



**BLACK HORSE  
OFF ROAD®**

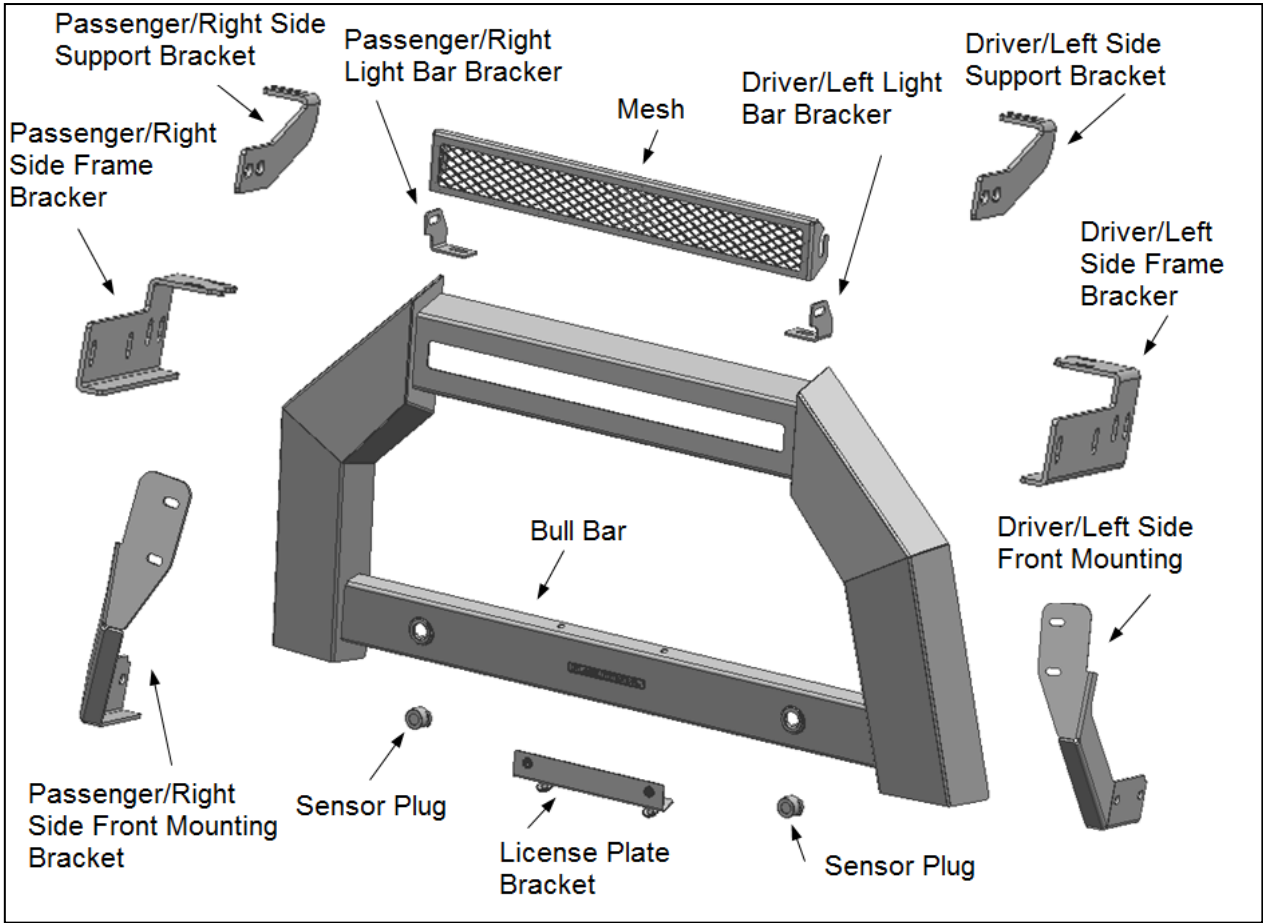
**TEL: 1-866-XANATOS**

## **INSTALLATION INSTRUCTIONS**

**ARMOUR BULL BAR  
20-24 TOYOTA HIGHLANDER  
PART#TO54/AB-TO54-NL**

PARTS LIST:

1	Bull Bar	4	8-1.25mm x 25mm Hex Bolts
1	Driver/Left Side Frame Bracket	4	8mm x 24mm x 2mm Flat Washer
1	Passenger/Right Side Frame Bracket	4	8mm Lock Washer
1	Driver/Left Side Front Mounting Bracket	2	8-1.25mm x 16mm Hex Bolt
1	Passenger/Right Side Front Mounting Bracket	2	8mm Hex Nut
1	Driver/Left Side Support Bracket	2	8mm Nylon Lock Nut
1	Passenger/Right Side Support Bracket	8	8mm x 24mm x2mm Flat Washer
1	Driver/Left Side Light Bar Bracket	4	8mm Lock Washer
1	Passenger/Right Side Light Bar Bracket	2	8-1.25mm x 20mm Hex Bolts
1	Mesh	4	6mm x 18mm x 1.6mm Flat Washer
1	License Plate Bracket	2	6mm Lock Washer
2	Rubber Sensor Plug	2	6mm Hex Nut
8	12-1.75mm Nylon Lock Nut	2	6-1.0mm x 20mm Combo Bolt
8	12-1.75mm x 35mm Hex Bolts	2	6-1.0mm x 20mm Button Head Bolt
16	12mm x 32mm x 3mm Flat Washer	4	4-1.0mm x 10mm Button Head Bolt
4	10-1.5mm x 25mm Hex Bolts	1	Wrench S=4
4	10mm x 30mm x 2.5mm Flat Washer	1	Wrench S=2.5
4	10mm Lock Washer		



**PROCEDURE:**

**REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. INSTALLATION MAY INTERFERE WITH FRONT MOUNTED SENSORS.**

1. Start installation at the driver front side of the vehicle. Remove the tow hook, **(Figures 1 & 2)**.
2. Select the driver side Frame Bracket, **(Figures 3 & 4)**. Check the fit between the tow hook and the Bracket for reinstallation over the Bracket. **NOTE:** Some factory tow hooks may not clear the Bracket and cannot be reinstalled. Check for fit before bolting tow hook and Bracket in place.
3. Attach the Bracket to the underside of the frame channel reusing the factory tow hook bolts, either with or without the tow hook, **(Figures 3 & 4)**. Do not fully tighten hardware at this time.
4. Select (1) Passenger/Right Side Front Mounting Bracket, **(Figure 4)**. Position the Front Mounting Bracket on the outside of the Frame Bracket. Attach the Front Mounting Bracket to the Frame Bracket with the included (2) 12-1.75mm x 35mm Hex Bolts, (4) 12mm x 32mm x 3mm Flat Washer and (2) 12-1.75mm Nylon Lock Nut, **(Figures 3& 4)**. Do not fully tighten hardware at this time.
5. 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 5)**. Use (2) 6mm Combination Bolts to attach the front license plate to the Bracket, **(Figure 5)**.
6. **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 6)**. 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 7)**.
- b. Follow the light manufacturer's instructions to attach the Bull Bar.
- c. Follow light manufacturer's instructions to properly wire the Bull Bar.

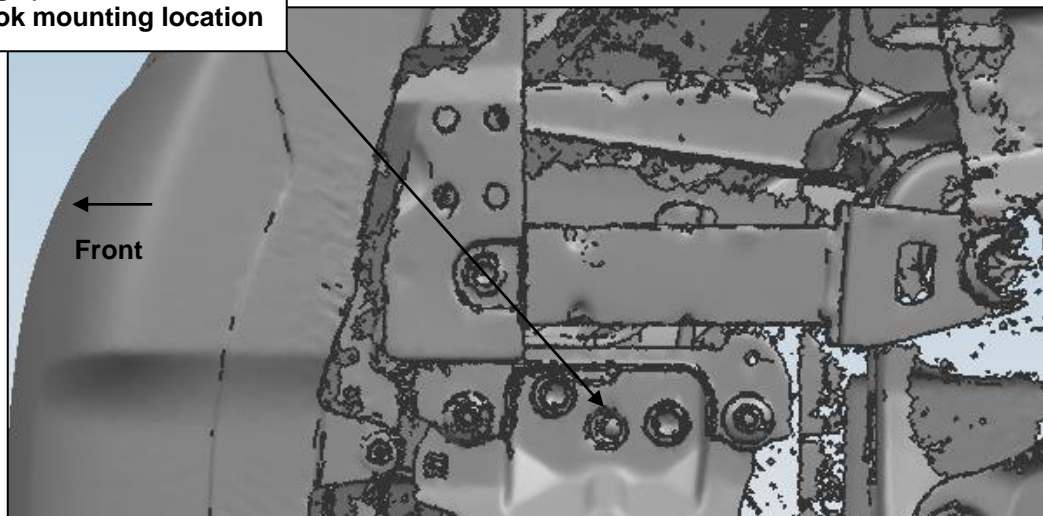
**Mesh installation**

- 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 8)**.
- b. Level and adjust the Brackets to the Mesh Panel and fully tighten hardware.
7. 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 9 & 10)**.
8. Level and adjust the Bull Bar properly and tighten all hardware.
9. Select the (2) Sensor Plugs. Push the sensor plugs into the sensor sleeves behind the Bull Bar, **(Figure 11)**.
10. Level and adjust the Bull Bar properly and tighten all hardware. Reinstall the tow hook if removed.
11. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

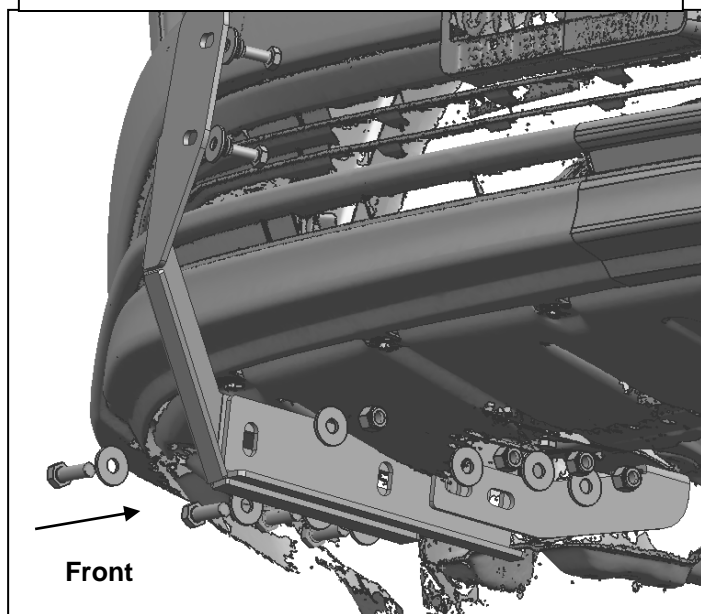
**To protect your investment**, wax this product after installing. Regular waxing is recommended to add a protective layer over the finish. Do not use any type of polish or wax that may contain abrasives that could damage the finish. Mild soap may be used to clean the Bull Bar.

**Driver/Left Side Installation Pictured**

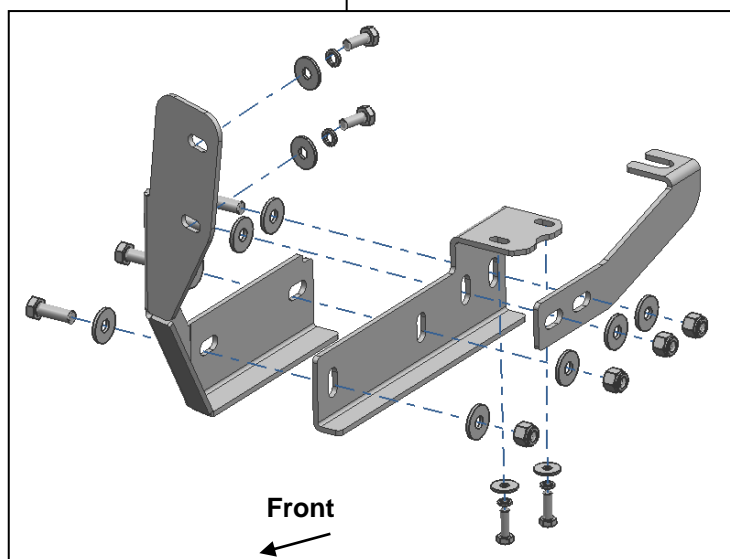
**(Fig 1) Driver side tow  
hook mounting location**



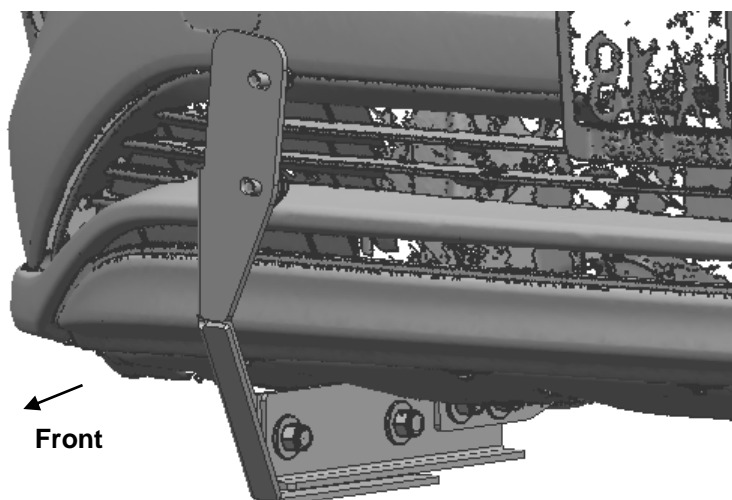
**(Fig 2) Reuse factory tow hook hex bolts**



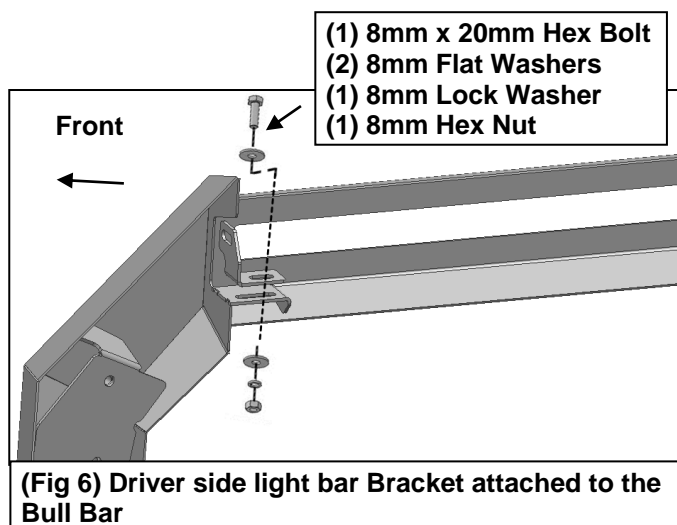
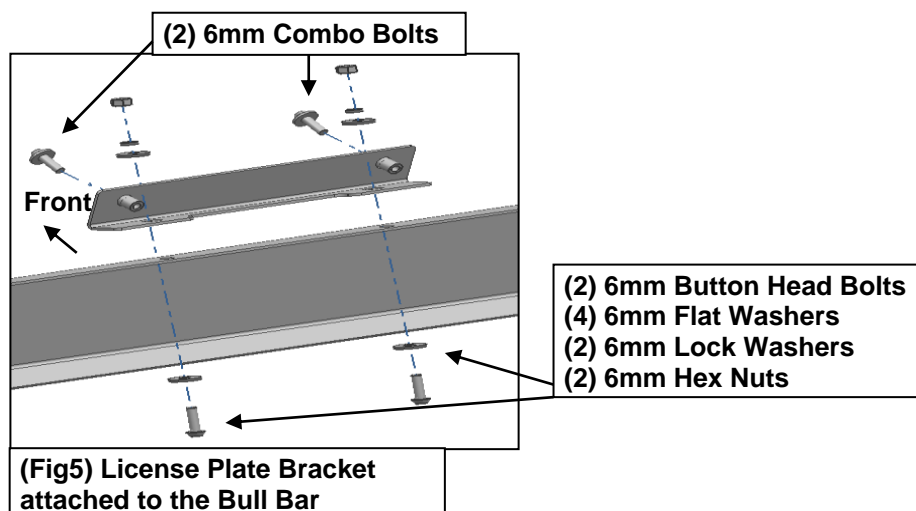
- (2) 12mm x 30mm Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Nylon Lock Nuts



**Fig 3**

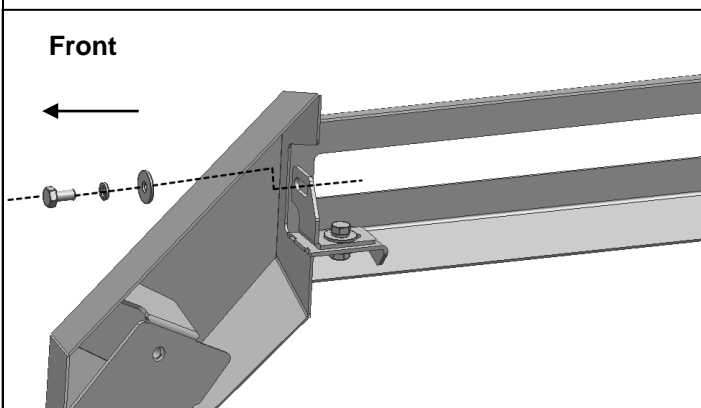


(Fig 4) Attach driver/left Bull Bar to Frame Bracket



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

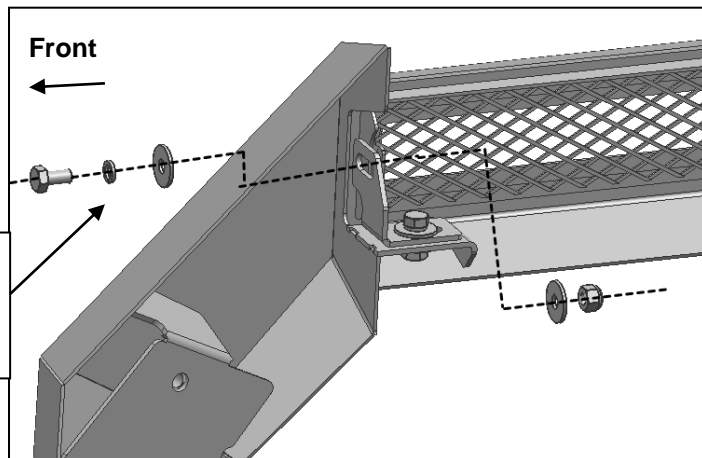
Front



(Fig 7) 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

Front



(Fig 8) Driver side light bar Bracket attached to Mesh hardware

### Passenger Side Installation Pictured

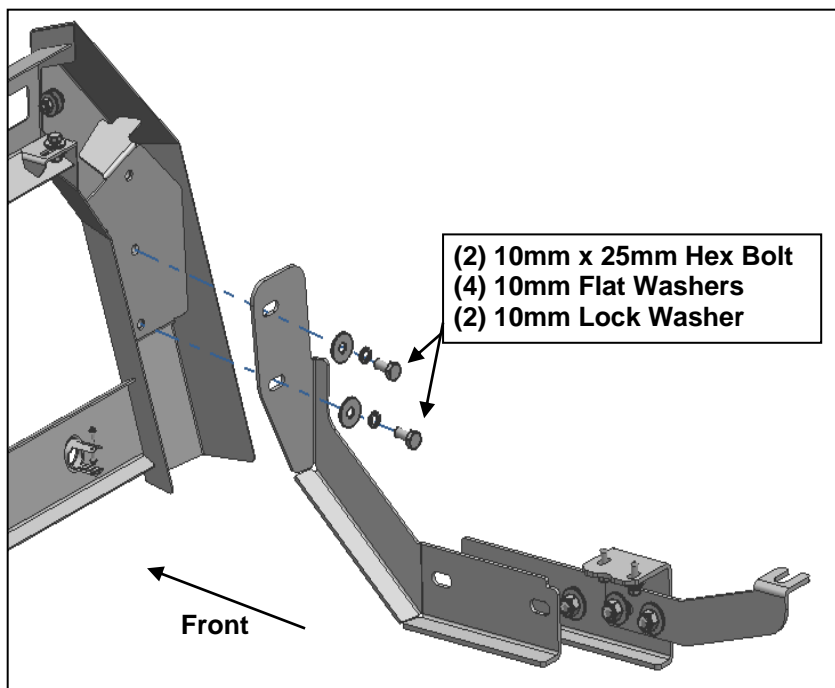
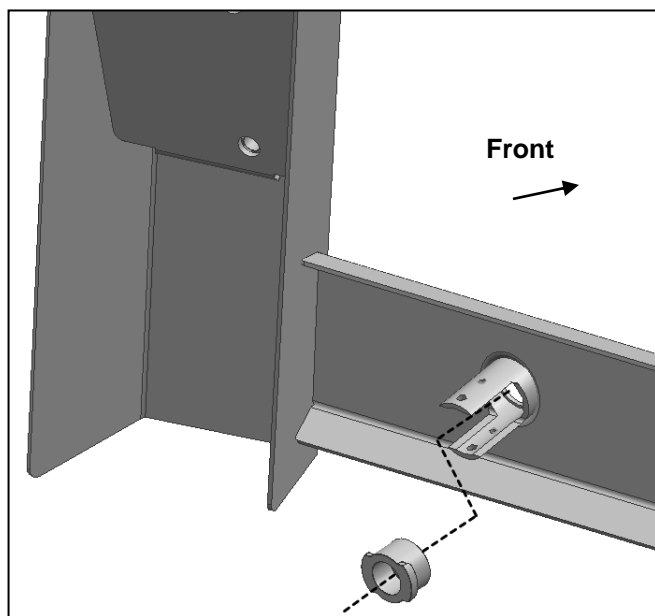


Fig 9



**(Fig 10) Passenger/Right Side complete installation**



**(Fig 11) Attach Sensor Plug into Sensor Sleeve**