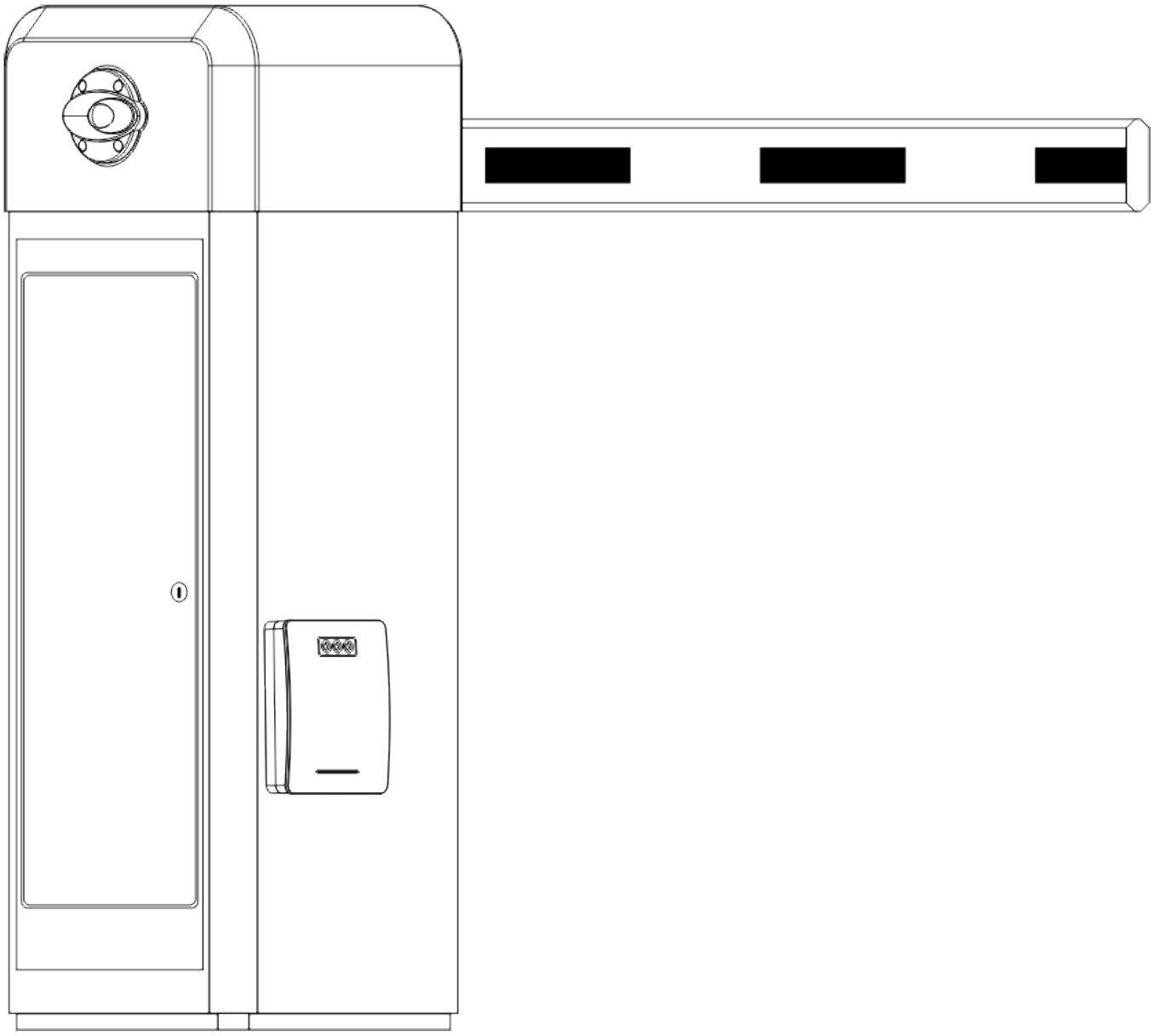
Energy Power Save CO.,LTD
Thailand Distributor Sales & Service
Contact : www.7-mars.com, Email : info@7-mars.com, Office Call : +66(02) 114 7145-9 Ext. Sales

# RD24-6M Radar Detector User Manual



## 1.How To Install The Radar Detector

1.Please choose a power adapter output 8-40VDC 1A.

2.When using a gate for power supply, please ensure that the output current is not less than 200ma.

3.When applied to lanes, the best height between the radar center and the ground is 50-60cm.

4.The distance between the center of the radar and the fence pole, the octagonal fence is not less than 25cm, and the right angle fence is not less than 30cm.

5.The radar installation surface should be adjectiveto the ground and be fixed reliably.

6.The ground within the detection range should be flat without any obstacles. When the angle between the passing vehicle and the radar is greater than 30 degrees, please set up road barriers to guide the vehicle through.

## 2.The Meaning Of The Indicator Light And Function Menu (Red LED)

| Menu | Setting function | Default(factory) |
|---|---|---|
| 1 | Detection distance: The reading corresponds to a distance of 1-6 meters | 3meters |
| 2 | Sensitivity:<br>Reading value 1: Low 2: Middle 3: High It is used to set the factory default value when the reading is 6 | 2 |
| 3 | Gate closing speed: reading 1-6 corresponds to time 2-12 seconds | 6second |
| 4 | When Relay delay : Reading 0-6 corresponding time 0-6 second. | 0second |
| 6 | Setting:<br>1-Straight bar barrier<br>2-fence barrier<br>3-plus signal output | 1 |

**Note:Press and hold the function key for 8 seconds to enter the menu mode**

**LED Indicated Light ( 3Pcs RED Led)**

| Function menu | 1  | 2  | 3  |
|---|---|---|---|
| Menu1 | ON | OFF | OFF |
| Menu2 | OFF | ON | OFF |
| Menu3 | OFF | OFF | ON |
| Menu4 | ON | OFF | ON |
| Menu6 | ON | ON | ON |

**Menu1 Detection distance content details ( The indicate light was the blue LED, The indicator LED has three states: 1. ON 2. FLASH 3. OFF)**

| Menu1 | 1  | 2  | 3  |
|---|---|---|---|
| 1meter | ON | OFF | OFF |
| 1.5meter | FLASH | OFF | OFF |
| 2meter | OFF | ON | OFF |
| 2.5meter | OFF | FLASH | OFF |
| 3meter | OFF | OFF | ON |
| 3. 5meter | OFF | OFF | FLASH |
| 4meter | ON | OFF | ON |
| 4. 5meter | FLASH | OFF | FLASH |
| 5meter | OFF | ON | ON |
| 5. 5meter | OFF | FLASH | FLASH |
| 6meter | ON | ON | ON |

**Menu2 Sensitivity content details ( The indicate light was the blue LED, The indicator LED has three states: 1. ON 2. OFF)**

| Menu2 | 1  | 2  | 3  |
|---|---|---|---|
| Low sensitivity | ON | OFF | OFF |
| Middle sensitivity | OFF | ON | OFF |
| High sensitivity | OFF | OFF | ON |
| Factory default | FLASH | FLASH | FLASH |

**Menu3 Details of closing speed ( The indicate light was the blue LED, The indicator LED has three states: 1. ON 2. FLASH 3. OFF)**

| Menu3 | 1  | 2  | 3  |
|---|---|---|---|
| 2second | ON | OFF | OFF |
| 3second | FLASH | OFF | OFF |
| 4second | OFF | ON | OFF |
| 5second | OFF | FLASH | OFF |
| 6second | OFF | OFF | ON |
| 7second | OFF | OFF | FLASH |
| 8second | ON | OFF | ON |
| 9second | FLASH | OFF | FLASH |
| 10second | OFF | ON | ON |
| 11second | OFF | FLASH | FLASH |
| 12second | ON | ON | ON |

**Menu4 The relay content details. ( The indicate light was the blue LED, The indicator LED has three states: 1. ON 2. FLASH 3. OFF)**

| Menu4 | 1  | 2  | 3  |
|---|---|---|---|
| 0second | OFF | OFF | OFF |
| 1second | ON | OFF | OFF |
| 2second | OFF | ON | OFF |
| 3second | OFF | OFF | ON |
| 4second | ON | OFF | ON |
| 5second | OFF | ON | ON |
| 6second | ON | ON | ON |

**Note:0s as relay presence type output**

**Menu6 Barrier or function content details( The indicate light was the blue LED, The indicator LED has three states: 1. ON 2. OFF)**

| Menu6 | 1  | 2  | 3  |
|---|---|---|---|
| Straight bar barrier | ON | OFF | OFF |
| Fence pole barrier | OFF | ON | OFF |
| Pulse count | OFF | OFF | ON |

## 3.How Program And Saved The Parameter

1.The first step: Enter: Press the function key (do not release) until the menu number to be set is selected and release the key, the corresponding parameter light will be on.

2.The second step: amend parameters: Change the current parameter by jog function key.

3.The third step: Save parameters: Press the function key frequently, and then release the red indicator lights 1, 2 and 3 flashing at the same time. The parameters will be changed and saved.

## 4.Quick Setting

1.Straight lane application settings(Only need 2 step)

The first step: Set the application scene to straight rod mode (Menu6)

The second step: Set the detection distance( Menu1)

2.Fence pole barrier application settings( only 3 step)

The first step: Set the application scenario to fence mode(Menu6)

The second step: Set the detection distance( Menu1)

The third step:The brake speed is determined to be 1 second (Menu3)

3.Trigger mode application settings( Only need 3 step)

The first step: Set the application scenario to trigger mode(Menu)

The second step: Set the detection distance( Menu1)

The third step: Set the reply output method (menu5)

## 5.Optimize Radar Detector Settings (Select setting items)

1. Sensitivity setting: The recommended setting for electric vehicles is medium or low, and the pedestrian passage setting is medium or high. On the occasion of shooting, you can set one in the middle and the other as high or low.

2. Pedestrian and vehicle distinction setting: (It is strongly recommended to set the distinction between man and vehicle in non-necessary situations.) Electric vehicle passage or pedestrian passage should be set to "No distinction between pedestrians and vehicles". Otherwise. Please set the “ distinction the pedestrian and the vehicle” To prevent accidents caused by non-vehicle passing.

## 6.How To Debug On Site?

1. Straight lane mode

After the brake lever is raised, the palm of the hand triggers the radar at a close range, and the gate will automatically close after leaving. Within the set detection distance, The brake lever rebounds when the human body approaches the brake lever. The brake lever can automatically close in place when the human body is far away from the brake lever. (Used to change the closing speed parameter of high-speed gates), the response speed of the radar can be adjusted.

2. Fence lane mode

If the remote control gate is opened and opened repeatedly, the fence will not trigger the radar. After completion, test in the same way as the above-mentioned straight lane.(If the radar of any of the above links is activated by the fence itself, please follow Section 12 "General Faults Rule 1 Elimination")

3. Trigger mode

Refer to the debugging method of the straight lane mode

## 7.Connection

| Color | Function |
|---|---|
| Red | Power supply input +12VDC |
| Black | Power supply input GND |
| Yellow | Set button input port |
| White | Input GND |
| Orange | Relay NC |
| Brown | Not used |
| Blue | Relay COM |
| Green | Relay NO |

## 8.General Troubleshooting

1.The radar is triggered by the fence itself during opening or closing.

Check whether the distance between the radar and the center of the fence is in accordance with the requirements and whether the radar installation surface is perpendicular to the fence. Please adjust the installation position or add a 2-4mm spacer to the side of the radar close to the fence.

Whether the set opening speed is greater than the actual closing speed.

Whether there is no distinction between people and vehicles, if it is necessary to set the distinction between people and vehicles, the sensitivity can be lowered by one level.

2.Radar output has not been reset

The set distance is greater than the lane or a foreign object on the ground is detected,Or the radar is not installed vertically. If you still can't solve the problem after troubleshooting, please enter menu 2 (when the 3 blue lights flash at the same time, press the function key and go straight to "Radar Initialization"). After the initialization is completed, please power on again.

3.The three lights are always on after the radar is powered on.

The radar is initialized, and it still doesn’t work after repeated restarts, please return to the factory for inspection.

4.The indicated blue light number 1 and number 3 flash

When the radar judges that the gate is triggered when the gate is closed, or there is a rebound signal at the edge of the X beam, the radar cannot distinguish whether it is a fence or a vehicle, and the gate will be closed after the gate is opened or there is no lane passing after the signal disappears. It is a safety mechanism to prevent smashing the rear of the car and does not need to be dealt with.