Radar Blind Spot Brackets for 2013-Current Ford Fusion (Part # RDBS-1421)

*****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
8 self-tapping ¼-inch drive screws

Tools & Supplies Required:

Torx T30 Bit
1/8- 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:

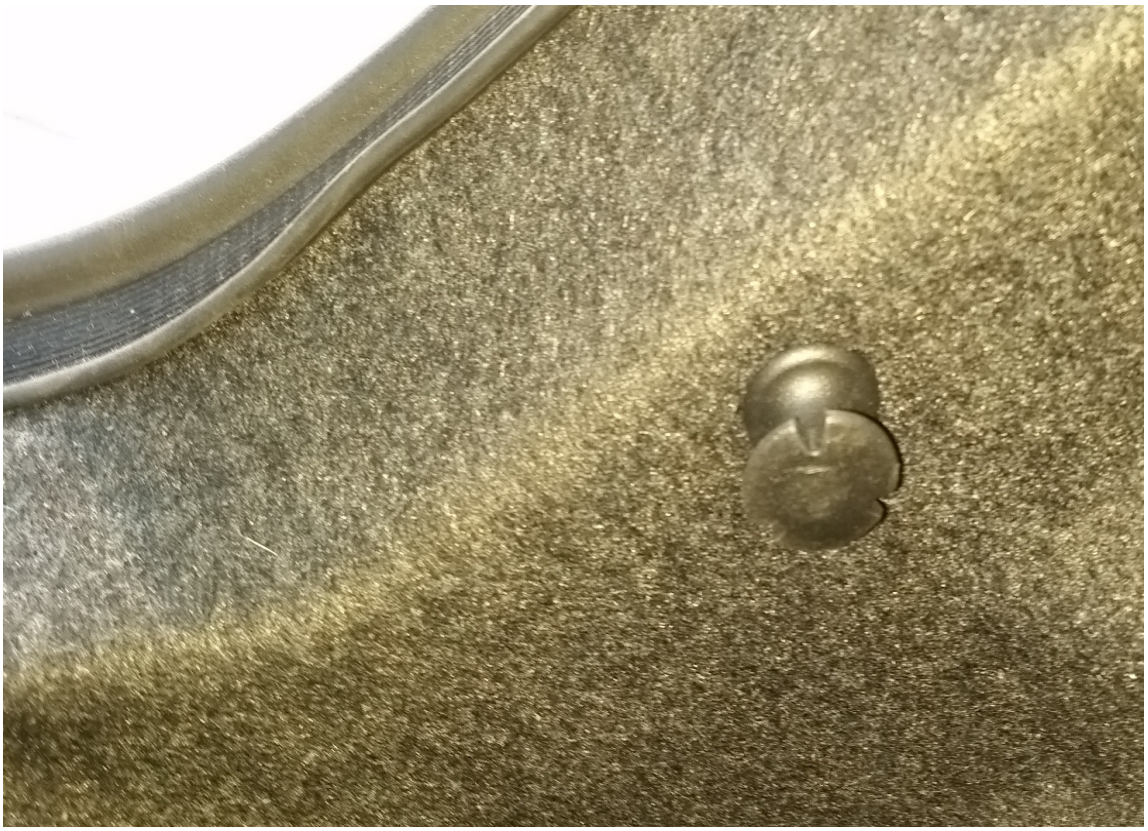
- Work in a well-ventilated area that is clear of obstructions.
- Secure vehicle with tire chucks in both front and rear of tires.
- Turn vehicle accessories OFF and ensure ignition key is in OFF position.
- Wear safety goggles and snug fitting clothes.
- Use tools only for their intended purpose and 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. Open trunk and remove the floor carpet.
2. Remove the inter plastic from the lower trunk opening; by removing the (2) plastic push pins.

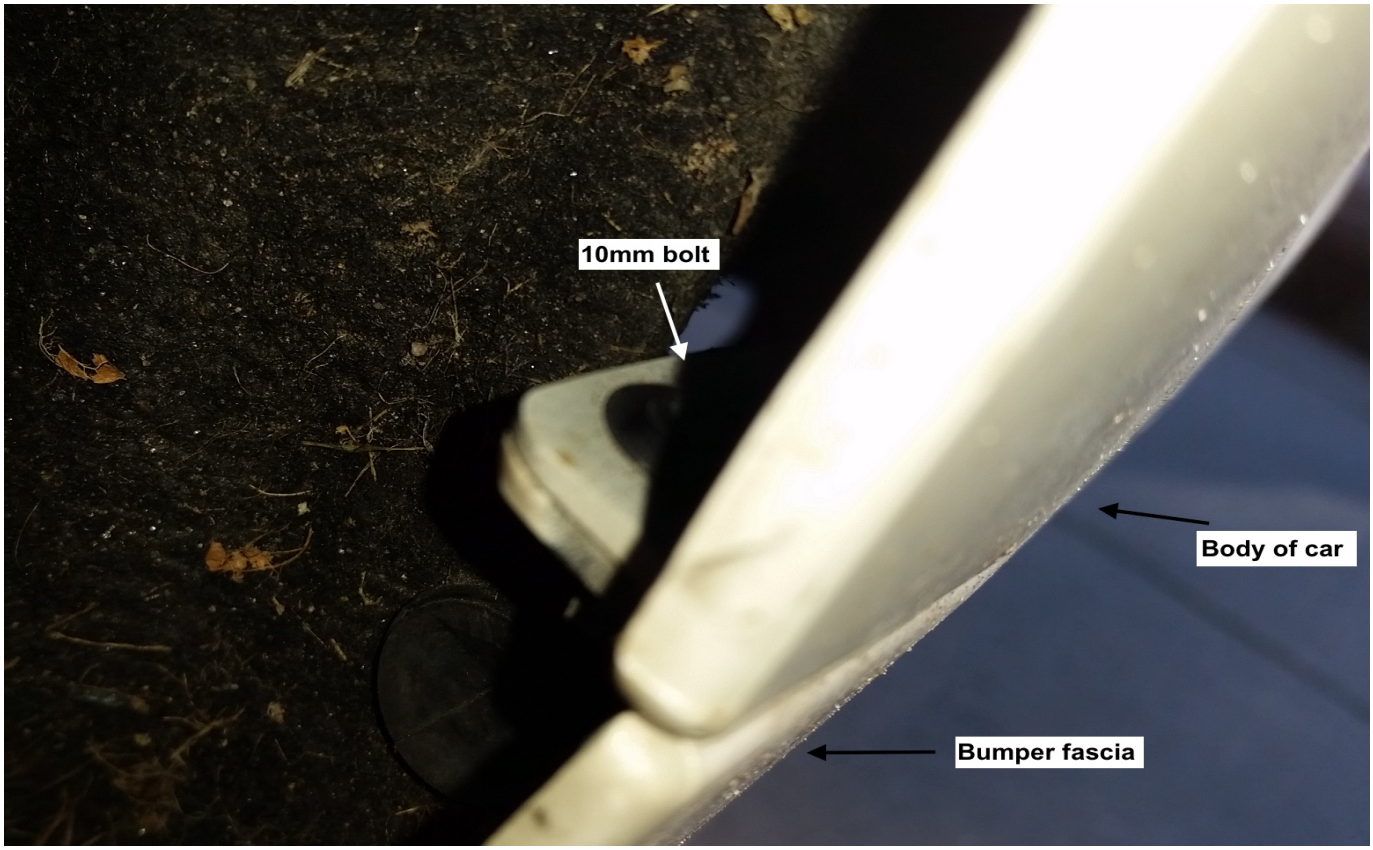
3. Remove the inter carpet from both the passenger and driver side of the trunk. There are (2) twist off tie downs and (1) pushpin under the trunk hinge area.



4. Remove the taillight by removing (3) 10 mm nuts that are holding the taillights in. There are (2) next to the opening of the trunk and (1) more on the lower inside of the trunk. Repeat for both sides.

5. After the nuts are removed, pull the taillight out and away from the car and disconnect the plug. Place lights in a safe location away from vehicle.
6. Working on the passenger side, remove the pushpin from under where the tail light was just removed.

7. Inside the wheel well remove the (5) pushpins holding in the carpet well. Remove the 10mm bolt the holds the bumper fascia to the body. It is positioned from under to the top of the vehicle. (Repeat on other side.)



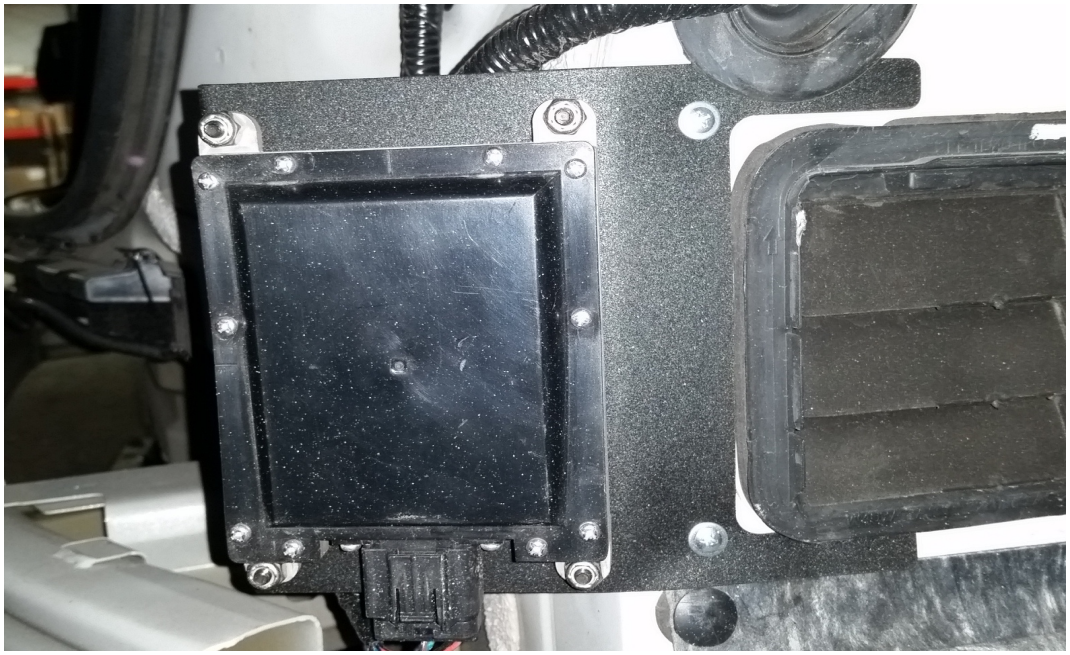
8. Remove the 7mm bolts from the underside of the fascia. There will be (2) 8mm bolt under the fascia as well on newer Fusions.

9. 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.

10. 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.
11. Unplug and harness to the fascia. (There will be a harness for vehicles with back-up sensors.)

SECTION 2: ATTACH BRACKETS and SENSORS

1. Working on the passenger's side, locate the vent on the passenger side lower rear. The bracket lower leg will be positioned against the lower side edge, the top leg will go under the edge of the grommet above the vent.



2. The foot of the bracket will mount to the backside of the vehicle with lower screw hole lined up on the bodyline.

3. After bracket is test-fitted, insert the 4 Phillips screws from the backside and attaching them with the 10mm Nylok nuts from the front. Screw threads will extend past the nuts.
4. Attach assembled bracket to vehicle using supplied self-tapping screws. (Check to make sure the sensor is at 57º with a protractor.)
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 Nylok nuts.
6. Repeat steps 1-4 on driver's side of vehicle. (Use Z-tech on any screw that was put into the body or the bracket.)
7. Remove the grommet from the drivers' side rear, just under the black plastic that holds the bumper fascia to the body and under the taillight.

8. Install the radar harness grommet into the opening and connect the radars to the harness.

9. Pull radar harness through the hole slightly to seat the grommet.
10. Connect shortest length wired connector to MASTER radar on the drivers side. The longer length of the harness to connect to the passenger side SLAVE radar.
11. Secure the wire running across the back of the vehicle with zip ties.

SECTION 3: INTERIOR WIRING HARNESS

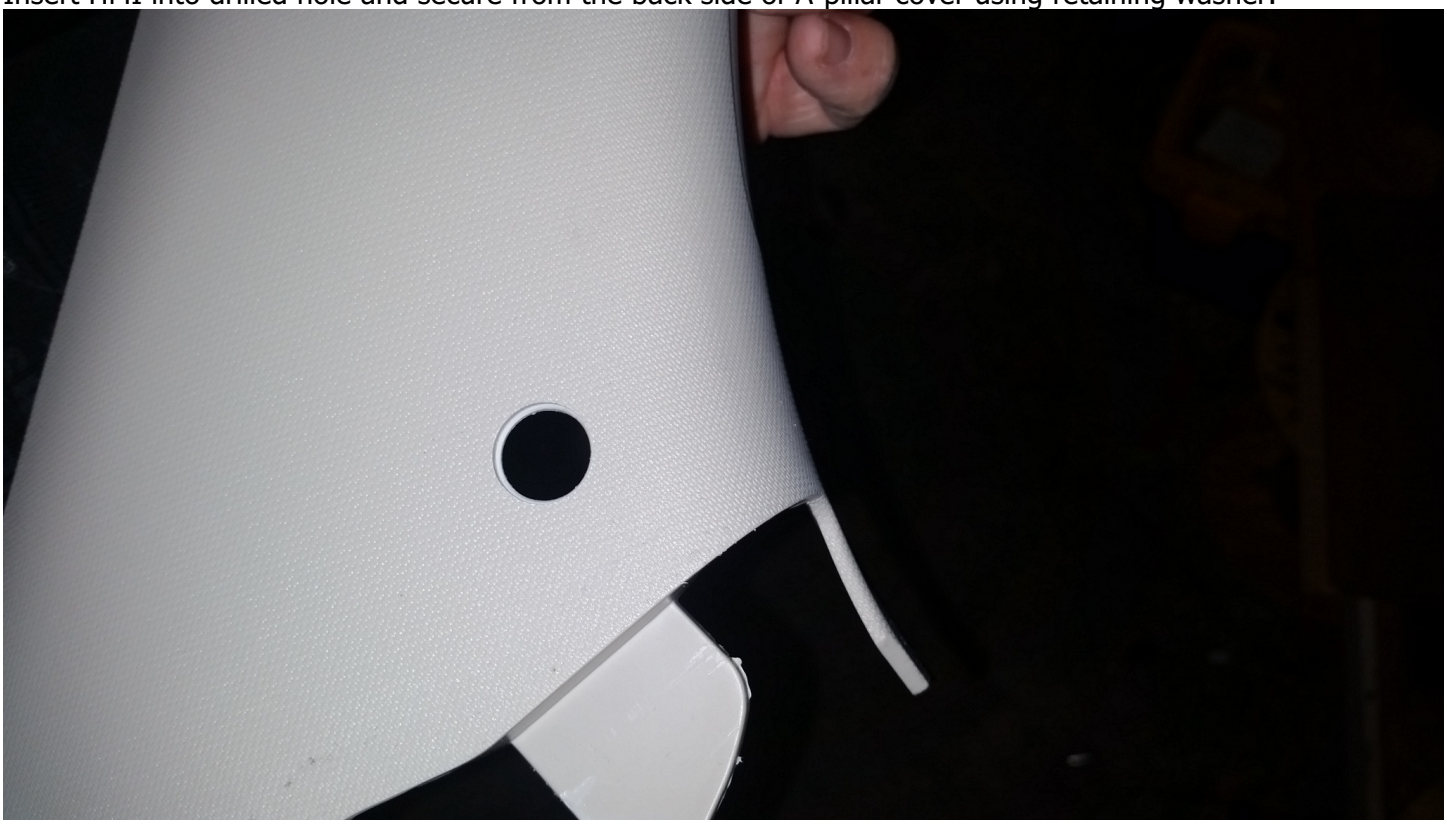
1. On the end of the interior harness there is a white plug and blunt cut wires. Connect the wire plug to the white plug of the radar harness and connect matching colors of wires to the loose wire in the RDBS-1400 kit. Solider and heat shrink the connections.
2. On passenger side taillight harness connect into the following wires.
3. Splice the GREEN loose wire to the GREEN/ORANGE wire in wiring harness. This should be the RIGHT turn signal. Test the wire with a multimeter to confirm it is the RIGHT turn signal positive wire.
4. Splice the BROWN loose wire to the BULE/GRAY wire in the wiring harness. This should be the PARKING LIGHTS. Test the wire with a multimeter to confirm it is the PARKING LIGHTS positive wire.
5. Splice the WHITE loose wire to the BLUE/WHITE wire in the wiring harness. This should be the REVERSE lights. Test the wire with a multimeter to confirm it is the REVERSE lights positive wire.
6. On the drivers side taillight harness connect the following wire.
7. Splice the YELLOW loose wire to the GRAY/ORANGE wire in wiring harness. This should be the LEFT turn signal. Test the wire with a multimeter to confirm it is the RIGHT turn signal positive wire
8. Inside the vehicle, remove the sill panels from the front and rear driver's side doors.
9. Remove driver's side kick panel and under dash cover.
10. Route the interior harness from the rear of the vehicle to the front driver-side kick panel.
11. Splice the RED wire from the interior harness (you will have to cut the tape off the supplied interior harness to expose the red wire) to the PURPLE/GREEN wire at the ignition switch or any other accessory power wire in the vehicle. Use the supplied fuse holder and 3A fuse, and splice into the RED wire approximately 3 inches from the previous spliced connection.
12. 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 ½-inch drill bit, carefully drill through each A-pillar.

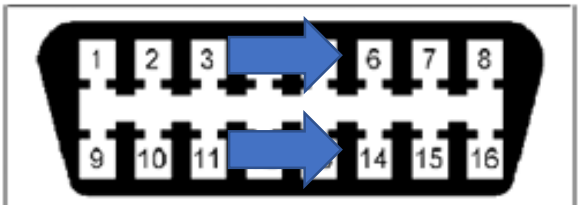
5. Insert HMI into drilled hole and secure from the back side of A-pillar cover using retaining washer.



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 with 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 falses, 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.