

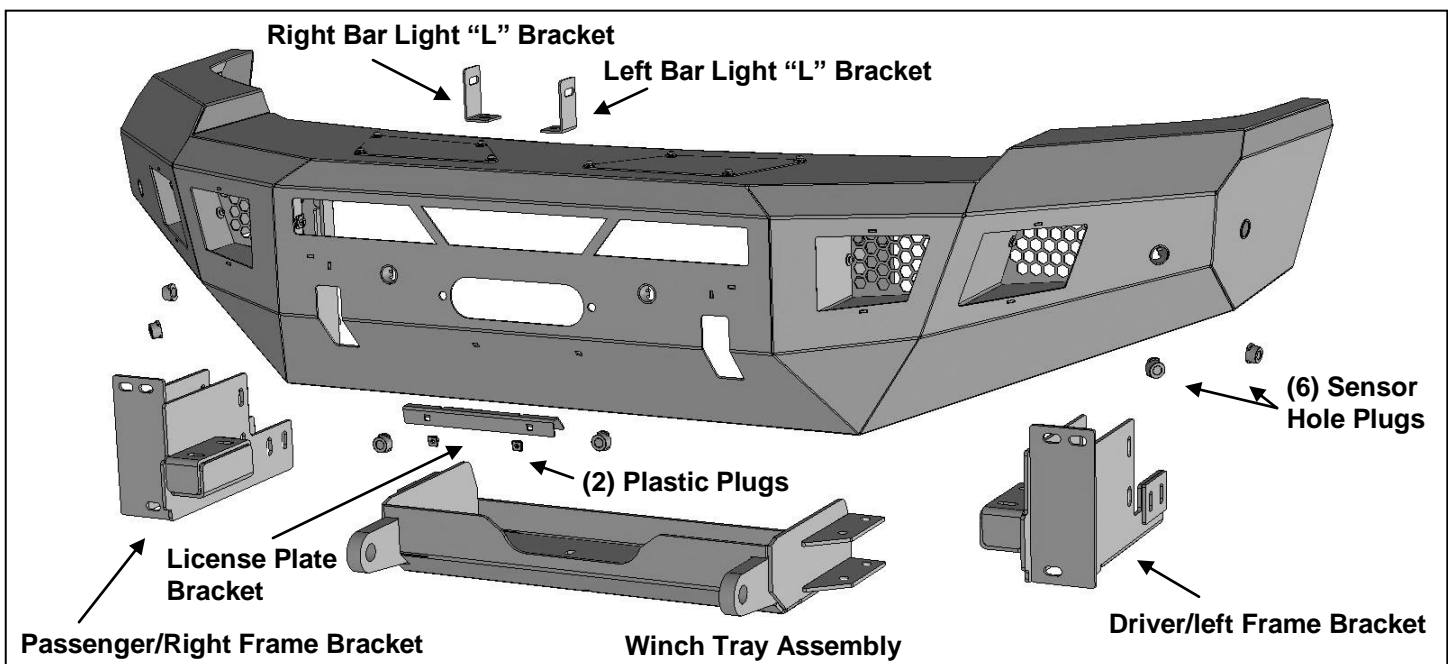
BODY ARMOR 4 X 4

**ECO-SERIES FRONT WINCH BUMPER
WITH SUBFRAME WINCH PLATE
#DG-19338**

Body Armor 4x4
272 Corporate Terrace St.
Corona, CA 92879
951-808-0750
Customer Service hours:
M-TH: 7:30am to 4:30 PM Pacific Time
Friday: 8 AM – Noon Pacific Time

PARTS LIST:

1	HD1 Front Bumper Assembly	6	10mm x 27mm OD x 3mm Flat Washers
1	Driver/left Frame Mounting Bracket	6	10mm Lock Washers
1	Passenger/right Frame Mounting Bracket	6	10mm Hex Nuts
1	Winch Tray Assembly	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
6	Sensor Hole Plugs	2	6mm x 20mm Button Head Bolts
4	12-1.75mm x 110mm Hex Bolts	4	6mm x 12mm OD x 1.5mm Flat Washers
8	12-1.75mm x 100mm Hex Bolts	2	6mm Nylon Lock Nuts
24	12mm x 24mm OD x 2.5mm Flat Washers	1	6mm Allen Wrench
12	12mm Lock Washers	12	4mm x 10mm Button Head Bolts
12	12mm Hex Nuts	1	4mm Allen 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. CUTTING MAY BE REQUIRED.

1. Remove the license plate and bracket. On models with factory fog lights and/or sensors, unplug wiring harness, **(Figure 1)**. Release the harness from the clips attached to the back of the bumper and move harness away from bumper.
2. Next, open hood and remove the plastic cover between the top of the grille and the top of the radiator. Carefully remove the grill assembly, **(Figures 2 & 3)**.
3. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been safely supported, remove the hex nuts attaching each bumper bracket to the end of the frame, **(Figure 4)**. **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent the bumper from falling. Slide the bumper assembly off of the tow hooks.

4. Next, remove the tow hooks and the bumper mounting brackets from the ends of the frame, **(Figure 5)**. Also remove the lower bumper extensions attached to the bottom of the frame.
IMPORTANT: On some models equipped with turbo diesel, the intercooler and lower mounting bracket will need to be loosened or removed to remove the double bolt plate attaching the bumper bracket to the end of the frame. Assistance is recommended. **OPTION:** To remove the double bolt plates without removing the intercooler, use a hacksaw to cut the threaded ends off of the double bolt plates. Reinstall the intercooler and brackets, (if removed), once bolt plates and bumper brackets have been removed, **(Figure 6)**.
5. Select the driver/left side Frame Mounting Bracket, **(Figure 7)**. Attach the Bracket to the end of the frame with (4) 12mm x 100mm Hex Bolts, (8) 12mm Flat Washers, (4) 12mm Lock Washers and (4) 12mm Hex Nuts, **(Figures 7 & 8)**. Leave hardware loose at this time. Repeat this Step to install the passenger/right Frame Bracket.
6. Select the Winch Tray Assembly. Slide the Winch Tray into position between the two Frame Mounting Brackets. Attach the mounting tabs on the Winch Tray to the Frame Brackets with (4) 12mm x 110mm Hex Bolts, (8) 12mm Flat Washers, (4) 12mm Lock Washers and (4) 12mm Hex Nuts, **(Figures 9 & 10)**. Leave hardware loose at this time. **IMPORTANT:** On models equipped with turbo diesel engine, the shroud between the front bumper and the intercooler must be cut to clear the back of the Winch Tray, **(Figures 5 & 6)**.
7. If installing winch, (not included), attach the winch to the Winch Tray at this time. Winch must be installed before Bumper is placed in position against Brackets. **NOTE:** Also install winch cable guide, (not included), on Bumper assembly. Follow manufacturer's instructions to properly attach the winch to the vehicle's electrical system.
8. **Optional Center LED light installation**, (sold separately). **NOTE:** Light must be installed in Bumper before Bumper Assembly is attached to the Winch Tray and Brackets. **IMPORTANT:** Clearance between the bar style LED light and the winch and/or winch tray must be determined before installing Bumper assembly.
 - a. Select the L/R "L" Brackets, **(Figure 11)**. **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 11)**. 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 11)**. 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.
9. **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 12)**. **NOTE:** Screens must be removed before Bumper is installed.
 - b. Follow the light manufacturer's instructions to attach each light to slot in the top of the light opening. **NOTE:** 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 passenger side light installation.
 - d. Follow light manufacturer's instructions to properly wire the light to the vehicle electrical system.
10. 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 13)**. Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the plastic plugs.

11. NOTE: It may also be easier to install sensors, (if equipped), before installing the Bumper.

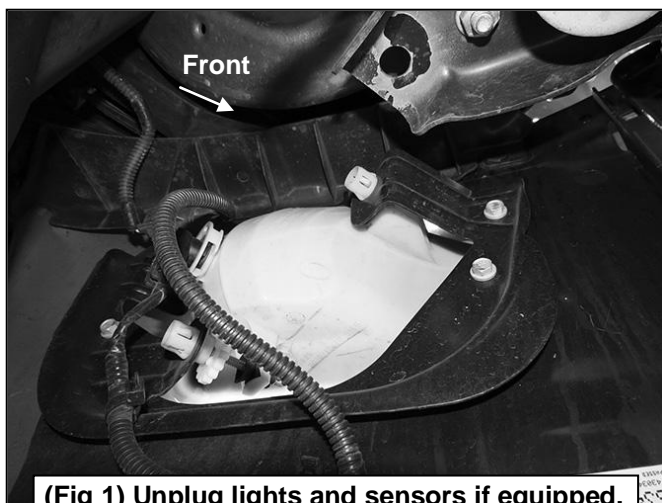
Models without bumper sensors:

- a. Select the included (6) Rubber Plugs.
- b. From behind bumper, push plugs into sensor mounting holes, **(Figure 14)**.

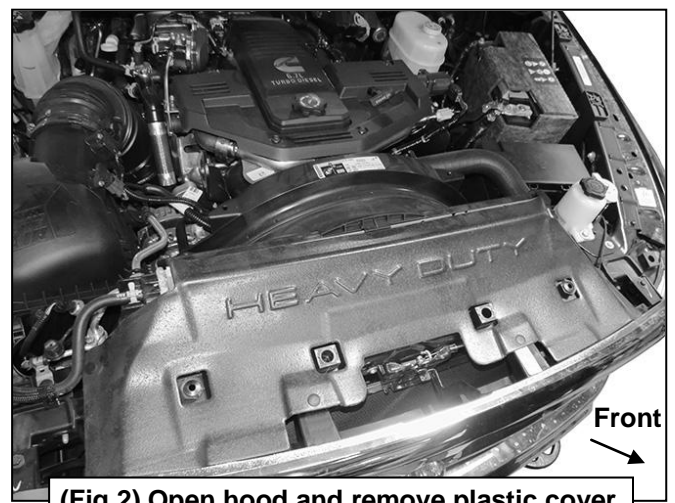
Models with bumper mounted sensors:

- a. Push the sensor into the mounting socket in the back of the bumper.
 - b. Secure each sensor to the socket with (2) 4mm x 10mm Button Head Screws, **(Figure 14)**. **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.
- 12.** With assistance, position the HD1 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.
- 13.** Attach the mounting studs on the back of the driver/left side of the Bumper to the Frame Bracket with (3) 10mm Flat Washers, (3) 10mm Lock Washers and (3) 10mm Hex Nuts, **(Figures 15 & 16)**. Do not fully tighten at this time. Repeat this Step to attach the passenger/right side of the Bumper to the Frame Bracket.
- 14.** Reattach the wiring harness to the bumper sensors if equipped. Follow the winch and/or light manufacturer's installation instructions to properly attach the device to the vehicle's electrical system.
- 15.** 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.

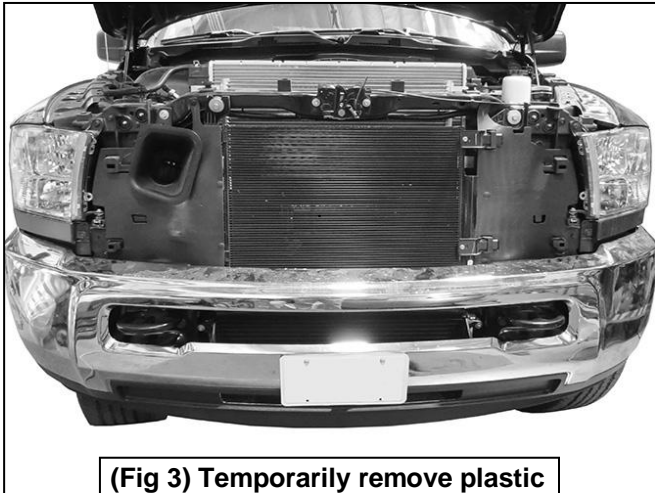


(Fig 1) Unplug lights and sensors if equipped. Unplug harness to bumper and move harness



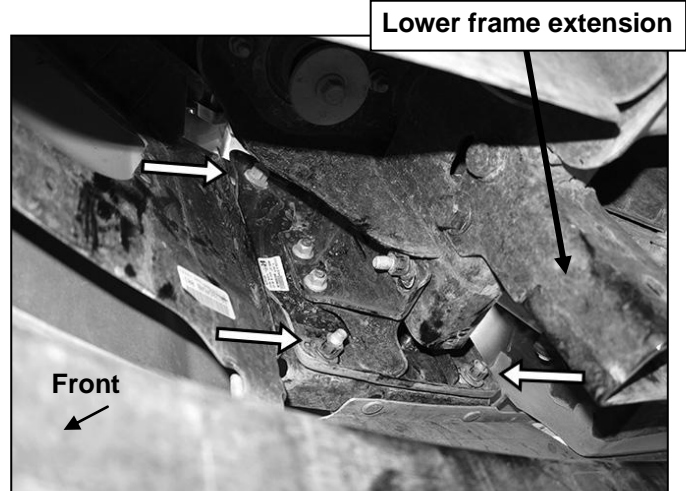
(Fig 2) Open hood and remove plastic cover

Driver Side Installation Pictured

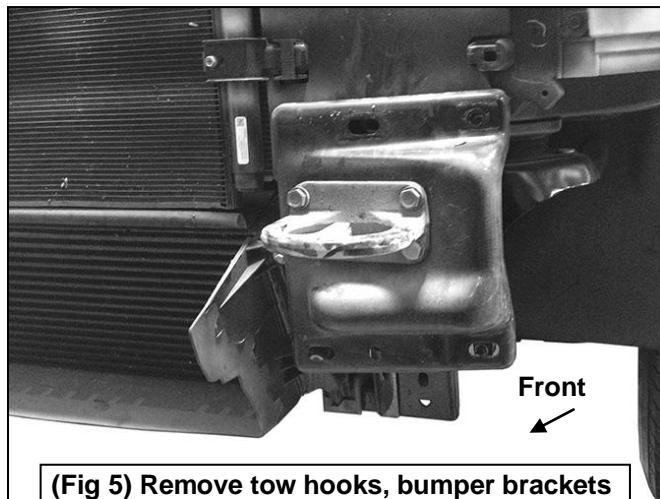


(Fig 3) Temporarily remove plastic grille to access top bumper bolts

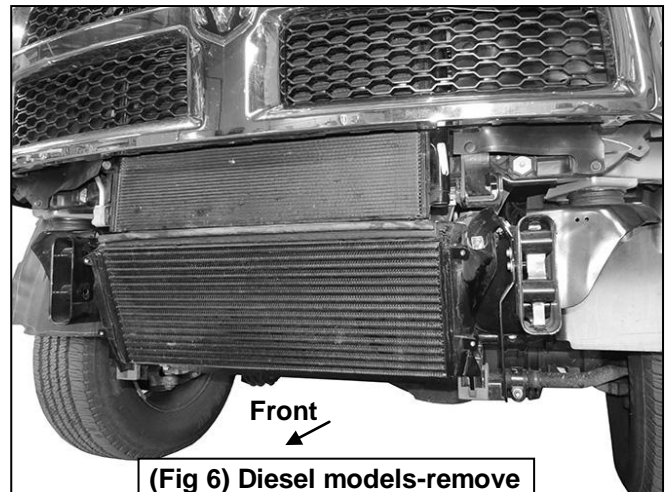
WARNING! Do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.



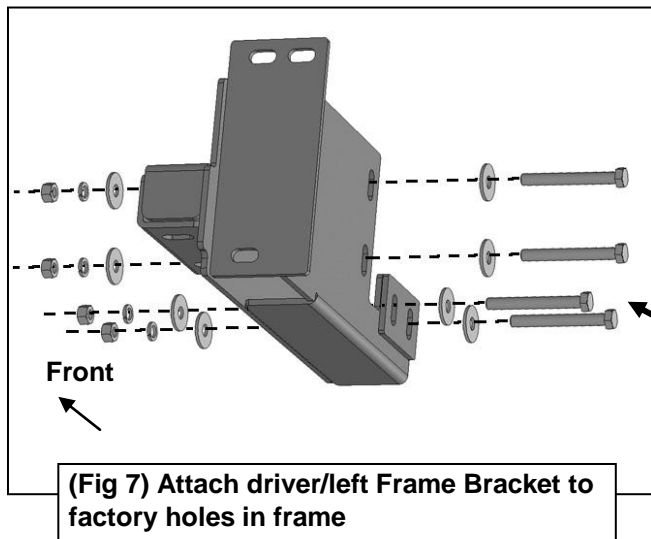
(Fig 4) Remove hex nuts from bumper bolts (arrows). Bumper bracket pictured from below/behind bumper



(Fig 5) Remove tow hooks, bumper brackets and lower frame extension (see Fig 4)



(Fig 6) Diesel models-remove shroud around intercooler

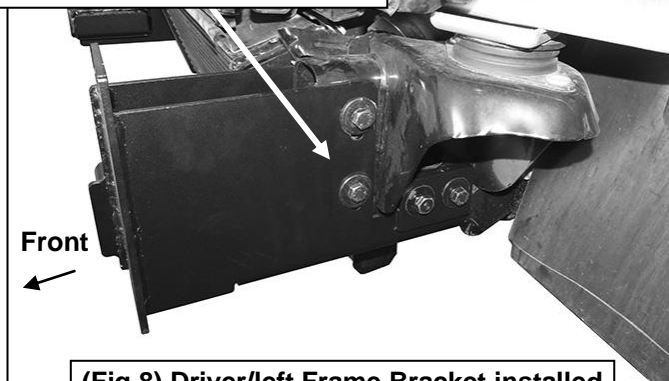


(Fig 7) Attach driver/left Frame Bracket to factory holes in frame

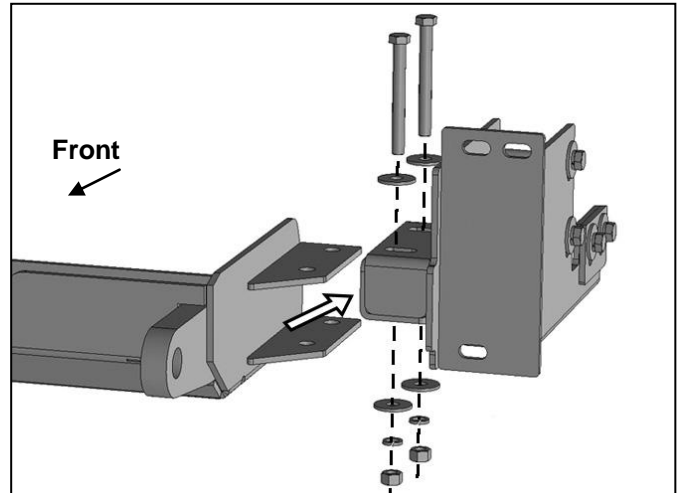
- (4) 12mm x 100mm Hex Bolts
- (8) 12mm Flat Washers
- (4) 12mm Lock Washers
- (4) 12mm Hex Nuts

Driver Side Installation Pictured

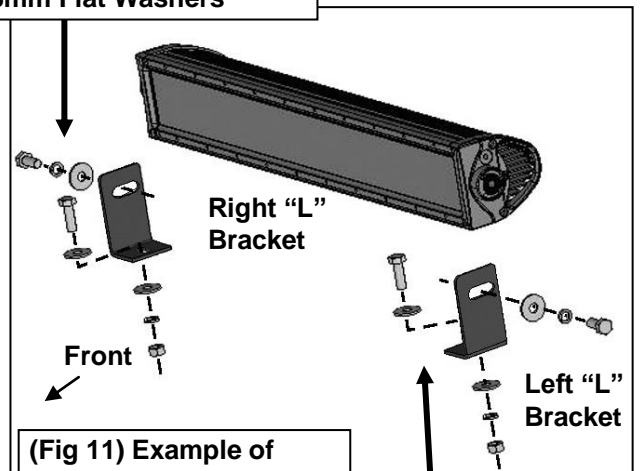
- (4) 12mm x 100mm Hex Bolts
- (8) 12mm Flat Washers
- (4) 12mm Lock Washers
- (4) 12mm Hex Nuts



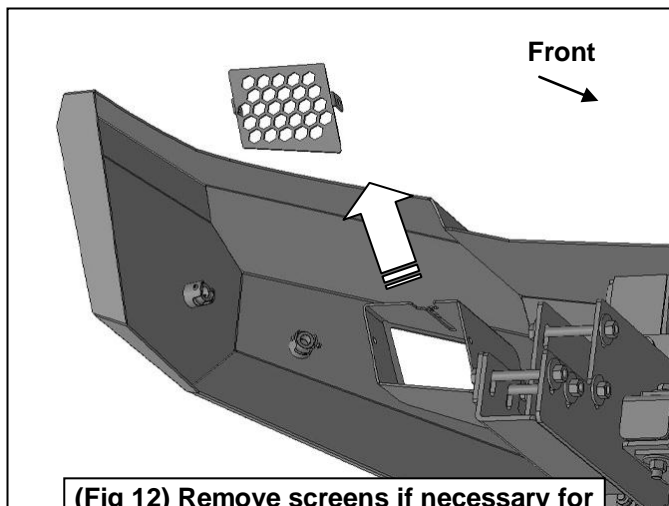
WARNING! Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.



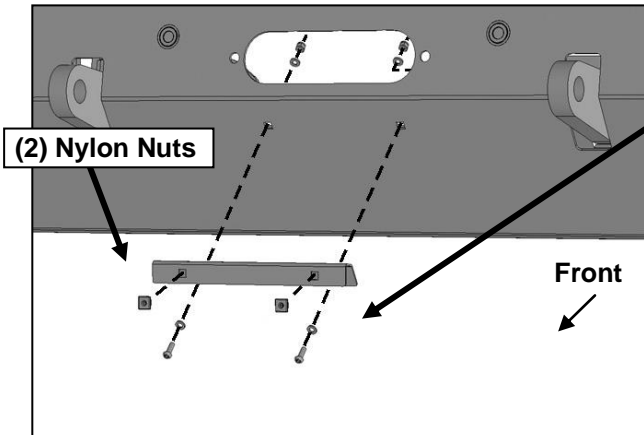
- (2) 8mm x 16mm Hex Bolts
- (2) 8mm Lock Washers
- (2) 8mm Flat Washers



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



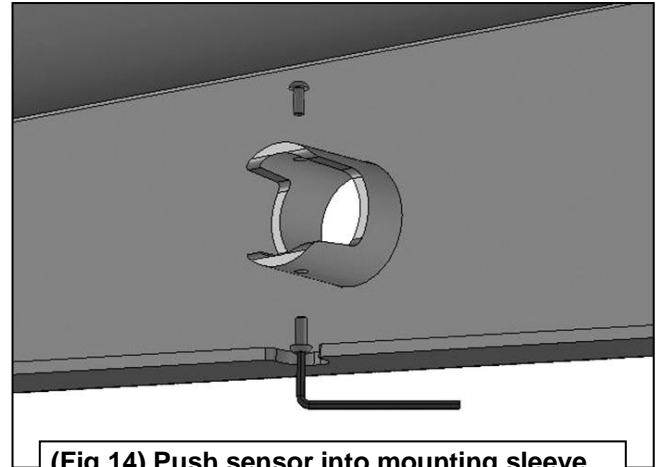
Driver Side Installation Pictured



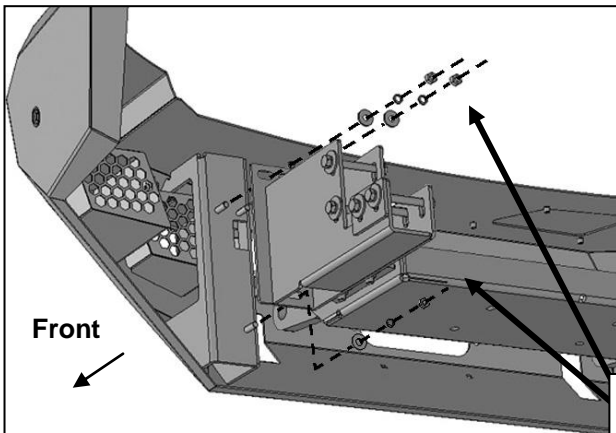
- (2) 6mm x 20mm Button Head Screws
- (4) 6mm Flat Washers
- (2) 6mm Nylon Lock Nuts

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 13) Attach License Plate Bracket to Bumper

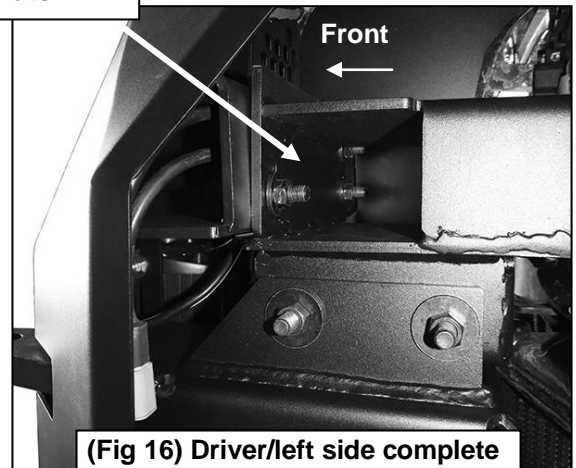


(Fig 14) Push sensor into mounting sleeve. Use 4mm Screws to lock sensor in place.



- (3) 10mm Flat Washers
- (3) 10mm Lock Washers
- (3) 10mm Hex Nuts

(Fig 15) Driver/left side complete installation



(Fig 16) Driver/left side complete installation pictured from below



Complete Installation. Winch and cable guide not included