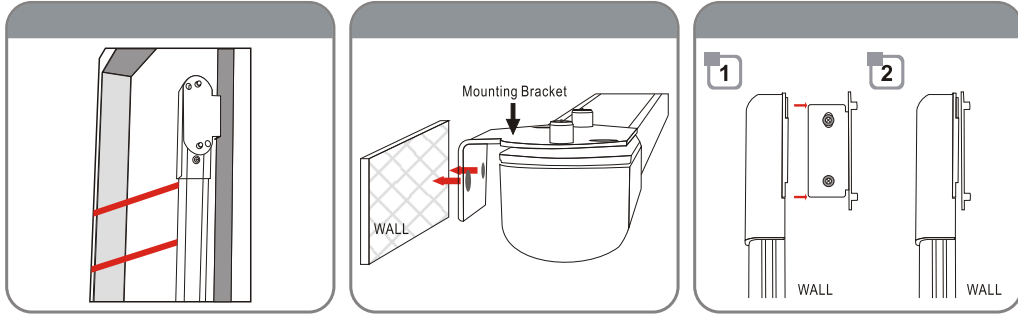
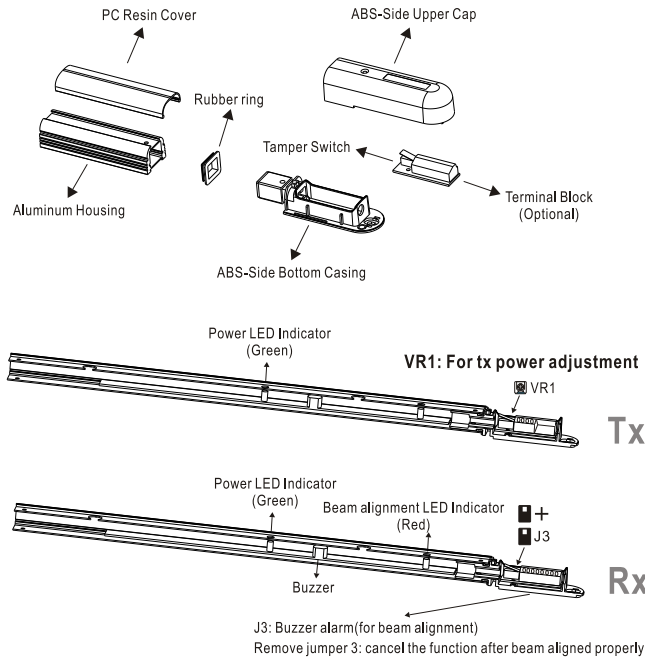


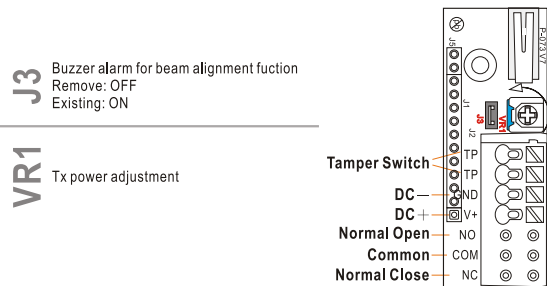
## Standard Installation



## Internal View



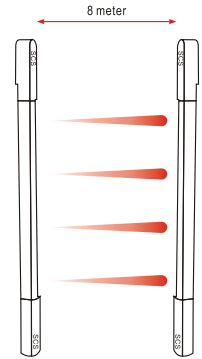
## Terminal Block (Wiring Connection - Optional)



## PROTECTOR-2X / 4X / 6X / 8X

PROTECTOR-2X: 2 Beams - 57 cm long.  
PROTECTOR-4X: 4 Beams - 105 cm long.  
PROTECTOR-6X: 6 Beams - 153 cm long.  
PROTECTOR-8X: 8 Beams - 201 cm long.

**PROTECTOR-X**  
X=2 or 4 or 6 or 8 beams



## Applications

- Indoor / Outdoor perimeter security system
- Window, Door. When the mounting space is limited
- Internal / External protection / Terrace / Sliding door

## Features

- Aluminum housing / PC Resin anti-UV cover / ABS side cap.
- Anti-tamper circuit triggers alarm if power is cut or end cap is removed.
- Slim aluminum housing, anti high-low temperature / fog / rains.
- 2 or 4 / 6 / 8 separate photoelectric beam sensors.
- Programmable trigger on simultaneous breaking of any single / 2 adjacent beams or 2 adjacent beams broken only -- selected by Jumper(+) on Rx's side cap
- Terminal block connection.
- Alarm: Break one or two adjacent beams.
- Tx power adjustment: By VR1(ON Tx's side cap).
- Sensing range: 8 meters (26 ft.) -- outdoor 16 meters (52 ft.) -- indoor Max.
- N.O./N.C./Common relay output.
- Mounting hardware included.
- No synchronizing wires required.
- Led alignment indicator.
- Tamper switch.

## Specifications

Sensing range	8 meters (26 feet) max.-outdoor / 16 meters (52 feet) max.-indoor
Input Voltage	10-30VDC
Detection method	Break one beam or two adjacent beams (1) 1 beam: 2 seconds alarm (2) 2 adjacent beams: immediately ***1 beam broken alarm trigger function can be removed; See (+) VR which located at Rx's side cap; (+) Jumper closed: 1 beam broken alarm (2 sec.) function existed. (+) Jumper opened: 1 beam broken alarm (2 sec.) function removed.
Signal output	Normal open / Normal close / Common relay output
Response Time	200 msec
Contact rating	1A/120VAC ; 1A/24VDC
Tx Power Adjustment (by VR1)	(a) when turn clockwise: become stronger (b) when turn counter-clockwise: become normal
Wiring Connection	Terminal block (See page 4)
Power Led indicator	Green Led (On both Tx/Rx unit) On : powered Off : no power
Led indicator for Beam alignment	Red Led (On Rx unit) On : when beam is broken ; Off : when beam is aligned properly
Buzzer Alarm (for beam alignment) Black jumper3(J3)(ON Rx)unit	(a)On : when sensor is connected with DC power & before beam alignment is done. (b)Off : when beam aligned properly ; automatically. ***This function can be cancelled by jumper3 removed***
Tamper Switch	4 pcs/each set ; 2 on both sides of Tx/2 on both side of Rx
Operating Temp	-45°C~55°C (-49°F~131°F)
Dimensions	W: 35 mm / H: 30 mm / L: see following
Humidity	70%



## Consumption current

► One beam broken continued 2 seconds alarm triggered **Cancelled.**  
("+" jumper opened)

**A**

	PROTECTOR-2X		PROTECTOR-4X		PROTECTOR-6X		PROTECTOR-8X	
Beam Aligned	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
	45mA	32mA	55mA	35mA	65mA	38mA	75mA	42mA
Beam Broken	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
	45mA	40mA	55mA	43mA	65mA	45mA	75mA	48mA

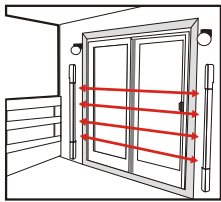
► One beam broken continued 2 seconds alarm triggered **Existed.**  
("+" jumper closed)

**B**

	PROTECTOR-2X		PROTECTOR-4X		PROTECTOR-6X		PROTECTOR-8X	
Beam Aligned	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
	45mA	38mA	55mA	40mA	65mA	43mA	75mA	45mA
Beam Broken	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
	45mA	45mA	55mA	48mA	65mA	52mA	75mA	55mA

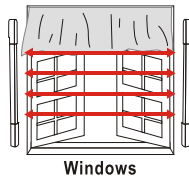
## Applications

1



Terraces  
(Sliding Door)

2



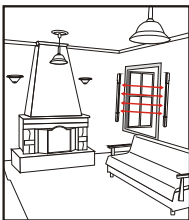
Windows

3



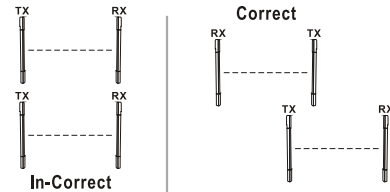
External  
Protections

4

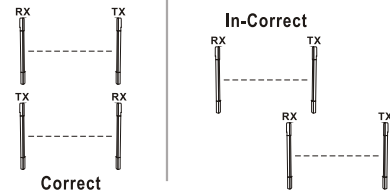


Internal  
Protections

## Installation Notes

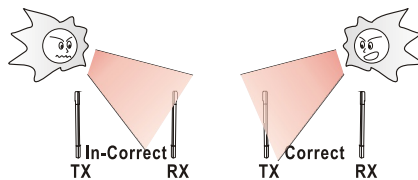


In-Correct



Correct

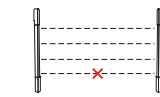
## Sunlight



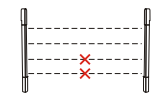
In-Correct

Correct

## Response Time

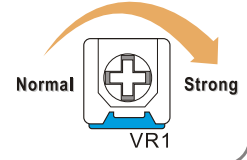
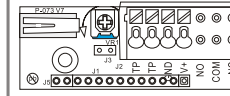


Broken one beam  
Response time: 2 sec



Broken two adjacent beam  
Response time: 0.5 sec

## VR1 (On Tx Side Cap)



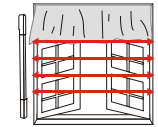
Normal

Strong

VR1

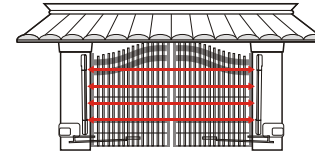
## Typical Installations

1



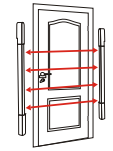
Windows (Internal / External)

2



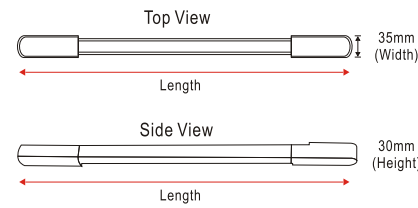
Gate

3



Door

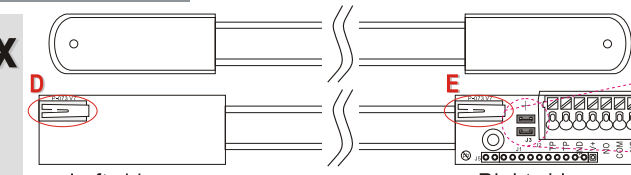
## Dimensions



## Length

Item	Beams	Length (cm)
PRTECTOR-2X	2	57
PRTECTOR-4X	4	105
PRTECTOR-6X	6	153
PRTECTOR-8X	8	201

Rx

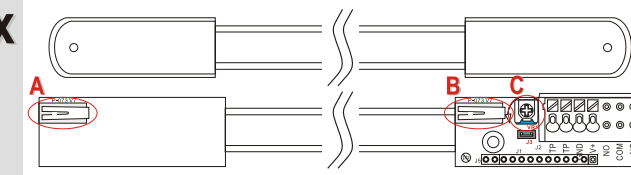


Left side cap

Right side cap

(+)Jumper→When(+) Jumper closed: One beam broken alarm (2 sec.)function existed.  
When(+) Jumper opened: One beam broken alarm (2 sec.)function removed.  
J3 Jumper→When J3 Jumper closed: Buzzer alarm for beam alignment function existed.  
When J3 Jumper opened: Buzzer alarm for beam alignment function removed.

Tx



Left side cap

Right side cap

A: Tamper Switch  
B: Tamper Switch  
C: VR1 Potentiometer for Tx power adjustment  
D: Tamper Switch  
E: Tamper Switch  
(+) Jumper: One beam broken alarm function select jumper  
J3: Buzzer alarm function