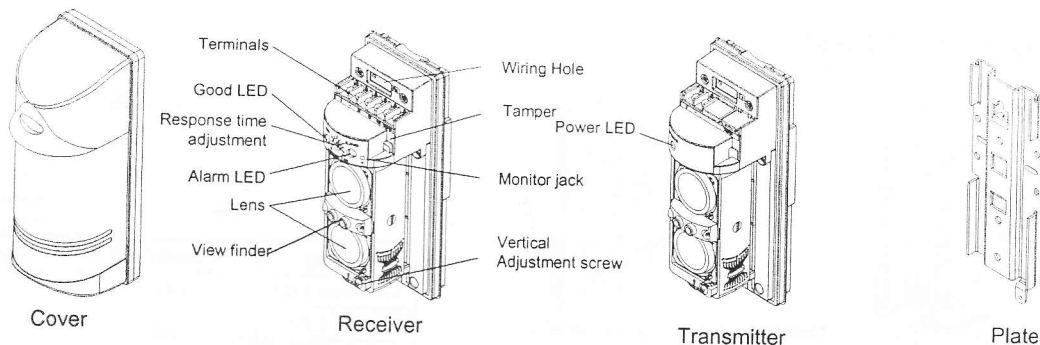


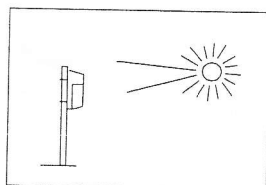
Photoelectric Beam Detector PB-10/PB-30/PB-60

Important note : This sensor is designed to detect intrusion and to initiate an alarm, it is not a burglar-preventing device. Manufacturer is not responsible for damage, injury or losses caused by accident, theft, Acts of God (including inductive surge by lightning), abuse, misuse, abnormal usage, faulty installation or improper maintenance.

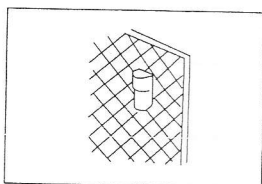
1. Description



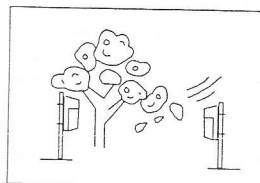
2. Prior to Installation



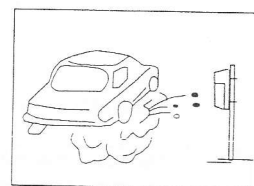
Avoid strong light from sun, automobile head-lights etc. shining on transmitter or receiver



Do not install unit on unstable surfaces.



Do not install where beam could be interrupted by trees or plants. Also consider weather and seasonal changes.

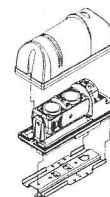
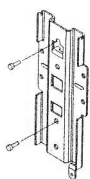
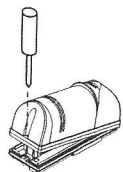


Do not install where units may be splashed by dirty water or direct sea spray.

3. Installation

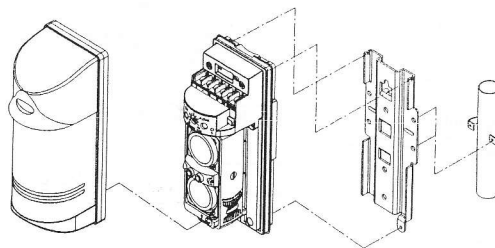
3-1. Wall mount

- Remove cover from unit and slide the mounting plate to detach it.
- Break grommet on mounting plate and pull wire through it. Secure the plate with 4mm screws.
- To insert wire, break knock-outs on the rear of unit, pull wire through as the figure and attach it to the mounting plate.
- After wiring is completed, adjust alignment, check operation and attach cover.



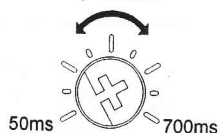
3-2. Pole mount (Pole size : $\Phi 38 \sim \Phi 44\text{mm}$)

- Remove cover from unit and slide the mounting plate to detach it
- Attach pole brackets to pole and secure to mounting plate with screws
- Attach sensor body
- Pull wire through
- Connect terminals
- After wiring is completed, adjust alignment, check operation and attach cover



4. Response time

Response time adjustment



1. Run at full speed (6.9m/s) - 50msec.



2. Walk with quick steps (1.2m/s) - 200msec.



3. Walking (0.7m/s) - 300msec.



4. Walk with slow steps (0.5m/s) - 500msec.

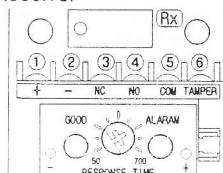


5-6. Climbing (0.3m/s) - 700msec.

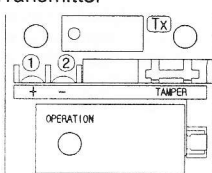


5. Connections

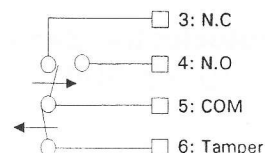
Receiver



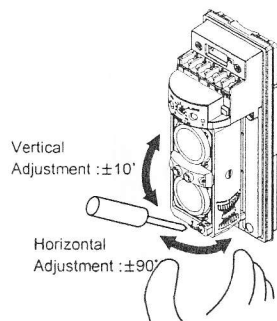
Transmitter



NO	Usage	NO	Usage
1	VCC	4	Normal Open
2	GND	5	Common
3	Normal Close	6	Tamper

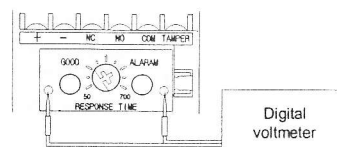


6. Adjustment and testing



Look through viewfinder on either side and line-up optics horizontally and vertically until the opposite unit is visible.

- Testing



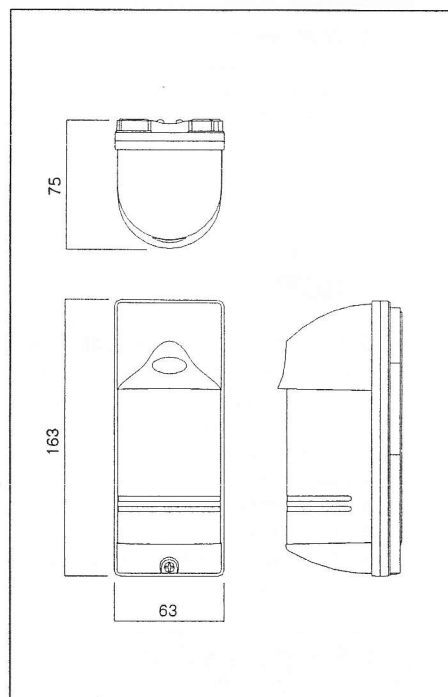
Testing	R:Green LED	Condition
Less than 3.0V	OFF	Re-align
3.0 ~ 3.7V	ON	Good alignment
3.7 ~ 4V	ON	Very Good

7. Troubleshooting

	Trouble	Possible cause	Advice
Tx	Power LED not illuminated.	No power supply. Wrong connections or wire short.	Check power. Input DC 10.8 ~ 25V. Check connections and repair if necessary.
Rx	Alarm LED does not light when two beams are broken simultaneously.	No power supply. Wrong connections or wire short.	
	No contact under the set condition	Resistor short.	Replace.
	Good LED does not operate	Malfunction	Replace.

8. Specifications & Dimensions

Model	PB-10	PB-30	PB-60
Detection system	Simultaneous breaking of 2 beams		
Infrared beam	Double modulation pulsed beams by LED		
Protection range	Outdoor 10m Indoor 30m	Outdoor 30m Indoor 60m	Outdoor 60m Indoor 120m
Max. beam range	Outdoor 100m Indoor 100m	Outdoor 300m Indoor 300m	Outdoor 600m Indoor 600m
Supply voltage	10.8V ~ 25V DC(Non-polarity)		
Current	57mA		
Response time	50msec to 700msec		
LED	Transmitter	Green LED ON : Power ON	
	Receiver	Green LED(Sensitivity Good) / Red ON : When an alarm is initiated	
Alarm output	Dry contact relay output form C Contact action : Interruption time + delay time(1~3 sec) Contact capacity : 30V(AC/DC) 1A or less		
Tamper output	Dry contact relay output form N/C(Receiver only) Contact action : Activated when cover is detached Contact capacity : 30V(AC/DC) 1A or less		
Temperature	-20℃ ~ 60℃		
Beam adjustment	Horizontal : 180° (±90°), Vertical : 20° (±10°)		
Mounting position	Outdoor / Indoor		
Material	PC resin(Green)		
IP rating	IP 43		
External dimensions	63 x 163 x 75mm(WxHxD)		
Weight	Rx : 326g, Tx : 309g	Rx : 330g, Tx : 315g	
Function	Monitor jack output, Frost proof cover		
Option	Pole attachment(2pcs./set) / Transmitter tamper switch / IP 54		



* Caution : Please read carefully to ensure safe and proper operation of the product.
Specifications and design are subject to change without prior notice.



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