1. Precautions

● Storage and Keeping

1. The storage temperature of this device is -40~+80℃, and the operating temperature is -20~+70℃. The humidity is RH90%.
2. Never use this device in environments with excessive moisture, dust or smoke.
3. Avoid dropping or striking this device.
4. Avoid using this device in enclosed spaces, areas with excessive vibration or subject to severe impacts.
5. Never puncture, scratch or use abrasive cleaning materials on this device.
6. Do not place cables where they may be pinched or stepped on.

● Operating Precautions

1. The device is powered by 12 volts from panoramic equipment.
2. Make sure all cables are connected properly. Observe polarity. Improper cable connections may damage the device.
3. Testing and inspection of the system in accordance with these instructions and a record of the results should be listed on the daily maintenance report. The units on operating vehicles must be tested each day prior to the vehicle’s operation. Results of this test must be recorded in the maintenance log.
4. Proper installation requires a good understanding of vehicle/machine electrical systems and procedures, along with proficiency in the installation.

⚠️ Warning!

1. Do not open the equipment’s enclosure. This can cause damage, short-circuiting or electrical shocks that could lead to serious injury or death.
2. The equipment is not an alternative to safe driving practices.

⚠️ Special Notice

All specifications are subject to change without notice
**Maintenance**

1. Remove all the cable connections from the device before cleaning it.
2. Clean the sensor face of any accumulation of dirt, mud, snow, ice, or debris.
3. Visually inspect the attached wiring and cable and verify that they are properly secured and not damaged. Inspect the Radar Sensor and control box and verify that they are securely attached to the vehicle.

<table>
<thead>
<tr>
<th>Caution</th>
<th>Risk of electric shock Do not open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caution: to reduce the risk of electric shock, Do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.</td>
<td></td>
</tr>
</tbody>
</table>

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product’s enclosure that may be of sufficient magnitude to constitute risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This symbol is intended to alert the user not to dispose of electrical and electronic equipment

**CAUTION**

You are cautioned that any changes or modifications not expressly approved in this manual could void your warranty and necessitate repairs.
2. Hints for Users

1. When triggered to work, the ultrasonic obstacle detection system will start alerting after a one-second delay.

2. If reversing at high speed, expect the ultrasonic obstacle detection system to have a one-second delay before emitting a warning.

3. While reversing, it is indispensable to use the ultrasonic obstacle detection system. However, the product is meant as an assisting device for safety. We declare that the safety responsibility is borne by the driver. Make sure to keep the car at proper speed and pay attention to the surrounding conditions while reversing.

4. There may be improper reception, deviation and error in reflected signal because of difference in material, angle or size of obstacles.

3. Specifications

1. Number Of Sensors: 12 PCS
2. Color Of Sensors: Black (default); Optional
3. Ultrasonic Frequency: 40KHz
4. Detecting Distance: 0m---5.00m for each sensor
5. Power Supply: DC10-18V
6. Operating Temperature: -20°C ~ 70°C RH90% Max.
7. Storage Temperature: -40°C ~ 80°C RH90% Max.

4. Product Features

1. The ultrasonic sensor detection system consists of a master controller, extension controller, 12 ultrasonic sensors and accessories.

2. The entire system will work automatically when power is on.

3. The on-screen display will provide real-time information to the vehicle driver about the danger zones surrounding the vehicle.
5. Product Installation

- **1st step**
  
  Install the sensors on a suitable place. The distance between sensor S6 / S7 and S1 / S12 must be more than 1.5m, and other adjacent sensors should be installed more than 0.5m. Ideally the sensors should be installed on the vehicle at roughly 0.6m to 0.8m above the ground.

- **2nd step**
  Make sure the sensor is installed so that it is firm and steady.

![](image1)

- **Installation of other parts**

  Master and extension controller should be placed in a clean and dry place.

6. Connection

1. Please pay attention to the custom wire harness for connection between the ultrasonic sensor kit and the back-up system. Please read manual for reference and find the following drawing for correct connection.

2. The master controller should be hooked by the custom wire harness for panoramic equipment. The port (Data Link) on the bottom-right of the master controller is connected to the bottom-left port (Data Link) of the extension controller via the 461-10# cable. The sensor input cables should be plugged in sequences.

3. The controllers are powered by panoramic equipment, which are powered by vehicle power.

![](image2)
Notice: *Most problems occurred in testing are usually caused by improper installation of the sensors, they may be solved in actual application.*
## 7. Troubleshooting

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Causes</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No reaction from the system while power is on.</td>
<td>No power input</td>
<td>Check whether the cable is properly connected with the panoramic equipment</td>
</tr>
<tr>
<td>No reaction on display while there are obstacles within the detecting area.</td>
<td>Improper connection of the sensor.</td>
<td>Check whether the connection is properly connected.</td>
</tr>
<tr>
<td>There is no obstacle within the detecting area, but constant warning prompt occurs.</td>
<td>There may be too much dirt on sensors causing some interference.</td>
<td>Clean the sensors.</td>
</tr>
</tbody>
</table>
If you have any questions about this product, contact:

Rear View Safety, Inc.
1797 Atlantic Avenue
Brooklyn, NY 11233
800.764.1028

Vehicle Safety - It's All We Do.™