Parking Sensor System

Front or Rear

9002-3010

Recommended Tools	Difficulty Level
Zip Ties, Wire Strippers, Wire Cutters, Electrical Tape, Screw Driver, PanelRemovalTool	
	Install Time
	1hr30m-2hr

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

Kit Contents

Kit Contents:

1x LED Display
1x Adjustable Speaker
1x Display Extension Cable
1x Sensor ECU
4x Flat Push-in Mounting Pieces
4x 5 degree Push-In Mounting Pieces
4x Flush Mounting Pieces
1x Power Harness
1x Body Harness
1x On/Off Switch
1x Sensor Harness

Section 1: Bumper Installation

Identify if you will be installing on a plastic bumper (Part A-B) or on a metal bumper (Part C-D)

Part A — Plastic Bumper Sensor Installation (front or rear)

1. Remove bumper fascia from vehicle. Use manufacturer recommended procedure.

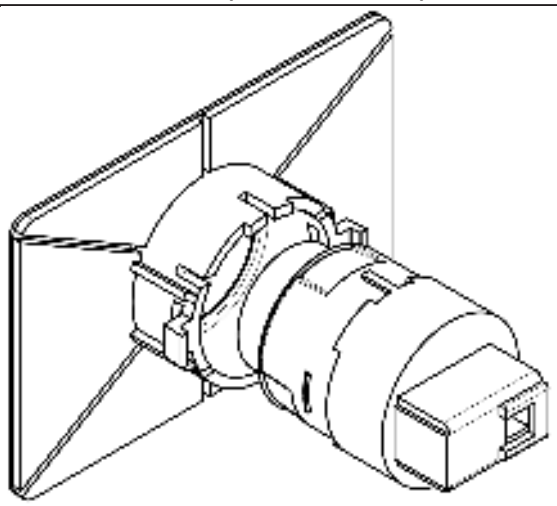
2. Locate bumper sensor locations.

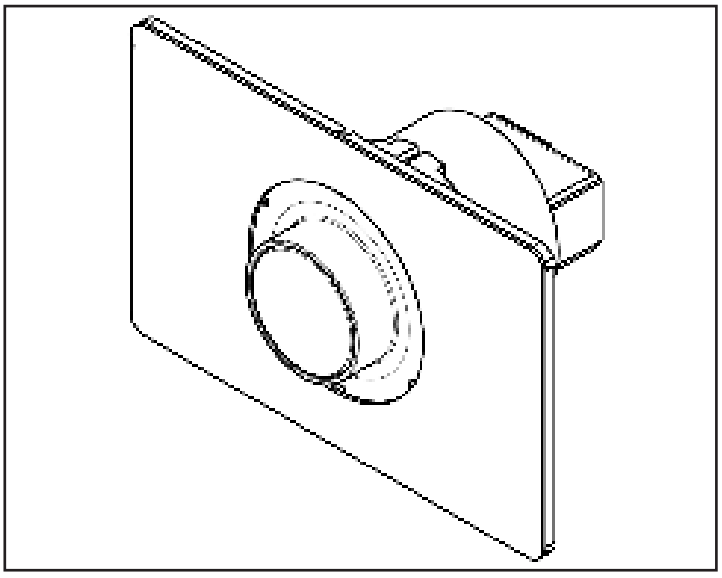
   - Mark the locations with masking tape and a pencil mark.

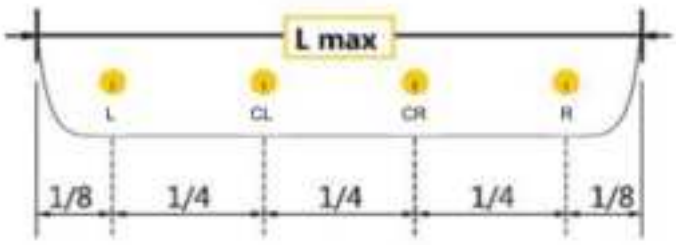
   - The recommended height from the ground is between 18" - 20". Measure the desired height and mark it on the bumper.

   - Measure the width of the bumper and refer to the diagram to mark appropriately spaced locations across the bumper.

NOTE: Before you drill any holes into the fascia you must check to see if the sensor locations will have any interference with the sensor installation (such as metal beam, braces, or bracketry).

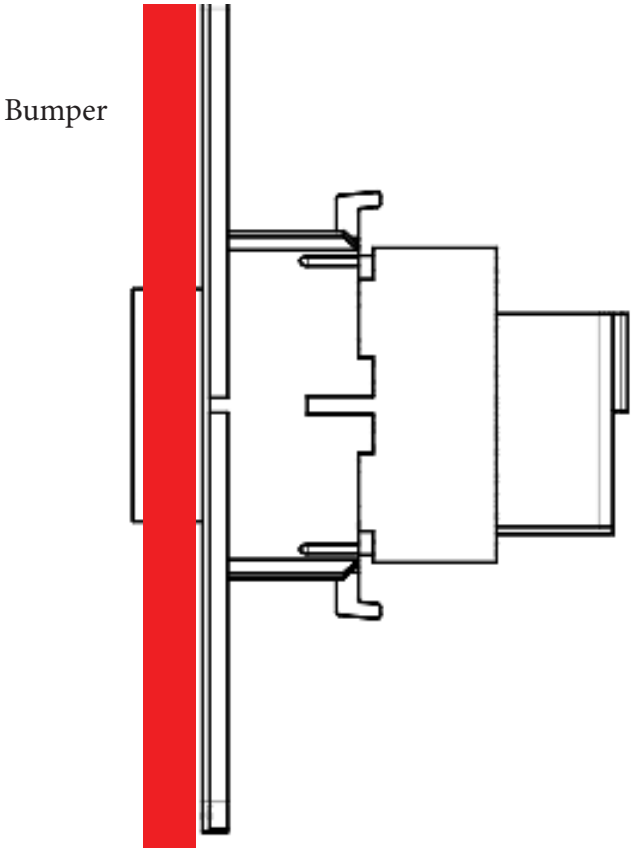


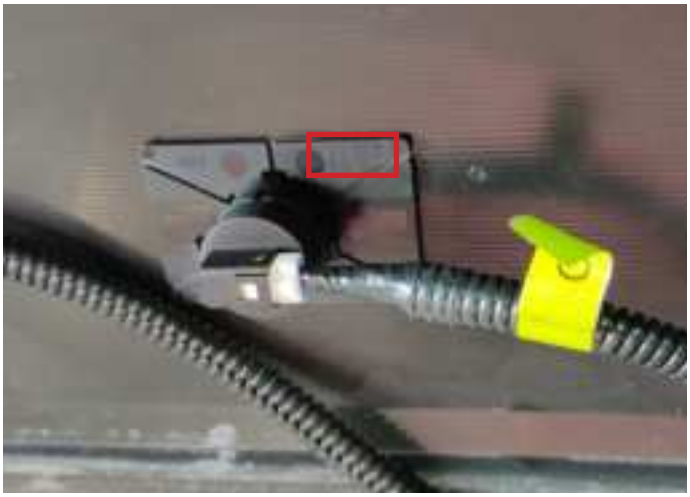




Part B — Plastic Bumper Sensor Installation

1. Using a 1/4" Drill bit, pre-drill pilot holes at the marked locations.
2. Using a hole saw, drill 5/8" (15.5mm) holes through pilot holes.
3. Clean the inside of the bumper around the holes with alcohol.
4. Insert the sensor into the flush mounting piece. The sensor is keyed to only fit up. There are two tabs on the side of the sensor, align these with the mounting piece and press until you hear a click.
5. Make sure the UP indicator is pointing up on the mounting piece.
6. Remove the adhesive protector from the mounting piece and position over the hole from the inside of the facia.
7. Press firmly and evenly to ensure the adhesive bonds with the plastic.
8. Properly aligned sensors will have all the connectors pointing towards the driver side.
9. Connect the correctly labeled portion of the Sensor harness to each sensor in the bumper. Note the orientation of L, CL, CR, & R in the image.
10. Route the sensor harness along the bumper and find or create a way to get the harness inside the vehicle. It is recommended to pull the harness through an existing grommet from the vehicle, but if there are none present, drill a hole and be sure to add a fitting grommet and silicone to ensure a water tight seal.
11. Reinstall the bumper fascia onto the vehicle.





L	Driver Side Edge
CL	Driver Side Center
CR	Passenger Side Center
R	Passenger Side Edge

Part C

Metal Bumper Sensor Installation (front or rear)

1. Locate bumper sensor locations.

   - Mark the locations with masking tape and a pencil mark.

   - The recommended height from the ground is between 18" - 20". Measure the desired height and mark it on the bumper

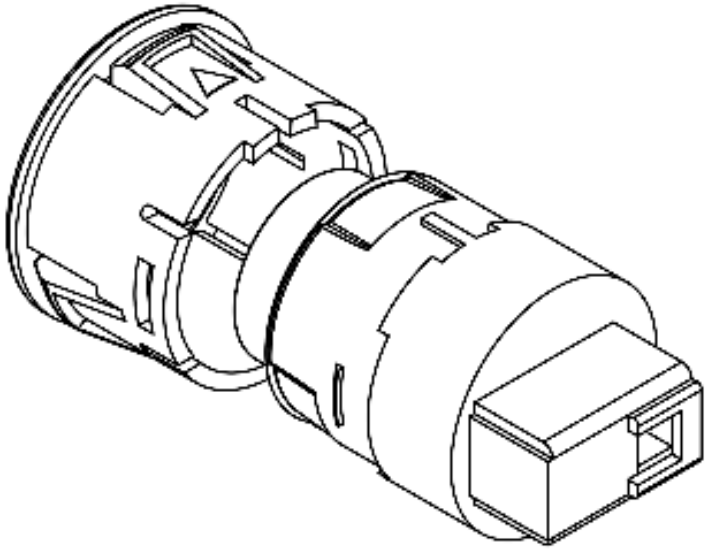
   - Measure the width of the bumper and refer to the diagram to mark appropriately spaced locations across the bumper.

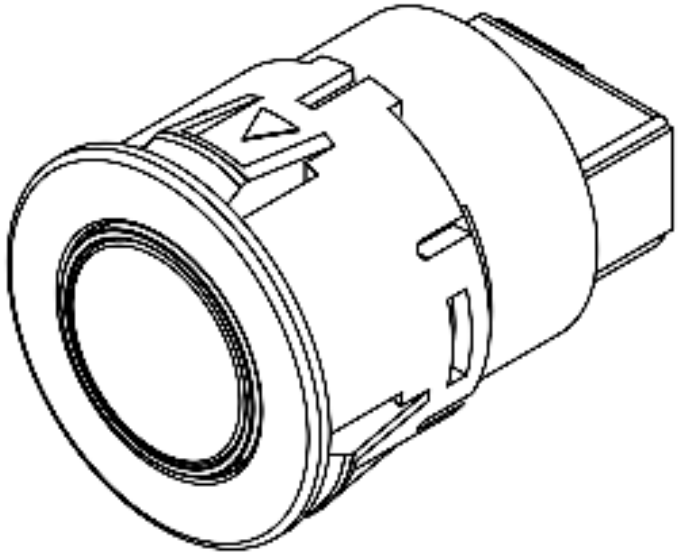
   NOTE: Before you drill any holes into the fascia you must check to see if the sensor locations will have any interference with the sensor installation (such as metal beam, braces, or bracketry).

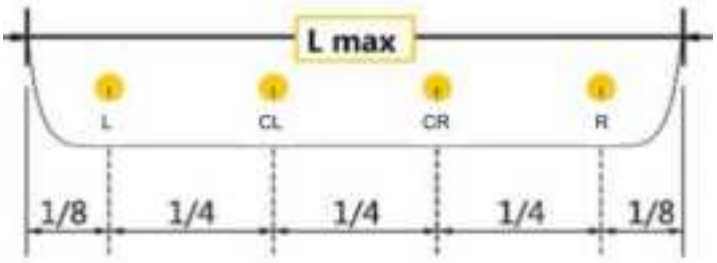
2. Prepare the bumper for the hole drilling. Using a ¼" Drill bit, pre-drill holes at your desired location. Using a 7/8" (22mm) hole saw, cut into the bumper and file any metal burrs.

3. Insert the sensor into the round mounting piece. The sensor is keyed to only fit up. There is a single line at the top of the sensor that aligns with the mounting piece. Align the sensor and press until you hear a click. The face of the sensor should mount flush to the face of the mounting ring.

4. If mounting lower than 18", use provided 5 degree mounting pieces instead.







Part D — Metal Bumper Sensor Installation

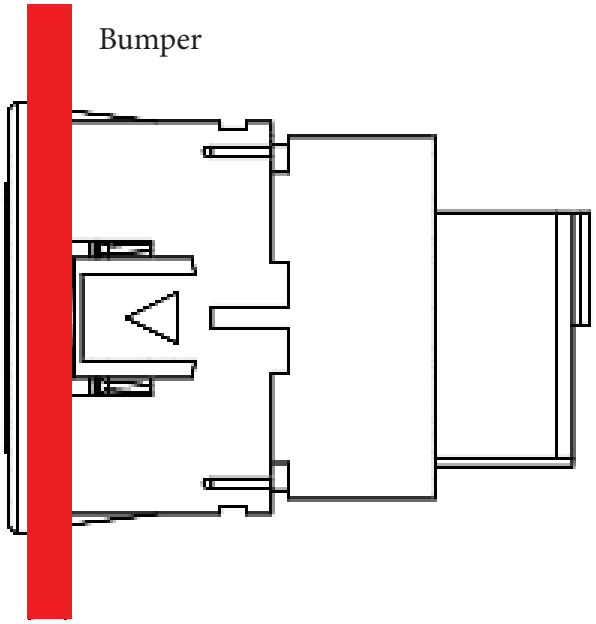
1. From the front of the bumper push the sensors into the holes. They should press firmly into place. If not, lightly file and clean to open the hole.

   Note: the mounting piece has a small arrow that must be on the top as it is mounted.

2. Connect the correctly labeled portion of the sensor harness to each sensor in the bumper. Note the orientation of L, CL, CR, & R in the image.

3. Properly aligned sensors will have all the connectors pointing towards the driver side.

4. Route the sensor harness along the bumper and find or create a way to get the harness inside the vehicle. It is recommended to pull the harness through an existing grommet from the vehicle, but if there are none present, drill a hole and be sure to add a fitting grommet and silicone to ensure a water tight seal.

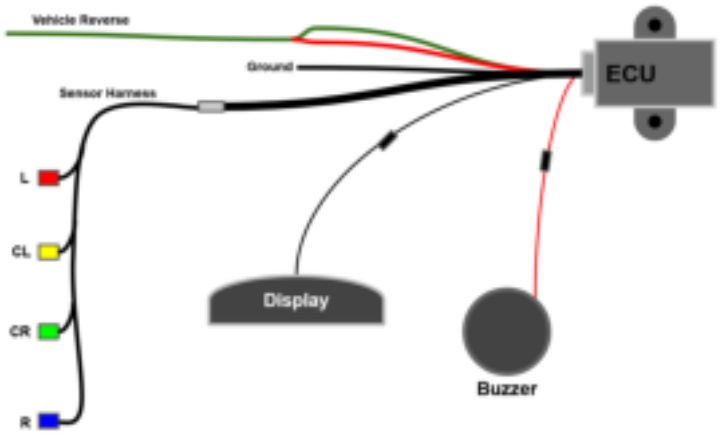


L	Driver Side Edge
CL	Driver Side Center
CR	Passenger Side Center
R	Passenger Side Edge

Section 2: Rear Bumper Wiring Installation

Part A — ECU Placement & Wiring (REAR)

1. Find a location to mount the ECU somewhere in the driver side footwell.
2. Connect the ECU to the sensor harness.
3. Mount the Buzzer with the adhesive and connect the buzzer plug. Set the switch to desired volume level.
4. Locate reverse 12v wire from either the tail lamp or the fuse box and run a lead to the ECU.
5. Tie the Green REVERSE wire and the Red IGN together and connect them to the 12v reverse lead you ran. Blue is not used.
6. Connect the Black GND wire to vehicle ground.
7. Run the harness from the ECU along the driver side of the vehicle towards the back of the vehicle.
8. For longer vehicles, it may be necessary to extend the length of this harness.
9. Connect the harnesses together where the sensor harness enters the vehicle.



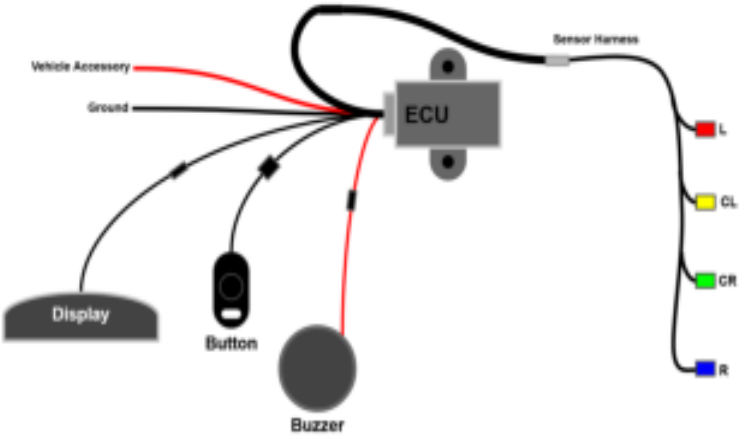
Part B — Display Placement & Wiring

1. Find a Display location that suites desired application and mount with supplied double-sided tape then run harness to the drivers side, under the dash. If need be, connect the display to the extension cable.
2. Connect the display harness/extension cable to the sensor harness at the labeled connection point.

Section 3: Front Bumper Wiring Installation

Part A — ECU Placement & Wiring (FRONT)

1. Find a location to mount the ECU somewhere in the driver side footwell.
2. Connect the ECU to the sensor harness.
3. Mount the Buzzer with the adhesive and connect the buzzer plug. Set the switch to desired volume level.
4. Locate vehicle Acessory 12v wire from the fuse box and run a lead to the ECU.
5. Connect the Red IGN to the 12v Acessory lead you ran. Blue and Green are not used.
6. Connect the Black GND wire to vehicle ground.
7. Run the harness from the ECU along the driver side of the vehicle towards the front of the vehicle.
8. Connect the harnesses together where the sensor harness enters the vehicle.



Part B — Display Placement & Wiring

1. Find a Display location that suites desired application and mount with supplied double-sided tape. Then run harness to the ECU and connect to the harness. If need be, connect the display to the extension cable.
2. Connect the display harness/extension cable to the sensor harness at the labeled connection point.

Section 3: Front Bumper Wiring Installation

Part C — On/Off Switch Placement

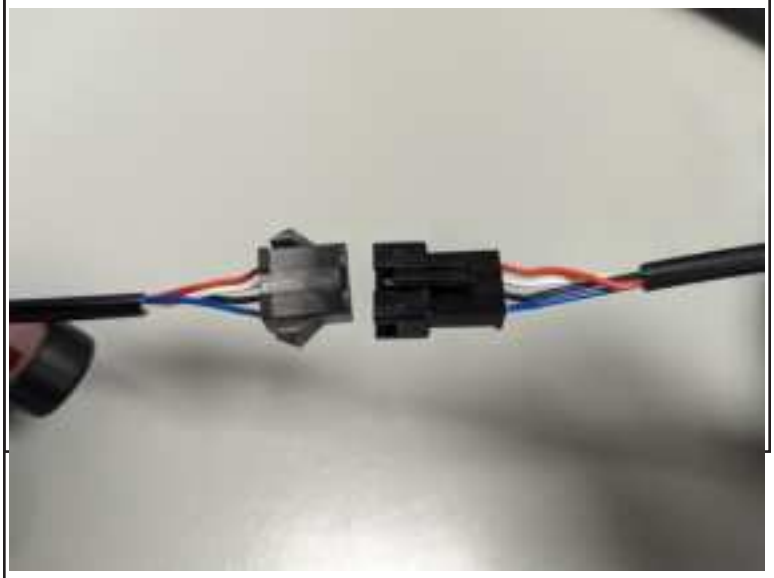
1. Find a switch location that is within reach of the driver, drill a small hole in the dash for the wire & utilize the adhesive tape on the back.

   NOTE: You will only utilize this switch to turn the sensors on and off by pressing the switch.

2. Then run the harness to the drivers side, under the dash.

3. Place the 4 wires into the supplied black connector by matching the colors.
   - Blue - Blue
   - Black - Black
   - White - White
   - Red - Red

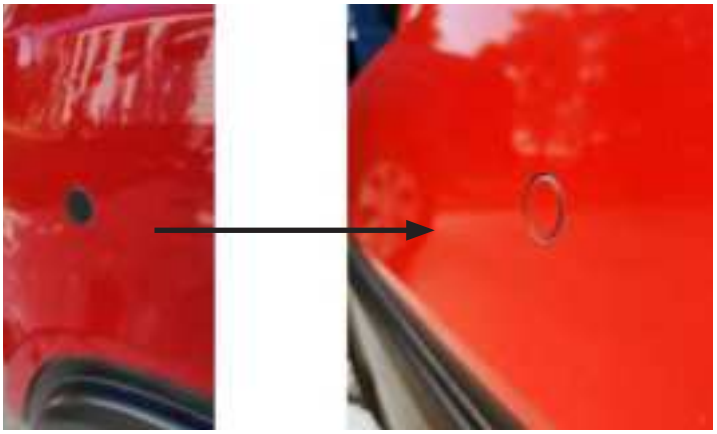
4. Connect the black connector to the corresponding connector on the ECU Harness.



Section 4: Final Touches

Part A — Painting Sensors

1. These sensors are capable of being painted over with an OEM grade paint to match your vehicle.



Section 5: Expected Functionality

Part A — Backup Sensors

1. The sensors will turn on only when the vehicle is put in reverse. The speaker will beep twice to indicate they are powered.
2. When backing up to an object, the sensors will beep when something is detected within 5 feet. The closer the object is the more frequent the beeps will be.
3. The display will show a distance readout and the lights will increase from Blue to Red as an object is closer.
4. The display will only be powered on when the car is in reverse.

Part B — Forward Sensors

1. The sensors will turn on only when the driver taps the button.
2. When approaching an object, the sensors will beep when something is detected within 5 feet. The closer the object is the more frequent the beeps will be.
3. The display will show a distance readout and the lights will increase from Blue to Red as an object is closer.
4. The display will be powered on whenever the accessory power is on. It will show two lines if the sensors are disabled with the switch.