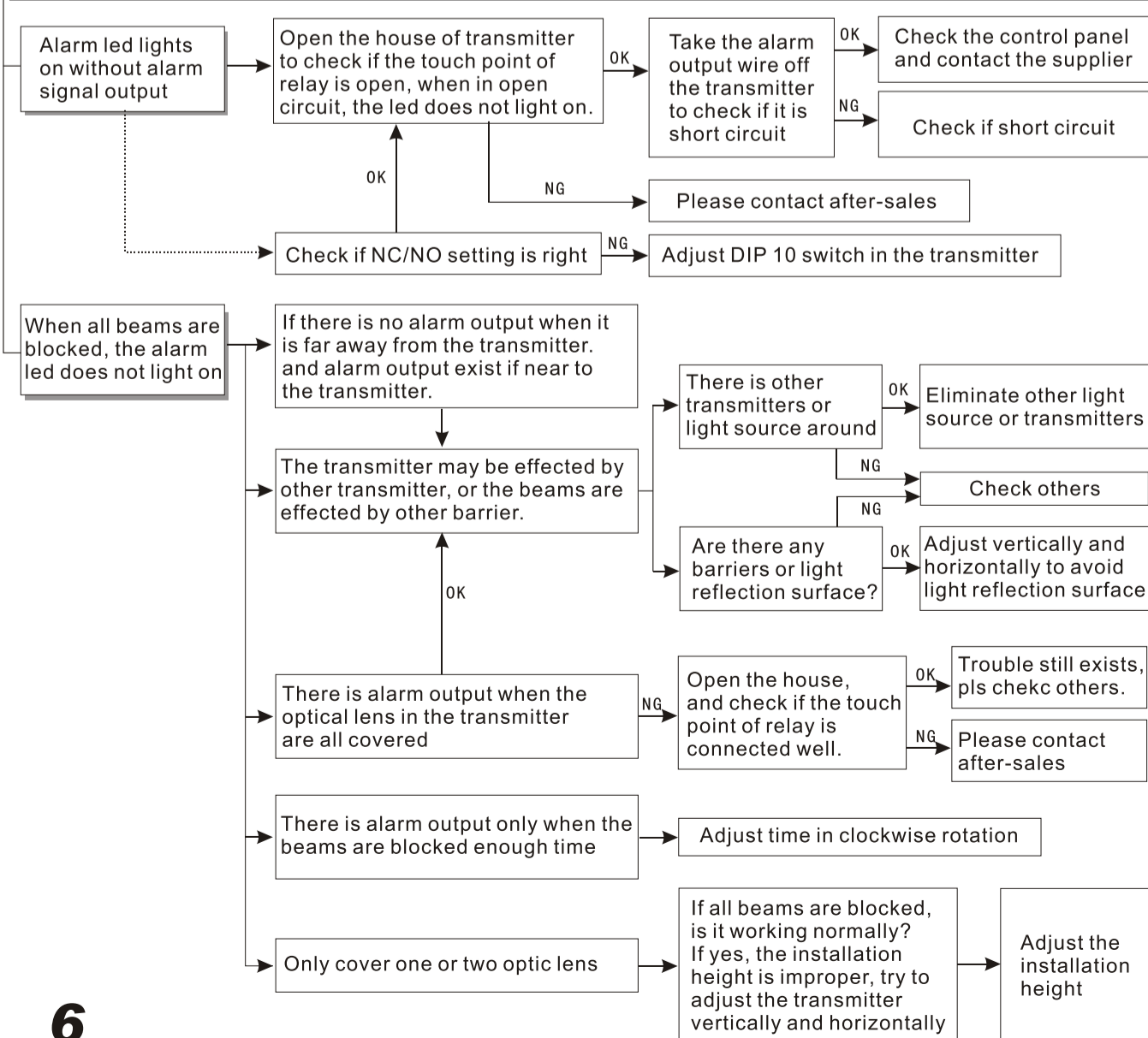
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### Trouble Checking ABH series

#### 1. The led of the transmitter and receiver does not light up

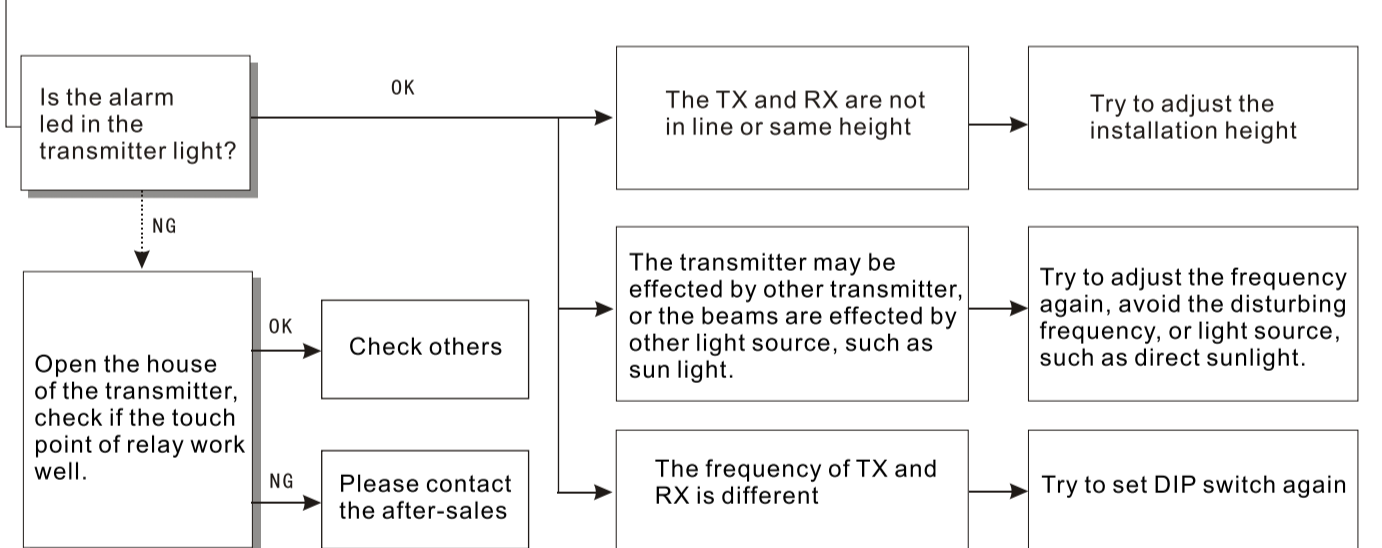


#### 2. No alarm output even if all beams are blocked in the protection area

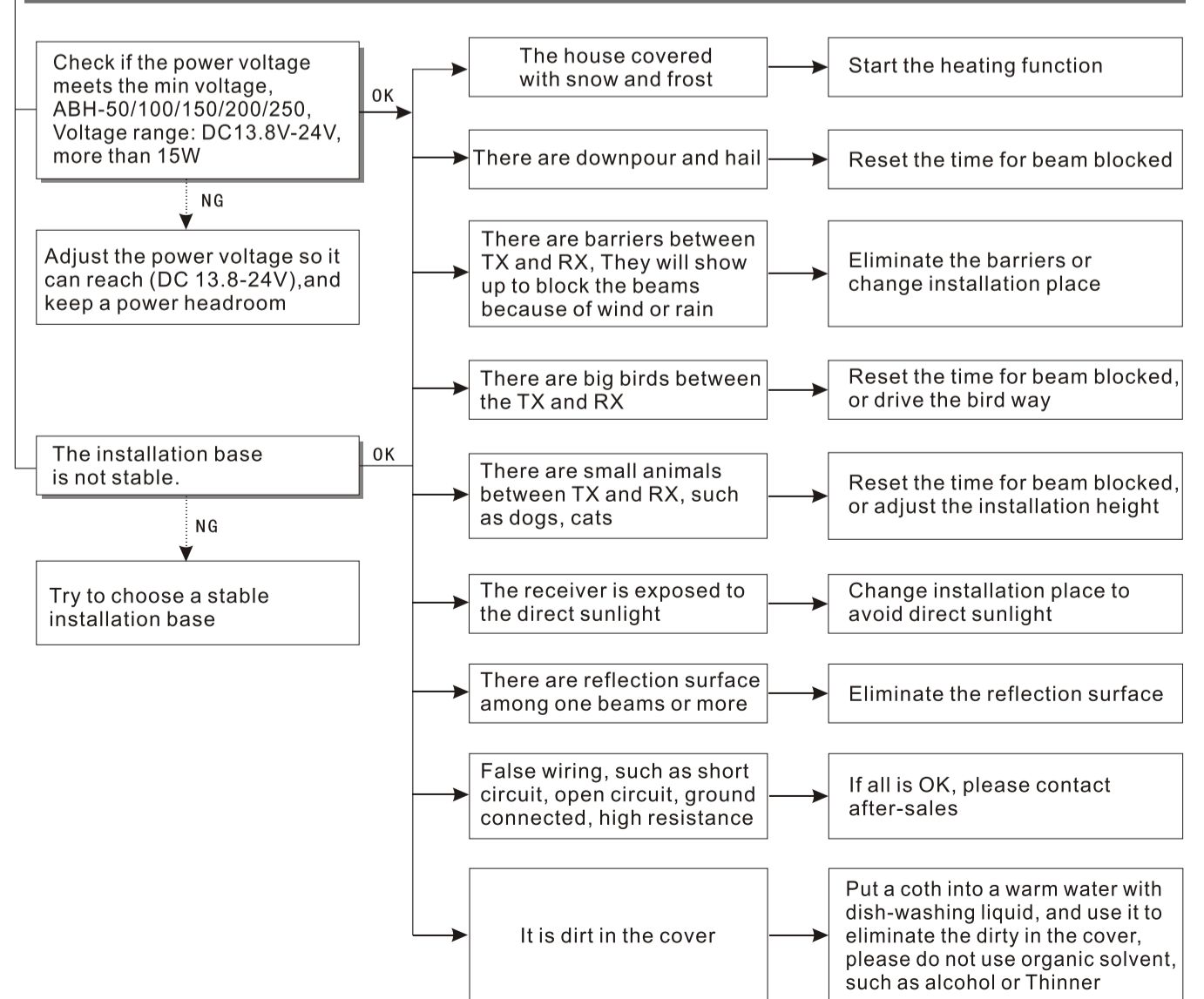


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#### 3. There is alarm output even no beams are blocked.



#### 4. False alarm



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