# Manual of Barrier (Curtain) Sensor

## BS-200 / BS-400 / BS-600 / BS-800

**BS-200: 2 Beams -  57 cm long.**
**BS-400: 4 Beams - 105 cm long.**
**BS-600: 6 Beams - 153 cm long.**
**BS-800: 8 Beams - 201 cm long.**
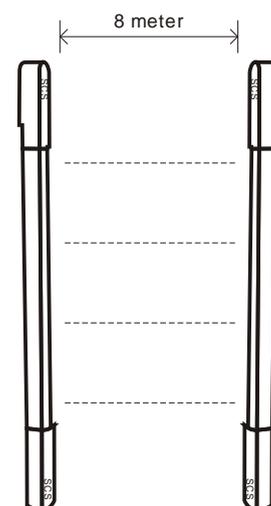
8 meter

## 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 or 2 adjacent beams.

- Cable wire or terminal block connection.
- Alarm: Break one or two adjacent beams.
- Tx power adjustment: Normal/Strong.
- Sensing range:8 meters (26 ft.)-outdoor 16 meters (52 ft.)-indoor
- N.O./N.C./Common relay output.
- Mounting hardware included.
- No synchronizing wires required.

## Specifications

CE

| | |
|---|---|
| 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<br>(1) 1 beam: 2 sec. Alarm. (2) 2 adjacent beams: immediately |
| Signal output | Normal open / Normal close / Common relay output |
| Response Time | 200 msec |
| Contact rating | 1A/120VAC ; 1A/24VDC |
| Tx Power Adjustment (Metal Jumper 4) | (a)Strong (original): jumper 4 is connected<br>(b)Normal: jumper 4 is open (On Tx Side) |
| Wiring Connection | (a) Cable wires or (b) Terminal block  (See page 3) |
| 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)<br>On : when beam is broken ; Off : when beam is aligned properly |
| Buzzer Alarm (for beam alignment) Black jumper 3  (ON Rx)unit | (a)On : when sensor is connected with DC power & before beam alignment is done.<br>(b)Off : when beam aligned properly ; automatically.<br>***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℃~55℃ (-49℉~131℉) |
| Dimensions | W: 35 mm / H: 30 mm / L: see following |
| Humidity | 70% |

# Manual of Barrier (Curtain) Sensor

Item NO. / Beams / Product Length and Consumption current

| Item | Beams | Length (cm) | Consumption current(Buzzer alarm not included) DC12V(Tolerance: ±15%)－Unit: mA |
|---|---|---|---|
| BS-200(Tx) | 2 | 57 | 25 |
| BS-400(Tx) | 4 | 105 | 37 |
| BS-600(Tx) | 6 | 153 | 48 |
| BS-800(Tx) | 8 | 201 | 60 |

| Item | Beams | Length (cm) | Consumption current(Buzzer alarm not included) DC12V(Tolerance: ±15%)－Unit: mA | |
|---|---|---|---|---|
| | | | Beam Aligned | Beam Broken |
| BS-200(Rx) | 2 | 57 | 43 | 12 |
| BS-400(Rx) | 4 | 105 | 44 | 14 |
| BS-600(Rx) | 6 | 153 | 46 | 16 |
| BS-800(Rx) | 8 | 201 | 48 | 18 |

Wiring Connection－STANDARD

| Transmitter | |
|---|---|
| **Red** | DC (+) |
| **Black** | GND |
| **Green** | Tamper switch |
| **Yellow** | Tamper switch |
| **Jumper 4 (Tx power selection)** | Cut jumper: Normal Short jumper: Strong |

| Receiver | |
|---|---|
| **Red** | DC (+) |
| **Black** | GND |
| **Green** | Tamper switch |
| **Yellow** | Tamper switch |
| **White** | Normal close |
| **Blue** | Common |
| **Orange** | Normal open |

Applications



**Terraces (Sliding Door)**

**Windows**

**External Protections**

**Internal Protections**

Installation Notes



**Correct**

**In-Correct**

**In-Correct**

**Correct**

Sunlight



In-Correct

Correct
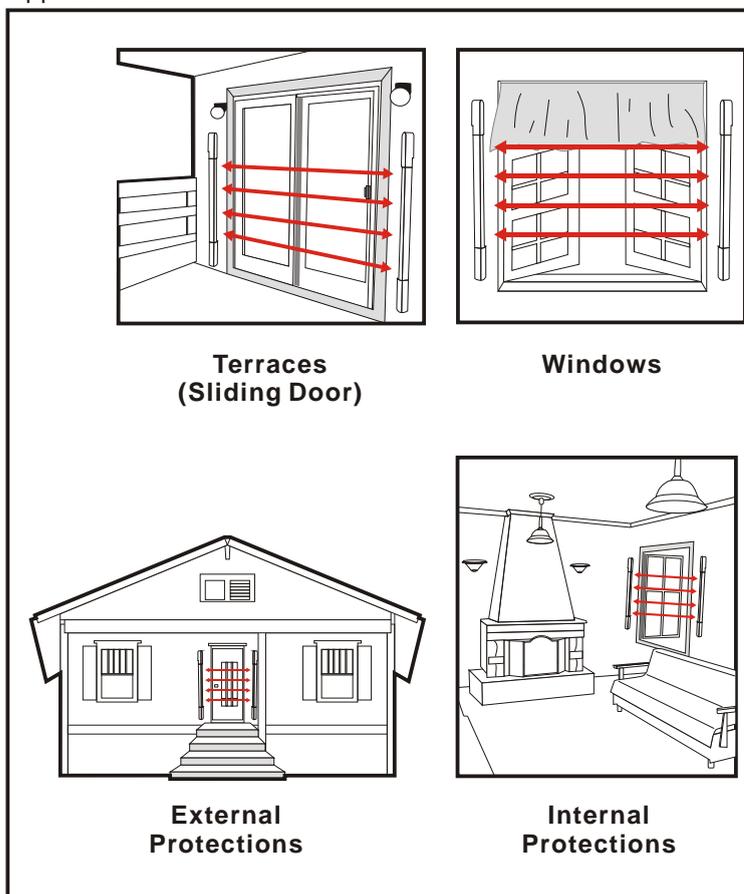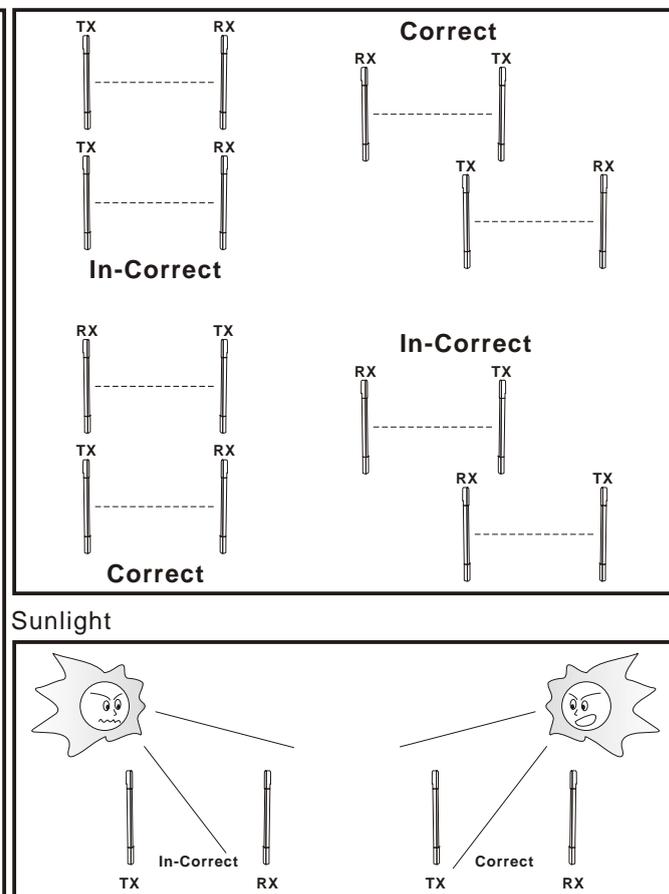
# Manual of Barrier (Curtain) Sensor

## Wiring Connection

**Correct**

**Correct**

**In-Correct**

## Response Time

**Broken one beam**
**Response time: 2 sec**

**Broken two adjacent beam**
**Response time: 0.5 sec**

## Jumper 4-On Tx Side

**Cut Jumper Normal**

**Short Jumper Strong**

| Sensing Range | |
|---|---|
| 5m | 8m |
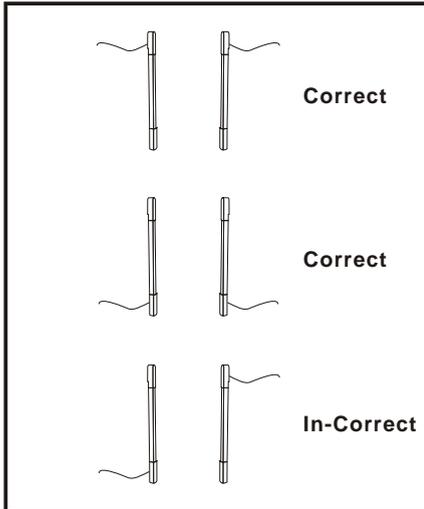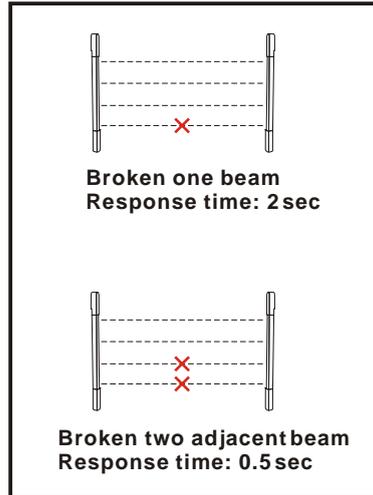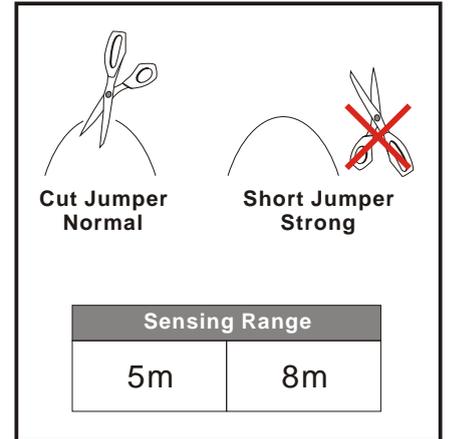
## Typical Installations
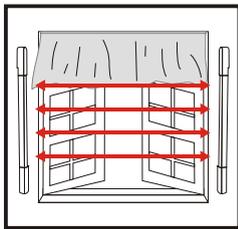
Windows (Internal / External)

Gate

Door

### Dimensions

Top View

35mm (Width)

Length

Side View

30mm (Height)
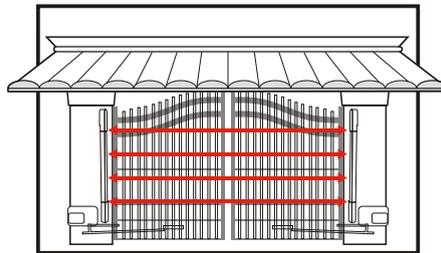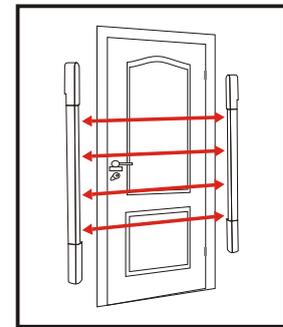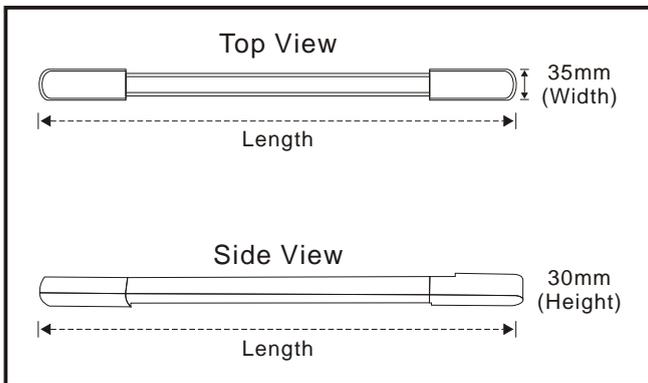
Length

### Length

| Item | Beams | Length (cm) |
|---|---|---|
| BS-200 | 2 | 57 |
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## Terminal Block
### (Wiring Connection - Optional)

**J3**
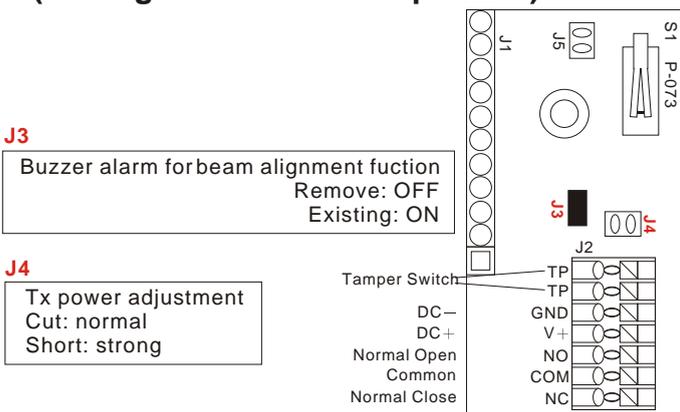
Buzzer alarm for beam alignment fuction
Remove: OFF
Existing: ON

**J4**

Tx power adjustment
Cut: normal
Short: strong

J1

J5

S1

P-073

J3

J4

J2

Tamper Switch — TP
TP
DC— GND
DC+ V+
Normal Open NO
Common COM
Normal Close NC

## Order

BS-XXX

BCS: Barrier / Curtain Sensor
"X": X means 200 or 400 or 600 or 800 beams

# Manual of Barrier (Curtain) Sensor

## Standard Installation

Mounting Bracket

WALL

① ②

WALL          WALL

## Internal View

PC Resin Cover

ABS-Side Upper Cap

Rubber ring

Tamper Switch

Aluminum Housing

Terminal Block
(Optional)

ABS-Side Bottom Casing

Power LED Indicator
(Green)

J4
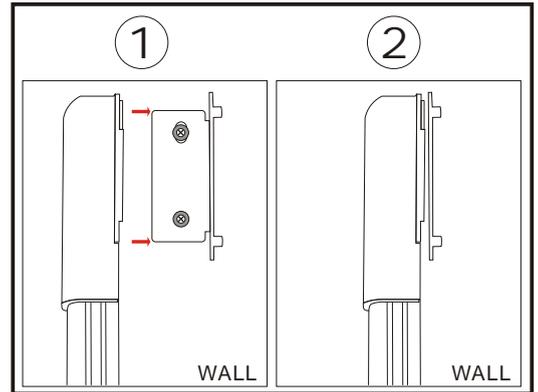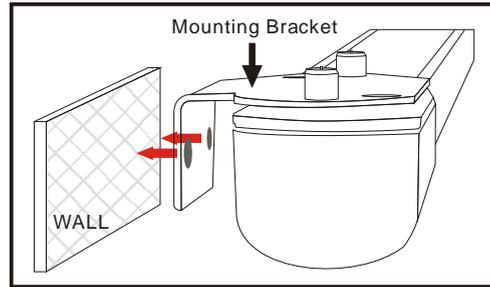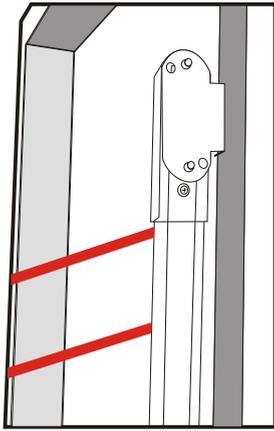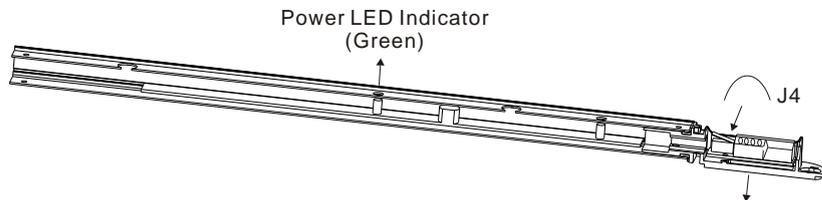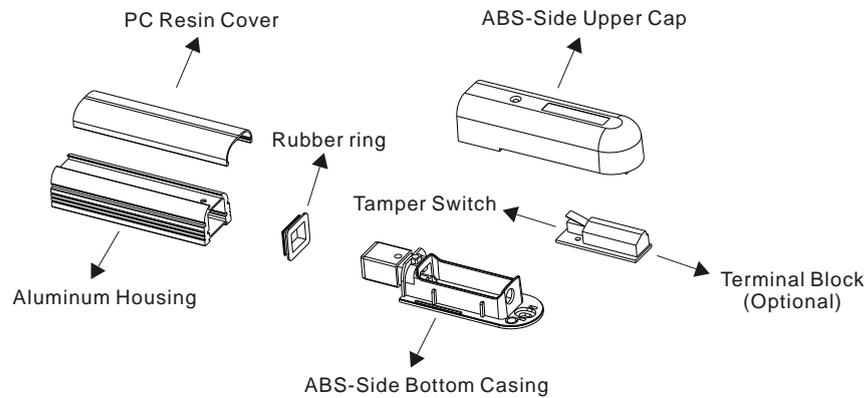
**Tx**

J4: For tx power adjustment

⌒ : Existing / Strong

✂ : Cut / Normal

Power LED Indicator
(Green)

Beam alignment LED Indicator
(Red)

J3
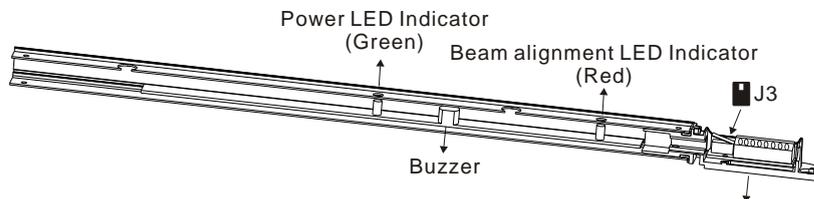
Buzzer

**Rx**

J3: Buzzer alarm(for beam alignment)
Remove jumper 3: cancel the function
after beam aligned properly

## Sensing range Vs. Sunlight

| Sunlight(Lux) | Sensing Range |
|---------------|---------------|
| < 30,000 | 8meters |
| < 40,000 | 7meters |
| < 50,000 | 6meters |
| < 60,000 | 5meters |
| < 70,000 | 4meters |
| < 80,000 | 3meters |

## Mounting bracket