

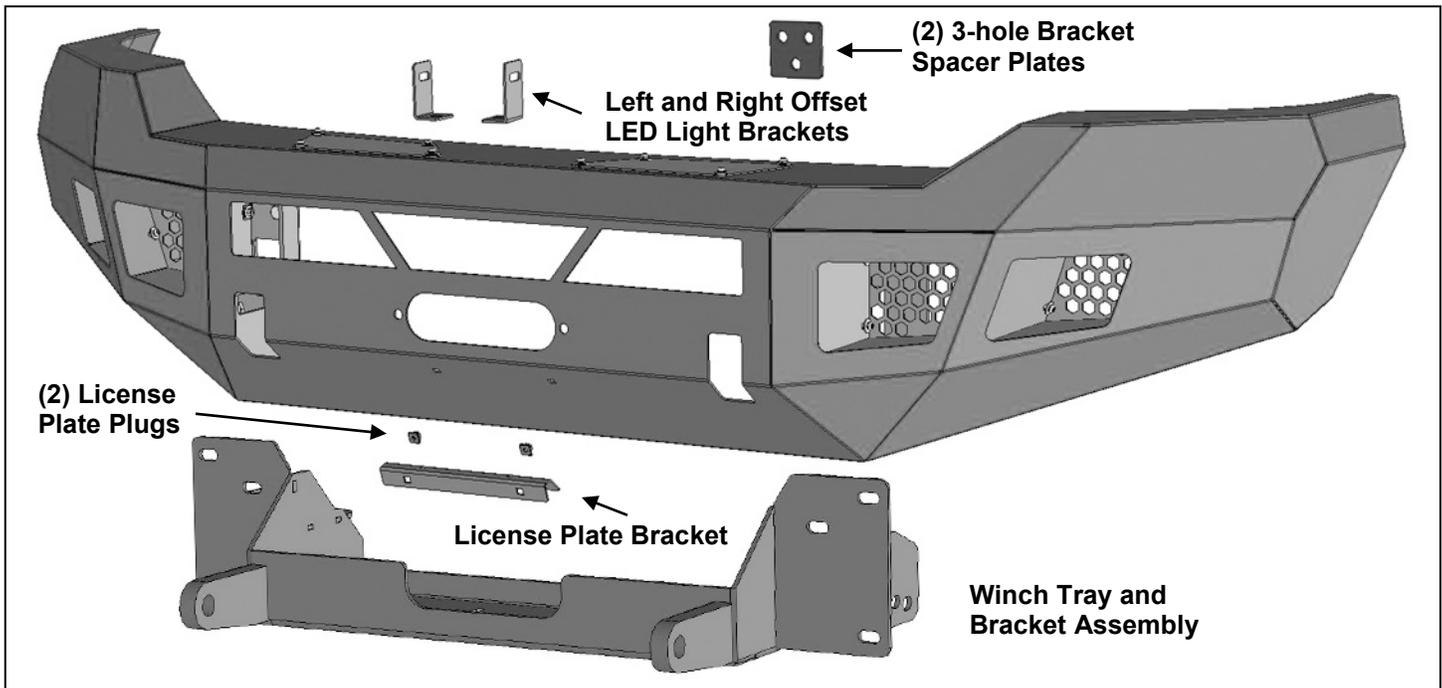
BODY ARMOR 4 X 4

**Eco-Series Front Bumper
For 11-16 Ford Super Duty
FD-19338**

Body Armor 4x4
1050 N. Vineyard Ave
Ontario, CA 91764
PH: 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	2	8-1.25mm x 25mm Hex Bolts
1	Winch Tray Bracket Assembly	2	8-1.25mm x 16mm Hex Bolts
2	3-hole Bracket Spacer Plates	6	8mm x 24mm x 2mm Flat Washers
2	Plastic Plugs for license plate mount	4	8mm Lock Washers
1	License Plate Bracket	2	8mm Hex Nuts
1	Offset Left LED Bracket	2	6mm x 20mm Button Head Screw
1	Offset Right LED Bracket	4	6mm x 12mm x 1.2mm Flat Washers
10	12-1.75mm x 50mm Hex Bolts	2	6mm Nylon Lock Nut
26	12mm x 32mm x 3mm Flat Washers	1	Wrench
16	12mm Lock Washers	10	200mm Cable Ties
16	12-1.75mm Hex Nuts		



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. Remove the license plate and bracket. On models with factory fog lights, unplug both lights. Release the wiring harness from the clips attached to the back of the bumper, **(Figures 1 & 2)**. Move harness away from bumper.
2. Release the rubber air deflector from the back of the bumper. Next, remove the bumper supports attached to the bumper frame bracket and outer ends of the bumper, **(Figure 2)**.
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 (4) factory bumper bolts, **(Figure 3)**.
WARNING! Assistance is required to hold the bumper in place during bolt removal to prevent the bumper from falling. Carefully slide the bumper off over the tow hooks.
4. Remove the driver side tow hook from the end of the frame, **(Figure 4)**. Next, remove the (4) factory hex nuts, lower frame extension and double bolt plates from the end of the frame, **(Figures 1, 4 & 5)**. Repeat this Step to remove the passenger side tow hook and lower frame extension.
5. Next, select the Winch Tray Bracket Assembly. Slide the assembly over the ends of the frame. Line up the (2) slots in each side of the assembly with the holes in the side of the frame. Attach the assembly to

the outside of the frame with the included (4) 12mm x 50mm Hex Bolts, (8) 12mm Flat Washers, (4) 12mm Lock Washers and (4) 12mm Hex Nuts, **(Figures 6 & 7)**. Leave hardware loose.

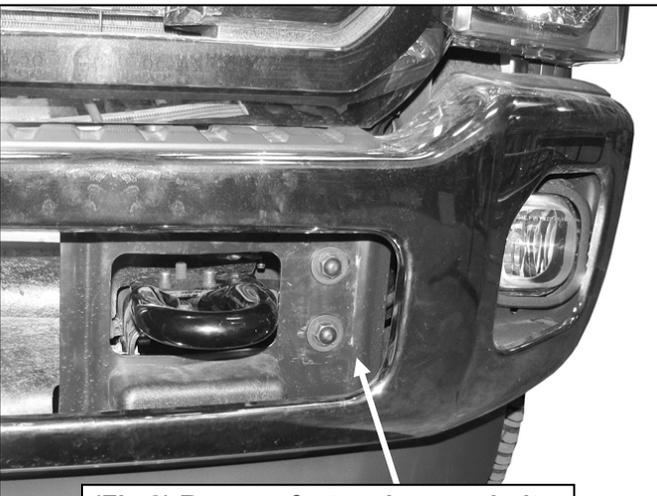
6. Select (1) 3-hole Spacer Plate, **(Figure 8)**. Line up the (3) holes in the top of the driver side of the assembly with the top of the frame, **(Figure 9)**. Attach the Spacer Plate to the top of the assembly and frame with (3) 12mm Hex Bolts, (6) 12mm Flat Washers, (3) 12mm Lock Washers and (3) 12mm Hex Nuts, **(Figures 10 & 11)**. Leave hardware loose. Repeat to attach the Spacer Plate to the top of the passenger side.
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 before Bumper Assembly is attached to the Winch Tray. **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, **(Figures 12 & 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.
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 14)**.
 - b. Follow the light manufacturer's instructions to attach each light to slot in the top of the light opening, **(Figure 14)**. **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 15)**. Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the plastic plugs, **(Figure 15)**.
11. With assistance, carefully position the Bumper Assembly up to the ends of the Winch Tray. 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. Models with winch and/or LED light, check for clearance before fully installing Bumper assembly.
12. Line up the (3) 12mm Studs in the driver side of the Bumper with the (3) holes in the Winch Tray. Attach the Bumper to the Winch Tray with the included (3) 12mm Flat Washers, (3) 12mm Lock Washers and (3) 12mm Hex Nuts, **(Figures 16 & 17)**. Do not fully tighten hardware at this time. Repeat to attach the passenger side of the Bumper to the Winch Tray.
13. Level and adjust the bumper and fully tighten all hardware.
14. Remove covers from top of Bumper for additional access if desired.
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 HD1 Front Bumper assembly.

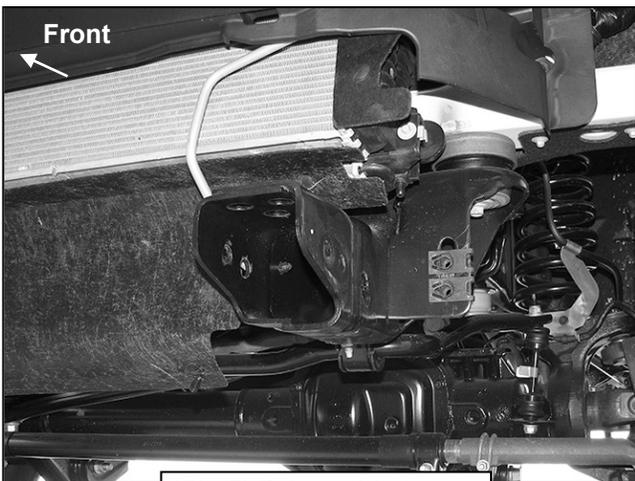
Driver Side Installation Pictured



(Fig 1) Driver side lower frame extension and fog light wire harness pictured from behind bumper

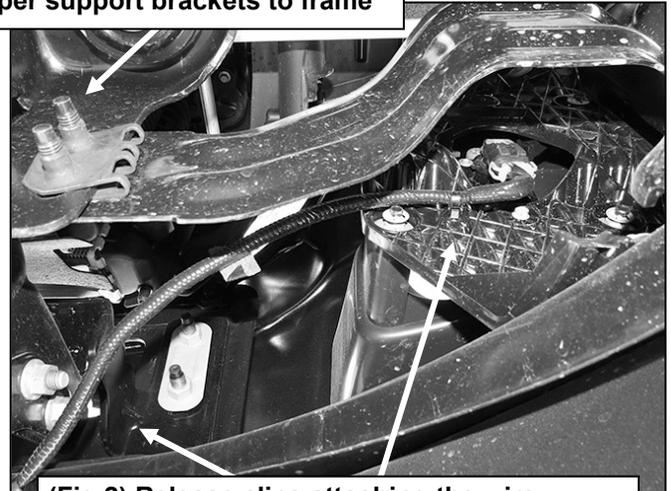


(Fig 3) Remove factory bumper bolts



(Fig 5) Driver side frame

Remove hardware attaching bumper support brackets to frame



(Fig 2) Release clips attaching the wire harness for fog lights if equipped. Passenger side pictured from behind bumper

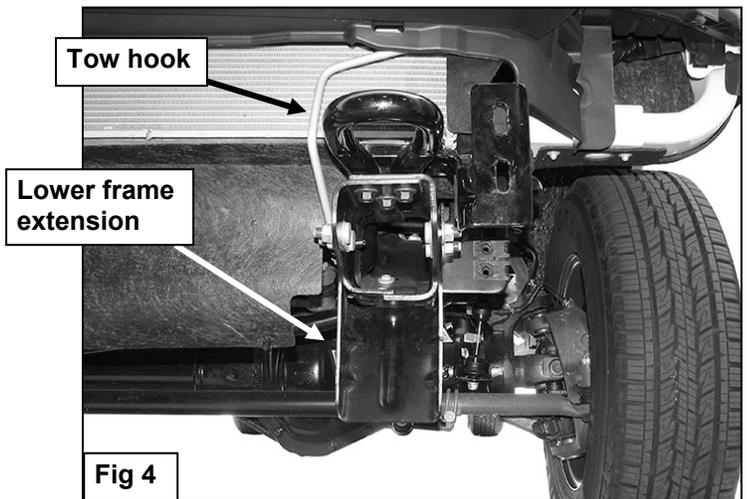
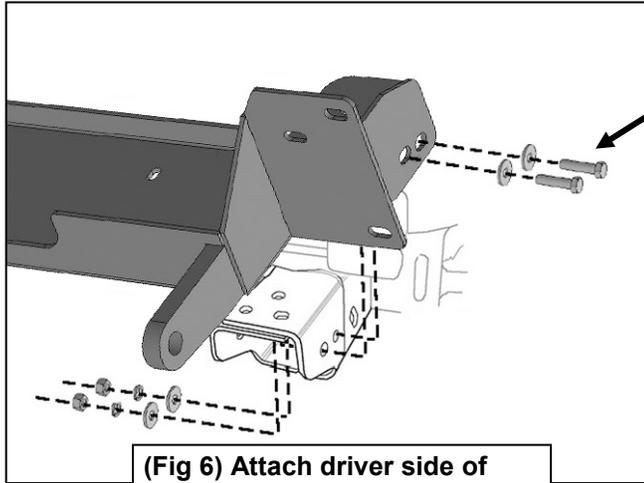


Fig 4

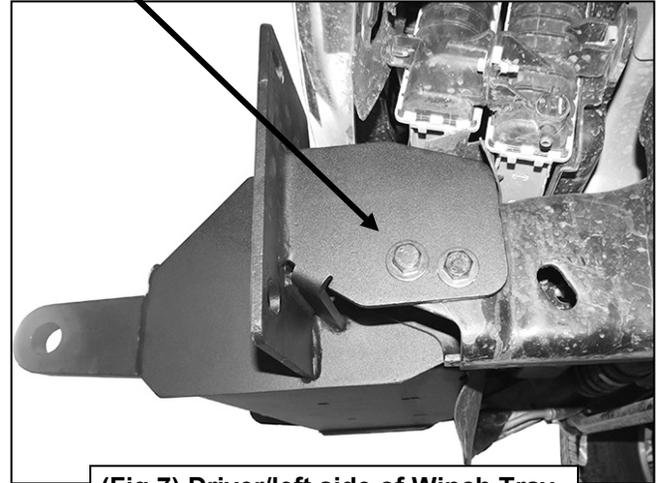
WARNING! Do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.

Driver Side Installation Pictured



(Fig 6) Attach driver side of Winch Tray assembly to frame

- (2) 12mm x 50mm Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Lock Washers
- (2) 12mm Hex Nuts

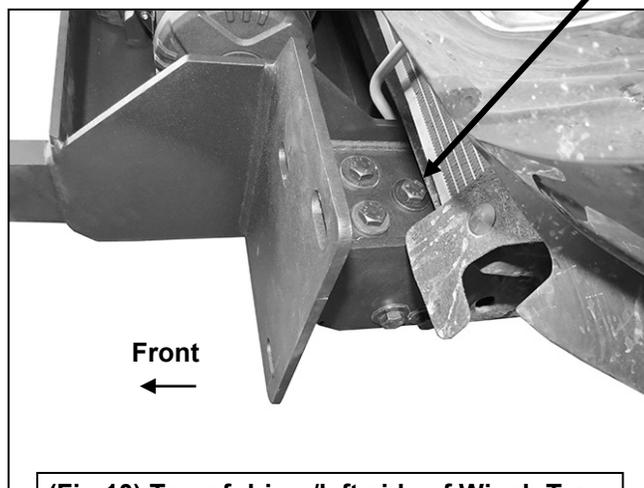


(Fig 7) Driver/left side of Winch Tray



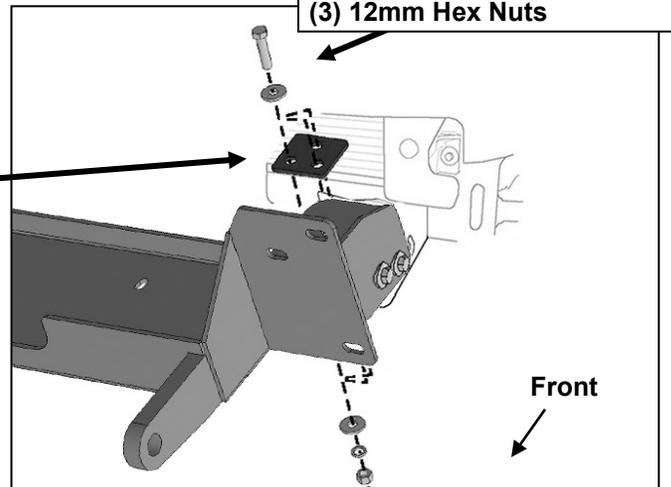
(Fig 8) 3-hole Spacer

3-hole Spacer



(Fig 10) Top of driver/left side of Winch Tray

- (3) 12mm x 50mm Hex Bolts
- (6) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts



(Fig 9) Attach 3-hole Spacer to top of Hitch Tray

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

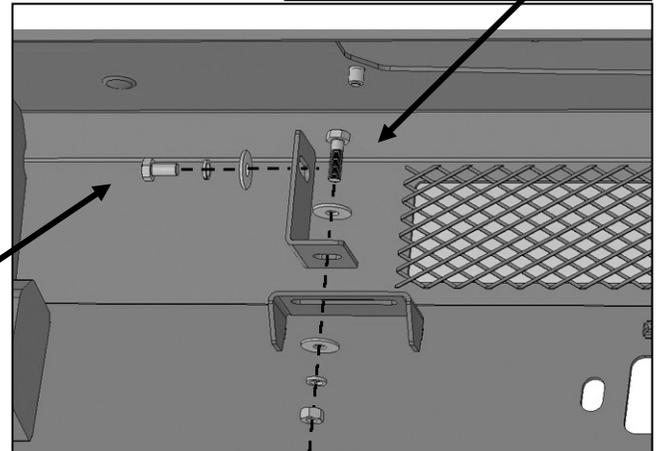
Driver Side Installation Pictured



Front

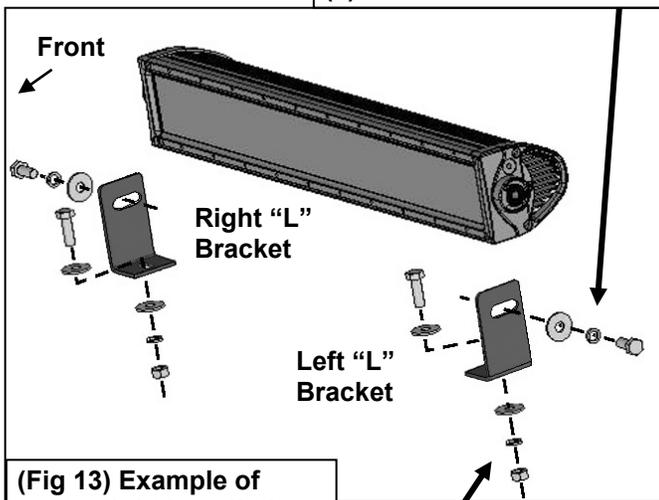
(Fig 11) Winch tray and Bracket assembly

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



(Fig 12) Universal LED Brackets (light not included)

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



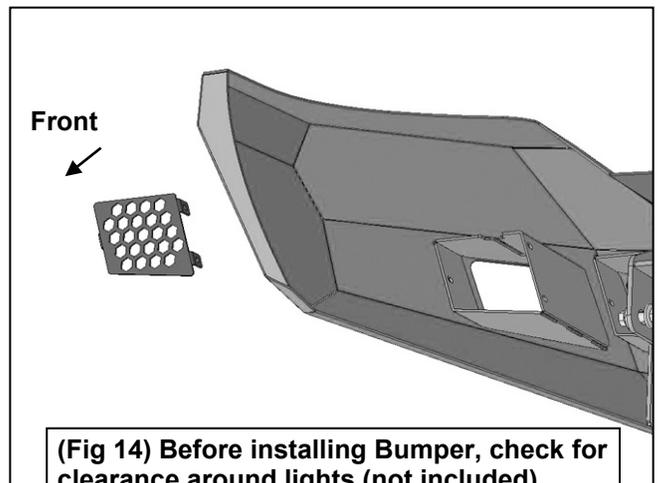
Front

Right "L"
Bracket

Left "L"
Bracket

(Fig 13) Example of
center light installation

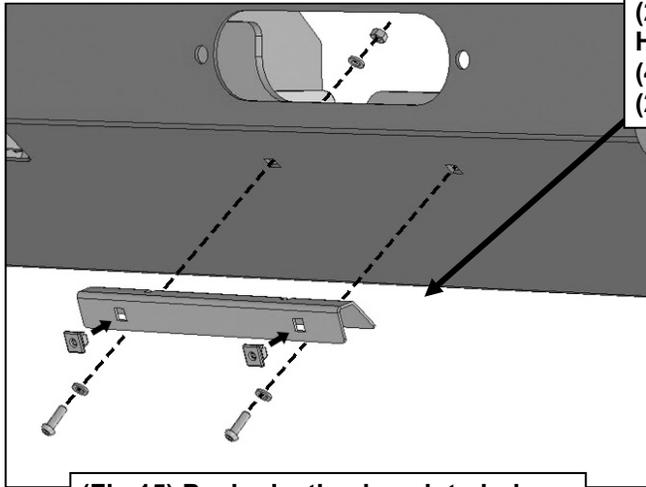
- (2) 8mm x 25mm Hex Bolts
- (4) 8mm Flat Washers
- (2) 8mm Lock Washers
- (2) 8mm Hex Nuts



Front

(Fig 14) Before installing Bumper, check for
clearance around lights (not included).
Remove screens for additional access or to
clear lights as needed

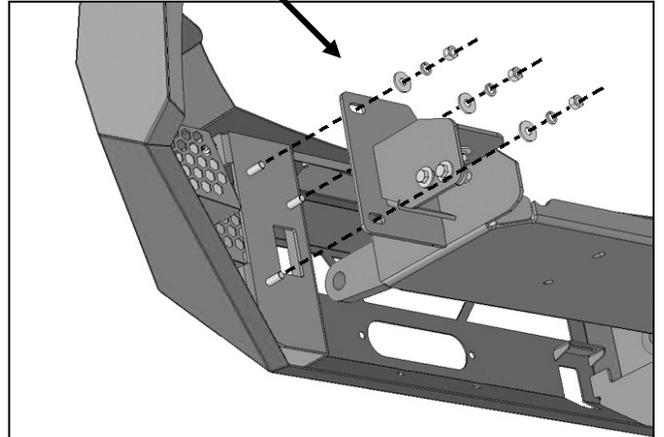
Driver Side Installation Pictured



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

(Fig 15) Push plastic plugs into holes in Bumper for license plate if required

- (3) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts



(Fig 16) Attach Bumper to Winch Tray Brackets

- (3) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts



(Fig 17) Driver/left side of Bumper and Bracket



Complete Installation