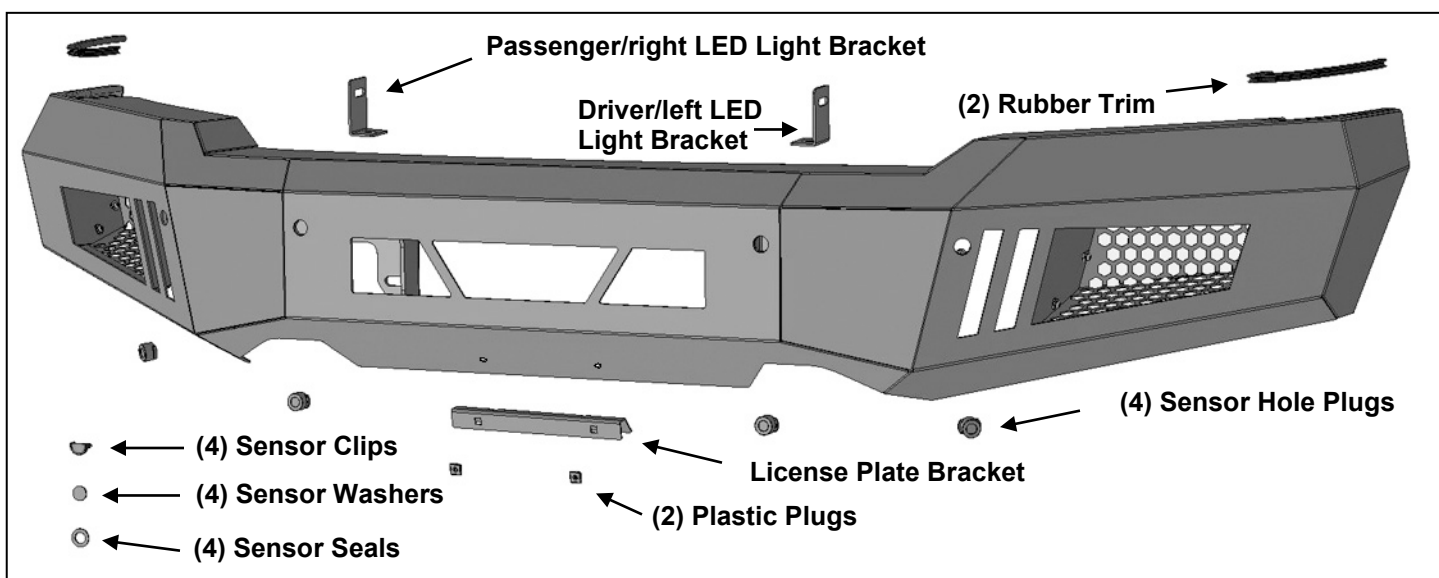


PARTS LIST:

1	LD1 Front Bumper Assembly	2	8-1.25mm x 16mm Hex Bolt
1	Driver/left LED Bracket	6	8mm x 24mm x 2mm Flat Washer
1	Passenger/right LED Bracket	4	8mm Lock Washer
2	Plastic Plugs for License Plate	2	8mm Hex Nut
1	License Plate Bracket	2	6-1.00mm x 20mm Button Head Bolt
4	15.5mm x 25mm x 2mm Foam Seals	4	6mm x 18mm x 1.6mm Flat Washer
4	20mm x 2mm Foam Washers	2	6mm Nylon Lock Nut
4	Sensor Retaining Clips	8	4mm x 10mm Button Head Bolt
4	Rubber Sensor Plugs	1	4mm Wrench
1	Sensor Cover Kit	1	2.5mm Wrench
2	Rubber Edge Trim	10	Plastic Wire Ties
2	8-1.25mm x 25mm Hex Bolt		



PROCEDURE:

REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. ASSISTANCE IS RECOMMENDED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE.

1. Open the hood and remove the plastic cover from the top of the grille and radiator, **(Figure 1)**. Models with grille mounted camera, unplug camera. Next, remove the screws attaching the grille to the radiator core support. Once all hardware has been removed, firmly pull the grille straight out from the vehicle to release the grille from the clips, **(Figure 2)**. Place grille on a clean, soft surface.
2. Remove the license plate and bracket. On models with factory fog lights and/or bumper sensors, unplug the wiring harness leading to the bumper, **(Figure 3)**. **NOTE:** Wiring harness connector is located up and behind the passenger/right side of the bumper. Release clips attaching passenger/right fender liner to access plug for harness. Move harness away from bumper.
3. From behind the driver/left side of the bumper, remove the outer bumper support connected to the side of the frame and the outer end of the bumper, **(Figure 4)**.
4. Locate and remove the hex bolts attaching the bottom of the bumper to the bumper bracket attached to the end of the frame, **(Figure 4)**.
5. Repeat **Steps 3 & 4** to remove the passenger/right bumper support and lower bumper hardware.
6. Move back to the top of the bumper. Pull back the end of the rubber cover between the bumper and the bottom of the radiator to expose the bolts attaching the top of the bumper bracket to the frame bracket, **(Figure 5)**.

7. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been safely supported, remove the bumper bolts attaching the bumper assembly to the top of the bumper bracket, **(Figure 5)**. **WARNING!** Assistance is required to hold the bumper in place during bolt removal to prevent the bumper from falling. Carefully slide the bumper assembly with brackets off of the ends of the frame.
8. Remove both bumper brackets from the end of the frame, **(Figure 6)**.
9. Reinstall the plastic grille, camera if equipped and cover removed in **Step 1, (Figure 7)**.
10. Determine if the vehicle is equipped front sensors:

Models without bumper sensors:

- a. Select the included (4) Rubber Plugs.
- b. From behind bumper, push plugs into sensor mounting holes, **(Figure 8)**. Screws have been provided to lock the plugs in the sleeve. Use is optional.

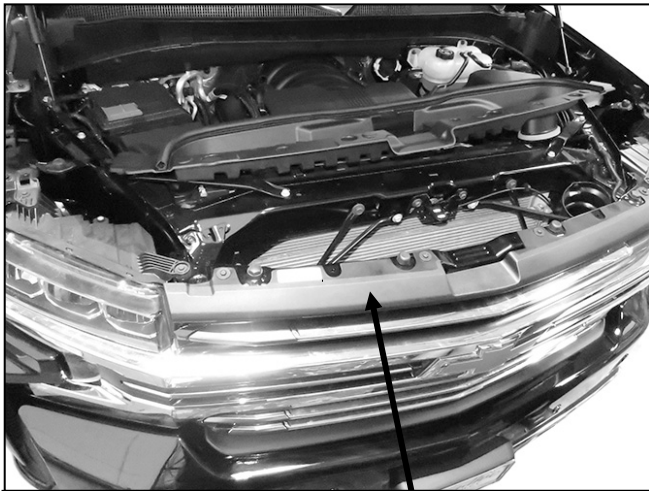
Models with bumper mounted sensors:

- a. Disassemble front bumper to unplug and remove sensors and wiring harness from bumper.
 - b. Select (1) sensor. Remove the silicone seal from the end of the sensor. Slide the included larger Foam Sensor Seal over front of sensor, **(Figure 9)**.
 - c. Insert sensor with Seal into sensor mount, **(Figure 10)**.
 - d. Place Foam Washer over end of sensor. Push Sensor Retaining Clip into sensor mount and lock into mounting holes, **(Figure 10)**.
 - e. Repeat previous Steps to install remaining sensors.
 - f. Install wiring harness for sensors. **NOTE:** it may be necessary to remove some of the protective wrap around the harness to reach all sensor mounts.
 - g. **Optional:** Secure each sensor to the socket with (2) 4mm x 10mm Button Head Screws, **(Figure 8)**. **IMPORTANT:** Sensors fit snug in sockets. The 4mm Screws are used to apply slight pressure to lock the sensors in place. Tighten both screws evenly until they touch the sensor body only. Do not overtighten screws or damage to sensors will result.
11. If front license plate is required, attach the License Plate Bracket to the holes in the bumper with the included (2) 6mm x 20mm Button Head Screws, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts. Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the Plastic Plugs, **(Figure 11)**.
 12. **Center LED light installation** (sold separately).
 - a. Select the L/R "L" Brackets, **(Figure 12)**. Attach the Brackets to the top of the (2) mounting tabs welded onto the back of the bumper with the included 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts. Leave loose at this time.
 - b. Attach the LED light assembly to the "L" Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers, **(Figure 12)**. Do not fully tighten hardware at this time. **IMPORTANT:** "L" Brackets are designed for 8mm light mounting hardware only. Modify "L" Brackets if necessary or use brackets supplied by the light manufacturer if possible, to install hardware larger than 8mm.
 - c. Follow light manufacturer's instructions to properly wire the light.
 13. **LED light installation at ends of bumper** (sold separately).
 - a. Insert light into opening and up to mounting slots in the top of the driver/left light opening.
 - b. Check for clearance between front and back of light. If necessary, remove the screen from the back of the opening, **(Figure 13)**.
 - c. Follow the light manufacturer's instructions to attach (1) light to the center slot or (2) lights to the inner and outer slots in the top of the light opening. **IMPORTANT:** On two light systems with (1) flood and (1) spot light per side, attach the flood light to the outer and the spot light to the inner slot.
 - d. Repeat the above steps for passenger/right side light installation.
 - e. Follow light manufacturer's instructions to properly wire the light.
 14. Attach included Edge Trip to edge of Bumper to protect painted finish on front of fenders, **(Figure 13)**. **NOTE:** Edge Trim is provided to protect fender during installation only, remove Trim after Bumper is fully installed and adjusted.

- 15. With assistance, position the Bumper Assembly up to the frame. Temporarily support the weight of the Bumper. **WARNING:** To avoid possible injury or damage to the vehicle, do not proceed until the Bumper is fully and safely supported.
- 16. Line up the (3) slots in the driver/left side mounting plate on the back of the Bumper with the (3) mounting holes in the end of the frame. Reuse (3) factory hex bolts to attach the Bumper to the frame, **(Figures 14 & 15)**. Repeat this **Step** to attach the passenger/right side of the Bumper.
- 17. Level and adjust the bumper and fully tighten all hardware.
- 18. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

To protect your investment, Do not use any type of polish or wax that may contain abrasives that could damage the finish. Mild soap may be used to clean the Front Bumper assembly.

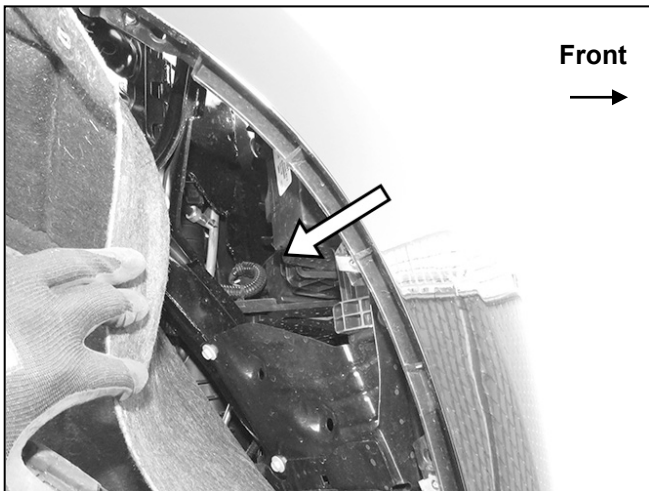
Driver/left Side Installation Pictured



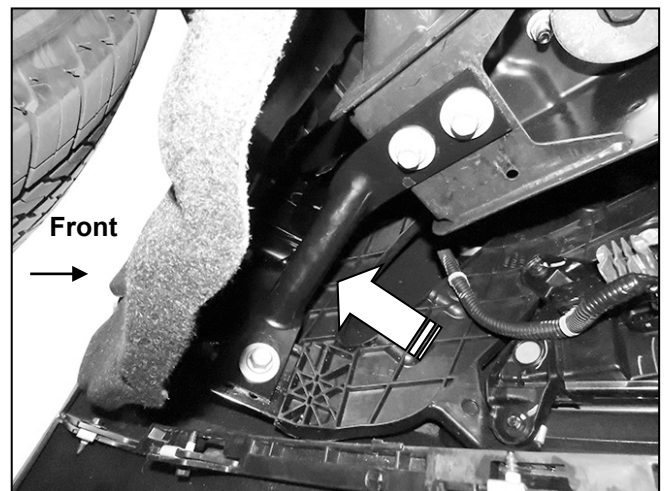
(Fig 1) Remove cover and screws attaching grille



(Fig 2) Firmly pull grille straight out from vehicle



(Fig 3) Through the passenger/right fender liner, unplug wiring harness leading to front bumper (arrow)



(Fig 4) Remove outer bumper supports (arrow)

Driver/left Side Installation Pictured



(Fig 5) Pull back cover to locate top bumper bolts

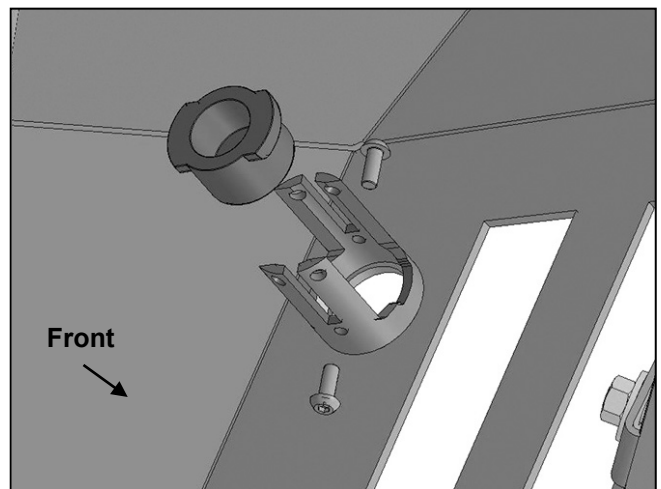
WARNING! Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.



(Fig 6) Remove factory bumper brackets and tow hooks if equipped

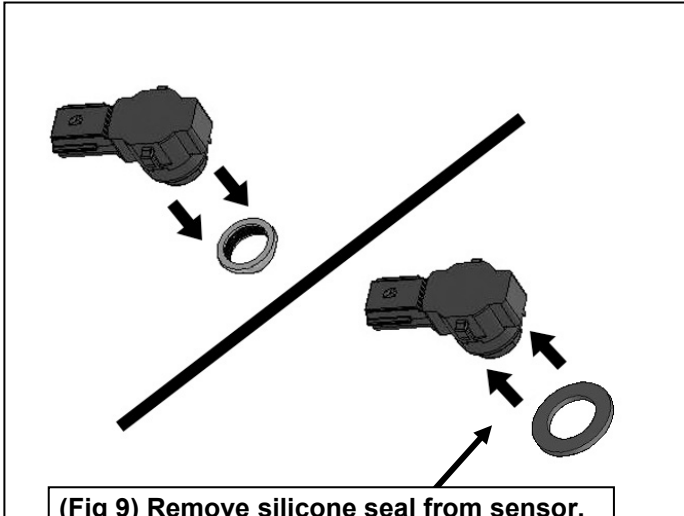


(Fig 7) Reinstall grille and cover

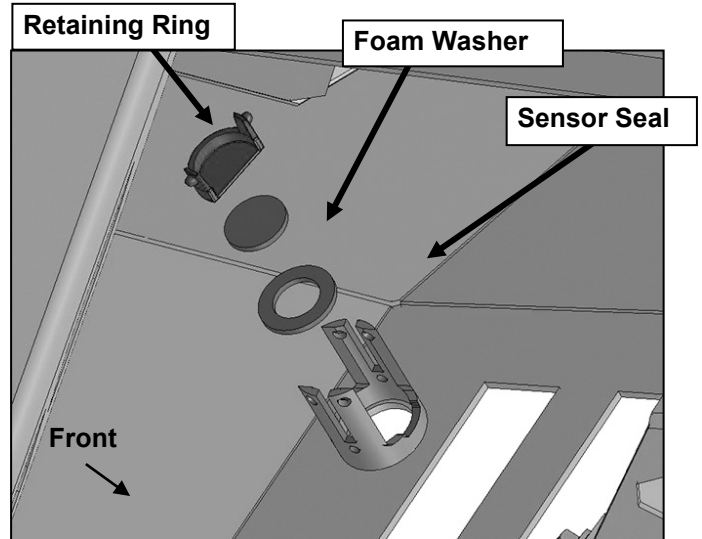


(Fig 8) Push sensor plug into mounting sleeve

Driver/left Side Installation Pictured

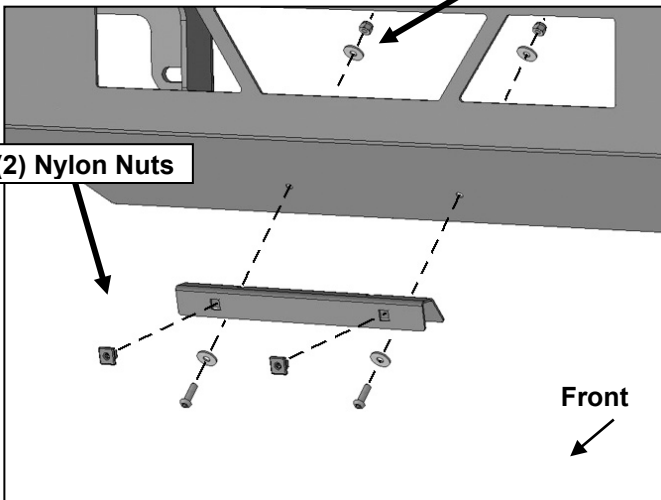


(Fig 9) Remove silicone seal from sensor. Slide large Seal over end of sensor (arrow)



(Fig 10) Insert sensor assembly through the sensor sleeve on back of Bumper

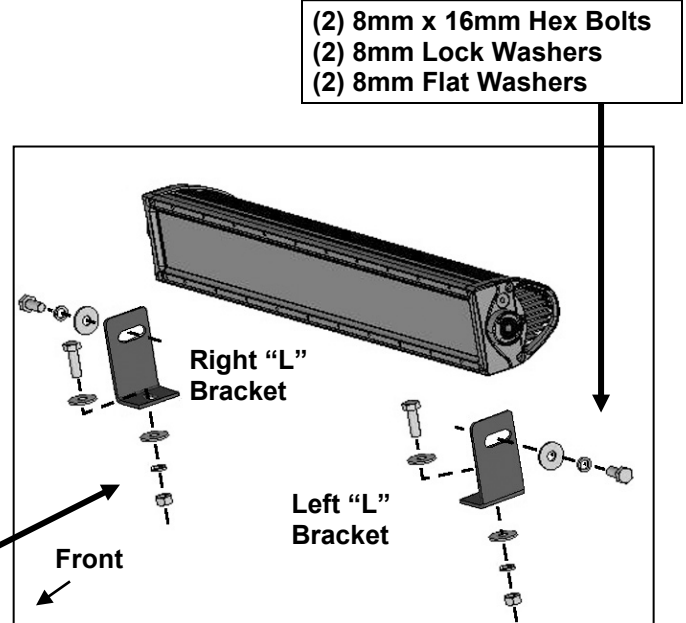
- (2) 6mm x 20mm Button Head Screws
- (4) 6mm Flat Washers
- (2) 6mm Nylon Lock Nuts



- (2) Nylon Nuts

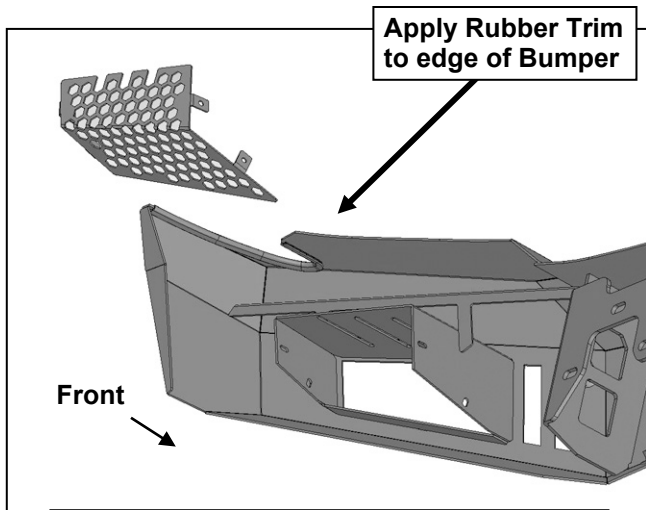
(Fig 11) Attach License Plate Bracket to Bumper

- (2) 8mm x 25mm Hex Bolts
- (4) 8mm Flat Washers
- (2) 8mm Lock Washers
- (2) 8mm Hex Nuts



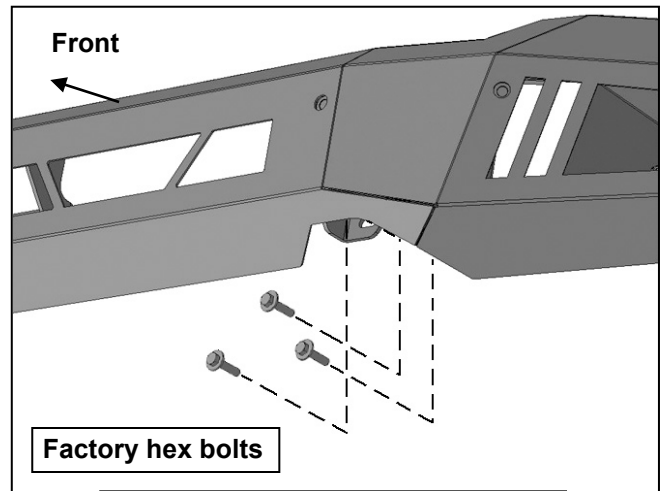
(Fig 12) Typical center light installation

Driver/left Side Installation Pictured

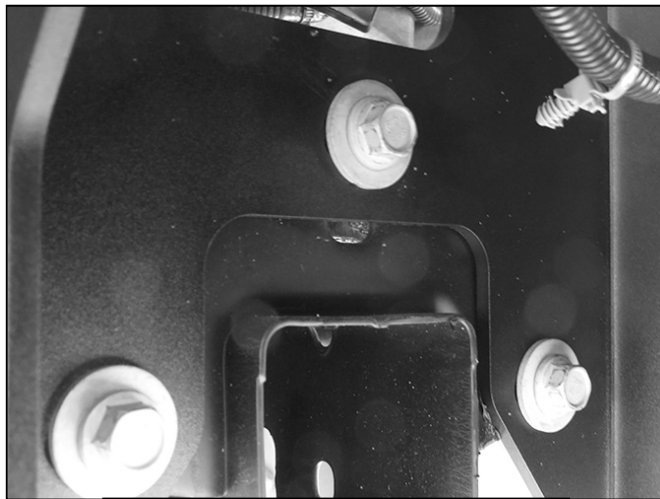


(Fig 13) Remove screens if necessary, for clearance/access to outer light mounts

WARNING! Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.



(Fig 14) Reuse factory hex bolts to attach Bumper to end of frame



(Fig 15) Reuse factory hex bolts to attach Bumper to end of frame

