

RYDEEN[®]

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Owner's Manual

BSS2

Microwave Radar Blind Spots System

Version 2.1



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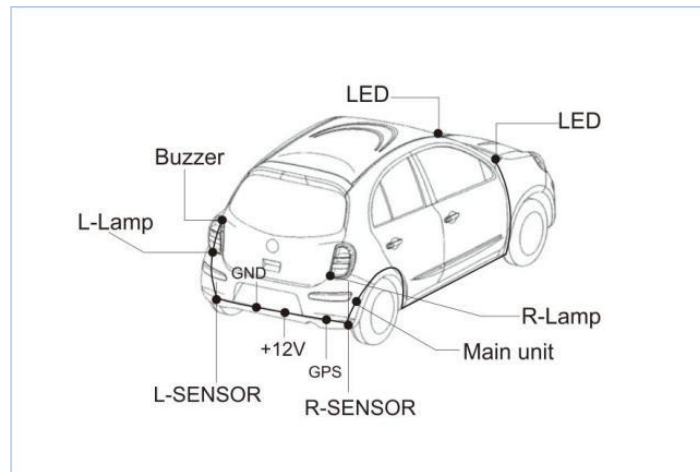
I. Items list

Number	Item Name	Quantity	Picture
1	Main Unit	1PCS	
2	Main Harness + Extension Cable	1SET	
3	Radar Sensor	2PCS	
4	LED Indicator (BLACK LED'S?)	2PCS	
5	GPS Antenna	1PCS	
6	Buzzer	1PCS	
8	Puck Bracket	2PCS	
9	Installation Angle Tool	1PCS	

II. Technical specification

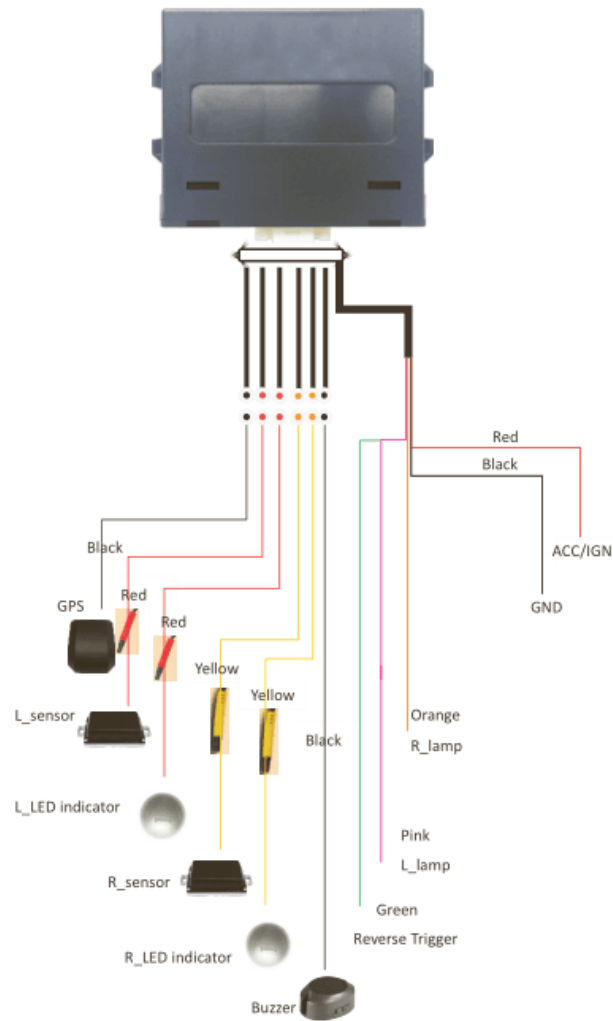
Sensor Operating Frequency	24GHz
Transmit Power	15dbm
Detection Area Range	1feet - 35 feet
Detection Ability	5 targets can be detected at the same time
Detection Speed Range	0.5mph---137mph
Speed Accuracy	< 0.5mph
Speed Restriction	<p>1. There are 4 speed restriction options; 5 mph, 10 mph, 15 mph, 20 mph. Default is 20 mph.</p> <p>Please see below (1-4 switch, it could control 4 speed restriction) switch 1 =5 mph, switch 2=10 mph, switch 3=15 mph, Switch 4=20 mph</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Dip switch aligns with the casing and use QC pass sticker to cover it.</p>  </div> </div> <p>2. If no GPS signal is detected or satellites not found, the system will be active at any speed</p>
Direction of Movement	Approached or overtaken by vehicles
Operating Voltage	9---18V
Waterproof (Radar Sensor)	Radars: IP67 / Cables: NOT waterproof
Working Current	< 200mA
Working Temperature	-20°C --- +70°C
Installation Angle	20° (Horizontal)
Gain	12k

III. Installation Diagram



IV. Wire Connection Diagram

IV. Wire Connection Diagram



V. Installation Guide

Radar Pucks Installation

Installation requirements: sensors should be adhered to the inner corner of the bumper with supplied Velcro. The angle should be between 20 to 25 degrees with the height ranging from 13-35 inches. (Fig.1-Fig.2)

OR use provided mounting bracket for vehicle side installation. (Page. 7)



Fig.1

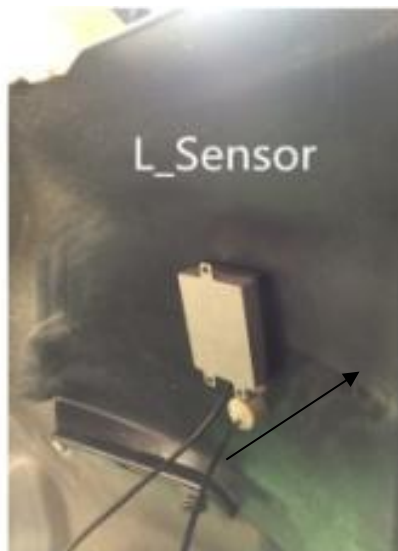


Fig.2

The angle of the Microwave radar sensors is between 20 to 25 Degrees.

Step1: Measuring method: Measure the rear bumper using the angle gauge to locate the 20 to 30 Degrees angle. (Fig.3-Fig.4)



Fig.3



Fig.4

The microwave sensors are only intended for plastic bumpers vehicles.

Please note the BSS2 is NOT applicable metal bumpers.

Step2: Locate the desired position for the radar pucks. (Fig.5 - Fig.6)



Fig.5

Fig.6

Step3: Remove the rear bumper to clean the surface for the radar pucks. (Fig.7)



Make sure the surface is clean before Velcro placed with sensors.

Fig7

Step4: Place the provided Velcro (*To Help Absorb Vibration*) on the surface of the sensors (black side) and the desired location on the bumper (See image below).

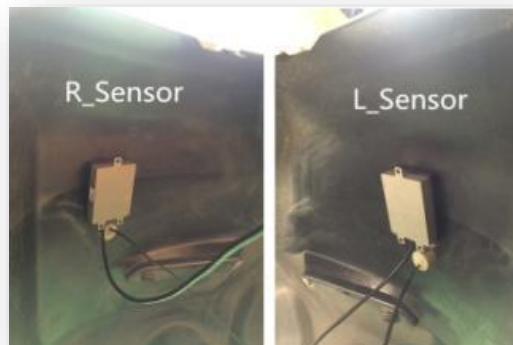


Fig.8

Fig.9

Mounting Radar Pucks with Provided Adjustable Brackets

<p>STEP1: Prepare the material</p>	<p>STEP2: Use 4 small screws to fix the black part of bracket to the sensor backside</p>
<p>STEP3: Use two big screws to fix the metal part of the bracket on the car</p>	<p>STEP4: After angle fixed, fix firmly the screw of the bracket</p>

Use Angle Tool to Set Proper Angle

<p>Top view</p> <p>Front</p> <p>sensor sensor</p> <p>Install ruler Install ruler</p> <p>Rear</p> <p>Longitudinal direction of the car</p> <p>The install ruler are parallel to the car body</p>	<p>The side of install rule close to the sensor surface</p> <p>The arrow direction of install ruler are parallel to the car body</p>
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Install ruler using demonstration: the install ruler are parallel to the car body

Install sensors: can be installed get help with install ruler

Installation of the left and right turn signals. (Please make sure not shared with Brake Lamp)

Step 5. Using the voltage multi-meter, locate the left and right turn signal trigger wires behind the tail lamp. Once verified, connect the left and right signal wires of the BSS2 wire harness to the correct signal wires. (Fig10, Fig11, Fig12) **(Please make sure not shared with Brake Lamp)**



Fig10



Fig11



Fig12

LED indicator installation:

Step 6. Place the LED indicators where it is visible for the driver. Ideally on the A-pillar of vehicle.



Fig.13

Fig.14

Adjustable Speaker Installation

Step 7. While installing the speaker, make sure not to obstruct Speaker by any panels. There is a low, high, and off setting. (Fig.15)



Fig.15

Note

Illumination of the LED indicator on the control box:

1. The LED comes on solid when the system is first powered up;
2. The LED blinks slowly while GPS module is connected to the satellites;
3. The LED blinks quickly while sensing moving objects that are approaching in the blind spot (same frequency as to the alarm LED indicators & the buzzer);
4. The LED maintains the last blinking status after the alerts have ended (the last blinking status of alarming is off / on randomly)

VI. Alert conditions:

1. When the vehicle is on, the system would start detecting objects in the blind area in the lane next to and behind your vehicle at 35 feet. (Fig.16)
2. When vehicles are approaching, and their speed is faster than our own speed.

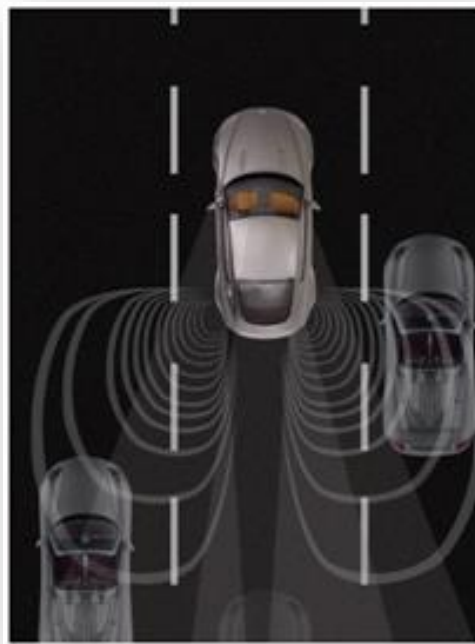


Fig.16

VII. How does it alert?

A. Blind Spot detection on right side:

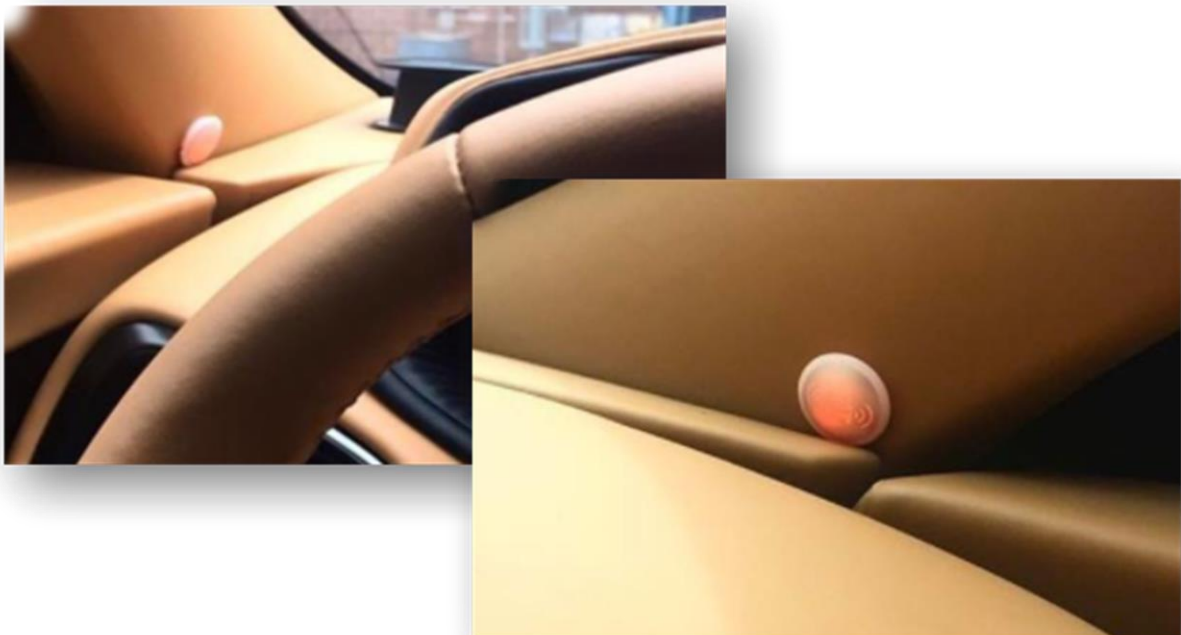
1. R-LED indicator will be activated, and indicator will glow when there is an object approaching to the right-side blind area of your vehicle at speed over 20 mph.
2. If the right turn signal of your vehicle is triggered at the same time, the R-LED indicator will blink, and the buzzer will be beeping as well (with the same frequency) if speed is over 20 mph.

B. Blind Spot detection on left side:

1. L-LED indicator will be activated, and indicator will glow when there is an object approaching to the left side blind area of your vehicle at speed over 20 mph.
2. If the left turn signal of your vehicle is triggered at the same time, the L-LED indicator will be blink, and the buzzer will be beeping as well (with the same frequency) if speed is over 20 mph.

C. The LED and buzzer will not glow (no activity) if there is no object approaching to the blind area of your vehicle.

D. When in reverse, the buzzer will beep to give warning to the driver and the LED will indicate the direction of incoming vehicles (or objects) approaching.



VIII. Troubleshooting:

NO.	Issue	Reason	Solution
1	LED light does not illuminate	Incorrect connection or pins not making contact	Check the harness and make sure connection is correct
		LED light is broken	Replace LED light
2	Opposite LED indicator	Microwave sensor or LED indicators are plugged in to the opposite connector	Make sure RED is driver side and YELLOW is passenger side.
3	Buzzer does not work	Wrong connection or pins not making contact	Check the harness and make sure connection is correct
		Defective buzzer speaker	Replace buzzer
4	Sensors or GPS does not work	Sensors or GPS module are covered by the metal bumper or other metal obstruction	Find the best location where the GPS antenna cannot be blocked by any metal, clear shot of sky
5	Unit does not work after GPS is connected	Blind spot system does not trigger the sensors if the speed is less than 20mph	Normal behavior in this case. The GPS needs to detect +20mph to trigger the sensors

IX. Technical Support Contact Info.

- Telephone: 1-877-777-8811 (within USA only)
- Email: tech1@rydeenmobile.com
- Web Address: www.rydeenmobile.com

X. Limited Warranty

Rydeen North America Inc. (a manufacturer of "Rydeen" products) warrants this product (BSS2) only to the original purchaser as described following:

Warranty Coverage

This warranty covers all defects in material and workmanship for (1) year except as specified below.

1. Installation by anyone other than an authorized Rydeen Mobile Retailer may void the warranty.
2. Any products distributed outside of the USA by Rydeen North America Inc. (Rydeen) or which is not purchased in the USA or Canada
3. Any product(s) which are purchased from an unauthorized retailer (in-store or online).
4. Any products in which the serial number label or the model number label are removed, torn, modified or replicated.
5. Any damage defects or malfunctions resulting from any of following:
 - a) When defect occurs during shipment of product (freight carrier's responsibility).
 - b) Installation or removal of product.
 - c) Accidents, act of nature, misuse, abuse, neglect, unauthorized product modification or failure to follow product owner's manual instructions.
 - d) Any repair or attempt to repair without RYDEEN authorization.
 - e) Any other cause which is not related to product defect.
 - f) Any cosmetic damages due to normal wear and tear.
 - g) Any consumable items (such as fuse or batteries).

If any problems develop with your Rydeen products during or after the Limited Warranty Period, or if you have any questions regarding the operation or installation of the product, you should contact your Rydeen retailer.

XI. To Obtain Warranty Service

If warranty service is required for your Rydeen product:

1. Please call Rydeen Customer Service Department at 1-877-777-8811 (within the USA only), Monday–Friday between 9:00 AM to 4:00 PM Pacific Standard time and obtain a Return Authorization Number (“RA”) Number.
2. Please pay for any shipping charge to Rydeen Customer Service Department. Rydeen will pay the return shipping charge, if the repair or service was performed during the warranty period. Rydeen will ship freight collect (Recipient is responsible for shipping charge) if Rydeen determine the service was performed outside of warranty period or exclusions described above. Rydeen will not accept warranty service requests from outside of the U.S.A. even if product was purchased in the USA.
3. Please include a copy of your original purchase receipt including Rydeen Product model number, purchase date, retailer name/address and a RA Number whenever your product is sent for warranty service.
4. Shipping address for Rydeen Customer Service Department is following:

Rydeen North America Inc 2701 Plaza Del Amo, Unit 705, Torrance, California 90503, USA



rydeenmobile.com

Rydeen North America Inc. DbA

Rydeen Mobile Electronics

2701 Plaza Del Amo, Suite 705, Torrance, California 90503

Phone: 1-877-777-8811 Fax: 1-310-943-3778

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