

Instruction Manual

Backup Sensor System (Waterproof)

RVS-115-W





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WARNING
RISK OF ELECTRIC SHOCK DO NOT OPEN



WATERPROOF

Sensors are completely waterproof, giving you convenience in variety of uses.



This high-quality sensor system is the complete package that works independently of other systems and comes with everything needed for installation. This Backup Sensor System provides drivers with a detection range of 8 feet.

The system comes with 4 sensors which mount on the rear bumper and a small LED display console. The console notifies the driver of the distance between their vehicle and the vehicle or objects behind them.

When objects behind the vehicle become closer the audio “beeps” become faster and quicker. The sensors, control module, and cables are waterproof which allow for installation either inside or outside the vehicle.



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If you have questions about this product, contact:

***Rear View Safety
1797 Atlantic Avenue
Brooklyn, NY 11233
Tel: 1.800.764.1028***

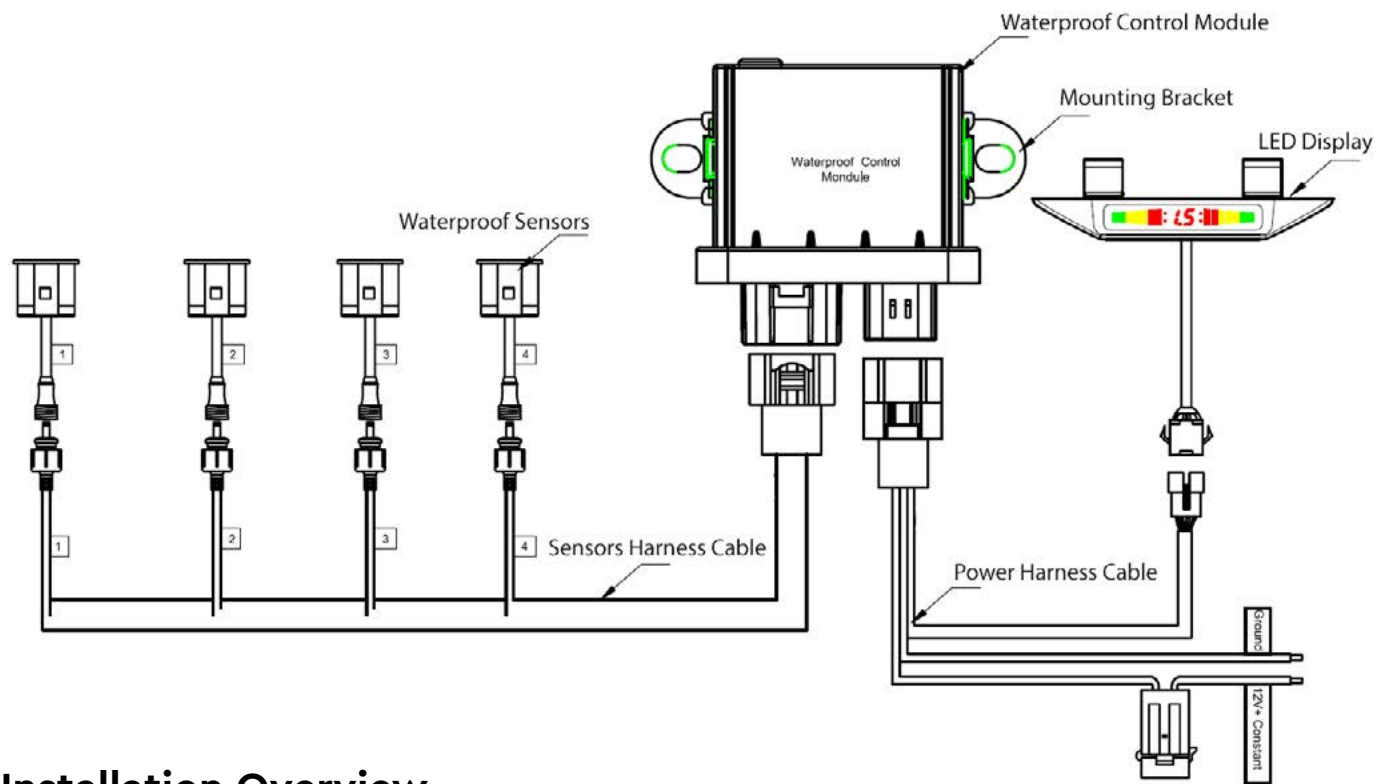
IN NO EVENT SHALL SELLER OR MANUFACTURER BE
LIABLE FOR ANY DIRECT OR CONSEQUENTIAL DAMAGES OF
ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM
ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.

Before drilling please check that no cable or wiring is on the other side of the wall. Please clamp all wires securely to reduce the possibility of them being damaged while vehicle is in use. Keep all cables away from hot or moving parts and electrical noisy components.

We recommend doing a benchmark test before installation to insure that all components are working properly.

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.

Cable Connection Diagram



Installation Overview

- 1) Drill four holes for the four (4) waterproof sensors at equal distance in the rear bumper:
 - 21.5 mm when not using grommet
 - 25.00 mm when using grommet
- 2) Mount sensors using the included grommets (Optional)
- 3) Connect the sensors to the Sensor Harness Cable
- 4) Connect Sensor Harness Cable to Control Module
- 5) Connect LED Display to Power Harness Cable
- 6) Connect Power Harness to the LED Display
- 7) Connect Power Harness to Power Source

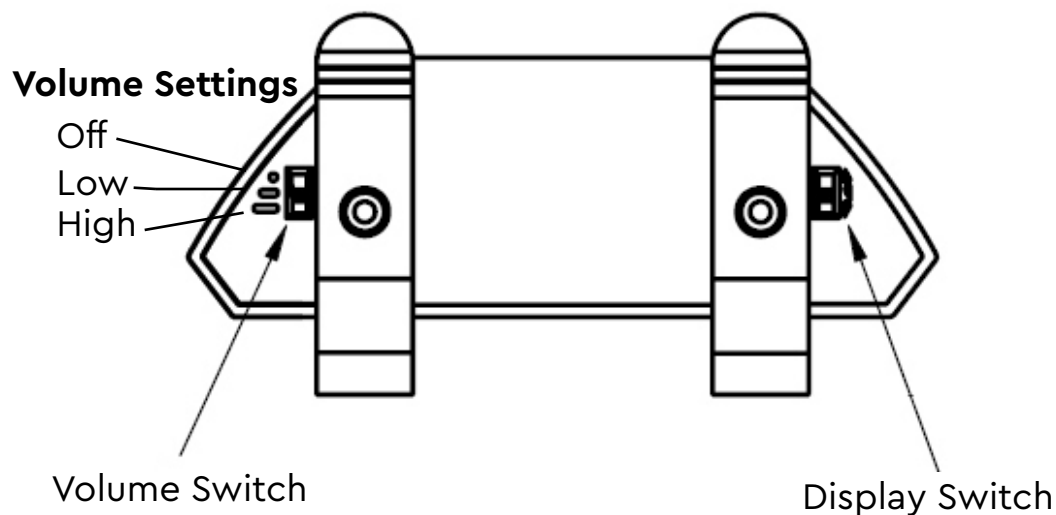
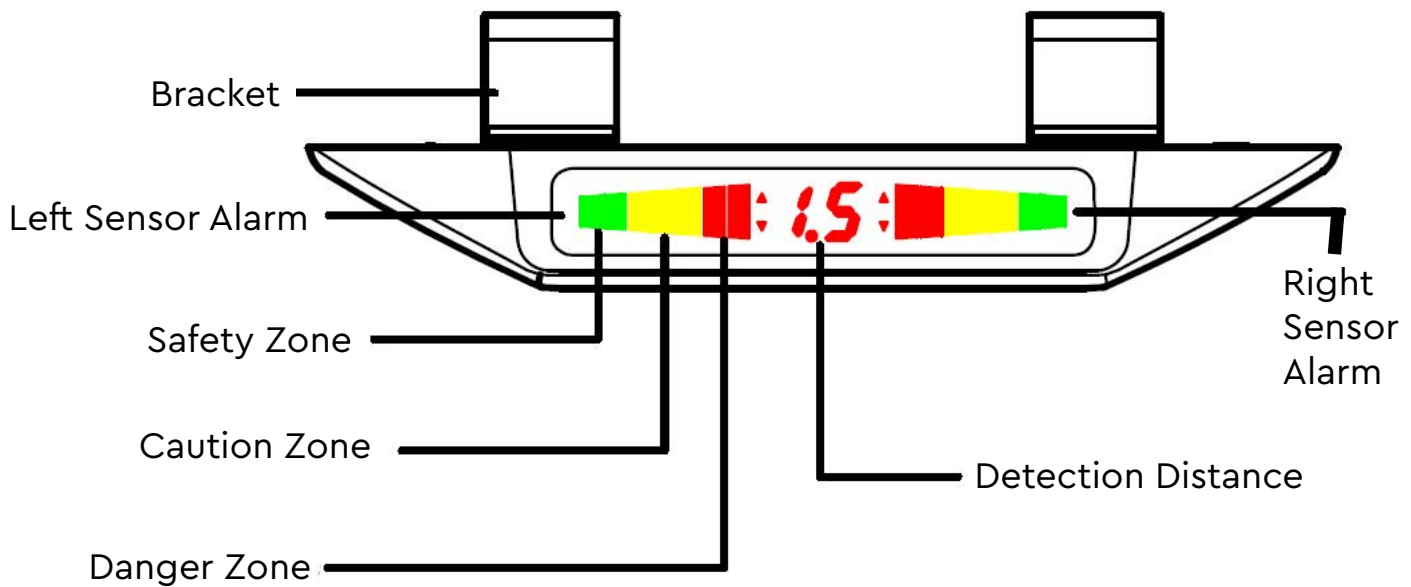
Sensor input connections distance:

Power harness cable length : 48 ft.

Sensors "1" and "2" : 25 ft.

Sensors "3" and "4" : 13 ft.

Display Diagram



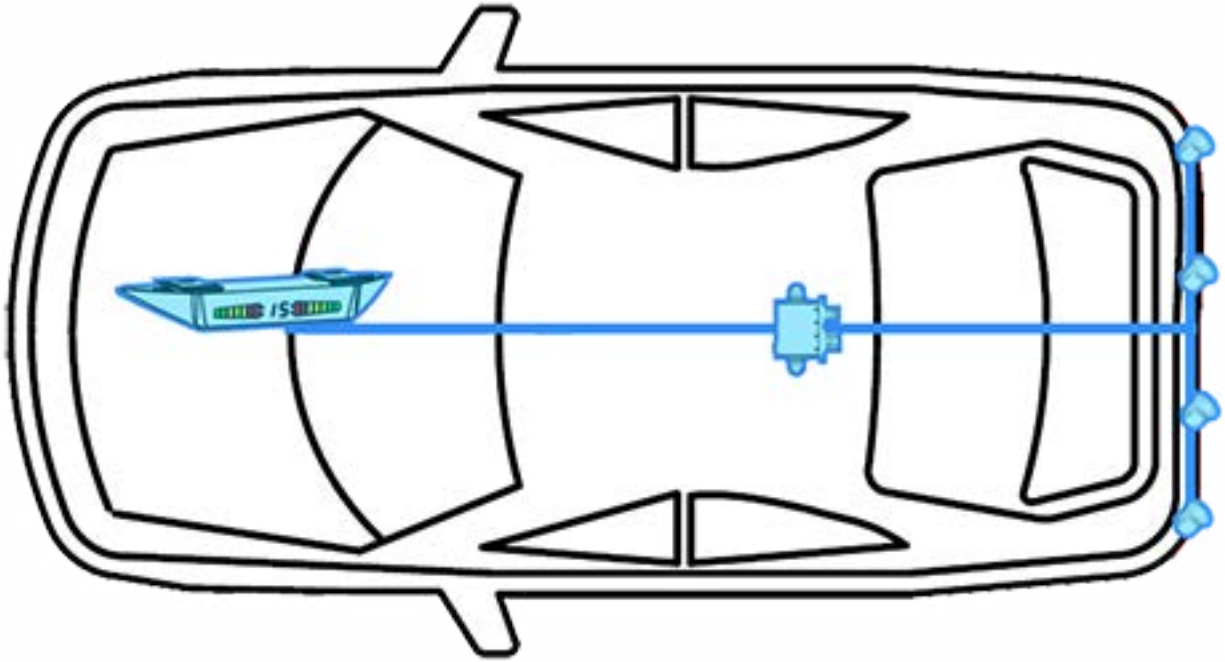
DISPLAY SETTINGS

- ▲ **Flip Numerical Display** - Display installed on the Dashboard
- ▲ **Mirror Numerical Display** - Display installed on TOP of Rear Windshield
- ▲ **Normal Numerical Display** - Display installed on TOP of Windshield

VOLUME SETTINGS

- High
 - Low
 - Off
- High sound is aprox. **80 db** at 10 cm
Low sound is aprox. **60 db** at 10 cm

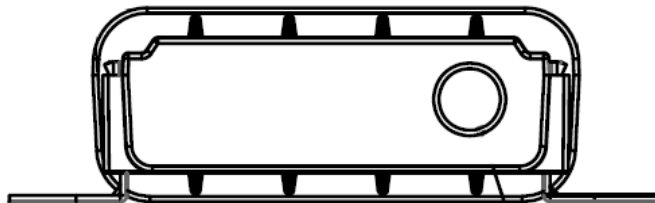
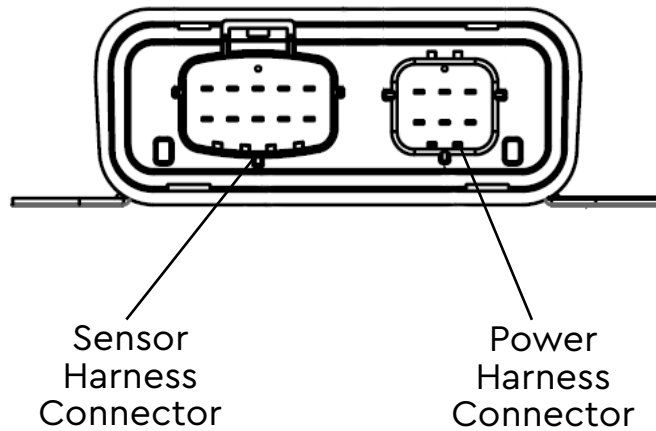
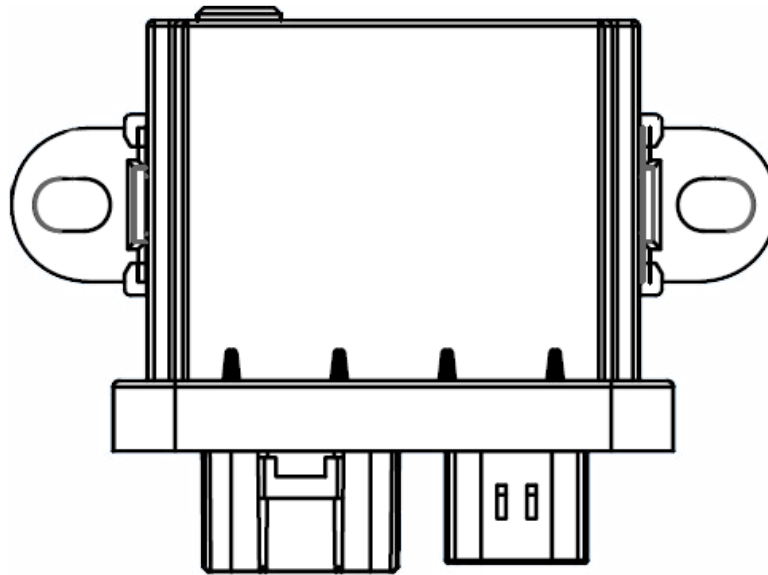
Sensor System Diagram



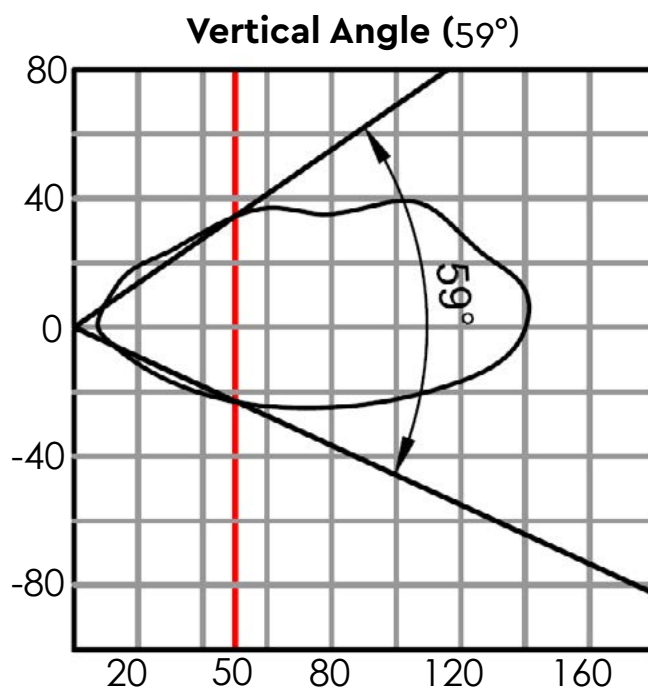
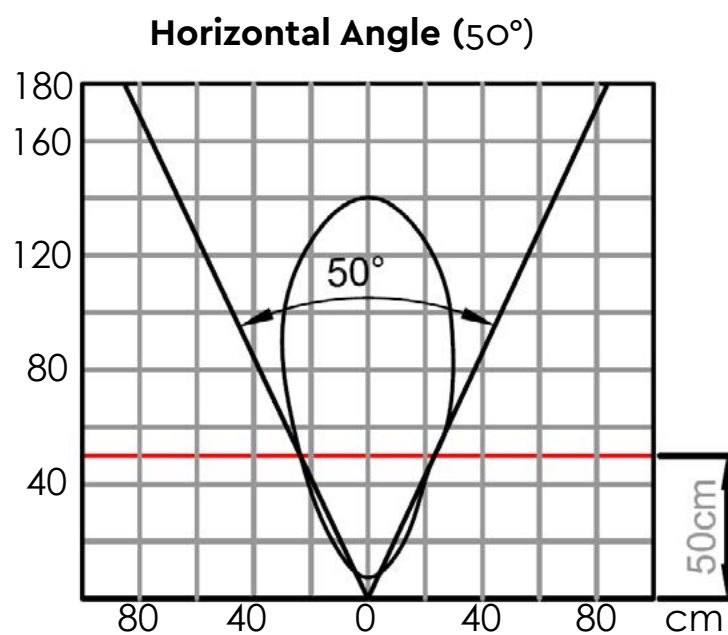
Sensor Visual and Audible Warnings

Warning Zone	Distance from Sensor & Obstacle		Sound Information			Visual Information	
	Unit: In.	Unit: Ft.	Sound Code	S2, S3	S1, S4	LED Bar	Display
Danger Zone	$0'' < D < 8''$	$0' < D < 0.6'$	Bi...	Yes	Yes		P
	$8'' \leq D \leq 11''$	$0.6' < D < 0.9'$	Bi...	Yes	Yes		Digits
	$11'' \leq D \leq 19''$	$0.9' < D < 1.5'$	Bi..Bi.	Yes	Yes		Digits
Caution Zone	$19'' \leq D \leq 27''$	$1.5' < D < 2.2'$	Bi..Bi	Yes	Yes		Digits
	$27'' \leq D \leq 35''$	$2.2' < D < 2.9'$	Bi...Bi	Yes	Yes		Digits
	$35'' \leq D \leq 43''$	$2.9' < D < 3.5'$	Bi....Bi	Yes	Yes		Digits
Safety Zone	$43'' \leq D \leq 70''$	$3.5' < D < 5.8'$	Bi.....Bi	Yes	No		Digits
	$70'' \leq D \leq 78''$	$5.8' < D < 6.5'$	No Sound	No	No		Digits
	$78'' \leq D \leq 98''$	$6.5' < D < 8.1'$	No Sound	No	No		Digits
Outside	$98'' \leq D$	$8.1' < D$	No Sound	No	No		-

Waterproof Control Module Diagram



Sensor Detecting Angles



Sensor Specifications

Sensor Type:	Analog Sensor
Sensor Quantity:	4 Sensors
Sensor Frequency:	40 kHz +/- kHz
Static Capacitance:	2000± 15%pF
Input Voltage max.:	140 Vp-p {at 40KHz}
Decay Time:	<1.2ms
Decay Parameter :	20±3 (Admissible parameter)
Echo Sensitivity:	>200 mV
Horizontal Angle:	50°
Vertical Angle:	59°
Detection Range:	0.22mm (0.08ft) – 2.5m (8ft)
Working Voltage:	10.0 ~ 28.0 VDC
Rated Current (ECU):	60mA max
Wiring Harness:	Vehicle Spec. T-Piece
Working Temperature	-40°C ~ +80°C
Storage Temperature	-40°C ~ +90°C

Waterproof Control Module Specifications

Normal Voltage	12 VDC
Operating Voltage	1.0 ~ 28 VDC
Rated Current	60 mA
Operating Frequency	40 +/- 1 kHz
Housing Material	ABS
Housing Color	Black
Working Temperature	-30°C ~ 80°C
Storage Temperature	-40°C ~ 90°C
Waterproof Rating	IP67

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.

THIS WARRANTY IS VOID IF: DEFECTS IN MATERIALS OR WORKMANSHIP OR DAMAGES RESULT FROM REPAIRS OR ALTERATIONS WHICH HAVE BEEN MADE OR ATTEMPTED BY OTHERS OR THE UNAUTHORIZED USE OF NONCONFORMING PARTS; THE DAMAGE IS DUE TO NORMAL WEAR AND TEAR, THIS DAMAGE IS DUE TO ABUSE, IMPROPER MAINTENANCE, NEGLECT OR ACCIDENT; OR THE DAMAGE IS DUE TO USE OF THE REAR VIEW SAFETY, INC. SYSTEM AFTER PARTIAL FAILURE OR USE WITH IMPROPER ACCESSORIES.

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.

WARRANTY DISCLAIMERS

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DISCLAIMER

REAR VIEW SAFETY AND/OR ITS AFFILIATES DOES NOT GUARANTEE OR PROMISE THAT THE USER OF OUR SYSTEMS WILL NOT BE IN/PART OF AN ACCIDENT OR OTHERWISE NOT COLLIDE WITH AN OBJECT AND/OR PERSON. OUR SYSTEMS ARE NOT A SUBSTITUTE FOR CAREFUL AND CAUTIOUS DRIVING OR FOR THE CONSISTENT ADHERENCE TO ALL APPLICABLE TRAFFIC LAWS AND MOTOR VEHICLE SAFETY REGULATIONS. THE REAR VIEW SAFETY PRODUCTS ARE NOT A SUBSTITUTE FOR REARVIEW MIRRORS OR FOR ANY OTHER MOTOR VEHICLE EQUIPMENT MANDATED BY LAW. OUR CAMERA SYSTEMS HAVE A LIMITED FIELD OF VISION AND DO NOT PROVIDE A COMPREHENSIVE VIEW OF THE REAR OR SIDE AREA OF THE VEHICLE. ALWAYS MAKE SURE TO LOOK AROUND YOUR VEHICLE AND USE YOUR MIRRORS TO CONFIRM REARWARD CLEARANCE AND THAT YOUR VEHICLE CAN MANEUVER SAFELY. REAR VIEW SAFETY AND/OR ITS AFFILIATES SHALL HAVE NO RESPONSIBILITY OR LIABILITY FOR DAMAGE AND/OR INJURY RESULTING FROM ACCIDENTS OCCURRING WITH VEHICLES HAVING SOME OF REAR VIEW SAFETY PRODUCTS INSTALLED AND REAR VIEW SAFETY AND/OR ITS AFFILIATES, THE MANUFACTURER, DISTRIBUTOR AND SELLER SHALL NOT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE, INCIDENTAL OR CONSEQUENTIAL, ARISING OUT OF THE USE OR INTENDED USE OF THE PRODUCT. IN NO EVENT SHALL REAR VIEW SAFETY AND/OR ITS AFFILIATES HAVE ANY LIABILITY FOR ANY LOSSES (WHETHER DIRECT OR INDIRECT, IN CONTRACT, TORT OR OTHERWISE) INCURRED IN CONNECTION WITH THE SYSTEMS, INCLUDING BUT NOT LIMITED TO DAMAGED PROPERTY, PERSONAL INJURY AND/OR LOSS OF LIFE. NEITHER SHALL REAR VIEW SAFETY AND/OR ITS AFFILIATES HAVE ANY RESPONSIBILITY FOR ANY DECISION, ACTION OR INACTION TAKEN BY ANY PERSON IN RELIANCE ON REAR VIEW SAFETY SYSTEMS, OR FOR ANY DELAYS, INACCURACIES AND/OR ERRORS IN CONNECTION WITH OUR SYSTEMS FUNCTIONS.



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If you have any questions
about this product, contact:

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1797 Atlantic Avenue
Brooklyn, NY 11233
800.764.1028***

***Better Cameras. Better Service.
IT'S OUR GUARANTEE.***

