

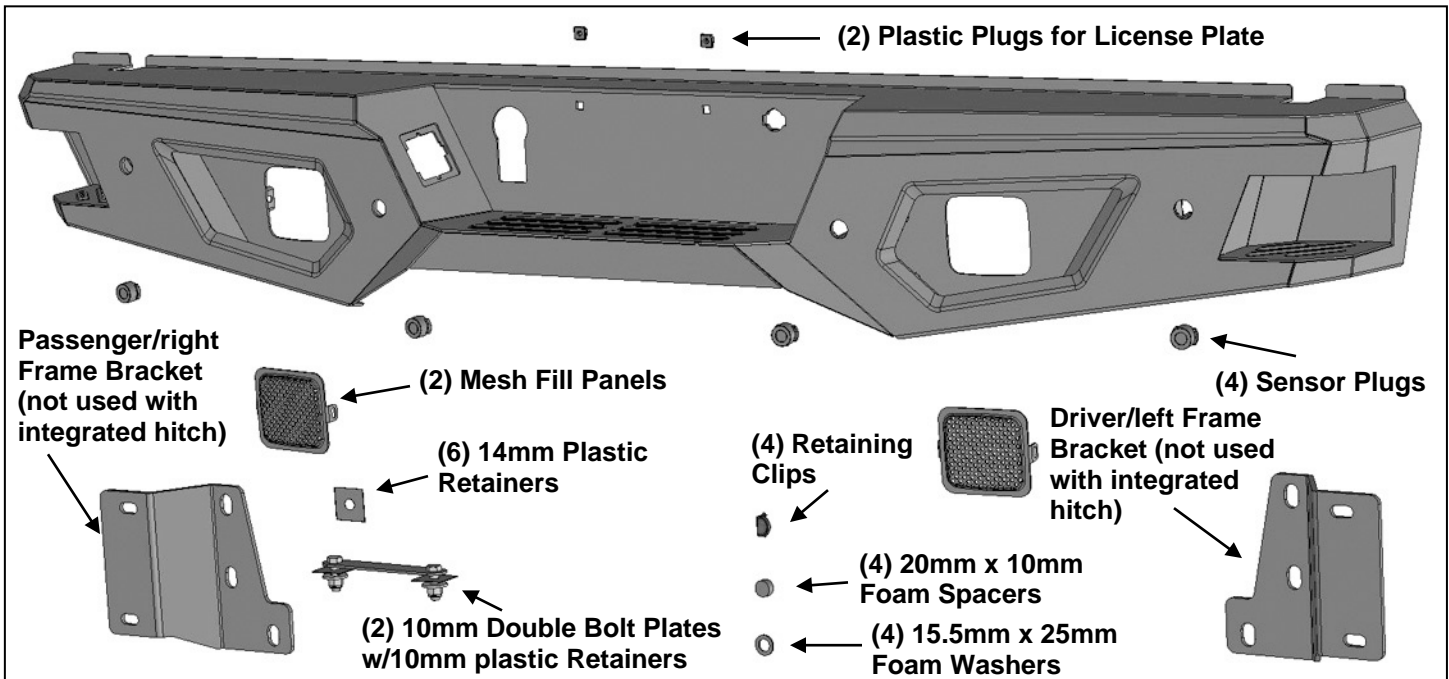


**AB2226**

Endurance Truck Rear Bumper for 15-20 FORD F150 (Accommodated factory hitch receiver)

**PARTS LIST:**

1	LD2 Rear Bumper Assembly	6	14mm Plastic Retainers
1	Driver/left Mounting Bracket	4	10mm Plastic Retainers
2	Mesh Fill Panels	2	10mm x 35mm Double Bolt Plates
1	Passenger/right Mounting Bracket	4	10mm x 30mm x 2.5mm Flat Washers
2	Plastic Plugs for license plate mount	4	10mm Nylon Lock Nuts
4	Sensor Hole Plugs	8	4mm x 10mm Button Head Bolts
4	Sensor Retaining Rings	1	2.5mm Wrench
4	20mm x 10mm Foam Spacers	1	4mm Wrench
4	15.5mm x 25mm x 2mm Foam Washers	10	Nylon Wire Ties
1	Sensor Covers Kit		



**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, (Figure 2). Unplug the wiring harness leading to the bumper. Move wiring harness 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 the wiring harness, license plate lights, trailer plug and spare access lock from the factory bumper. Remove sensors, (if equipped), from bumper.
4. Determine correct procedure for your model.

**Models without bumper sensors:**

- a. Select the included (4) Rubber Plugs, **(Figure 5)**.
- b. From behind bumper, push plugs into sensor mounting holes, **(Figure 5)**. Screws have been provided to lock the plugs in the sleeve. Use is optional.
- c. Repeat previous **Steps** to install remaining sensors.
- d. Install wiring harness from factory bumper.

**Models with bumper mounted sensors:**

- a. Select (1) sensor. Remove the silicone seal from the end of the sensor, **(Figure 6)**.
- b. Slide the included larger Sensor Seal over front of sensor, **(Figure 7)**.
- c. Insert sensor with Seal into sensor mount in LD2 Bumper.
- d. Place Thick Foam Spacer over end of sensor. Push Sensor Retaining Clip into sensor mount and lock into mounting holes, **(Figure 7)**.
- e. Repeat previous **Steps** to install remaining sensors.
- f. Install wiring harness from factory bumper.
- g. Optional: Secure each sensor to the socket with (2) 4mm x 10mm Button Head Screws, **(Figure 5)**. **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.

**5. Determine if accessory lights, (not included), or Mesh Fill Panels will be installed.**

**Mesh Fill Panel Installation (do not install fill panels if installing lights).**

- a. Select the Fill Panels, **(Figure 8)**.
- b. Attach Panels to mounting tabs on back of Bumper with the included 6mm Combo Bolts and 6mm Flange Nuts, **(Figure 8)**. Fully tighten Fill Panel hardware at this time.

**LED cube style light installation (light not included).**

- a. Attach lights to mounting tabs on back of each end of the Bumper.
6. Install the license plate lights, spare access lock and trailer plug into the LD2 Bumper. **NOTE:** Use a flat blade screwdriver to carefully pry the metal clips on the plug out to grab the edge of the opening. Plug the bumper harness into the lights, trailer plug and sensors (if equipped).
7. Select (1) 10mm Double Bolt Plate and (2) 10mm Plastic Retainers, **(Figure 8)**. Insert the Double Bolt Plate into and through the back of the mounting tab on the LD2 Bumper. Thread the Retainers down onto the Bolt Plate to help hold it in position, **(Figure 9)**. Repeat this **Step** to install the driver/left 10mm Double Bolt Plate.
8. 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 10)**. **NOTE:** "HD" tow package models use a triple bolt plate, "Standard" and "Max Duty" equipped models use a double bolt plate.
9. **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 (2 or 3-bolt) into the passenger/right Mounting Bracket. Thread (2 or 3) 14mm Plastic Retainers onto the bolt plate to help hold it in position during Bumper installation, **(Figure 11)**.
- b. Attach the passenger/right Mounting Bracket assembly to the 10mm Double Bolt Plate in the back of the Bumper with (2) 10mm Flat Washers and (2) 10mm Nylon Lock Nuts, **(Figure 12)**. Snug but do not fully tighten hardware at this time.
- c. Repeat the previous **Steps** to install the driver/left side Bolt Plate and Bracket.
- d. With assistance, hold the LD2 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 LD2 Bumper Brackets with bolt plates to the frame, **(Figures 13 & 14)**. Snug but do not fully tighten hardware at this time.

**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. 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.

**10.** Level and adjust the bumper and fully tighten all hardware.

**11.** Plug the bumper wiring harness into the main harness. Use the included Wire Ties to secure the wiring harness to the bumper and frame as necessary.

**12.** Do periodic inspections to the installation to make sure that all hardware is secure and tight.

**13.** Use the included (2) push-in plugs to attach the license plate to the Bumper, **(Figure 17)**.

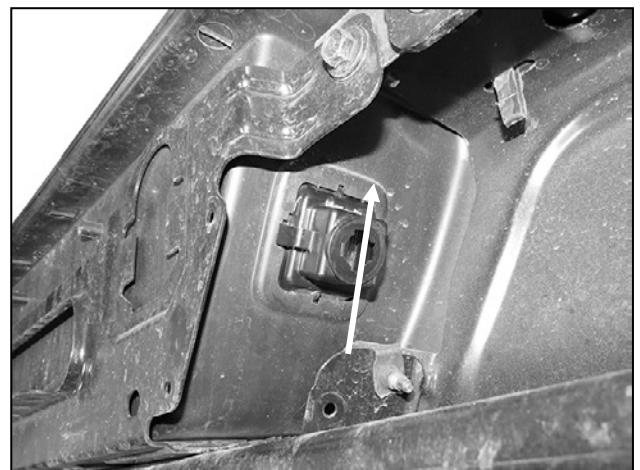
**14.** Do periodic inspections to the installation to make sure that all hardware is secure and tight.

**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**



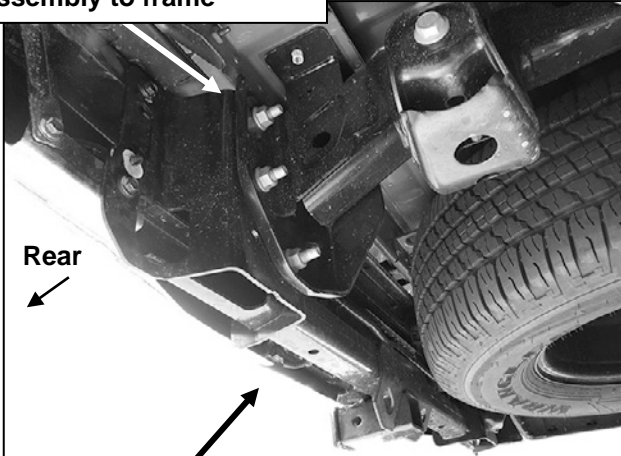
**(Fig 1) Unplug and remove 7-wire trailer plug**



**(Fig 2) Unplug license plate lights**

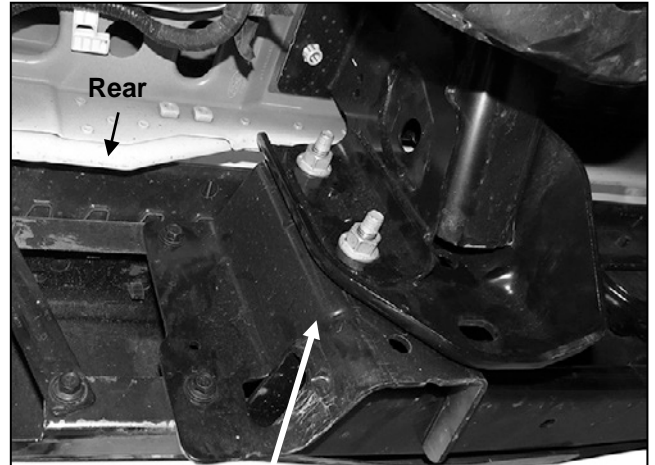


Remove the factory hex nuts attaching bumper assembly to frame



(Fig 3A) Note bumper with integrated receiver hitch

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



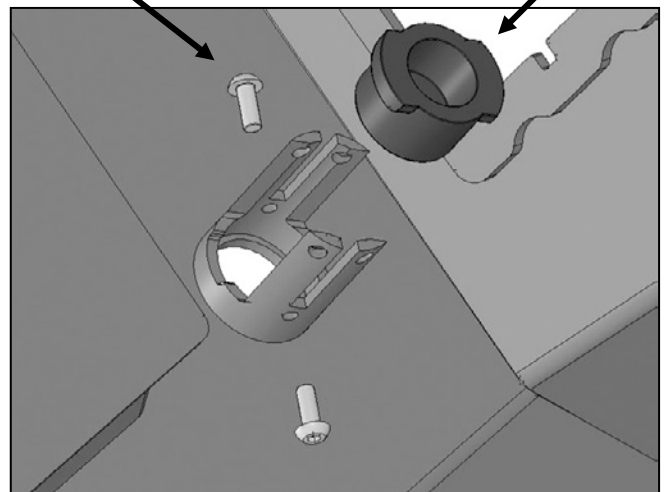
(Fig 3B) Remove the factory hex nuts attaching bumper assembly to frame. STD tow package model pictured (no receiver hitch)



(Fig 4) Bumper removed, passenger side pictured without receiver hitch

(2) 4mm Screws

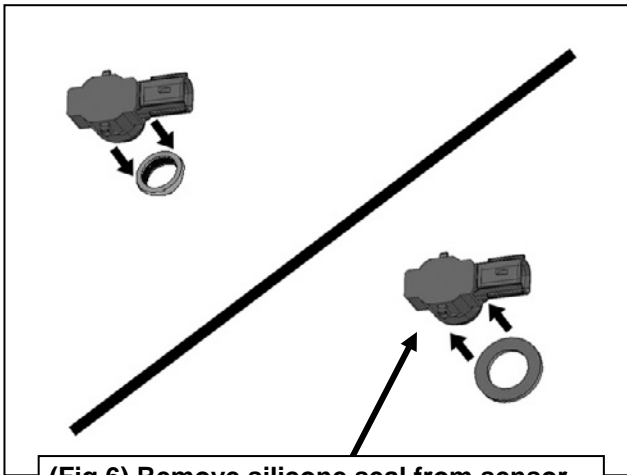
Sensor Plugs



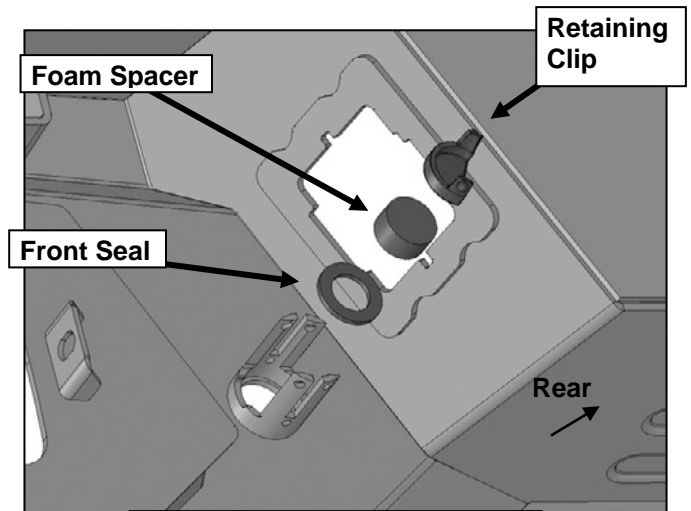
(Fig 5) Push sensor plug into mounting sleeve. Use of 4mm Screws is optional



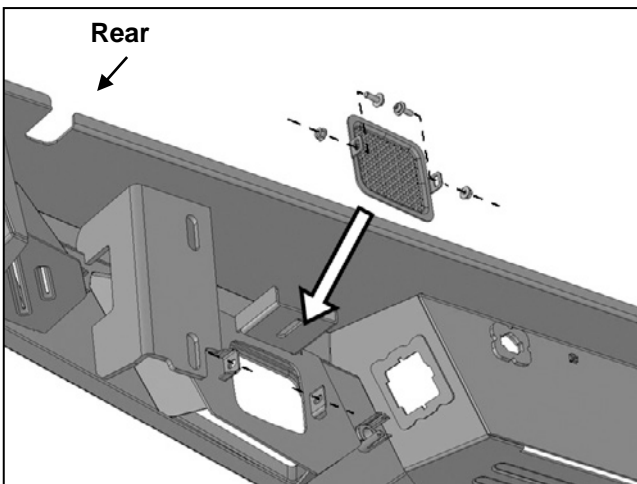
### Passenger Side Installation Pictured



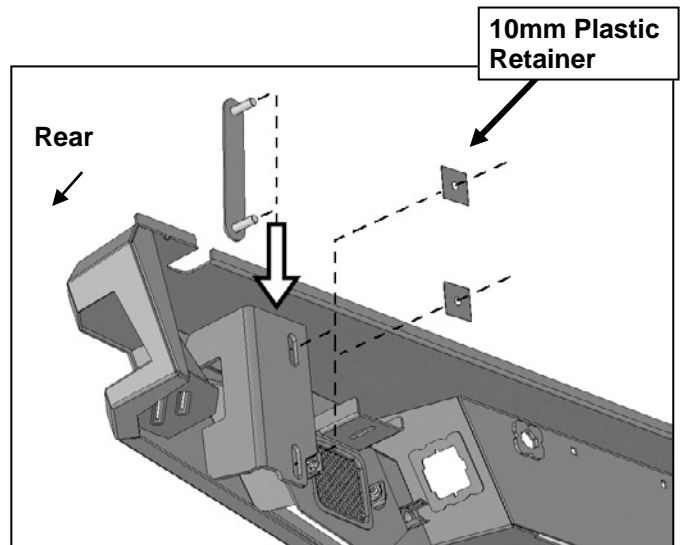
(Fig 6) Remove silicone seal from sensor. Slide large Seal over end of sensor (arrow)



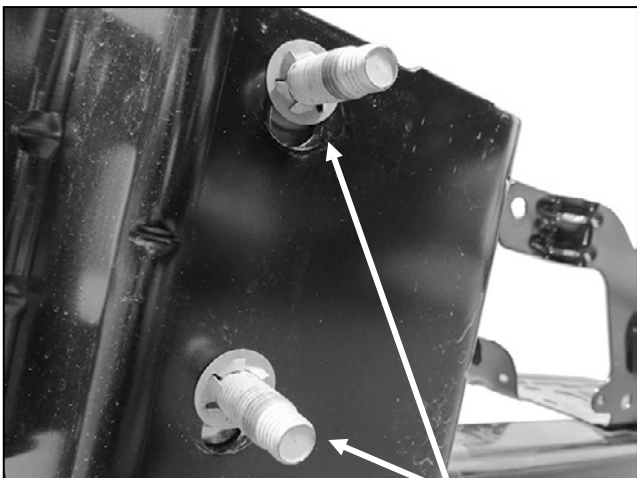
(Fig 7) Sensor assembly pictured from back of bumper



(Fig 8) Attach Mesh Fill Panels if desired



(Fig 9) Insert 10mm Double Bolt Plate into and through back of mounting tab on back of Bumper



(Fig 10) Use flat blade screwdriver to pry off lock washers from bolt plates

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



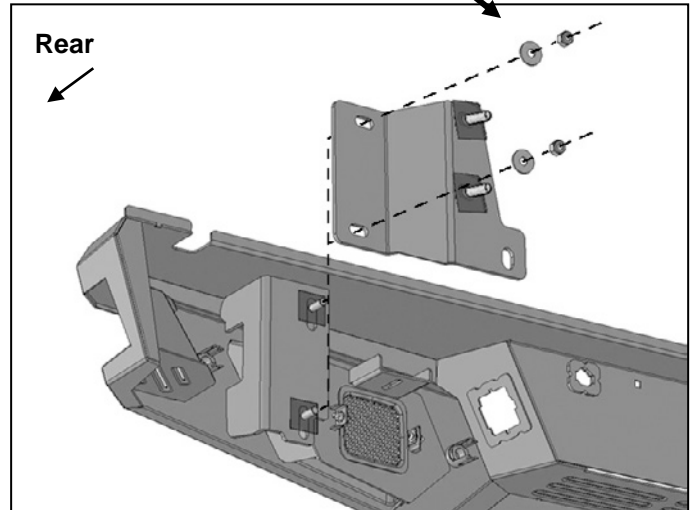
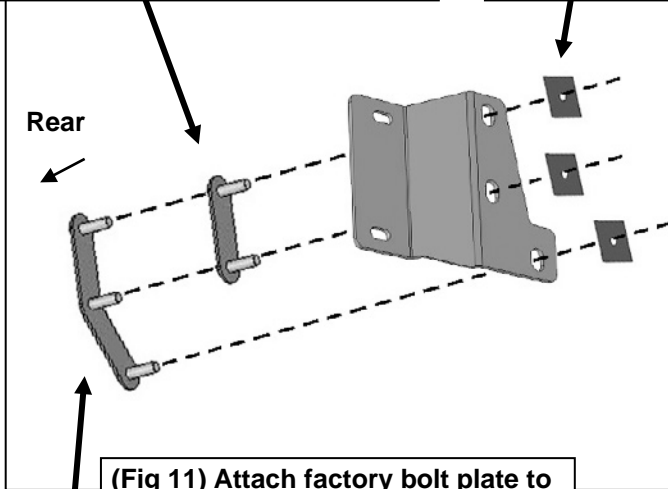
### Passenger Side Installation Pictured

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

14mm Plastic Retainers

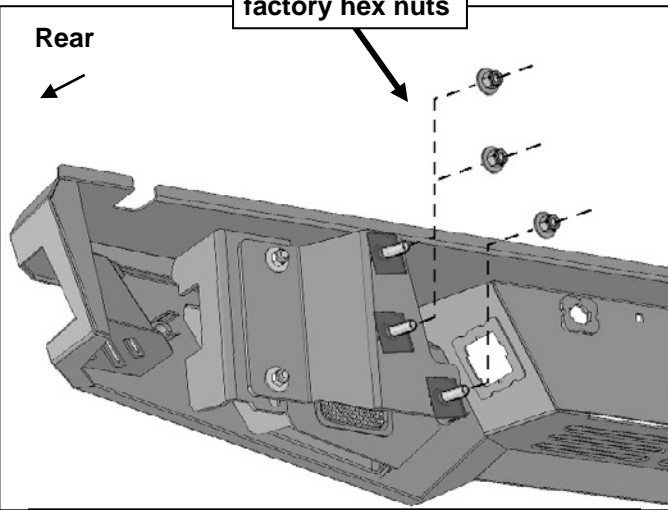
**WARNING!** Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.

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

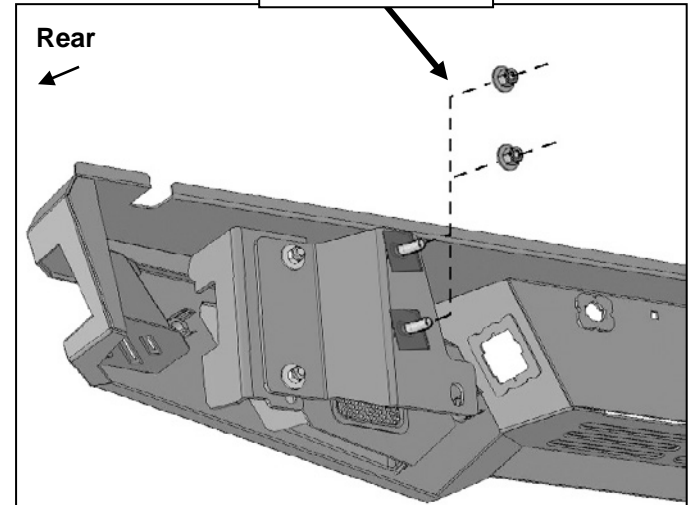


Factory triple bolt plate used with "HD tow" package with integrated receiver hitch

Reuse (3) factory hex nuts



Reuse (2) factory hex nuts





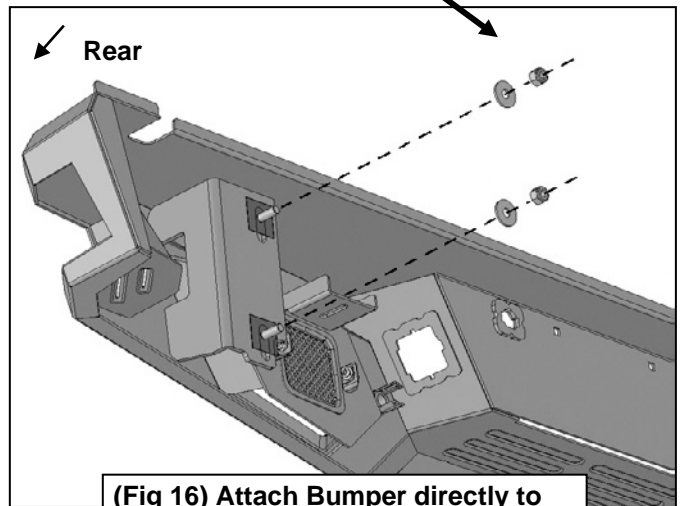
### Passenger Side Installation Pictured



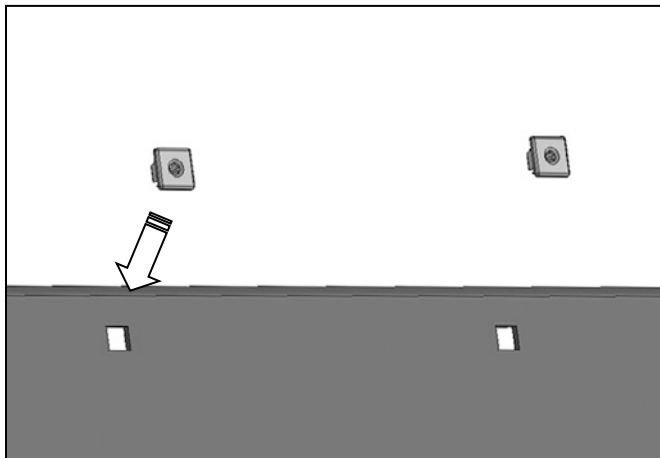
(Fig 15) Reinstall integrated receiver hitch/bracket assembly on models with "HD Towing" package

**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 15)



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



Complete Installation