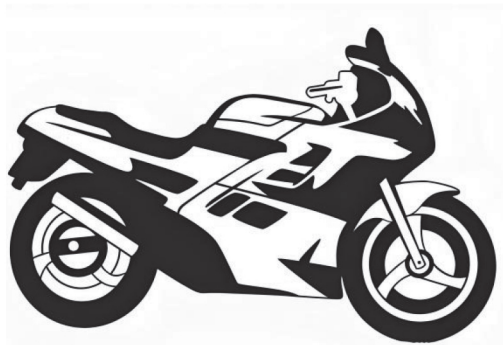


24GHz Millimeter-Wave Radar Motorcycle Blind Spot Monitoring System

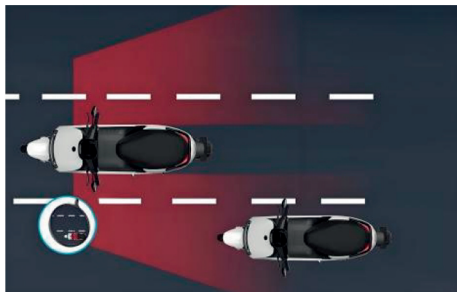
【 Instruction Manual 】



Introduction

1.System Function Overview

This product, combining a microwave sensor with an assembly, is a millimeter-wave sensor that detects vehicles. It operates by transmitting and receiving microwave signals at frequencies between 24.00 and 24.25 GHz. It can perceive the approach and departure of a target, using light signals to remind electric vehicle drivers. Are there any dangerous targets in the blind spot? When the vehicle changes lanes, this product can monitor the movement of targets approaching from both sides and behind the driver



2.Normal device status

(1) Target detected approaching from the left. Left LED
The light flashes until the target leaves the detection area or...
If the conditions for close-range triggering are not met within the detection area, the left light will turn off after a 1-second delay.

The light flashes until the target leaves the detection area or...

If the conditions for close-range triggering are not met within the detection area, the right light will turn off after a 1-second delay.

(3) Target detected approaching from directly behind, left and right. LED

The lights flash simultaneously until the target leaves the probe.

If the detection area or the area within the detection range does not meet the conditions for close-range triggering, both lights will turn off simultaneously after a delay of 1 second.

Specification parameters

Feature	Paramete	Technical Indicators
System Properties	Operating Voltage	12V $\pm$ 1V
	Operating Temperature	-20~+60°C
	Detection Target/Type	Vehicle
	Waterproof Rating	IP67
	Frequency Band	24GHz
	Operating Current	20-40mA
	Housing Dimensions	42mm * 42mm *15mm
Antenna Performance	Number of Transmit/Receive Channels	Single Transmit, Single Receive
	Elevation Beamwidth	$\pm$ 28°
	Horizontal Beamwidth	$\pm$ 70°
Detection Performance	Range Accuracy	$\pm$ 0.7 meters
	Speed Accuracy	$\pm$ 2.5 m/h
	Maximum Detection Speed	180km/h
	Left Width	1.5 $\pm$ 0.5 m
	Right-side Width	1.5 $\pm$ 0.5 m
	Trigger Speed	2.5 km/h
	Detection Range	22m

3.Warning strategy

Maximum Detection Distance: 18 – 22 m

BSD Detection Area: 0 – 8 m

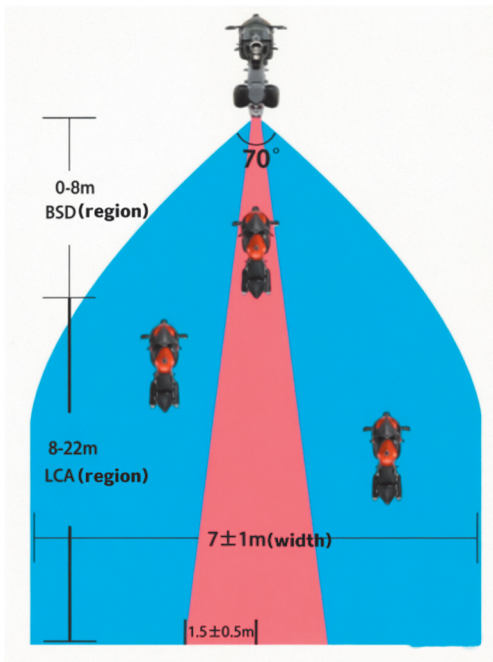
BSD Trigger Alarm (Min. Approach Speed): 2.5 km/h

LCA Detection Range: 8 – 22 m (Speed difference between target and radar)

LCA Trigger Alarm (Min. Approach Speed): 10 km/h (Speed difference between target and radar)

Max. Detection Width: 7 $\pm$ 1 m (Left + Right)

Middle Area Width (Left/Right): 1.5 $\pm$ 0.5 m (Based on radar centerline)



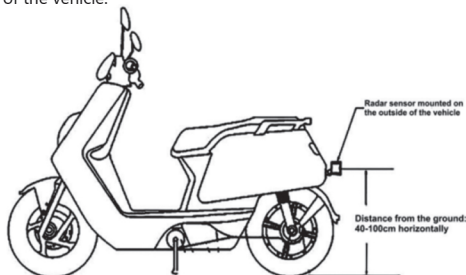
Accessory List

NO.	Name	Quantity
1	Radar	1kernel
2	LED indicator light	2one
3	Accessory kit	1bag
4	Instructions	1This

4. Install

Installation Plan

Install the device at the center of the rear of the two-wheeled vehicle using a universal mounting bracket, with a mounting height of 400~1000mm from the ground. Ensure the radar is perpendicular to the ground and installed parallel to the rear of the vehicle.



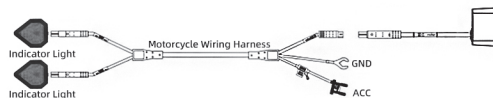
【Installation Diagram】



【Radar schematic diagram】

Radar UPInstall facing upward, Perpendicular to the ground

5.Wiring d iagram



Product Usage

- Please connect the system to a 12V DC regulated power supply for use;
- Please keep the radar cover clean during installation. To clean the cover, wipe it with a soft damp cloth and let it air dry naturally;
- Please pay attention to the shape of the radar during installation to ensure that it is not deformed, and do not squeeze or knock it
- Touch, hit;
- During installation, try to stay away from high-power electrical equipment and motors that frequently start and have strong magnetic field interference;
- During testing, there should be no obstructions within the radar beam range, and the testing environment should be as spacious as possible to avoid affecting the measurement results;
- During installation, ensure that the radar is a factory part and do not disassemble or assemble it by yourself.

Frequently Asked Questions(FAQ)

	Possible causes	Exclusion method
Left/right LED indicator light Display the target warning position in reverse	Install the left and right lights upside down,	1. Check the left and right light signs
	Anti radar installation on top and bottom	2. Check if the radar surface is installed correctly
The light stays on and off after power on	1. Poor contact 2. LED light damaged	1. Wiring harness plugging and unplugging inspection
		2. Replace the LED light for inspection