



**BLACK HORSE  
OFF ROAD®**

**TEL: 1-866-XANATOS**

## **INSTALLATION INSTRUCTIONS**

**ARMOUR BULL BAR**

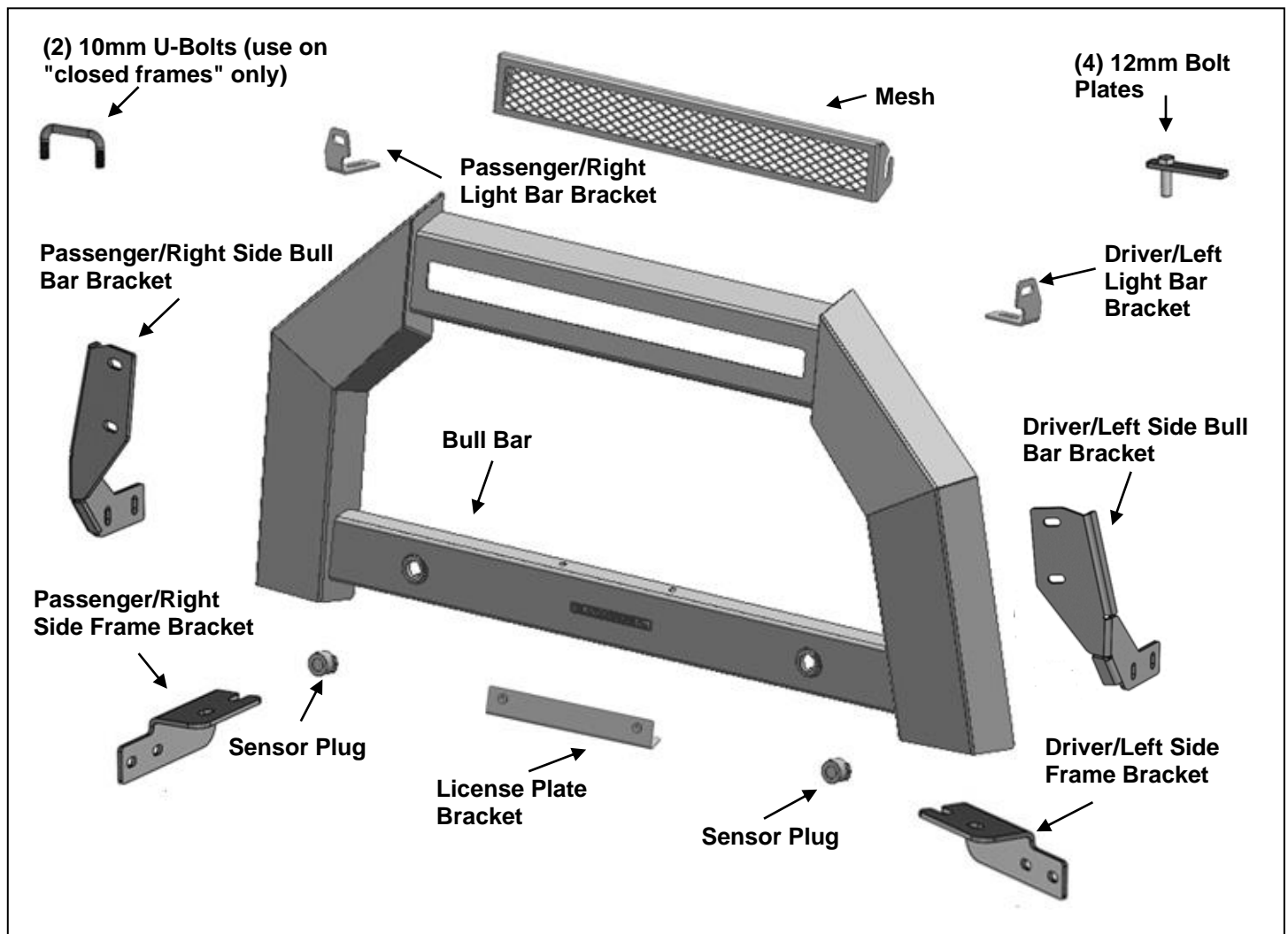
**FOR 04-24 FORD F150/2022-2024 F150 LIGHTNING**

**(Excl. Heritage edition, all F150 Raptor models, 2020-22 Diesel models)**

**PART#FO10/AB-FO10-NL**

## PARTS LIST:

|   |  |    |  |
|---|--|----|--|
| 1 | Bull Bar                                   | 16 | 10mm x 30mm x 2.5mm Flat Washers                     |
| 1 | Driver/Left Side Frame Bracket             | 12 | 10mm Lock Washers                                    |
| 1 | Passenger/Right Side Frame Bracket         | 8  | 10-1.5mm Hex Nuts                                    |
| 1 | Driver/Left Side Bull Bar Bracket          | 2  | 8mm Nylon Lock Nuts                                  |
| 1 | Passenger/Right Side Bull Bar Bracket      | 2  | 8-1.25mm x 20mm Hex Bolts                            |
| 1 | Driver/Left Side Light Bar Bracket         | 2  | 8-1.25mm x 16mm Hex Bolts                            |
| 1 | Passenger/Right Side Light Bar Bracket     | 8  | 8mm x 24mm x 2mm Flat Washers                        |
| 1 | Mesh                                       | 4  | 8mm Lock Washers                                     |
| 1 | License Plate Bracket                      | 2  | 8mm Hex Nuts   |
| 2 | Rubber Sensor Plugs                        | 2  | 6-1.0mm x 20mm Combo Bolts                           |
| 4 | 12mm x 40mm Bolt Plates                    | 2  | 6-1.0mm x 20mm Button Head Bolts                     |
| 4 | 12mm Plastic Retainers                     | 4  | 6mm x 18mm x 1.6mm Flat Washers                      |
| 4 | 12mm x 32mm x 3mm Flat Washers             | 2  | 6mm Lock Washers                                     |
| 4 | 12mm Lock Washers                          | 2  | 6mm Hex Nuts   |
| 4 | 12-1.75mm Hex Nuts                         | 4  | 4mm x 10mm Button Head Bolts<br>(Backup Accessories) |
| 2 | 10mm U-Bolts (use on "closed frames" Only) | 1  | Wrench S=4 (Backup Accessories)                      |
| 4 | 10-1.5mm x 35mm Hex Bolts                  | 1  | Wrench S=2.5   |
| 4 | 10-1.5mm x 25mm Hex Bolts                  |    |  |



**PROCEDURE:**

1. **REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. CUTTING MAY BE REQUIRED. ASSISTANCE IS RECOMMENDED.**

2. Determine if the vehicle is equipped with tow hooks, **(Figure 1)**.

**Vehicles with Factory Tow Hooks**

- a. Remove each tow hook by removing the front bolt and only loosening the rear bolt, **(Figure 2)**. Slide the tow hook off. Keep the factory double nut plate in the frame and aligned with the holes. **NOTE:** Tow hooks cannot be reinstalled.
- b. Select the driver side Frame Bracket. Position the Bracket up to the bottom of the frame. Reuse the tow hook hardware to attach the Bracket to the bottom of the frame and factory double nut plate, **(Figure 3)**.
- c. Repeat to install the passenger side Frame Bracket.
- d. Skip to **Step 3**.

**All vehicles without Tow Hooks**

Remove the lower plastic portion of the bumper to gain access to the ends of the frame rails, **(Figure 4)**. The lower bumper or splash guard will need to be cut out to allow the Mounting Brackets and end of Bull Bar to pass through, **(see Step 7)**. On some models, access to the mounting hardware is limited. For 15-on model years with fog lights, bumper may need to be removed to remove splash guard. For access, first remove the plastic bumper pad from each side of the opening in the center of the bumper, **(Figure 5)**. Remove splash guard and temporarily reinstall bumper.

**Vehicles without Tow Hooks and open end of frame**

- a. Starting on the driver side of the vehicle, insert (1) 12mm Bolt Plate through the opening in the end of the frame and down through the rear hole in the bottom of the frame, **(Figure 6A)**. Thread (1) 12mm Flat Washer, (1) 12mm Lock Washer and (1) 12mm Hex Nut onto the end of the Bolt Plate.
- b. Slide the slotted end of the driver side Bracket under the nut and washers. Insert the second 12mm Bolt Plate through the remaining hole toward the front of the Frame Bracket. Secure the Bracket to the forward Bolt Plate with (1) 12mm Flat Washer, (1) 12mm Lock Washer and (1) 12mm Hex Nut, **(Figure 6B)**.
- c. Snug but do not tighten the hardware at this time.
- d. Repeat to install the passenger side frame Bracket.

**Vehicles without Tow Hooks, closed end of frame**

- a. Starting on the driver side of the vehicle, locate the two holes on the bottom of the frame. Insert (1) 10mm U-Bolt into one hole and out the other, **(Figures 7A & 7B)**.
- b. Hold the driver side Bracket up in position with the slotted end toward the rear. Secure the Bracket to the U-Bolt with (2) 10mm x 30mm Flat Washers, (2) 10mm Lock Washers, and (2) 10mm Hex Nuts **(Figure 8)**.
- c. Slowly tighten hardware evenly but do not fully tighten at this time.
- d. Repeat to install the passenger side frame Bracket.

3. Select the driver side Bull Bar Bracket. Position the Bull Bar Bracket on the outside of the Frame Bracket. Use the included (2) 10mm x 35mm Hex Bolts, (4) 10mm x 30mm Flat Washers, (2) 10mm Lock Washers, and (2) 10mm Hex Nuts to attach the Bull Bar Bracket to the Frame Bracket, **(Figure 9)**. Repeat this Step to attach the passenger side Bull Bar Bracket to the Frame Bracket.
4. Relocation of front license plate is not required, but strongly recommended.
  - a. Attach the License Plate Bracket to the Bull Bar with (2) 6mm Button Head Bolts, (4) 6mm Flat Washers, (2) 6mm Lock Washers and (2) 6mm Hex Nuts, **(Figure 10)**. Use (2) 6mm Combination Bolts to attach the front license plate to the Bracket, **(Figure 10)**.
5. **Mesh and LED Light installation, (LED light sold separately).** Select the driver/left side Light Bar Bracket. Attach the Bracket to the back of the mounting plate on the Bull Bar with (1) 8mm x 20mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, **(Figure 11)**. Repeat this step to attach the passenger/right side Light Bar Bracket to the back of the Bull Bar. Do not tighten hardware.

### LED Light Installation

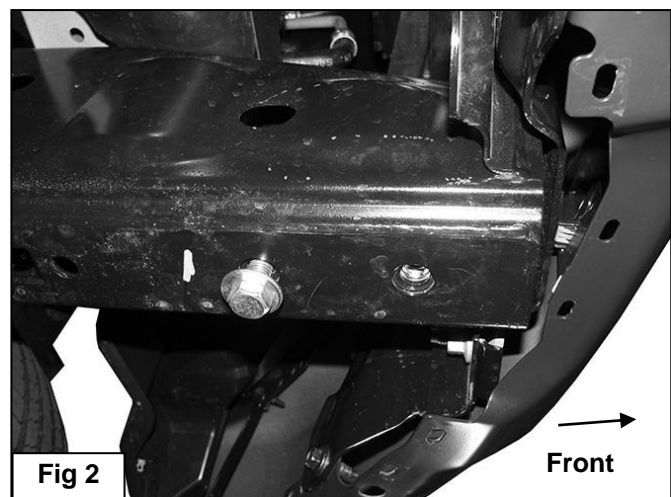
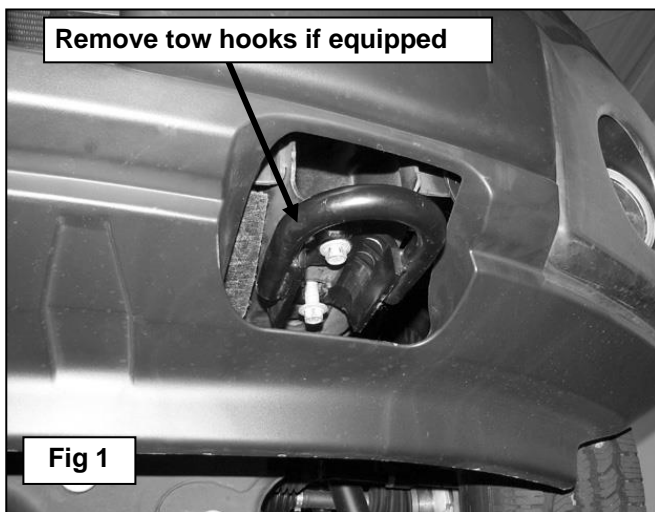
- a. Use (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers to attach the Light Bar Brackets to the Bull Bar, **(Figure 12)**.
- b. Follow the light manufacturer's instructions to attach the Bull Bar.
- c. Follow light manufacturer's instructions to properly wire the Bull Bar.

### Mesh installation

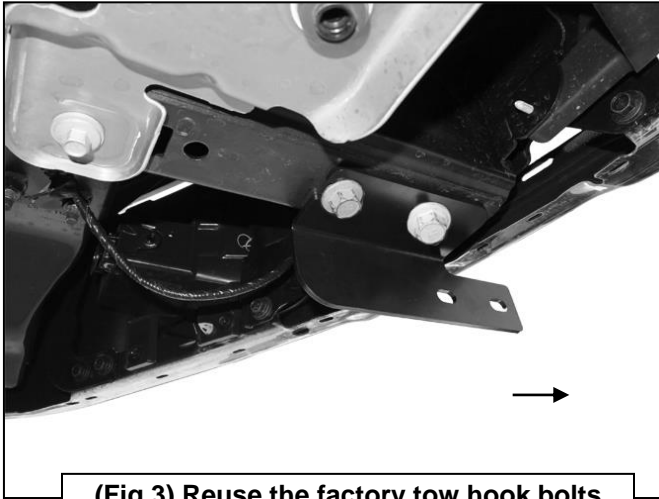
- a. Use (2) 8mm x 16mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts to attach the Mesh to the inside surface of the Light Bar Brackets, **(Figure 13)**.
  - b. Level and adjust the Brackets to the Mesh Panel and fully tighten hardware.
6. With assistance, hold up the assembled Bull Bar to the Bull Bar Brackets. Align the (2) bottom holes on the Uprights with the Brackets. Bolt the assembled Bull Bar to the Brackets with (4) 10mm x 25mm Hex Bolts, (4) 10mm Lock Washers and (4) 10mm x 30mm Flat Washers, **(Figures 14 & 15)**.
7. Level and adjust the Bull Bar properly and tighten all hardware.
- Models without openings in lower bumper or splash guard for tow hooks.** Hold the splash guard up to the bottom of the bumper and bull bar brackets. Trace the location of both Brackets onto the back of the cover. Temporarily remove the Bull Bar with Mounting Brackets only. Cut openings in the cover to clear the Frame Brackets and end of Bull Bar Brackets as necessary, **(Figure 16)**. For best results, start with a small slot and slowly enlarge the opening to clear the Brackets. Once cover is properly fit to the Brackets, remove bumper, reattach the splash guard to the bumper. Reinstall the bumper assembly and Bull Bar assembly as previously described.
8. Select the (2) Sensor Plugs. Push the sensor plugs into the sensor sleeves behind the Bull Bar, **(Figure 17)**.
9. 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 Bull Bar.

### Driver Side Installation Pictured



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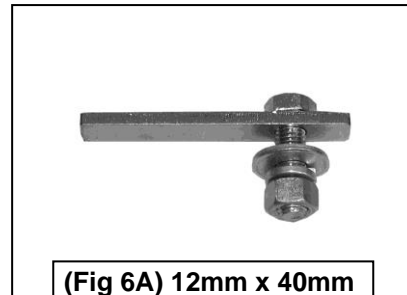
(Fig 3) Reuse the factory tow hook bolts



(Fig 4) Models without tow hooks, temporarily remove the plastic splash guard and spoiler if equipped



(Fig 5) Remove bumper pads to access splash guard hardware if necessary. 2017 F150 pictured



(Fig 6A) 12mm x 40mm Bolt Plates



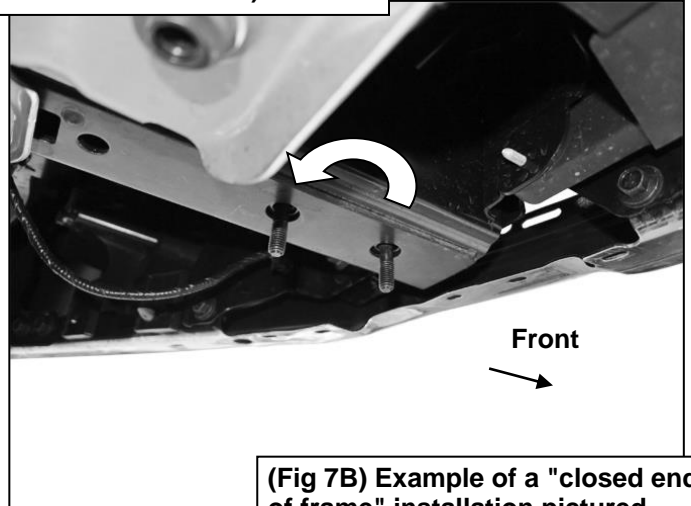
Insert Bolt Plates through open end of frame

Fig 6B

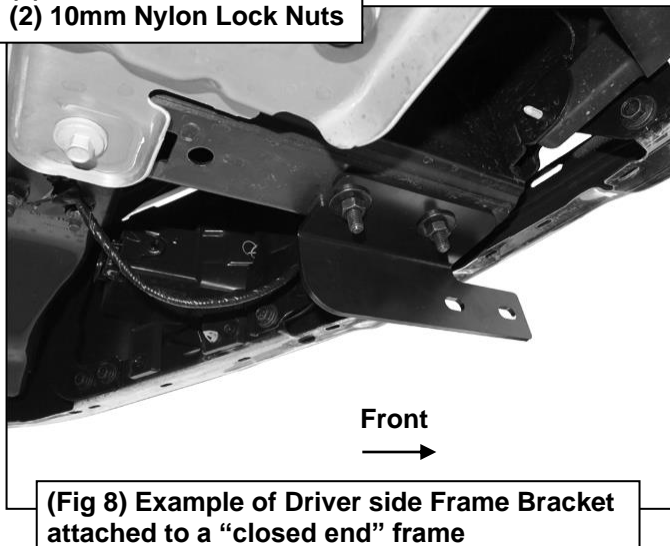
## Driver Side Installation Pictured



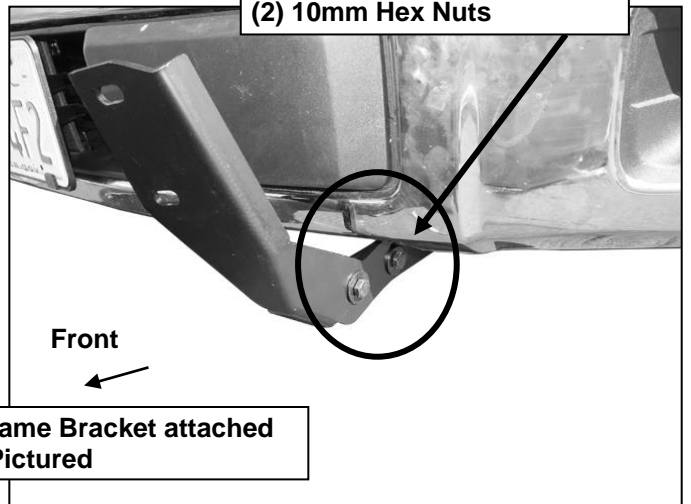
Insert 10mm U-Bolt into one hole and out the other. (U-Bolt is only used on vehicles with "closed end frames")



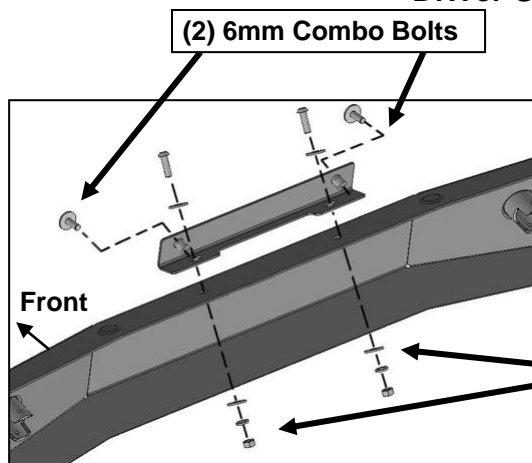
- (1) 10mm U-Bolt
- (2) 10mm Flat Washers
- (2) 10mm Nylon Lock Nuts



- (2) 10mm x 35mm Hex Bolts
- (4) 10mm Flat Washers
- (2) 10mm Lock Washers
- (2) 10mm Hex Nuts



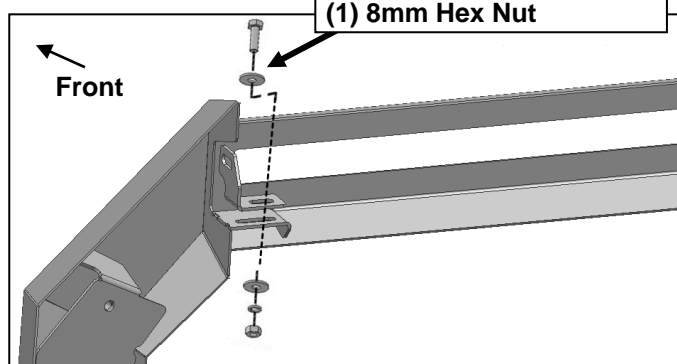
## Driver Side Installation Pictured



(Fig 10) License Plate Bracket attached to the Bull Bar

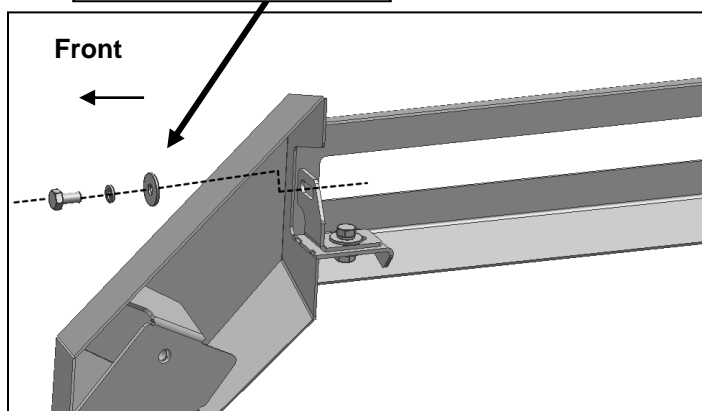
- (2) 6mm Button Head Bolts
- (4) 6mm Flat Washers
- (2) 6mm Lock Washers
- (2) 6mm Hex Nuts

- (1) 8mm x 20mm Hex Bolt
- (2) 8mm Flat Washers
- (1) 8mm Lock Washer
- (1) 8mm Hex Nut



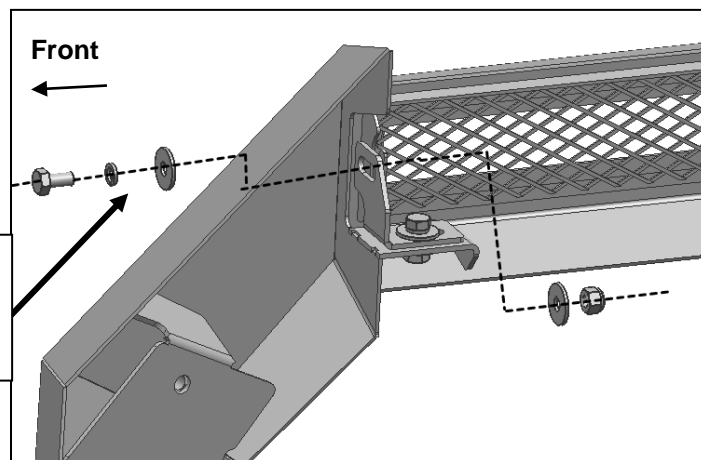
(Fig 11) Driver side light bar Bracket attached to the Bull Bar

- 8mm x 16mm Hex Bolt
- 8mm Lock Washer
- 8mm Flat Washer



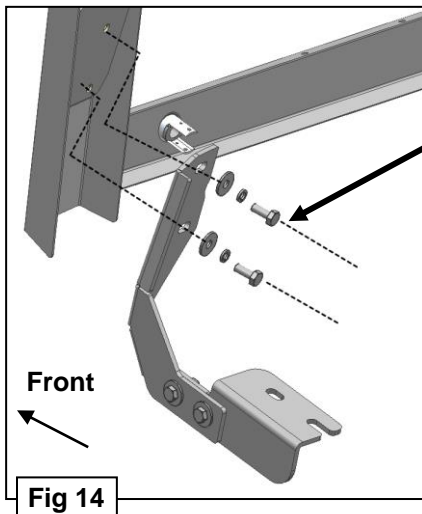
(Fig 12) Driver side light bar Bracket attached to the Bull Bar hardware

- (1) 8mm x 16mm Hex Bolt
- (2) 8mm Flat Washers
- (1) 8mm Lock Washer
- (1) 8mm Hex Nut

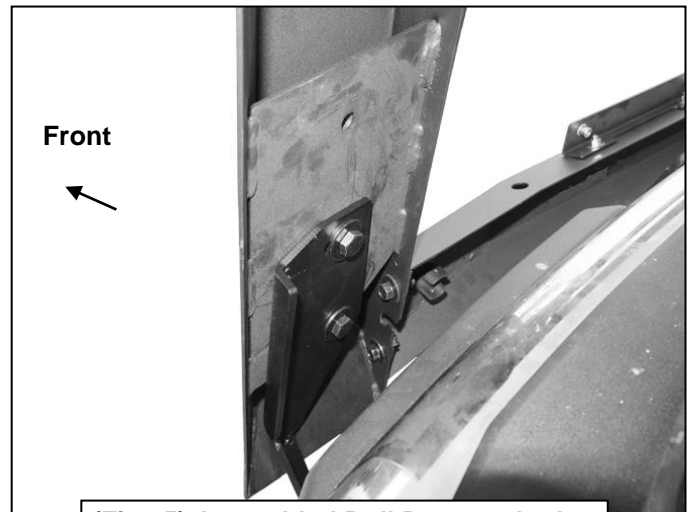


(Fig 13) Driver side light bar Bracket attached to Mesh hardware

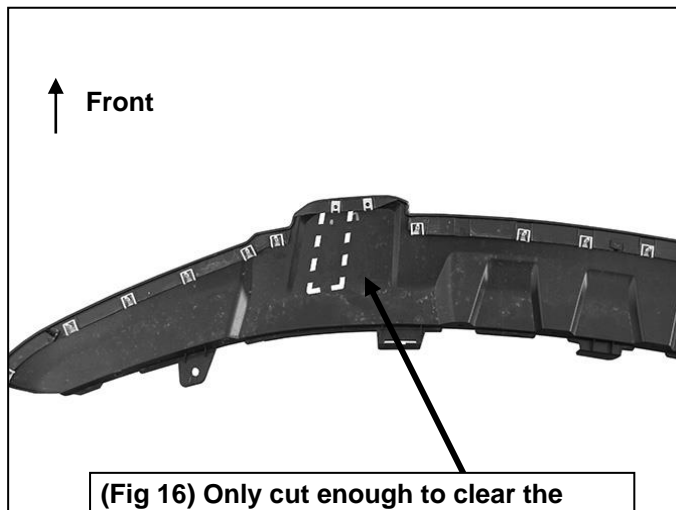
## Driver Side Installation Pictured



- (2) 10mm x 25mm Hex Bolts
- (2) 10mm Lock Washers
- (2) 10mm x 30mm Flat Washers

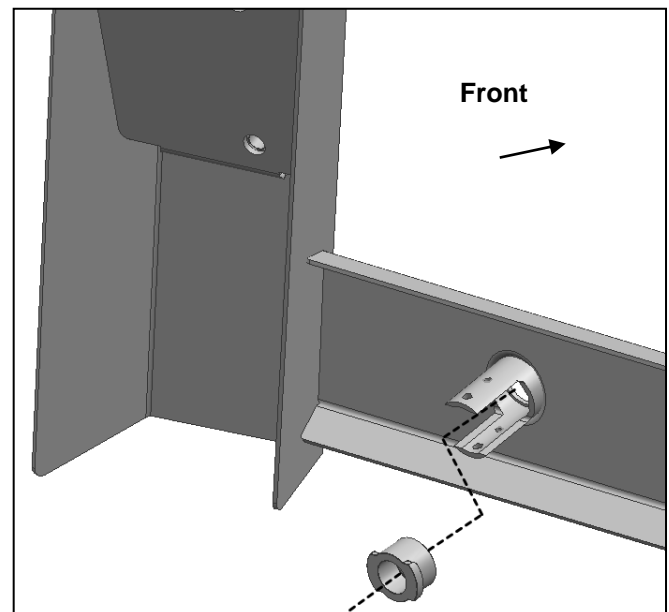


(Fig 15) Assembled Bull Bar attached to Driver side Bull Bar Bracket



(Fig 16) Only cut enough to clear the Brackets, do not cut through the front or rear edges of the cover.

Hold the splash guard up to the bottom of the Brackets. Trace the location of the Brackets onto the inside of the splash guard. Use a sharp knife or hacksaw blade to cut out the plastic cover. Only cut enough to clear the Brackets, do not cut through the front or rear edges of the cover.



(Fig 17) Attach Sensor Plug into Sensor Sleeve