

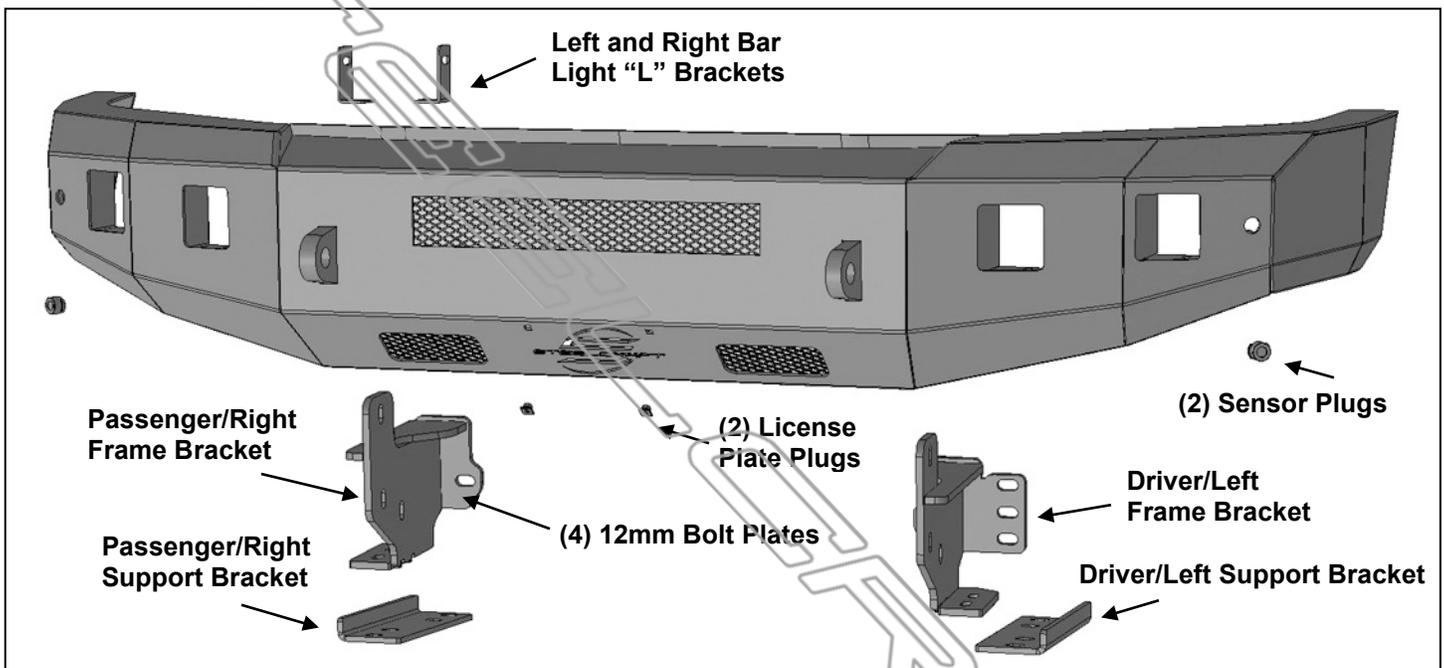
INSTALLATION INSTRUCTIONS

**FORTIS FRONT BUMPER
2014-18 TOYOTA TUNDRA**

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PARTS LIST:

1	Fortis Front Bumper	20	12mm x 37mm OD x 3mm Flat Washers
1	Driver/left Frame Mounting Bracket	10	12mm Lock Washers
1	Passenger/right Frame Mounting Bracket	10	12mm Hex Nuts
1	Driver/left Lower Support Bracket	8	10mm x 34mm x 3mm Large Flat Washers
1	Passenger/right Lower Support Bracket	2	8-1.25mm x 16mm Hex Bolts
2	Plastic Plugs for License Plate	2	8-1.25mm x 25mm Hex Bolts
2	Rubber Sensor Hole Plugs	6	8mm x 24mm x 2mm Flat Washers
1	Sensor Cover Kit	4	8mm Lock Washer
1	"L" Light Bracket (driver/left side)	2	8mm Hex Nut
1	"L" Light Bracket (passenger/right side)	4	4mm x 10mm Button Head Screws
10	12-1.75mm x 45mm Hex Bolts	1	2.5mm Wrench



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.

INSTALLATION IS NOT COMPATIBLE WITH LASER CONTROLLED CRUISE CONTROL SYSTEMS.

1. Open the hood and remove the plastic cover from the top of the radiator and the grille, **(Figure 1)**. Temporarily remove the plastic grille.
2. Move to the driver/left wheel opening. Remove the hardware attaching the plastic cover to the back and bottom of the outer end of the front bumper, **(Figures 2 & 3)**. Next, remove the plastic clip attaching the cover to the side of the frame and remove the cover, **(Figure 4)**.
3. Remove the hardware attaching the plastic body fill panel between the bumper and the headlight and temporarily remove the body panel, **(Figures 2, 5 & 6)**.
4. Repeat **Steps 2 and 3** to remove the plastic covers from the passenger/right side of the vehicle.
5. Unplug the wiring harness leading to the front bumper, **(Figure 7)**.
6. Remove the license plate and bracket.
7. Remove the hardware attaching the plastic cover on the bottom of the bumper to the bottom of the frame cross member, **(Figure 8)**. Next, remove both tow hooks.
8. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been supported, remove the hex nuts attaching the inner bumper bracket to the end of the

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frame, (**Figures 9**). **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent the bumper from falling. Remove the bumper assembly, (**Figure 10**).

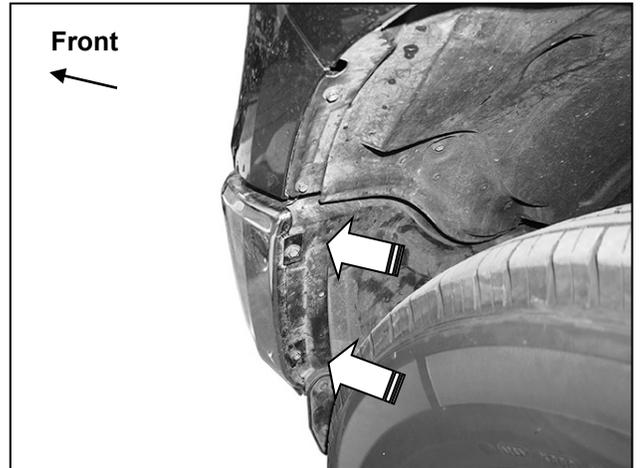
9. Next, select driver/left Support Bracket, (**Figure 11**). Reuse the tow hook and hardware to attach the Support Bracket to the bottom of the frame, (**Figures 11 & 12**). Leave hardware loose at this time.
10. Select the driver/left Frame Bracket, (**Figure 13**). Carefully place the Bracket on top of the Support Bracket and over the (4) studs on the end of the frame. Use the included (4) 10mm Large Flat Washers and reuse (4) factory bumper bracket hex nuts to attach the Bracket to the end of the frame, (**Figures 13--15**). Snug but do not fully tighten hardware at this time.
11. Attach the driver/left Frame Bracket to the Support Bracket with (2) 12mm x 45mm Hex Bolts, (4) 12mm Flat Washers, (2) 12mm Lock Washers and (2) 12mm Hex Nuts, (**Figures 14 & 15**). **NOTE:** Insert the Hex Bolts up from the bottom and out through the Brackets. Do not fully tighten all hardware.
12. Repeat **Steps 9--11** to install the passenger/right Support Bracket and Frame Bracket, (**Figure 15**).
13. **Optional Center LED light installation (sold separately).** **NOTE:** It may be easier to install the light before Bumper Assembly is attached to the Frame Brackets.
 - a. Select the L/R "L" Brackets, (**Figure 16**). **NOTE:** "L" Brackets are offset for universal fitment for most LED bar style lights. Attach the LED light assembly to the "L" Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers. Do not fully tighten hardware at this time. **NOTE:** "L" Brackets may require modification for hardware larger than 8mm or use brackets supplied with light if possible.
 - b. Attach the light and Brackets to the top of the (2) tabs on the back of the Bumper with the included 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts, (**Figure 16**). Adjust light position and tighten hardware.
 - c. Follow light manufacturer's instructions to wire the light once Bumper has been fully installed.
14. **Models without bumper sensors:**
 - a. Select the included (2) Rubber Plugs
 - b. From behind bumper, push plugs into sensor mounting holes, (**Figure 17**).
- Models with bumper mounted sensors:**
 - a. Unplug and remove all sensors and wiring harness from the factory bumper.
 - b. Push the sensor into the mounting socket in the back of the bumper until flush with outside of bumper if possible.
 - c. Secure each sensor to the socket with (2) 4mm x 10mm Button Head Screws, (**Figure 17**). **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.
 - d. Install factory wiring harness and plug in all sensors.
15. With assistance, position the Bumper Assembly up to the Frame Brackets. 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.
16. Line up the driver/left side mounting plate on the inside of the Bumper with the (3) slots in the Frame Bracket. Attach the Bumper to the Bracket with the included (3) 12mm x 45mm Hex Bolts, (6) 12mm Flat Washers, (3) 12mm Lock Washers and (3) 12mm Hex Nuts, (**Figures 18 & 19**). Do not fully tighten hardware at this time. Repeat this Step to attach the passenger/right side of Bumper.
17. Level and adjust the bumper and fully tighten all 12mm hardware to 65-70ft-lbs.
18. Reinstall the plastic fascia fill panels between the bumper and the headlights, (**Figure 5**). Reinstall the plastic grille and top cover, (**Figure 1**).
19. Use the included (2) push-in plastic nuts to attach the front license plate, (if required), to the (2) holes in the front bumper, (**Figure 20**).
20. 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 Fortis Front Bumper assembly.

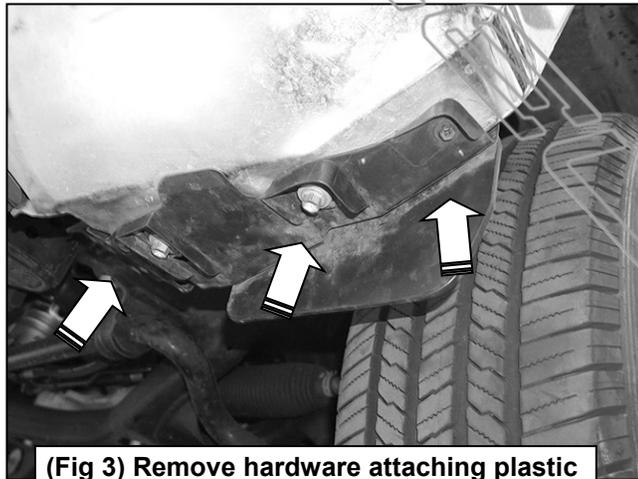
Driver/left Side Installation Pictured



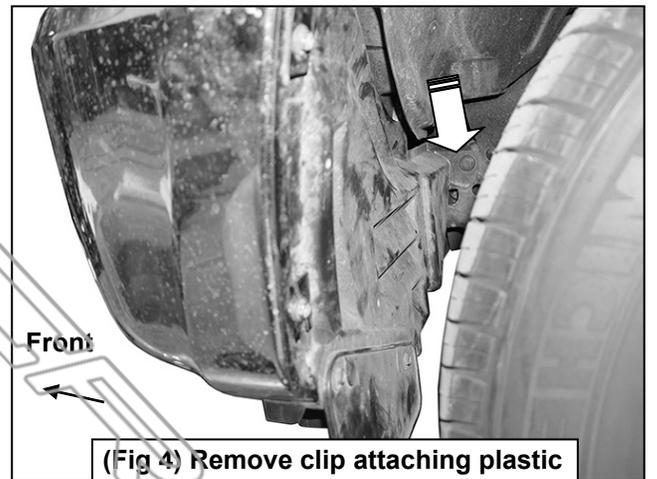
(Fig 1) Remove plastic cover and grille



(Fig 2) Remove hardware attaching plastic cover to back of bumper (arrows).



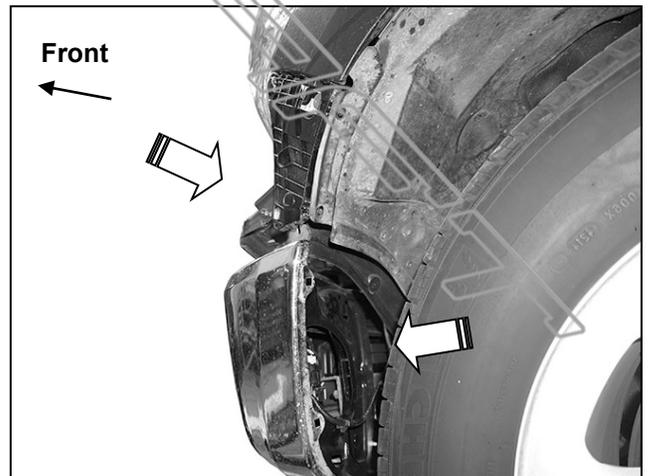
(Fig 3) Remove hardware attaching plastic cover to bottom of bumper (arrows)



(Fig 4) Remove clip attaching plastic cover to side of frame (arrow)

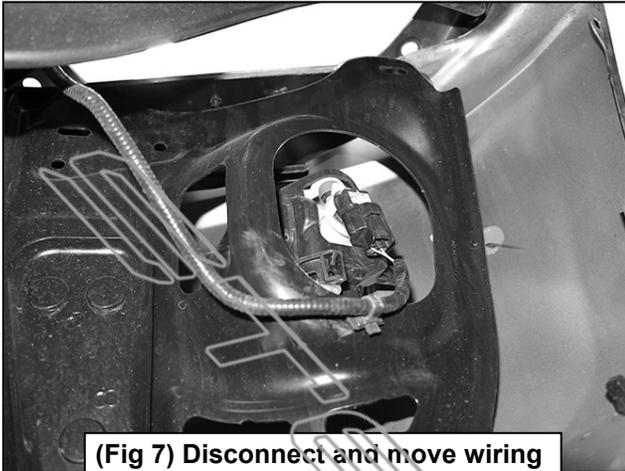


(Fig 5) Remove plastic fascia body fill panel between headlight and bumper (arrow)

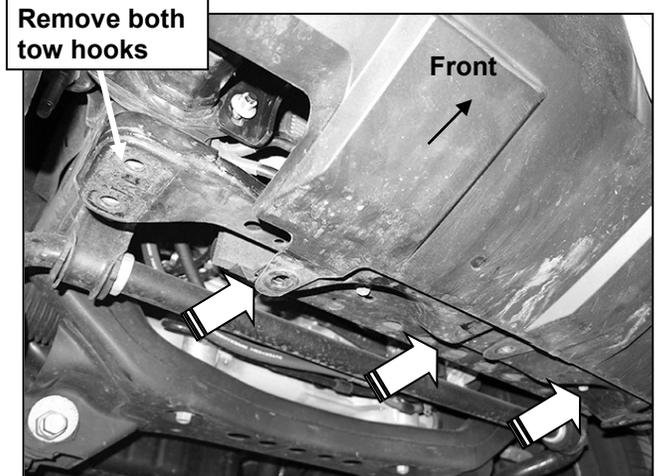


(Fig 6) Plastic cover and fascia body panel removed

Driver/left Side Installation Pictured

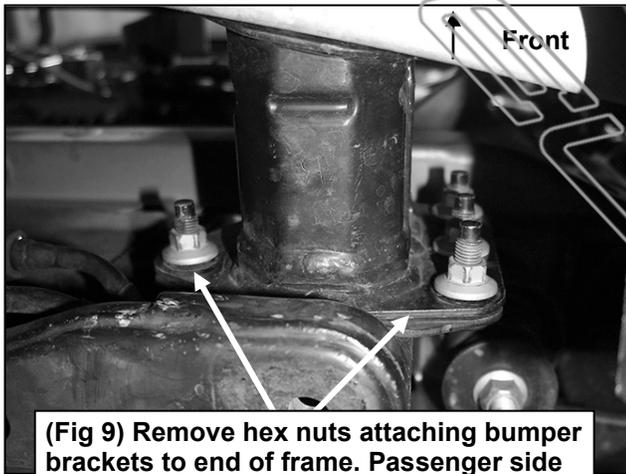


(Fig 7) Disconnect and move wiring harness away from bumper



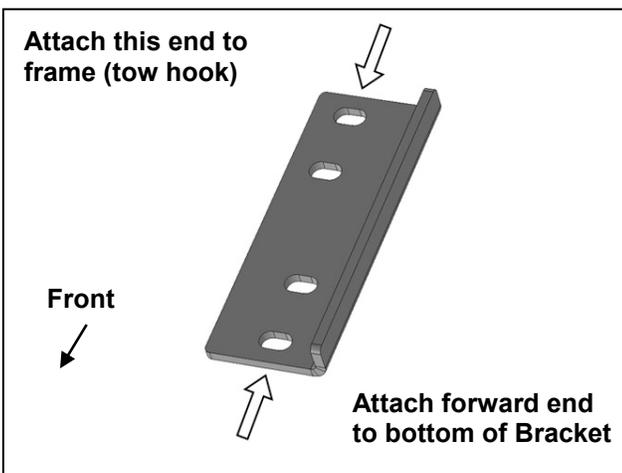
Remove both tow hooks

(Fig 8) Remove hardware attaching plastic cover on bottom of bumper to cross member (arrows)



(Fig 9) Remove hex nuts attaching bumper brackets to end of frame. Passenger side bumper bracket pictured from below

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

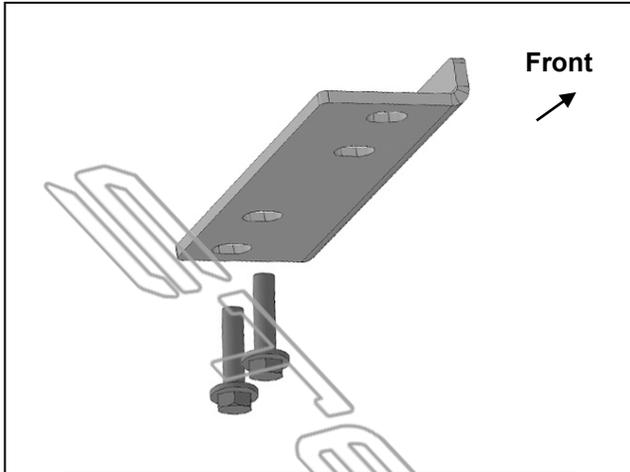


(Fig 11) Driver/left Support Bracket, note offset mounting holes



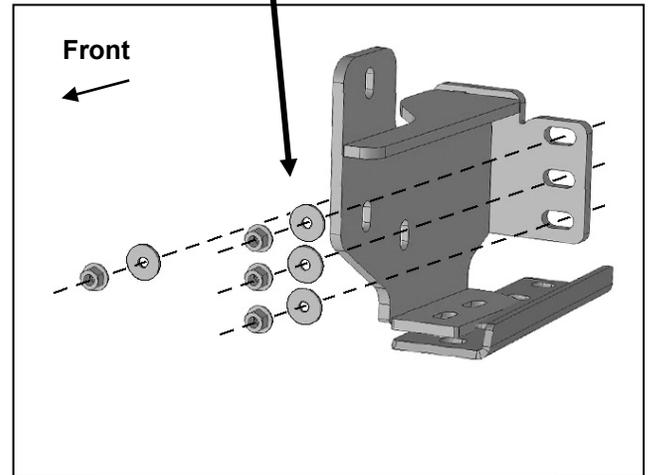
(Fig 10) Bumper removed, driver/left pictured

Driver/left Side Installation Pictured

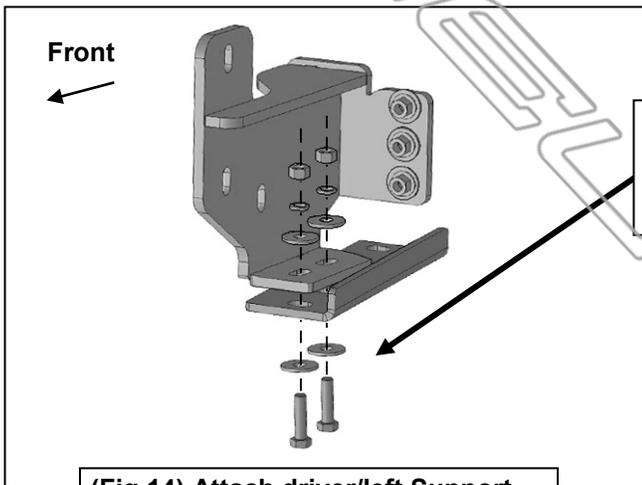


(Fig 12) Install tow hook if desired, (not pictured) over Support Bracket

- (4) 10mm Large Flat Washers
- (4) Factory Hex Nuts

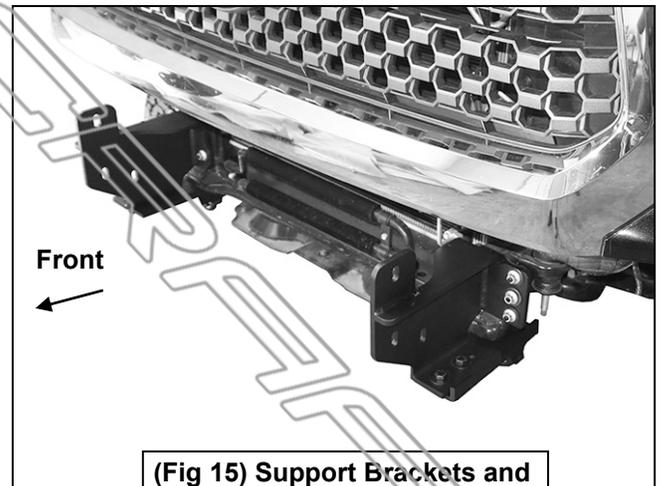


(Fig 13) Reuse factory hex nuts to attach Bracket to end of frame

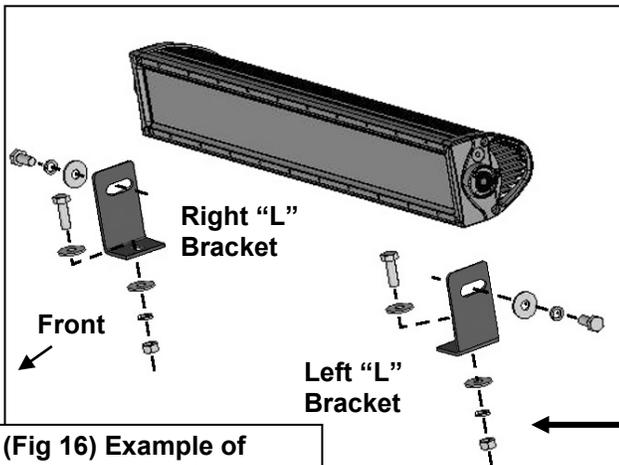


(Fig 14) Attach driver/left Support Bracket to bottom of Frame Bracket

- (2) 12mm x 45mm Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Lock Washers
- (2) 12mm Hex Nuts



(Fig 15) Support Brackets and Frame Brackets installed

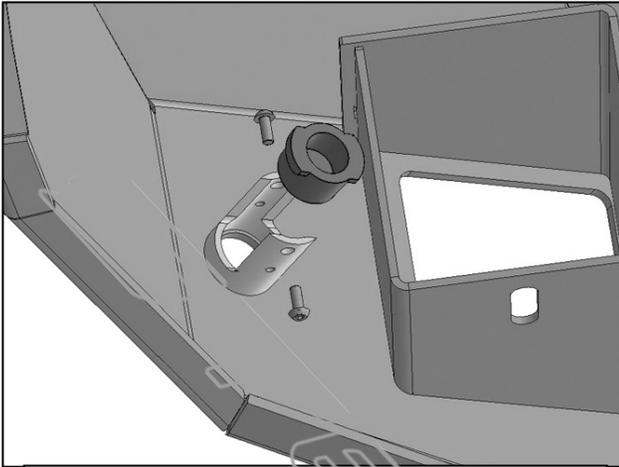


(Fig 16) Example of center light installation

- (2) 8mm x 16mm Hex Bolts
- (2) 8mm Lock Washers
- (2) 8mm Flat Washers

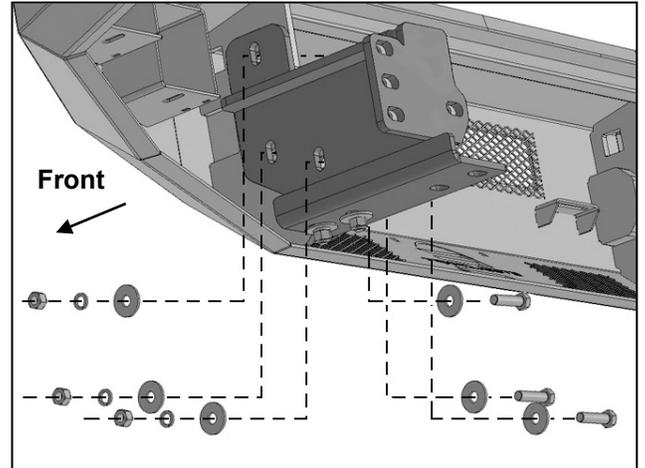
- (2) 8mm x 25mm Hex Bolts
- (4) 8mm Flat Washers
- (2) 8mm Lock Washers
- (2) 8mm Hex Nuts

Driver/left Side Installation Pictured

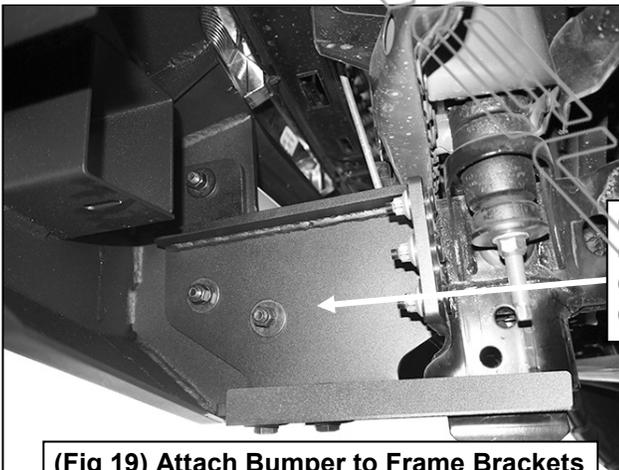


(Fig 17) Push sensor into mounting sleeve. Use 4mm Screws to lock sensor in place.

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 18) Attach Bumper to Frame Brackets



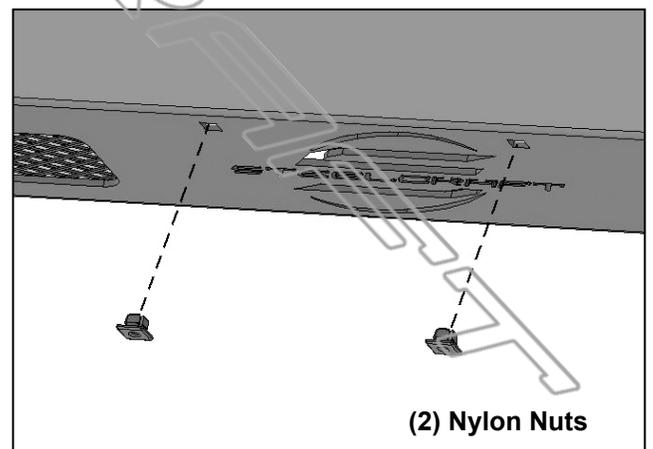
(Fig 19) Attach Bumper to Frame Brackets

- (3) 12mm x 45mm Hex Bolts
- (6) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts

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



Complete Installation



(2) Nylon Nuts

(Fig 20) Attach License Plate Bracket to Bumper