

2009-2014 Dodge 1500, 2010-2014 Dodge 2500-3500 HD Product Number: E2951

# **SAFETY**

#### Your safety and the safety of others is very important.

- In order to help you make informed decisions about safety, we have provided installation instructions and other information.
- These instructions alert you to potential hazards that could hurt you or others.
- Please do a job safety analysis (JSA) before each task to identify potential hazards for your situation and remove/protect against them.
- You must use your own good judgment, and take your time.

Read and understand all safety precautions and instructions before installing this product.

THIS PRODUCT IS FOR OFFROAD USE ONLY. ALL LIABILITY FOR INSTALLATION AND USE RESTS WITH THE OWNER.

CARELESS INSTALLATION AND OPERATION CAN RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE.

SENSORS FIELD OF VIEW WILL BE ALTERED WITH USE OF THE REPLACEMENT BUMPER.

# Injury hazard

#### Failure to observe these instructions could lead to severe injury or death.

Always remove jewelry and wear eye protection.
Always use extreme caution when jacking up a vehicle for work. Set emergency
brake and use tire blocks. Locate and use the vehicle manufacturers designated
lifting points. Use jack stands.
Always use appropriate and adequate care in lifting components into place.
Always insure components will remain secure during installation and operation
Always wear safety glasses when installing this kit. A drilling operation will
cause flying metal chips. Flying chips can cause serious eye injury.
Always use extreme caution when drilling on a vehicle. Thoroughly inspect the
area to be drilled (on both sides of material) prior to drilling, and relocate any
objects that may be damaged.
Always use extreme caution when cutting and trimming during fitting.
Always tighten all nuts and bolts securely per installation instructions.
Always route electrical cables carefully. Avoid moving parts, components that
become hot and rough or sharp edges.
<b>Always</b> insulate and protect all exposed wiring and electrical terminals.
Always perform regular inspections and maintenance on mounts and
related hardware.





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#### I. Overview

Congratulations on your new purchase of the industries' best and most stylish rear bumper available for the Ram 1500 and 2500-3500HD. This bumper has been designed to be lightweight and easily customized with the industry's highest quality accessories.

Your rear bumper designed in 3-D from digitized data, CNC laser cut, fabricated, and powder coated... all in the U.S.A.

Enjoy the fit and finish of a quality Ram 1500 and 2500-3500HD rear bumper from Fab Fours Inc.



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#### II. Parts List

- Rear replacement Bumper
- 50038-hw fastener kit
- Instruction Manual
- 10019 Wiring kit
- License plate lights Qty. 2
- LED Rear Light Strip Kit -61648
- Black .25" Square spacers Qty. 2

## **III.** Tools Required

- Standard and Metric Sockets, Wrenches, and Extension
- Hex Bit socket for #8-32 Button Head
- Phillips Screwdriver
- #16 Drill Bit (.1770")
- Floor Jack and wood block

NOTE: PLEASE READ THE ENTIRE MANUAL BEFORE ATTEMPTING INSTALLATION. Ignoring these steps will increase your probability of scratching the vehicle during installation.

## IV. Vehicle Preparation

- A. Disconnect the trailer and back-up (if present) sensor harnesses from the bumper. Remove and temporarily store in a safe place.
- B. Unplug the OEM license plate light from the housing and secure in a safe place.
- C. Remove license plate (to reveal two mounting bolts).
- D. Using a 15mm socket remove the two mounting bolts exposed by the license plate.
- E. Using the same 15mm socket remove the two bolts (per side) holding the bumper to the Frame/Hitch assembly
- F. Remove the OEM Bumper by rotating backwards. The





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top must clear the boss located on the hitch under the plastic cover.

G. Remove the clips holding the trailer hitch plug from the bumper. This plug will be modified to fit the new bumper.

FOR SENSOR BUMPERS, REFER TO FOLLOWING STEPS.

NOTE: PARKING SENSORS ARE EXTREMELY DELICATE AND MUST BE HANDLED WITH CARE. Do <u>NOT</u> touch or shift the clear rubber grommet that surrounds the sensor face.

- H. Remove OEM electrical harness from bumper. Sensors can be disconnected from housing by depressing the plastic clip indicated by the square (Ref. Figure 1).
- I. Pop out plastic clips holding harnesses to OEM bumper on both sides and carefully pull away.
- J. CAREFULLY remove sensors from plastic housing by gently pulling the top and bottom tabs, indicated by circles (Ref. Figure 1), away as sensor is pulled out. Do not push on front of sensor as this will damage the membrane. Place sensors face up in a safe location.
- K. Remove plastic housing from OEM bumper by depressing the four plastic tabs around the inside and pushing housing out. All sensor housings will have to be placed into the Fab Fours bumper in the same location as they were removed from OE bumper. (e.g. Outer right sensor clip must go into the outer right sensor hole in the Fab Fours bumper.)



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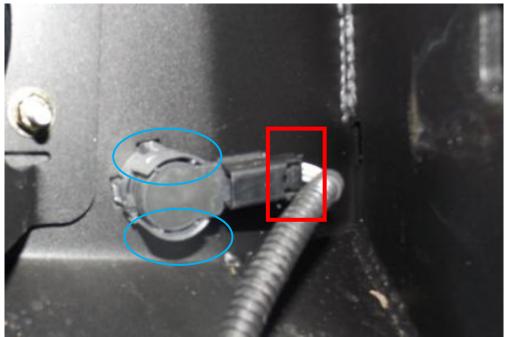


Figure 1

## V. Pre-Installation

- A. Remove the bumper from the shipping carton. Lay all items out on a blanket to prevent damage to the powder coating.
- B. FOR SENSOR BUMPER INSTALLATION: Install sensor housings in bumper, lining up plastic protrusions of the housing with the sensor profile cuts. After testing sensor function, Follow the instructions on epoxy and making sure sensor housings are flush, apply epoxy to inside face of bumper where housing sticks through (ref. figure 2). Run sensor harness through Mount brackets. Reverse steps H through K in previous section making sure that the clear plastic grommet is on properly and sensors appear centered in their housings. Final installation of sensors on passenger side should appear as follows with driver side sensors mirrored.



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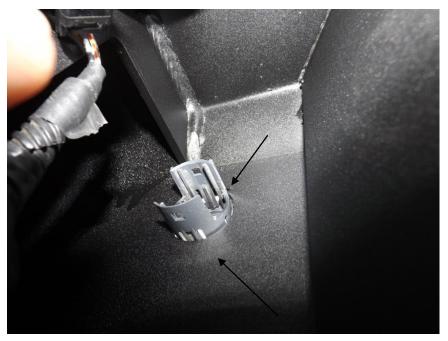


Figure 2 epoxy application locations



Figure 3 Inner passenger side sensor orientation



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Figure 4 Outer passenger side sensor orientation



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#### **Bumper Installation** VI.

- A. Install license plate inserts in 4 provided locations.
- B. Install the black license plate lights into the bumper by first separating the black lens from the metal housing. Clamp the bumper between the two halves using the supplied #8 hardware. These will be wired once the bumper is installed.
- C. Drill the OEM Trailer Hitch Plug using a #16 Drill Bit (.177") in the locations pointed out with arrows below. Use care to drill directly in the center of the circles in the plastic.

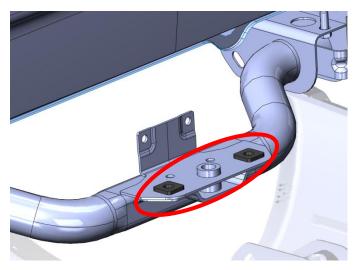




- D. Install the trailer plug into the cutout in the new bumper using the #8 Hardware Supplied.
- E. Place the two supplied black .25" spacers onto the hitch as shown below.



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F. Bolt the bumper to the truck, making sure sensor harness is running over tow hitch receiver and using the OEM and supplied mounting hardware: bolts, washers, and nuts. Do not tighten fully. It is best to insert the bolts in through the bumper mounts and place the nuts on the back side of the mounts. See image below.





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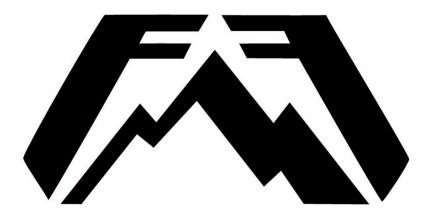
- G. Align bumper height side-to-side, verify tailgate clears while lowered, and tighten bumper mounting fasteners using sockets and wrenches. Bumper should be at the lowest levelled position as to allow for tailgate clearance. USE EXTRA CARE WHEN FIRST LOWERING THE TAILGATE AS TO NOT CAUSE DAMAGE TO YOUR TRUCK!
- H. Plug the trailer connector harness back into the trailer connector.
- I. With the supplied wiring harness place the black wire with the female spade connector onto the terminal on the back of the license plate housing that is attached directly to the housing. Using the supplied T-Tap connector tap into the black wire on the factory license plate wiring harness. Repeat on opposite side.
- J. Place the red wire with the female spade connector onto the terminal on the back of the license plate housing that is insulated from the housing. Using the supplied T-Tap connector tap into the remaining wire on the factory license plate wiring harness. Repeat on opposite side.
- K. Re-install license plate.



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#### VII. Maintenance/Care

- ☐ Periodically check and tighten all fasteners.
- ☐ Stripped, fractured, or bent bolts or nuts need to be replaced.



More than expected... Better than expected



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## **APPENDIX A. Troubleshooting Vehicle Sensors**

- Start with a general inspection of the sensor fitment. Check that both the sensors and the sensor clips are fully secure and the sensors are properly centered in the housing.
- Confirm plastic housing is in the correct mounting holes. Misplaced sensor housings could compress sensor and give false readings or faults.
- Use a clean microfiber to wipe the front face of the sensor.
- Inspect connection. Be sure that the sensor is firmly seated into the harness.
- Run through several start cycles (i.e. fully turn the vehicle on and off).
- Finally, disconnect the battery to reset the sensors.

If sensors still do not work, sensors may have been damaged during the installation process. Take vehicle to a certified dealership.