

# Radar Blind Spot Detection System - 77GHz

RVS-131



## Instruction Manual

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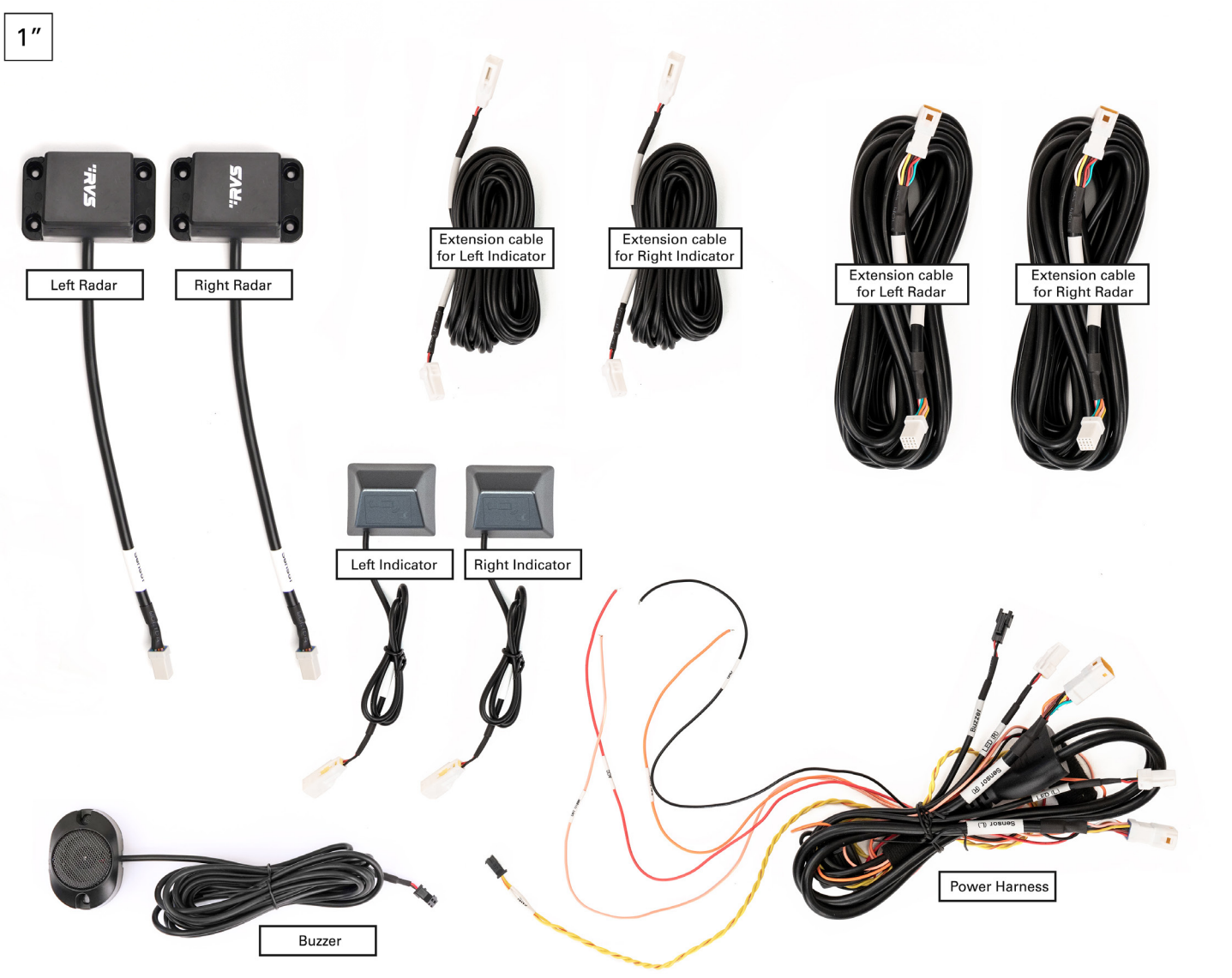
# INTRODUCTION

Congratulations on purchasing an RVS-131 Radar Blind Spot Detection System. With this manual, you will be able to properly install and operate the unit.

Please read all of the installation instructions carefully before installing the product. Improper installation will void manufacturer's warranty.

## IN THE BOX

1"



# SAFETY INFORMATION

**PLEASE READ THE ENTIRE MANUAL AND FOLLOW THE INSTRUCTIONS AND WARNINGS CAREFULLY. FAILURE TO DO SO CAN CAUSE SERIOUS DAMAGE AND/OR INJURY, INCLUDING LOSS OF LIFE. BE SURE TO OBEY ALL APPLICABLE LOCAL TRAFFIC AND MOTOR VEHICLE REGULATIONS AS IT PERTAINS TO THIS PRODUCT. IMPROPER INSTALLATION WILL VOID MANUFACTURER'S WARRANTY.**

**USAGE :** This system is designed to help the driver safely detect people and/or objects helping to avoid damage or injury. However, you the driver, must use it properly. Use of this system is not a substitute for safe, proper or legal driving.

- Never back up while only looking at the monitor. You should always check behind and around the vehicle when backing up, in the same way as you would if the vehicle did not have the Rear View Camera System. If you back up while looking only at the monitor, you may cause damage or injury. Always back up slowly.
- The Rear View Camera System is not intended for use during extensive back-up maneuvers or backing into cross traffic or pedestrian walkways.
- Please, always remember, the area displayed by the Rear View Camera System is limited. It does not display the entire panorama that is behind you.

# SAFETY INFORMATION

## INSTALLATION

Electric shock or product malfunction may occur if this product is installed incorrectly.

- Use this product within the voltage range specified; failure to do so can cause electronic shock or product malfunction
- Take special care when cleaning the monitor
- Make sure to firmly affix the product before use
- If smoke or a burning smell is detected, disconnect the system immediately
- Where the power cable may touch a metal case, cover the cable with friction tape; a short circuit or disconnected wire may cause a fire
- While installing the RVS System, be careful with the wire positioning in order to avoid wire damage
- Do not watch movies or operate the monitor while driving, as it may cause an accident
- Do not install the monitor where it may obstruct the driver's view or obstruct an airbag device
- Dropping the unit may cause possible mechanical failure

## PRECAUTIONS

1. Do not expose the monitor to excessive heat or coldness. Storage temperature is -30~+80°C; Operating temperature is -20~+70°C; with a maximum relative humidity of 90%.
2. Never use this device near a bathtub, wash basin, kitchen, damp basement, swimming pool or similar places.
3. Never use this device in the environment with excessive moisture, dust or smoke.
4. Avoid dropping or striking.
5. Never use this device in enclosed spaces, areas with excessive vibration or subject to severe impacts.
6. Never puncture, scratch, or use abrasive cleaning materials on this device.
7. Do not place cables where they may be pinched or stepped on.
8. Leave at least a 2" space between the monitor and walls, glass or other objects to allow adequate air circulation around the device.
9. This monitor is not designed to be waterproof.

## Operating Precautions

1. The device may be powered by a 10 or 32 volt automotive battery or vehicle electrical system.
2. Make sure all cables are correctly connected. Observe polarity. Improper cable connections may damage the monitor. Remove the power cable connections when you do not intend to use the device.





1. High voltage is present within the monitor. Opening monitor case should only be performed by professionals.
2. Do not watch any video while driving unless you are monitoring rear view camera display.



Never try to repair this device by yourself. In case of any problems, please turn off this device at once and notify our company or the authorized dealer. This device is a complex device, and any disassembly or modification may lead to damage and void the warranty.

# 1. MAINTENANCE

1. Remove all the cable connections from the ECU before cleaning the device.
2. Use a mild household detergent and clean the unit with a slightly damp, soft cloth.
3. Never use strong solvents such as thinner or benzine, as they might damage the finish of the device.

	Caution	
	Risk of electric shock Do not open	
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.		



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.



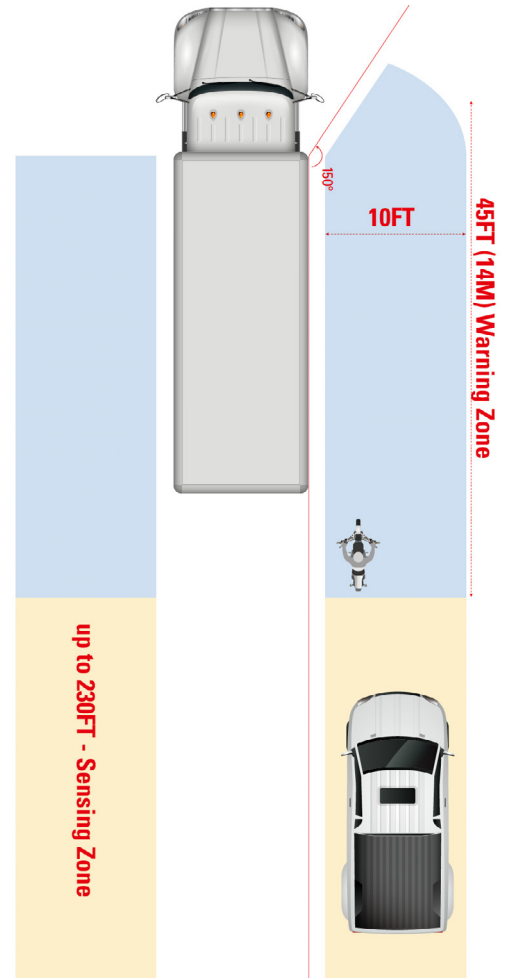
This symbol is intended to alert the user not to dispose of electrical and electronic equipment.

## CAUTION

Any changes or modifications not expressly approved in this manual could void your warranty and may necessitate expensive repairs.

## 2. SPECIFICATIONS

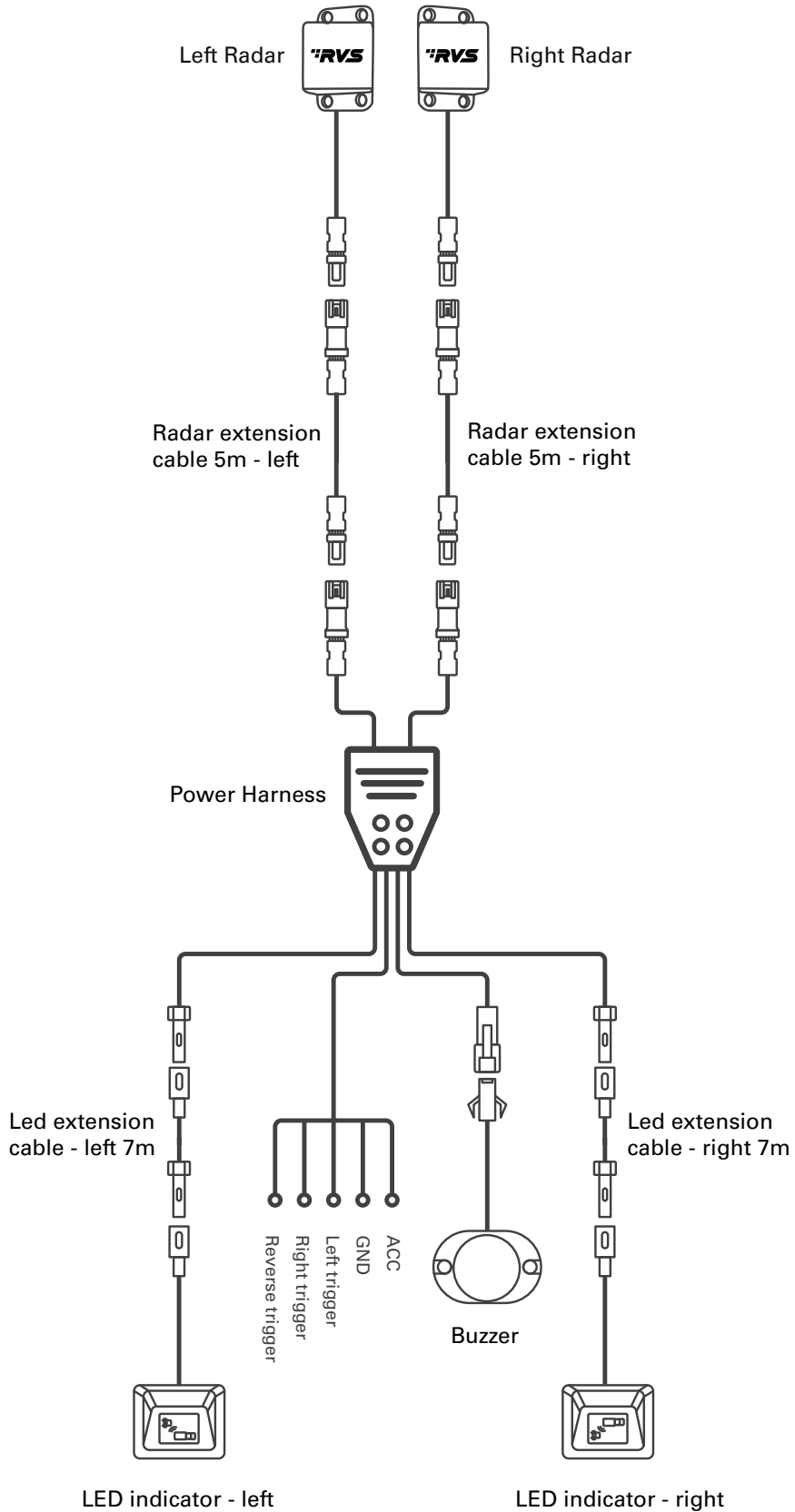
SENSOR SPECIFICATION	
Detection Target Type	accelerating/decelerating vehicles, stationary vehicles (while moving at speed)
Working Mode	FMCW (CS + MIMO)
Operating Frequency Range	76GHz ~ 77GHz
EIRP (Effective Radiated Power)	≤ 30dBm
Distance Detection Range	up to 230FT (70m), 45FT Warning Distance
Horizontal Detection Angle	± 75°
Vertical Detection Angle	± 10°
Distance Measurement Accuracy	± 4 inch (0.1m)
Relative Speed Detection Range	up to 125 mph (-125mph~ +125mph)
Relative Speed Measurement Accuracy	± 0.010 M/h (0.15km/h)
Relative Velocity Resolution	0.30 M/h (0.5km/h)
Angle Measurement Accuracy	± 0.4°
Angular Resolution	4°
Maximum Number Of Target Tracks	128
Data Output Refresh Rate	≤ 50ms
Rated Voltage	12 - 36V
Power Consumption	0.72W
Working Temperature	-40 ~ +85°C
Storage Temperature	-40 ~ +90°C
Weight	0.917oz (26g)
Water Resistance	IP67



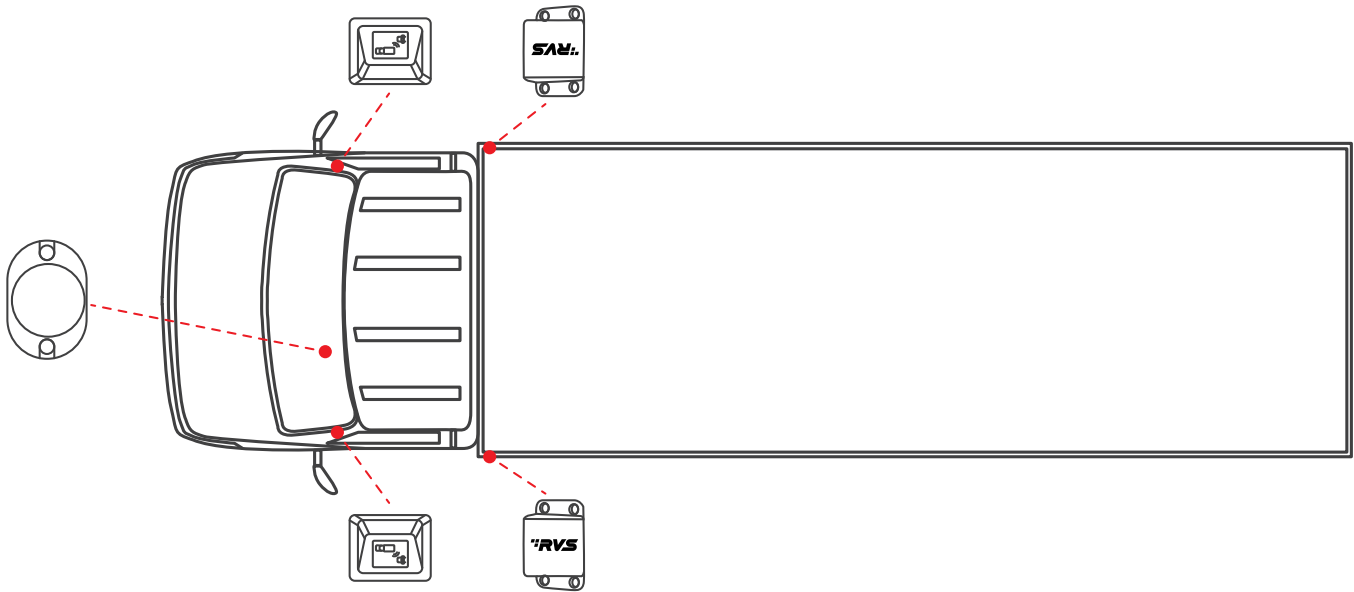
**\*3,5 - 45ft - Warning Zone.** When the objects are detected LED Button blinks and Buzzer beeps.

**45 - 230ft -** The sensing distance reflects the Time-to-Collision (TTC). When the following vehicle rapidly approaches the vehicle with installed sensors, the system initiates a warning if the calculated time to collision is less than 3.5 seconds. For instance, if the vehicle is traveling at 30 km/h and the vehicle behind is approaching at 60 km/h, with a speed difference of 30 km/h (approximately 8.33 m/s), the system calculates the warning distance using the formula  $\text{Distance} = \text{Speed} * \text{Time}$ . Therefore, the warning distance is approximately  $8.33 * 3.5 = 29.155$  meters.

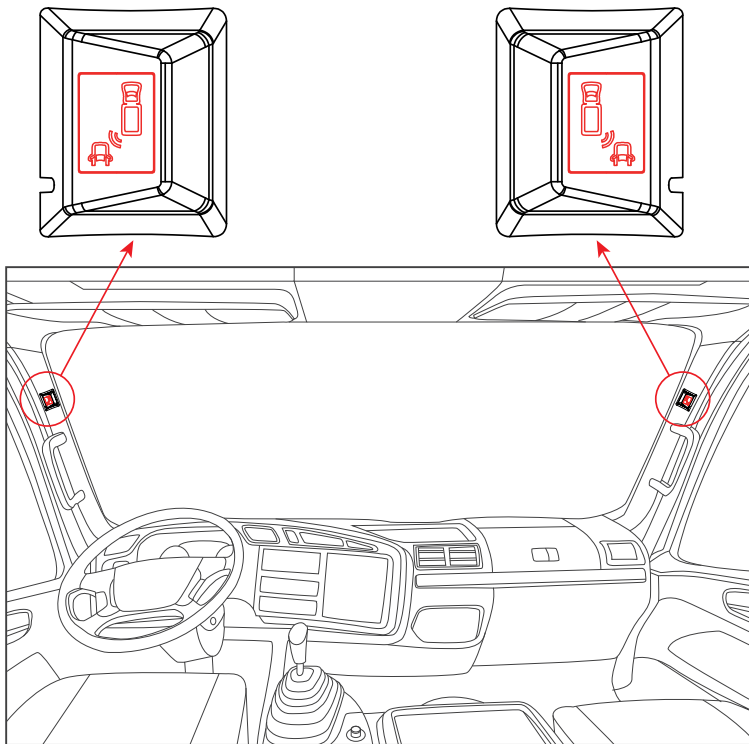
## 2. CONNECTION SCHEMATICS



## 4. SYSTEM LAYOUT

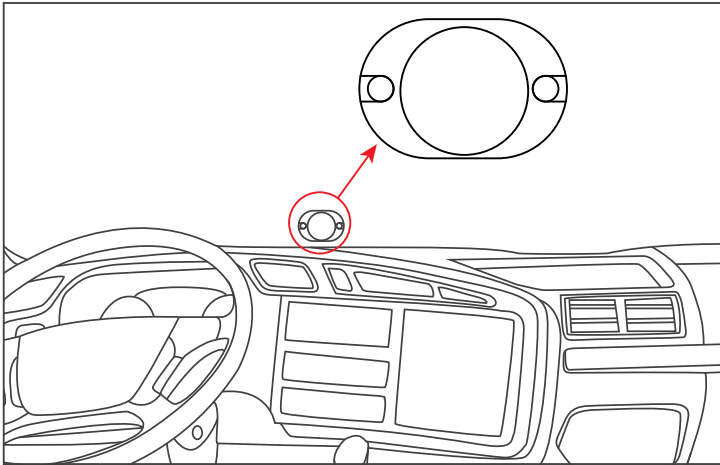


## 5. LED INDICATOR PLACEMENT



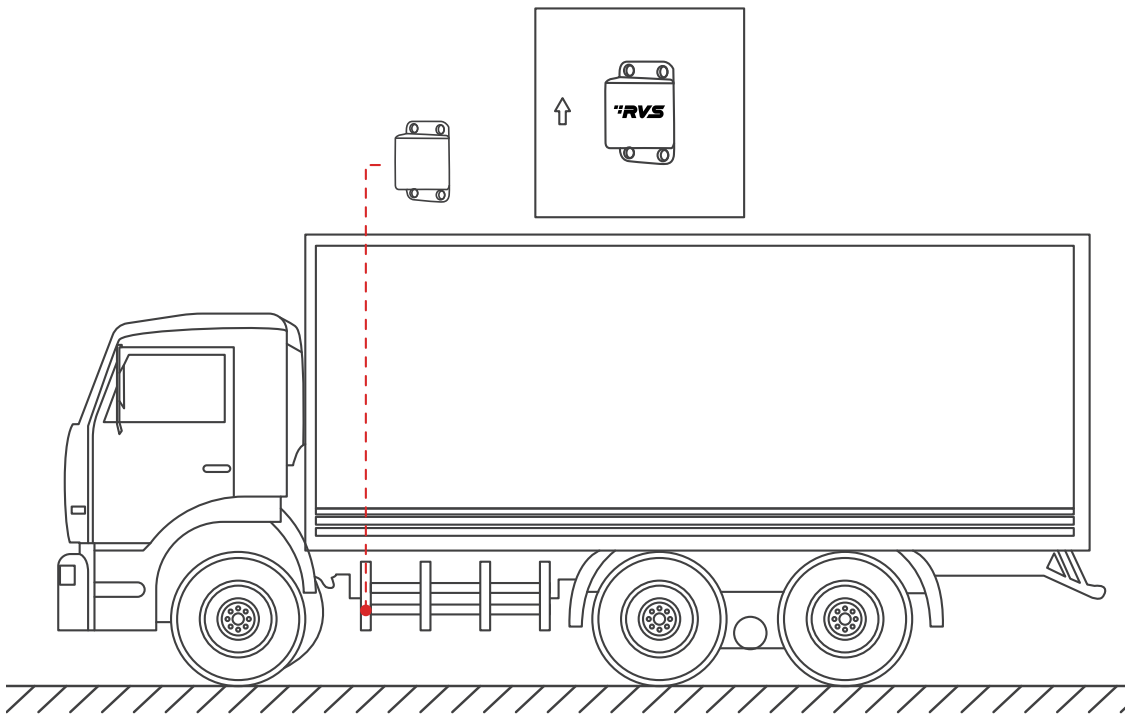
The Blind Spot Indicator should be aligned with the driver's direct line-of-sight when checking the side mirror. The recommended location is at the truck's A-pillar. Attach the base of the mounting kit to the A-pillar trim using the supplied double-sided tape.

## 5. BUZZER PLACEMENT



The buzzer should be located in the passenger's side dashboard area - exposed for louder volume or hidden behind the trim for a more concealed appearance. Attach it securely using the supplied double-sided tape.

## 5. SENSOR MOUNTING POSITION



- Installation height: 24' -40'
- Installation angle is 0 degrees, should not be tilted towards the ground. There should be no obstructions in front of the radar.

# ONE YEAR WARRANTY

REAR VIEW SAFETY, INC. WARRANTS THIS PRODUCT AGAINST MATERIAL DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF PURCHASE. WE RESERVE THE RIGHT TO REPAIR OR REPLACE ANY SUCH DEFECTIVE UNIT AT OUR SOLE DISCRETION. REAR VIEW SAFETY, INC. IS NOT RESPONSIBLE FOR A DEFECT IN THE SYSTEM AS A RESULT OF MISUSE, IMPROPER INSTALLATION, DAMAGE OR MISHANDLING OF THE ELECTRONIC COMPONENTS. REAR VIEW SAFETY, INC. IS NOT RESPONSIBLE FOR CONSEQUENTIAL DAMAGES OF ANY KIND.

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## WARRANTY PERFORMANCE

DURING THE ABOVE WARRANTY PERIOD, SHOULD YOUR REAR VIEW SAFETY PRODUCT EXHIBIT A DEFECT IN MATERIAL OR WORKMANSHIP, SUCH DEFECT WILL BE REPAIRED WHEN THE COMPLETE REAR VIEW SAFETY, INC. PRODUCT IS RETURNED, POSTAGE PREPAID AND INSURED, TO REAR VIEW SAFETY, INC. OTHER THAN THE POSTAGE AND INSURANCE REQUIREMENT, NO CHARGE WILL BE MADE FOR REPAIRS COVERED BY THIS WARRANTY.

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# DISCLAIMER

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A Safe Fleet Brand

**Engineered For Vehicle Safety™**

If you have questions about this product,  
please contact us at:

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