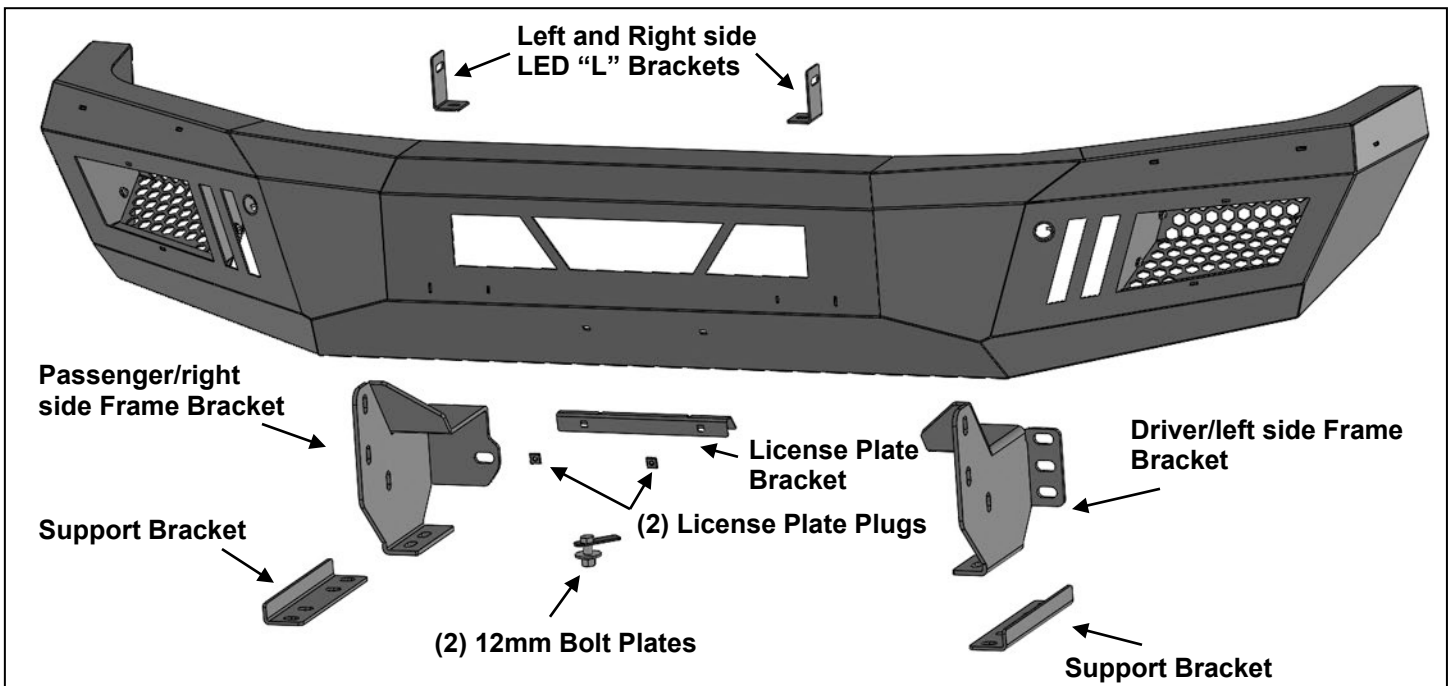




HD FRONT BUMPER
2014-21 TUNDRA

PARTS LIST:

1	Front Bumper	4	12-1.75mm Hex Nuts
1	Driver/left side Frame Bracket	6	10-1.50mm x 35mm Hex Bolts
1	Passenger/right side Frame Bracket	8	10mm x 34mm x 3mm Large Flat Washers
2	Support Brackets	12	10mm x 27mm x 3mm STD Flat Washers
1	Driver/left side LED "L" Bracket	6	10mm Lock Washers
1	Passenger/right side LED "L" Bracket	6	10-1.5mm Hex Nuts
2	Plastic License Plugs	2	8-1.25mm x 25mm Hex Bolts
1	License Plate Bracket	2	8-1.25mm x 16mm Hex Bolts
10	Nylon Wire Ties	6	8mm x 24mm x 2mm Flat Washers
2	Sensor Rubber Plugs	2	8-1.25mm Hex Nuts
1	Rubber Sensor Cover Kit	2	6-1.0mm x 20mm Button Head Bolts
4	12-1.75mm x 35mm Bolt Plates	4	6mm x 18mm x 1.6mm Flat Washers
4	12mm x 37mm x 3mm Flat Washers	2	6-1.0mm Nylon Lock Nuts
4	12mm Lock Washers	4	4-0.7mm x 10mm Button Head Bolts



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 on top of the radiator and the grille, (Figure 1). Temporarily remove the plastic grille.
2. Move to the passenger/right 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. Repeat **Step 2** to remove the plastic covers from the driver/left side of the vehicle.
4. On models with factory fog lights and/or bumper mounted sensors unplug from back of bumper, (**Figure 5**). **NOTE:** Fog lights will not be reinstalled.
5. Remove the license plate. Remove hardware attaching plastic cover on bottom of bumper to cross member, (**Figure 6**). Next, remove both tow hooks.
6. 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 frame, (**Figure 7**). **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent the bumper from falling. Remove the bumper assembly, (**Figure 8**).
7. Next, select passenger/right Frame Bracket, (**Figure 9**). Place the Bracket onto the (4) factory studs on the mounting plate at the end of the frame. Use the included (4) 10mm x 34mm Large Flat Washers and reuse the (4) factory flange nuts to secure the Frame Bracket to the end of the frame, (**Figures 9 & 10**). Do not tighten hardware at this time.
8. Next, select the passenger/right side Support Bracket and (2) 12mm Bolt Plates, (**Figure 11**). Line up the (2) forward slots on the Support Bracket with the (2) bottom slots on the Frame Bracket. Insert (2) 12mm Bolt Plates through the Frame and Support Brackets. Secure the Brackets using (2) 12mm Flat Washers, (2) 12mm Lock Washers and (2) 12mm Hex Nuts, (**Figure 11**). Do not tighten hardware.
9. Select the passenger/right side tow hook. Reuse the tow hook hardware to attach the tow hook to the bottom of the frame and the Support Bracket, (**Figure 12**). Snug but do not fully tighten hardware.
10. Repeat **Steps 7—9** to attach the driver/left side Frame and Support Brackets and reinstall tow hook.
11. **Optional Center LED light installation**, (sold separately). **NOTE:** Light must be installed in Bumper before Bumper Assembly is installed.
 - a. Select the L/R “L” Brackets, (**Figure 13**). **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, (**Figure 13**). 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 13**). Adjust light position and tighten hardware.
 - c. Follow light manufacturer’s instructions to wire the light to the vehicle’s electrical system once Bumper has been fully installed.
12. **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 14**).
 - b. Follow the light manufacturer’s instructions to attach each light to slot in the top of the light opening.
 - c. Repeat the above steps for driver/left side light installation.
 - d. Follow light manufacturer’s instructions to adjust and properly wire the light to the vehicles electrical system.
13. With assistance, position the Bumper Assembly up to the outside of 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.
14. Attach the Bumper to the outside of the Frame Brackets with the included (6) 10mm Hex Bolts, (12) 10mm x 27mm Flat Washers, (6) 10mm Lock Washers and (6) 10mm Hex Nuts, (**Figures 15 & 16**). Do not fully tighten hardware at this time.
15. Determine if vehicle is equipped with sensors:

Models without bumper sensors:

- a. Select the included (2) Rubber Plugs.
- b. From behind bumper, push plugs into sensor mounting holes.
- c. Proceed to **Step 16**.

Models with bumper mounted sensors:

- a. Starting on the Passenger/right side of the OE front bumper, remove the hardware attaching the aluminum cross bar to the bumper, (**Figure 17**). **NOTE:** Aluminum cross bar will not be reinstalled.
- b. Repeat **Step 15a** to remove the hardware on the driver/left side of the OE bumper.

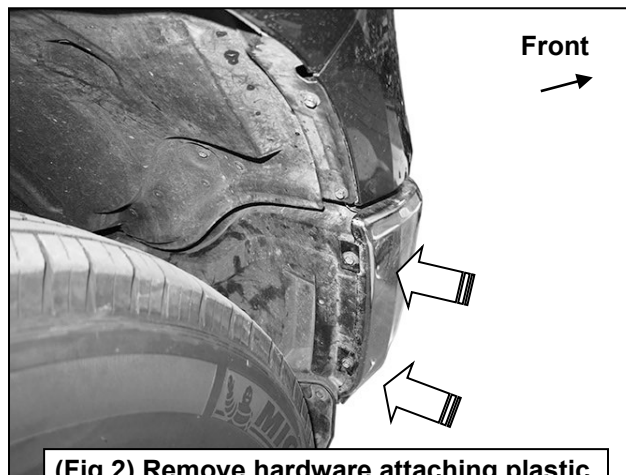
- c. Release the wiring harnesses from the clips attached to the back of the bumper.
 - d. After cross bar removal, locate the passenger side sensor on the back of the OE bumper. Slide the white plastic cover off the sensor and unplug the wire harness from the sensor, **(Figure 18)**. **NOTE:** The passenger/right side uses a white wire harness connection while the driver/left side uses a black wire harness connection.
 - e. Remove the sensor from the back of the bumper, then remove the OE retaining ring on the sensor.
 - f. Trim off the plastic tabs on the sides of the sensor. Push the sensor through the sensor sleeve on the back of the Front Bumper. Push the OE retaining ring through the front sensor hole of the Bumper to reattach the retaining ring to the sensor, **(Figures 19—21)**.
 - g. Once sensor is flushed with the face of the Bumper, use (2) 4mm Button Head screws to secure the sensor in place, **(Figures 20 & 21)**. **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.
 - h. Repeat **Steps 15c—15f** to install the driver/left side sensor onto the Bumper.
 - i. Plug in the proper wire harness to each sensor and reattach to the main wire harness.
16. If front license plate is required, attach the License Plate Bracket to the holes in the bumper with the included (2) 6mm x 20mm Button Head Screws, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts, **(Figure 22)**. Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the plastic plugs.
17. Level and adjust the bumper and fully tighten all hardware.
18. Reinstall the plastic grille and top cover, **(Figure 1)**.
19. 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 HD Front Bumper assembly.

Passenger/right Side Installation Pictured

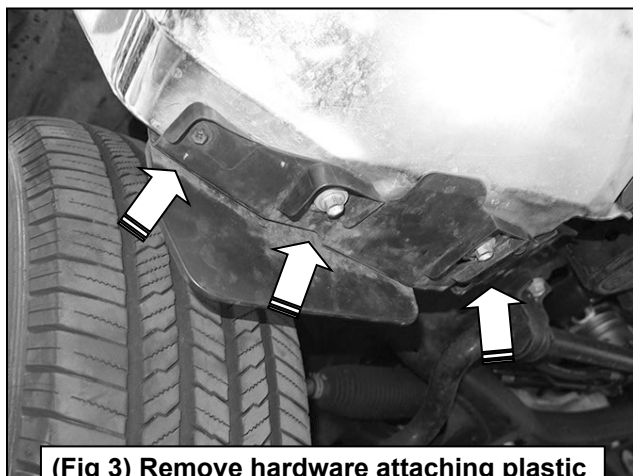


(Fig 1) Remove plastic cover and grille

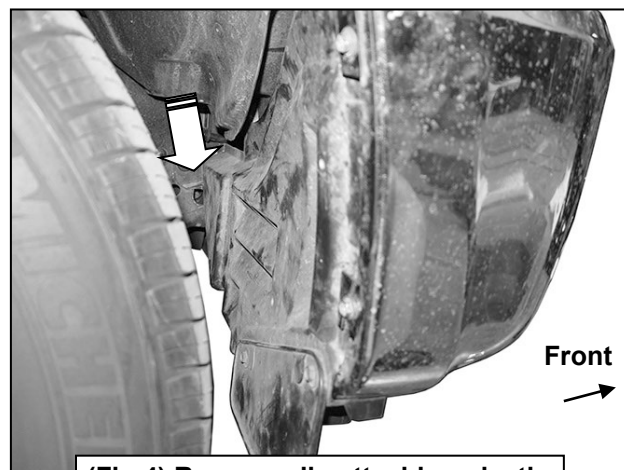


(Fig 2) Remove hardware attaching plastic cover to back of bumper (arrows)

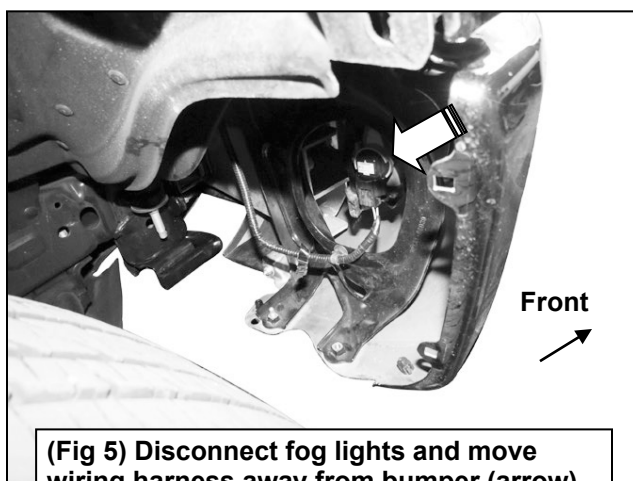
Passenger/right Side Installation Pictured



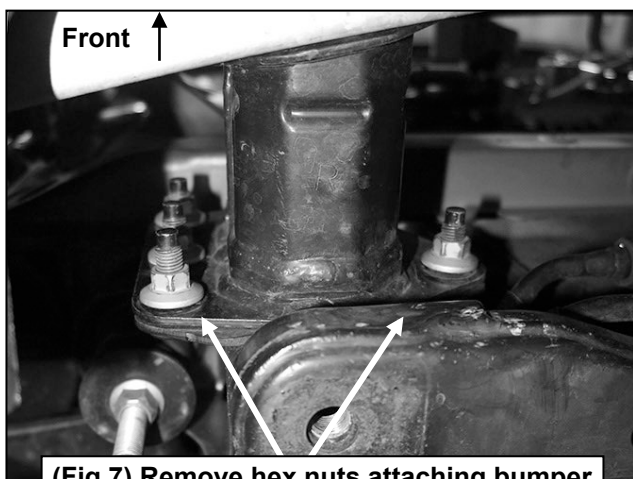
(Fig 3) Remove hardware attaching plastic cover to bottom of bumper (arrows)



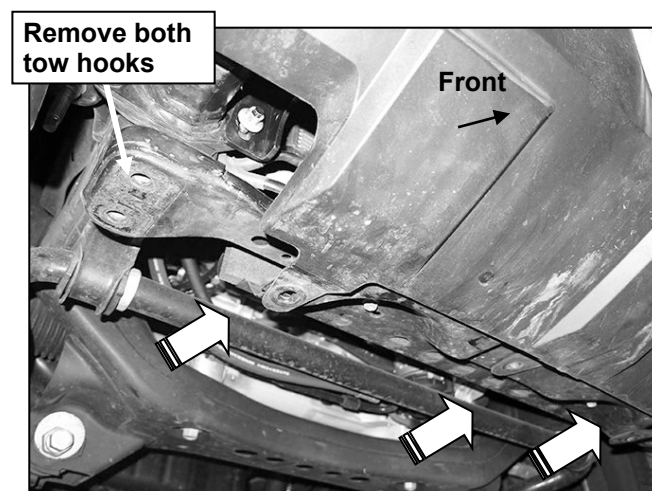
(Fig 4) Remove clip attaching plastic cover to side of frame (arrow)



(Fig 5) Disconnect fog lights and move wiring harness away from bumper (arrow)



(Fig 7) Remove hex nuts attaching bumper brackets to end of frame. Passenger side bumper bracket pictured from below

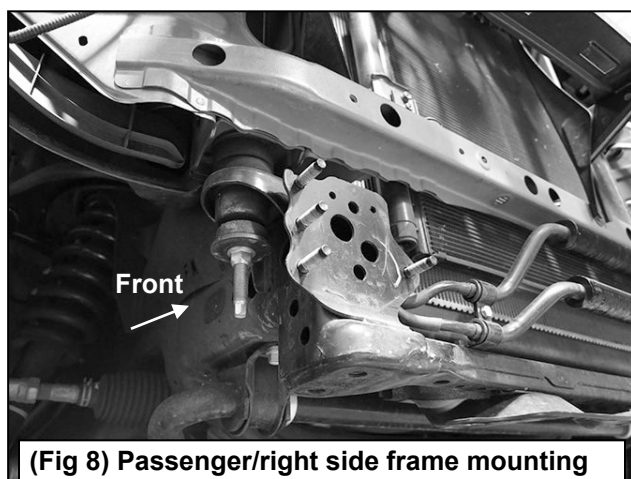


Remove both tow hooks

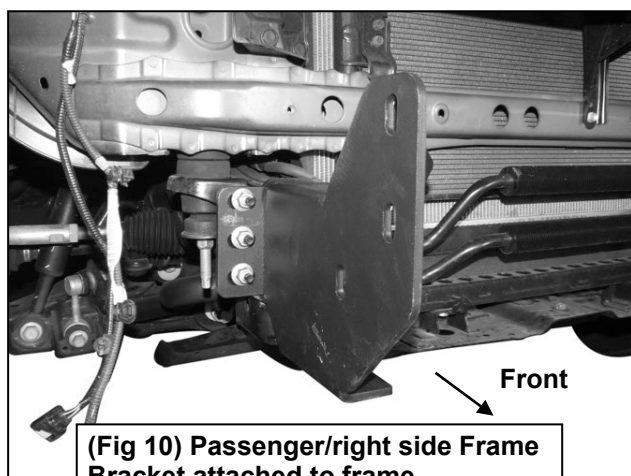
(Fig 6) Remove hardware attaching plastic cover on bottom of bumper to cross member (arrows)

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

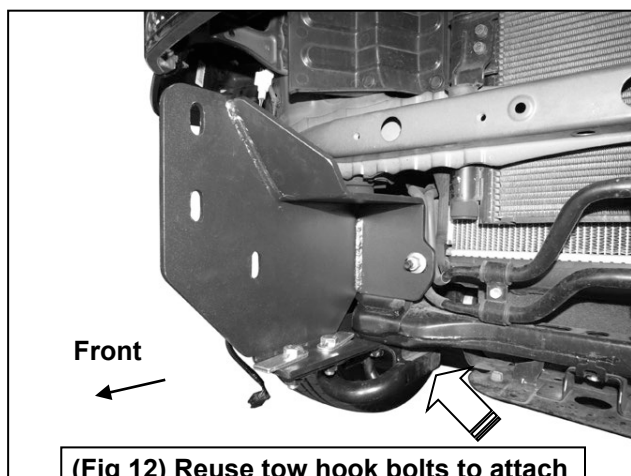
Passenger/right Side Installation Pictured



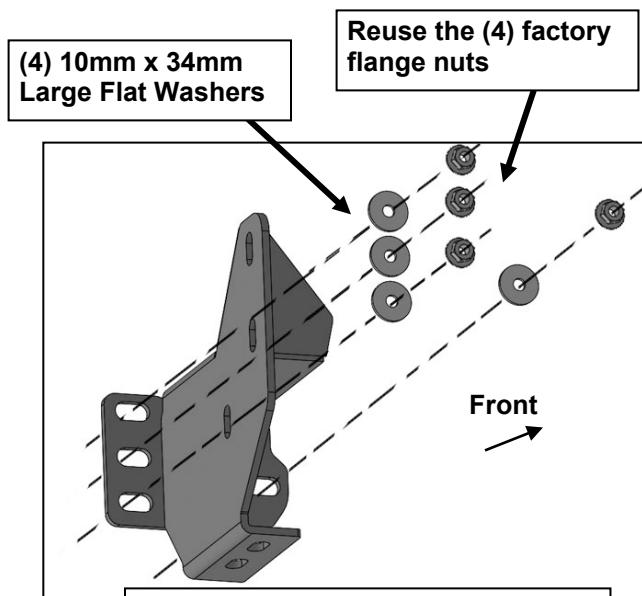
(Fig 8) Passenger/right side frame mounting location (bumper & grille removed)



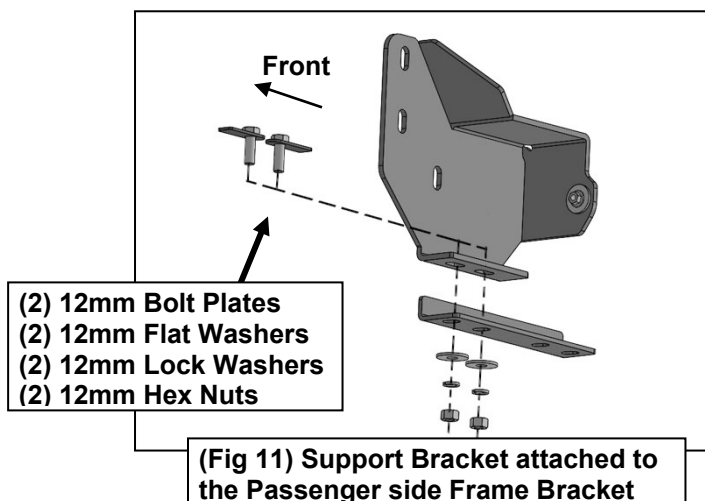
(Fig 10) Passenger/right side Frame Bracket attached to frame



(Fig 12) Reuse tow hook bolts to attach Support Bracket to bottom of frame



(Fig 9) Passenger/right side Frame Bracket attached to frame



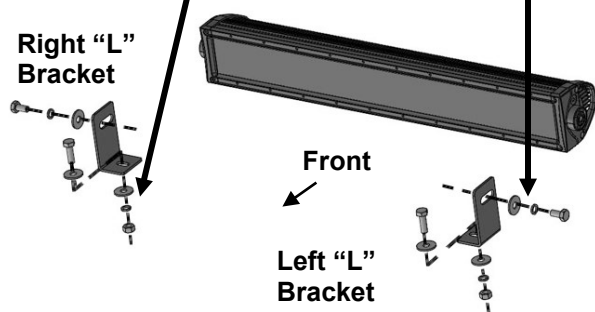
(Fig 11) Support Bracket attached to the Passenger side Frame Bracket

Passenger/right Side Installation Pictured

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

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

Right "L"
Bracket



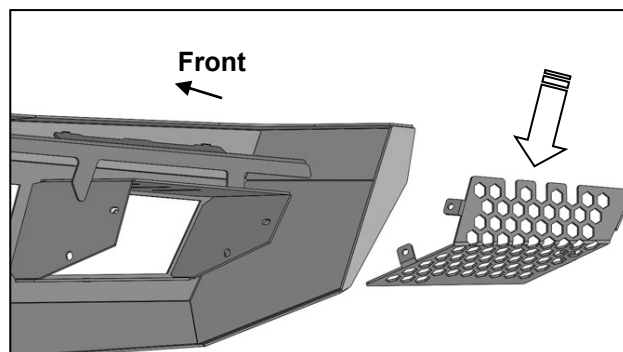
Front

Left "L"
Bracket

(Fig 13) Example of center light installation

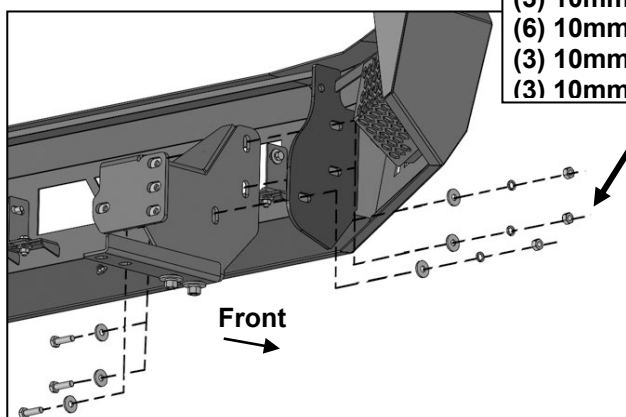
WARNING! Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.

Front

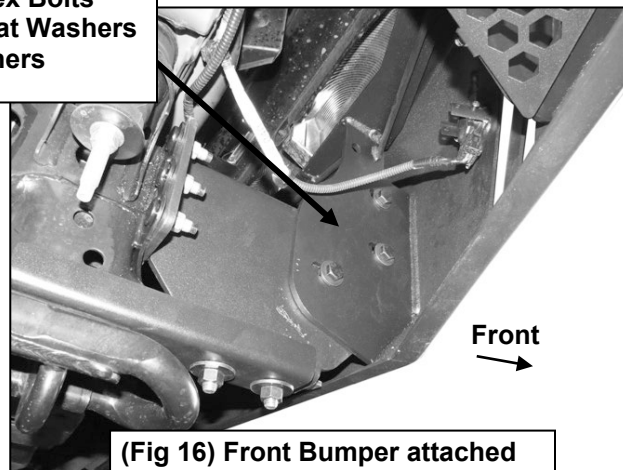


(Fig 14) Remove screens if necessary for clearance/access to outer light mounts

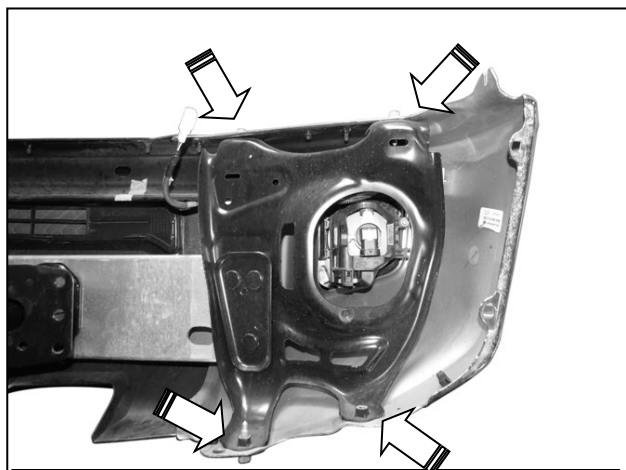
(3) 10mm x 35mm Hex Bolts
(6) 10mm x 27mm Flat Washers
(3) 10mm Lock Washers
(3) 10mm Hex Nuts



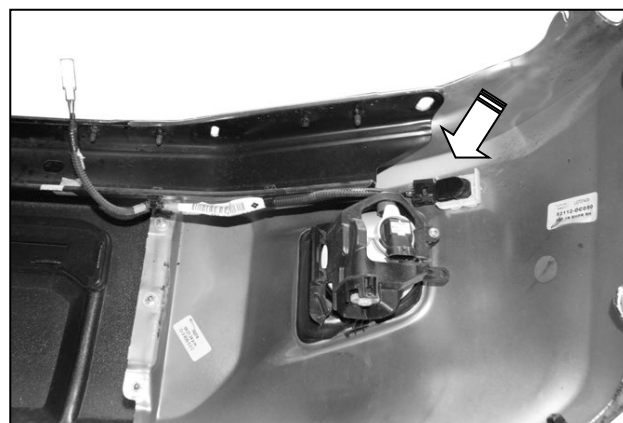
(Fig 15) Front Bumper attached to Passenger side Frame Bracket illustrated



(Fig 16) Front Bumper attached to Passenger side Frame Bracket



(Fig 17) Remove the aluminum cross bar (Passenger side back of OE bumper pictured)



(Fig 18) Slide white plastic cover off sensor. Unplug wire harness. Remove Sensor.

Passenger/right Side Installation Pictured



(Fig 19) Push sensor through sensor sleeve on the back of the bumper and attach OE retaining ring to sensor from the front of the bumper

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.

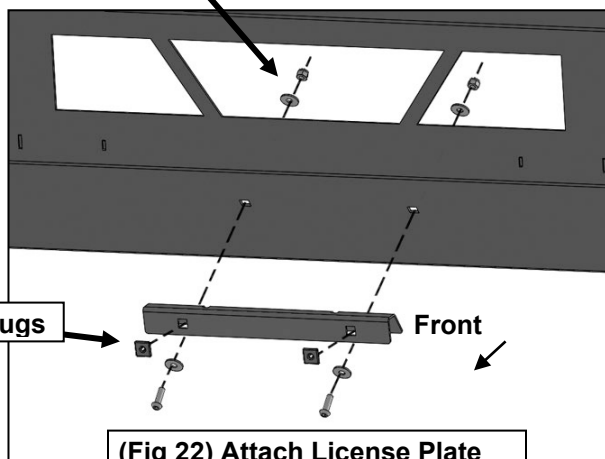


(Fig 20) Use (2) 4mm Screws to lock sensor in place.



(Fig 21) Passenger side Sensor installed

(2) 6mm x 20mm Button Head Screws
(4) 6mm Flat Washers
(2) 6mm Nylon Lock Nuts



(2) Plastic Plugs

Front

(Fig 22) Attach License Plate Bracket to Front Bumper



Complete Installation