Operation Instruction
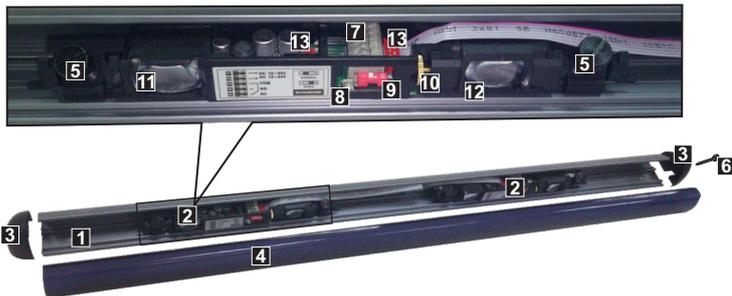
Make your choice...

M-227 Infrared Top Scan

1 Safety Instruction

⚠ Thanks so much for your purchasing, please read this instruction before using.

2 Product Overview

1	Aluminum housing	8	Indicator light
2	Sensor*2	9	Background set switch
3	End cover*2	10	Scanned area regulating wheel
4	Front cover(filter glass)	11	Transmit cabin
5	Mounting brackets*2	12	Receive cabin
6	Cross-recessed screws*2	13	Wire interface*2
7	Connection terminal		

NOTE: The left or right end cover may need to remove according to its application. Loosen the screws to remove end cover, then front cover can be removed.

Wiring ▸

—	1	DC 12~30V	Power input
—	2	AC 12~24V	
—	3	COM	
—	4	NO	
—	5	NC	
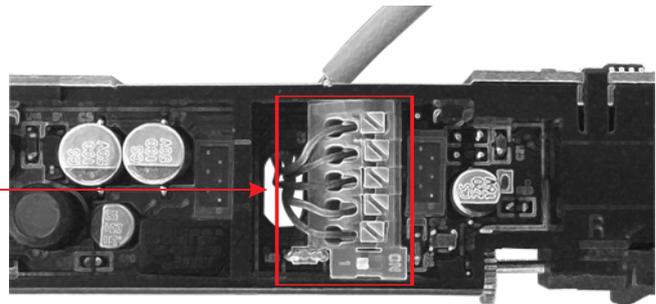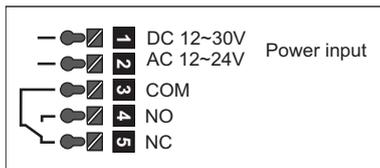
3 Overall Characteristics

- It can detect moving or standing people or objects, keep safety when people or equipments enter from rotation door or automatic swing door.
- Ingenious structure, simple but modern appearance. And very easy to instal.
- The detection height and sensing area are adjusted by adjusting wheel and locking the screws, quickly and accurately.
- The system has strong pressure stability, with background and noise filtering system, not affected by environment (such as sunshine, snow, rain, etc).
- The detection angle of scanning can be accurately adjusted by mounting bracket.
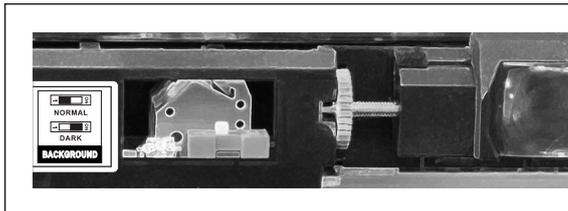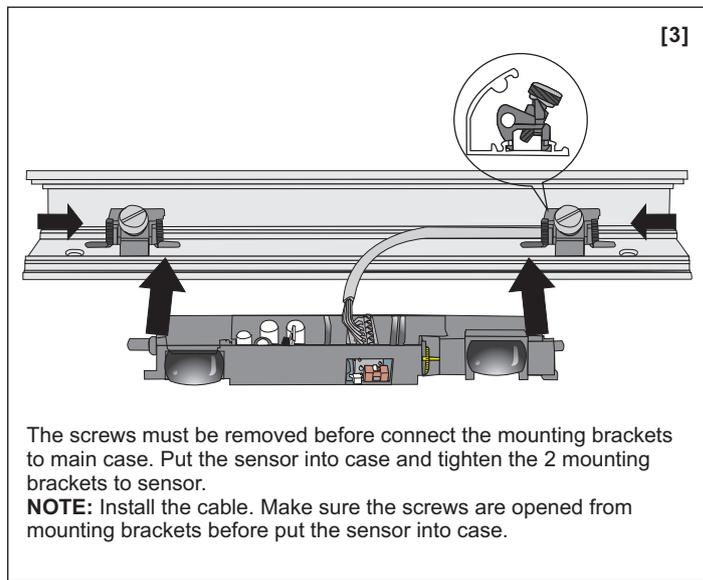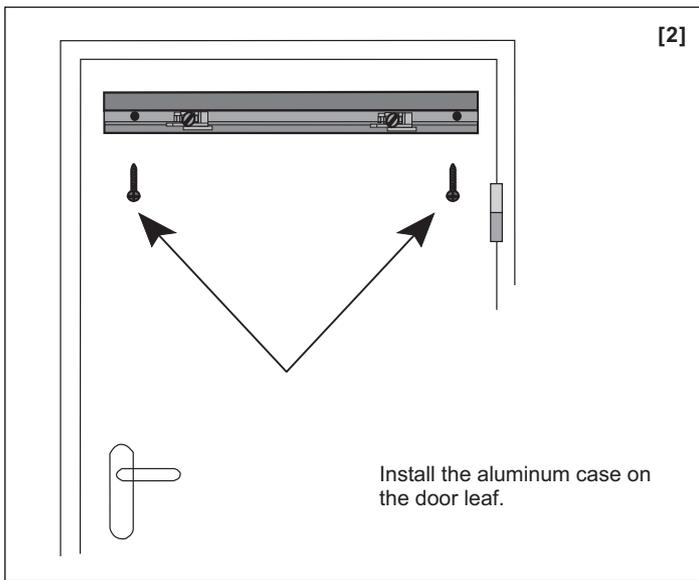
4 Installation

[1]
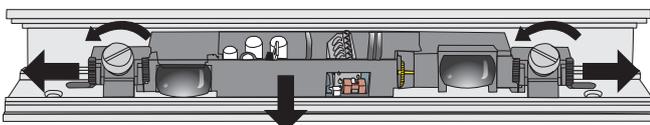
Option1:
Remove the two screws from mounting bracket, then push them to another side.
Option2:
Remove the screw. Then take the bracket holder and sensor out from aluminum case carefully.

[2]

Install the aluminum case on the door leaf.

[3]

The screws must be removed before connect the mounting brackets to main case. Put the sensor into case and tighten the 2 mounting brackets to sensor.
NOTE: Install the cable. Make sure the screws are opened from mounting brackets before put the sensor into case.

[4]

Background mode: Normal or Dark
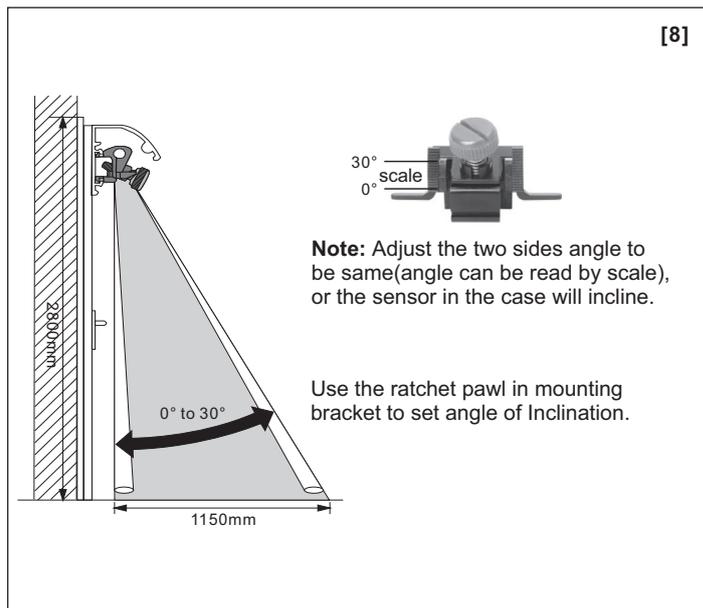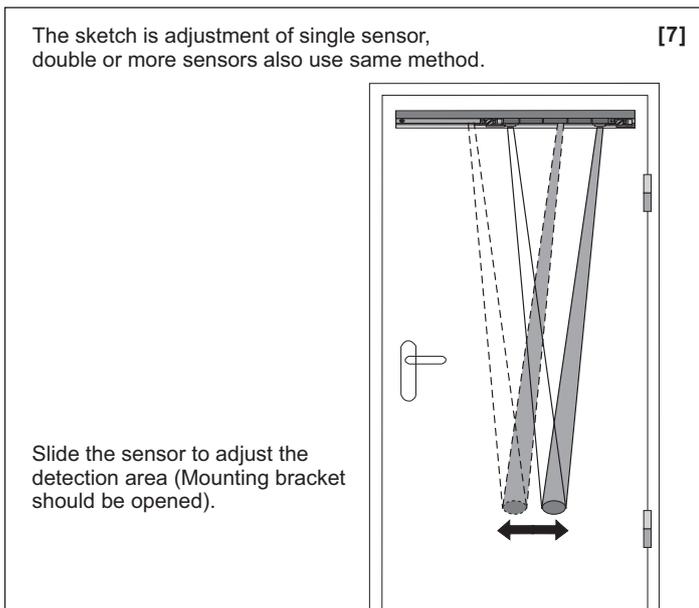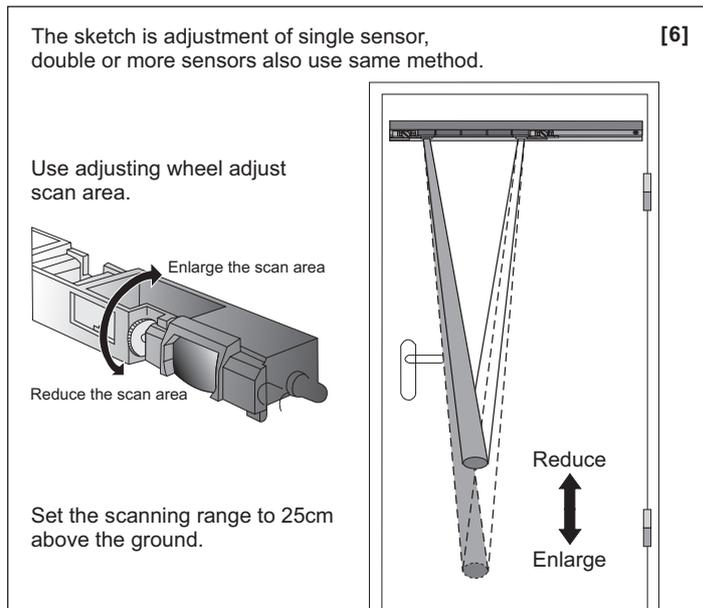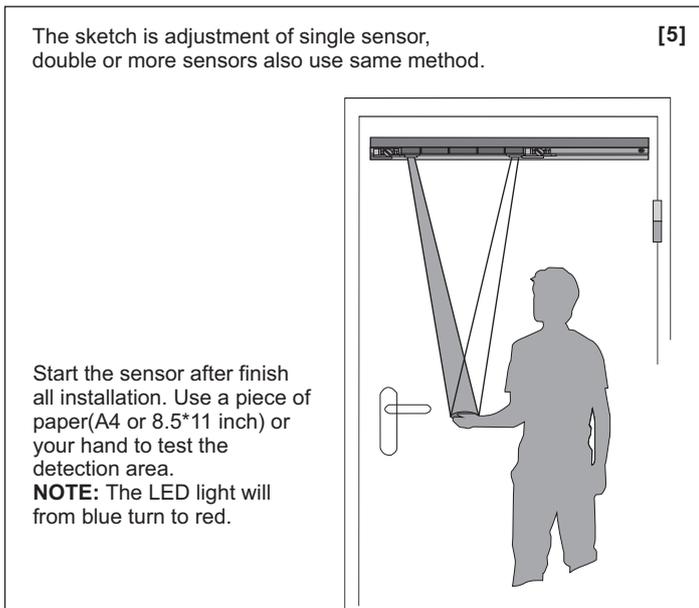
▸ **Normal: Switch to 1**
Specific to reflective background. Such as marble, polished tile, ceramic tile.

▸ **Dark: Switch to ON**
Specific to low reflection background. Such as carpet or wild floor.

[5]

The sketch is adjustment of single sensor, double or more sensors also use same method.

Start the sensor after finish all installation. Use a piece of paper(A4 or 8.5*11 inch) or your hand to test the detection area.
NOTE: The LED light will from blue turn to red.

[6]

The sketch is adjustment of single sensor, double or more sensors also use same method.

Use adjusting wheel adjust scan area.

Enlarge the scan area

Reduce the scan area

Set the scanning range to 25cm above the ground.

Reduce

Enlarge

[7]

The sketch is adjustment of single sensor, double or more sensors also use same method.

Slide the sensor to adjust the detection area (Mounting bracket should be opened).

[8]

30°
0° scale

Note: Adjust the two sides angle to be same(angle can be read by scale), or the sensor in the case will incline.

Use the ratchet pawl in mounting bracket to set angle of Inclination.

2800mm

0° to 30°

1150mm

[9]

After finish all settings, lock the screws in mounting bracket tightly to stabilize the sensor.

[10]

Close the front cover
and use the screw to fasten.

After finishing the installation of sensor, put the front cover onto aluminum case.

[11]

Sensors can be connected by wire side by side.
Note: Operation voltage and relay output need to connect to any of sensor only once.

5   Troubleshooting

Symbol	Reason	Methods
Door open only at a particular point in time or only open partial.	The scan area has be set too close from floor	Reset the scan area. Please read chapter 4, figure [6].
Door open LED turn red long time.	The scan area has be set too close from floor	Reset the scan area. Please read chapter 4, figure [6].
Sensor always detecting.	Fluorescent lamp is near to the sensor.	Change the angle of Inclination-chapter 4, figure [8]. Reset scan area-chaper 4, figure [6]. Remove the fluorescent lamp.
Sensor can not detect moving things.	The scan area has be set too far from floor. The wire connected between sensors is incorrect. Be caught in the rain.	Reset the scan area. Please read chapter 4, figure [6]. Check connected wire again-chaper 4. Change the sensor.

6   Parameter

Scan area setting	Mechanical adjustment of wheels 500-2800mm	Triangle principle
Ambient temperature	-20℃~+60℃	Deviate from set scan area 60℃
Detection area diameter	About 75mm light spot	Apply in 2000mm scan area
Type of ray	Infrared ray	880nm pulse modulation infrared light
Operation voltage	AC/DC12~36V	
Current consumption	<100mA	
Signal output	Relay, switch point	Electrical isolation
	Highest alternating voltage 48VDC/AC	Rated current (resistive load) DC1A/24V
	Highest alternating current 0.5ADC/AC	Inductive load/capacitive load, provide EDM quenching
	Highest alternating capacitance 55volt-ampere/24watts	Resistive load
Detection response time	≤100ms	
Operation mode	Motion or standstill mode	Self-adaption
Function Indicator	LED	Blue-standby, red-detect
Housing material	AL/ABS7	
Sensor dimension	750x31x20mm, 620x31x20mm, 900x31x20mm, 1200x31x20mm(optional)	Length/width/hight
Electromagnetic compatibility	Anti-interference abide by EN61000-6-1, EN61000-6-2 Emission interference abide by EN61000-6-3, EN61000-6-4	CE abide by 89/336 EEC EMC

7   Packing List

NO.	Parts	PCS	Remark
1	Safety curtain Sensor	1	
2	Instructions	1	
3	Wire	1	65cm
4	Surface mounting bracket	1	
5	Screws bag	1	