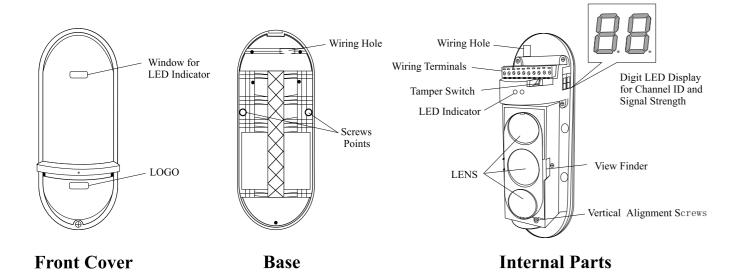
## **MANUAL**

## TRIPLICATE PHOTOELECTRIC BARRIER

8-Channel Frequencies IR Beam Detector Model: 50m / 100m / 150m / 200m / 250m

## 1 PARTS DESCRIPTION



# 2 wiring terminals & Led indicators

RECEIVER (RX)										
POWER IN		ALARM OUT		FOG ALARM		TAMPER		POWER OUT		
+	_	СОМ	NC	NO	NC	C	MC	NC	+	_
	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$	(	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
1	2	3	4	5	6	7	7	8	9	10

#### **RECEIVER**



Terminal 1, 2: Power Input, DC 10-36V / AC 8-24AC

Terminal 3, 4, 5: Alarm Output, N. C. / N. O.

Terminal 6, 7: Fault or Environment Alarm, N. C. (optional)

When signal strength decrease slowly to 0.8v, the detector will activate

the fault alarm output

Terminal 7, 8: Tamper Switch Alarm, N. C.

Terminal 9, 10: Power Output, for connecting heater or wireless module

**LED Indicator**: Power LED is always ON after power on and the Alarm LED is ON in alarm

TRANSMITTER (TX)									
POV				/		TAM	PER		WER OUT
+	_			/		СОМ	NC	+	_
	$\bigcirc$		$\bigcirc$		$\bigcirc$		$\bigcirc$		$\bigcirc$
1	2	3	4	5	6	7	8	9	10

### TRANSMITTER



Terminal 1, 2: Power Input, DC 10-36V / AC 8-24AC

Terminal 3, 4, 5, 6: Reserve

Terminal 7, 8: Tamper Switch Alarm, N. C.

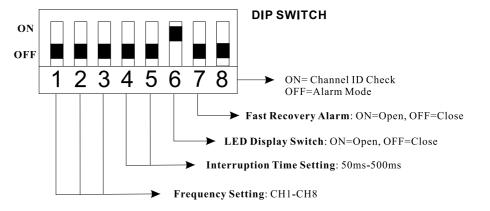
Terminal 9, 10: Power Output for connecting heater or wireless module

The power voltage is the same as the power input

LED Indicator: Power LED is always ON after power on

## 3 DIP SWITCHES & LED DISPLAY

### **RECEIVER**



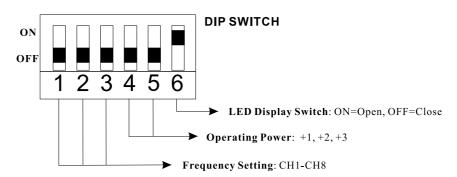
#### RECEIVER LED DISPLAY



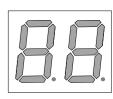
1) Alignment Voltage 0.0-1.5 REALIGN 1.5-2.0 FAIR 2.0-2.5 GOOD 2.5-3.5 BEST

2) Frequency Channel ID CH 1, 2, 3 ...8

#### **TRANSMITTER**



#### TRANSMITTER LED DISPLAY



Frequency Channel ID CH 1, 2, 3 ...8

#### 1) Switch 1-3 (Receiver & Transmitter): Frequency Setting

To avoid interference with each other in multiple pairs of installation, please select different frequency channel in each pair of beam detector.

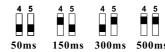




NOTE: The frequency channel ID of the receiver and the transmitter should be the same in operation. Otherwise, the system does not work.

#### 2) Switch 4-5 (Receiver): Interruption Time Setting

Please make interruption time to detect different movement speed (refer to Part 6 Interruption Time Adjustment). 50ms is the most sensitive mode.



## Switch 4-5 (Transmitter): Operating Power

In severe environment condition, operating power mode+1, +2 or +3 makes IR beam to achieve the longest protection distance.



#### 3) Switch 6 (Receiver & Transmitter): LED ON / OFF

Close the LED Display after installation for energy saving operation.



### 5) Switch 8 (Receiver):

ON is for quick frequency channel ID checking. In this mode, there is no alarm output if the beam is triggered. Switch 8 OFF is for alarm mode and the LED display shows the signal strength value 0.0-3.5.



NOTE: Switch 8 ON is for checking the frequency channel ID, please set the switch OFF in protection. Otherwise, there is no alarm output in protection.

### 4) Switch 7 (Receiver):

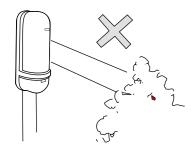
When Switch 7 is ON, the alarm output is in Fast Recovery Mode. The relay opens and closes instantly when the IR beams are blocked or aligned. This function is designed for parking sensor or automatic door. When the Switch 7 is OFF, the standard alarm output period is 2 seconds.

#### 6) Digit LED Display (Receiver & Transmitter)

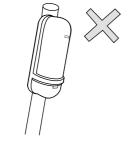
The LED Display of the receiver shows the frequency channel ID numbers at the first 2 seconds after power on. Then the LED display shows the signal strength. If it shows the value less than 0.8, please realign the IR beam. The value 2.0-3.5 is highly recommended for the best performance in real working status. The LED Display of the transmitter shows the operating frequency channel ID only.

# 4 PRECAUTIONS

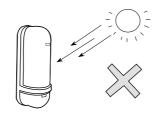
#### 1) Please do not install the system to the following location:



Where there is blocking objects between Receiver and Transmitter

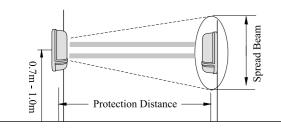


Where the installation base is unstable

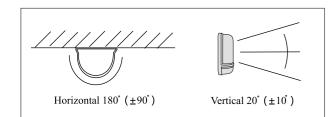


Where there is direct sunlight to the detector

### 2) Installation Height



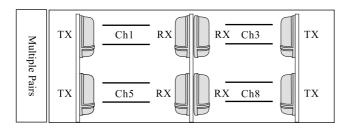
#### 3) Alignment Angle



#### 3) Protection Distance

Model	Distance	Spread Beam		
50	50M	1.4M		
100	100M	2.8M		
150	150M	4.2M		
200	200M	5.6M		
250	250M	7.0M		

#### 5) Stacking Installation

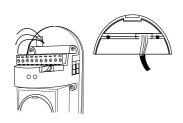


## 5 INSTALLATION GUIDE

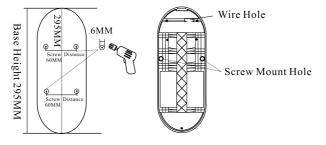
### **Wall Mount**



1) Loose the screw and open the cover



3) Wiring the terminals from the hole and replace waterproof rubber

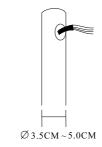


2) Drill the mounting holes on the wall and fix the base by the screw

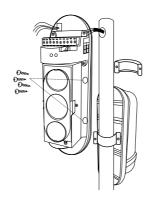


4) After setting, replace the cover and tighten the screw

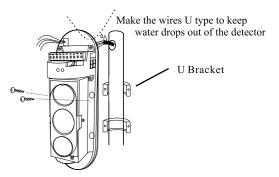
### **Pole Mount**



1) Pull out the wires from the pole hole



3) Make back to back installation on the same pole

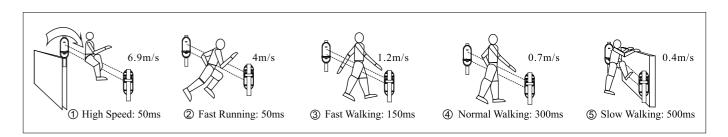


2) Wiring the terminals and fix the base on the pole by the U Bracket



4) After setting, replace the cover and tighten the screw

## 6 INTERRUPTION TIME ADJUSTMENT



## 7 SPECIFICATION

Model	50	100	150	200	250		
Distance (Outdoor)	50m	100m	150m	200m	250m		
Distance (Indoor)	150m	300m	450m	600m	750m		
Detection System	Simultaneous blocking of 3 infrared beams						
Response Time	50msec, 150mse, 300mse, 500msec selectable						
Power Input	DC 10-36 / AC 8-24V						
Current Consumption	55mA	55mA	60mA	60mA	60mA		
Alarm Output	Form C, Contact capacity: AC / DC30V, 0.5A or less						
Tamper Switch	N.C. open when cover is removed						
Fault Alarm(optional)	N.C. Fault Output when the signal is incompetent						
LED	Red LED Alarm (receiver), Digit LED Display						
Alignment Angle	$\pm~10^{\circ}~{ m vertical},\pm~90^{\circ}~{ m horizontal}$						
Ambient Temperature	- 25 ° C to 55 ° C						
Relative Humidity	95% or less						
Mount Method	Wall or Pole						
Weight	1200g						

# 8 DIMENSION

