

**Radar Blind Spot Brackets for
2011-2016 BMW 3 & 4-series
(Part # RDBS-1450)**

*****REQUIRES RDBS-1400 UNIVERSAL RADAR BLIND SPOT SYSTEM*****

**Please read thoroughly before starting installation
and check that kit contents are complete.**

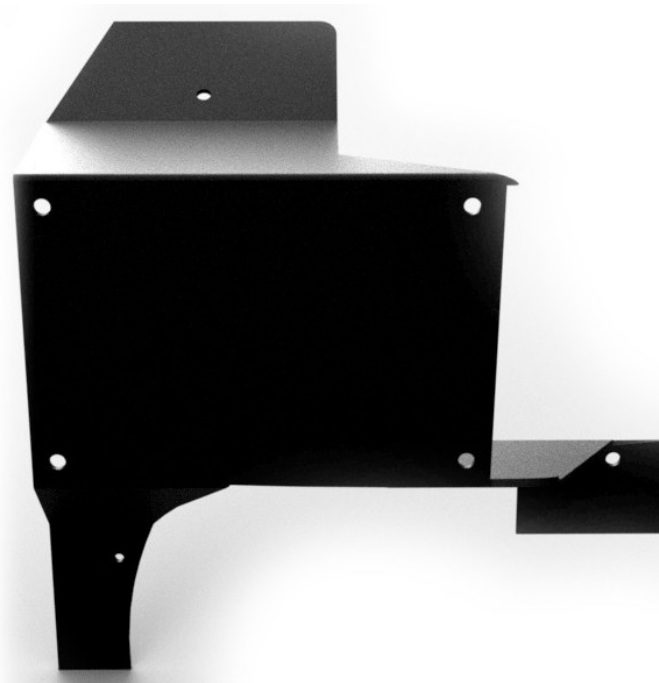
Items Included in the Kit:

Driver side radar mounting bracket
Passenger side radar mounting bracket
8 ¾-inch stainless steel Phillips screws
4 1-inch stainless steel Phillips screws
16 Nyloc stainless steel nuts
16 5mm stainless steel washers
4 10mm nuts
8 self-tapping ¼-inch drive screws

Tools & Supplies Required:

Torx T30 Bit
¼-inch and ½-inch drill bit
¾-inch bi-metal hole saw
¼ inch, 7mm, 8mm and 10mm sockets
Power drill
Deburring tool or round file
Multi-meter or computer safe test light
Zip ties and electrical tape
Plastic trim removal tool

Smart phone app: iHandy Level or Bubble level



Safety Precautions:

- Work in a well-ventilated area that is clear of obstructions.
- Secure vehicle with tire chucks in both front and rear of tires.
- Turn vehicle accessories OFF and ensure ignition key is in OFF position.
- Wear safety goggles and snug fitting clothes.
- Use tools only for their intended purpose and which are in good repair.
- Only perform this task if confidence, skill, and physical ability permit.

**NOTE: We strive to provide accurate and up-to-date installation instructions.
For the latest full color instructions please visit www.brandmotion.com**

SECTION 1: REMOVE REAR BUMPER FASCIA

1. Remove the carpet from the inside floor and side of the trunk.
2. Remove the plastic trim at the rear opening of the trunk.
3. Remove the bolts that secure the fascia to the body.
4. Starting at the rear wheel wells and moving rearward unclip the fascia from the vehicle.



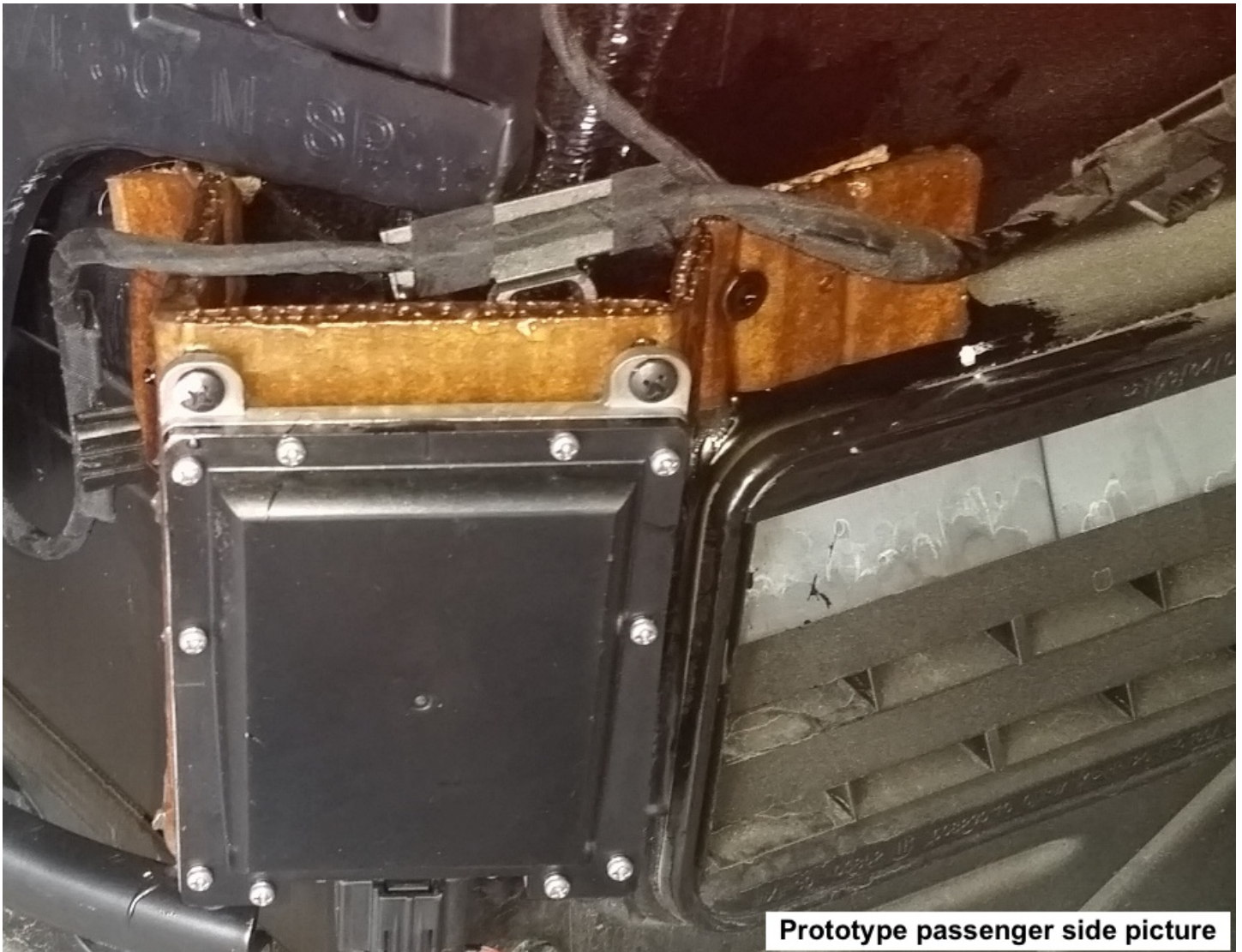
5. This step will require assistance. One person should hold the bumper fascia, while the other removes the fascia from the vehicle body. On the driver's side of the upper bumper fascia, use a plastic pry tool and begin to unsnap the fascia from the body working from the wheel well toward the rear of the vehicle. Repeat removing bumper fascia from passenger side.
6. Lift the bumper fascia off the bumper (checking for any wiring or harnesses that may need to be disconnected) and set aside in a safe place.

SECTION 2: ATTACH BRACKETS and SENSORS

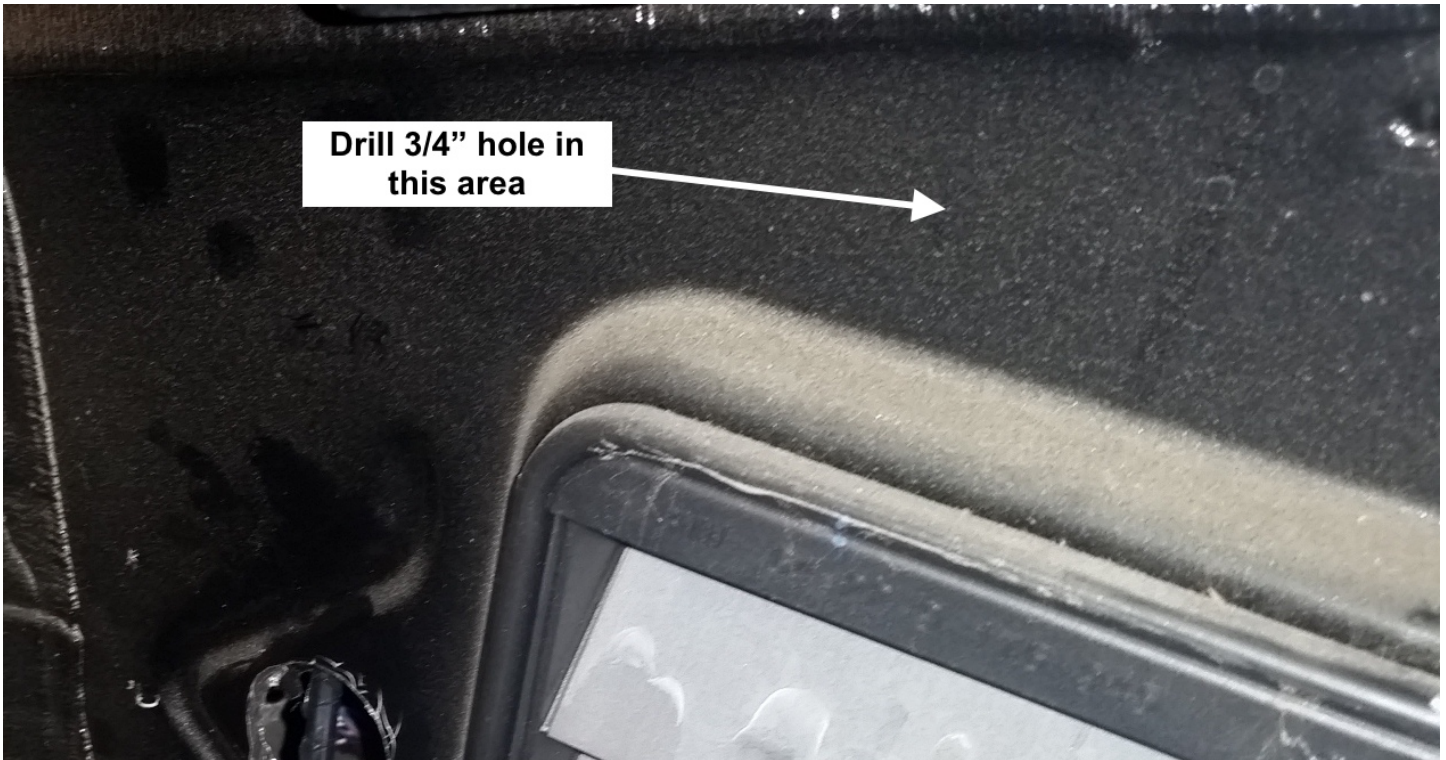
1. Working on the driver's side, remove the large black plastic cover from the side of the body that is held on with 10mm nuts. Locate the black plastic that holds the fascia to the body and extends around the bottom of the trunk opening. On the open metal there will be a 10mm stud. Use this to hold the bottom right hand side of the BSD bracket in place to the body. (Temporarily mount the bracket with the supplied 10mm nut.)



2. Make sure the bracket top arm lines up on the top of the vent.
3. After bracket is test-fitted, insert the 4 Phillips screws from the back side and attaching them with the 10mm Nyloc nuts from the front. Screw threads will extend past the nuts.
4. Attach assembled bracket to vehicle using supplied self-tapping screws.
5. Mount radar sensor on the four studs with the connector pointing down (MASTER radar sensor mounts to driver's side, SLAVE mounts to passenger side). Secure sensor to studs with 4 additional Nyloc nuts.
6. Repeat steps 1-4 on passenger's side of vehicle.



7. Mark drivers side, just above the vent to drill $\frac{3}{4}$ -inch hole. Drill hole using $\frac{3}{4}$ -inch bi-metal hole saw (not supplied). Smooth edges of hole using deburring tool or round file. (We also recommend using rust inhibitor or paint on the hole.)

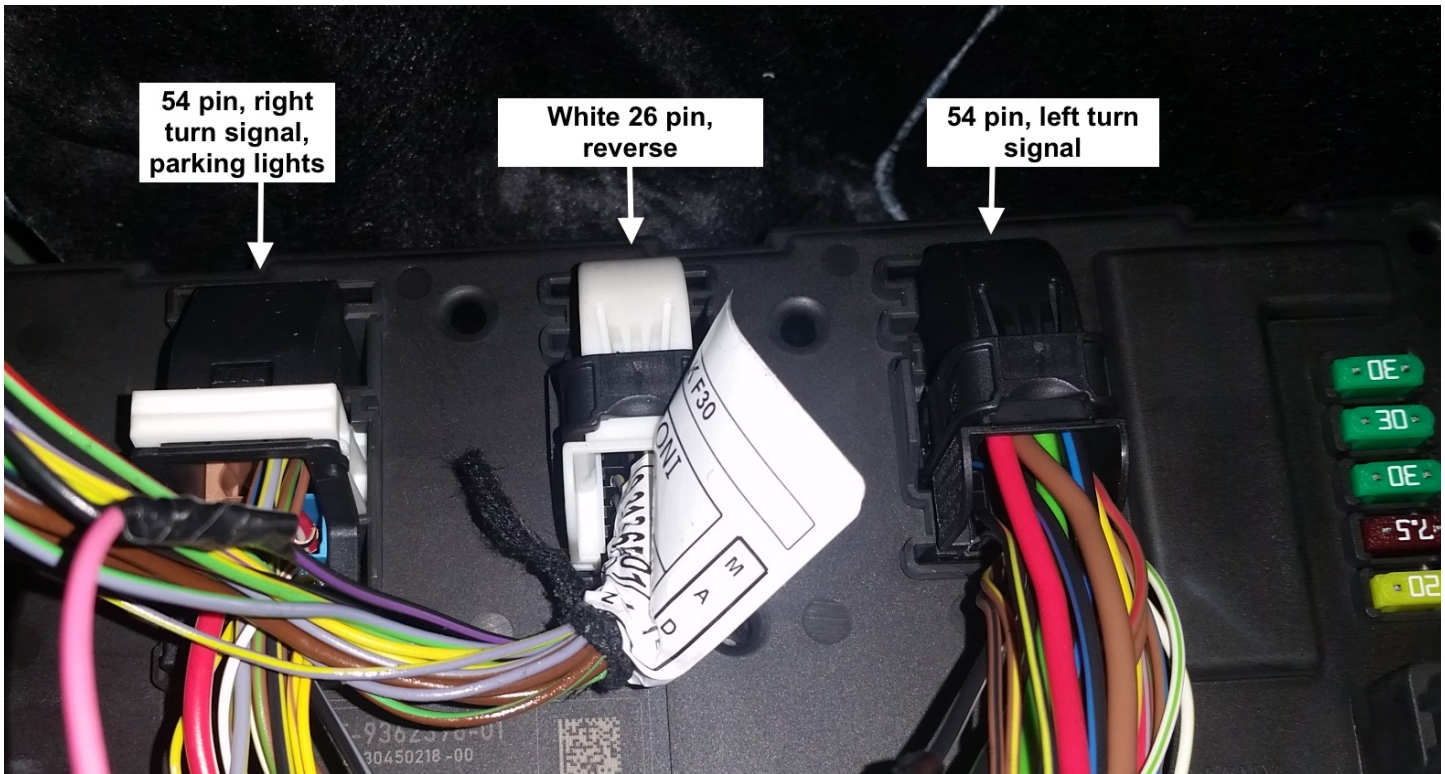


8. On the radar harness attach the blunt-cut wires to the loose wires by soldering and covering with supplied heat shrink. Plug the rear bumper harness to the interior harness by connecting the white plugs together.
9. Pull interior harness back up through the hole to reseal grommet. (Use the supplied Z-tech to prevent the body from rusting)
10. Connect shortest length wired connector to MASTER radar module. Route the GREEN wire and the longer wired connector over to the passenger side.
11. Secure the wire running across the back of the vehicle in the factory clips and with zips ties.

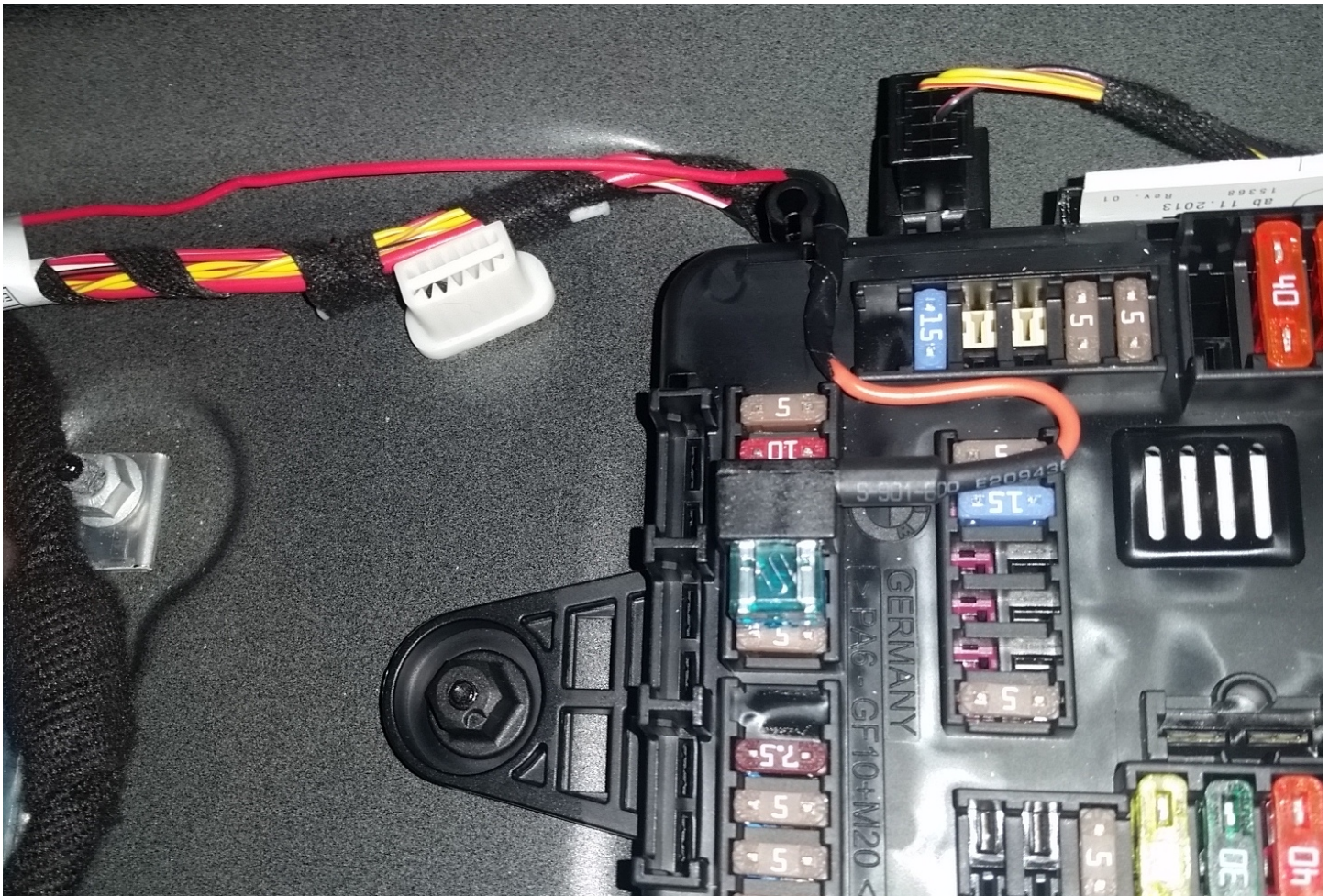


SECTION 3: INTERIOR WIRING HARNESS

1. In the trunk, on passenger side of the vehicle is the rear electric module. Route the wires over from the driver side to the rear electric module.



2. Splice the GREEN loose wire to the BLACK/GRAY wire in the 54-pin plug, pin 12. This should be the RIGHT turn signal. Test the wire with a multimeter to confirm it is the RIGHT turn signal positive wire.
3. Splice the BROWN loose wire to the GRAY/YELLOW wire in the black 54-pin plug, pin24. This should be the PARKING LIGHTS. Test the wire with a multimeter to confirm it is the PARKING LIGHTS positive wire.
4. Splice the WHITE loose wire to the BLACK/PURPLE wire in the white 26-pin plug, pin16. This should be the REVERSE lights. Test the wire with a multimeter to confirm it is the REVERSE lights positive wire.
5. Splice the YELLOW loose wire to the BLACK/WHITE wire in the 54-pin plug, pin 16. This should be the LEFT turn signal. Test the wire with a multimeter to confirm it is the LEFT turn signal positive wire.
6. Use electrical tape to secure connection and return wires to original location.
7. Splice the RED loose with to the fuse box in the trunk. (**TEST to see which wire is an accessory for your vehicle.**)



8. Inside the vehicle, remove the sill panels from the front and rear driver's side doors.
9. Remove driver side kick panel and under dash cover.
10. Route the interior harness from the rear trunk to the front driver-side kick panel.
11. Attach the black plastic-coated wire with the ringlet from the interior harness to a good, clean ground in the vehicle.

SECTION 4: INSTALL HMI (warning lights) and BUZZER

1. Plug in HMI (human-machine interface) harness to interior harness. The short wire with connector goes to the driver's side and the longer wire goes to the passenger side.
2. Remove both driver and passenger A-pillar covers from 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 1/2-inch drill bit, carefully drill through each A-pillar.



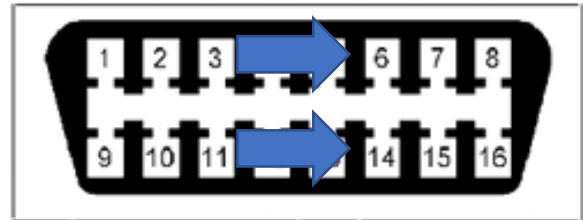
5. Insert HMI into drilled hole and secure from the back side of A-pillar cover using retaining washer.



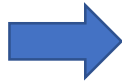
6. Plug in HMI to HMI harness and re-attach A-pillar covers to appropriate sides, taking care not to pinch HMI harness wires.
7. Plug the buzzer into the interior harness. Find a flat surface to mount the buzzer to and remove backing of double-sided tape to attach to preferred location. (The more hidden the location is, the lower the buzzer volume will be.)

SECTION 5: INSTALL ECU INTO VEHICLE

1. Plug the interior harness into the ECU.
2. Determine best mounting position for ECU.
3. Mount the ECU.
4. Attach BLUE CAN HI wire from the ECU to pin location 6 on the vehicle's OBDII connector and attach the BROWN CAN LO wire from the ECU to pin location 14 on the vehicle's OBDII connector.



PIN	DESCRIPTION	PIN	DESCRIPTION
1	Vendor Option	9	Vendor Option
2	J1850 Bus +	10	J1850 Bus -
3	Vendor Option	11	Vendor Option
4	Chassis Ground		Vendor Option
5	Signal Ground		Vendor Option
6	CAN (J-2234) High	14	CAN (J-2234) Low
7	ISO 9141-2 K-Line	15	ISO 9141-2 L-Line
8	Vendor Option	16	Battery Power



OBD-II Connector and Pinout

SECTION 6: REASSEMBLE VEHICLE

1. Before reassembling vehicle and reattaching bumper fascia, it is highly recommended to test the blind spot system to make sure it is functioning properly (detecting objects behind or approaching from the sides while the vehicle is in reverse and at speeds above 20 MPH). If detection fails, it may be necessary to shim radar modules 1 degree up or down using included washer shims or longer 1-inch screw studs.
2. Use ***Smart phone app: iHandy Level or Bubble level*** to test angles.
3. Reassemble vehicle, following steps in reverse order. Test the blind spot system again to ensure proper functioning of the radar units under the rear bumper fascia.