

Front and Rear Parking Sensor System

2 or 4 Front and 4 Rear In-Bumper Sensors
With Wired LED Display and Built-in Beeper
(LED System, F2R4L, F4R4L)

2 or 4 Front and 4 Rear In-Bumper Sensors
With Beeper Only
(Beeper Only System, F2R4B, F4R4B)

For Cars, Mini-VANs, 4X4s, SUVs, and Small Trucks

Note for 6-Sensor Parking System

If you purchased a 6-sensor system (F2R4B or F2R4L), it is actually our 8-sensor system shipped with two(2) front sensors.

The two front sensors shipped with the 6-sensor system are labeled as 'E' and 'H'. Depending on your specific vehicle or application, they can be plugged into either the control box's ports 'E' and 'H' or ports 'F' and 'G' corresponding to the same sensor locations on the front bumper of vehicle as shown in Fig. 2 in the User's Manual.

Install the two front sensors to bumper locations 'E' and 'H' for better corner coverage of the front bumper, or install to bumper locations 'F' and 'G' for a balanced front bumper coverage as shown in Fig.2 in the User's Manual.

Two additional front sensors can be ordered at our online store and added to the 6-sensor system to make it a 8-sensor system as the control box is 8-sensor ready.

Front and Rear Parking Sensor System

Included in the Box *

- **6 or 8x Sensors** (in-bumper type) with attached cable and 2-pin mini connector. Cable Length: Front Sensor = 26.2ft (8.0m); Rear Sensor = 8.2ft (2.5m)
- **1x LED Display** with built-in beeper, On/Off switch, and 8-pin plug with 19.7ft/6m attached cable – for LED System (F2R4L, F4R4L)
- **1x Beeper** with 8.2ft/2.5m attached cable – for Beeper Only System (F2R4B, F4R4B)
- **1x Control Box**
- **1x Double-Sided Self-Adhesive Pad** for affixing control box to vehicle
- **1x Power Cable for Control Box** including four wires (red, black, yellow and blue) with 4-pin connector. Length: 3.3ft/1.0m
- **1x Drill Bit (Hole Saw)** - Φ 21mm.
- **2 or 8x Plastic Sensor Spacers** with wedged thickness for non-vertical bumpers
- **1x User's Manual** in English

Features *

- Front and Rear Parking Sensor System to provide good coverage of both front and rear end of vehicle
 - 2 or 4 front and 4 rear in-bumper sensors to give the look of factory installed system
 - Rear sensors are activated while reversing and front sensors are activated while forward-parking with foot-braking
 - Beeping faster when getting closer to obstacle
 - Designed for cars, SUVs, 4x4s, Mini-VANs, and small trucks
 - Limited 12 Month Warranty
- Beeper Only System (F2R4B, F4R4B)
- Audible alert (beeper) without display for easy installation without cluttering the dash
- LED System (F2R4L, F4R4L)
- Wired LED Display with Built-in Audible Alert (Beeper) with On/Off Switch
 - Seven (7) LED Lights on each side of the display to indicate both orientation of obstacles and Safe/Warning/Stop zone
 - Distance display in feet or meters

Specifications *

- FCC CE ISO9001 Approved
- Operating Voltage: DC +10.5 ~ +16V
- Detecting Range: Front: 1.0 ~ 3.3 ft (0.3 ~ 1.0m); Rear: 1.0 ~ 4.9 ft (0.3 ~ 1.5m).
- Measuring Error: \pm 0.1 ft (or 0.1m)
- Sensor Detection Angle: 60°
- Sensor Diameter: 0.83 in/21mm
- Sensor Length: 0.71 in/18 mm.
- Detection Response Time: 300ms
- Audible Alert when obstacle within: 1.0 ~ 3.3 ft (0.3 ~ 1.0m) in front; 1.0 ~ 4.9 ft (0.3 ~ 1.5m) in rear.
- Ultrasonic Frequency: 40Khz
- Audible Alert Volume: 60 db
- Maximum Power Consumption: 4W
- Current Consumption: 100~300mA
- Operating Temperature Range: -20 ~ +70°C
- Dimensions of the Control Box: WxDxH = 3.9" x 2.8" x 1.0" (10.0cm x 7.2cm x 2.5cm)
- LED System (F2R4L, F4R4L)
Dimensions of the LED Display: WxDxH = 5.2" x 1.2" x 1.1" (13.4cm x 3.0cm x 2.8cm)
- Beeper Only System (F2R4B, F4R4B)
Size of the Beeper: diameter = 1.6" (4.0cm); thickness = 0.7" (1.7cm)

* For reference only and may be changed without prior notice.

8-SENSOR SYSTEM - WIRING, SENSOR MOUNTING HEIGHT AND POSITION

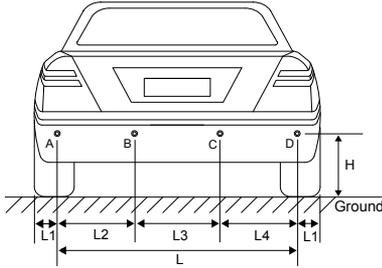


Fig.1 Mounting Height and Position (Rear Sensors)
 H = 50 ~ 80cm (20" ~ 32")
 L1 = 6 ~ 15cm (2" ~ 6")
 L2 = L3 = L4 or L2 = L4 = 0.3L, L3 = 0.4L

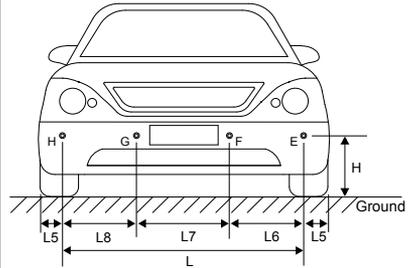


Fig. 2 Mounting Height and Position (Front Sensors)
 H = 50 ~ 80cm (20" ~ 32")
 L5 = 6 ~ 15cm (2" ~ 6")
 L6 = L7 = L8 or L6 = L8 = 0.3L, L7 = 0.4L

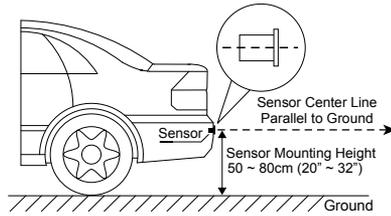


Fig.3 Mounting Height and Angle of Sensors

LED DISPLAY SYSTEM (F2R4L, F4R4L)

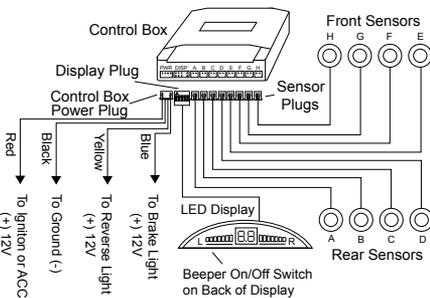


Fig. 4 Control Box, Display, Sensors, and Wiring

BEEPER ONLY SYSTEM (F2R4B, F4R4B)

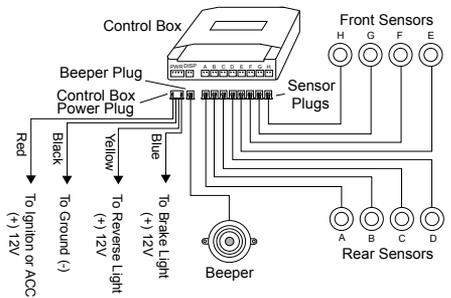


Fig. 5 Control Box, Beeper, Sensors, and Wiring

How the System Works

The Parking Sensor System determines obstacle distance by measuring the time needed for the ultrasonic wave emitted by a sensor to reach an obstacle and for the sensor to receive the ultrasonic wave reflected from the obstacle. Given the speed of the ultrasonic wave, the system can then calculate and display the distance between the sensor and the obstacle.

To provide good coverage for both front and rear end of vehicle, the system comes with 6 or 8 sensors (2 or 4 front and 4 rear sensors). ♦ To have the look of factory installed system, the 6 or 8 sensors are in-bumper type (to be installed in the front and rear bumpers by drilling holes through the bumpers). ♦ Controlled by +12V from the back up light, the rear sensors are activated when the vehicle is put in reverse. ♦ Controlled by +12V from the brake light, the front sensors are activated when parking/driving forward with foot-braking. ♦ For LED System (F2R4L, F4R4L), it comes with a wired LED display which shows the distance of an obstacle in front or rear of the vehicle (displayed as 0.0 if obstacle is within 1 ft or 0.3m). Seven (7) LED Lights (Green/Yellow/Red) on each side of the distance display indicate both orientation of obstacles and Safe/Warning/Stop zone. The audible alert (beeper) is built in the display with On/Off switch. ♦ For Beeper Only System (F2R4B, F4R4B), it comes with a beeper (audible alert) only for easy installation without cluttering the dash. ♦ The system beeps faster as vehicle gets closer to an obstacle and sounds continuously when vehicle is within 1 ft or 0.3m from an obstacle.
Note: the front sensors may continue to work for 20 more seconds after foot brake is released.

Tools Needed

Ø21mm drill bit (include), drill, tape measure, chalk or marker, wire stripper, vinyl electrical tape, cable/wire ties, voltage meter, screw driver set, pliers.

Note: Use a bi-metal 22mm drill bit (not included) if drilling through metal bumpers. For metal bumpers, holes drilled need to be slightly larger than diameter of sensors.

Installation and Wiring

IMPORTANT: (a) *Read this manual thoroughly before proceeding to installation. You can also have the system installed by a professional installer such as your local auto mechanic/auto electrician/car stereo store.* (b) *Turn off the engine and ACC during installation.* (c) *Double check that all wiring is correct before powering on the system.* (d) *During installation, avoid flattening, perforating, cutting, and extending the wires of sensors to reduce unnecessary signal loss.* (e) *Never pull the sensor cables too hard or sensors may not work properly or at all.*

1. Installing the Control Box

- a) Find a flat and clean surface for the control box inside the vehicle near driver's side taillight assembly but away from it for least 1 ft. As the control box is not water-proof type, you need to mount the control box to a location that is protected from water. Keep it away from areas of high heat, high humidity, direct sunlight, and electromagnetic devices.
- b) Place the control box in place temporarily without securing it to the vehicle as you may need to adjust the location of the control box while wiring. **Note:** After the system is working properly, use the double-sided self-adhesive pad (included) to secure it to the vehicle.
- c) Insert the 4-pin plug of the power cable for the control box into its 4-pin socket labeled "PWR" on the front side of the control box. See Fig. 4 (LED System) or Fig.5 (Beeper Only System).

Important Notes for Installing the Control Box:

Don't mount the control box near or under the dash or in the cab of a truck.

The control box is designed to be mounted near the rear end of a vehicle (near taillight assembly) to avoid interferences from the engine which may cause false alert such as continuous beeping and 0.0 display (LED System only).

If Installing the System to a Truck, as the control box is not water-proof type, you may need to first mount the control box in a small water-proof metal or plastic box (not included with the system), then fix it to a location near the rear end of the truck.

Note: Some lights (turn signal/brake/reverse/stop lights) may emit interferences that can affect the signals the control box receives therefore cause the system to give false alert. After installation, if you experience **false alert caused by turn signal light, or brake/reverse/stop lights**, try to put the control box as far as possible away (at least 1 ft) from the taillight assembly (or turn signal/brake/reverse/stop lights).

2. Wiring the Control Box - Refer to Fig. 4 (LED System) or Fig.5 (Beeper Only System) If necessary, remove the taillight assembly and use a voltage meter to verify the wires found. Strip 1/2" of the wires found for connecting wires together.

- a) Locate the +12V and the (-) negative wires from the reverse light near the taillight assembly.
- b) Connect the yellow wire of the power cable to the +12V wire of the reverse light.
- c) Connect the black wire of the power cable to the (-) negative wire of the reverse light.
- d) Locate the +12V wire from the brake light near the taillight assembly.
- e) Connect the blue wire of the power cable to the +12V wire of the brake light.
- f) Locate the +12V wire from a ACC (accessory) power outlet or ignition under the dash.
- g) Connect the red wire of the power cable to the +12V wire of the ACC or ignition.
- h) Wrap all connections with vinyl electrical tape.

Note: if there is no ACC +12V wire in the rear end of the vehicle, then the red wire needs to be extended then connected to ACC or Ignition +12V wire found in the front end of the vehicle (run the extended wire from the control box to the front end of the vehicle and hide it with the cables of the front sensors and display under the door or weather trim).

3. Installing the LED Display (for LED System only)

- a) Find a place for the display on top of the dashboard where the driver can see it easily. Place the display in place temporarily without securing it to the top of the dashboard. **Note:** After testing the system is working properly, secure it with the included self-adhesive on the bottom of the display.
- b) Run the display wire from the top of the dashboard down to the floor, and then to the control box in the back of the vehicle (hide the wire with the cables of the front sensors under the door or weather trim).
- c) Insert the 8-pin connector of the display into its 8-pin socket labeled "DISP" on the front side of the control box.

4. Installing the Beeper (for Beeper Only System)

- d) Find a place for the beeper near the middle of the vehicle on the driver side. Place the beeper in place temporarily without securing it to the vehicle. **Note:** After testing the system is working properly, secure it with the included self-adhesive on the bottom of the beeper.
- e) Run the wire of the beeper to the control box in the back of the vehicle (hide the wire under the carpet or weather trim).
- f) Insert the 2-pin connector of the beeper into its 2-pin socket labeled "DISP" on the front side of the control box.

5. Installing the Sensors

IMPORTANT: (a) *To avoid false alert from the system detecting the ground and for best obstacle detecting results, the suggested sensor mounting height is between 20" to 32" (0.5m to 0.8m) above the ground and the face of the sensors need to be vertical or slightly upward angled (Fig. 3).* (b) *Horizontally, the sensors may be equally spaced if possible or symmetric to the center of the bumper (Fig. 1 and 2).* (c) *For better corner coverage, the outer two sensors may be mounted about 5.9" (0.15m) from the corner of the bumper (Fig. 1 and 2).* (d) Adjustments to the sensors mounting positions may be needed for your specific vehicle.

Note: The bumper surface for mounting the sensors should be as flat and vertical as possible. **Use the plastic sensor spacers with wedged thickness (included) if the surface of the bumpers is non-vertical.**

For exact color match, you may have the sensors spray-painted. For best results, spray paint no more than two thin coats (not to be applied with brush or touch-up). And it is recommended

that you have the sensors professionally painted by an auto body shop.

Note: although the sensors can be spray-painted for exact color match to your vehicle, sensors painted void warranty on them.

- a) **Start with the front sensors, and then the rear sensors.** Refer to Fig. 1 and 2 for the recommended mounting height and position of the front and rear sensors.
- b) Work under the front and rear bumpers to check the internal structure of them before marking the positions for drilling holes. Remove the bumpers if the view is blocked.
- c) With chalk or marker, mark the position of sensors on the bumpers. Make sure that the sensors can be pushed all the way in and that you can feed the wires through.
- d) **Note:** If you have a 6-sensor system, install the two front sensors to bumper locations 'E' and 'H' for better corner coverage of the front bumper, or install to bumper locations 'F' and 'G' for a balanced front bumper coverage as shown in Fig.2
- e) Drill the holes through the bumpers at the marks with the $\Phi 21\text{mm}$ drill bit included.
Note: if drilling through metal bumper, you will need a bi-metal $\Phi 22\text{mm}$ drill bit (not included). Holes drilled in metal bumpers need to be slightly larger than diameter of sensors.
- f) If necessary, smooth the sharp edge of the holes with a polishing head or small round file.
- g) Run the sensor wires into the holes drilled. Push the sensors into the holes. When pushing the sensors only apply pressure at the edges, not on the middle of the sensor to avoid damage to the sensor element. The sensors are tapered for a snug fit.
- h) Adjust the sensors for non-vertical bumper surface by using/rotating the plastic sensor spacers with wedged thickness (included).
- i) **For front sensors,** run the sensor wires from the front bumper into the inside of the vehicle through the existing wiring holes or rubber grommet in the fire wall, and then to the control box in the back of the vehicle (hide the wires under the door or weather trim).
- j) **For rear sensors,** run the sensor wires from the rear bumper into the trunk or inside of the vehicle through the existing small vent or rubber grommet in the rear of the trunk or vehicle, and to the control box.
Note: Do not cut the excess sensor wires to avoid signal loss. Never pull to hard on the sensor wires or it may cause the system not to work properly.
- k) Attach sensor wires to the vehicle body with cable/wire ties so that they will not get in the way of any moving parts and there are no loose wires hanging down.
- l) Plug all sensors into their corresponding sockets at the control box.

Note: Only use Sensor A, B, C, and D as rear sensors, and Sensor E, F, G, and H as front sensors. Don't switch the front sensors with the rear sensors or it may cause false alert such as continuous beeping and 0.0 display (LED System only).

Installing Sensors in Metal Bumpers

If you have a continuous beeping or false alert problem after installation of the system, unplug all sensors from the control box, and then plug back in one sensor at a time then test to find out which specific sensor(s) is causing the problem.

After you find the sensor that is causing the false alert, please check if the sensor hole in the bumper is too tight as instructed below:

Pull the sensor out of its hole in the bumper for about 0.5 inch, tape it to the bumper so it faces upward a little bit and see if the false alert stops. If yes, then the hole drilled for the sensor is a little bit tight which can apply pressure on the sensor and or cause resonance and make the system give false alert. If this is the case, then carefully enlarging the hole a little bit with a small round file should solve the problem.

Testing Your New Parking Sensor System

For the rear sensors, back your vehicle slowly (about 3 miles per hour) to approximately 4.9 ft (1.5m) from a flat vertical surface such as a wall. Continue to back up slowly and check the performance against Chart 1 (LED System) or Chart 2 (Beeper Only System).

For the front sensors, do the same test while forward-parking slowly with foot-braking.

Note: have somebody watch the vehicle while you are doing the test.

Using the Display (for LED System, F2R4L , F4R4L)

The display has a built-in beeper (audible alert) with On/Off Switch. There are seven (7) LED Lights (3 Green, 2 Yellow, 2 Red) on each side of the two-digit distance display (Fig. 4). The color LED lights indicate both orientation of obstacle and Safe/Warning/Stop zone (Chart. 1).

**Chart 1. LED Display System (F2R4L, F4R4L)
Orientation of Obstacle, Distance Display, and Audible Alert**

Obstacle Distance	Viewing from the Front of the Display			
	LEDs on the Left Side of the Display Responding to Rear Sensor A,B or Front Sensor E,F	Beeping (Audible Alert)	Digital Distance Display	LEDs on the Right Side of the Display Responding to Rear Sensor C,D or Front Sensor G,H
Safe Zone (> 6.6ft)	No LEDs on	No		No LEDs on
Safe Zone (6.6~4.9ft)	Starting to light up at 4.9ft	Starting to beep at 4.9ft		Starting to light up at 4.9ft
Warning Zone (4.9~3.3ft)	1 - 3 Green on	Fast	Actual distance	1 - 3 Green on
Warning Zone (3.3~2.3ft)	3 Green/1 -2 Yellow on	Faster	Actual distance	1 -2 Yellow/3 Green on
Stop Zone (2.3~1.0ft)	3 Green/2 Yellow/1 - 2 Red on	Fastest	Actual distance	1 - 2 Red/2 Yellow/3 Green on
Stop Zone (1.0~0.0ft)	3 Green/2 Yellow/2 Red on	Continuously	0.0	2 Red/2 Yellow/3 Green on

Using the Beeper - Audible Alert (for Beeper Only System, F2R4B , F4R4B)

The beeper beeps faster as vehicle gets closer to obstacle and sounds continuously when vehicle is within 1ft (0.3m) from the obstacle.

**Chart 2. Beeper Only System (F2R4B , F4R4B)
Obstacle Distance, Alert Zones, and Audible Alert**

Alert Zones	Obstacle Distance	Beeping (Audible Alert)
Safe Zone	6.6~4.9ft	Starting to beep at 4.9ft
Safe Zone	4.9~3.3ft	Beeping Fast to Faster
Safe Zone	3.3~2.3ft	Beeping Faster to Fastest
Warning Zone	2.3~1.0ft	Beeping Fastest
Stop Zone	1.0~0.0ft	Beeping Continuously

- (Note: 1ft = 0.3m)

Troubleshooting (for LED System, F2R4L , F4R4L)

<i>Problem</i>	<i>Cause</i>	<i>Solution</i>
Display doesn't light up when reversing or parking forward with braking	<ol style="list-style-type: none"> 1. Display not plugged in. 2. No power to the control box. 3. Faulty display. 	<ol style="list-style-type: none"> 1. Check display connection. 2. Check control box power connections to see if: Black wire is grounded properly, Red wire gets +12V from ACC or ignition, Yellow wire gets +12V from reverse light, Blue wire gets +12V from brake light. 3. Replace the display.
Display light up but system is not detecting any obstacle	<p>Sensors not connected. Faulty display. Faulty control box.</p>	<p>Check sensor connections. Replace the display. Replace the control box..</p>
System showing distance but no beeping or system beeping but no distance display	<p>Beeper switched off. Faulty display. Faulty control box.</p>	<p>Switch on the beeper (switch on back of the display). Replace the display. Replace the Control Box.</p>
System is not detecting any obstacle in front	<p>System has no +12V from brake light.</p>	<p>Make sure the blue wire gets +12V from brake light.</p>
System is not detecting any obstacle in rear	<p>System has no +12V from reverse light.</p>	<p>Make sure the yellow wire gets +12V from reverse light.</p>
Wrong LEDs light up	<p>Sensors are plugged into the wrong sockets at the control box</p>	<p>Install the sensors in the bumper as labeled in Fig. 1 & 2 and plug sensors as labeled on the sensor wires into their corresponding sockets at the control box (Fig. 4)</p>
Display constantly shows 0.0 or beeps continuously	<ol style="list-style-type: none"> 1. Object within 1 ft is detected. 2. Holes drilled for sensors are too tight (especially if it is a metal bumper). 3. Faulty sensor(s). 4. Faulty control box. 	<ol style="list-style-type: none"> 1. Unplug all sensors, and then plug back in one sensor at a time to find out which sensor is causing the problem. Check if anything within 1 ft of the sensor may be detected. Adjust angle of the sensor. Refer to 5. Installing the Sensors for details. 2. Carefully enlarging sensor holes a little with a small round file. 3. Replace the sensors(s). 4. Replace the control box.
Display shows a distance and beeps even there is no obstacle behind or in front	<ol style="list-style-type: none"> 1. Ground is detected. Sensors angle is low. Sensors installed too low (mounting height below 1.6ft). 2. Holes drilled for sensors are too tight (especially for a metal bumper). 	<ol style="list-style-type: none"> 1. Unplug all sensors, and then plug back in one sensor at a time to find out which sensor is causing the problem. Adjust angle of the sensor. Refer to 5. Installing the Sensors for details. 2. Carefully enlarging sensor holes a little with a small round file.

Troubleshooting (for Beeper Only System, F2R4B , F4R4B)

Problem	Cause	Solution
No beeping when reversing or parking forward with braking	<ol style="list-style-type: none"> 1. Beeper not connected properly. 2. No power to the control box. 3. Faulty beeper. 	<ol style="list-style-type: none"> 1. Check beeper connection to control box. 2. Check control box power connections to see if: Black wire is grounded properly, Red wire gets +12V from ACC or ignition, Yellow wire gets +12V from reverse light, Blue wire gets +12V from brake light. 3. Replace the beeper.
System is not detecting any obstacle in front and rear	<ol style="list-style-type: none"> 1. Beeper not connected properly. 2. No power to the control box. 3. Sensors not connected. 4. Faulty beeper. 5. Faulty control box. 	<ol style="list-style-type: none"> 1. Check beeper connection. 2. Check control box power connections to see if: Black wire is grounded properly, Red wire gets +12V from ACC or ignition, Yellow wire gets +12V from reverse light, Blue wire gets +12V from brake light. 3. Make sure sensors plugged in securely. 4. Replace the beeper. 5. Replace the control box.
System is not detecting any obstacle in front	System has no +12V from brake light.	Make sure the blue wire gets +12V from brake light.
System is not detecting any obstacle in rear	System has no +12V from back up light.	Make sure the yellow wire gets +12V from reverse light.
Beeps continuously	<ol style="list-style-type: none"> 1. Object within 1 ft is detected. 2. Holes drilled for sensors are too tight (especially if it is a metal bumper). 3. Faulty sensor(s). 4. Faulty control box. 	<ol style="list-style-type: none"> 1. Unplug all sensors, and then plug back in one sensor at a time to find out which sensor is causing the problem. Check if anything within 1 ft of the sensor may be detected. Adjust angle of the sensor. Refer to 5. Installing the Sensors for details. 2. Carefully enlarging sensor holes a little with a small round file. 3. Replace the sensors(s). 4. Replace the control box.
Beeps even there is no obstacle behind or in the front	<ol style="list-style-type: none"> 1. Ground is detected. Sensors angle is low. Sensors installed too low (mounting height below 1.6ft). 2. Holes drilled for sensors are too tight (especially for a metal bumper). 	<ol style="list-style-type: none"> 1. Unplug all sensors, and then plug back in one sensor at a time to find out which sensor is causing the problem. Adjust angle of the sensor. Refer to 5. Installing the Sensors for details. 2. Carefully enlarging sensor holes a little with a small round file.

For more installation related questions and Frequently Asked Questions (FAQs) with answers, and product photos, visit our Web site at <http://parkingsensors.net>

Warnings

● **Detection Range of the System**

The parking sensor system detects obstacle by emitting ultrasonic wave and receiving reflected ultrasonic wave from an obstacle. Different materials have different reflection and absorption of the ultrasonic wave, and the actual detection distance varies depending on what materials an obstacle is composed of. Human skin and clothes actually absorb the ultrasonic wave, and can only reflect very small portion of the ultrasonic wave back to the sensors, hence **the system may detect human skin and clothes within a much shorter range compared to other materials**. Drivers in these situations should pay more attention while parking their vehicles.

- To avoid collision with obstacle because of the inertia of vehicle while backing up/parking, keep your vehicle speed at about **3 miles per hour** and stop the vehicle immediately once you hear the continuous beeping. This is because even if you have applied brake, your vehicle will still go for some distance (inertia) before it comes to a complete stop.
- Because the back up parking system detects obstacle by emitting ultrasonic wave and receiving reflected ultrasonic wave from obstacle, the system may fail to give both visual and audible alert if an obstacle has smooth ball-shaped or sloped surfaces as such surfaces may not reflect ultrasonic wave back to the sensors at all. Drivers in these situations should pay more attention while parking their vehicles.
- In heavy falling rain or snow, the system may give alert as falling rain or snow may be detected as obstacles. Keep surface of sensors clean of snow, mud, dirt, and other debris.

Terms & Conditions, Return Policy, and Warranty

IMPORTANT: the parking sensor systems and parts sold and distributed by us are only devices used to assist a driver while parking. They should not be considered as a substitute for driver responsibility when operating a vehicle. No warranty as to operational efficiency is granted. We don't guarantee or assume liability for collisions or damages that take place when parking your vehicle with use of the parking sensor systems or parts. We will not be liable for any claims, actions, suit proceedings, costs, expenses, damages or liabilities arising out of use of the systems or parts. By placing an order for the parking sensor system(s) or parts, customer agrees to take full responsibility of use of such system(s) or parts.

Returns/exchanges can only be accepted if they are within 15 days of your receipt of your order.

Before your return, you must e-mail our Customer Service to get your **Return Merchandise Authorization Number (RMA#)** for your return to be processed.

We offer 12-month limited warranty on our products from date of purchase. After an item(s) is/are returned to us, it/they will be checked and tested by our technical support. If the item(s) is/are found as defective in materials and workmanship, and qualified for our warranty, they will be either repaired or replaced for free (shipping cost excluded). If they are found as not qualified for our warranty, then you need to pay for the repaired or replacement items at their full retail prices (see below: Items with the following conditions are not qualified for our warranty).

The warranty excludes defects or damage due to misuse, abuse or neglect. This warranty does not cover any cost incurred in inspection, installation and repair services involved.

Items with the following conditions are not qualified for our warranty:

Customer can cut or extend wires or cables for more flexible installations, but please note that items with wires or cables cut void the warranty on the items.

Customer can paint sensors to match his vehicle color, but please note that sensors painted by customer void the warranty on the sensors.

Sensors with any type of glue or silicone applied void the warranty on the sensors.

Items with seal (if any) broken, case (if any) opened, repaired, modified, or disassembled by customer void the warranty.

Items for return must be in new, uninstalled, unused, re-sellable condition, including the original packaging, manufacturer's containers, documentation, warranty cards, manuals, and all accessories.

Re-packing and Re-stocking fee:

Unopened returns are subject to a 15% re-stocking fee.

Opened returns are subject to a 25% re-packing and re-stocking fee.

Returns which are damaged or have parts missing (not caused by shipping process) may be subject to a greater re-stocking fee, or charged at their full retail prices and deducted from refund amount.

Shipping and Handling fee is not refundable.

Returns are not acceptable if the packaging is not in its original condition or the item has been used or installed.

International orders are not returnable.

If a domestic or international shipment is refused by the customer or customs and returned back to us, a 15% restocking fee will apply less the shipping cost and any other fees incurred if any to the customer. It is the customer's responsibility to make all arrangements with us for refused shipments.

You are responsible for the shipping and handling cost to mail the defective parts, returns, exchanges, and items for Warranty back to us and for us to ship them to you.

You are responsible for the customs duty, tariff or import tax charged by the customs in your country.

Customer Service and Technical Support

For customer service and technical support, visit our Web site as listed below, then click on the link [Contact Us](#).

Spare and Replacement Parts

To order spare and replacement parts for your system, visit our Web site as listed below, then click on the link [Replacement Parts](#).

The specifications and features of the system, Terms & Conditions, Return Policy, and Warranty included in this User's Manual are subject to change without prior notice.