

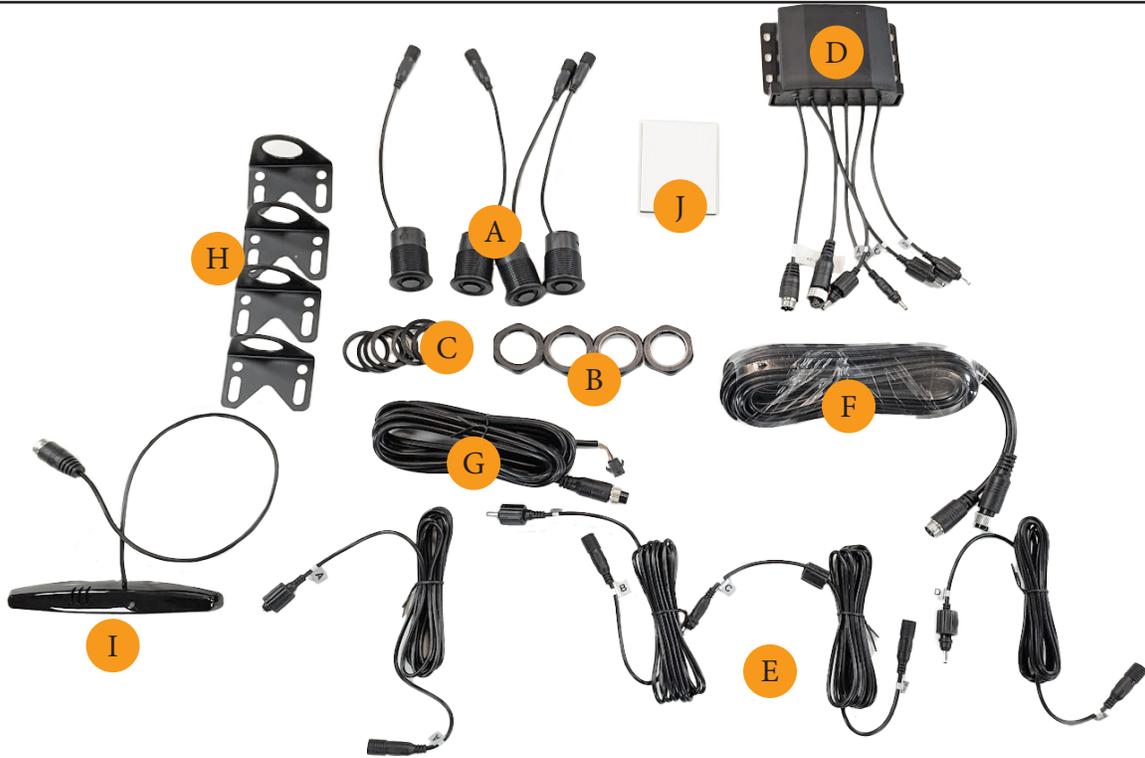
Heavy Duty Dual-Mount Parking Sensor System (4-Sensors)

FLTW - 3051



Recommended Tools				Difficulty Level
 Zip Ties	 Wire Strippers	 Wire Cutters	 1 1/16" (27mm) hole saw	
 Screw Driver	 Panel Removal Tool	 Drill	 Electrical Tape	Install Time
Questions? Call the Brandmotion technical support line at (734) 619-1250 or CLICK HERE				 1hr 30m - 2hr

Kit Contents



Kit Contents:

4x Ultrasonic Sensors (A)

4x Sensor Nuts (B)

8x Rubber Washers (C)

1x Sensor ECU (D)

4x Sensor Wire Extensions (E)

1x 15m 4-pin Data Extension (F)

1x 3m 4-pin Power Wire (G)

4x Sensor Drop Mount Brackets (H)

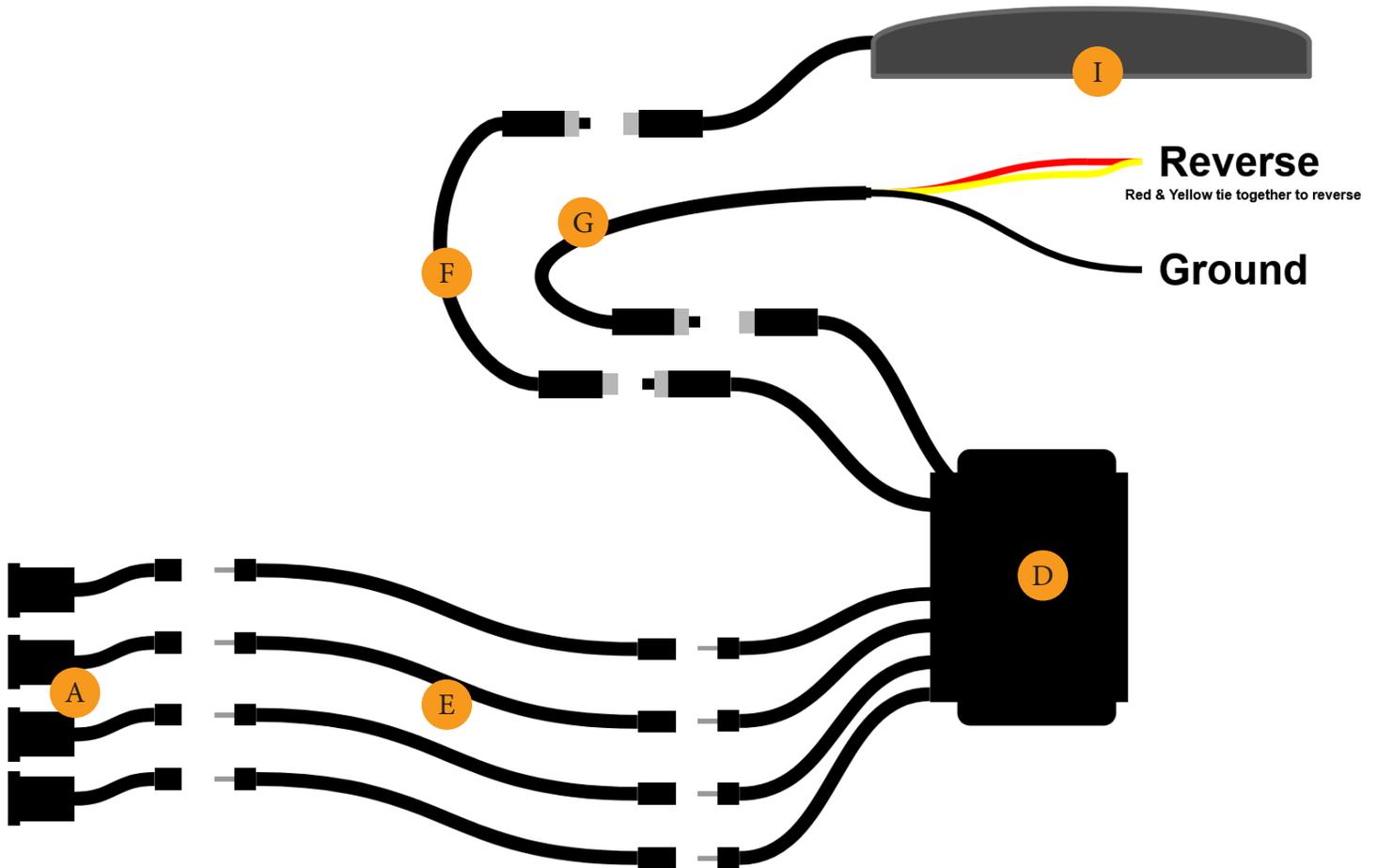
1x Sensor Buzzer and Display (I)

1x Sensor Mounting Pad (J)

Sensor System

Part 0

Sensor System Overview



- The above figure shows the layout of all electrical components in the kit.
- These labels do not correspond to tags on the components in the kit.
- Wire lengths are scaled to fit page

A	Ultrasonic Sensors
D	Sensor ECU
E	Sensor Wire Extensions
F	Camera Cable Extensions
G	Power Wire
I	Sensor Buzzer and Display

Section 1: Sensors Installation

Part 1a

Through-hole mounting sensors

1. Locate bumper sensor locations.

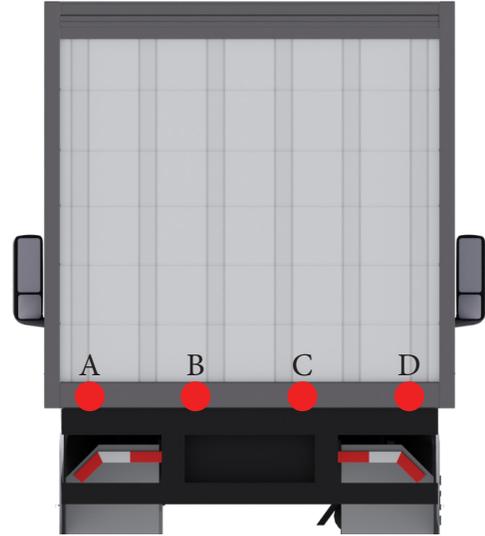
- Mark the locations with masking tape and a pencil mark.
- The recommended height from the ground is between 18" - 20". Measure the desired height and mark it on the bumper
- Measure the width of the bumper and mark appropriately spaced locations across the bumper.

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

2. Using a 1/8" Drill bit, pre-drill holes at your desired locations. Use a 1 1/16" (27mm) hole saw to open up the holes.

NOTE: When drilling through thick metal, soak the hole saw in WD-40 or machine oil and reapply often to prevent dulling.

3. Test fit the sensor. If necessary, use a rasp to gently file off any metal burr or debris to ensure the sensor fits freely. The sensor should have some play in the hole.



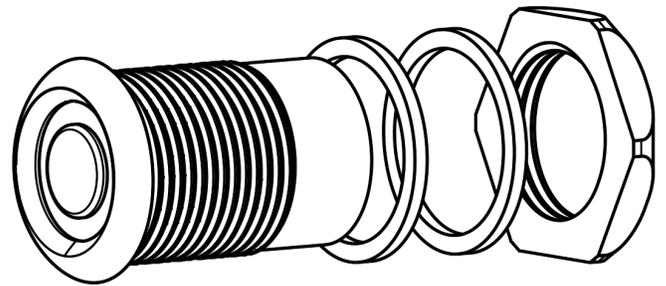
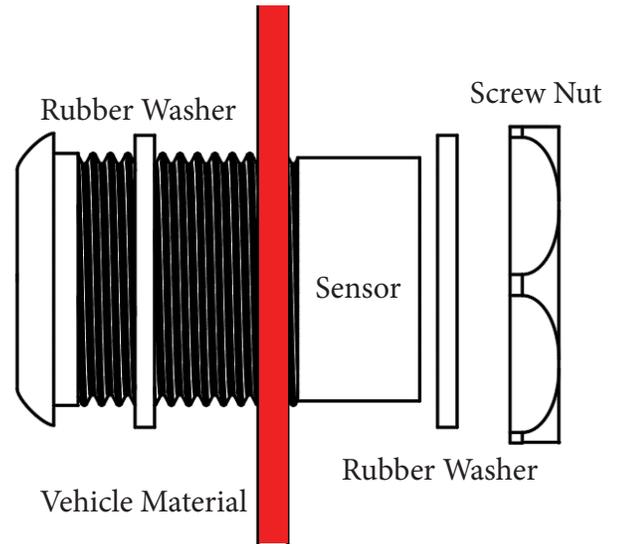
A	Bottom Driver Side Edge
B	Bottom Driver Side Center
C	Bottom Passenger Side Center
D	Bottom Passenger Side Edge

See Page 6 For Alternate Sensor Mounting Method

Part 1a

Through-hole mounting sensors

1. Put a rubber washer over the sensor, then push the sensor into the hole. Put another rubber washer over the sensor and then the screw nut. (See diagram). There should be a rubber washer on both sides of the vehicle material.
2. Tighten the screw nut hand tight and do not over tighten.
3. Skip to page 8 for Wiring Instructions.



See Page 6 For Alternate Sensor Mounting Method

Part 1b

Drop mounting sensors

1. Locate bumper sensor bracket locations.
 - Find a horizontal, flat spot to mount the bracket.
 - Mark the locations with masking tape and a pencil mark.
 - The recommended height from the ground is between 18" - 20".
 - Measure the width of the bumper mark appropriately spaced locations across the bumper.

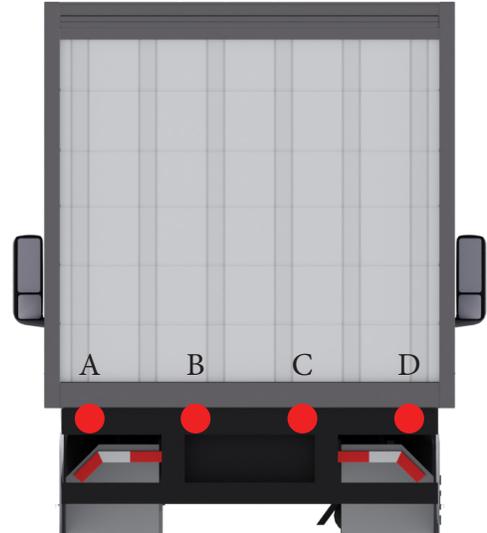
NOTE: Before you drill any holes into the vehicle, check to see if the sensor locations will have any interference with the sensor installation (such as wire harnesses, braces, or bracketry).

2. Pre-drill holes at your desired locations.

NOTE: When drilling through thick metal, soak the bits in WD-40 or machine oil and reapply often to prevent dulling.

3. Mount the bracket in the locations.

NOTE: Drop bracket mounting hardware not included.



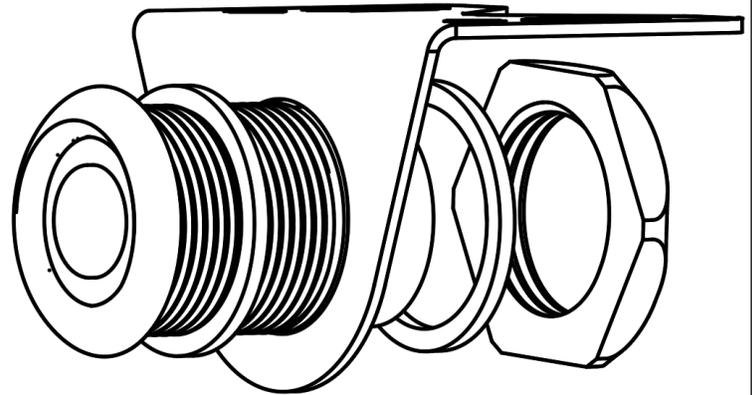
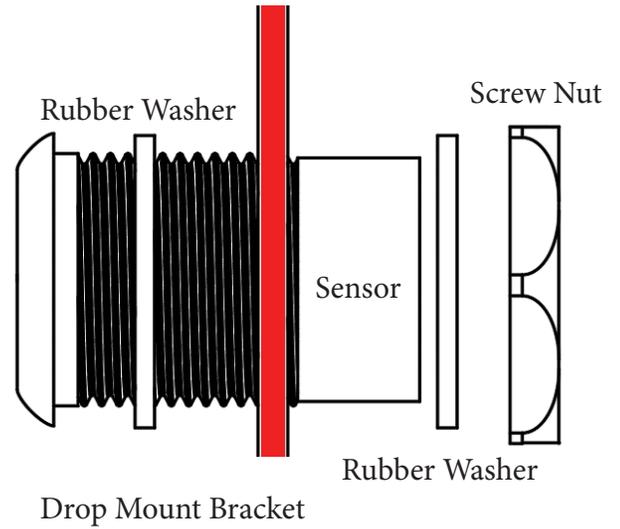
A	Bottom Driver Side Edge
B	Bottom Driver Side Center
C	Bottom Passenger Side Center
D	Bottom Passenger Side Edge



Part 1b

Drop mounting sensors

1. Put a rubber washer over the sensor, then push the sensor into the bracket. Put another rubber washer over the sensor and then the screw nut. (See diagram). There should be a rubber washer on both sides of the bracket.
2. Tighten the screw nut hand tight and do not over tighten.



Section 2: Wiring Installation

Part 2

ECU Placement & Wiring

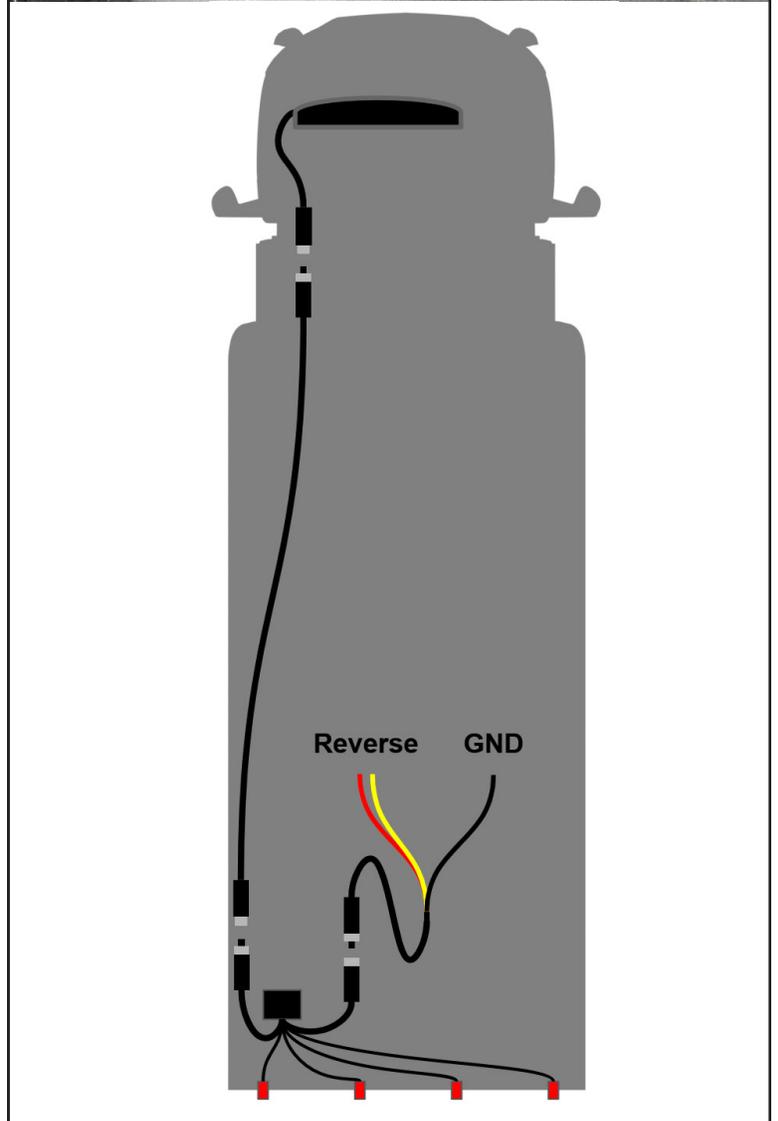
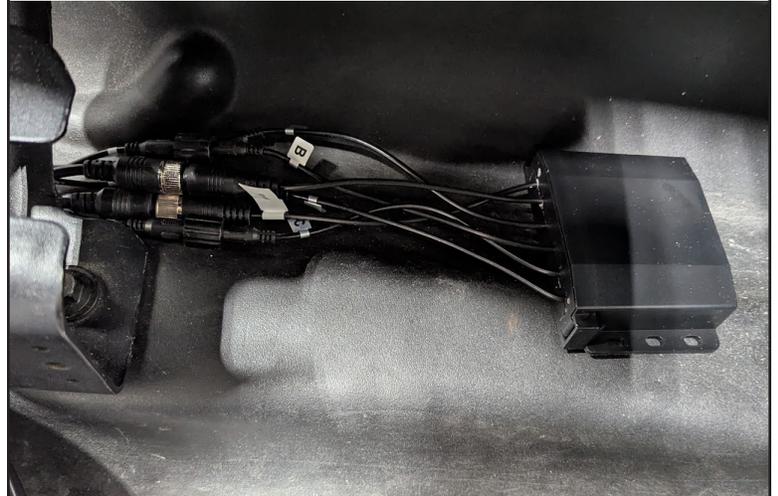
1. Find a location to mount the ECU in the rear of the vehicle. Mount it with screws or the provided mounting pad (J).

NOTE: The sensor ECU is IP68 rated, so it can be mounted externally if desired.

2. Plug the Sensor Extensions into the ECU according to their label.

NOTE: If Mounting externally, make sure to securely tighten the threaded locking collars.

3. Route the Sensor Extensions along the bumper and find or create a way to get the Sensor Extensions outside the vehicle towards the sensor locations. It is recommended to pull the wires through an existing grommet from the vehicle, but if there are none present, drill a hole and add a fitting grommet and silicone to ensure a water tight seal.
4. Connect the sensors to the extension wires. (Be sure to connect sensor A to plug A, B to B, and so on.)
5. Connect the 4-pin Data Extension to the 4-pin sensor ECU connection and screw the connector tight.
6. Run the 4-pin Data Extension up toward the dashboard where the display will be mounted.
7. Using the 3M adhesive pad on the bottom of the display, mount the display somewhere in the driver's view.
8. Connect the display to the 4-pin Data Extension.



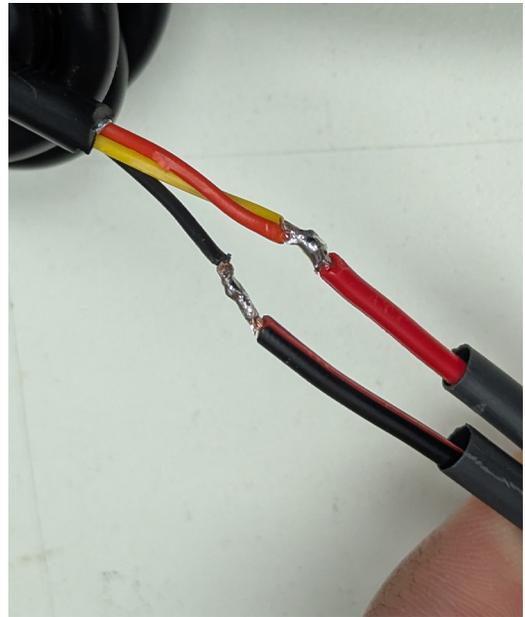
Part 3

ECU Placement & Wiring

1. Connect the power harness 4-pin connection to the ECU.
2. Cut the 3-pin connector off the end of the power harness 4-pin.
3. Locate reverse 12v wire from either the vehicle's tail lamp or the fuse box and run a lead to the ECU.
4. Tie the power harness 4-pin YELLOW and RED wire together to the reverse lead.
5. Connect the Black GND wire to vehicle ground.

NOTE: Brandmotion recommends soldering and heat shrinking power and ground connections for the most reliable install.

6. Turn the vehicle on and put the vehicle into reverse to test. If the speaker is on, it should beep once when reverse is selected to confirm power.



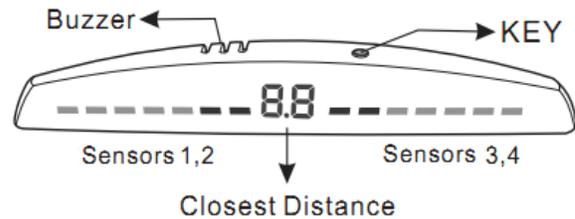
Section 3: Final Touches

Part 1

Setting up the display

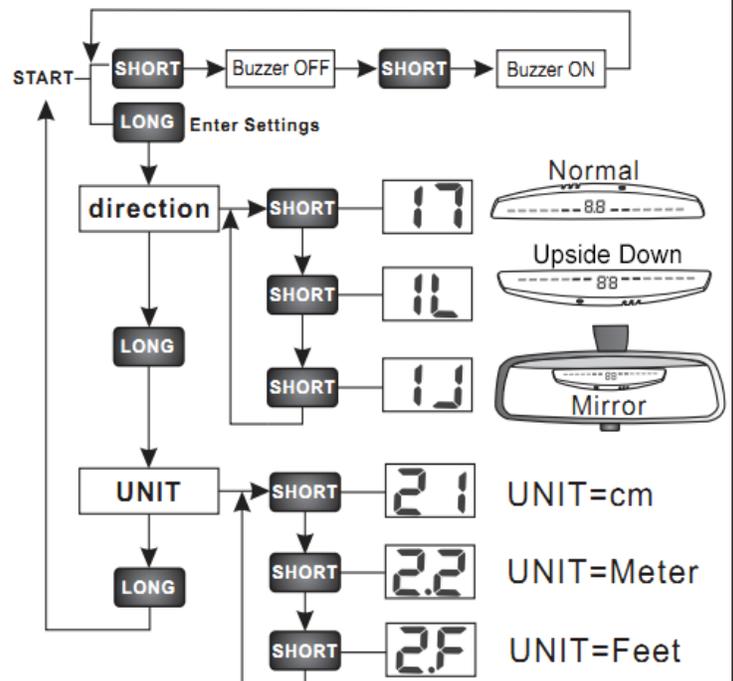
1. One quick press mutes the speaker.
2. By default, the sensors read in centimeters. See the diagram to the right to adjust it to Meters or Feet if desired.

Multifunctional Display



KEY Operation:

- LONG** Press and hold the KEY for 1.5 seconds
- SHORT** Press the KEY quickly



Part 2

Painting Sensors

1. The sensors are capable of being painted with an OEM non-metallic paint to match your vehicle.