Radar Blind Spot System

RDBS-1600

Recommended Tools				Difficulty Level
Wrench	Wire Strippers	Wire Cutters	Electrical Tape	
Screw Driver	Panel Removal Tool	Zip Ties	Socket Set	Install Time
				1hr 30m - 3hr

Questions? Call the Brandmotion technical support line at (734) 619-1250 or CLICK HERE

Kit Contents

	Components for installing the ***RDBS-1600***

Kit Contents:

- (1) Interior / Chassis Harness
- (2) Universal Mounting Brackets
- (1) Plug in Buzzer
- (2) Radar Sensors (77GHz) 2" Wide x 0.6" Thick
- (2) Extension cables, if need be to extend the length of the (HMI's)
- (2) HMI lights for (L) & (R) A pillars
- (1) Protractor
- (2) Bag of screws, washers, etc
- (6) Zipties

Installation

1. When installing the radar modules, use the recommended smartphone app (or the included protractor) to check the angle for the radar modules. Brandmotion recommends **45 degrees** from the back of the vehicle as optimal, but can be between 42 to 48 degrees. The elevation angle (or "pitch") from top to bottom should be between **1 to 3 degrees**.

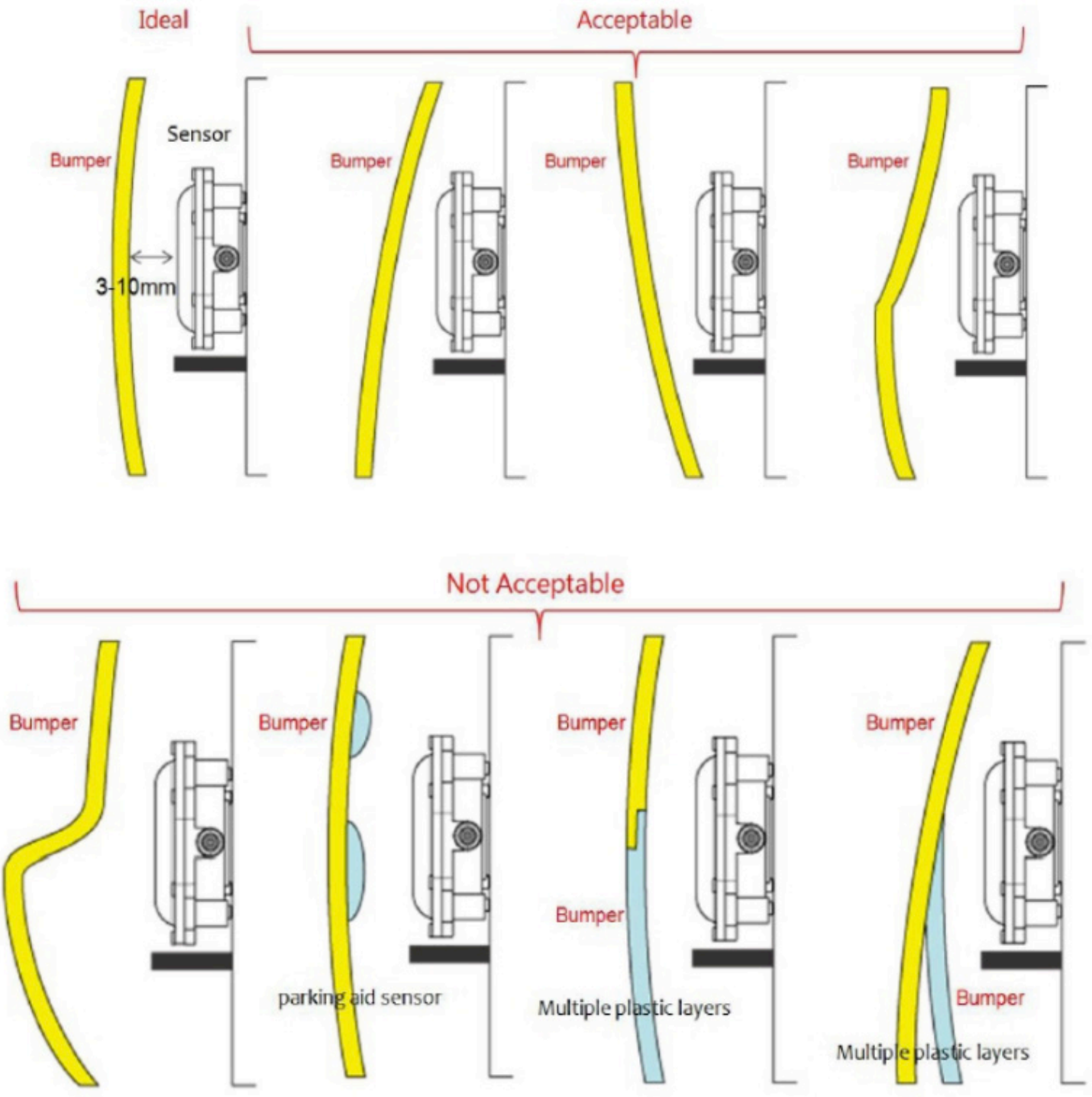
2. The sensors can be used on either the (L) or (R) side, it doesn't make a difference. Both sensors should be installed with the black plugs pointing and facing towards each other.

3. The RDBS-1600 harness is designed to run down the passernger side of the vehicle (only).

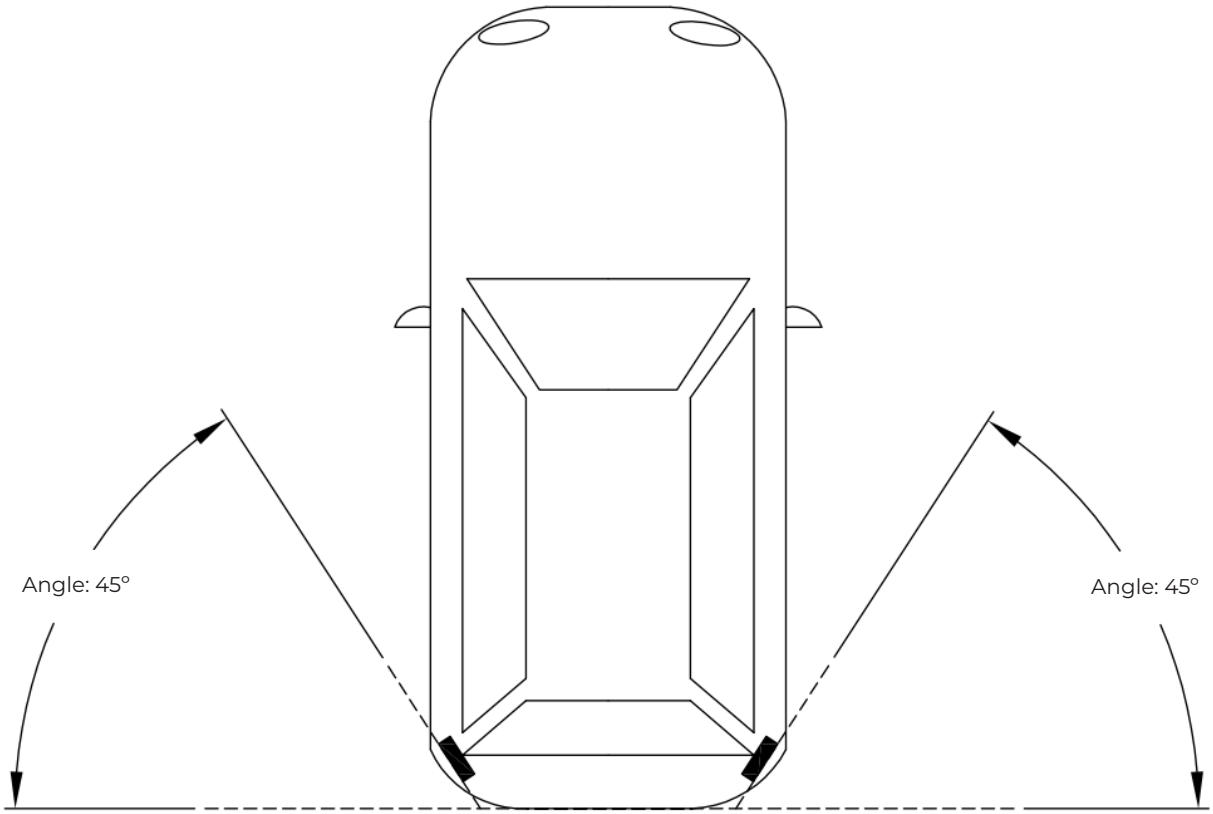
2.

Install Radar units with connector plug facing towards the eachother

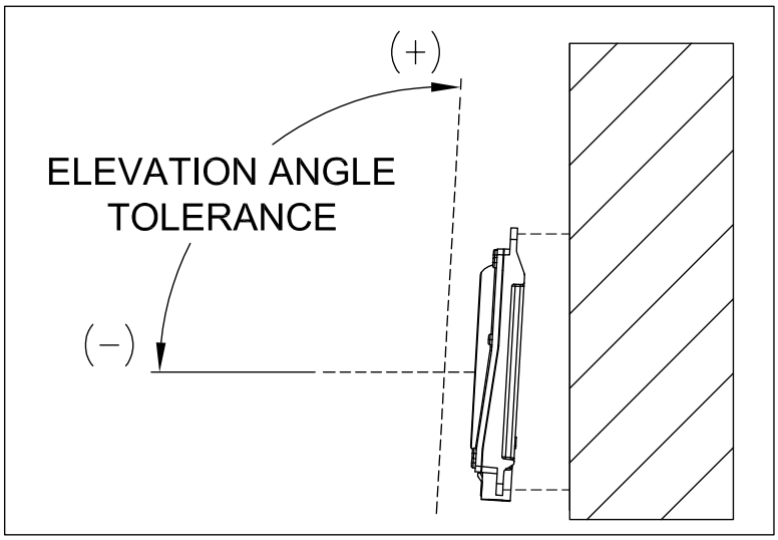
Installation



Installation



BSD SENSOR POSITION PARAMETERS	IDEAL VALUE	TOLERANCE	
		(–)	(+)
Z ROTATIONAL	0°	–3°	+3°
AZIMUTH ANGLE	45°	–2.5°	+2.5°
ELEVATION ANGLE	2	+1 '	+3



Interior Harness Installation

Part 1	Wire Signal Diagram
1. RED wire 12v ignition -or- 12v accessory with a purple (3 amp fuse) included. 2. BLACK wire Negative, Goes to a good clean chassis ground. Or internal ground stud/bolt. 3. PINK wire / Left Trigger. Will need to go to the driver side turn signal wire. 4. ORANGE wire / Right Trigger needs to go to the passenger side turn signal wire. 5. GREEN wire REVERSE Trigger. Must be hooked up to the vehicles reverse wire in order for cross traffic to work, 6. (DO NOT USE) YELLOW twisted can H and can L. These are not used in the install. Strictly for Brandmotion ONLY.	

HMI and Buzzer Installation

Part 1

1. . Plug in HMI's (human-machine interface) to the interior harness. Make sure the LED (L) connector goes to the driver's side and the LED (R) goes to the passenger side.
2. Remove both driver and passenger A-pillar covers from the vehicle.
3. Find a visible location low on the A-pillars covers to mount HMI.
4. Mark the location on both A-pillar covers and using a **12MM -or- 1/2"** drill bit, carefully drill through each A-pillar.
5. Insert HMI's into the drilled holes and they will secure themselves.
6. Plug in HMI to HMI harness and reattach A-pillar covers to appropriate sides, taking care not to pinch HMI harness wires.
7. Plug the buzzer into the interior harness. Find a flat surface to mount the buzzer to and remove backing of double-sided tape to attach to the preferred location. (The more hidden the location is, the lower the buzzer volume will be.)

System Performance

Performance of Cross Traffic Detection	Performance of Blind Spot Detection
1. Cross traffic is detected when backing out of a parking space. And you have blind spots on either side or both. And it can detect approximately . 180 degrees. And approximately. 100ft left and right from each corner of the rear bumper. 2. Cross traffic will only detect motor vehicles. Such as cars, trucks, and motorcycles 3. If a motor vehicle is coming down a lane where you are trying to back out of. Your HMI will light up RED on whichever side the motor vehicle is coming from. With that being said you will also get an audible alert from your buzzer. Letting you know it's not safe to continue backing up. ***4. Cross traffic will ONLY function if the GREEN trigger wire / REVERSE Wire on the RDBS-1600 is hooked up to the vehicle's reverse wire.***	1. The blind spot detection will only work when you are traveling at a speed of 18 MPH or greater. Or if you are stopped. And a vehicle is coming up from behind you traveling at the same speed just mentioned. 2. Blind spot detection will ONLY work in the lane to your left or right when traveling. Not two lanes over left or right. 3. Blind spot detection works like this. If you are traveling along. And a motor vehicle is detected either on your Left or Right. Your HMI light will give off a solid RED color. Indicating someone is approaching on that side lit up. 4. If you have your blinker on. And want to switch lanes. And there is a motor vehicle approaching close to you in that lane. Your HMI will start to flash and your buzzer will give you an audible alert. Warning you it's not safe to get into that lane. And to proceed with caution. 5. Blind spot detection will pick up motor vehicles approximately 2 plus car lengths behind you. Depending on the size of the motor vehicle.

Troubleshooting

Common Problem Faults	Common Solutions
1. After the system is powered on, no response	1. Is the power cable loose? Check on whether the fuse of the RED power cable is blown. 2. Check all the connection points to make sure they are properly connected
2. The buzzer sounds abnorma	1. Check wheter there is water at the radar wiring harness. Or not plugged in all the way
3. No target approaching, the System alarms frequently.	1. Is the bracket or radar loose? 2. Check for metal objects in the front of the radar, or wire harness that may wobble. 3. Check the elevation angle to make sure it's not too low. 2-3 degrees upwards is required.
4. The detection distance is too close.	1. The horizontal installation angle of the radar is incorrect and needs to be adjusted to 45 degrees.
5. When the system works, the left and right HMI indicators respond in reverse, and the buzzer is silent.	1. The left and right radar wiring is reversed.