



## INSTALLATION INSTRUCTIONS

# 21-UP BRONCO PRO SERIES REAR BUMPER

DOCUMENT: INST\_45202\_REVB • UPDATED: APR 2023

Thank you for purchasing this ICON Vehicle Dynamics product. Please read through this entire document before proceeding with installation. If you are not confident in your mechanical skills, please seek the help of a professional to perform the installation. Check your packages immediately upon arrival to ensure that everything listed is included, and to check for damage during shipping. If anything is missing or damaged, or if you need technical assistance with any aspect of this installation, call (951) 689-ICON as soon as possible.



### APPLICATION

*These installation instructions apply to the following products:*

**45202 21-UP FORD BRONCO PRO SERIES REAR BUMPER**

### COMPONENTS INCLUDED

- (1) 2021 FORD BRONCO REAR BUMPER
- (2) 21-UP BRONCO REAR BUMPER MESH
- (1) 21-UP BRONCO REAR BUMPER LICENSE PLT HOLDER
- (1) ELECTRICAL WIRE LOOM

### HARDWARE INCLUDED

- (3) 1/4-20 NYLOCK NUT GR8 YZINC
- (5) 1/4-20 SAE FLAT WASHER GR8 YZINC
- (2) 1/4-20 X .75 HHCS GR8 YZINC
- (1) 1/4-20 X .75 FHSCS YZINC
- (2) 1/2-13 NYLOCK NUT GR8 YZINC
- (2) 1/2 SAE FLAT WASHER GR8 YZINC
- (8) M6-1.00 X 20MM BHCS SS
- (2) 2021 FORD BRONCO REAR BUMPER BOLT PLATE
- (1) BUMPER SENSOR MOUNT (4 PACK)
- (1) LED LICENSE PLATE BOLT
- (4) 26-22GA INSULATED BUTT SPLICE
- (6) CABLE TIE HOLDER, ADHESIVE MOUNT
- (12) 5-1/2 X 0.14 NYLON CABLE TIE, BLACK
- (1) URERHANE SNUBBER

### TOOLS REQUIRED

- Small flat blade screwdriver
- Body panel clip removal tool & pry tool
- Side cutter, flush cutter, & wire stripper/wire crimper
- Electrical tape
- Torque wrench
- 13mm & 18mm sockets and ratchet
- 4mm hex key
- 10mm Open end wrench
- 13mm, 7/16", 9/16" & 3/4" sockets and ratchet

### TECH NOTES

*NOTE: Works with or without factory parking sensors.*

*NOTE: Compatible with factory tow hitch*

*INSTALL TIME: 2-3 HOURS*

### IMPORTANT NOTICES - PLEASE READ FIRST

- ✓ **READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION OR TIRE DAMAGE MAY RESULT TO THE VEHICLE!**
- ✓ **ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.**

### INSTALLATION INSTRUCTIONS

1. Ensure the vehicle is placed on a flat, level surface with the transmission in PARK (or first gear for vehicles equipped with a manual transmission), the tires chocked, and the emergency brake ON. Wear safety glasses from this point forward.
2. Start by removing the spare tire.



3. Disconnect the wiring harness from both sides, near the outer edge of the bumper, in the fender well, if applicable. Models without backup sensors may only have 1 plug. Models with backup sensors have 1 plug per side.



FIG. 1

4. Using a 13mm socket, remove the bolt holding the bumper support on each side of the vehicle, located on the body mount. These bolts will not be reuse.



FIG. 2

5. On this step, it is suggested to get the help from a friend or support one end of the bumper to prevent injury or damage to the OE bumper. Using a 18mm socket, remove the two bolt holding each side of the bumper from the underside of the frame rails (total of four bolts). Set these bolts aside, they will be reused in an upcoming step.



FIG. 3

6. With the help of a buddy, remove the bumper. Make sure none of the factory wiring gets snagged upon removal.
7. Place the factory bumper face down on cardboard or a moving blanket to remove the factory wiring harness and sensors (if applicable).
8. Disconnect the license plate light connection and using a pry tool or a flat blade screw driver, remove the wire harness from the back side of the bumper. Set this wire harness to the side, it will be reused in an upcoming step.



FIG. 4

9. Locate the provided (1) License Plate Mount bracket along with (1) URERHANE SNUBBER, (1) 1/4-20 NYLOCK NUT GR8 YZINC, (1) 1/4-20 SAE FLAT WASHER GR8 YZINC, and (1) 1/4-20 X .75 FHSCS YZINC. Start by placing the 1/4-20 X .75 FHSCS YZINC through the tapered hole on the front face of the mount, then from the backside place the rubber snubber and using a 7/16" socket and 4mm hex key secure it with the provided (1) 1/4-20 SAE FLAT WASHER GR8 YZINC and (1) 1/4-20 NYLOCK NUT GR8 YZINC.

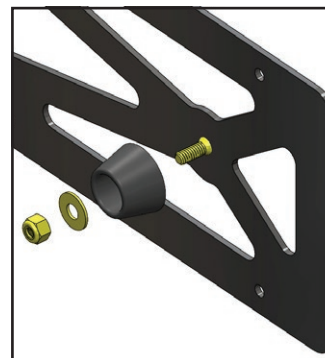


FIG. 5



FIG. 6





*Note: This installation is for the license plate mount and license plate without a plate cover or frame. Adding a cover or frame may cover the LED and prevent the light from illuminating the license plate. An additional spacer(s) (not provided) can be placed between the front face of the mount and the LED to give it sufficient space between the frame and the LED. An alternative installation can be done by following step 10-step 12 and using the top right-hand hole on the license plate and license plate frame and/or cover (drilling the frame/cover may be required).*

10. Locate the provided (1) LED LICENSE PLATE BOLT, slip the wire lead through the top front face of the license plate mount and slip the wire lead through hex nut provided inside the bag to secure the LED to the back of the mount. Adjust the LED light to your preferred angle and use a 10mm open wrench to secure the LED. To prevent damage to the LED or the threads, ensure that you don't overtighten the hex nut.



FIG. 7

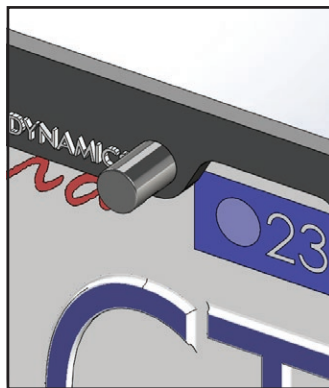


FIG. 8

11. Using the provided nylon cable ties, secure the LED light wire lead to the back of the license plate mount along the slots on the mount. The ties can be left loose at this time to allow any adjustment necessary to the wire lead once the wire has been routed.



FIG. 9

12. Remove the license plate from the OE bumper (if installed) and place it on the front face of license plate mount. Using the provided (2) 1/4-20 NYLOCK NUT GR8 YZINC, (4) 1/4-20 SAE FLAT WASHER GR8 YZINC, and (2) 1/4-20 X .75 HHSCS YZINC insert the hardware through the two top holes on the mount bracket and license plate. Use a 7/16" socket and wrench to secure the hardware to the license plate and mount bracket.

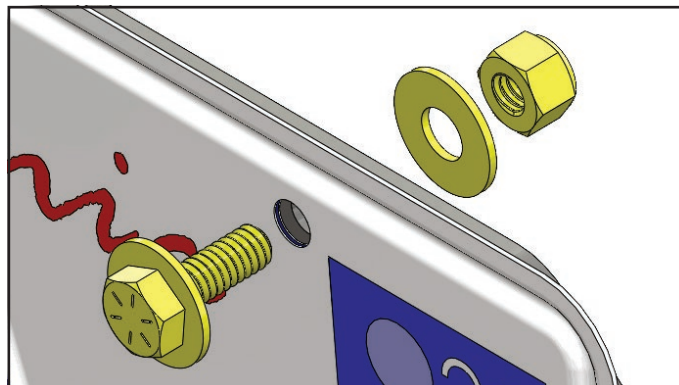


FIG. 10

13. Use a 13mm socket to remove the two lower left (driver side) bolts from the tire carrier and place the license plate mount onto position. Adjust the mount accordingly and at this time slightly tighten the bolts the bolts.

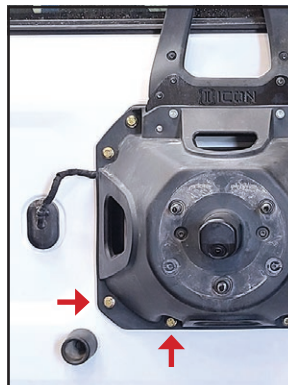


FIG. 11



FIG. 12

14. Locate the provided (1) Electrical Wire Loom (22/2 10ft wire) and the (2) 26-22GA INSULATED BUTT SPLICE. Using a cutting tool, carefully trim back about 1 inch the outer jacket on one side of the wire loom to expose the two 22ga black and red insulated wires. Use wire strippers to expose about 1/4" of the strands of conductor wire on both of the insulated wires (ensure that you are using the correct gauge size). Repeat this process on the end of the LED 26ga wire lead. Using the butt connectors, matching the wire colors, insert them through each end of the connector, use a crimping tool to splice together. Slightly pull on the wires to ensure that they don't come out of the splice.



Use electrical tape or PVC heat shrink sleeve (not provided) to cover the exposed insulated wires and splice.

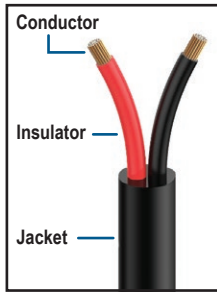


FIG. 13



FIG. 14



FIG. 15

15. From the inside of the rear gate, remove the plastic cover to the right of the gate by using a pry tool or by slightly pulling on the left-side edge and set aside. Remove the wide trim piece on the upper section of the gate by using a pry tool or by slightly pulling on the bottom edge and set aside. Both trim covers are held in place by a series of plastic clips on the back of the cover.



FIG. 16



FIG. 17

16. Take the wire lead and run it through the bottom or behind the spare tire carrier (you may need to loosen additional bolts on the tire carrier to give you more clearance). Slip the wire lead through the vents on the gate behind the carrier, reach inside the gate through the opening behind the gate and pull through until all the slack is gone on the outside of the gate. Feed the wire lead through the hole on the top portion of the gate and follow preexisting the wire loom to the trunk area. If desired, additional cable ties or electrical tape can be used to secure the wire lead to the wire loom.



FIG. 18



FIG. 19

17. Using a pry tool or slightly pulling on the bottom of the trim piece behind the factory jack compartment, remove by lift the trim piece and set aside. Partially remove the trim piece on the passenger side inner wall in the trunk area by slightly pulling on the bottom of the trim.



FIG. 20



FIG. 21

18. Run the wire lead through the passenger side wall, along the bottom of the trunk area to the driver side. Slightly lift the weather stripping to allow wire lead to go to the bottom. Position the wire lead as far to the driver side as possible to reduce the exposure of the wire.



FIG. 22

*Note: Before continuing this step, you could measure out the distance between the remaining wire lead and the license plate light wire harness and cut the excess wire for a cleaner look, or use cable ties to clean up the wire.*

19. Locate the license plate light wire harness from Step 8 and the remaining (2) 26-22GA INSULATED BUTT SPLICE. Using a cutting tool, carefully trim back about 1 inch the outer jacket on the wire loom to expose the two 22ga black and red insulated wires. Use wire strippers to expose about 1/4" of the strands of conductor wire on both of the insulated wires (ensure that you are using the correct gauge size), reference Step 14. Cut back the electrical tape on the wire harness and cut off





the connection, repeat the process to prepare the connections on the end of the wire harness 22ga wire lead. Using the butt connectors, match the black wire together and the red to yellow colors to one another by insert them through each end of the connector, use a crimping tool to splice together. Slightly pull on the wires to ensure that they don't come out of the splice. Use electrical tape or PVC heat shrink sleeve (not provided) to cover the exposed insulated wires and splice.



FIG. 23

20. Reconnect the license plate light connection to the side of the vehicle, ensure the wire lead is secured or neatly placed where it won't get pinched and reinstall the trim pieces that were removed in the previous steps.
21. If the Bronco is not equipped with parking sensors, skip the next step. If the vehicle is equipped with the steel bumper and parking sensors, the sensors will need to be removed from the bumper using the following procedure.

A. Remove the five 13mm bolts holding the center bracket in place.



FIG. 24

B. Remove the five plastic retaining clips holding the harness to the center bracket.



FIG. 25

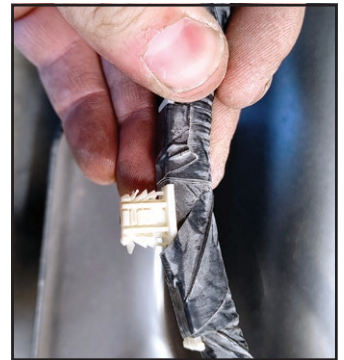


FIG. 26

C. Remove the nine remaining clips from the brackets. The remaining brackets can be removed to make this easier.

D. Disconnect the electrical connectors from the sensors and license plate light. Note the license plate light, as the plug is the same as the back up sensors. If plugged in incorrectly, none of the parking sensors will work (front or rear). A small screwdriver or pick can be used to aid in removing the electrical connector. Remove the harness from the bumper, be sure to note which side is passenger and driver.



FIG. 27



FIG. 28

E. Remove the sensors from the housing in the bumper. Spread the clips on either side of the sensor and pull the sensor out. The housing can stay in the bumper, it will not be reused.



FIG. 29



FIG. 30





22. Place the new Icon Impact bumper face down on a moving blanket to prevent scratches.
23. Use the provided four (4) Universal Sensor Bumper Mounts and following the installation instructions #295300 in the under the ICON website section titled "UNIVERSAL", use the included Backup Sensor Bezels to re-install the sensors into the sensor holes in the ICON rear bumper.
24. Route the factory wiring harness and secure it using the supplied square sticky pads and zip ties. Cut zip ties flush when finished. Clean the bumper where the sticky pads will be placed using denatured alcohol.
25. Install any lighting you may have, now. Wire and route along the factory harness. If not using a light, using a 4mm hex key install the mesh light cover onto the bumper using the supplied M6-1.00 stainless steel screws.
26. Use the supplied (2) 1/2-13 bolt plates and place them through the frame opening, inserting the rod end through the rear most outside hole. The bolt end can be left laying on inside the frame at this point, ensure the rod end doesn't slip out of the hole into the inside of the frame.



FIG. 31

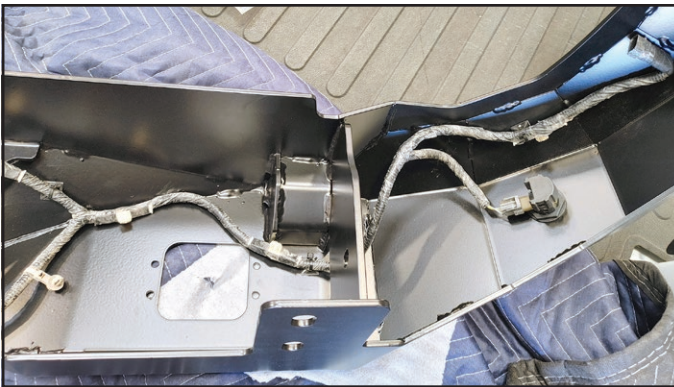


FIG. 32



FIG. 33

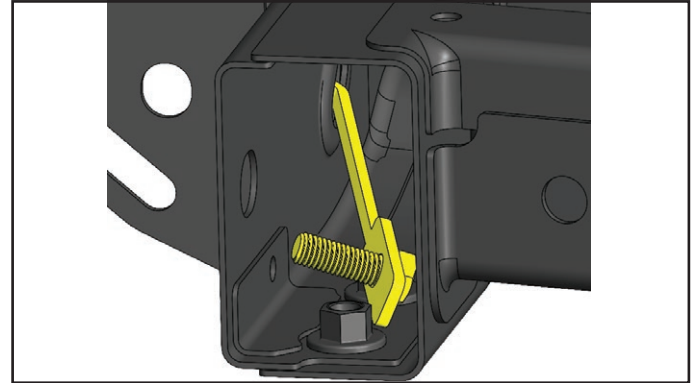


FIG. 34

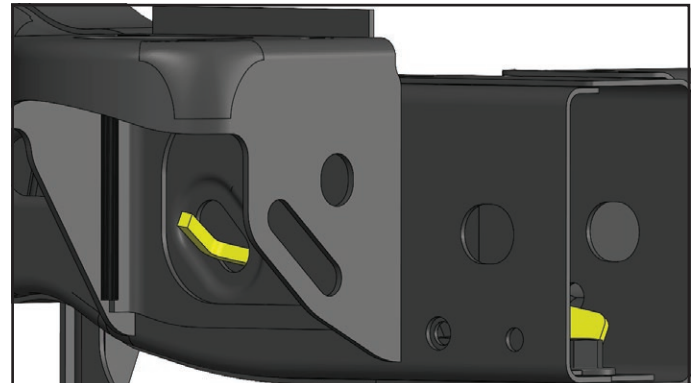


FIG. 35

27. With help from a buddy, lift and position the bumper in place and thread in the factory hardware thru the bottom of the bumper and into the factory bolt holes. 2 per side. Leave slightly loose so the bumper can be positioned later. Make sure not to pinch the wiring harness upon installation



FIG. 36



FIG. 37



28. Grab the rod end of the 1/2-13 bolt plate sticking out of the side of the frame and maneuver it so the bolt end goes through the circular hole towards the frame opening and the mounting bracket on the rear bumper. Use the supplied (2) 1/2-13 Nylock Nut and (2) 1/2 Flat Washer and thread them into the bolt plate.

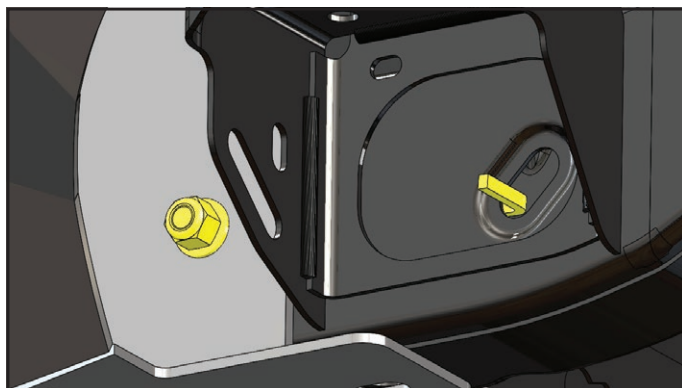


FIG. 38

29. Position the bumper how you like with adequate gap between the tailgate, body and bumper. Tighten the 1/2-13 nuts to 60 ft-lbs and the four factory bolts to factory spec.

30. Plug in the wiring harness to either side, making sure you hear the plug clip into place.
31. Finish installing any electrical wires for any additional lighting.

*NOTE: If the license plate rattles loudly when the gate is closed, placing a foam/rubber dampener in between the license plate and plate mount will reduce the noise. Adding additional fasteners to the bottom section of the license plate is also suggested as an alternative.*

*Congratulations! Your installatoin is complete.*



**RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.**

**LIMITED LIFETIME WARRANTY**

*ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.*

*ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.*

*ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.*

*This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.*

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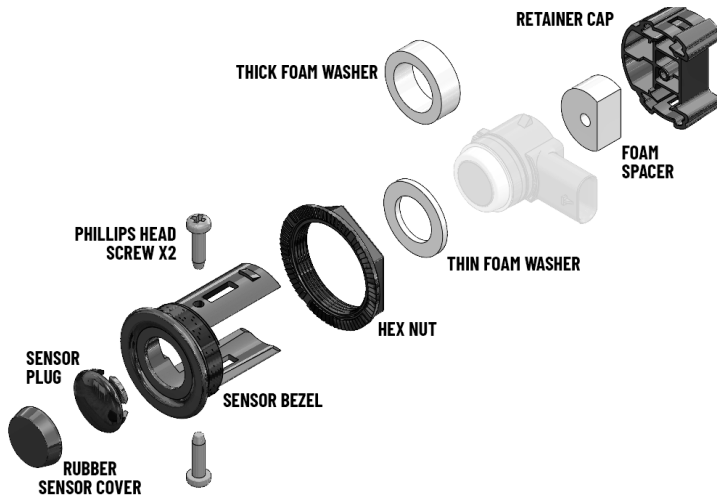
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# UNIVERSAL PARKING SENSOR MOUNT KIT

DOCUMENT: INST\_295300\_REVA • UPDATED: AUG 2022

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## INSTALLATION INSTRUCTIONS

**NOTE:** Some of the photos included in the following instructions depict installation on a Jeep JK. In these instances the procedure as depicted in the photo is identical to installation on a Jeep JL or JT.

1. Ensure the vehicle is placed on a flat, level surface with the transmission in PARK (or first gear for vehicles equipped with a manual transmission), the tires chocked, and the emergency brake ON. Wear safety glasses from this point forward.
2. Begin by slipping the sensor bezel through the sensor cutout on the bumper and securing it by using the plastic hex nut. Orientate the bezel to ensure that the sensor does not collide with the bumper.

## APPLICATION

These installation instructions apply to the following products:

**295300 BUMPER SENSOR MOUNT 4-PACK**

## COMPONENTS INCLUDED

- (4) PLASTIC SENSOR BEZEL
- (4) PLASTIC HEX NUT
- (4) PLASTIC RETAINING CAP
- (4) PLASTIC SENSOR PLUG
- (6) RUBBER SENSOR COVER
- (8) PHILLIPS HEAD SCREW
- (4) THICK FOAM WASHER (ø1.00" x 0.375")
- (4) THIN FOAM WASHER (ø1.00" x 0.079")
- (4) FOAM SPACER

## IMPORTANT NOTICES - PLEASE READ FIRST

- ✓ **READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED VEHICLE OR COMPONENT DAMAGE MAY RESULT!**
- ✓ **ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.**



FIG. 1



FIG. 2

**NOTE:** For vehicle not equipped with sensors, use the sensor plug to cover the bezel opening and skip the remaining steps.



FIG. 3

**NOTE:** The remaining steps are while the Sensor Bezel and additional components are mounted into the



bumper. But in the following photos the procedure is shown outside of the bumper for clarity.

- Depending on the vehicle make, take sensor and slip it through the back of the bezel and determine if the front face is loose on the bezel opening. If the sensor has too much play, peel off the back of the  $\varnothing 1.00'' \times 0.079''$  washer and slip over the front face of the sensor without covering the face. If desired, you may take off the rubber grommet on the sensor for a cleaner fitment.



FIG. 4



FIG. 5

Note: For Toyota use the provided  $\varnothing 1.00'' \times 0.375''$  foam spacer.



FIG. 6

- Peel off the back of the foam spacer and place it onto the inner face of the retaining cap or directly onto the back of the sensor. Place the retaining cap onto the sensor bezel and gently press until the cap is secured.



FIG. 7



FIG. 8

Note: On sensors where the wire harness receptacle has a 90-degree elbow (so that the wire harness connects parallel to the sensor body, as shown in the image below), ensure that the connection clears the flat surface on the retaining cap.



FIG. 9

- If the sensor is still loose, use the provided Phillips Head Screws and gently thread until the sensor is tight. Ensure you don't overtighten to prevent damage to the sensor.



FIG. 10

- After the installation is completed, if one of the sensors is being triggered by other aftermarket products, use one of the provided rubber sensor covers to suppress the signal.





FIG. 11

Note: If the cover is used, the sensor will not be operational.

7. Repeat the procedure for the remaining three (3) Sensor Mounts.

*Congratulations! Your installation is complete.*



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