



INSTALLATION INSTRUCTIONS

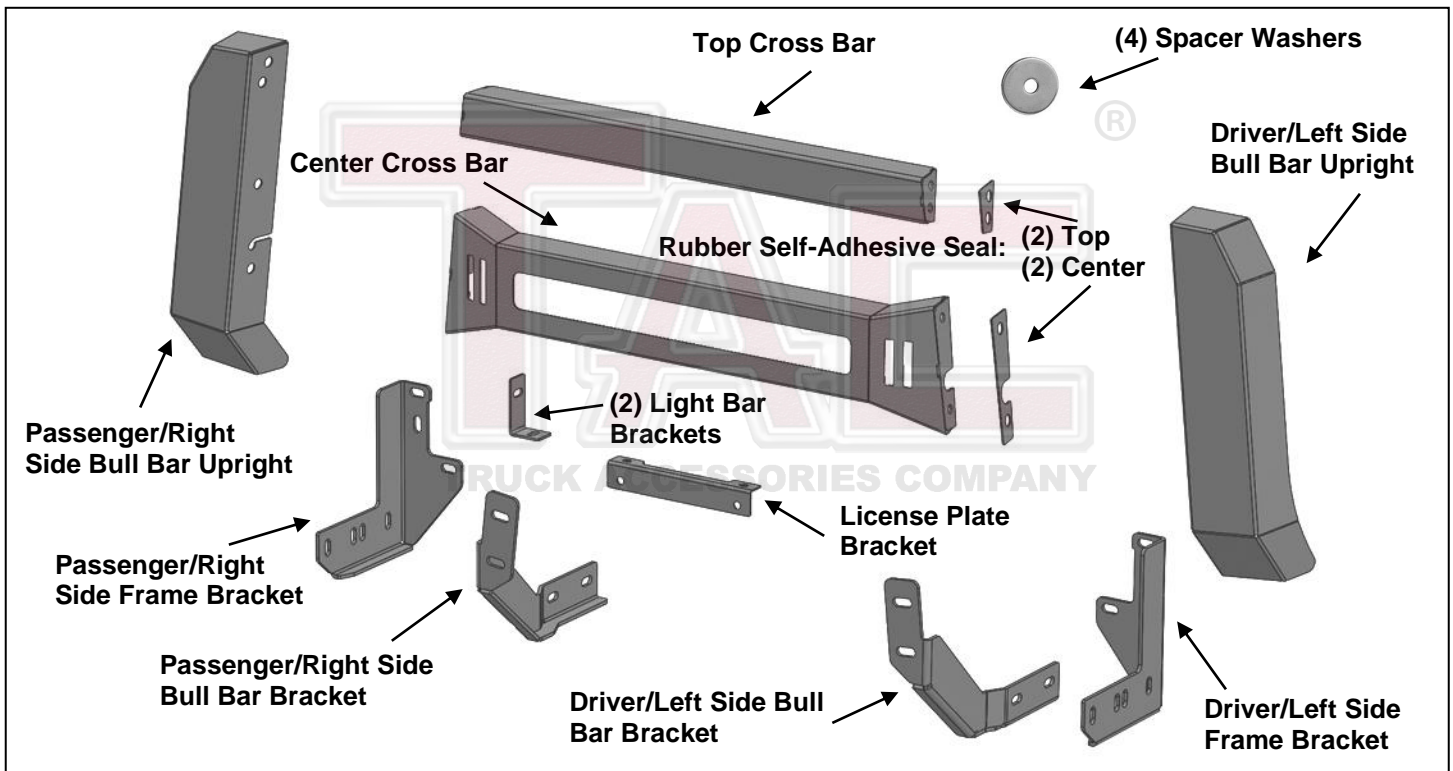
MESH EC1 MODULAR BULL BAR

2016-2023 TOYOTA TACOMA

PART# EC1-T102TM

PARTS LIST:

1	Driver/Left Side Bull Bar Upright	4	10mm x 40mm x 2.5mm Flat Washer (Spacer)
1	Passenger/Right Side Bull Bar Upright	16	10mm x 30mm x 2.5 Flat Washers
1	Top Cross Bar	16	10mm x 20mm x 2mm Flat Washers
1	Center Cross Bar	18	10mm Lock Washers
1	Driver/Left Side Frame Bracket	14	10mm Hex Nuts
1	Passenger/Right Side Frame Bracket	4	8-1.25mm x 25mm Hex Bolts
1	Driver/Left Side Bull Bar Bracket	2	8-1.25mm x 16mm Hex Bolts
1	Passenger/Right Side Bull Bar Bracket	8	8mm x 24mm x 2mm Flat Washers
1	Mesh Fill Panel	4	8mm Lock Washers
1	License Plate Bracket	4	8mm Hex Nuts
2	Light Bar Brackets	2	6-1.0mm x 20mm Button Head Combo Bolts
2	Black Rubber Self-Adhesive Top Seal	2	6-1.0mm x 20mm Button Head Bolts
2	Black Rubber Self-Adhesive Center Seal	4	6mm x 18mm x 1.6mm Flat Washers
2	10-1.5mm x 120mm Hex Bolts	2	6mm Lock Washers
4	10-1.5mm x 30mm Hex Bolts	2	6mm Hex Nuts
12	10-1.5mm x 25mm Hex Bolts	1	4mm Allen Wrench



PROCEDURE:

- 1. REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. CUTTING MAY BE REQUIRED. NOTE:** It may be necessary to remove license plate and bracket. 2016 and up models remove the plastic air dam from the bottom of the bumper. **NOTE:** Air dam will require cutting or modification so reinstallation is optional, **(Figure 6)**.
- 2. Start installation at the front passenger/right side of the vehicle. Remove the (2) outer factory hex nuts attaching the bumper mount to the end of the frame, (Figure 1). NOTE:** It may be necessary to temporarily remove the factory tow hook from the passenger/right side.
- 3. Select the passenger/right Frame Bracket. Slide the Bracket over the (2) threaded studs. Secure the Bracket to the studs with the factory hex nuts, (Figures 2 & 5). Leave hardware loose.**

4. Insert (1) 10mm x 40mm Spacer Washer between the Frame Bracket and the frame cross member. Insert (1) 10mm x 120mm Hex Bolt with (1) 10mm x 30mm Flat Washer and (1) 10mm x 40mm Spacer Washer into and through the hole in the back of the cross member, **(Figure 4 & 5)**. Make sure the Spacer Washer is against the cross member covering the large hole, **(Figures 3 & 4)**. Push the long bolt through the cross member, outer Spacer Washer and Frame Bracket. Secure the Bracket to the Bolt with (1) 10mm x 30mm Large Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figures 3 & 5)**. Leave hardware loose at this time.
5. Repeat **Steps 2—4** to install the driver/left Frame Bracket. On **2016-up models** with plastic air dam, hold the air dam up in position against the bottom of the Brackets. Trace the location of the two brackets onto the back of the air dam, **(Figure 6)**. Use a sharp knife or hacksaw blade to carefully cut two slots to clear the Brackets. **IMPORTANT:** Do not cut through the top or bottom edge of the air dam. Do not cut off the mounting tabs from the top of the air dam. For best results, check all measurements before cutting, start with a small opening and slowly enlarge the slots until air dam clears Brackets. Reinstall the air dam but leave hardware loose at this time.
6. Select the passenger/right Bull Bar Bracket. Attach the Bull Bar Bracket to the inside of the Frame Bracket with the included (2) 10mm x 30mm Hex Bolts, (4) 10mm x 30mm Flat Washers, (2) 10mm Lock Washers and (2) 10mm Hex Nuts, **(Figures 7A, 7B & 8)**.
 - a. Model years **2005—2015**, use the back/inner mounting position with Bull Bar Bracket pushed in to attach Brackets, **(Figures 7A & 8)**,
 - b. Model years **2016-on**, use the forward/outer mounting position with Bull Bar Bracket pulled out to attach Brackets, **(Figures 7B & 8)**.
7. Repeat **Step 6** for driver/left side Bracket installation.
8. Select the passenger/right Bull Bar Upright and the Top Cross Bar. Insert the Rubber Self-Adhesive Top Seal between the Upright and Top Cross Bar. Attach the Cross Bar to the Upright with the included (2) 10mm x 25mm Hex Bolts, (4) 10mm x 20mm Flat Washers, (2) 10mm Lock Washers and (2) 10mm Hex Nuts, **(Figure 9)**. Do not fully tighten hardware.
9. Select the Center Cross Bar. Attach the longer Rubber Self-Adhesive Center Seal between the Upright and the Center Cross Bar. Repeat **Step 8** to attach the Center Cross Bar to the Upright, **(Figure 9)**. Do not fully tighten hardware.
10. Repeat **Steps 8 & 9** to attach the driver/left Upright to the Top Cross Bar and Center Cross Bar. Place assembled Bull Bar face down on a clean flat surface and fully tighten assembly hardware only.
11. Relocation of front license plate may be necessary.
 - a. Attach the License Plate Bracket to bottom of Center Cross Bar with (2) 6mm Button Head Bolts, (4) 6mm Flat Washers, (2) 6mm Lock Washers and (2) 6mm Hex Nuts, **(Figure 10)**.
 - b. Attach license plate to Bracket with (2) 6mm Button Head Combo Bolts, **(Figure 10)**.
12. LED light installation, (light not included).
 - a. Start at the driver/left side of the vehicle. Select (1) Light Bar Bracket. Attach the Bracket to the slot in the back of the Center Cross Bar with (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, **(Figure 11)**. **NOTE:** Check for clearance between the Hex Bolt and the bottom of the Light. If necessary, insert the Hex Bolts down through the Brackets then through slots in the Cross Bar. Leave hardware loose at this time.
 - b. Repeat the previous **Step** to attach the passenger/right Light Bracket.
 - c. If needed, use the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers to attach the LED light bar to the Brackets, **(Figure 11)**.
 - d. Follow light manufacturer's instructions to properly wire the light bar to the electrical system.
 - e. Proceed to **Step 14**.
13. Center Screen Fill Panel Installation, (cannot be installed with LED light).
 - a. Select (1) "L" Light Bar Bracket. Attach the Bracket to the outside of the tab on the Center Screen Fill Panel with (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, **(Figure 12)**. **NOTE:** Insert the Hex Bolt through the tab on the Panel and out through the Bracket. Repeat to attach the remaining Bracket to the other end of the Fill Panel. Leave hardware loose at this time.
 - b. Attach the Fill Panel with Brackets to the slots in the back of the Center Cross Bar with (2) 8mm x 25mm Hex Bolts, (4) 8mm 24mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex

Nuts, (Figure 12). **NOTE:** Insert the Hex Bolts up through the bottom of the Cross Bar and then through the Brackets.

c. Push the Fill Panel up tight against the inside of the opening and fully tighten hardware.

14. With assistance, hold the assembled Bull Bar up to the Bull Bar Brackets. Align the (4) holes located on the bottom of the Uprights with the (4) holes in the Bull Bar Brackets. Attach 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, (Figure 13 & 14). Do not tighten hardware at this time.

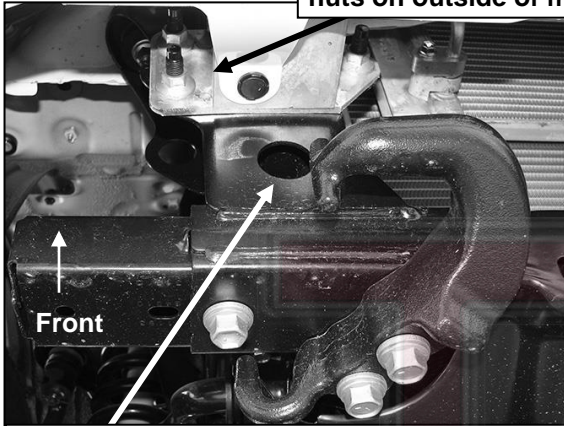
15. Level and adjust the Bull Bar properly and tighten all hardware. Reinstall the tow hook if removed.

16. 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 Bull Bar.

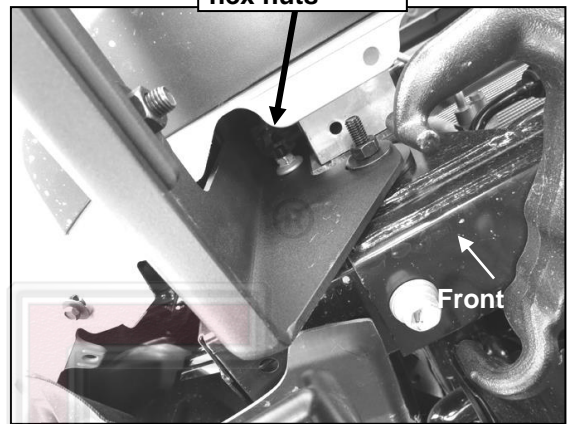
Passenger/right Side Installation Pictured

Remove (2) factory hex nuts on outside of frame



(Fig 1) Spacer Washer (figs 3 & 5) will cover this opening in the end of the frame

Reuse factory hex nuts

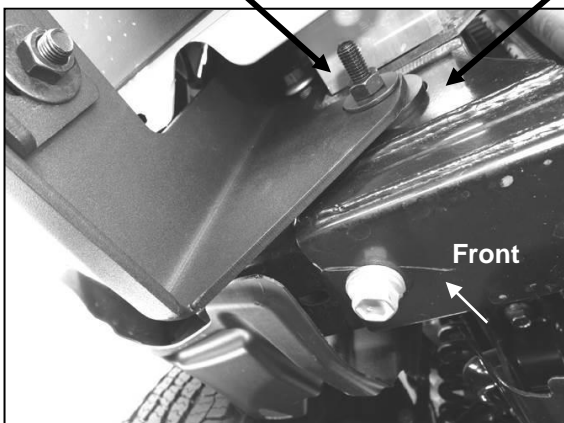


(Fig 2) Reuse the factory hex nuts to attach Bracket to bumper bracket

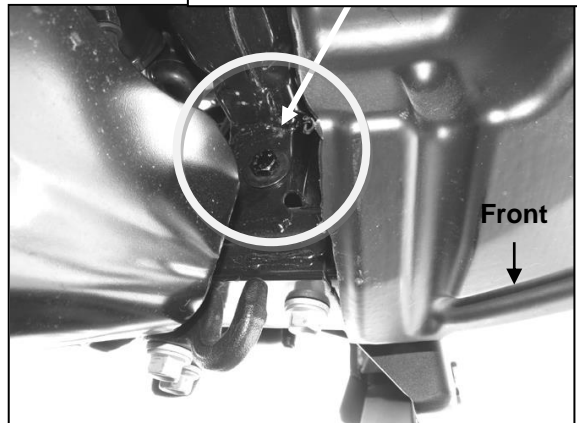
10mm x 30mm Flat Washer
10mm Lock Washer
10mm Hex Nut

Insert large Spacer Washer between Bracket and crossmember

10mm x 120mm Hex Bolt
10mm x 30mm Flat Washer
10mm x 40mm Spacer Washer



(Fig 3) Insert Spacer Washer between the Mounting Bracket and the frame before inserting long Hex Bolt through frame



(Fig 4) Passenger/right side pictured from behind bumper

Passenger/right Side Installation Pictured

10mm x 120mm Hex Bolt
10mm x 30mm Flat Washer

Reuse (2)
Factory Hex Nuts

10mm x 30mm Flat Washer
10mm Lock Washer
10mm Hex Nut

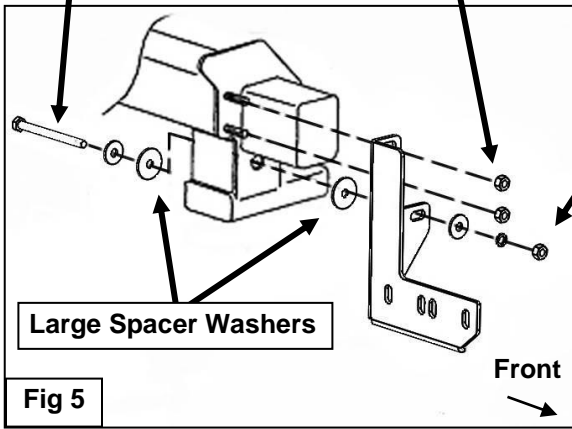
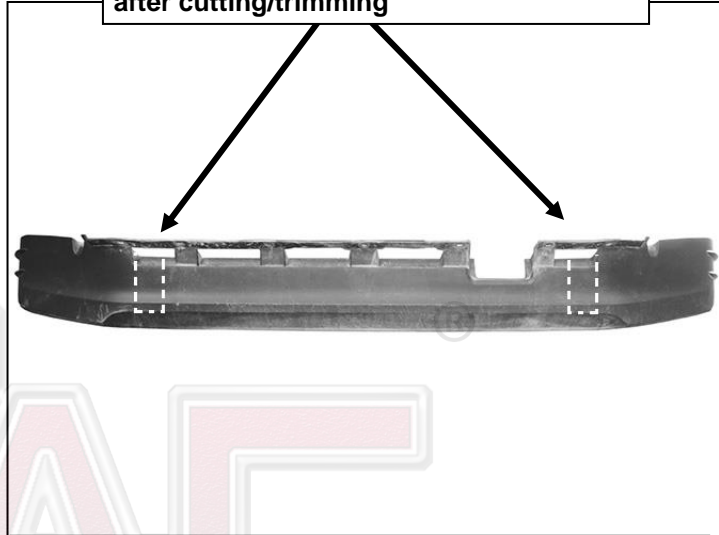


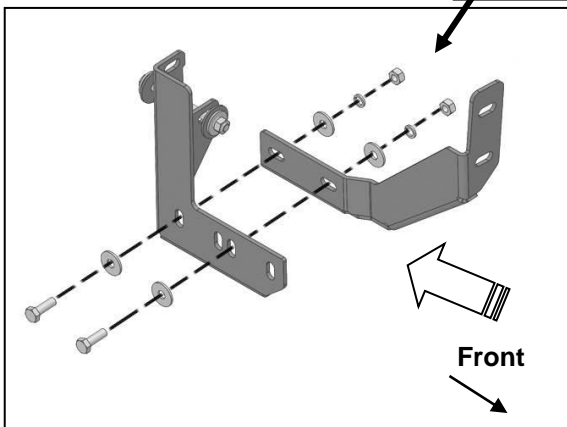
Fig 5

2016-on models only, cover cut area with removable tape. Hold air dam up in place against bottom of Frame Brackets to determine area to cut. Do not cut through top mounting flange on air dam. Reinstall after cutting/trimming

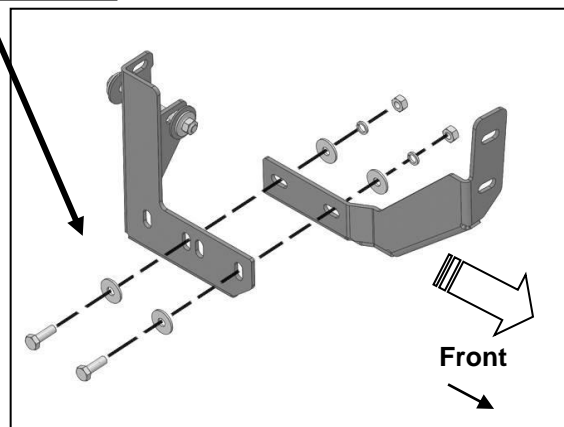


(Fig 6) Dashed lines represent approximate area to cut from air dam and are illustrated for example only

(2) 10mm x 30mm Hex Bolts
(4) 10mm x 30mm Flat Washers
(2) 10mm Lock Washer
(2) 10mm Hex Nut



(Fig 7A) Bull Bar Bracket to Frame Bracket for 2005-2015 Model Years



(Fig 7B) Bull Bar Bracket to Frame Bracket for 2016-on Model Years

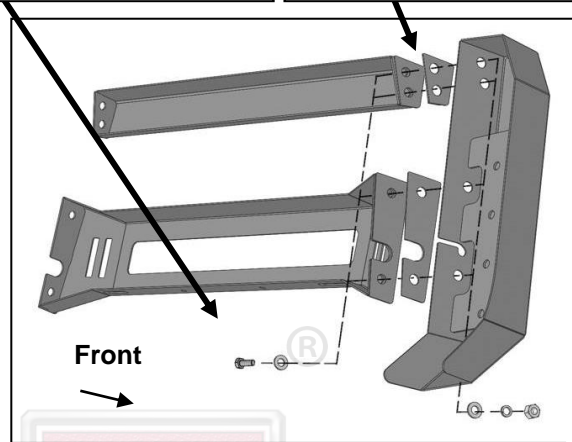
Passenger/right Side Installation Pictured



(Fig 8) Passenger/right Bull Bar Bracket attached to inside of Frame Bracket (pictured without air dam)

- (4) 10mm x 25mm Hex Bolts
- (8) 10mm x 20mm Flat Washers
- (4) 10mm Lock Washers
- (4) 10mm Hex Nuts

Insert Adhesive Backed Rubber Seals between Uprights and Top and Center Cross Bars



(Fig 9) Passenger Side Bull Bar Upright attached to Top and Center Cross Bars

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

- (2) 6mm Button Head Combo Bolts

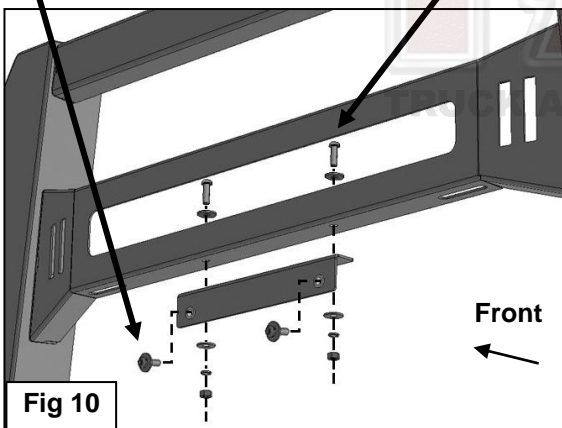
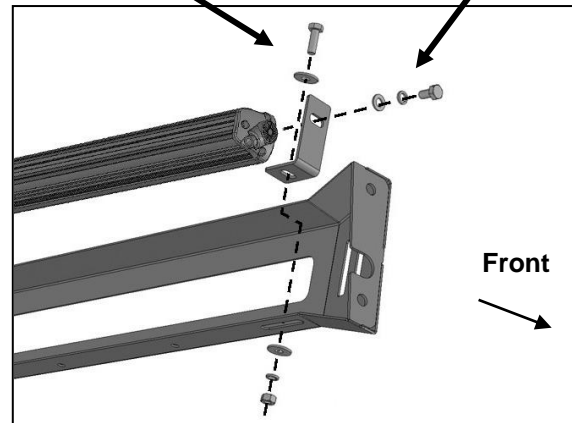


Fig 10

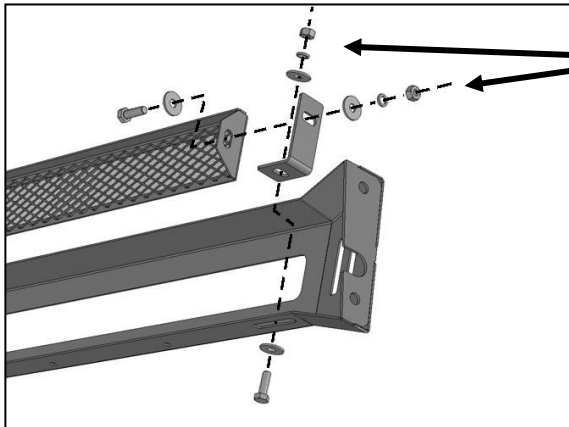
- 8mm x 25mm Hex Bolt
- (2) 8mm Flat Washers
- 8mm Lock Washer
- 8mm Hex Nut

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



(Fig 11) Attach "L" Light Brackets to slots in bottom of Center Cross Bar. Attach LED Bar light to Brackets. NOTE: LED light not included.

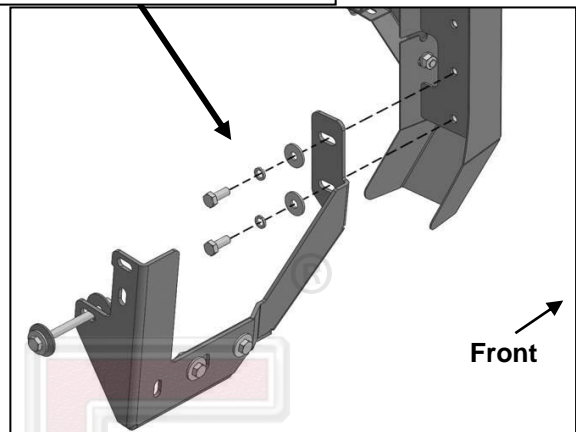
Passenger/right Side Installation Pictured



- 8mm x 25mm Hex Bolt
- (2) 8mm Flat Washers
- 8mm Lock Washer
- 8mm Hex Nut

(Fig 12) Attach Center Fill Panel to "L" Brackets.

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



(Fig 13) Use lower holes in Bull Bar to attach Bull Bar assembly to Brackets (passenger/right side illustrated)



(Fig 14) Passenger/Right Side Bull Bar Bracket attached to assembled Bull Bar



Complete Installation