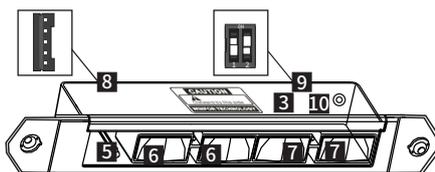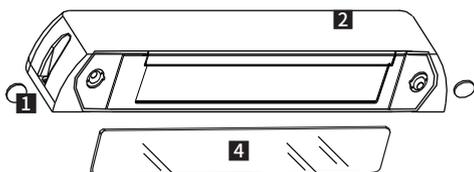# Operation Instructions

M-229G Safety Sensor Curtain

1 Safety Instruction

⚠ This device must use a low voltage with protection and safety insulation, and adjustment or maintenance must be done by professional installation workers.
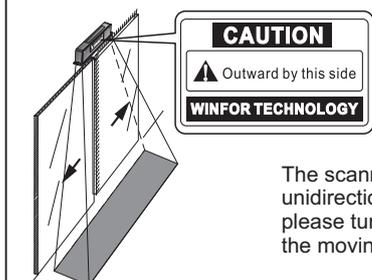
2 Product Overview

1 Decorative cap	6 Transmitter window
2 Exposed cover	7 Receiver window
3 Main Controller	8 Wiring terminal
4 Optical surface lens	9 Function setting button
5 LED indicator	10 Sensing range adjustable screws

3 Installation Precautions

⚠ NOTE 1

CAUTION
⚠ Outward by this side
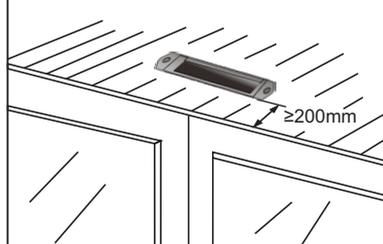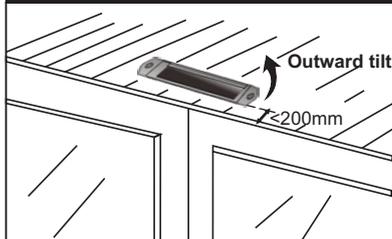WINFOR TECHNOLOGY

The scanning range of this detector is unidirectional, when actual installation, please turn the side with the label toward the moving object to avoid self-induction.
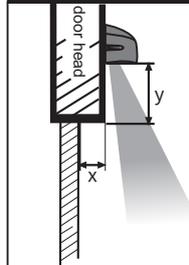
⚠ NOTE 2

≥200mm

When top suction installation, in order to avoid self-induction, the installation distance between the automatic door and the safety cutain should be more than 200mm.
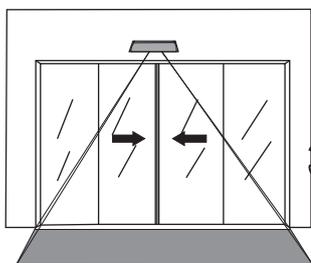
⚠ NOTE 3

Outward tilt

≤200mm

If the distance from the automatic door can't reach 200mm, the safety curtain can be installed at outward tilt a certain angle.
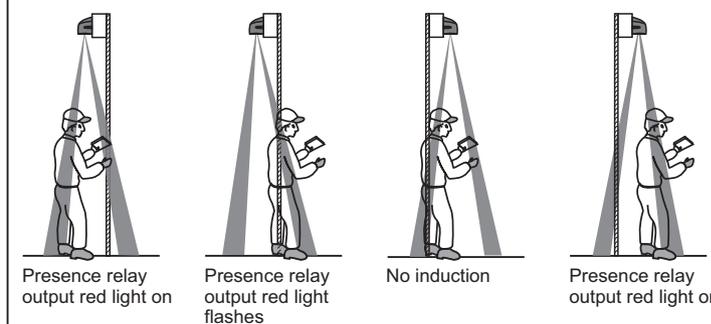
⚠ NOTE 4

door head

y

x

When exposed installation on the door head, in order to avoid the first row infrared ray being blocked by door head, the distance between the bottom of the door head and the sensor is ensured:
X=50, Y=70
X=100, Y=50
X≥200, Y≤20

Note: ▧ **Presence detecting area** When debugging, in order to avoid the wrong background information in the system, during the entire self-learning process, all irrelevant background objects must be wihdrawn from the detection range, such as workers, ladders, toolboxes,etc. When the sensor is power on, blue light indicator is flashes, simultaneously send out door open signal, entering the background learning state; When the sensor detect the stable background for 2s, blue light flashes quickly, and background learning success, blue light is always on, release door opening signal, the sensor is in standby state.
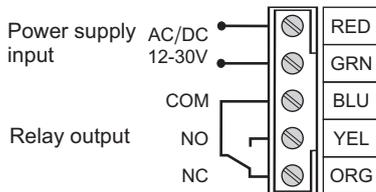
| Presence relay output red light on | Presence relay output red light flashes | No induction | Presence relay output red light on |

4 Wiring

Power supply input	AC/DC 12-30V		RED
Relay output	COM		GRN
	NO		BLU
	NC		YEL
			ORG

Power supply input — AC/DC 12-30V
Relay output — COM, NO, NC
Terminals: RED, GRN, BLU, YEL, ORG

This detector with self-learning function after starting up, the blue light flashes after power on, Simultaneously send out the door open signal, make sure door is in the opening state, so that the sensor can learn the door opening state correctly. At this time, the personnel must leave the sensing area and let the sensing area be relatively static. The detector detects stability for 2 seconds, that is, the learning background, the blue light flashes, and after the learning is successful, the blue light is always on.
NOTE: If it is only used for presence induction, should be connected the signal to the automatic door controller presence port. If used as door opening and presence induction in close range, should be connected with detecting port of automatic door.

5 Function Setting
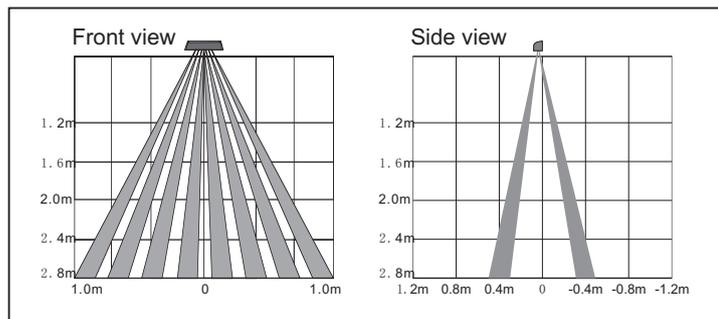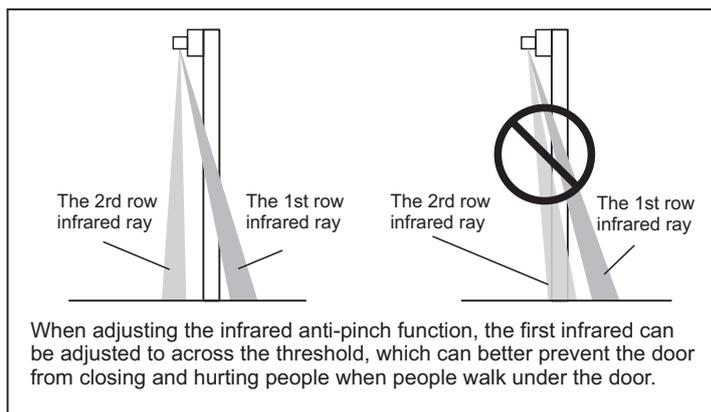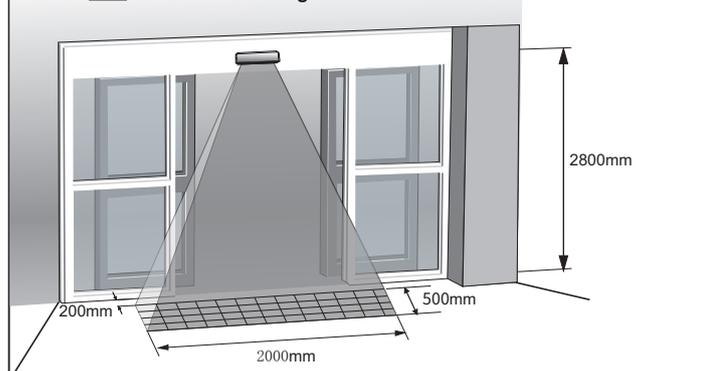
Operating mode: High sensitivity or low sensitivity

▶ High sensitivity: Key 1 down
− The factory default setting is high sensitivity mode.

▶ Low sensitivity: Key 1 up
− When the reflectance of working environment is strong result to self-induction or background is difficult to update, it should be set to low sensitivity mode.
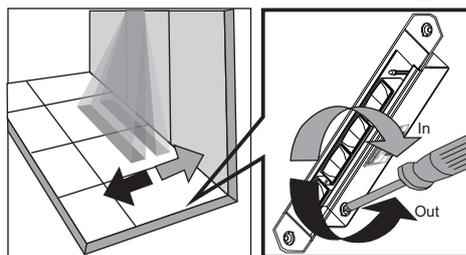
Background automatic update time

▶ When background update time is 5 min: key 2 up
− That is, if people stand under the door and don't move, after 5 minutes, the person will be learned as background.

▶ When background update time is 15 seconds: key 2 down
− That is, if people stand under the door and don't move, after 15 seconds, the person will be learned as background.

6 Detection Range

Note: ▨ Presence detecting area

2800mm
500mm
200mm
2000mm

The 2nd row infrared ray — The 1st row infrared ray
The 2nd row infrared ray — The 1st row infrared ray

When adjusting the infrared anti-pinch function, the first infrared can be adjusted to across the threshold, which can better prevent the door from closing and hurting people when people walk under the door.

Front view
1.2m
1.6m
2.0m
2.4m
2.8m
1.0m   0   1.0m

Side view
1.2m
1.6m
2.0m
2.4m
2.8m
1.2m 0.8m 0.4m 0 -0.4m -0.8m -1.2m

Infrared detecting range adjustment

In
Out

Note: (As the picture shows) Clockwise to adjust detect range moves inside; Counterclockwise to adjust detect range moves outside.

7 Technical Parameters

Power input:	AC/DC 12-30V(-/+10%)	Output hold time:	500ms
Ray type:	Infrared modulated light	Response time:	≤100 ms
Optical source:	Infrared 940nm	Switch mode:	Sensitivity can be switched,
Light beam:	8 transmitting, 8 receiving		background update time can be selected
Static current:	30 mA	Signal output:	Relay, 1 pair of selectable contact points
Action current:	62 mA	Connection:	5-pin connect terminal
Learning time:	Dynamic stability for 2 seconds	Shell material:	ABS
Operating display:	Standby mode: blue LED on;	Optical surface:	PMMA
	Detecting mode: Red LED on	Installation methods:	Surface mount or concealed mount
Temperature:	-40°C to +60°C	External dimension:	200(L)x54(W)x32(H)mm (surface mount)
Maximum mounting height:	2.8 meters		152(L)x25(W)x36(H)mm (hidden hole size)
Detection range:	(=2.8m height) 2000 (W)*500(D)mm		

8 Packing List

NO.	PART	QTY	UNIT	REMARK
1	Sensor	1	PC	
2	5-pin line	1	PC	165mm
3	Screws	1	Bag	
4	Operating instructions	1	PC	
5	Surface mount cover	1	PC	Silver or black can be selected