Operation Instruction
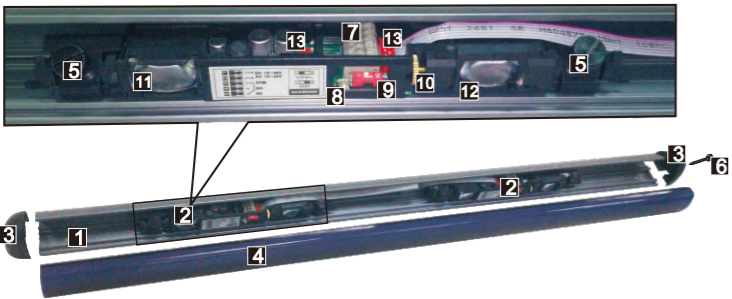## M-227A Moving Safety Curtain

1 | Security Guide

⚠ Thank you for your purchasing, please refer to the following instruction before using.

2 | Product Overview

1 aluminum housing
2 sensor×2
3 end cover×2
4 front cover（filter glass）
5 mounting brackets×2
6 Cross-recessed screws×2
7 connection terminal
8 indicator light
9 background set switch
10 scanned area regulating wheel
11 transmit cabin
**12** receive cabin
13 wire interface×2

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.

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. Quick response and accurately.
■ The system has stabilized voltage and set filtration system to filter background and noise. Do not influence by environment（sunshine, snow or rain）.
■ The detection angle of scanning can be adjusted by mounting bracket accurately.

4 | Preparation and Installation

Figure1
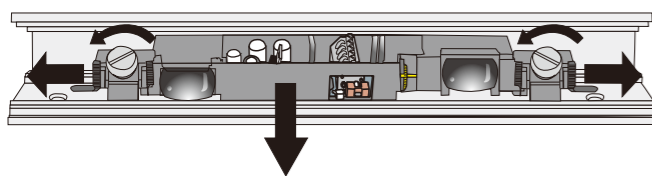
Option1:
Remove the two screws from mounting bracket, then push them to another side.
Option2:
Remove the screw. Then take the bracket holder and sensor out from aluminum case carefully.
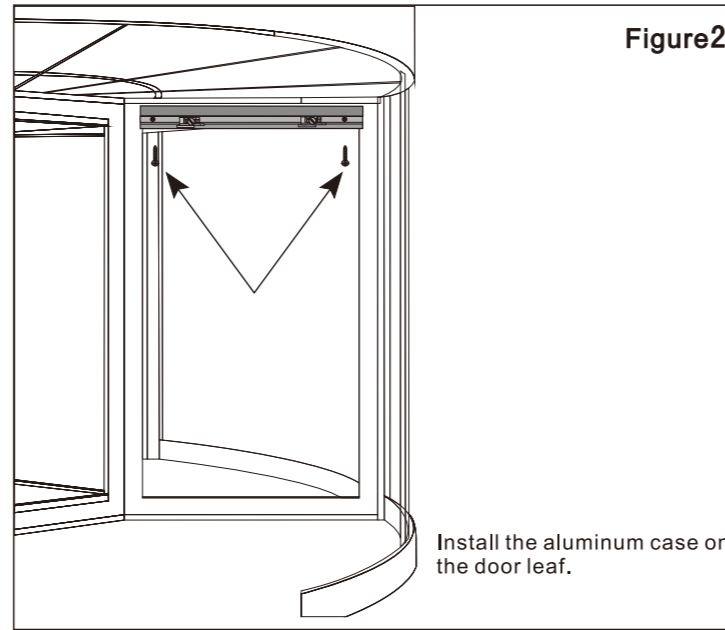
Figure2

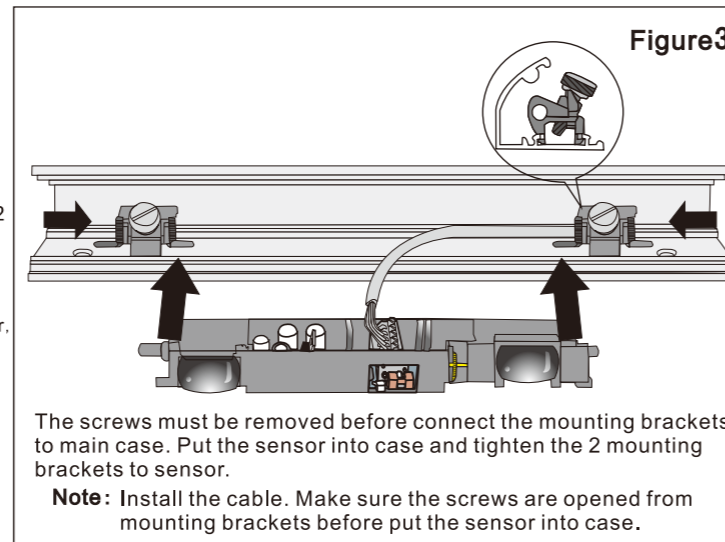
Install the aluminum case on the door leaf.

Figure3

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.

5 | Wiring diagram of input and output

DC 12~30V Power
AC 12~24V input
COM
NO
NC
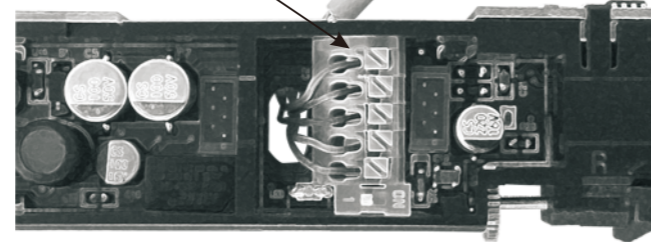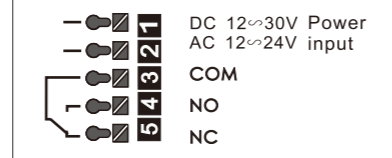
6 | Function setting
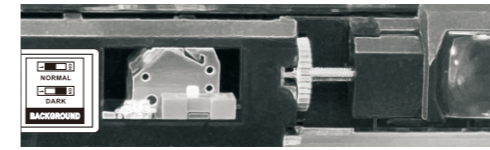
Background mode: Normal or Dark
▶ **Normal: switch to 1**
 – Specific to reflective background. Such as marble, polished tile, ceramic tile.
▶ **Dark: switch to ON**
 – Specific to low reflection background. Such as carpet or wild floor.

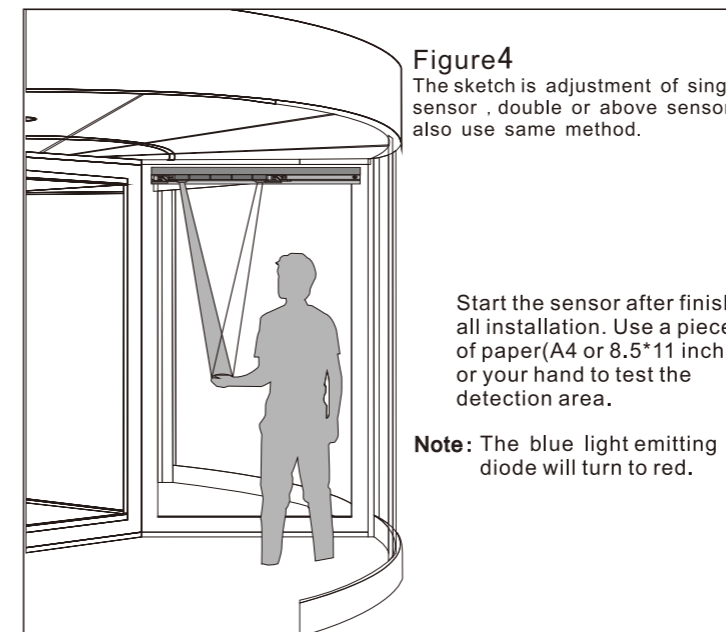**7** | Adjust the sensor and finish the installation

Figure4
The sketch is adjustment of single sensor, double or above 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.

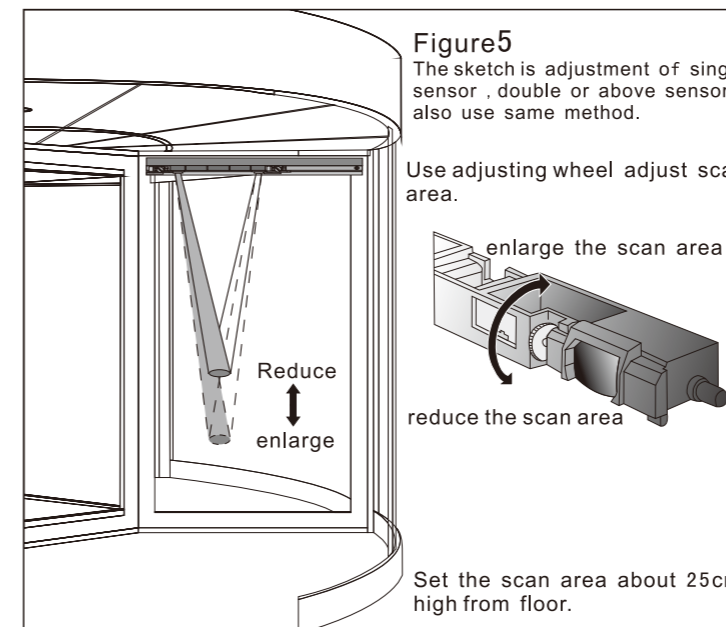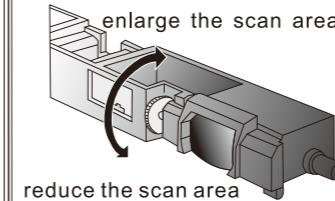**Note:** The blue light emitting diode will turn to red.

Figure5
The sketch is adjustment of single sensor, double or above sensors also use same method.

Use adjusting wheel adjust scan area.

enlarge the scan area
reduce the scan area

Reduce ↕ enlarge

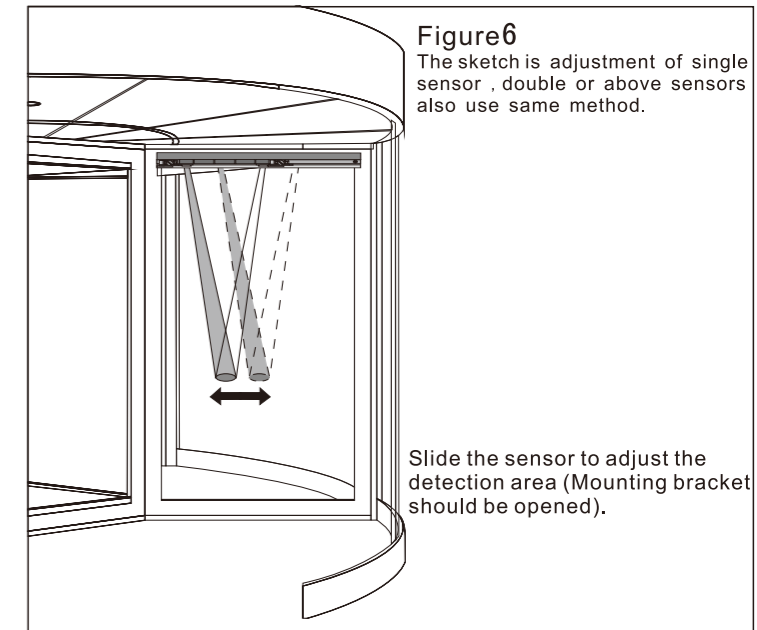Set the scan area about 25cm high from floor.

Figure6
The sketch is adjustment of single sensor, double or above sensors also use same method.

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

Figure7

30°
0°
scale
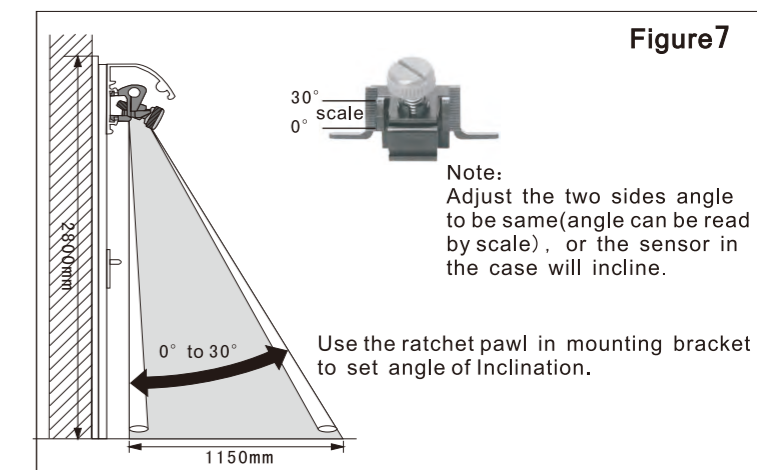
Note:
Adjust the two sides angle to be same(angle can be read by scale), or the sensor in the case will incline.

2800mm
0° to 30°
1150mm

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

Figure8

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

Figure9

Close the front cover and use the screw to fasten.

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

Figure10

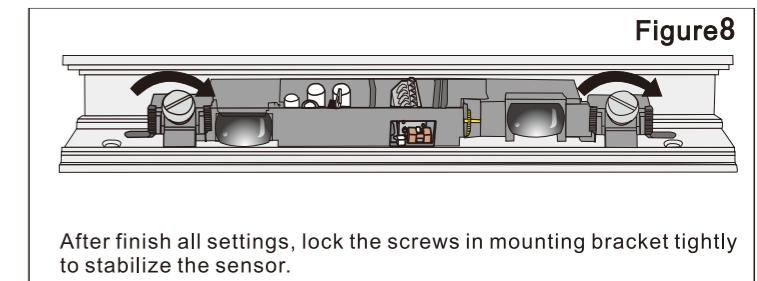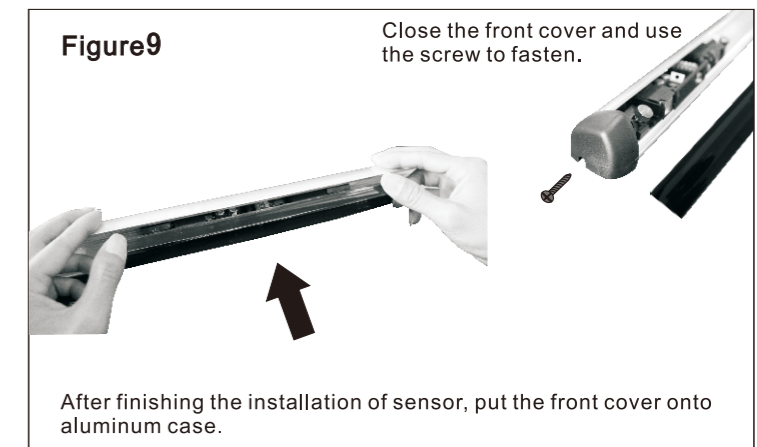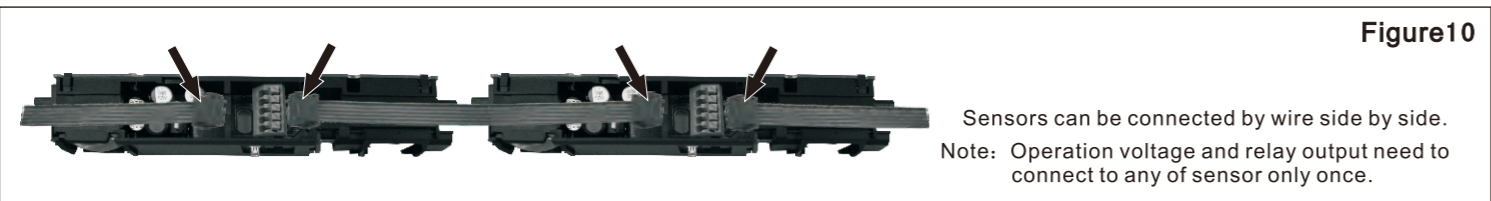Sensors can be connected by wire side by side.

Note：Operation voltage and relay output need to
connect to any of sensor only once.

9   Troubleshooting

Failure	Reason	Corrective action
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 chapter7, figure5.
Door open LED turn red long time.	The scan area has be set too close from floor	Reset the scan area. Please read chapter7, figure5.
Sensor always detecting.	Fluorescent lamp is near to the sensor.	Change the angle of Inclination-chapter7, figure7. Reset scan area-chaper7,figure5. 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 chapter7, figure5. Check connected wire again-chaper5 Change the sensor

10   Technical Parameter

Scan area setting	Mechanical adjustment of wheels 500-2800mm	Triangle principle
Ambient temperature	+60℃	Deviate from set scan area 60℃
	−20℃	
Distinguish black/white	Max20% White：scan area is larger Black：scan area is smaller	The distinguish between black and white according to scan area set
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 Highest alternating voltage 48VDC/AC Highest alternating current 0.5ADC/AC Highest alternating capacitance 55volt-ampere/24watts	Electrical isolation Rated current （resistive load) DC1A/24V Inductive load/capacitive load，Provide EDM quenching Resistive load
Detection response time	≤100ms	
Operation mode	Motion or standstill mode	self-adaption
Function Indicator	LED	Blue-standby, Red-detect
IP	Ip52	
Housing material	AL/ABS	
Sensor dimension (Sensor for revolving door S4A-227A)	750×31×20mm 900×31×20mm、1200×31×20mm（optional)	Length/Width/Hight
Sensor dimension (Motion light curtain sensor S4A-227B)	620×31×20mm	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