

**Installation Guide**

**1. Introduction**

The IR Beam 72 outdoor detectors employ twin beams with advanced optics and four selectable channels, providing reliable detection.

**2. Layout**

1	Cover
2	Screw
3	Wire Entry
4	Channel Option Switch
5	Optical Axis Monitor Jack (Receiver)
6	Optical Axis Rotation
7	Reflector and Filter
8	Bracket and Base Attaching Holes
9	Optical Axis Windows
10	Optical Axis Screw
11	Response Speed VR (Receiver)
12	Terminal Block
13	LED
14	Sense LED
15	D-belt for pole mounting (purchased separately - P/N: RBM72P0000A)
16	Bracket

**3. Mounting Location**

1. Mount the transmitter and receiver within maximum range.

2. In case the received signal is low, install within rotation angle range of the reflector.

3. Avoid direct sunlight (facing sunrise or sunset) or headlamps.

4. Avoid obstacles (flowerpots, laundry, pets) between receiver and transmitter.

5. When installing several detectors or cross installation to avoid collision install according to the following diagram:

CHANNEL	
CH1	CH2
CH3	CH4

6. Do not install on unstable surfaces.

7. After mounting, adjust optical axis and conduct a walk test.

**4. Installation Method**

1. To remove front cover, unscrew front bottom screw.

2. To separate bracket from detector, unscrew bottom screw.

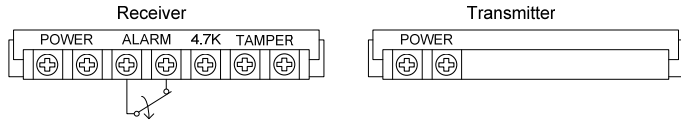
3. Mount on desired wall or pole and connect wires through wire entry (see terminal block).

4. Connect the wire through the upper terminal block. Replace the bracket and fixing screw.

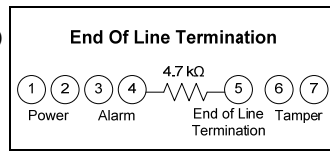
5. Adjust the optical axis and conduct a walk test. Then, replace front cover.

**!** When mounting two brackets on one pole, install a pair of D-belts at the upper and lower parts and install another D-belt in the middle for equal mounting height.

## 5. Terminal Block

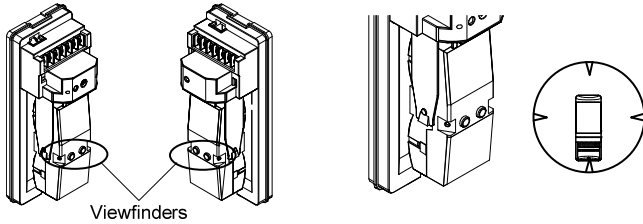


- POWER Input: 10V~28VDC (non polar)
- ALARM Output: NC, 30VDC/0.5A
- 4.7KΩ (End of Line Termination)
- TAMPER

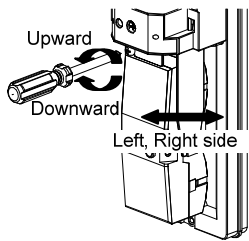


## 6. Beam (Viewfinder) Adjustment

1. After confirming detector mounting location, adjust the reflector angle using the view finder.
2. Using the view finder, adjust the reflector's location to be within the detection range of the opposite detector.



3. To adjust the axis angle, turn the axis left or right side and up or downward with a screwdriver.



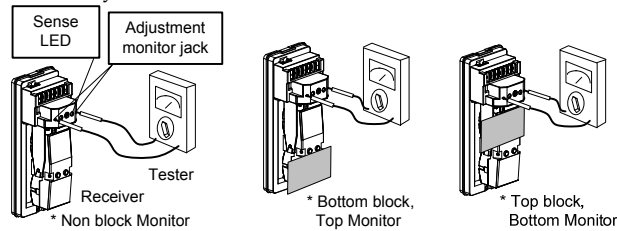
- ❗ If the opposite detector is not shown clearly, attach a white paper cover on the back of the opposite detector. The distance between the installer and viewfinder should be about 3-5cm (1.1"-1.9") to observe the opposite detector clearly.

- ❗ Fine adjustment of an optical axis:

An error can be caused in the installer's field of vision. So, fine adjustment must be conducted using a built-in monitor jack and a tester.

4. Fine adjustment method:

(1) Insert "+" on tester to receiver's positive voltage, "-" on tester should connect to "-" on receiver. Turn the receiver's reflector to the right or left so tester voltage is maximized. Avoid blocking the reflector with your hands.



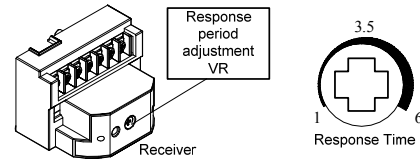
- ❗ If adjusted exactly, without a block test, sense LED is switched off and the monitor voltage is kept consistent.

(2) Refer to the table below for tester indicated voltage and reliability. For maximum output, perform fine adjustment. Preferably, adjust tester voltage to high sensitivity. (Power input: 12VDC)

Tester indicated voltage	Sensitivity (outdoor)	Sensitivity (indoor)
Over 6.1V	High	High
Over 5.8V	Satisfactory	
Over 5.3V	Average	Satisfactory
Over 4.8V	Needs adjustment	Average
Below 4.8V	Needs adjustment	Needs adjustment

## 7. Response Time

The Response period adjustment VR allows you to match the sensitivity to the surroundings and avoid false alarms. Slower settings reduce sensitivity.

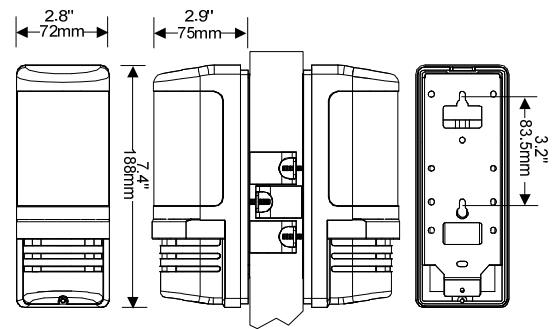


VR indicator	1 ~ 2	2 ~ 3	3 ~ 4	4 ~ 5 (Default)	5 ~ 6
Detection type	Quick running	Jogging	Quick pace	Normal pace	Slow pace
Detection speed	0.05sec	0.1sec	0.2sec	0.35sec	0.5sec

## 8. Technical Specifications

Model	Beam 7225	Beam 7250	Beam 7275
Detection Method	Infrared photoelectric		
Beam Channel Option	4 channels set by dipswitch		
Detection Range (Outdoor)	25m (82ft)	50m (165ft)	75m (250ft)
Detection Range (Indoor)	50m (165ft)	100m (328ft)	150m (492ft)
Response Period	0.05sec - 0.5sec		
Alarm Period	Receiver: Standby-LED is "OFF", Alarm-LED is "ON" Transmitter: LED is "ON" in normal situation		
Alarm Output	Standby: short, Alarm: disconnection Contact Point: 30VDC/0.5A, resistance:2.2Ω		
Optical Axis Adjustment range	Horizontal: ±90°, Vertical: ±5°		
Power Input	10 ~ 28VDC (non-polarity)		
Power consumption	Receiver: 22mA, Transmitter: 12mA, ±3mA		
Tamper	Cover removal		
IP Rating	IP44		
Weight	1.058kg (2.3lb)		
Operating Temperature	-20°C to +55°C (-4°F to 131°F)		
Storage Temperature	-25°C to +60°C (13°F to 140°F)		
Material	ABS resin, Polycarbonate		

## 9. External Dimensions



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### Contacting RISCO Group

RISCO Group is committed to customer service and product support. You can contact us through our website [www.riscogroup.com](http://www.riscogroup.com) or as follows:

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