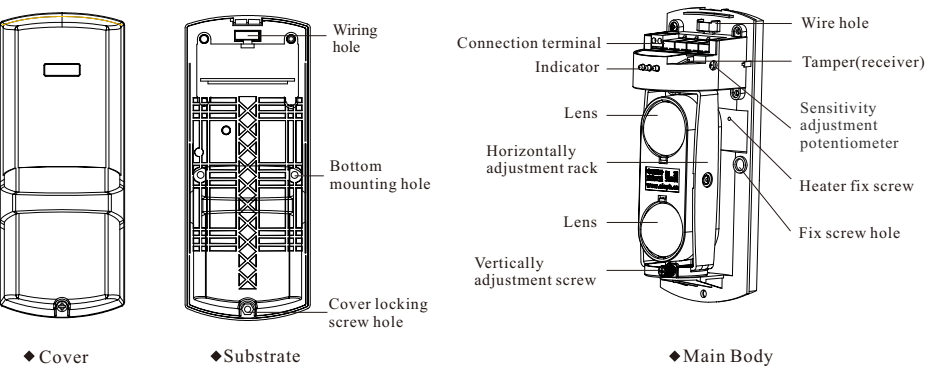


Photoelectric dual beam detector User Manual

ABT-40 ABT-60 ABT-80 ABT-100 ABT-100P

1.Parts Description



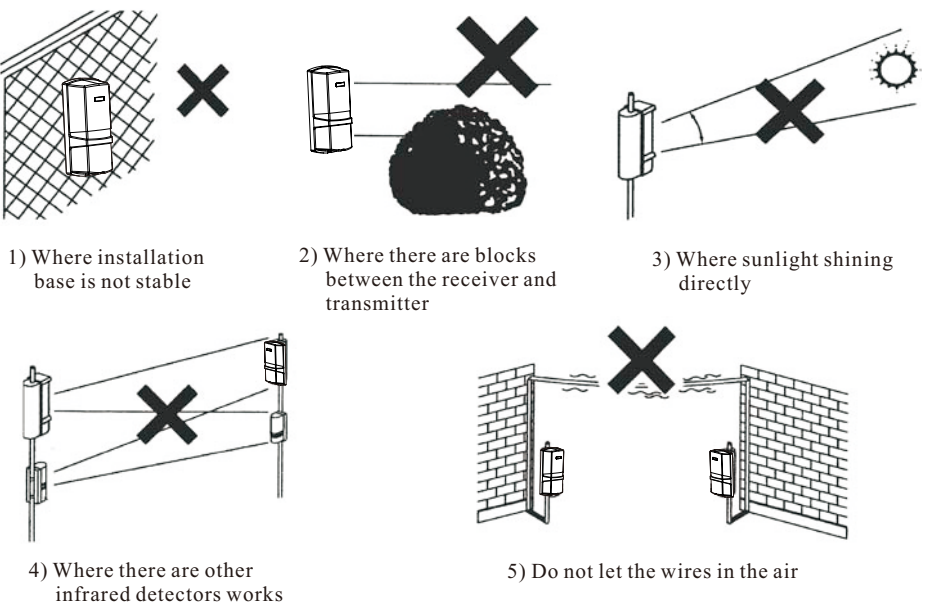
(1) Indicator



- Signal lever indication lamp: (Red & Green)
 - No signal, Red and Green off
 - Weak signal, Red on slightly
 - Strong signal, Red on
 - Aligned, Green on
- Power indicator(Green): When beams transmitting, green on.
- Alarm indicator(Red): Red on when alarm triggered.

2. Setting notice

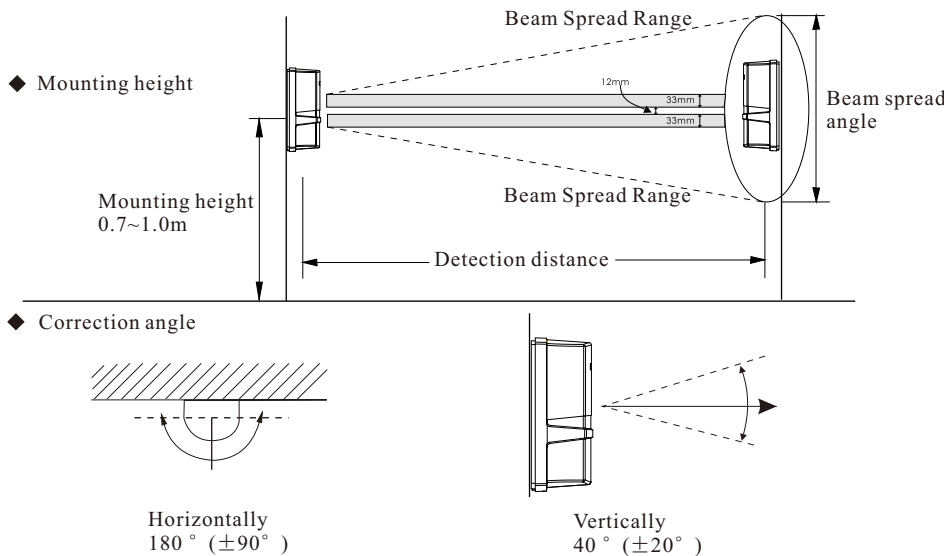
(1) Do not mount the detectors in following conditions:



(2) Normal mounting:

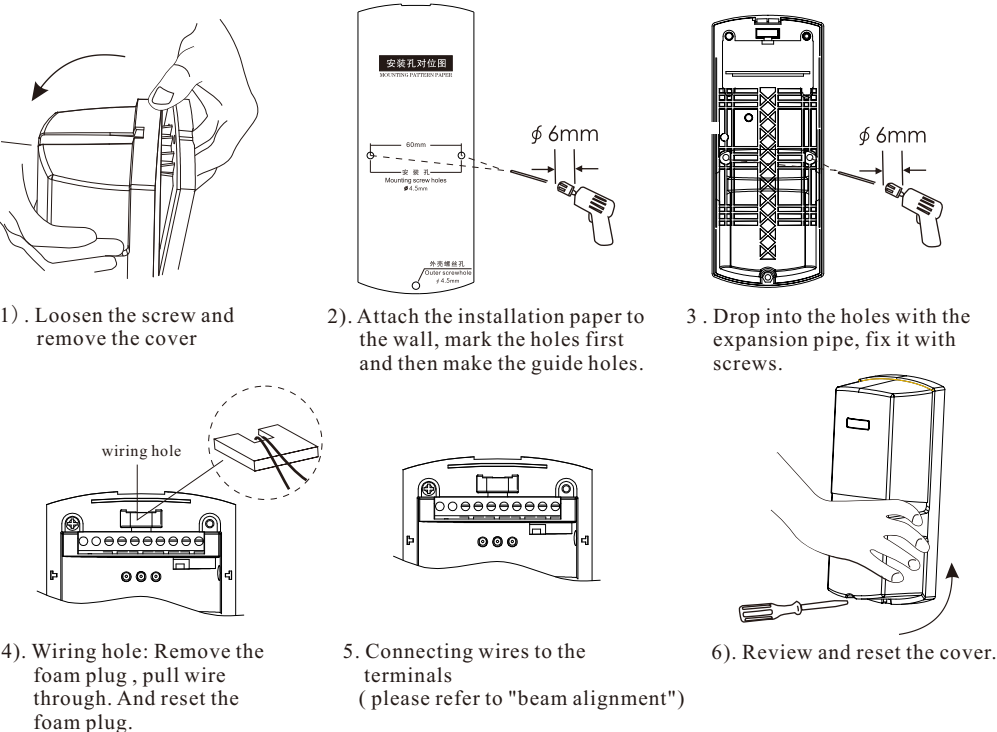
◆ Detection distance

Model	Detection distance	Beam spread angle
ABT-40	40m	1.1m
ABT-60	60m	1.2m
ABT-80	80m	1.8m
ABT-100	100m	2.4m
ABT-100P	100m	3.0m

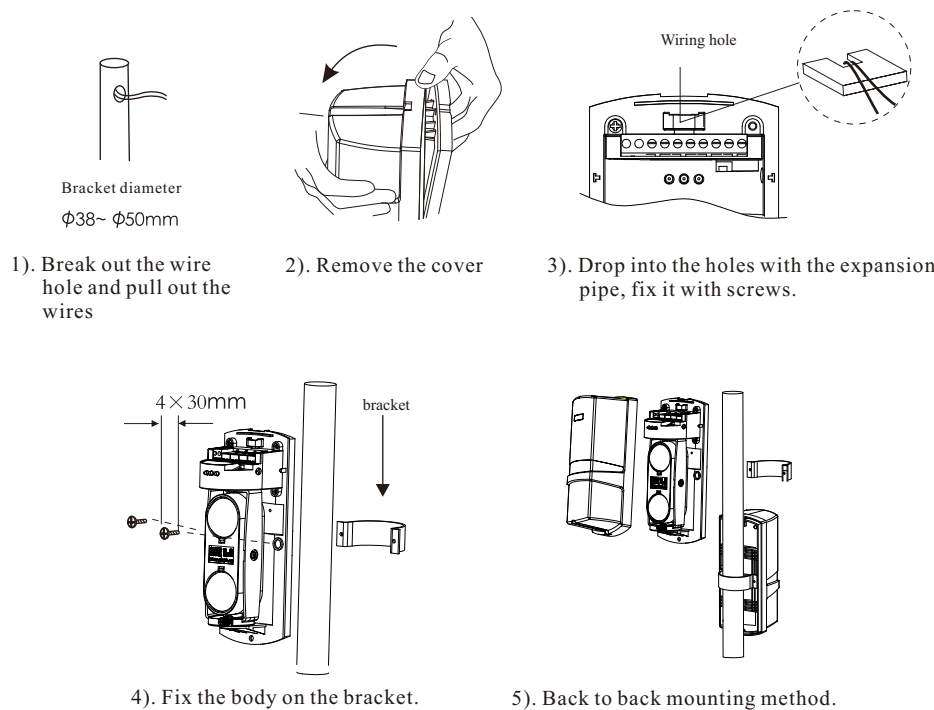


3. Setting method

◆ Wall mounting

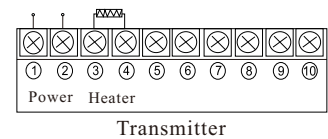


◆ Pole mounting

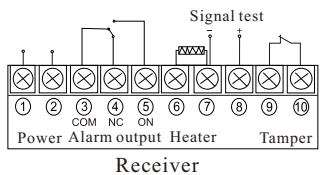


4.Connectors

⚠(Warning): Do not connect to voltage and current which are not normal specification!



- ◀ Notes:
1. Power voltage input: DC/AC 12V-24V;
 2. No heater in the package. Please order if required.



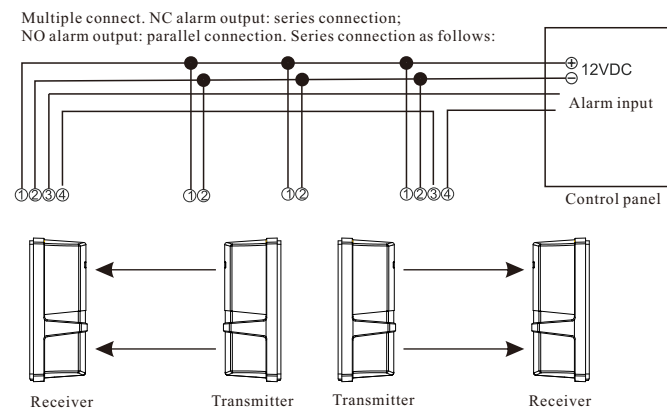
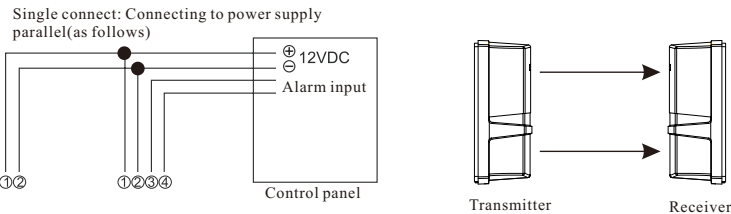
- ◀ Notes:
1. Power voltage input: DC/AC 12V-24V;
 2. Relay connector: 1C 24V 0.5A max
 3. No heater in the package. Please order if required.
 4. Signal test is used for testing the optical alignment degree. At least 1.5V signal voltage when testing. 7 is the negative electrode, 8 is positive electrode.
 5. Tamper is separately from other circuit, works when the cover is removed

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5. Connecting wires

(1).Examples



Note:Power supply DC12V if works together with the control panel.

(2).The distance between the power and the detector should not be longer than the following.

wire diameter	length	Voltage	DC12V	DC24V
0.5mm ² (diameter0.8)			150m	800m
0.75mm ² (diameter1.0)			200m	1000m
1.0mm ² (diameter1.2)			300m	1500m
1.5mm ² (diameter1.4)			500m	2500m

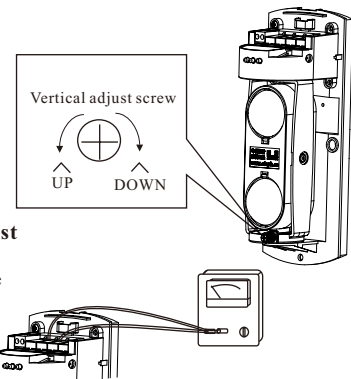
6. Beam Alignment

Adjust the vertical angle screw and horizontal angle bracket until the signal lever indicator turn on green.

Note : Brighter the indicator is, better alignment.

The best method of the optical axis adjustment-test the output value of the testing hole.

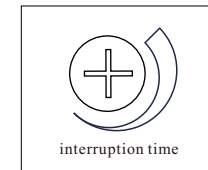
1. Insert the multi-functional plug to the testing hole (pay attention to the polarity)
2. Adjust the horizontal angle and vertical angle until the testing hole's voltage raises up to max
3. If 1.5V or above voltage can not be acquired, readjusted.



7. Beam interruption time adjustment

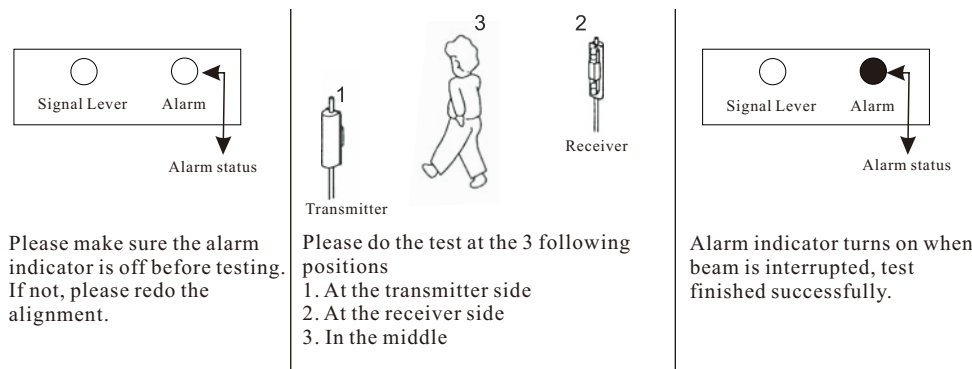
Adjust the beam interruption time depends on the bodies moving speed.

- When interrupted occasionally by a bird or paper, set longer respond time
- Please double check when finished



The sensitivity adjust potentiometer works by setting the interruption time:
Clockwise adjust, shorter interruption time, higher sensitivity
Counterclockwise adjust, longer interruption time, lower sensitivity
Note: Do not do the test at 45 degree

8. Operation confirmation



9. Troubleshooting

symptom	Possible cause	Remedy
Transmitter LED does not light	Improper power supplied	Check the power supply and wirling
Receiver LED does not light	Improper power supplied	Check the power supply and wirling
When the beams are blocked, the receiver LED does not light(off)	1. Beams are reflected by other objects. 2. 2 beams are not blocked simultaneously 3. Setting too longer interruption time	1. Remove the reflect object or change optical axis direction 2. Block 2 beams 3. Shorter the interruption time
When the beams are blocked, the receiver LED is on but do not alarm	1. Wiring is short circuit 2. Wiring port is not good 3. Lower power supply	1. Check the wiring and connect port 2. Check the power supply
The alarm indicator on receiver is always on	1. Optical axis is not properly adjusted 2. There are blocks between the transmitter and receiver 3. The cover is dirty	1. Adjust the optical axis 2. Remove the blocks 3. Clean the cover
Red indicator on receiver flashing	1. Bad wire connecting 2. Bad receiver board	1. Check the wire connecting 2. Back to your supplier
Intermittent alarm	1. Bad wiring 2. Fluctuant power voltage 3. Movable blocks between the transmitter and receive 4. The installation base is unstable	1. Check wiring 2. Check the power supply 3. Remove the blocks 4. Fix the mounting

10. Specifications

Model	ABT-40	ABT-60	ABT-80	ABT-100	ABT-100P
Detection distance(Indoor)	120	180	240	300	300
(Outdoor)	40	60	80	100	100
Maximum detection distance	250	350	500	600	600
Detection method	2 beams blocked inspection				
Interruption time	12-250m (adjustable)				
Power supply	DC12-24V				
Current	70mA max	80mA max	90mA max	100mA max	110mA max
Alarm cycle	1/2/3adjustable				
Alarm output	Relay output 1C, AC/DC 30V,0.5A max				
Tamper	NC, works when the cover is removed				
Operation temperature	-25℃-55℃				
Operation humidity	Maximum..5%				
Correction angle	Horizontally 0° Vertically 20°				
Mounting	Indoor/outdoor, wall/pole				
Weight(pair)	800g				

11. Dimensions

