

## RD6 Radar Detector Manual

(V09/26)



## How to install the radar detector

- Use a power adapter output 8-40VDC 1A.
- When using a gate for power supply, please ensure that the output current is not less than 200ma.
- When applied to lanes, the best height between the radar center and the ground is 50-60cm.
- The distance between the center of the radar and the fence is not less than 25cm.
- The radar installation surface should be perpendicular to the ground and be fixed solid.
- The ground within the detection range should be flat without any obstacles. The direction of the traffic should be at right angle to this radar.
- The meaning of the indicator light and function menu (red LED )

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

Press and hold the function key for 8 seconds to enter the menu mode.

LED indicated light (3pcs RED led)

| Function Menu |  |  |  |
|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Menu 1        | ON                                                                                  | OFF                                                                                 | OFF                                                                                 |
| Menu 2        | OFF                                                                                 | ON                                                                                  | OFF                                                                                 |
| Menu 3        | OFF                                                                                 | OFF                                                                                 | ON                                                                                  |
| Menu 4        | ON                                                                                  | OFF                                                                                 | ON                                                                                  |
| Menu 6        | ON                                                                                  | ON                                                                                  | ON                                                                                  |

### Menu 1: Detection distance settings

(The indicator light is the blue LED, the indicator LED has three states: 1. ON 2. FLASH 3. OFF)

| Menu 1    |  |  |  |
|-----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 meter   | ON                                                                                  | OFF                                                                                 | OFF                                                                                 |
| 1.5 meter | FLASH                                                                               | OFF                                                                                 | OFF                                                                                 |
| 2 meters  | OFF                                                                                 | ON                                                                                  | OFF                                                                                 |
| 2.5 meter | OFF                                                                                 | FLASH                                                                               | OFF                                                                                 |
| 3 meter   | OFF                                                                                 | OFF                                                                                 | ON                                                                                  |
| 3.5 meter | OFF                                                                                 | OFF                                                                                 | FLASH                                                                               |
| 4 meter   | ON                                                                                  | OFF                                                                                 | ON                                                                                  |
| 4.5 meter | FLASH                                                                               | OFF                                                                                 | FLASH                                                                               |
| 5 meter   | OFF                                                                                 | ON                                                                                  | ON                                                                                  |
| 5.5 meter | OFF                                                                                 | FLASH                                                                               | FLASH                                                                               |
| 6 meter   | ON                                                                                  | ON                                                                                  | ON                                                                                  |

## Menu 2: Sensitivity content details

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

| Menu 2           |  |  |  |
|------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Low sensitivity  | ON                                                                                | OFF                                                                               | OFF                                                                               |
| Middle           | OFF                                                                               | ON                                                                                | OFF                                                                               |
| High sensitivity | OFF                                                                               | OFF                                                                               | ON                                                                                |
| Factory default  | FLASH                                                                             | FLASH                                                                             | FLASH                                                                             |

## Menu 3: Details of closing speed

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

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

## Menu 4: The relay content details

(The indicate light was the blue LED, the indicator LED has two states: 1. ON 2. FLASH 3. OFF)

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

## Menu 6: Barrier or function content details

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

| Menu 6               |  |  |  |
|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Straight bar barrier | OFF                                                                                 | OFF                                                                                 | OFF                                                                                 |
| Fence pole barrier   | ON                                                                                  | OFF                                                                                 | OFF                                                                                 |
| Pole count           | OFF                                                                                 | ON                                                                                  | OFF                                                                                 |

## How program and save the parameters

**Step 1:** 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.

**Step 2: Edit parameters:** Change the current parameter by function key.

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

## Quick setting

### 1. Straight lane application settings

**Step 1:** Set the barrier mode to straight bar barrier (Menu 6)

**Step 2:** Set the detection distance (Menu 1)

### 2. Fence pole barrier application settings

**Step 1:** Set the barrier mode to fence mode (Menu 6)

**Step 2:** Set the detection distance ( Menu 1)

**Step 3:** The brake speed is determined to be 1 second (Menu 3)

### 3. Trigger mode application settings (only need 3 step)

**Step 1:** Set the barrier mode to trigger mode (Menu)

**Step 2:** Set the detection distance (Menu 1)

**Step 3:** Set the reply output method (Menu 5)

## Optimize radar detector settings (select setting items)

**1. Sensitivity setting:** The recommended setting for vehicles is medium or low, and the pedestrian passage setting is medium or high. 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 pedestrian and vehicle in non-necessary situations. 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.

## How to debug on site?

**Straight lane mode:** After the barrier pole is raised, the palm of the hand triggers the radar at a close range, and the gate will automatically close after removing. Within the set detection distance, the pole reverses when the human body approaches the pole. The response speed of the radar can be adjusted.

**Trigger mode:** Refer to the debugging method of the straight lane mode

### Connection:

| Color:  | Function                     |
|---------|------------------------------|
| Red:    | Power supply input +10-24VDC |
| 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                     |

## General troubleshooting

### 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.

### 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.

### 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

### 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 reversal signal at the edge of the beam, the radar cannot distinguish whether it is a fence or a vehicle. 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 lowering on the rear of the vehicle and does not need to be dealt with.