Owner’s Manual

BSS1

Microwave Radar Blind Spots System

Version
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Thank you for using our Microwave BSD system. For your convenience, please read the Owner’s Manual carefully and follow the instructions in the manual.

### I. Items list

<table>
<thead>
<tr>
<th>Number</th>
<th>Item Name</th>
<th>Quantity</th>
<th>Picture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Unit</td>
<td>1PCS</td>
<td><img src="image1.png" alt="Main Unit" /></td>
</tr>
<tr>
<td>2</td>
<td>Main Harness + Extension Cable</td>
<td>1SET</td>
<td><img src="image2.png" alt="Main Harness" /></td>
</tr>
<tr>
<td>3</td>
<td>Sensor</td>
<td>2PCS</td>
<td><img src="image3.png" alt="Sensor" /></td>
</tr>
<tr>
<td>4</td>
<td>LED Indicator</td>
<td>2PCS</td>
<td><img src="image4.png" alt="LED Indicator" /></td>
</tr>
<tr>
<td>5</td>
<td>GPS</td>
<td>1PCS</td>
<td><img src="image5.png" alt="GPS" /></td>
</tr>
<tr>
<td>6</td>
<td>Buzzer</td>
<td>1PCS</td>
<td><img src="image6.png" alt="Buzzer" /></td>
</tr>
<tr>
<td>7</td>
<td>3M tape</td>
<td>3PCS</td>
<td><img src="image7.png" alt="3M tape" /></td>
</tr>
</tbody>
</table>
Tools for installation: angle gauge; insulation tape; multi-meter; screwdriver; cleaning cloth; tape.

II. Technical specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating frequency</td>
<td>24.0 -----24.25GHZ</td>
</tr>
<tr>
<td>Transmit power</td>
<td>15dbm</td>
</tr>
<tr>
<td>Detection range</td>
<td>40 degree (Horizontal )</td>
</tr>
<tr>
<td>Detection ability</td>
<td>5 targets can be detected at the same time</td>
</tr>
<tr>
<td>Speed range</td>
<td>0.35mph---137mph</td>
</tr>
<tr>
<td>Speed accuracy</td>
<td>&lt; 0.35mph</td>
</tr>
</tbody>
</table>
| Speed Restriction             | 1. The GPS need to detect +20mph to activate the sensors.  
|                               | 2. If less than 20mph or no GPS, activate the turn signal to activate the sensors |
| Direction of movement         | approached or overtaken by vehicles          |
| Detection range               | Truck : 1ft-60ft Car : 1ft-50ft Motorcycle:1ft-33ft Pedestrian:1ft-23ft |
| Operating voltage             | 9---35V                                      |
| Waterproof                    | Radars: IP6 / Cables: NOT waterproof         |
| Working current               | < 200mA                                      |
| Working temperature           | -40°C~ + 85°C                                |

III. Installation Diagram
IV. Wire Connection Diagram

GPS

L_sensor

L_LED indicator

R_sensor

L_lamp

R_lamp

ACC

GND

N/A

Red

Black

White/gray

Green

Blue

Red

Black

Yellow

Yellow

Black

4
V. Installation Guide

1. Sensor Installation

Installation requirements: Blind Spot sensors should be adhered to the inner corner of the bumper with angling between 20 to 25 degrees with the height ranging from 35-90cm. (Fig.1-Fig.2)

Step1: Measuring method: Measure the rear bumper using the angle gauge to locate the 20 to 25 Degrees angle. (Fig.3-Fig.4)
The Microwave sensors are only intended for plastic bumpers. Please note the BSS1 is not applicable for metal bumpers.

Step 2: Locate the desired position for the sensors. (Fig. 5 - Fig. 6)

Fig. 5

Fig. 6

Step 3: Remove the rear bumper to clean the surface for the sensors. (Fig. 7)

Fig. 7

Make sure the surface is clean before adhering the sensors.

Step 4: Place the 3M tape on the surface of the sensors (black side) and the desired location on the bumper (See image below).
2. Installation of the left/right turn signal.
Step 5. Using the voltage Multi-meter, locate the left and right trigger wires behind the tail lamp. Once verified, connect the left and right signal wires of the BSS1 wire harness to the correct signal wires.

3. LED indicator installation:
Step 6. Place the LED indicators where it is visible for the driver. Ideally on the A-pillar of the vehicle or away from the front windshield.

4. Speaker location:
Step 7. While installing the speaker, make sure it is not obstructed by any panels inside the vehicle.

Step 8. Tuck the wires neatly and prevent wire pinch.

**Note**
Illumination of the LED indicator on the control box:
1. Constantly on upon power up;
2. Blink slowly while the GPS module is connected;
3. Blink quickly while sensing moving objects are approaching (same frequency as to
VI. Alarm conditions:
1. When the system is on, the system would start detecting objects in the blind area behind the vehicle 15 meters. (Fig.16)
2. When the moving objects is getting closer and the speed is faster than our own cars.

![Fig.16](image)

VII. How does it alarm?
A: Blind detection on right side:
1. R-LED indicator will be activated when there is an object approaching to the right side blind area of your vehicle (see Fig.16).
2. If the right turn signal of your vehicle is triggered at the same time, the R-LED indicator will be blinking and the buzzer will be beeping as well (with the same frequency).

B: Blind detection on left side:
1. L-LED indicator will be activated when there is an object approaching to the left side blind area of your vehicle (see Fig.16).
2. If the left turn signal of your vehicle is triggered at the same time, the L-LED indicator will be blinking and the buzzer will be beeping as well (with the same frequency).

C: The LED and buzzer will standby (no activity) if there is no object approaching to the blind area of your vehicle.
D: During reversing, the R & L LED will be blinking according to the approaching object detection of each side. (The buzzer will not beep)

VIII. Troubleshooting:

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

IX. Technical Support Contact Info.

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

X. One Year Limited Warranty

Rydeen North America Inc. (a manufacturer of “Rydeen” products) warrants this product (BSS1) only to the original purchaser as described following:

Warranty Period
Rydeen warrants this product for a period of three (3) years from the original purchase date.

**Warranty Coverage**

This warranty covers all defects in material and workmanship 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 unless the product is purchased through the USA Military Exchange Service.
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 the 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. Rydeen will pay for all labor and material expenses for covered product during warranty period.
5. Shipping address for Rydeen Customer Service Department is following:
Rydeen North America Inc. (a manufacturer of Rydeen products), 2701 Plaza Del Amo, Unit 705, Torrance, California 90503, USA
criminal penalties and fines. Violators will be prosecuted to the fullest extent of the law.