

Installation Instructions 2016-2017 RAM HD Truck Grumper

Product Number: GR2900 Application: '16 - '17 RAM HD

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.

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.
- □ Always 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 Truck Grumper available for the RAM Heavy Duty! This Truck Grumper has been engineered for strength while keeping the weight down.

Your Front 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 HD Grumper from Fab Fours Inc.





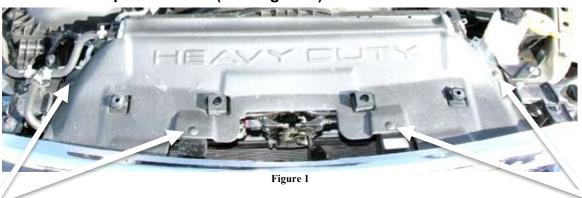


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II. Removal of OEM Bumper

Note: Save all OEM parts until installation is complete!

A. Open hood and locate push pins on radiator cover. Using a flat head screw driver, pull the head of the push pins up, remove push pin and lift radiator cover off. This will allow access to top Grille bolts (Ref. Figure 1).







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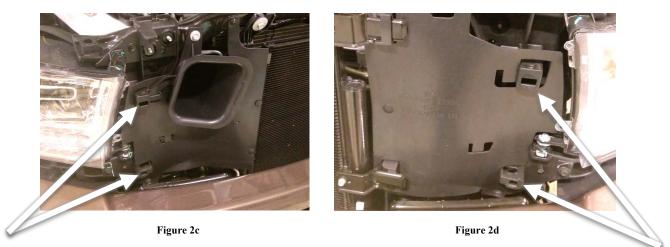
B. Using a 10mm socket remove the fasteners connecting the grille to the core support. Six fasteners are located on the grille, three on each side (Ref. Figure 2a-b). Four tabs are located on the lower inner side of the grille (Ref. Figure 2c-d). Once the six fasteners have been removed firmly pull out on the grille to release the tabs.



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C. Disconnect the two electrical connectors on the driver's side of the bumper (Ref. Figure 3a) by pulling on the red tab and depressing the locking clip and using an 18mm socket remove the two tow hooks. Tow hooks are mounted with four bolts each from the front (Ref. Figure 3b).





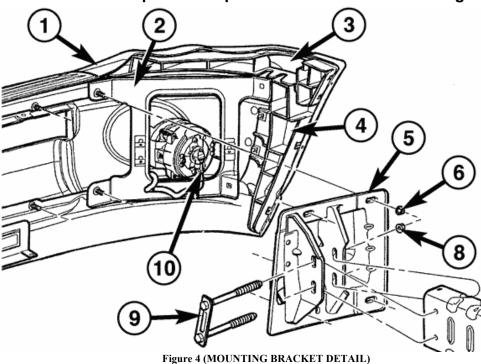


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Figure 3b (TOW HOOK)

D. Using an 18mm socket and extension remove the eight fasteners (four per side) connecting the frame horn to the bumper. (Ref. Figure 4). Carefully pull bumper away from vehicle and place on a padded surface to avoid damage.





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NOTE: Skip step E if installing on gas model

E. Remove the intercooler by loosening the hose clamps on the two tubes and removing the intercooler supporting brackets. The brackets have two fasteners attaching it to the frame on either side (Ref. Figure 5a-b-c-d). Also remove the intercooler shroud held on the front by four 10mm fasteners.



Figure 5a (INTERCOOLER BRACKETS)





Figure 5b (INTERCOOLER BRACKETS)

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Figure 5c (DRIVER SIDE INTERCOOLER CLAMP)



Figure 5d (PASSANGER SIDE INTERCOOLER CLAMP)



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F. Remove OEM electrical harness from bumper by removing the push pins. Disconnect harness from fog lights and sensors. Remove the sensor units from the bumper by removing the back strap, the sensor from the insert, then the insert can be removed. (Ref. Figure 6).

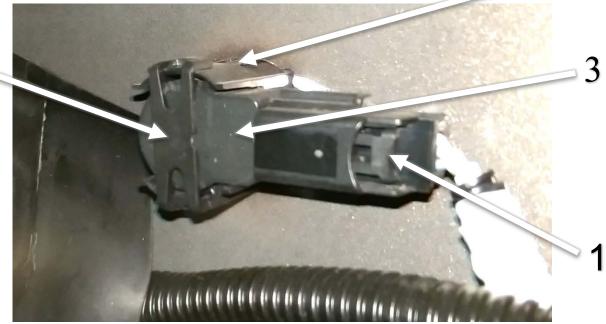


Figure 6 (SENSOR REMOVAL SEQUENCE)

PLEASE NOTE PARKING SENSORS ARE EXTREMELY DELICATE AND MUST BE HANDLED WITH CARE!

**DO NOT glue housing into place until orientation and functionality is determined. **

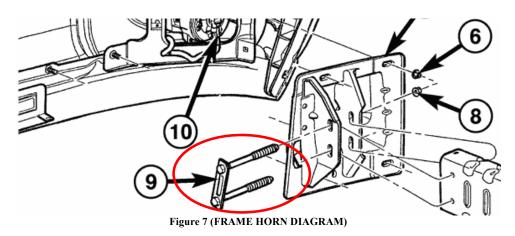


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G. Using an 18mm socket remove the four nuts on either side of the frame to remove the frame horns. (Ref. Figure 7).



H. Remove the frame anti-crush plates by breaking the spot weld at bottom (if equipped) and prying plate upward (Ref. Figure 8).



Figure 8 (FRAME ANTI-CRUSH PLATE)



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I. Using an 18mm socket remove the under-run guards under the forward body mount pedestals. Once removed install the provided anti-crush plates as shown (Ref. Figure 9).

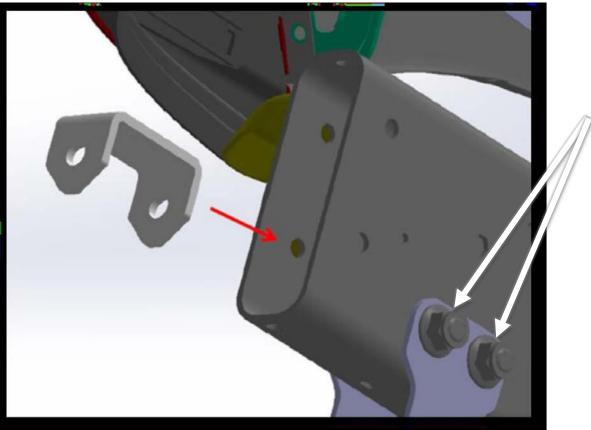


Figure 9 (FRAME ANTI-CRUSH PLATE)

**NOTE: use the provided 9/16" bolts to temporarily locate the provided anti-crush plates until ready for final install.

**NOTE: If your frame has the factory anti-crush plates installed in <u>this</u> location you can skip this step.





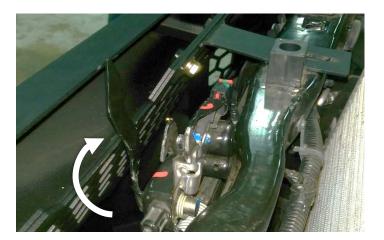
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J. With the provided anti-crush plates installed replace the OEM anti-crush plate into its original location in preparation for the Grumper installation. If not equipped with under-run guards, use the Grumper frame brackets to locate and drill the two holes per frame rail to accommodate 9/16" hardware. (Ref. Figure 10)



Figure 10 (UNDER-RUN HOLE TEMPLATE)

K. The final step of disassembly is to bend the factory hood release handle. (Ref. Figure 11) Bend the handle 90 degrees to the passenger side as shown.







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III. Pre-Installation

NOTE: The Following Installation steps apply to the installation of the Front Grumper. PLEASE READ THE ENTIRE MANUAL BEFORE ATEMPTING INSTALLATION! Ignoring these steps will increase your probability of scratching the vehicle during product installation.

- A. Remove the Grumper Parts from the shipping carton. Lay all items out on a blanket to prevent damage to the powder coating.
 - <u>Optional:</u> If installing winch into Grumper, do it at this time. Follow the winch manufacturer's instructions for installation. The Fairlead can be installed when the center grill assembly is fastened to the winch tray.

IV. Grumper Installation

A. Loosely install the winch tray using the two OEM bolt strips and included 9/16" hardware (Ref. Figure 11). Install all hardware with the nuts on the outside of the frame rail to avoid contact with the intercooler.



Figure 11



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B. Bolt inserts into the center grill section (Figure 12a-b). Attach the inserts to the center grill using 5/16" hardware. Use the rubber sealing washers on the exterior face of the Grumper shell. Stack a flat washer, lock washer, and nut on the inside. Attach the mesh pieces to the boxes with the 3/8" Yellow Zinc hardware. Install the sensor housings in the provided holes. Do not Epoxy at this time. Push the sensors into the housings and attach the wiring harness to each sensor. Note that there are four inboard sensor housing and two outboard sensor housings. This is signified by a "IB" or "OB" on the side of the housing.

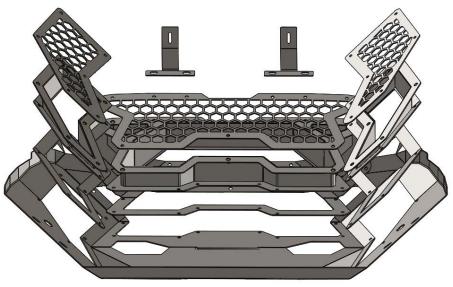


Figure 12a (GRILLE ASSYMBLY)





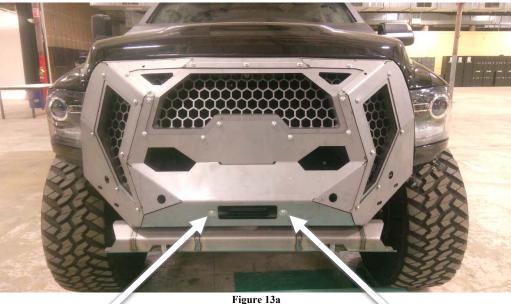
Figure 12b (ASSYMBLED GRILLE)

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C. Install the center grill section onto the truck (Figure 13a-b). Secure it to the two brackets to the core support with the OEM grille mounting hardware. Fasten the center section to the winch tray with the 7/16" stainless button head screws. If you have a winch, the fairlead should be attached at this time using the bolts provided with the winch. Adjust the center section so that it's centered on the truck and at the correct height and tighten all fasteners. Connect the sensor wiring harness to the harness to the truck.



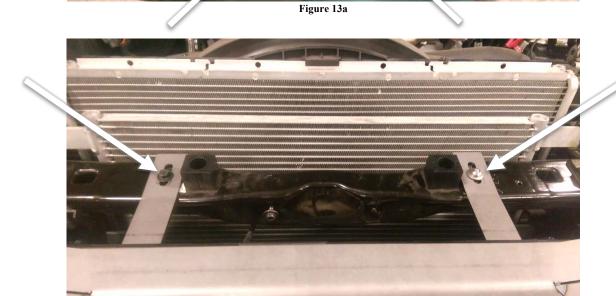




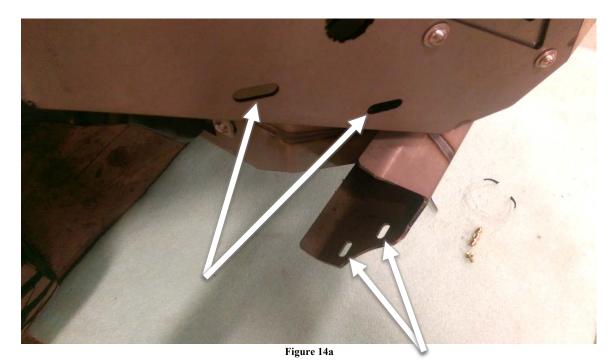
Figure 13b

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D. Install Wings using the eight provided 3/8" x 1" bolts (Figure 14a-b). Each wing will attach to the center section with two bolts and to the winch tray with two bolts.











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E. Install Wing Stiffeners using the 3/8" x 1.25" hardware. The stiffener will attach to the winch tray mount with the OEM bolt strip and to the back of the wing with one bolt (Figure 15).



Figure 15

- F. Install sensors in the two wings using the "OB" housings.
- G. Reinstall the intercooler reversing the steps used to remove it earlier. Once installed using the OEM shroud hardware install the intercooler cover. (Ref. Figure 16)







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- H. After ensuring sensors work in current orientation, epoxy should be applied to the housing on inside of bumper and allowed to dry.
- I. Align the bumper side to side and top to bottom to ensure a perfect fit to the truck. Allow greater than 1/4" of clearance to all painted surfaces if possible. This is to allow for frame flex!
- J. Fully tighten all fasteners between bumper and brackets as well as brackets and frame.
- K. Remove adhesive covering on Fab fours logo, center with grille, align with cutout in center of the grille and apply with firm pressure for 30 seconds.

Enjoy your New Grumper from Fab Fours!





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Maintenance/Care

- □ Periodically check and tighten all fasteners.
- □ Stripped, fractured, or bent bolts or nuts need to be replaced.
- □ After washing of the vehicle make sure to fully dry all surfaces



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