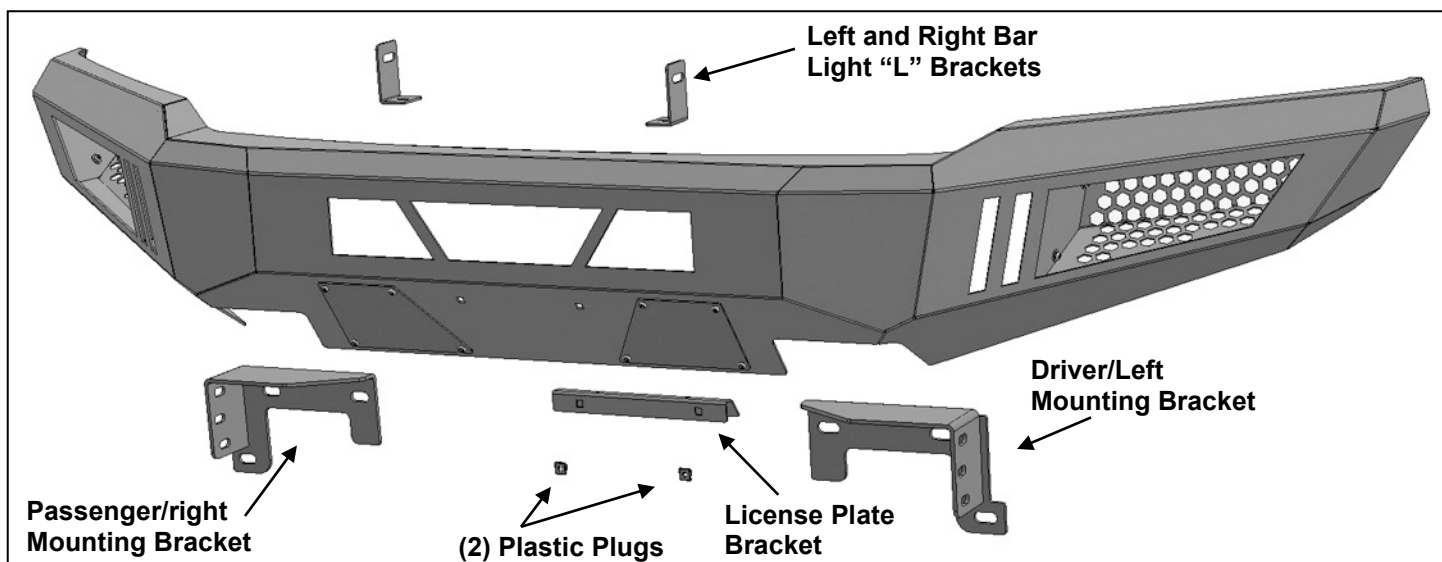


PARTS LIST:

1	Front Bumper Assembly	6	10mm Lock Washer
1	Driver/left Frame Bracket	6	10mm Hex Nut
1	Passenger/right Frame Bracket	2	8-1.25mm x 25mm Hex Bolts
1	Driver/left "L" Bracket (center LED light)	2	8-1.25mm x 16mm Hex Bolts (LED light bar)
1	Passenger/right "L" Bracket (center LED light)	6	8mm x 24mm Flat Washers
1	License Plate Bracket	4	8mm Lock Washers
2	Plastic Plugs for license plate mount	2	8mm Hex Nuts
2	12-1.75mm x 35mm Hex Bolt	2	6mm x 20mm Button Head Bolts
4	12mm x 32mm x 3mm Flat Washer	4	6mm x 18mm x 1.6 Flat Washers
2	12mm Nylon Lock Nut	2	6mm Nylon Lock Nuts
6	10-1.5mm x 35mm Hex Bolt	1	4mm Wrench
12	10mm x 27mm x 3mm Flat Washer	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 HIGHLY RECOMMENDED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE. BUMPER IS NOT COMPATIBLE WITH ACC (ADAPTIVE CRUISE CONTROL). FUNCTION MUST BE DISABLED.

1. Remove the license plate and bracket. Next, remove the plastic bumper pad from the center of the bumper, **(Figure 1)**. Pad is held in place with metal clips. Pull the pad straight out to remove bumper pad. Also remove the skid plate from the bottom of the bumper.
2. On models with factory fog lights, unplug wiring harness leading to the bumper. Move harness away from bumper. On models equipped with adaptive cruise control, remove sensor from bumper, **(Figure 2)**. **NOTE:** Sensor cannot be reinstalled.
3. From behind the bumper, remove factory hex nuts attaching the bottom of the bumper bracket to the frame bracket. Next, remove the outer bumper supports, **(Figure 3)**.
4. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been safely supported, through the opening in the front of the bumper, remove the factory hex nuts and remove the bumper, **(Figures 2 & 4)**. **WARNING!** Assistance is required to hold the bumper in place during bolt removal to prevent the bumper from falling.
5. Remove the plastic seals around the tow hooks, **(Figure 5)**. Next, remove the factory double bolt plates from the end of the frame.

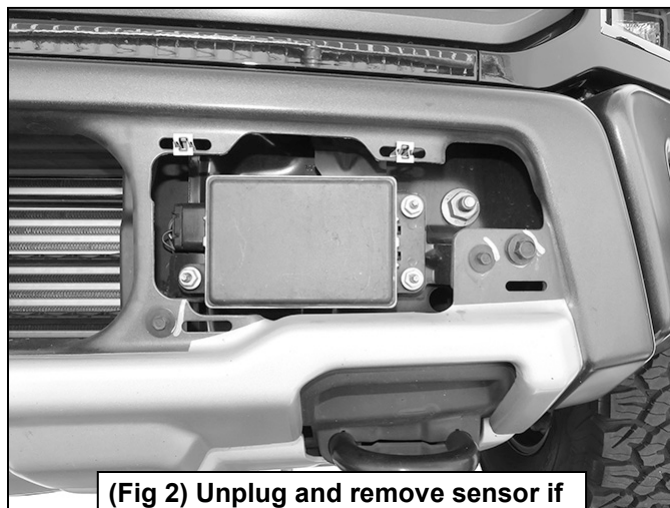
6. Select the passenger/right Frame Bracket, **(Figure 6)**. Insert the factory double bolt plate through the Bracket and frame. Reuse the (2) factory hex nuts to attach the Frame Bracket to the end of the frame, **(Figures 6 & 7)**. Use (1) 12mm x 35mm Hex Bolt, (2) 12mm Flat Washers and (1) 12mm Nylon Lock Nut to attach the remaining mounting hole in the Bracket to the lower mounting hole in the end of the frame. Do not fully tighten hardware at this time. Repeat to install the driver/left Frame Mounting Bracket
7. 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 8)**. Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the plastic plugs.
8. On Ecoboost models, remove the (2) covers from the bottom of the LD-1 Bumper, **(Figure 9)**.
NOTE: Center light installation not recommended on vehicles used under severe conditions.
9. **Center LED light installation** (sold separately).
 - a. Select the L/R "L" Brackets, **(Figure 10)**. Attach the Brackets to the top of the (2) mounting tabs welded onto 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. Leave loose at this time.
 - b. 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. **IMPORTANT:** "L" Brackets are designed for 8mm light mounting hardware only. Modify "L" Brackets if necessary or use brackets supplied by your light manufacturer if possible to install hardware larger than 8mm.
 - c. For additional airflow, leave a gap between front of light and back of Bumper, **(Figures 11 & 12)**.
 - d. Follow light manufacturer's instructions to properly wire the light.
10. **LED light installation at ends of bumper** (sold separately).
 - a. Insert light into passenger/right opening and up to mounting slots. Check for clearance between front and back of light. If necessary, remove the screen from the opening, **(Figure 13)**.
 - b. Follow the light manufacturer's instructions to attach (1) light to the center slot or (2) lights to the inner and outer slots in the top of the light opening, **(Figure 14)**.
IMPORTANT: On two light systems, attach the flood light to the outer slot and the spot light to the inner slot.
 - c. Repeat the above Steps for driver/left light installation.
 - d. Follow light manufacturer's instructions to properly wire the light.
11. With assistance, position the Bumper Assembly up to the outside of the Mounting Brackets. Temporarily support the weight of the Bumper. **NOTE:** On models with ecoboost, trim plastic shroud to fit Bumper profile as needed. **WARNING:** To avoid possible injury or damage to the vehicle, do not proceed until the bumper is fully and safely supported.
12. Attach the passenger/right mounting plate on the back of the bumper to the outside of the Mounting Bracket with the included (3) 10mm x 35mm Hex Bolts, (6) 10mm Flat Washers and (3) 10mm Nylon Lock Nuts, **(Figures 15 & 16)**. Repeat this Step to attach the driver/left side of the Bumper to the Bracket. Do not fully tighten hardware at this time.
13. Level and adjust the bumper and fully tighten all hardware.
14. 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.

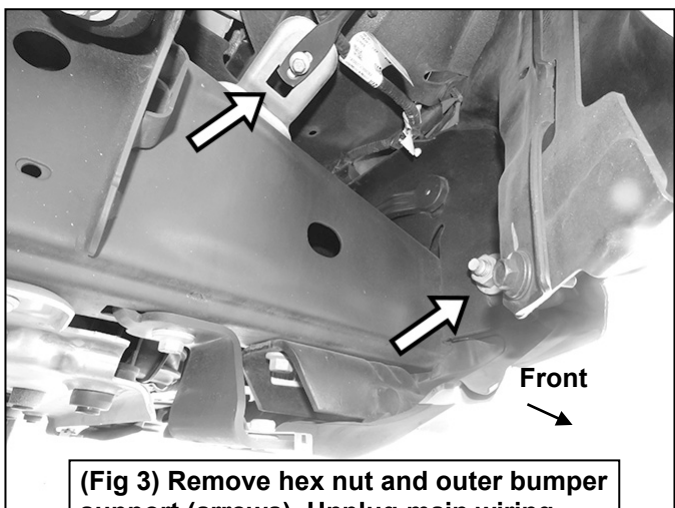
Passenger/Right Side Installation Pictured



(Fig 1) Remove license plate, skid plate and plastic center pad (arrow) from bumper



(Fig 2) Unplug and remove sensor if equipped (driver/left side pictured)



(Fig 3) Remove hex nut and outer bumper support (arrows). Unplug main wiring harness leading to bumper if equipped



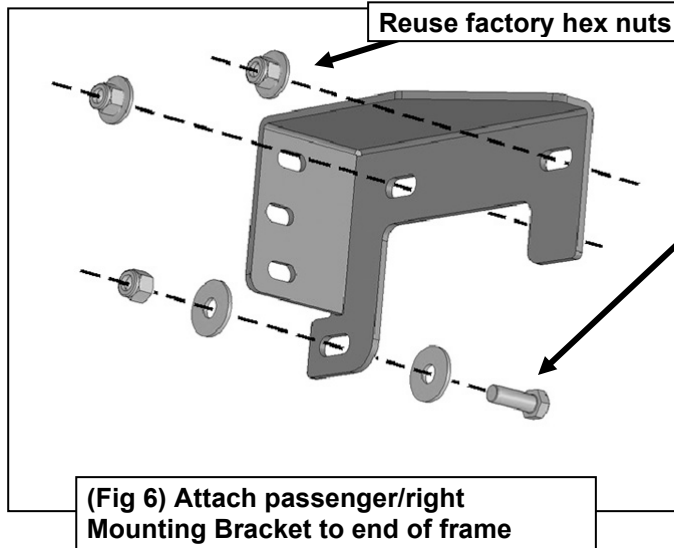
(Fig 5) Remove bumper and double bolt plate



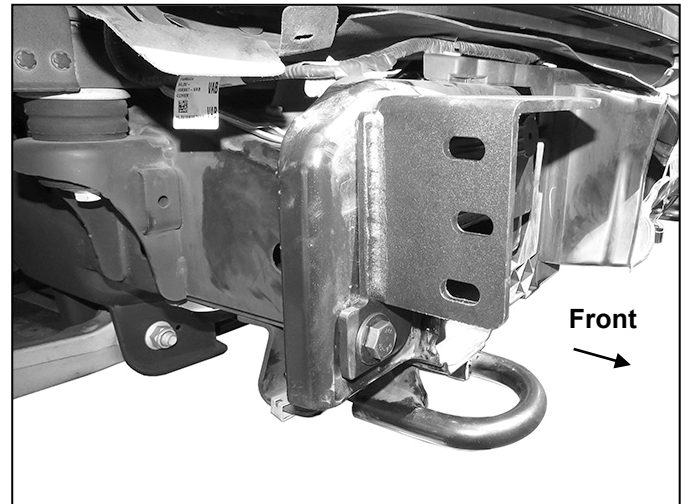
(Fig 4) Remove hex nuts (arrow) and remove bumper

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

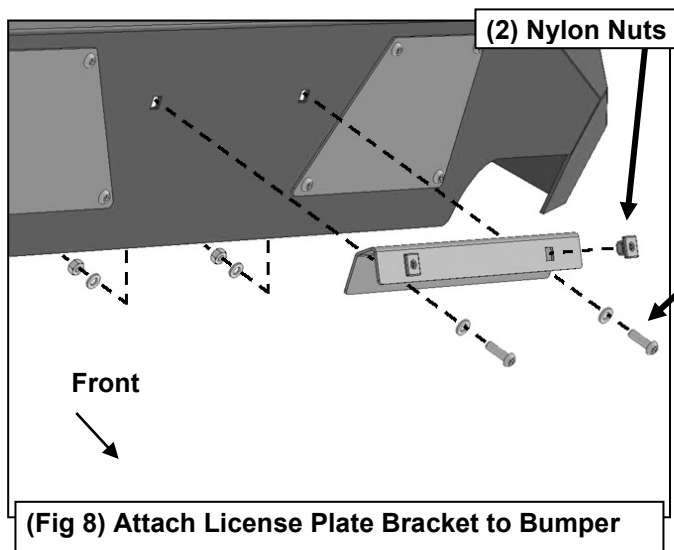
Passenger/Right Side Installation Pictured



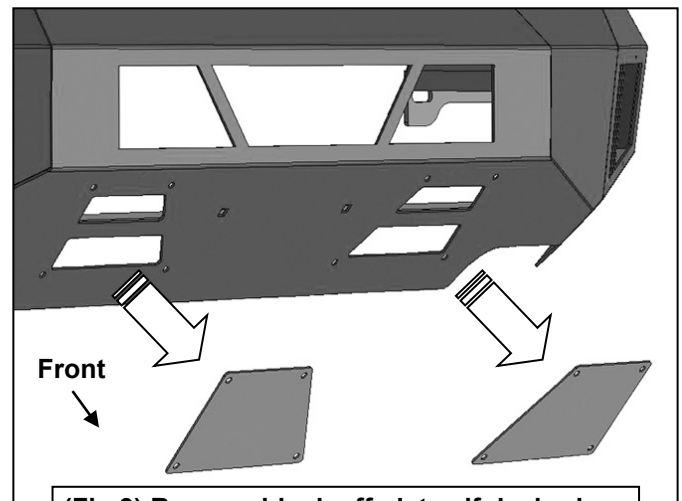
12mm x 35mm Hex Bolt
(2) 12mm Flat Washers
12mm Nylon Lock Nut



(Fig 7) Passenger/right Mounting Bracket installed

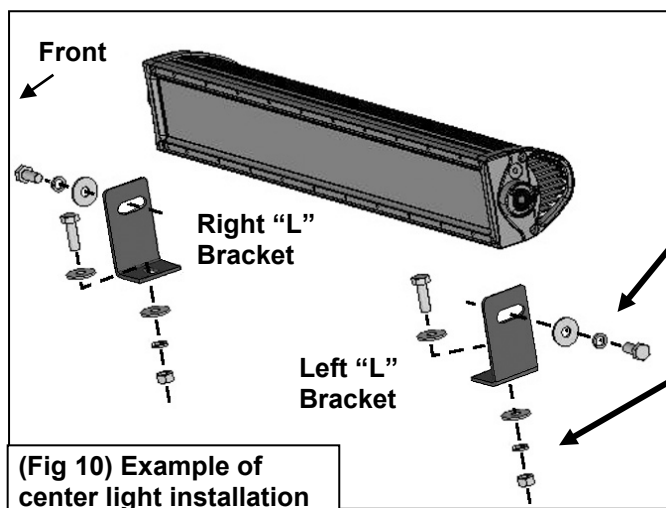


(2) 6mm x 20mm Button Head Screws
(4) 6mm Flat Washers
(2) 6mm Nylon Lock Nuts



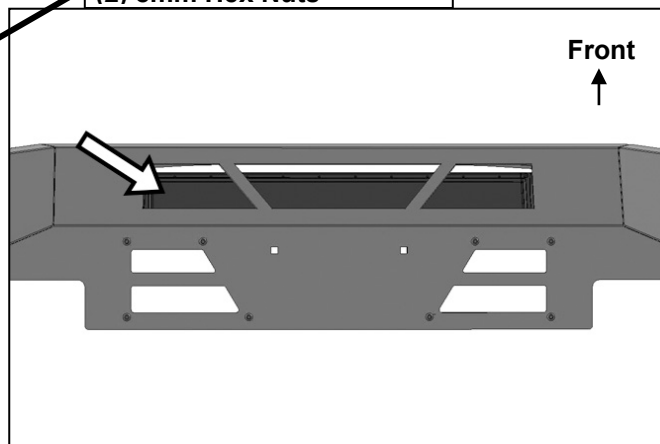
(Fig 9) Remove block off plates if desired-
highly recommended for Ecoboost models

Passenger/Right Side Installation Pictured

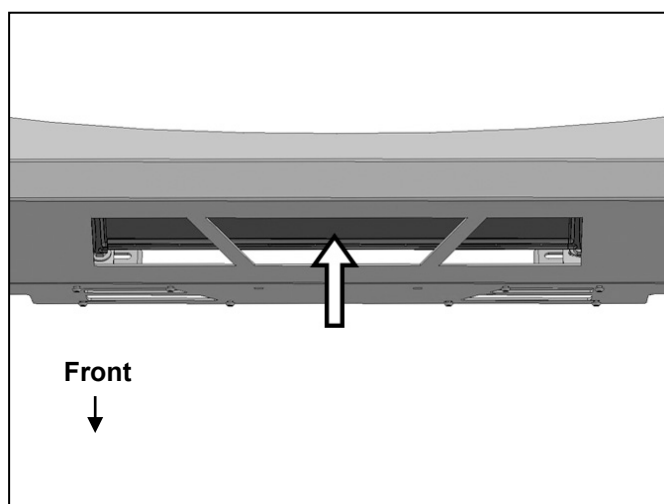


(2) 8mm x 16mm Hex Bolts
(2) 8mm Lock Washers
(2) 8mm Flat Washers

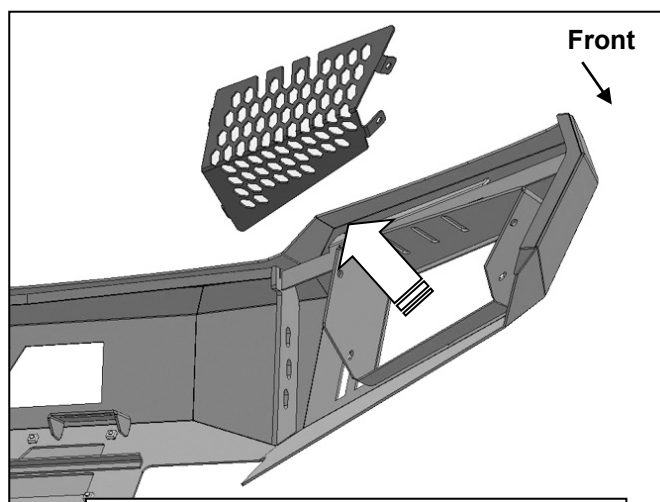
(2) 8mm x 25mm Hex Bolts
(4) 8mm Flat Washers
(2) 8mm Lock Washers
(2) 8mm Hex Nuts



(Fig 11) To increase airflow, leave a gap between light and back of Bumper -highly recommended for Ecoboost models (bottom view illustrated)

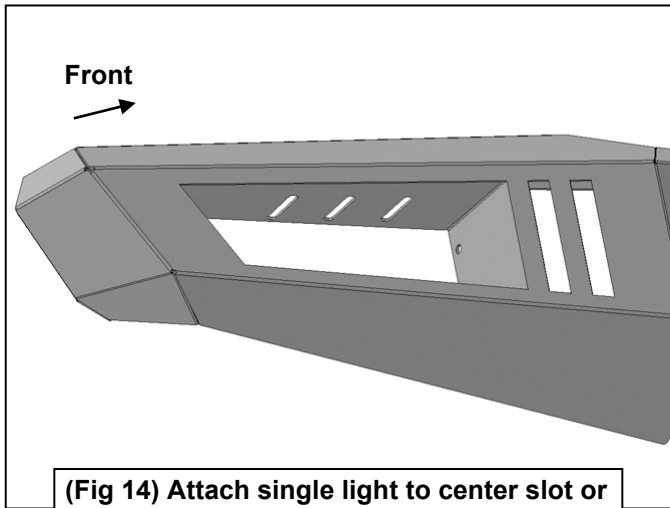


(Fig 12) To increase airflow, leave a gap between light and back of Bumper-highly recommended for Ecoboost models (top view illustrated)



(Fig 13) Remove screens if necessary for clearance/access to outer light mounts

Passenger/Right Side Installation Pictured



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

