

BODY ARMOR 4x4

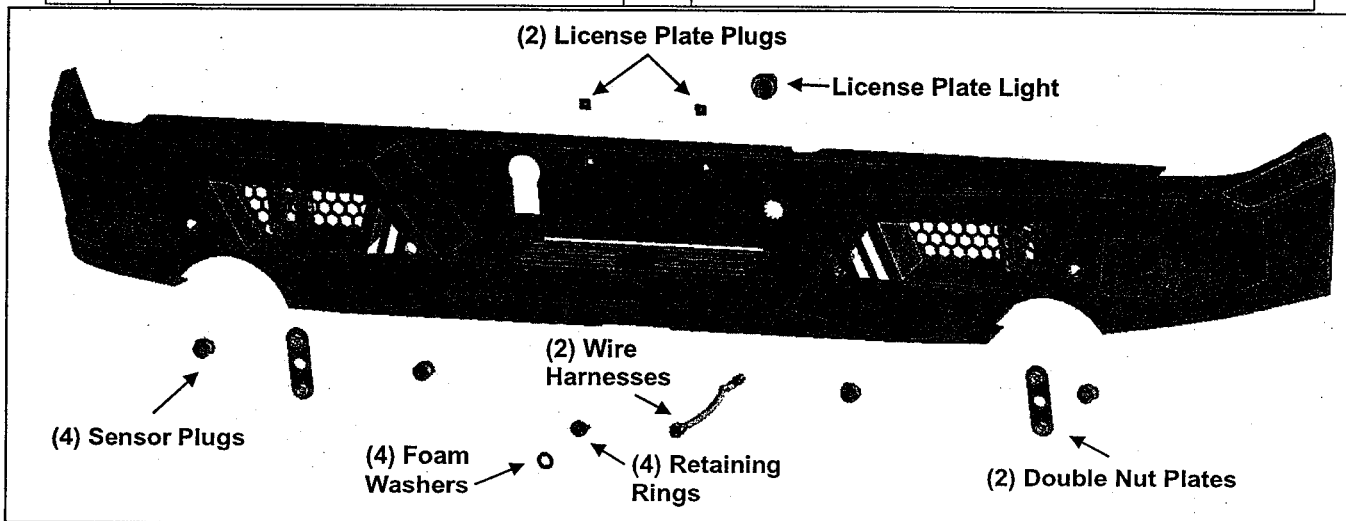
**ECO-SERIES REAR BUMPER
FOR DODGE RAM 1500 09-17 (W/ DUAL EXHAUST)
#DG-2964**

Body Armor 4x4
1050 N. Vineyard Ave
Ontario, CA 91764
PH: 951-808-0750
Customer Service hours:
M-TH: 7:30am to 4:30 PM Pacific Time
Friday: 8 AM – Noon Pacific Time

**LD1 REAR BUMPER
2009-18 RAM 1500**

PARTS LIST:

1	LD1 Rear Bumper Assembly	1	6mm Wrench
1	Push in License Plate Light	8	4mm x 10mm Button Head Bolts
2	Plastic Plugs for license plate mount	1	4mm Wrench
4	Sensor Hole Plugs	10	Nylon Cable Ties 200mm
1	Step Hole Plug	4	Retaining Rings
2	12mm Double Nut Plates	4	15.5mm x 25mm x 2mm Foam Washers
4	12-1.75mm x 40mm Hex Bolts	2	Dodge Wiring Harnesses
4	12mm x 37mm x 3mm Flat Washers	1	Sensor Cover Kit
4	12mm Lock Washers		



PROCEDURE:

REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. BUMPER IS HEAVY, ASSISTANCE IS HIGHLY RECOMMENDED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE. ON MODELS WITH DUAL EXHAUST, ALLOW EXHAUST TO COMPLETELY COOL BEFORE STARTING INSTALLATION.

1. Start installation by unplugging the license plate lights, towing harness plug and sensors if equipped, (Figures 1—3). Move the wiring harness away from the bumper. Remove the license plate.
2. Place blocks or jack stands under the bumper to support it during bumper bolt removal. Once the bumper has been safely supported, remove the (2) hex bolts behind the license plate, (Figure 4). Next, remove the (4) factory bumper bolts, (2 per side), and slide the rear bumper off of the end of the frame, (Figures 5 & 6). **WARNING!** Assistance is required to hold the bumper in place during hardware removal and to prevent the bumper from falling. Move the bumper to a clean stable work surface.
3. If installing lights at this time, check for clearance around light. Remove back screens from light housings for additional clearance around lights as required, (Figure 7). **IMPORTANT:** On models with Dual Exhaust, screens must be removed before installing the Bumper if lights are to be installed.
4. Remove the outer towing harness plug from the bumper, (Figure 8). Snap the plug into the opening in the LD1 Bumper, (Figure 9). If necessary, use a flat blade screwdriver to carefully pry the lock tab on the clip out to help lock plug in place.
5. Insert the included (2) push-in plugs to attach the license plate to the Bumper, (Figure 10). Insert the included License Plate Light into the mounting hole in the bumper, (Figure 10).
6. Sensors must be installed in Bumper, (if equipped), before installing Bumper Assembly.

Models without bumper sensors:

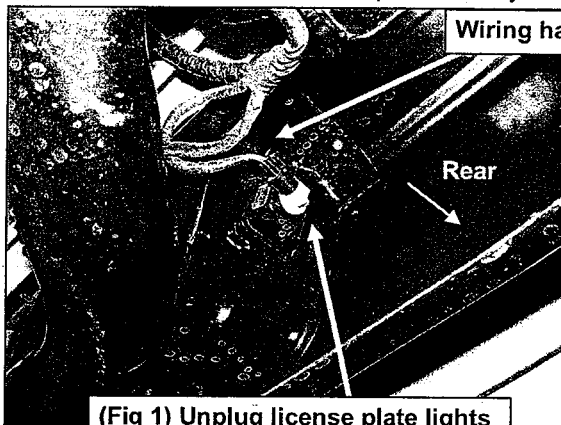
- a. Select the included (4) Rubber Plugs.
- b. From behind bumper, push plugs into sensor mounting holes.

Models with bumper mounted sensors:

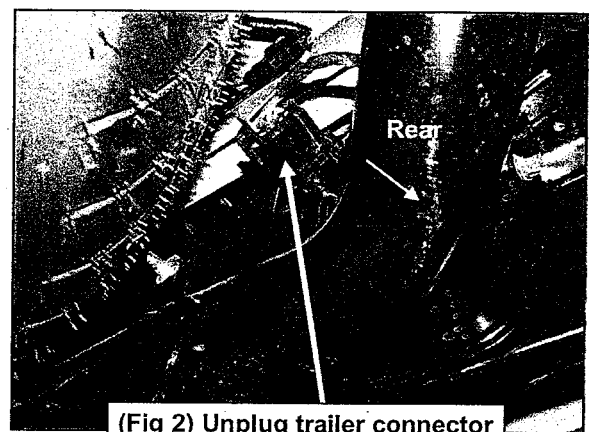
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- a. Remove factory sealing washer from sensor, **(Figure 11)**. Attach Foam Washer onto the front of the sensor.
 - b. Push the sensor in from the back of the Bumper until it is flush with the sensor sleeve. **NOTE:** Sensor tabs may need to be trimmed to fit sensor inside the sensor sleeve. Push (1) Retaining Ring into the sensor sleeve to secure the sensor in place, **(Figure 12)**.
 - c. Repeat the previous steps for the remaining sensors.
 - d. Starting on the driver side, run the OE sensor wire harness through the bumper cutouts. Connect the first two driver side sensors to the OE sensor wire harness.
 - e. Use the provided wire harness extensions to connect the remaining two passenger side sensors to the OE sensor wire harness.
7. With assistance, position the LD1 Bumper up to the bumper brackets on the ends of the frame, **(Figure 6)**. Temporarily support the weight of the Bumper Assembly. **WARNING:** To avoid possible injury or damage to the vehicle, do not proceed until the Bumper is fully and safely supported.
 8. Line up the (2) mounting holes in the back of the driver side of the bumper with the brackets on the end of the frame. Slide (2) 12mm Double Nut Plates behind the mounting plates on the Bumper, **(Figure 13)**. Attach the Bumper to the frame and Nut Plates with (4) 12mm Hex Bolts, (4) 12mm Lock Washers and (4) 12mm Flat Washers, **(Figures 13 & 14)**. Leave hardware loose at this time.
 9. Slowly open the tail gate and check for clearance. Level and adjust Bumper and tighten all hardware.
 10. Connect the license plate light harness to the License Plate Light. Reattach the wiring harness to the back of the trailer plug and back up sensors (if equipped). Use the included Wire Ties to secure the wiring harness to the bumper and frame. Seal off any open wire connections.
 11. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

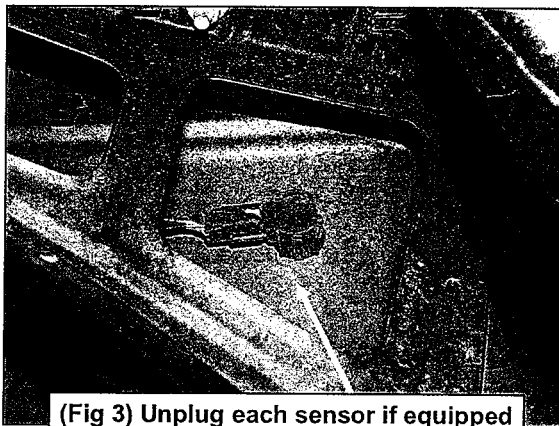
To protect your investment, wax this product after installing. Regular waxing is recommended to add a protective layer over the finish. Do not use any type of polish or wax that may contain abrasives that could damage the finish. Mild soap may be used to clean the LD1 Bumper assembly.



(Fig 1) Unplug license plate lights



(Fig 2) Unplug trailer connector

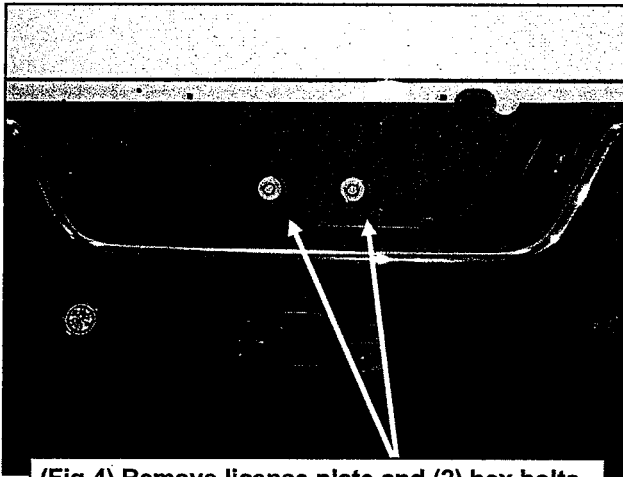


(Fig 3) Unplug each sensor if equipped

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

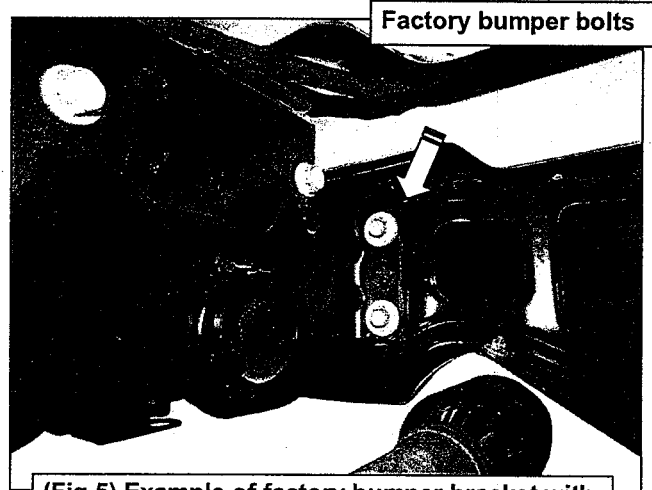
Models with dual exhaust, allow exhaust to completely cool before starting installation

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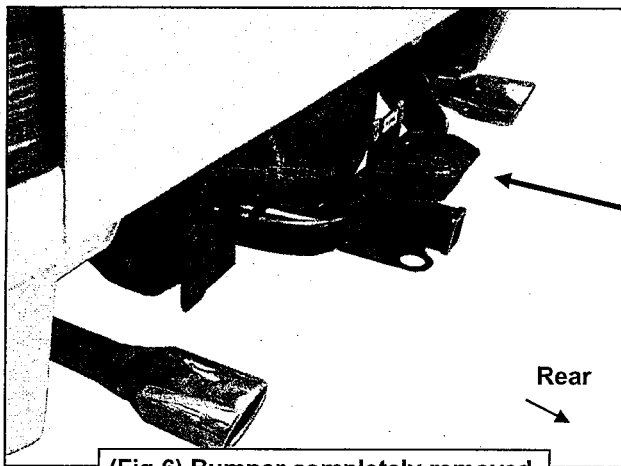


(Fig 4) Remove license plate and (2) hex bolts

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

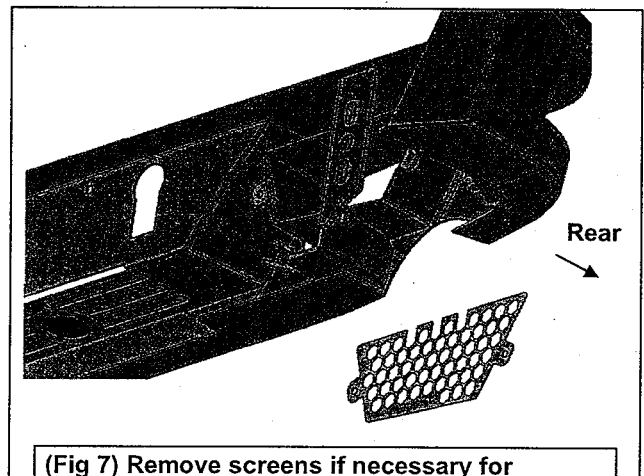


(Fig 5) Example of factory bumper bracket with (2) hex bolts pictured from behind bumper



(Fig 6) Bumper completely removed

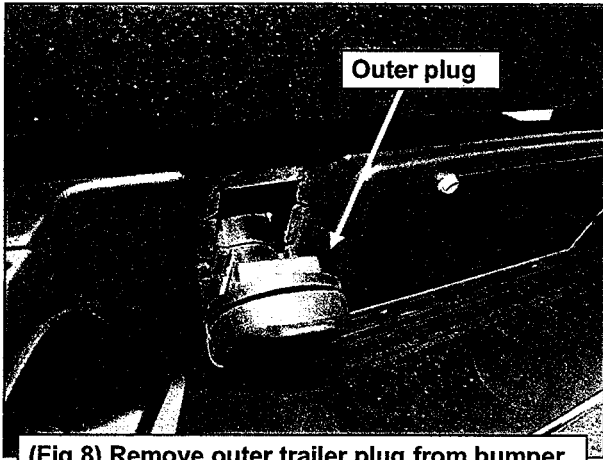
Factory receiver hitch



(Fig 7) Remove screens if necessary for additional clearance around or access to lights

IMPORTANT: On models with dual exhaust, if bumper installation will include accessory lights, check for clearance around lights before installing bumper. Screens cannot be removed once bumper is installed.

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(Fig 8) Remove outer trailer plug from bumper



(Fig 9) Push plug into place. Carefully bend locking tab outward if necessary

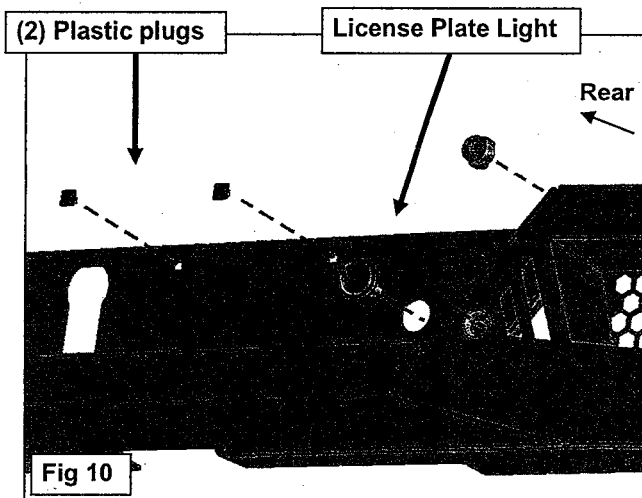
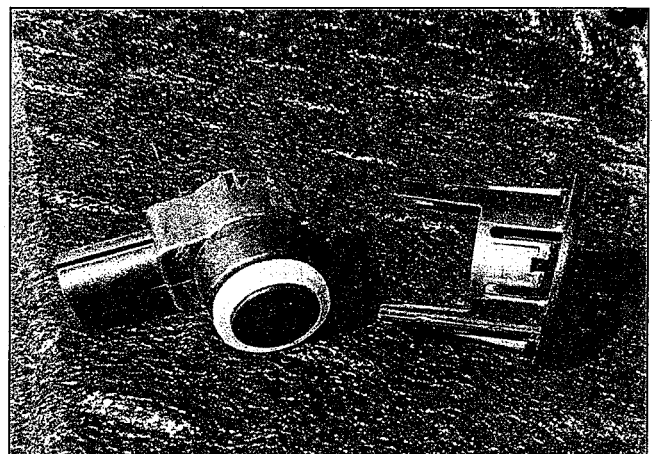


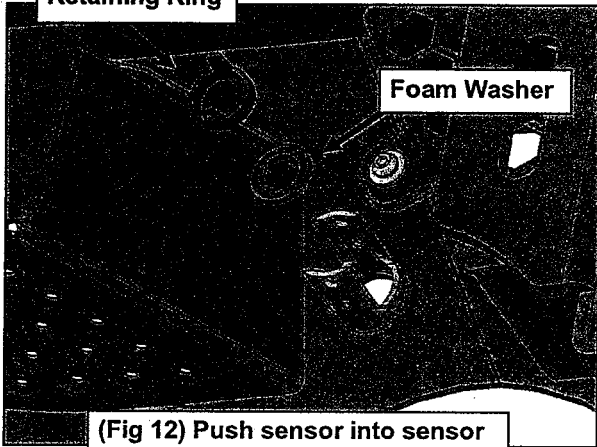
Fig 10



(Fig 11) Remove the sleeve (right) from each sensor

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Retaining Ring

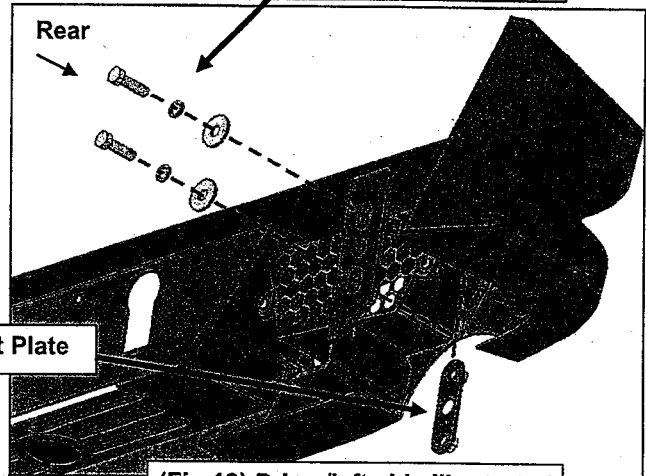


Foam Washer

(Fig 12) Push sensor into sensor sleeve on the back of the Bumper

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

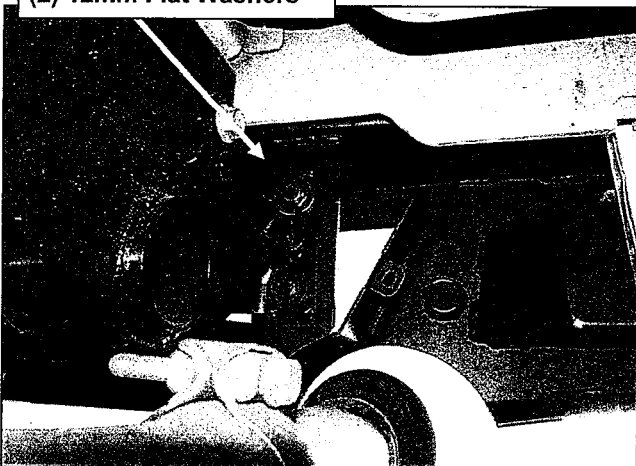
- (2) 12mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm Flat Washers



12mm Double Nut Plate

(Fig 13) Driver/left side illustrated

- (2) 12mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm Flat Washers



(Fig 14) Driver/left side pictured from behind bumper

