global sources C93 BSD Blind Spot Detection System for Vehicles User Manual

Contents

1 global sources C93 BSD Blind Spot Detection System for Vehicles
2 Product Information
3 Components Included
4 Product Usage Instructions
5 List of items
6 Function
7 Product Specification
8 Function Introduction
9 Product installation
10 System Debugging
10.1 Vehicle parts recovery
11 Notice
12 General Troubleshooting
13 Statement
14 Documents / Resources
15 Related Posts

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Product Information

- **Item No:** 2621376
- **Product:** Radar Sensor

Components Included

- **Sticker** – 3 pieces
- **Screw** – 4 pieces
- **Screw** Hole Cove – 4 pieces
- **Cable** Tie – 10 pieces
- **DC** 9V ~ 30V 480mA power supply

Product Usage Instructions

1. Start by selecting a suitable location for installation of the radar sensor.
2. Clean the chosen surface and ensure it is free from any dirt or debris.
3. Remove the adhesive backing from one of the sticker pieces and firmly attach it to the desired location.
4. Repeat step 3 for the remaining two sticker pieces, ensuring they are evenly spaced apart.
5. Take one screw and insert it through each of the screw holes on the radar sensor.
6. Align the radar sensor with the sticker on the chosen location and secure it by tightening the screws.
7. Use the screw hole covers to conceal the screws for a neat appearance.
8. Connect the cable tie to the radar sensor’s power cord to organize and secure it.
9. Connect the DC 9V ~ 30V 480mA power supply to the radar sensor.
10. Once installation is complete, turn on the vehicle’s power switch.
11. The radar sensor will initiate a self-checking function, indicated by the LED lighting up for two seconds and a single beep from the buzzer.
12. After the self-check, the radar sensor will enter standby mode and be ready for operation.

GENERAL CUSTOMER INFOMRATION
Thank you for choosing to purchase our vehicle series BSD microwave blind spot detection system products. Our aim is to supply you with the best quality product with the best possible service. To ensure the best operating perfonnance and to avoid any false alarm or function failure, we strongly suggest reading this user manual carefully before installation and use.

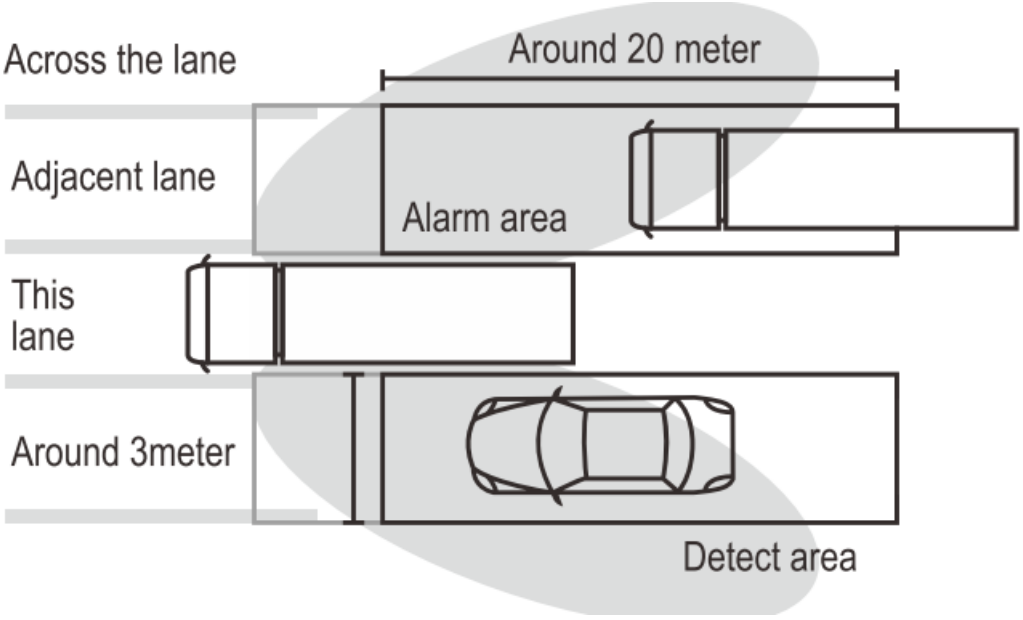
List of items

Numbering	Item Name	Quantity	Physical Pictures
1	Main Control Unit	1	
2	Radar Sensor	2	
3	BSD Main Harness	1	
4	Sensor Harness	2	
5	LED Light	2	
6	LED Light Extension Cable	2	
7	Buzzer	1	
8	Sticker	3	
9	Screw	4	
10	Screw Hole Cove	4	
11	Cable Tie	10	
12	Manual	1	

Function

Through installing 2pcs of special 77GHZ microwave sensors on the vehicle side, when the vehicle is moving, if any moving object closed to blind area (3 meters each from right and left side, 20 meters from behind) the object will be detected by system sensors, the LED indicator will tum on and keep shining for reminding driver, in this condition, if the driver changes the lane, the buzzer will make a bi-bi sound to remind the driver.

Function Introduction:



1. When normal driving, if there is another vehicle closing to the left (right) side of the vehicle, the lefl(right) LED light will flash. No buzzer alarm.
2. When tum on the Left right, if there is another vehicle closing to the left side of the vehicle, the left LED light will flash and the buzzer will alarm.
3. When turning on the Right light, if there another vehicle closing to the right side of the vehicle, the right LED light will flashing, and the buzzer alarming.
4. With RCTA function. When reversing, the relative speed between the vehicle and the object behind the vehicle exceeds 8km/H, the LED will flash and the buzzer will alarm.

Product Specification

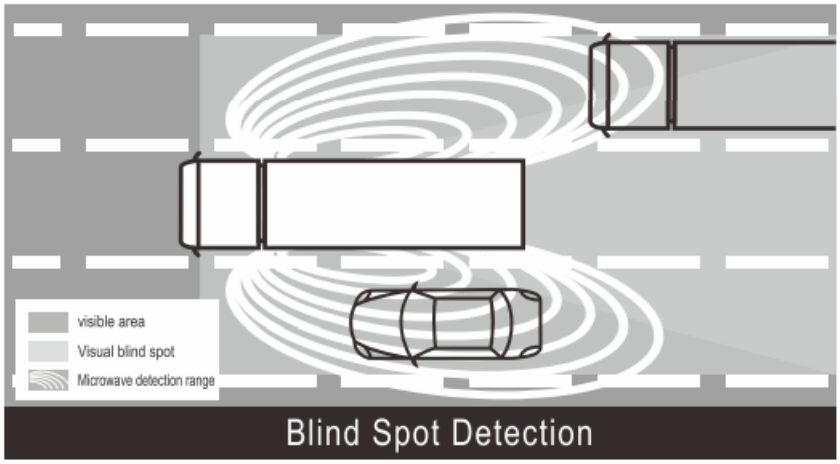
Numbering	Project	Technical Parameters
1	Working Voltage	DC 9V ~ 30V
2	Working Current	480mA
3	Detection Speed Range	1km/h ~ 120km/h
4	Maximum Detection Range	Truck: 0.3m-20m Vehicle: 0.3m-20m Motorcycle: 0.3m-20m Pedestrian: 0.3m-10m
5	Buzzer Alarm Mode	LED + Buzzer Alarm
6	Horizontal Detection Angle	120°
7	Working Temperature	-20℃ ~ +70℃
8	Water Proof	IP67
9	Sensor Size	87.5 x 67.5 x 49mm

Function Introduction

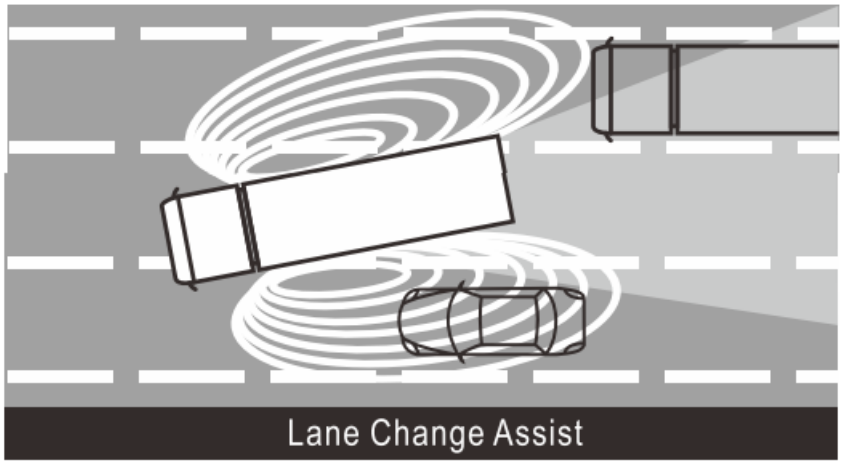
After installation and adjustment, the product has the following functions:

The system starts the self-checking function.
After the vehicle switch on, the system starts the self-test function, LED lights up for two seconds, the buzzer sounds one time , and then the system goes into standby operation.

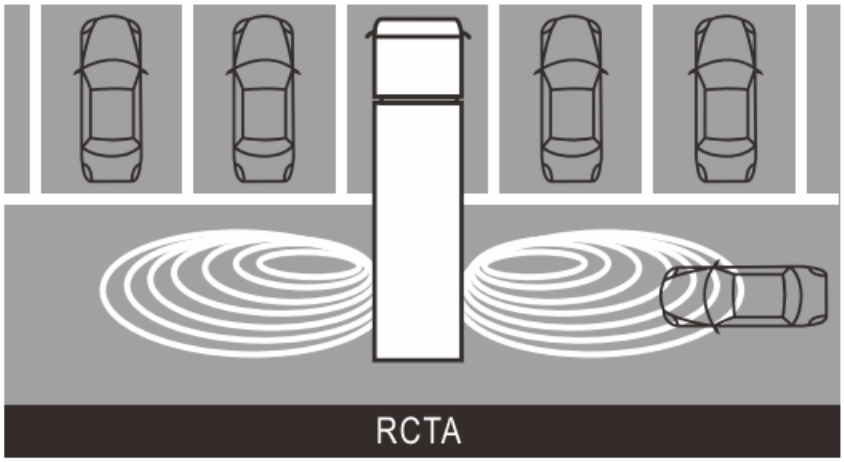
Blind Spot Detection (BSD).
After the vehicle is started and in non-R gear, the system starts the BSD function: A vehicle is driving forward normally, without turning lights, when the target vehicle in the rear pro-lane is higher than the speed of the truck into the blind spot monitoring area, a first-level alarm is generated, the corresponding side of the LED is always lii, until the target leaves the monitoring area, cancel the warning; The vehicle is driving forward normally, playing the right turn light state, when the right rear pro-lane has the target car at a higher speed than the car into the blind spot monitoring area, the secondary alarm, the corresponding side of the LED is always lit, until the target leaves the monitoring area, cancel the warning;



Lane Change Assist (LCA).
After the vehicle switch on and in non-R gear, the system starts the vehicle close to the LCA lane assist system warning function: The vehicle is driving forward normally, without turning lights, when the side rear pro-lane has a target vehicle at a higher speed than the vehicle into the variable lane auxiliary monitoring area, the corresponding side of the LED is always lit, until the target leaves the monitoring area, cancel the warning; The truck is driving forward normally, playing the right tum light state, ready to change lane to the right, when the right rear pro-lane has a target car at a higher speed than the truck into the variable lane auxiliary monitoring area, the corresponding side of the LED flashing, while the buzzer beeps the alarm, until the target leaves the monitoring area, cancel the warning; When waiting for a red light or a short stop on the side of the road, the vehicle speed is 0 km/H, if there is a car next to the speed of more than 6KM/H near or over, the system will produce a first-level alarm, the corresponding side of the LED is always lit, the buzzer does not sound, until the target leaves the monitoring area, cancel the warning;



Reversing Crossing Traffic Alert (RCTA).
This function is only used when the radar is installed in the rear of the vehicle. If mounted in the head or waist position of the vehicles, the function is not available to use. (That is, do not connect the reverse line when wiring). The car is stopped and in R gear, and the system activates the RCTA function: When the target car is driving horizontally into the alarm range, the system starts to alarm, the LED flashes, the buzzer rings, and a warning is generated until the target leaves the alarm area and cancels the warning; The target vehicle enter from the right, the right LED flashes and the buzzer chirps.

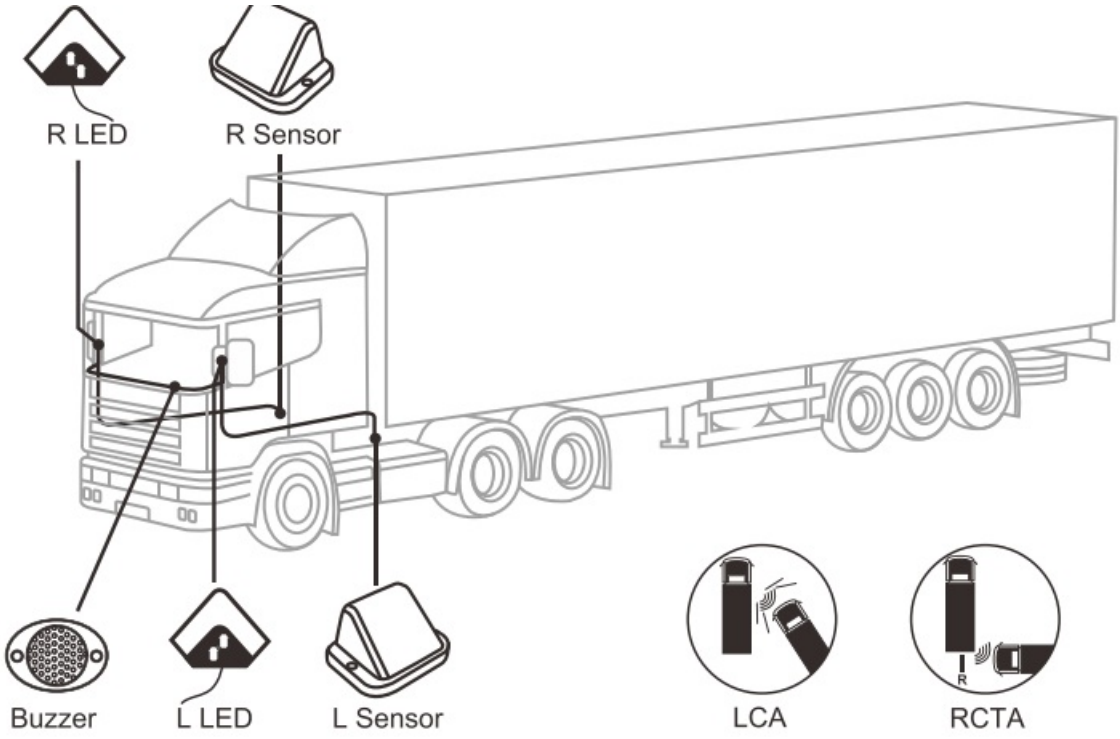


Overtaking Alert (AOA).
The system activates the overtaking warning function when the truck is in non-R gear after start-up and the vehicle is driving: When the vehicle speed is higher than the target car is overtaking, when the target car enters the alarm range, a first-level warning is generated, and the LED on the corresponding side is always lit until the target car leaves the alarm area and cancels the warning; When the vehicle speed is quicker than the target car is overtaking, when the target enters the monitoring range and turns on the steering light on the corresponding side, a secondary warning is generated, the corresponding side of the LED flashes, the buzzer alarms, until the target vehicle leave the alarm area, cancel the warning.

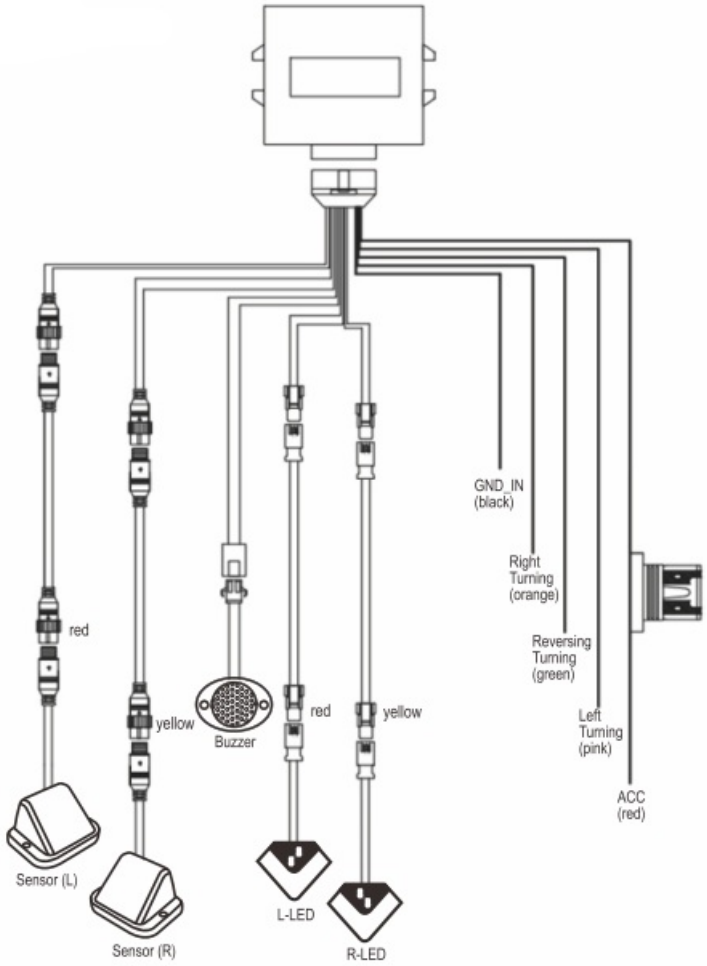
Same-speed alarm (blind spot hold).
The car is in front of the target vehicle, but the target vehicle has been in the blind zone of the car, at the same speed of the two vehicle forward, the system starts the blind zone maintenance function, resulting in a first-level warning, the corresponding side of the LED is always lit, until the target leaves the alarm area, cancel the warning;

Product installation

1. **Product installation diagram**



2. **Wiring Diagram**

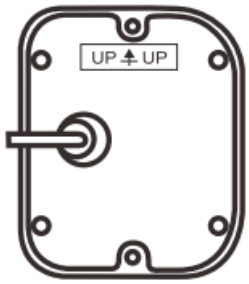


3. **Installation Attention**
    1. Remove(Loose) the Negative Line from the battery before installing.
    2. When removing the connector, do not pull the harness too hard, otherwise it may damage the harness, When the connector is inserted, should be inserted until the real fastening (have a fasten voice)
    3. The wiring fixed in the car's wiring harness with the cable ties in the package, so that ii does nol sag and no sound, and cut off the excess part of the cable ties.
    4. When disassembly and installa1ion, please follow 1he requirements of the vehicle maintenance manual, should avoid damage to parts. If you accidentally damaged, please replace the corresponding parts.
4. **Microwave sensor layout requirements**
    1. Microwave sensor (signal emission surface) can only penetrate the plastic bumper .
    2. Microwave sensor (signal emission surface) can't have metal in front, it will be interference.
    3. Please do not install microwave sensor (signal emission surface) in front of fluorescent light.
5. Sensors Installation

Left Sensor

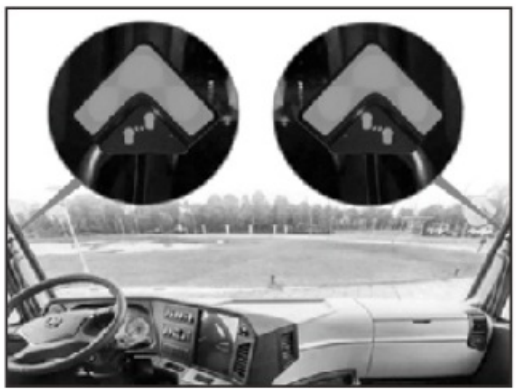
Right Sensor

Nole the orientation of the probe installation, with the rear radar bevel facing the rear of the vehicle and the “UP” logo facing up. Do not inslall in the wrong direction, in case of false positives occurs .



1. The sensor is required to be installed on the side of truck. The height range 80-120cm.
   Please note the sensors installation direction, Do not installation the wrong direction, otherwise it will be misinformation.

6. The sensor wire through the empty space, connect to Iha control box, control box on the driving room of the trunk.
7. According to the marked on Iha power cable, connect the ACC, Left Tum light, Right Tum light, reversing light, GND to the corresponding power supply at the car respectively.
8. Route the main harness along the left side to the cab control center, and installation the LED lights and buzzer.
   1. The LED lights installed on A column left and right inside the car



   2. The buzzer affixed inside plastic of the main driving, make sure a sound output
      Other wiring can refer the installation of the overall diagram, routine installation.

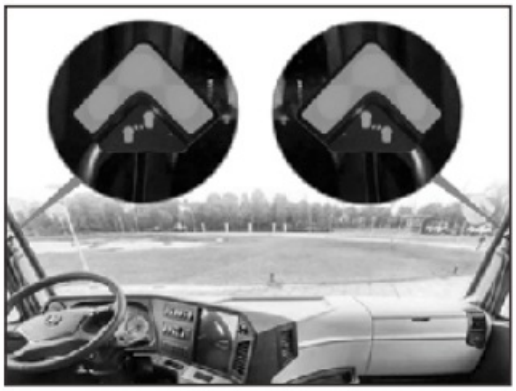
System Debugging

Vehicle parts recovery

1. Confirm the installation status
    1. Before powering on, make sure the wiring and installation are normal.
    2. Special checking of the vehicle wiring hamess, if there have Inappropriate press, stretch, stuck and so on.
2. **Power up**
    1. Connect the battery negative terminal (-) ,to ensure that the vehicle function to work properly.
    2. If an abnormal occurrence, check the harness installed whether correct.

Test

1. Starting the truck engine, after ACC power on, the LED lights which installed on the left and right side on the truck A column will always light for 2 seconds at the same time. Also the buzzer will alarm once, that means the systems have been completed. And the system will enter into the environment adaptation test immediately. 5-8 seconds to enter the working state



2. After the system enters the working condition, to detect both sides of the car rear side blind area (covering both sides of lane, the length about 20 meters).
   Arrange the assistant walking from the rear side far to sensor, to testing the LED lights and buzzer working.
3. After testing all the functions, recovery all the parts disassembled when installation, auto parts, bumper etc.

Notice

1. In the following situation, the microwave sensor may not be able to detect the target object or it is difficult to detect the target object.
    - The vehicle is located at the rear blind area of the adjacent lane, but the vehicle is not near
    - The vehicle travels next to your car for a long time at almost the same speed
    - The vehicle travels from the opposite side
    - Vehicles of adjacent lanes try to overtake you
    - The adjacent lanes of the vehicle are extremely wide, The detection area of the radar sensor is set to the expressway width of road
2. Toe system alann lights and waming sounds may not be activated or may be delayed in the following cases.
    - When the vehicle is changed from two lanes outside to adjacent lanes

- When driving on steep slopes
- Through the hills or mountain vertex
- Tu ming radius is small (sharp tum at the crossroad)
- There is a height difference between the driving lane and the adjacent lane

3. If the width of the road is narrow, which may detect two lanes of vehicles.

General Troubleshooting

No.	Project	Reason	Solution
1	Not flashing	The harness interface is loose or haven't connected	Checking all the harness and make sure all connected
		LED damaged	Replace the LED Lights
2	The left and right LED alarming are opposite	The left and right lights line are wrong connected with the BSD main harness.	Swap left LED line and right LED line to connect the BSD main harness.
3	The buzzer does not alarm	The harness interface is loose or haven't connected	Checking all the harness and make sure all connected
		Buzzer LED damaged	Replace the buzzer

Statement

This product is only auxiliary driver driving and changing lanes, in actual use, the driver must be strictly in accordance with traffic regulations driving, driving accident caused by the accident caused by the accident, the company is not responsible.

Documents / Resources

	global sources C93 BSD Blind Spot Detection System for Vehicles [pdf] User Manual RF-5242752, 77G, 2621376, C93 BSD Blind Spot Detection System for Vehicles, C93, BSD Blind Spot Detection System for Vehicles, C93 BSD Blind Spot Detection System, BSD Blind Spot Detection System, Blind Spot Detection System, Spot Detection System, Detection System