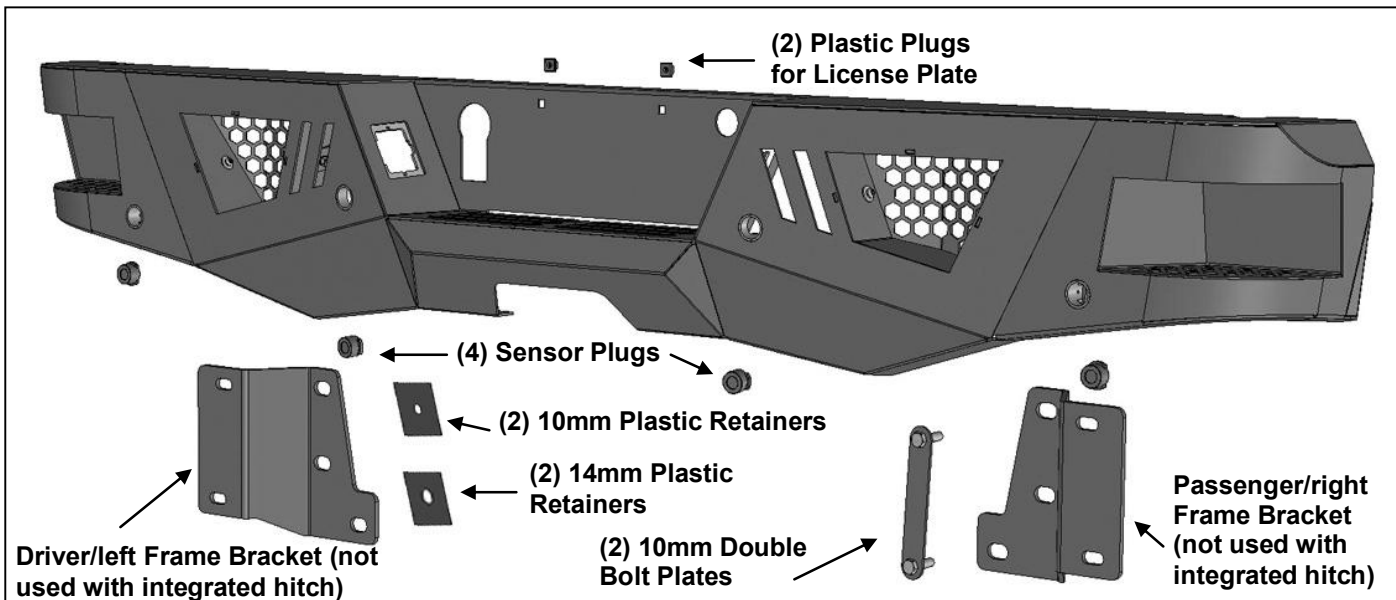


PARTS LIST:

1	LD1 Rear Bumper Assembly	2	10mm x 35mm Double Bolt Plates
1	Driver/left Mounting Bracket	4	10mm x 30mm x 2.5mm Flat Washers
1	Passenger/right Mounting Bracket	4	10mm Nylon Lock Nuts
2	Plastic Plugs for license plate mount	8	4mm x 10mm Button Head Bolts
4	Sensor Hole Plugs	1	2.5mm Wrench
2	14mm Plastic Retainers	1	4mm Wrench
4	10mm Plastic Retainers	10	Nylon Wire Ties



PROCEDURE:

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

IMPORTANT: OEM BUMPER REINFORCEMENT USED WITH "STANDARD" TOW PACKAGE WITHOUT RECEIVER HITCH CANNOT BE REINSTALLED. OE INTEGRATED "HD" HITCH, "MAX DUTY" HITCH AND MOST AFTERMARKET RECEIVER HITCHES REQUIRED FOR TOWING.

1. Remove the license plate from the bumper, (**Figure 1**). Next, unplug the license plate lights, trailer plug and sensors, (if equipped). Release the wiring harness from the clips attached to the back of the bumper. Move all wiring harnesses away from bumper. **NOTE:** Bumper is designed to be compatible with larger 7-wire universal trailer harness plug only.
2. Place blocks or jack stands under the bumper to support it during mounting bolt removal. Once the bumper has been safely supported, remove the factory hardware attaching the bumper to the end of the frame and remove the bumper assembly, (**Figures 3A, 3B & 4**). **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent bumper from falling.
3. Remove sensors, (if equipped), from bumper. Next, release the clips holding the license plate lights in place and remove the lights, (**Figure 2**). Release the clips securing the trailer plug and remove the plug.
4. **Optional LED light installation at ends of bumper** (sold separately).
 - a. Insert light into opening and up to mounting slots. Check for clearance between front and back of light. If necessary, remove the screens from the back of the openings, (**Figure 5**). **IMPORTANT:** Screens must be removed before Bumper is installed.
 - b. Follow the light manufacturer's instructions to attach each light to slot in the opening.

- c. Repeat the above steps for remaining light installation.
- d. Follow light manufacturer's instructions for adjustment and to properly wire the light to the vehicle electrical system after Bumper installation.
5. Reinstall the license plate lights and trailer plug, **(Figure 6)**. **NOTE:** Use a flat blade screwdriver to carefully pry the metal clips on the plug out to grab the edge of the opening.
6. **NOTE:** Depending on tow package, it may be necessary or easier to install sensors, (if equipped), before installing the Bumper.
 - Models without bumper sensors:**
 - a. Select the included (4) Rubber Plugs.
 - b. From behind bumper, push plugs into sensor mounting holes, **(Figure 7)**.
 - Models with bumper mounted sensors:**
 - a. Push the sensor into the mounting socket in the back of the bumper.
 - b. Secure each sensor to the socket with (2) 4mm x 10mm Button Head Screws, **(Figure 7)**. **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.
7. Use a small flat blade screwdriver to pry the star washers off of the bolt plates used to attach the factory bumper to the frame, **(Figure 8)**. **NOTE:** "HD" tow package models use a triple bolt plate, "Standard" and "Max Duty" equipped models use a double bolt plate.
8. **Determine towing package supplied with vehicle:**
 - Models with "standard tow package" without HD receiver below bumper and models with "Max Duty" frame mounted receiver hitch below bumper.**
 - a. Insert the factory bolt plate into the passenger/right Mounting Bracket. Thread (1) 14mm Plastic Retainer onto the bolt plate to hold it in position, **(Figure 9)**.
 - b. Select (1) 10mm Double Bolt Plate and (1) 10mm Plastic Retainer. Insert the Double Bolt Plate into and through the back of the mounting tab on the LD1 Bumper, **(Figure 10)**. Thread the Retainer down onto the Bolt Plate to help hold it in position.
 - c. Attach the passenger/right Mounting Bracket assembly to the 10mm Double Bolt Plate with (2) 10mm Flat Washers and (2) 10mm Nylon Lock Nuts, **(Figures 11 & 12)**. Snug but do not fully tighten hardware at this time.
 - d. Repeat the previous Steps to install the driver side bolt plate and Bracket assembly.
 - e. With assistance, hold the LD1 Bumper assembly up to the ends of 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. Reuse the factory hex nuts to attach the LD1 Bumper Brackets with bolt plates to the frame, **(Figures 13 & 14)**. Snug but do not fully tighten hardware at this time.
 - f. Skip to **Step 9**.
 - Models with "HD" tow package with integrated receiver hitch into bumper and brackets.**
 - a. Remove integrated receiver hitch and bracket assembly from back of bumper.
 - b. Use factory hardware to reinstall receiver/bumper bracket assembly to mounts on ends of frame, **(Figure 15)**. Snug but do not fully tighten hardware at this time.
 - c. Select (1) 10mm Double Bolt Plate and (1) 10mm Plastic Retainer. Insert the Double Bolt Plate into and through the back of the mounting tab on the bumper, **(Figure 16)**. Thread the Retainer down onto the Bolt Plate to help hold it in position. Repeat to attach the driver side 10mm Double Bolt Plate.
 - d. With assistance, attach the Bumper assembly to the receiver/bumper bracket assembly with (4) 10mm Flat Washers and (4) 10mm Nylon Lock Nuts, **(Figure 16)**. 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. Snug but do not fully tighten hardware at this time. Skip to **Step 9**.

9. Level and adjust the bumper and fully tighten all hardware including the Mounting Bracket to Bumper hardware.
10. Attach the wiring harness to the sensors, lights and trailer plug. Use the included Wire Ties to secure the wiring harness to the bumper and frame as necessary.
11. Do periodic inspections to the installation to make sure that all hardware is secure and tight.
12. Use the included (2) push-in plugs to attach the license plate to the Bumper, (**Figure 17**).
13. 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 Bumper assembly.

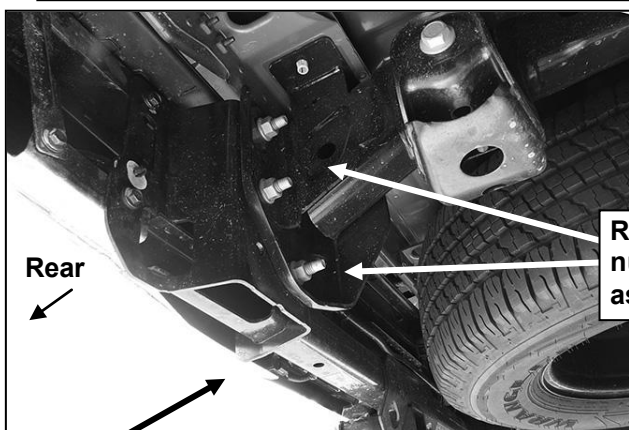
Passenger Side Installation Pictured



(Fig 1) Unplug and remove 7-wire trailer plug



(Fig 2) Unplug license plate lights



Remove the factory hex nuts attaching bumper assembly to frame

(Fig 3A) Note bumper with integrated receiver hitch

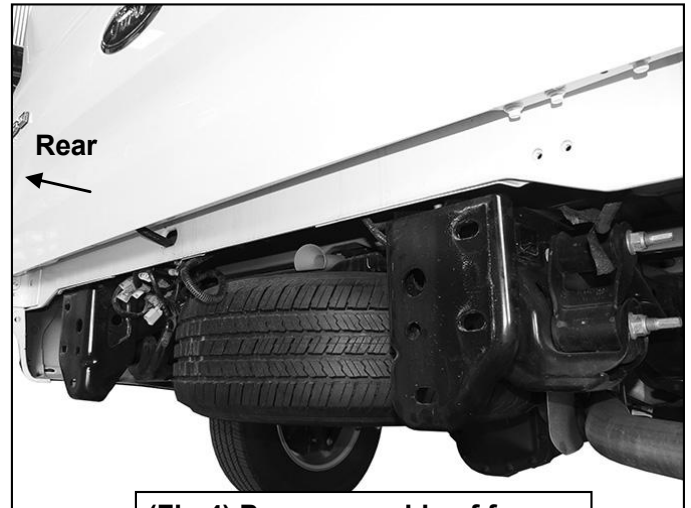
WARNING! Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.

Passenger Side Installation Pictured

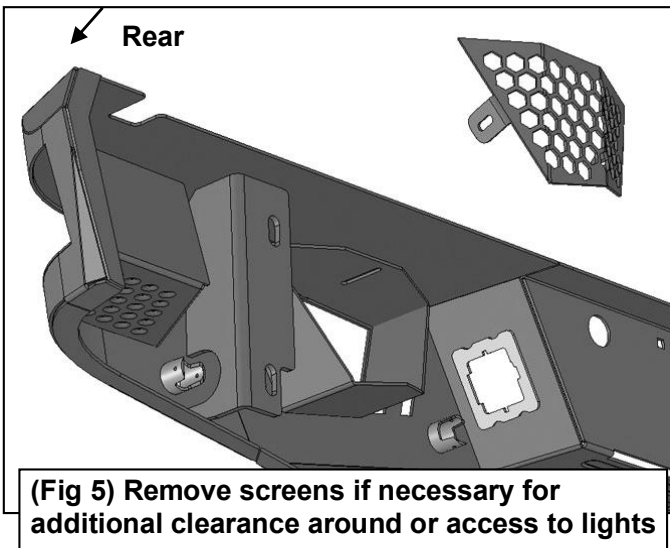
WARNING! Do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.



(Fig 3B) Remove the factory hex nuts attaching bumper assembly to frame. STD tow package model pictured (no receiver hitch)



(Fig 4) Passenger side of frame



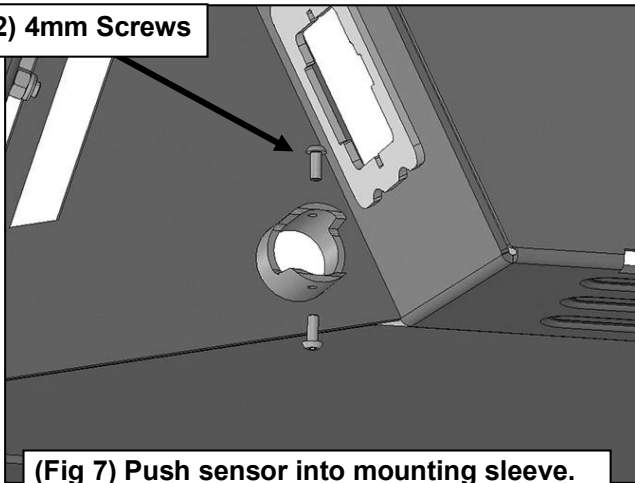
(Fig 5) Remove screens if necessary for additional clearance around or access to lights



(Fig 6) Use flat blade screwdriver to carefully pry tab to hold light in place

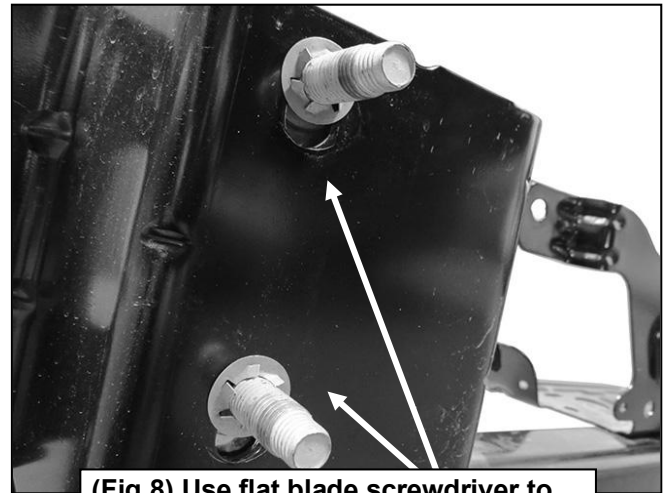
Passenger Side Installation Pictured

(2) 4mm Screws



(Fig 7) Push sensor into mounting sleeve. Use 4mm Screws to lock sensor in place.

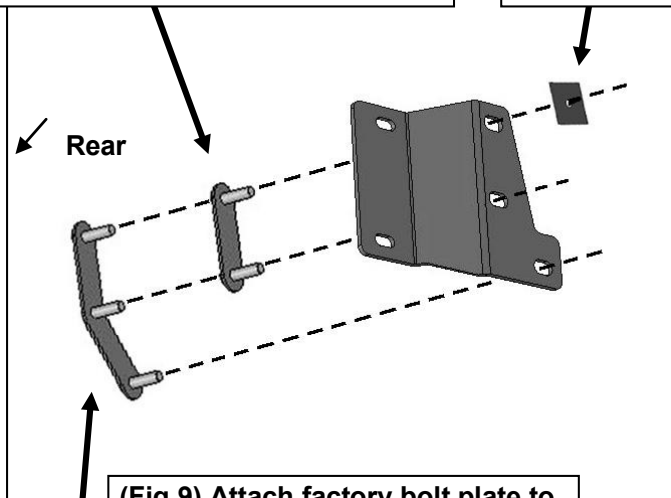
IMPORTANT: Sensors fit snug in sockets. The 4mm Screws are only used to apply slight pressure to lock the sensors in place. Tighten both screws evenly until they touch the sensor body only. Do not overtighten screws or damage to sensors will result.



(Fig 8) Use flat blade screwdriver to pry off lock washers from bolt plates

Factory double bolt late used on models w/o receiver hitch and "max tow" frame mounted receiver hitch

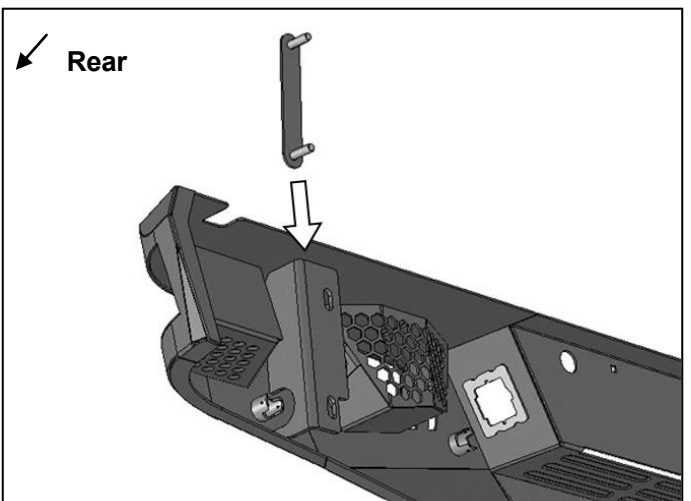
14mm Plastic Retainer



(Fig 9) Attach factory bolt plate to passenger/right Mounting Bracket

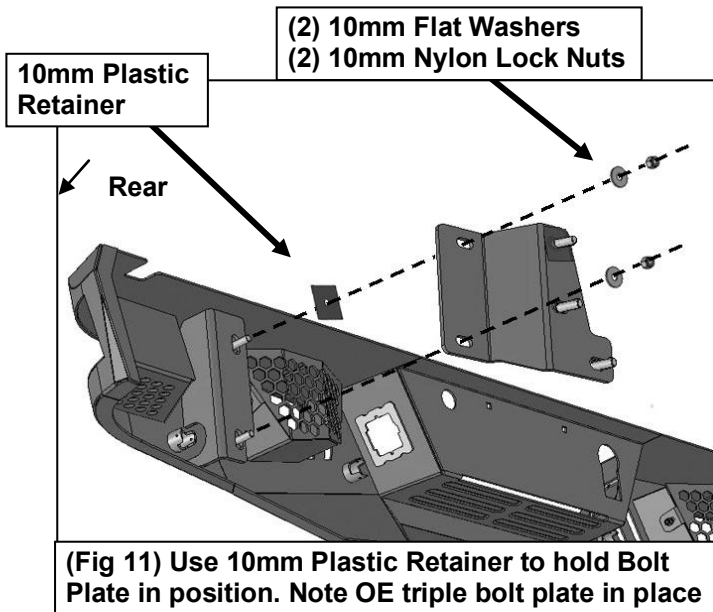
Factory triple bolt plate used with "HD tow" package with integrated receiver hitch

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

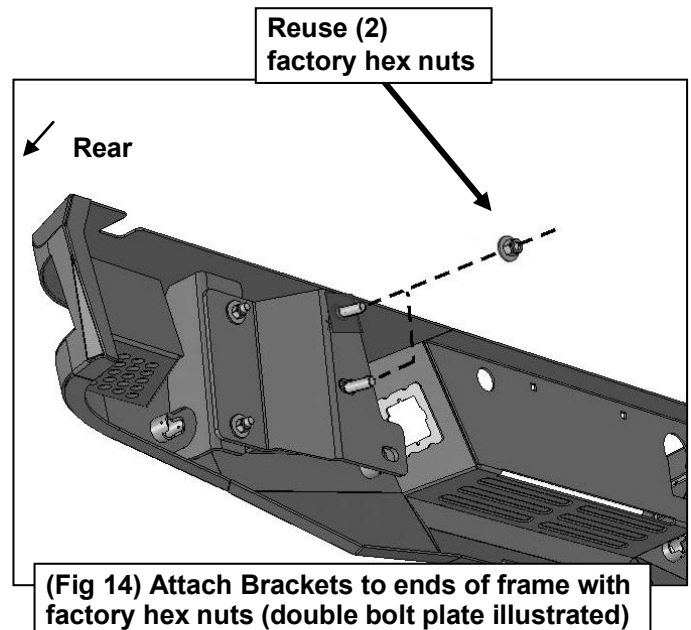
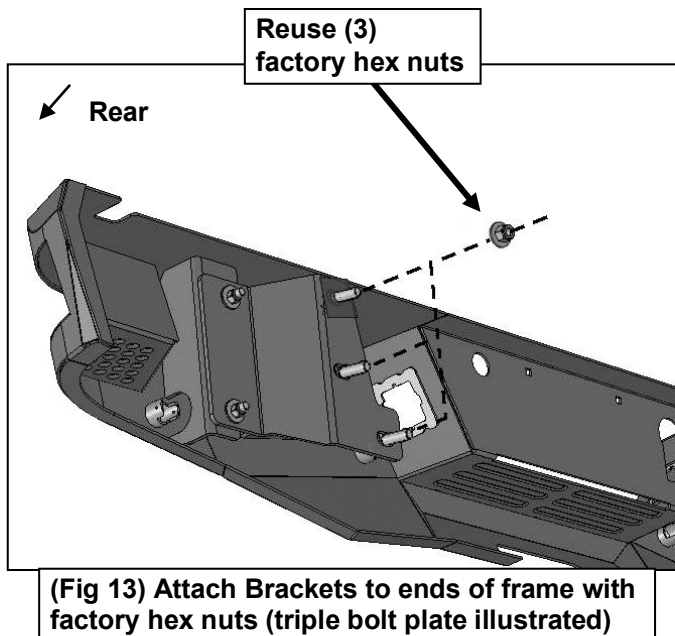
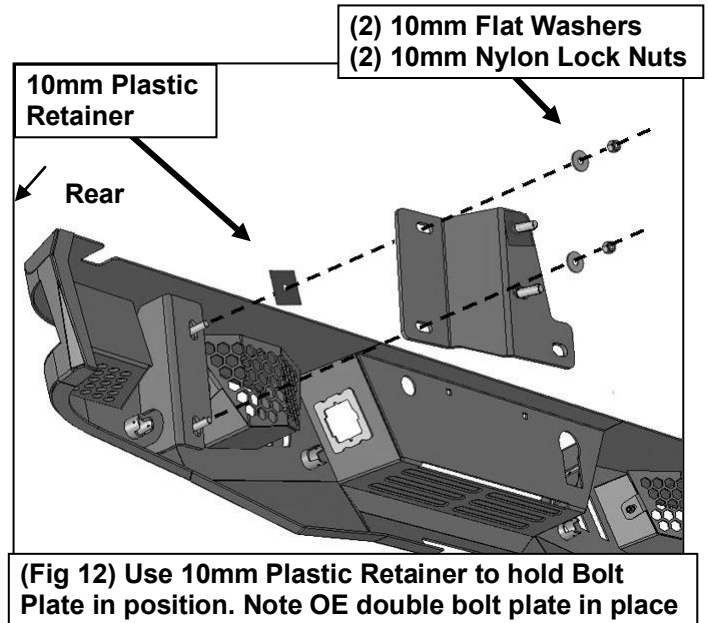


(Fig 10) Insert 10mm Double Bolt Plate into and through back of mounting tab on back of Bumper

Passenger Side Installation Pictured



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



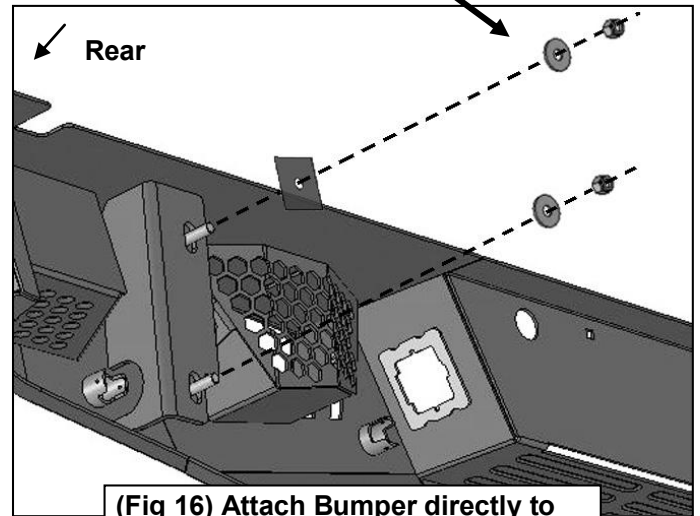
Passenger Side Installation Pictured



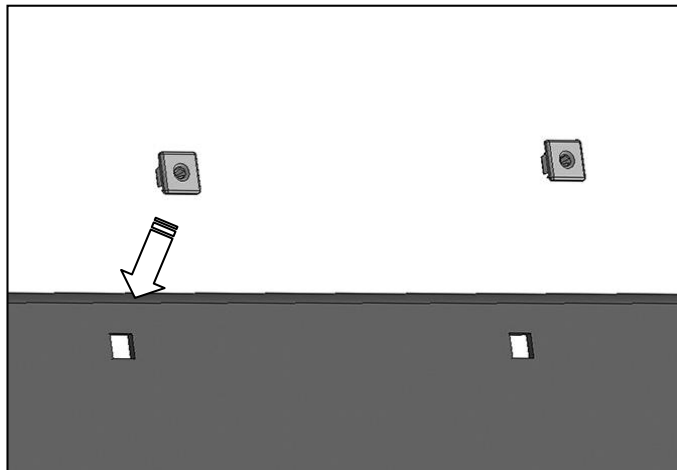
(Fig 15) Reinstall integrated receiver hitch/bracket assembly on models with "HD Towing" package

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

(2) 10mm Flat Washers
(2) 10mm Nylon Lock Nuts



(Fig 16) Attach Bumper directly to integrated hitch bracket (see Fig 13)



(Fig 17) Push plastic plugs into holes for license plate



Complete Installation

WARRANTY POLICY & PROCEDURE

Contact your Body Armor 4x4 Distributor or Body Armor 4x4 directly regarding any issue prior to removing product from vehicle. If it appears said product is warrantable, you will be given a Return Authorization Number (RA #) and asked to return said product freight pre- paid. The RA # must appear on the outside of the carton/box of any returned product. Unauthorized returns will be refused. RA # must be given by Body Armor 4x4 in advance of return.

BODY ARMOR LIMITED LIFETIME WARRANTY

Body Armor 4x4 (BA) warrants to the original purchaser that these products will be free from defects in material and workmanship prior to shipping and/or installation for the life of the product. This non-transferable limited lifetime warranty does not cover damage or impairment in any part due to misuse, improper installation, accident or contact with on-road or off-road hazards, product modification, improper or inadequate cleaning and/or maintenance. All other warranties and representations express or implied are hereby disclaimed, including fitness for merchantability and buyer's intended use or purpose.

BA products are built and sold for highway and off-road use. The original purchaser assumes all risks as to the selection, suitability and performance of all goods and products purchased.

BA's sole and exclusive obligation under this warranty shall be to repair or replace the item(s) and their discretion and BA will not issue any credit or refund to the consumer. Proof of purchase is required on all warranty claims. BA may require pictures to diagnose the warranty claim and may require the product(s) be returned if determined by BA to be necessary. If a return is required then a RGA number will be issued by BA. Any item arriving to BA without a valid

RGA number will be refused and sent back. Upon evaluating the RGA and no valid warranty claim is made, the RGA will be returned to the consumer at their expense or disposed by BA after 60 days. BA will not be responsible for incidental charges such as removal, installation, shipping costs or lost during transit. Any items that are ordered in error, refused or cancelled are not considered a valid warranty claim and cannot be returned to BA.

WARRANTY PROCESS

Contact an authorized BA dealer to initiate warranty process. Authorized dealers must contact BA to assist in evaluating the warranty claims. Valid warranties will have a RGA issued. Once issued the dealer will request the product be returned to BA facilities. Products purchased through an authorized BA dealer will be refunded and/or credited by that BA dealer.

Warranty contact: orders@bodyarmor4x4.com

Return address: Body Armor 4x4, 1050 N. Vineyard Ave. Ontario CA, 91764, P: 951-808-0750

FINISH WARRANTY

The finish is warranted to be free of defects for a period of 3 years from date of purchase. Product(s) that have been abused, altered, incorrectly installed or used in competition are void of said warranty. Surface rust, pitting or discoloration is a direct result of improper maintenance is not covered by this warranty. It is the responsibility of the owner to preserve and maintain the finish of their product(s). In areas where high concentrations of road salts and other corrosive agents are used, rust or damage to the finish may occur if BA product(s) are not properly maintained. Lack of proper maintenance in these areas may void the finish warranty. See below for routine maintenance tips and recommendations.

**PRODUCT CARE AND MAINTENANCE**

Textured coat finished should be cleaned ONLY with a mild soap on a damp sponge.

BA recommends wiping down the product with a light coat of lubricate (i.e. WD40) periodically to maintain its luster.

DO NOT apply polish or wax that requires buffing for removal as this may damage the finish.

DO NOT coat the product with any type of shine such as Tire Shine or glossy aerosol or gel. This can cause discoloration, staining or bubbling.