

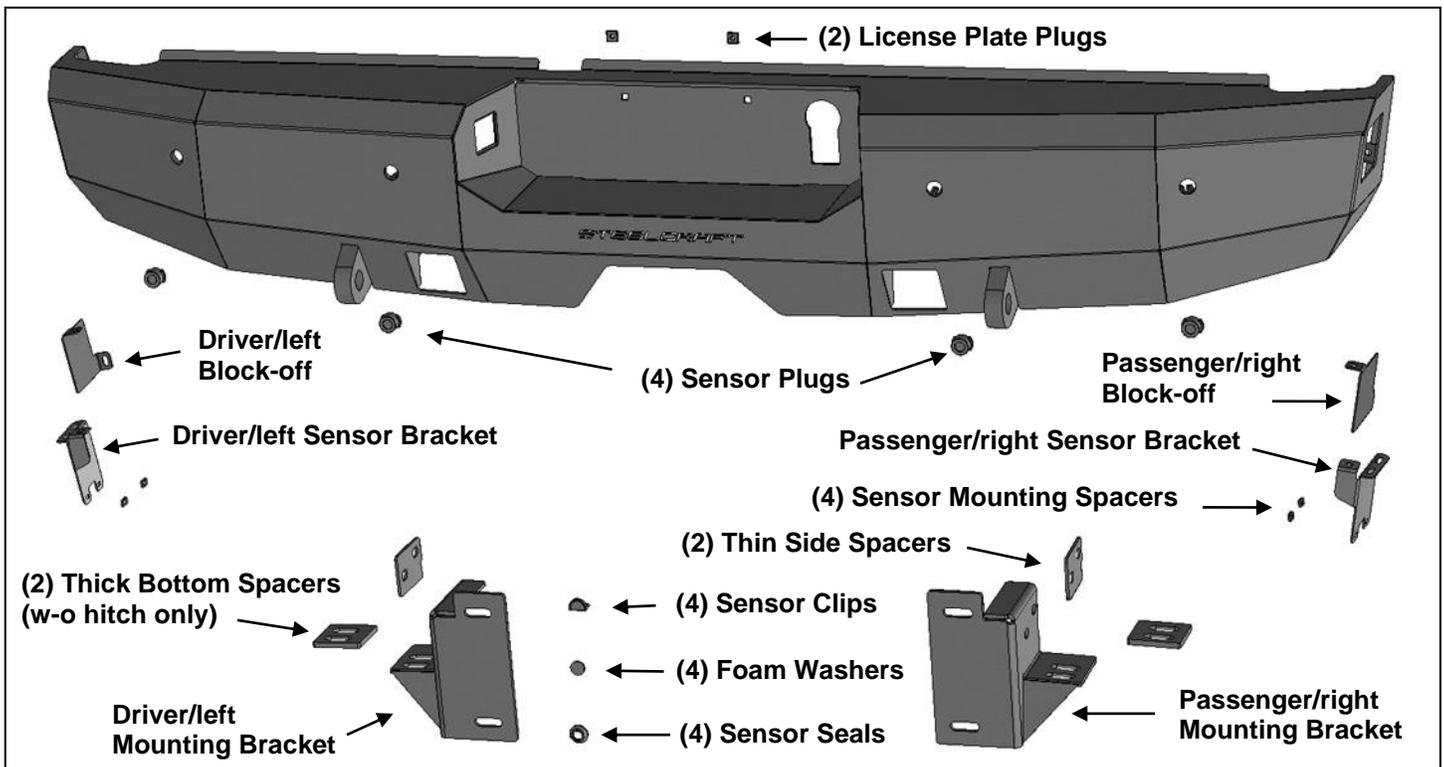
INSTALLATION INSTRUCTIONS

**FORTIS REAR BUMPER
2016-18 TITAN "XD" AND 2017-18 TITAN MODELS**

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PARTS LIST:

1	Elevation Rear Bumper Assembly	4	12-1.75mm x 40mm Hex Bolts
1	Driver/Left Bracket	8	12mm x 37mm x 3mm Flat Washers
1	Passenger/Right Bracket	4	12mm Nylon Lock Nuts
2	Side Spacer Plates (w-o hitch only)	2	8-1.25mm x 20mm Hex Bolts
2	Bottom Spacer Plates (w-o hitch only)	4	8mm x 16mm x 1.6mm Flat Washers
1	Driver/Left Blind Spot Sensor Bracket	2	8mm Nylon Lock Nuts
1	Passenger/Right Blind Spot Sensor Bracket	4	5mm x 25mm Button Head Bolts
1	Driver/Left Block-off Plate	4	5mm x 15mm x 1.2mm Flat Washers
1	Passenger/Right Block-off Plate	4	5mm x 10mm x 1mm Flat Washers
4	Rectangular Spacers for Blind Spot Sensors	4	5mm Nylon Lock Nuts
4	Sensor Retaining Rings	8	4mm x 10mm Button Head Bolts
4	20mm x 2mm Foam Washers	1	4mm Wrench
4	Sensor Sealing Washers	1	2.5mm Wrench
4	Sensor Hole Plugs	2	Plastic Plugs for license plate mount
1	Sensor Cover Kit		



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.

1. Start installation by unplugging the wiring harnesses leading to the bumper, **(Figure 1)**. Move the wiring harness away from the bumper.
2. Place blocks or jack stands under the bumper to support it during bumper bolt removal. From under the bumper, release the clips attaching the top cover. Remove the plastic cover from the top of the bumper **(Figure 2)**.
3. Next, remove the factory Torx head bumper bolts from the bottom of the bumper, **(Figure 1)**. Remove the top mounting bolts attaching the bumper to the top of the hitch if equipped or inner bumper reinforcement, **(Figure 3)**. Once hardware has been removed, slide the bumper off of the end of the frame, **(Figure 4)**. **WARNING!** Assistance is required to hold the bumper in place during hardware

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removal and to prevent the bumper from falling. **NOTE:** If preferred, bumper and hitch or bumper reinforcement can all be removed as an assembly then separated off the vehicle.

4. Select the passenger/right Frame Bracket. Determine correct installation for your vehicle.

Models without factory receiver hitch

- a. Remove the bumper reinforcement from the ends of the frame, **(Figure 4)**.
- b. Hold the Passenger/right Mounting Bracket up to the bottom of the frame. Slide (1) Thick Bottom Bracket Spacer between the Bracket and the bottom of the frame, **(Figure 5)**. Reuse the (2) factory bolts to attach the Bracket and Spacer to the bottom of the frame, **(Figures 5 & 6)**. Leave hardware loose.
- c. Select (1) Thin Side Bracket Spacer. Insert the Side Spacer between the tab on the side of the Bracket and the frame. Orient the Spacer to match the radius cut out of the side of the Bracket, **(Figures 5 & 6)**. Reuse the factory bolts to attach the Bracket and Spacer to the side of the frame. Snug but do not fully tighten hardware at this time.
- d. Repeat the above Steps to install the driver/left Mounting Bracket, Side and Bottom Spacers. **IMPORTANT:** On models without receiver hitch, do not install Bumper Brackets without the (4) Bracket Spacers.

Models with factory receiver hitch

- a. Hold the Passenger/right Mounting Bracket up to the bottom of the frame, **(Figure 7)**. Select (1) Thin Side Bracket Spacer. Insert the Side Spacer between the tab on the side of the Bracket and the hitch. Orient the Spacer to match the radius cut out of the side of the Bracket. Reuse the (4) factory bolts to attach the Bracket to the bottom and the side of the frame, **(Figures 7 & 8)**. Snug but do not fully tighten hardware at this time. **NOTE:** Only a Side Spacer is required on models with factory receiver hitch to allow Mounting Bracket clearance for weld bead on hitch.
 - b. Repeat the previous Step to attach the driver/left Mounting Bracket and (1) Thin Side Spacer.
5. Determine if the vehicle is equipped with parking sensors and/or rear cross traffic alert sensors, (RCTA). **NOTE:** Depending on tow package, it may be necessary or easier to install sensors, (if equipped), and harness before installing the Bumper.

Models without bumper parking sensors:

- a. Select the included (4) Rubber Plugs, **(Figure 9)**.
- b. From behind bumper, push plugs into sensor mounting sleeves, **(Figure 9)**. Screws have been provided to lock the plugs into the sleeves. Use is optional.

Models with bumper mounted parking sensors:

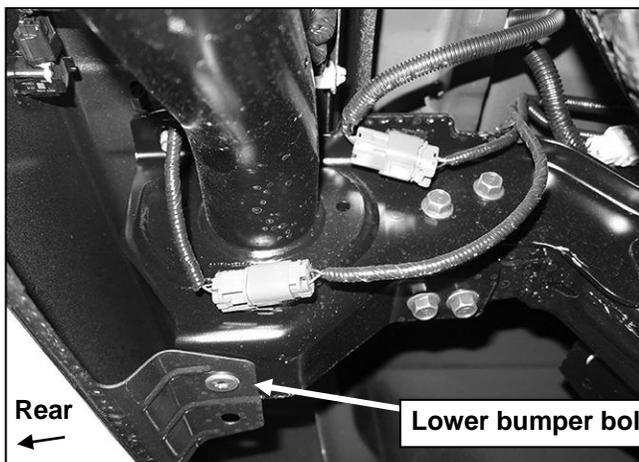
- a. Label sensors with location and remove sensors and wiring harness from bumper, **(Figure 10)**.
 - b. Select (1) sensor. Remove the seal from the end of the sensor. Slide the included larger Sensor Seal over front of the sensor, **(Figure 11)**.
 - c. Insert the sensor with Seal into sensor mount, **(Figure 12)**.
 - d. Place Foam Spacer over end of the sensor. Push Sensor Retaining Clip into sensor mount and lock into mounting holes, **(Figure 12)**.
 - e. Repeat previous Steps to install remaining sensors in correct locations in Bumper.
 - f. Install wiring harness for parking sensors. **NOTE:** It may be necessary to remove some of the outer loom or tape from the harness to extend the harness. Once harness is fit to the Bumper, reseal and wrap the wiring harness as required.
 - g. **Optional:** Secure each sensor to the socket with (2) 4mm x 10mm Button Head Screws, **(Figure 9)**. **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.
6. **Models without rear cross traffic alert (RCTA) sensors in ends of bumper:**
- a. Select the driver/left Block Off Plate. Attach the Plate to the top mounting tab on the back of the Bumper with the included (1) 8mm Hex Bolt, (2) 8mm Flat Washers and (1) 8mm Nylon Lock Nut, **(Figure 13)**. Attach the Plate to the tab on the side with (1) 5mm Button Head Bolt, (2) 5mm Flat Washers and (1) 5mm Nylon Lock Nut.
 - b. Repeat to install the remaining passenger/right side Block Off Plate.

Models with rear cross traffic alert (RCTA) sensors in ends of bumper:

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- a. Label sensors with location and orientation. Remove sensors and wiring harness from bumper, **(Figure 10)**.
- b. Select the driver/left Sensor Mounting Bracket and the sensor. Slide the sensor into the Bracket, **(Figure 14)**. Attach the sensor to the Bracket with the included (2) 5mm Button Head Bolts, (2) 5mm Large Washers (against sensor), (2) 5mm Small Washers and (2) 5mm Nylon Lock Nuts. Do not overtighten sensor or damage could result. **IMPORTANT:** Vehicle may be equipped with two different designs of sensors. If there is a large gap between the sensor and the Mounting Bracket, insert the (2) 5mm Spacers between the sensor and the Bracket, **(Figure 14)**.
- c. Attach Bracket with sensor to the mounting tab on the back of the Bumper with the included (1) 8mm Hex Bolt, (2) 8mm Flat Washers and (1) 8mm Nylon Lock Nut, **(Figure 15)**. Adjust sensor for fit against side of Bumper and tighten hardware.
- d. Repeat previous Steps to install the passenger/right sensor.
- e. Install the wiring harness for the sensors
7. Remove the license plate lights and towing harness plug from the bumper, **(Figure 16)**.
8. Bumper has mounting locations for auxiliary back up or flood light installation. If installing lights at this time, (available separately), check for light clearance. Follow instructions packaged with lights for proper installation.
9. With assistance, position the Bumper up to the bumper Brackets on the ends of the frame, **(Figure 17)**. 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 safely supported.
10. Line up the (2) mounting holes in the back of the passenger/right side of the Bumper with the Mounting Bracket. Attach the Bumper to the Mounting Bracket with (2) 12mm Hex Bolts, (4) 12mm Flat Washers and (2) 12mm Nylon Lock Nuts, **(Figures 17—19)**. Leave hardware loose at this time. Repeat to attach the driver/left side of the Bumper to the Bracket.
11. Slowly open the tail gate and check for clearance. Level and adjust the Bumper and tighten all hardware.
12. Insert the included (2) push-in plugs to attach the license plate to the Bumper, **(Figure 20)**.
13. Snap the towing harness plug into the opening in the Bumper, **(Figure 21)**. If necessary, use a flat blade screwdriver to carefully pry out the lock tab on the clip to help lock the plug into place.
14. Insert the license plate lights into the openings in the Bumper, **(Figure 21)**. Connect the wiring harness to the license plate lights and trailer plug, (if equipped). Connect bumper harness to vehicle.
15. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

To protect your investment, 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.



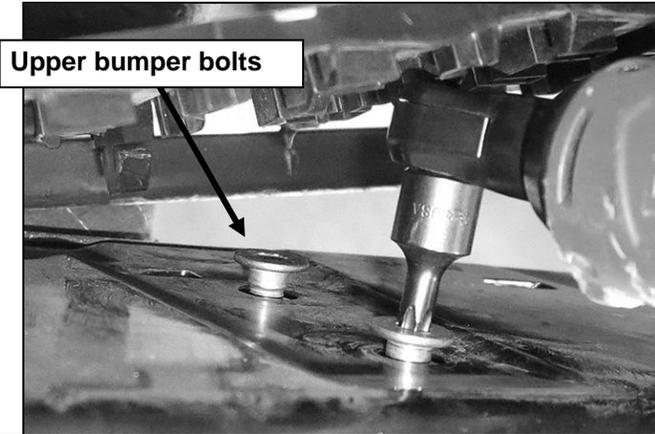
(Fig 1) Unplug wiring harness (driver side pictured)



(Fig 2) Release clips attaching top cover

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Passenger side installation pictured



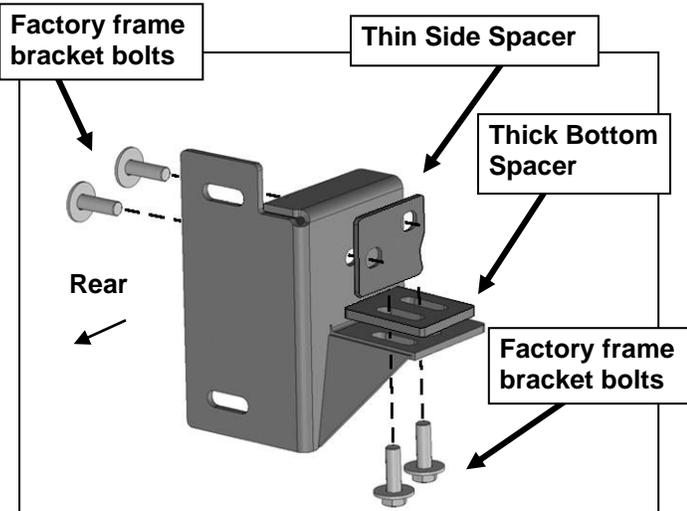
Upper bumper bolts

(Fig 3) Remove upper bumper bolts (also see Figure 1 for lower bolt) and remove bumper assembly

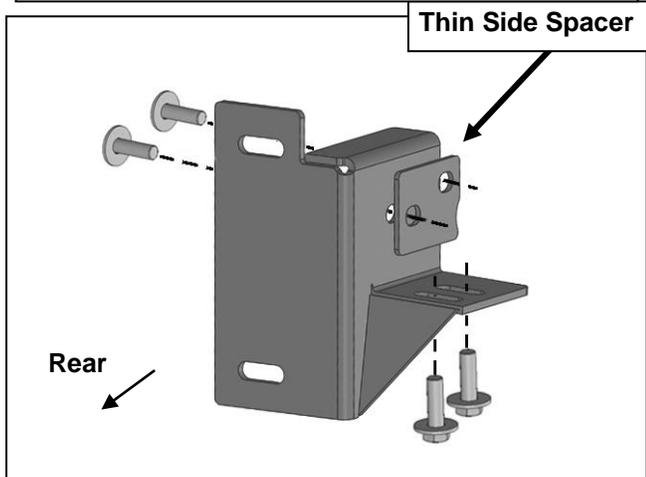
WARNING! Do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.



(Fig 4) Bumper completely removed, model without receiver hitch pictured



(Fig 5) Passenger/right Mounting Bracket-Spacers required on models without hitch only



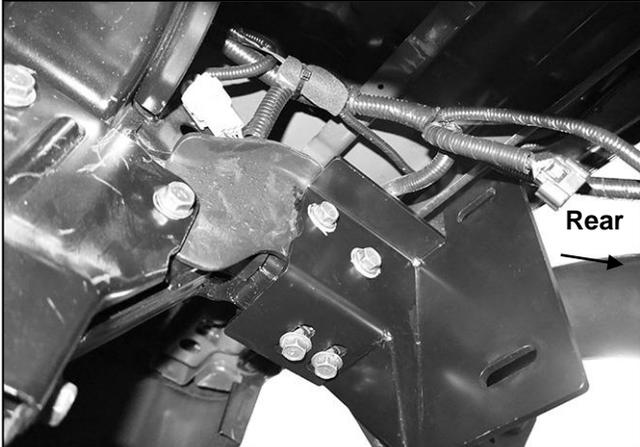
(Fig 7) Passenger/right side Mounting Bracket with Thin Side Spacer (models with receiver hitch)



(Fig 6) Passenger/right Mounting Bracket installed on model without hitch

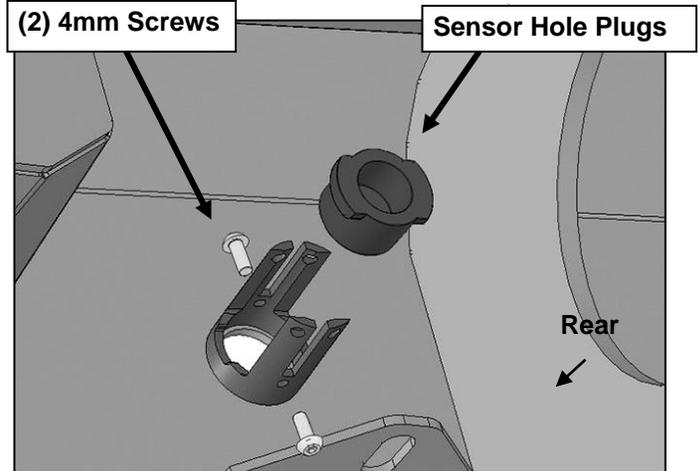
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Passenger side installation pictured

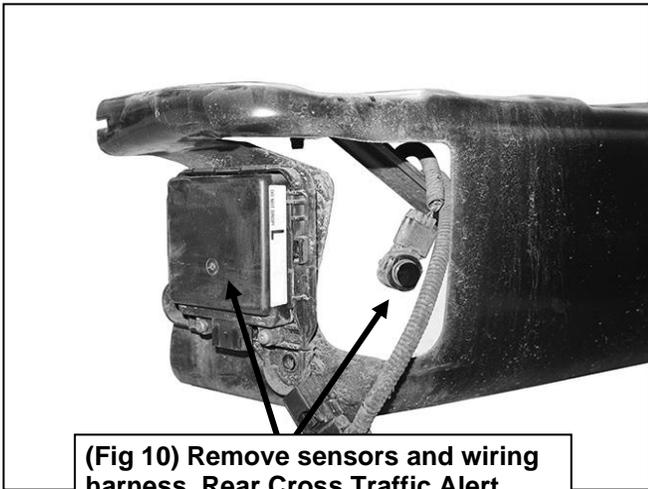


(Fig 8) Passenger/right Mounting Bracket attached directly to hitch. Spacers not required

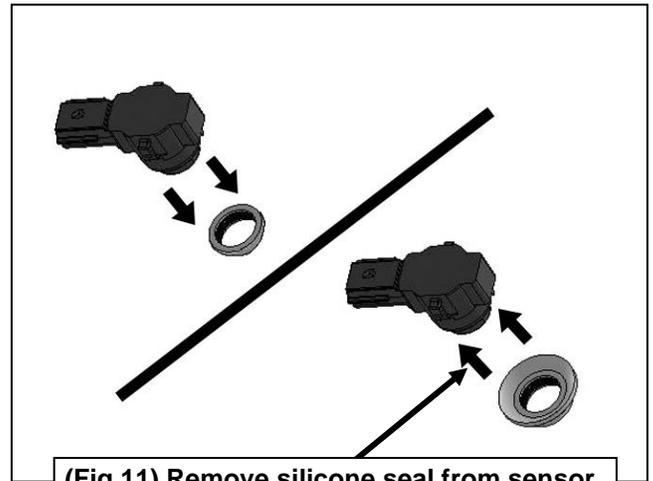
WARNING! Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.



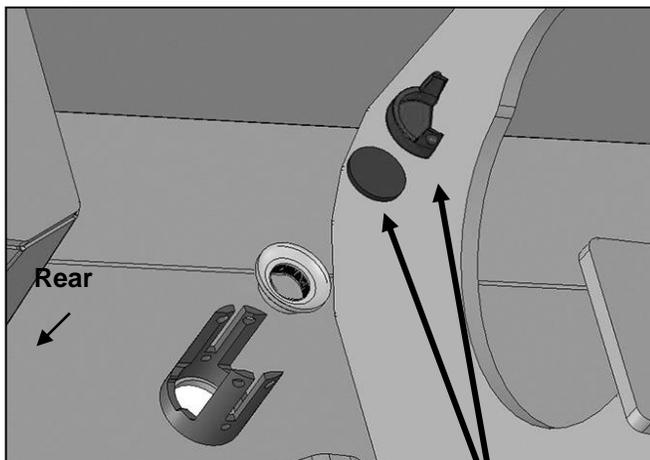
(Fig 9) Push Sensor Hole Plug into mounting sleeve. Use 4mm Screws to lock sensor in place.



(Fig 10) Remove sensors and wiring harness. Rear Cross Traffic Alert (RCTA) and parking sensors pictured



(Fig 11) Remove silicone seal from sensor. Slide large Seal over end of sensor (arrow)



(Fig 12) Slide sensor into sleeve, insert Foam Spacer and Clip to lock sensor in sleeve

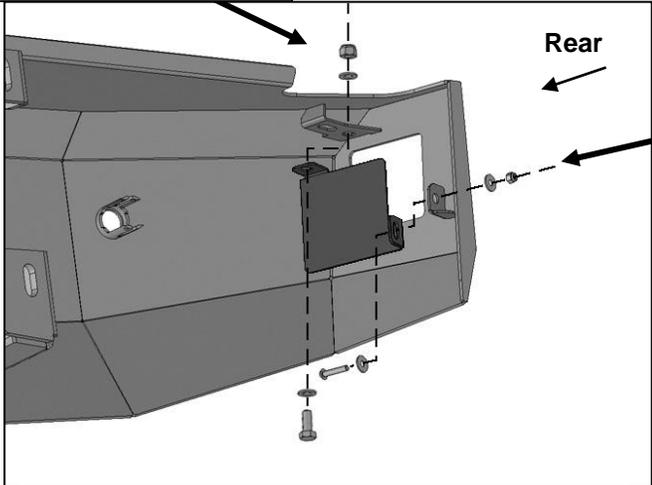
NOTE: Sensor plugs fit snug in sockets. Use of the 4mm Screws is optional. 4mm Screws can also be used to apply slight pressure to lock the sensors in place or to aim the sensor. Tighten both screws evenly until they touch the sensor body only. Do not overtighten screws or damage to sensors will result.

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Passenger side installation pictured

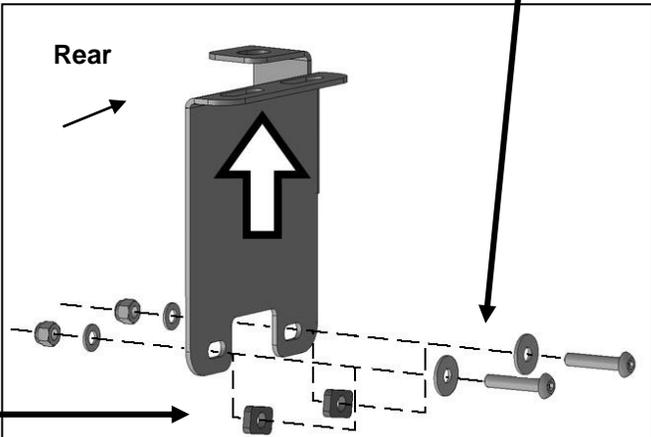
8mm Hex Bolt
(2) 8mm Flat Washers
8mm Nylon Lock Nut



(Fig 13) Models without RCTA sensor, attach Block Off Plate to inside of Bumper

5mm Button Head Bolt
(2) 5mm Flat Washers
5mm Nylon Lock Nut

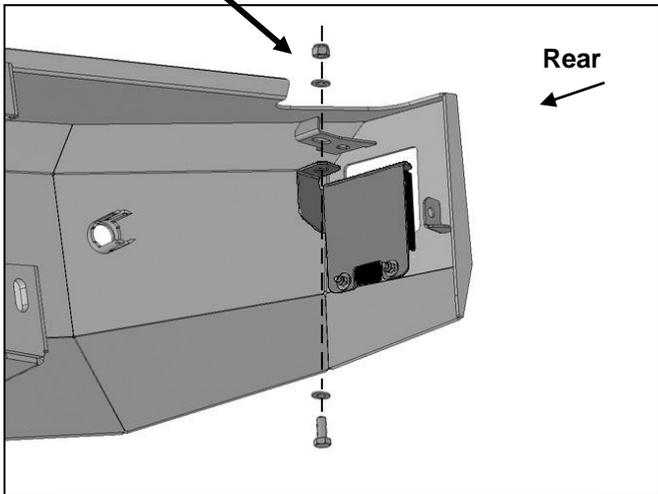
(2) 5mm Button Head Bolts
(4) 5mm Flat Washers
(2) 5mm Nylon Lock Nuts



(Fig 14) Models with RCTA sensor, attach sensor to Mounting Bracket. NOTE: There are two sensor designs, one sensor has offset mounting tabs and will require (2) Spacers for installation

8mm Hex Bolt
(2) 8mm Flat Washers
8mm Nylon Lock Nut

(2) Spacers
If needed, insert Spacers
between sensor and bracket



(Fig 15) Attach RCTA sensor and Bracket to mounting tab on back of Bumper

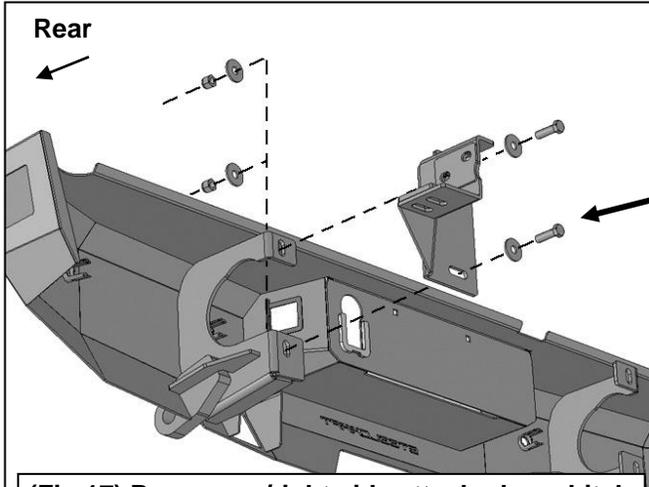


(Fig 16) Unplug license plate lights and trailer connector. Remove lights and

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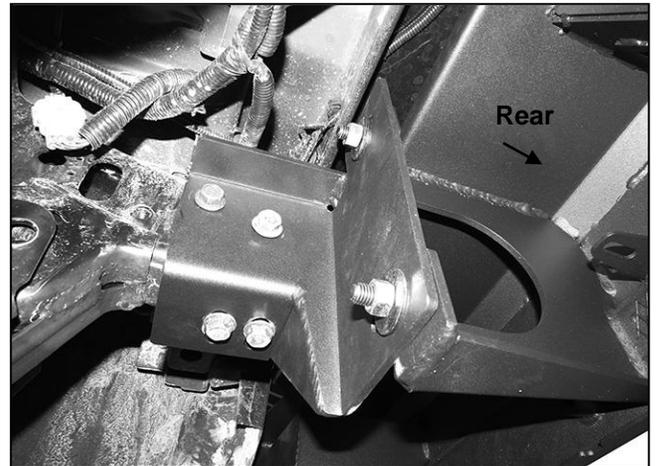
Passenger side installation pictured

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

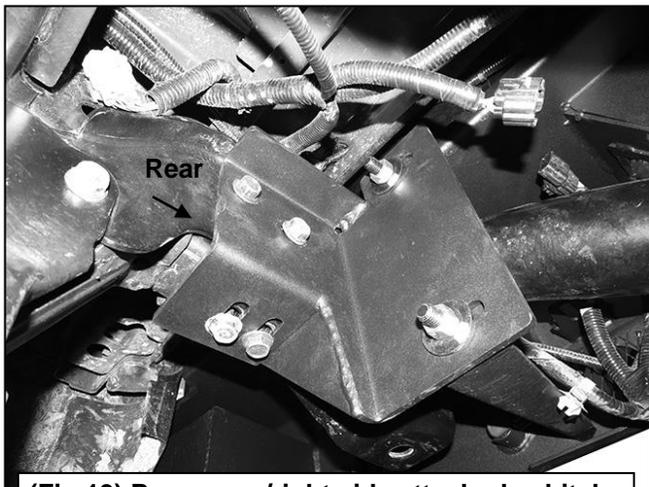


(Fig 17) Passenger/right side attached w-o hitch

- (2) 12mm Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Nylon Lock Nuts

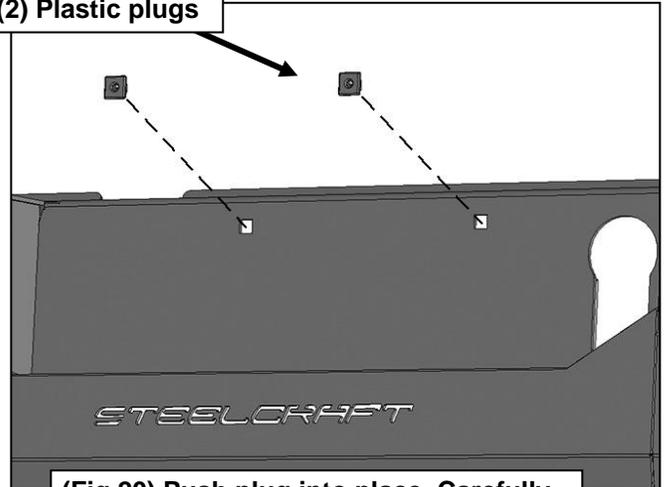


(Fig 18) Passenger/right side attached w-o hitch

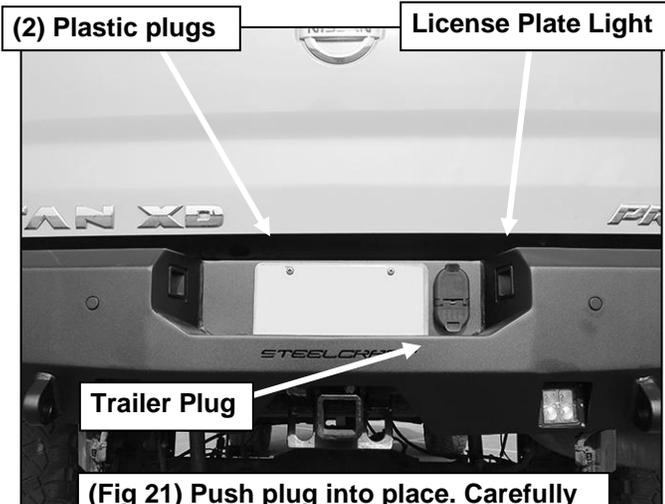


(Fig 19) Passenger/right side attached w-hitch

- (2) Plastic plugs



(Fig 20) Push plug into place. Carefully bend locking tab outward if necessary



(Fig 21) Push plug into place. Carefully bend locking tabs outward if necessary