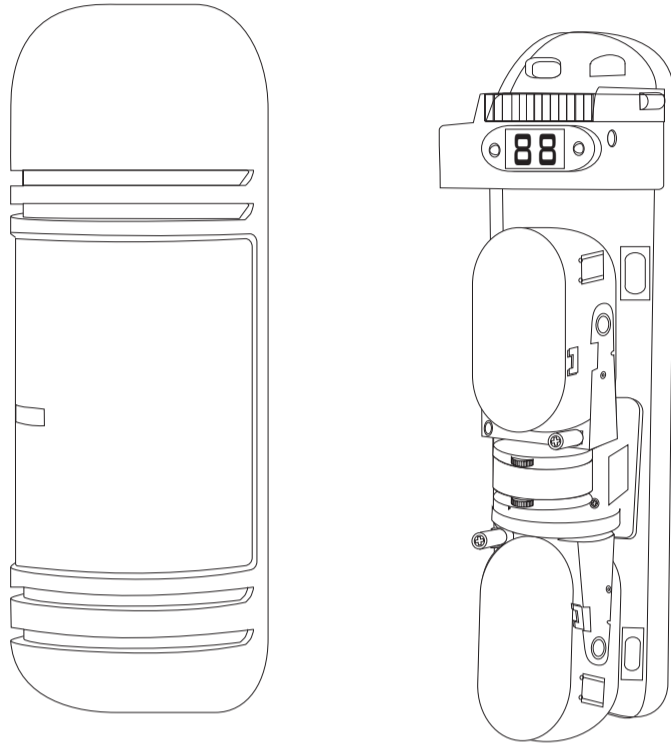


Digital 8-frequency conversion active infrared detector Installation guide ABH-B series

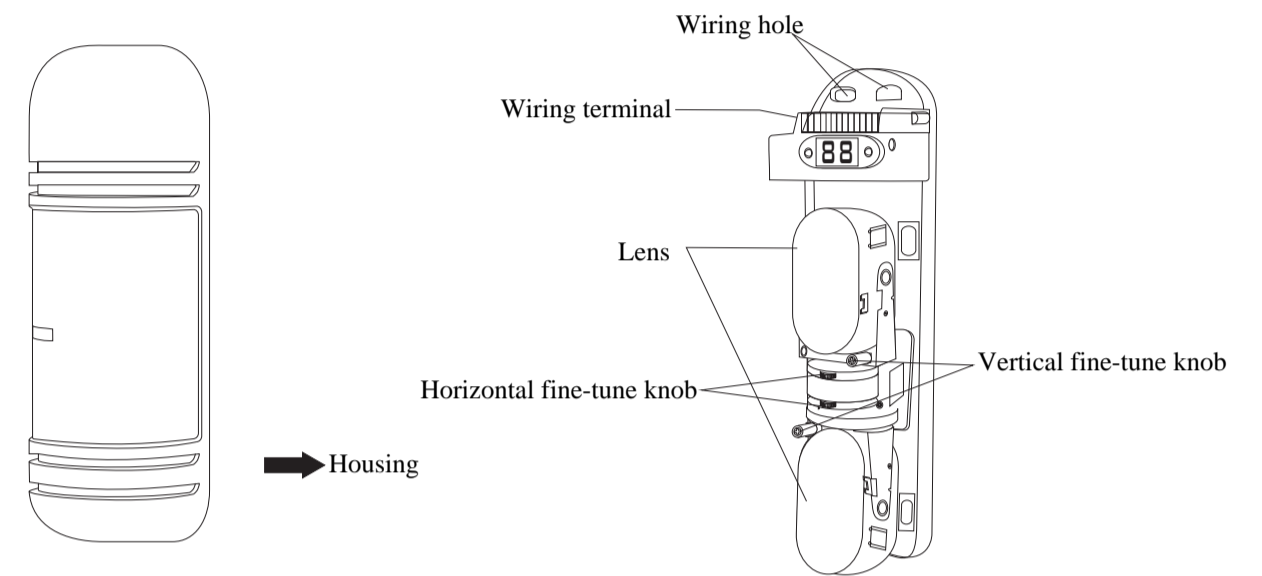


P/N:2014821-4

I. Specification

| Model | ABH-50 | ABH-100 | ABH-150 | ABH-200 | ABH-250 | |
|----------------------------------|---|---------|---------|---------|---------|------|
| Alert distance | Outdoor | 50m | 100m | 150m | 200m | 250m |
| | Indoor | 150m | 300m | 450m | 600m | 750m |
| No. of beams | 4 beams | | | | | |
| Detection mode | 4 beams blocked simultaneous | | | | | |
| Optical source | Infrared digital pulse beam | | | | | |
| Response speed | 50 240msec adjustable | | | | | |
| Alarm output | Relay contact output: NO. NC contact rating: AC/DC30V 0.5Amax | | | | | |
| Power supply | DC13.8 ~24V | | | | | |
| Power consumption | 95mA | 100mA | 100mA | 100mA | 105mA | |
| Operation temperature & humidity | -25 ~55 5%~95%RH(relative humidity) | | | | | |
| Tamper output | Contact output: NC contact rating DC24V 0.3Amax | | | | | |
| Optical axis adjustment(H) | 180° (±90°) | | | | | |
| Optical axis adjustment(V) | 20° (±10°) | | | | | |
| Material | PC resin | | | | | |
| Net weight | 2000g(receiver +transmitter) | | | | | |
| Gross | 2500g | | | | | |

II. Parts

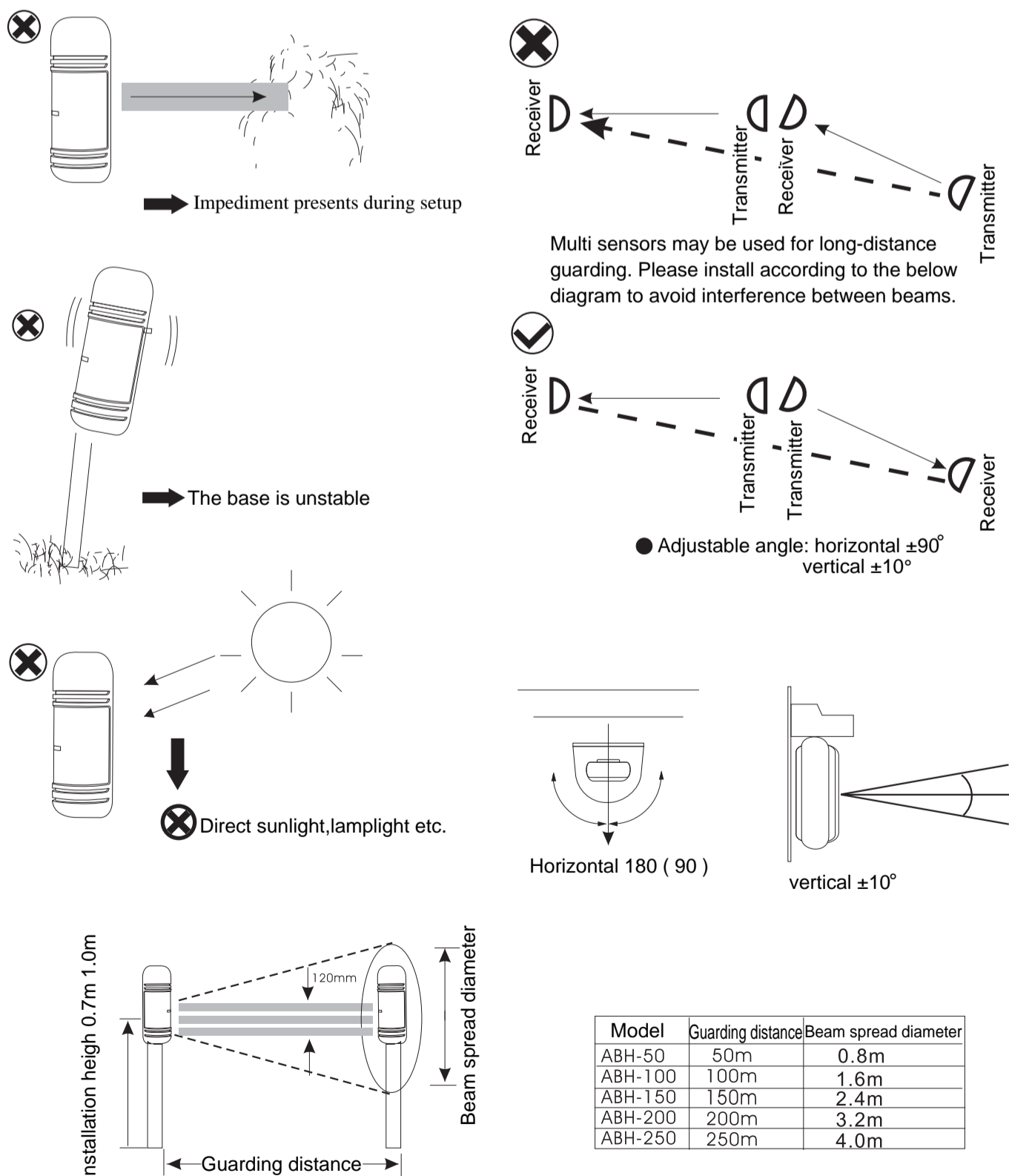


Features:

- 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 get back to 1.2V cancel alarm.

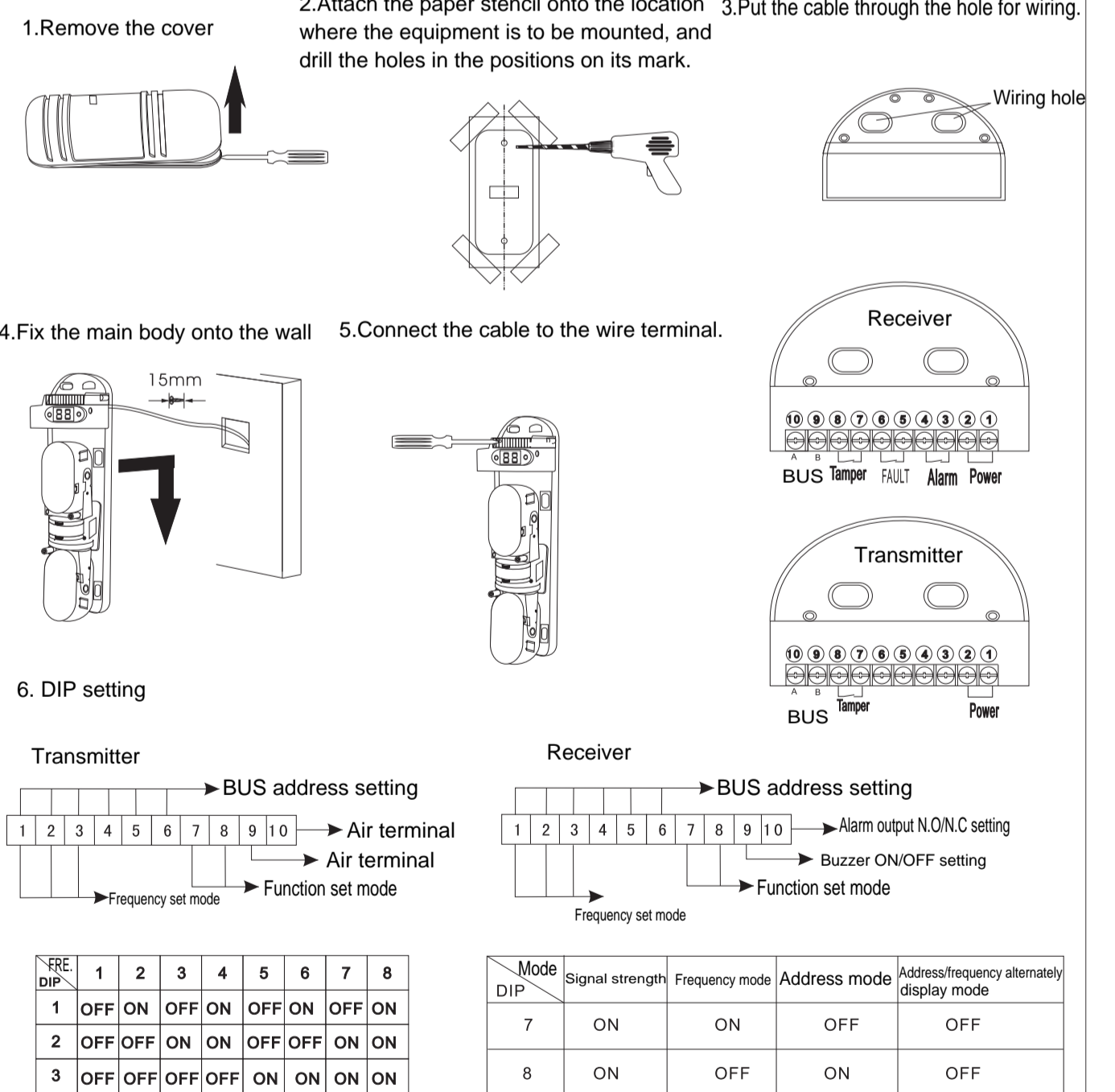
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III. Installation notice



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IV. Installation method



Function setting(table 2)

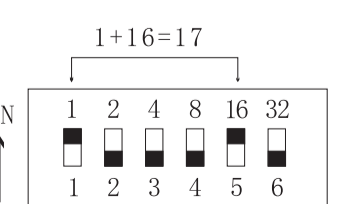
- Under frequency mode: The digital display shows the frequency, Set frequency on DIP1.2.3(see table 1)
- Under address mode: The digital display shows BUS address, set the address on DIP1.2.3.4.5.6
- Under signal strength mode: The digital display shows the signal strength, the DIP1.2.3.4.5.6 under this mode is invalid
- Under address/frequency alternately display mode: The digital display shows address and frequency alternately, the DIP1.2.3.4.5.6 under this mode is invalid

Frequency setting:(First enter frequency setting mode, see table 2)

Then set DIP 1.2.3 to set detector's frequency(see table 1)

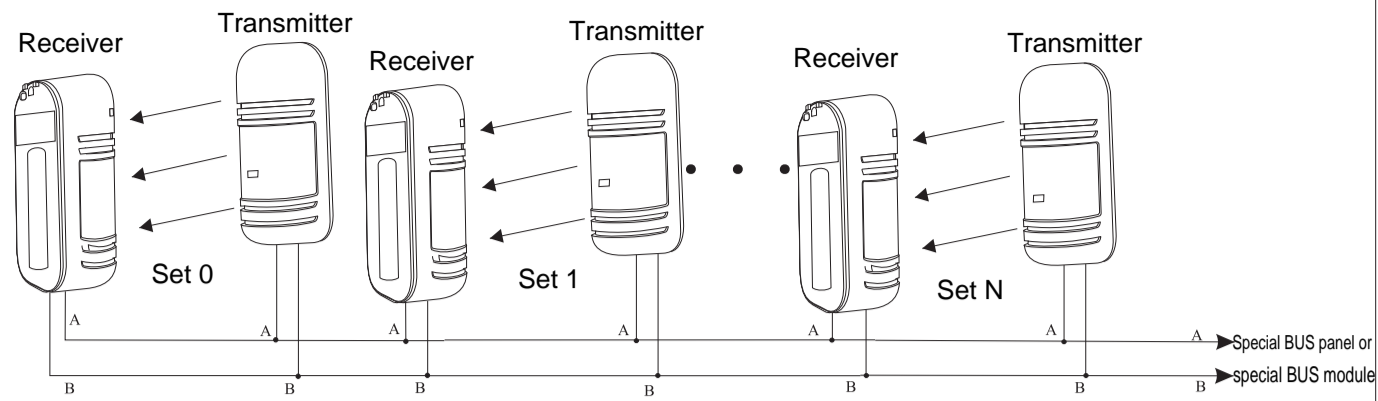
BUS address setting:(First enter address mode, see table 2)

Under address mode, Set DIP 1-6 to set the detector's zone address. first set DIP at ON, the number of the one DIP which set ON puls 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:

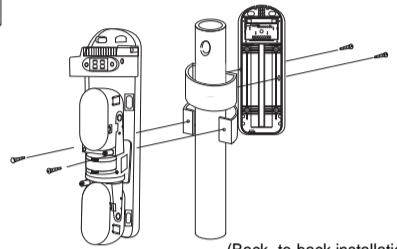
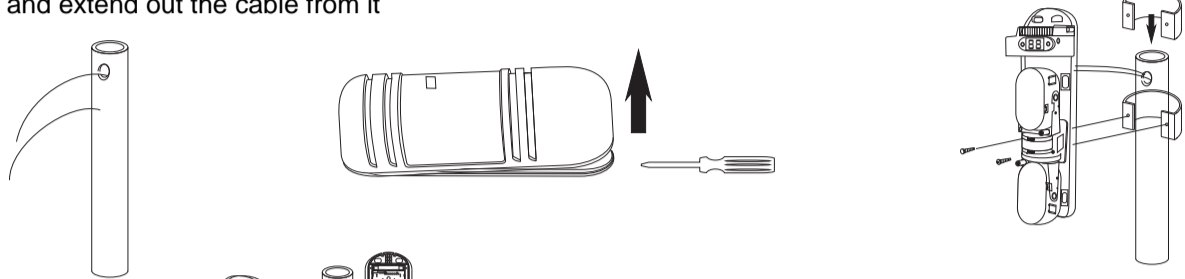


Note: The transmitter can disconnect with BUS cable, when disconnect, the transmitter can't display signal strength, can't auto-adjust transmitting frequency according to signal strength

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

● Installation of 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 to the bracket



(Back-to-back installation guiding diagram)

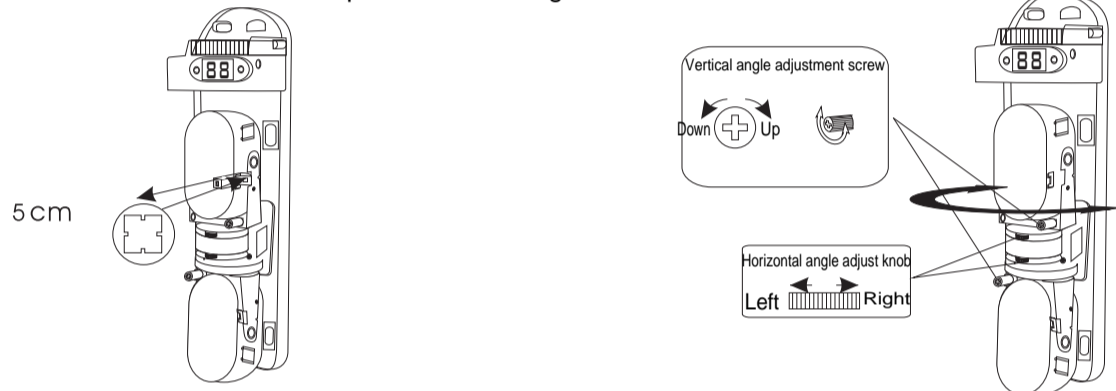
Wiring from power and BUS

| Wire | Distance | Voltage | DC13.8V | DC24V |
|------------------------------------|----------|---------|---------|-------|
| 0.5mm ² (Diameterφ0.8) | 300m | | 300m | 600m |
| 0.75mm ² (Diameterφ1.0) | 400m | | 400m | 800m |
| 1.25mm ² (Diameterφ1.2) | 700m | | 700m | 1400m |
| 2.0mm ² (Diameterφ1.6) | 1000m | | 1000m | 2000m |

Note: Please insert waterproof plug into the hole of screw

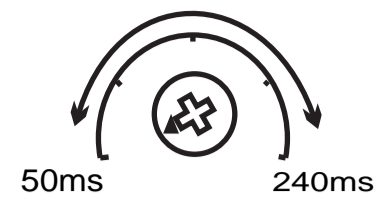
V. Beam alignment

1. Put the viewfinder on the TX/RX, observe the collimation effect at a distance 5cm from the viewfinder, adjust to let the image of opposite detector falls into the central part of the viewing hole
2. Vertical and horizontal adjust as below picture showed to get a best signal strength, if signal strength less than 1.8, please adjust again to get a better signal strength.

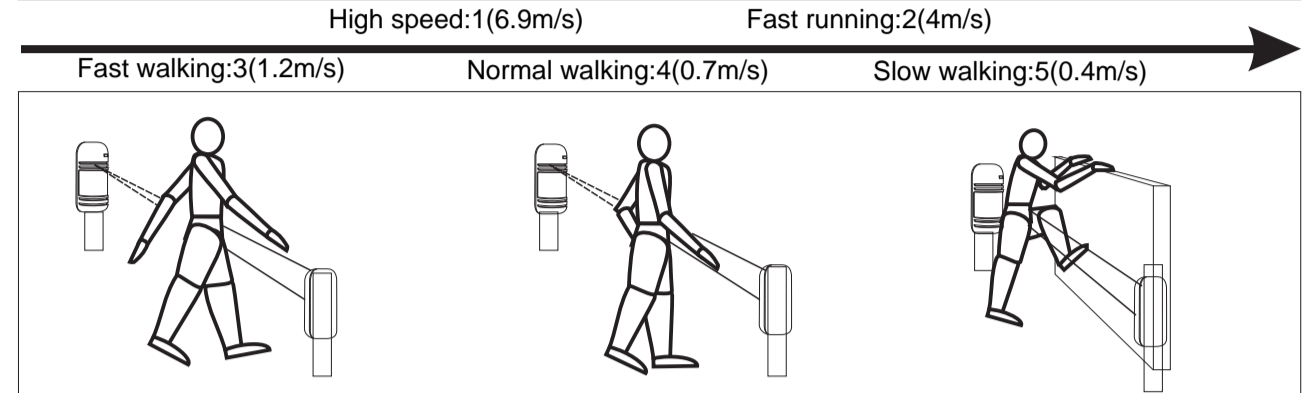
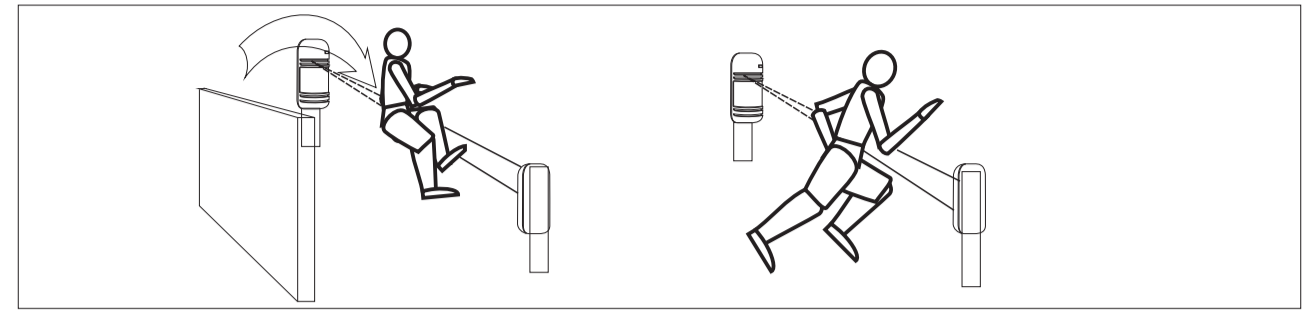


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VII. Response time adjustment



Please see the diagram to adjust the response time of receiver, Usually, the time set shall be less than the time when the intruder crosses the guarding area

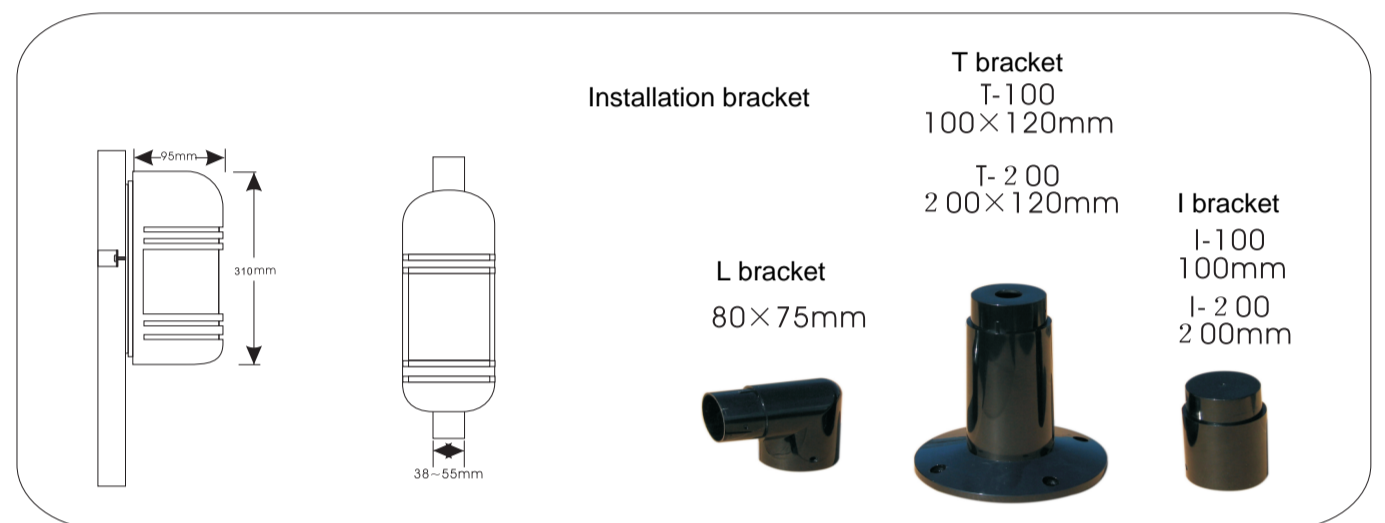


IX. RX LED state

After finish setting, please make walk test.

| | Green LED | Red LED |
|----|--|--|
| TX | Flash when is BUS signal, light on when there is no BUS signal | Always light on |
| RX | Flash when is BUS signal, light on when there is no BUS signal | Light on when alarming, light off as normal status |

X. Structure & Dimension



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