# MICROWAVE RADAR BLIND SPOT DETECTION SYSTEM

# BSS300R

# Catalog

## Foreword

Thanks for using our BSD system. The System is designed for universal cars, please read this product manual carefully for installing and uninstalling the product.

I. Components

| NO. | ITEM | QTY | PICTURE |
|---|---|---|---|
| 1 | Main harness | 1PCS |  |
| 2 | Sensor | 2PCS |  |
| 3 | LED indicator | 2PCS |  |
| 4 | Buzzer | 1PCS |  |
| 5 | Instruction manual | 1PCS |  |
| 6 | Cable tie | A dozen |  |
| 7 | 3M tape | 2PCS |  |

II. System Specification

| NO. | Item | Specification |
|---|---|---|
| 1 | System Configuration | 2pcs Radar Sensors<br>2pcs LED Indicator lights<br>1pcs Buzzer |
| 2 | Compliance | ISO17387:2008 |
| 3 | Detection Rang Accuracy | ± 0.25m ( Typical) |
| 4 | Max. Detection Range | Truck : 0.3m ~ 15m;<br>Car : 0.3m ~ 15m;<br>Motorcycle : 0.3m ~ 10m;<br>Pedestrian : 0.3m ~ 7m; |
| 5 | Alert Range | 0.3m~15m |
| 6 | System<br>Alert Accuracy | Car : ≥98%<br>Motorcycle : ≥95%<br>Pedestrian : ≥95% |
| 7 | HMI(Human Machine Interface ) | Level 1:LED Stay lit<br>Level 2:LED Blink+ Beep Sound |
| 8 | IP Rating | IP6K7K |
| 9 | Power Consumption | ≤ 100mA @12VDC |
| 10 | Operation voltage | 12V |
| 11 | Operation Temperature | -40℃ ~ +85℃ |
| 12 | Storage Temperature | -40℃ ~ +85℃ |

III. Install Caution

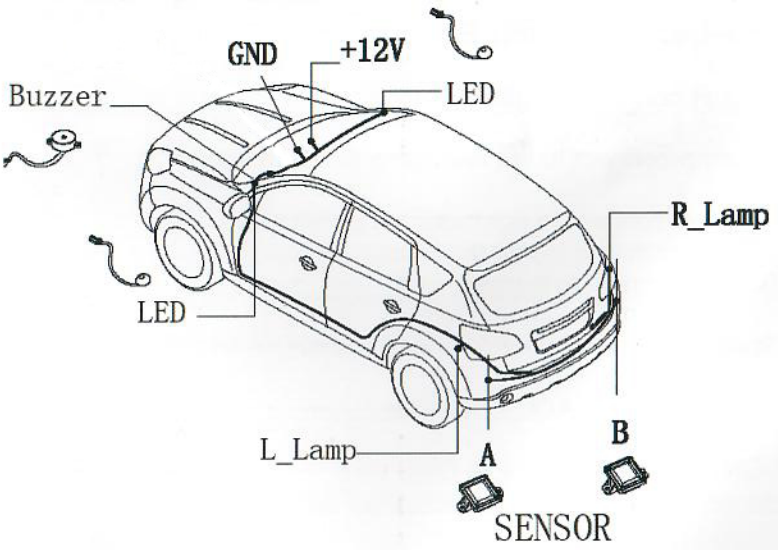
1. Please remove negative terminal of battery before installation
2. Do not pull the harness when running the connector, insert the connector to the buckle until a click sound.
3. Harness should be fixed with car harness by cable tie.

The installation and disassembly should follow the vehicle maintenance manual and relative operating instruction. Avoid breaking any components of the car, replace the corresponding parts immediately should there is any broken component.

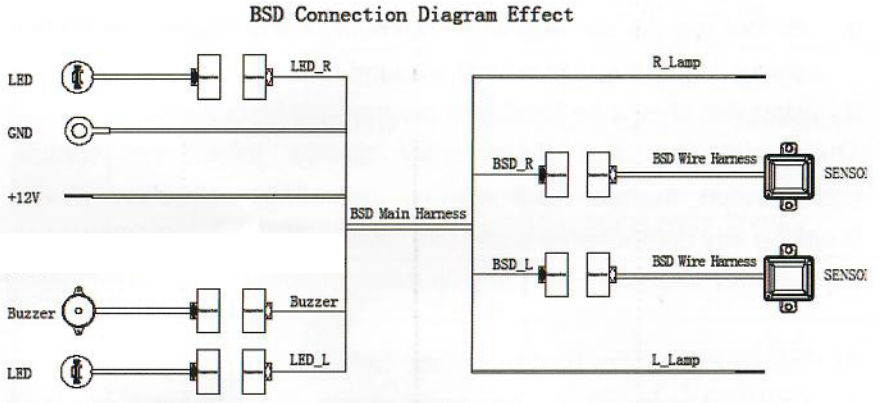
IV. Requirements for Radar Sensor Setting

1. Radar sensor can only penetrate plastic object (bumper shell).
2. Radar sensor should not be interfered by metal objects.
3. Do not install the radar sensor against fluorescent lamps.

V. Installation Diagram



## VI. Wires Connection Diagram




1. BSD_L connect to left sensor of BSD
2. BSD_R connect to right sensor of BSD
3. LED_L connect to Left LED indicator
4. LED_R connect to right LED indicator
5. L_Lamp connect to left rear lamp (left turn light)
6. R_Lamp connect to right rear lamp (right turn light)
7. Buzzer connect to buzzer
8. +12v connect to ACC connector
9. GND connect to Vehicle GND wire

***Please Follow Step 1 Carefully***

VII. Installation Gist

1. Sensor settings

Sensors of the BSD system should be pasted to both inner corners of rear bumper shell with an angle of 25° to 35°, at height of 15" - 35" (Fig.1-Fig.3).

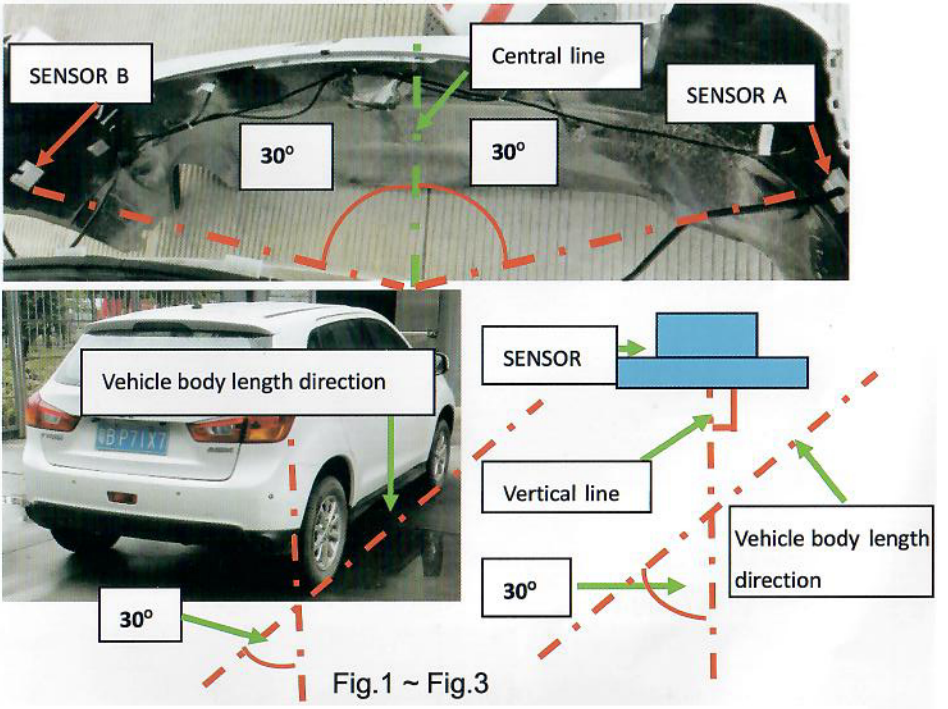



Fig.1 ~ Fig.3

Place a straight tape between front wheel and rear wheel, on the floor then place sensor at 30°

Clean the plastic surface of the sensor with alcohol and then place a 3M adherent tape on the sensor (Fig.18-Fig.19).

Stick the sensor to the location of Fig.17 (Step.8). Place the terminal wires of the sensors upward vertically.

Install the sensor on the other side with same method

Fig.18

Fig.19

Fig.20

NOTE : Make sure wire is pointing up just like Fig 20. Make sure to install at exact 30° on each corner

2. Installation of left/right signal lights harness

Take out the reversing lamp, turn on the right signal light, find the right 12v signal wire with a multi-meter, connect the R_LAMP in harness cable with the 12v power cable, and connect the L-LAMP in harness cable with the left side power cable. (Fig.22-Fig.24)

Fig. 22

Fig. 23

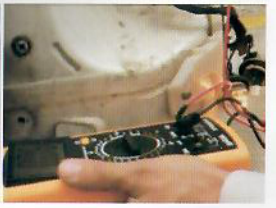


Fig. 24

3. Installation of LED lights

LED Light is installed at left/right side of A pillar (Fig. 25-Fig.26)

Fig.25

Fig.26

4. Installation of Buzzer

The buzzer should be pasted and hidden inside the panel. (Fig. 27)

Fig. 27

Step16. Run the wires based on the installation diagram.

VIII. Parts R ecovery

Step1. Confirmation of installation condition

1. The wiring and installation shall be checked prior to power connection.
2. Be cautious whether there is excessive pressure, stretch or getting stuck with the wires.

Step2. Power supply recovery

1. Connect the negative terminal of battery (-) to make sure it functions well.
2. In case of abnormality, check the wiring arrangement.
3. Step3. Restore the cars parts step by step and check every single part to avoid abnormal sound.

IX. Operation Instruction

1. When the ACC is on, the LED lights on left and right A pillar will be on for 2 seconds, which means the system is powered on. The system will immediately initiate to the environmental adaption detection, after 5-8 seconds system will start to work.(Fig.28-Fig.29)

Fig. 28

Fig. 29

2. When the system is on, the system would start detecting objects in the blind area behind the vehicle (Fig. 30).

A. Blind detection on right side:

1. Right LED indicator will turn on and stay lit when there is object approaching on the right blind area (3m X 15m).
2. If the right signal light is turned on at this time, the right LED indicator will keep blinking and the buzzer will be on with sound beeping.

B. Blind detection on left side :

1. Left LED indicator will turn on and stay lit when there is object approaching on the left blind area (3m X 15m).
2. If the left signal light is turned on at this time, the left LED indicator will keep blinking and the buzzer will be on with sound beeping.

C. The LED and buzzer would not react if there is no object approaching on both sides.

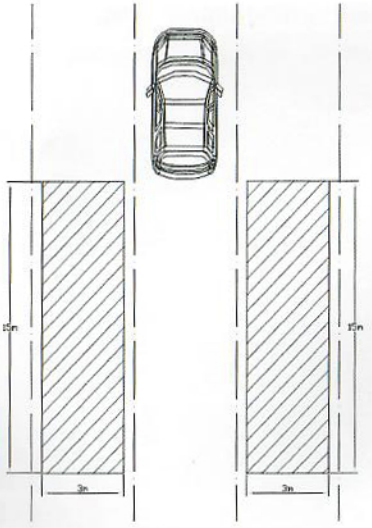


Fig. 30