Rostra Accessories

250-1935

Blind Spot /Parking Sensor

Installation Guide

VOXX Electronics Corporation

A VOXX INTERNATIONAL COMPANY

Warning

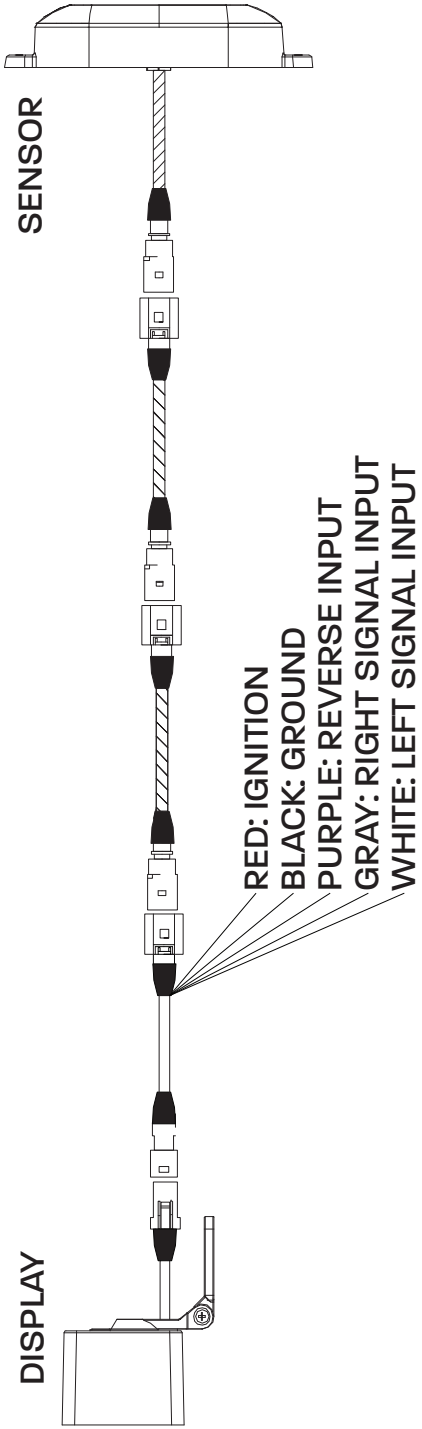
Warning:

This system should be used as a driving aid: Always be aware of your surroundings and do not solely rely on this system while driving. Be aware of any blind spots and obstacles. Exercise caution when driving or reversing.

System Specifications

Item	Specification
Working Voltage	9v-36v
Working Current	<300mA @ 12V
Working Temp.	-40 to 80c
Storage Temp.	-40 to 80c
Working Freq.	77-81GHz
Transmit Power	12dBm
FOV Angle Vertical	30°
FOV Angle Horizontal	150°
Max Detection Range	30m

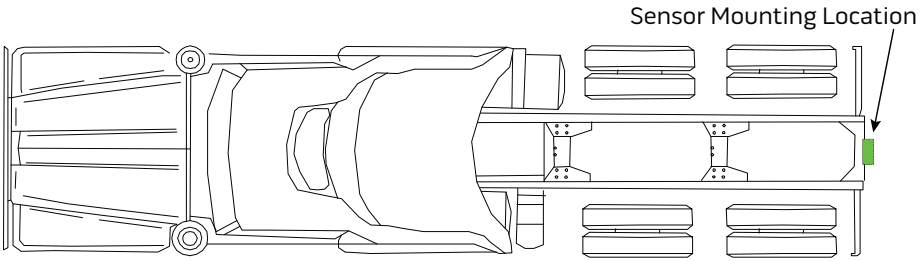
System Layout



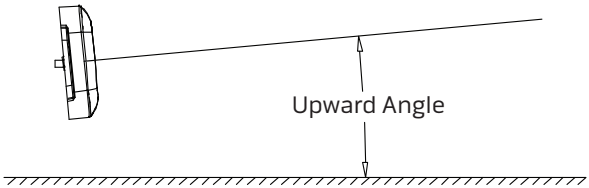
Sensor Installation

Sensor Location

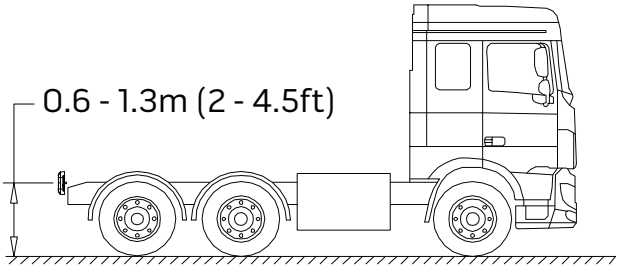
The sensor is designed to be mounted in the center of the vehicle. The sensor can be mounted offset from center by up to 15cm and the performance of the system will not be affected.



The sensor must be installed at a 5º or 10º upward angle. Use the chart below to determine the required installation angle.

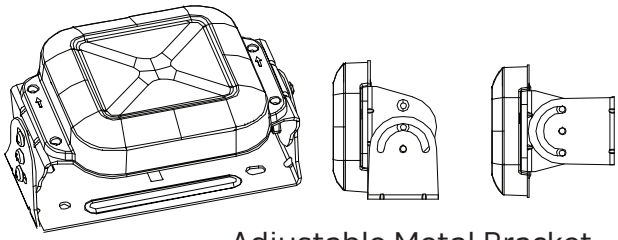


Installation Height	Upward Angle
0.6-0.75m (2-2.5ft)	10°
0.75-1.3m (2.5-4.5ft)	5°



Sensor Mounting

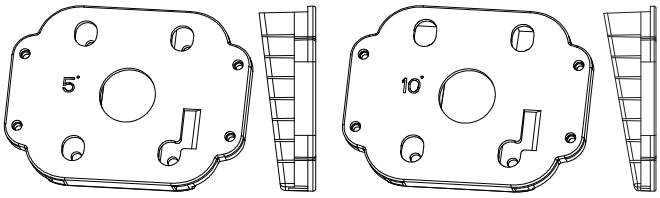
Once a mounting location is identified, choose the best mounting bracket for this location.



Adjustable Metal Bracket

The adjustable metal mounting bracket can be used on any vehicle surface and adjust to mount the sensor at the proper angle.

1. Secure the bracket to the vehicle surface.
2. Secure the sensor to the mounting bracket. Be sure to route the cable so that it is not pinched or chaffed by the mounting bracket.
3. Adjust the bracket to the proper angle and secure the adjustment screws on either side.



Fixed Plastic Bracket

The fixed angle brackets are designed to mount to a vertical surface only. Two (2) brackets (5º & 10º)are included for easy installation.

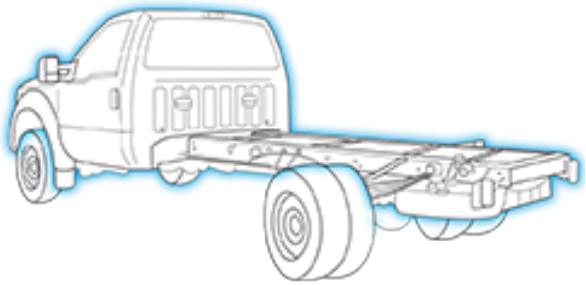
1. Secure the bracket to the vehicle surface.
2. Secure the sensor to the mounting bracket. Be sure to route the cable so that it is not pinched or chaffed by the mounting bracket.

NOTE: If drilling is required, all holes should be sealed to prevent water damage and corrosion.

Harness Installation

Harness Routing

Connect the extension harness to the sensor and route to the vehicle cabin. Two (2) 7.5m (24ft) length harnesses are included with the kit. The harness should be routed along the frame rail and away from any moving or hot parts. Once the extension harness is inside the vehicle cabin, connect the main power harness.



Main Power Harness

The Main power harness has (5) five wires that must be connected to the vehicle for all features of the system to function properly.

- RED - Ignition Input (+) : Connect the RED wire to the vehicle's Ignition circuit. The Ignition circuit will test 12-Volts (+) when the vehicle's Ignition system is in the ON position. When the vehicle's Ignition is OFF, this circuit will test 0-Volts (+).

- BLACK - Chassis Ground (-) : Connect the BLACK wire to the vehicle's Chassis Ground. If the ground point chosen is painted metal, please make sure to scrape the paint away to expose the bare metal.

- PURPLE - Reverse Input (+) : Connect the PURPLE wire to the vehicle's Reverse light circuit. This circuit will test 12-Volts (+) when the vehicle is in Reverse gear. This wire will test 0-Volts when the vehicle is in any other gear.

- GRAY - Right Signal Input (+) : Connect the GRAY wire to the vehicle's Right Turn Signal circuit. This circuit will pulse 12-Volts (+) when the vehicle Right Turn Signal is activated. This wire will test 0-Volts when the vehicle Right Turn Signal is OFF.

- WHITE - Left Signal Input (+) : Connect the WHITE wire to the vehicle's Left Turn Signal circuit. This circuit will pulse 12-Volts (+) when the vehicle Left Turn Signal is activated. This wire will test 0-Volts when the vehicle Left Turn Signal is OFF.

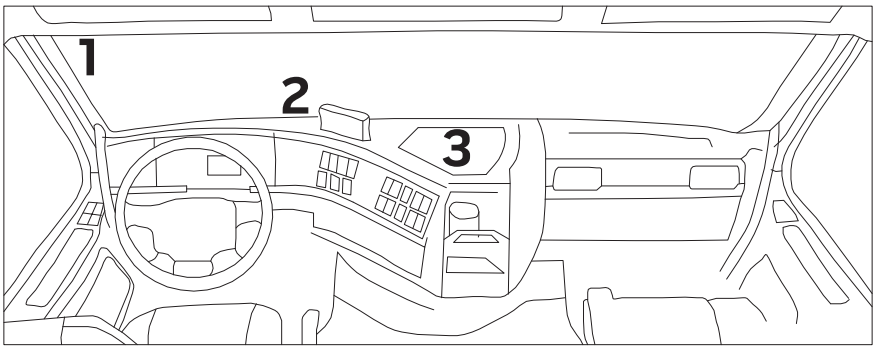
Display Mounting

Choose a location for the system display. The display should be clearly visible from the driver's seat.

The display should be mounted using the supplied hardware. It is always recommended to secure the display using screws. This will prevent the display from falling off or becoming a projectile in an accident.

Location Recommendations

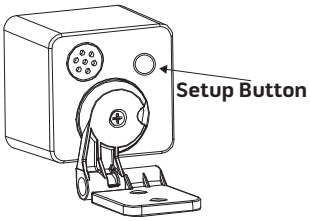
1. A-Pillar
2. Driver Side Dash
3. Center of Dash



System Settings

Settings

This system is equipped with a settings menu to allow for vehicle specific or user customizations. To access and adjust the system settings, the system but be powered ON. Set the vehicle's ignition to ON. The display will illuminate and display a blank screen with a small GPS indicator in the top corner.



To access the setting menu, press and hold the setup button on the rear of the display for 1.5 seconds. The display will show the setting of Menu 1, Volume Adjustment.

Button Press Time	Setting Function	Display Readout	Definition
0-1.5s	Volume	0	OFF
		1	Low
		2	Middle
		3	High
1.5s-3.0s	Units of Measure	F0	Metric
		F1	Imperial
3.0-4.5s	Object Type	C0	All Targets
		C1	Moving Targets
4.5-6.0s	Automatic Learning	L0	OFF
		L1	ON
6.0s	Reverse Detection Range	d3.0	3.0-2.4m
		d4.5	4.5-3.4m
		d5.0	5.0-4.0m
		d6.0	6.0-4.4m
		d10	10-5.0m
		dFF	OFF

Volume Adjustment

To Access the Volume Adjustment:
1. Press and Hold Setup Button for 1.5 seconds.
2. Display will show current setting value, Default "3".
3. Press and release the setup button to cycle through menu options.
4. The selection will automatically save and exit after 3 seconds.

Unit Of Measure

To Access the Unit of Measure:
1. Press and Hold Setup Button for 1.5 -3.0 seconds.
2. Display will show current setting value, Default "F0".
3. Press and release the setup button to cycle through menu options.
4. The selection will automatically save and exit after 3 seconds.

Object Type

To Access Object Type:
1. Press and Hold Setup Button for 3.0-4.5 seconds.
2. Display will show current setting value, Default "C0".
3. Press and release the setup button to cycle through menu options.
4. The selection will automatically save and exit after 3 seconds.

All Targets: The system will detect all target objects, Moving or Non-Moving. This setting should be used in reverse parking mode only.

Moving Targets: This setting will only detect Moving objects. This setting should be used in reverse parking mode only.

Note: A moving object is defined as any object moving at a speed different than this vehicle. This feature is useful if towing a trailer.

Automatic Learning

Automatic Learning is used when the sensor is not mounted on the outer most edge of the vehicle. The learning procedure will automatically detect parts of the vehicle body that will cause detection issues and ignore them each time the system is powered ON.

To Access Automatic Learning:
1. Press and Hold Setup Button for 4.5-6.0 seconds.
2. Display will show current setting value, Default "L0".
3. Press and release the setup button to cycle to "L1".
4. The selection will run automatic learning function and exit when completed.

Detection Range

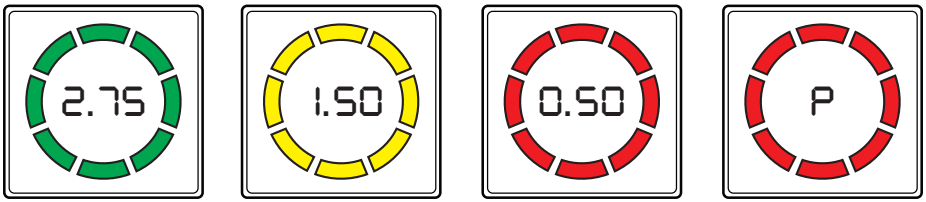
To Access the Detection Range:
1. Press and Hold Setup Button for more than 6.0 seconds.
2. Display will show current setting value, Default "3.0".
3. Press and release the setup button to cycle through menu options.
4. The selection will automatically save and exit after 3 seconds.

Testing

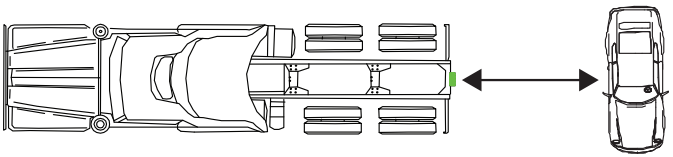
Parking Sensor Testing

To test the parking sensor function cycle the vehicle's ignition ON and set the gear selector to Reverse. The system will display the warning color and the distance to the object. As the vehicle approaches an object the display color, readout, and beep tone will change to warn the driver.

Zone	Object Distance	Display	Bar Color
Zone 1	No Detection	OFF	OFF
Zone 2	2.5-3.0m	2.5-3.0m	Green
Zone 3	1.9-2.4m	1.9-2.4m	Yellow
Zone 4	1.3-1.8m	1.3-1.8m	Yellow
Zone 5	0.7-1.2m	0.7-1.2m	Orange
Zone 6	0.4-0.6m	0.4-0.6m	Red
Zone 7	<0.4m	P	



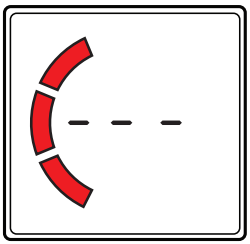
Green Yellow Red Red

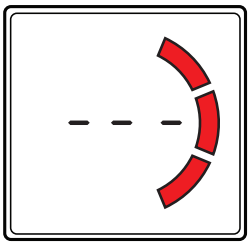


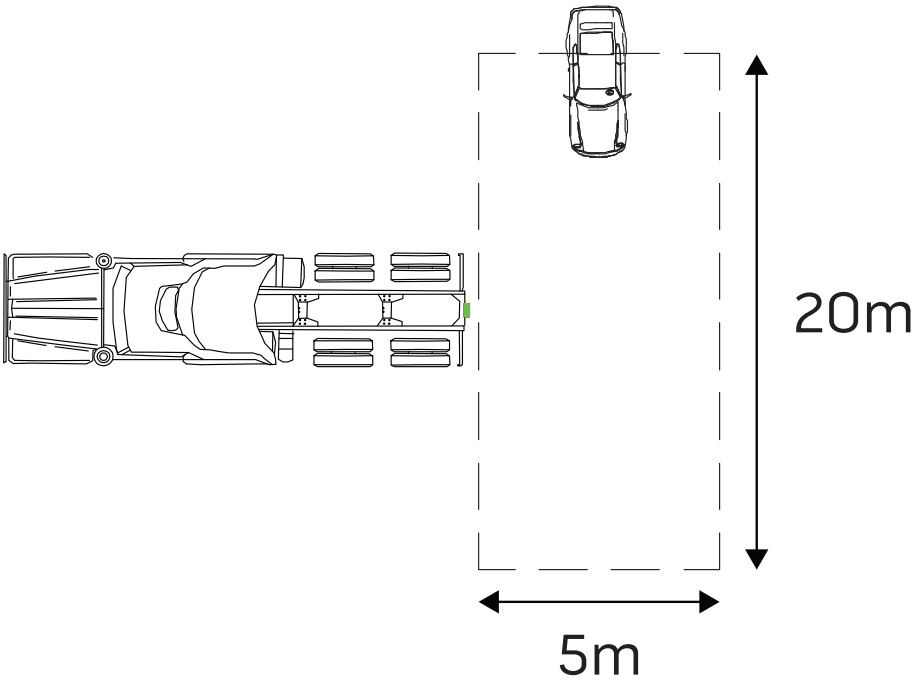
Rear Cross Traffic Alert Testing

To test the Rear Cross Traffic Alert (RCTA), the vehicle should be in reverse gear and be in a location where another vehicle can approach from the left or right. The best test is to have a partner drive another vehicle drive past the vehicle being tested. If this is not an option, a busy parking lot can be used.

To test RCTA, cycle the vehicle's ignition ON and set the gear selector to Reverse. The system display will illuminate the RED warning and beep on the left or right when a vehicle is approaching from that location.

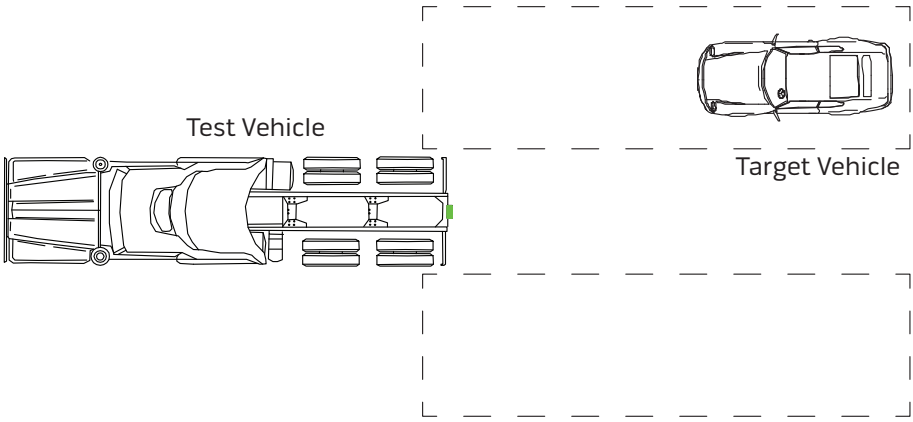




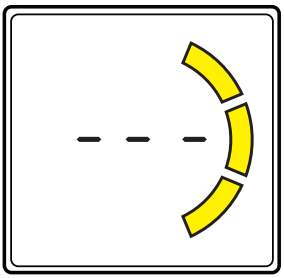


Blind Spot Detection Right

To test the Blind Spot Detection (BSD) function the test vehicle will need to be driven on a highway or roadway that will allow for a target vehicle to pass on the right side.



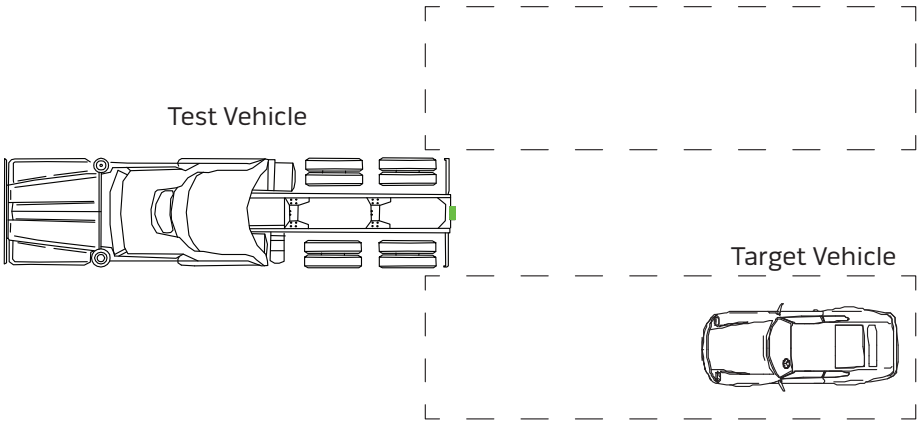
In the example above, the target vehicle is approaching from the rear on the right side. The right display indicator will illuminate YELLOW to provide a visual warning.



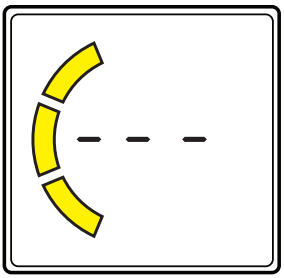
If the test vehicle's right turn signal is activated when a target vehicle is in the detection zone, the display will emit an audible tone to warn the driver.

Blind Spot Detection Left

To test the Blind Spot Detection (BSD) function the test vehicle will need to be driven on a highway or roadway that will allow for a target vehicle to pass on the left.



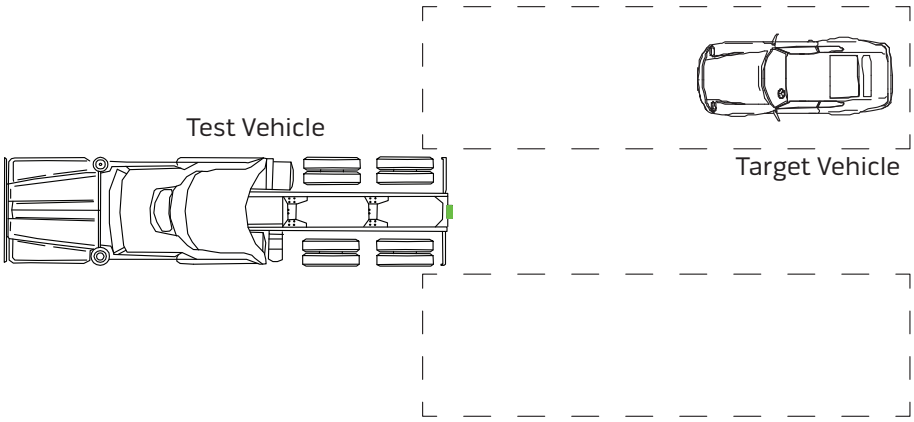
In the example above, the target vehicle is approaching from the rear on the left side. The left display indicator will illuminate YELLOW to provide a visual warning.



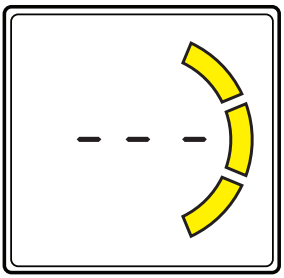
If the test vehicle's left turn signal is activated when a target vehicle is in the detection zone, the display will emit an audible tone to warn the driver.

Overtaking Alert

To test the Overtaking Alert function the vehicle will need to be driven on a highway or roadway that will allow for vehicle to pass on the right side.



In the example above, the test vehicle is passing the target vehicle. The target vehicle is on the right side. The right display indicator will illuminate while the target vehicle is in the detection zone.



If the test vehicle's right turn signal is activated when a target vehicle is in the detection zone, the display will emit an audible tone to warn the driver.

When the target vehicle clears the detection zone, the display indicator will turn OFF when it is safe to change lanes.

Notes

For customer or technical support please call Voxx Support:
1-800-732-4744
Monday – Friday

VOXX Electronics Corporation
A VOXX INTERNATIONAL COMPANY

For Customer Service
Visit Our Website At
www.voxxelectronics.com
Product Information, Photos,
FAQ's, Owner's Manuals

4281130 REV.0