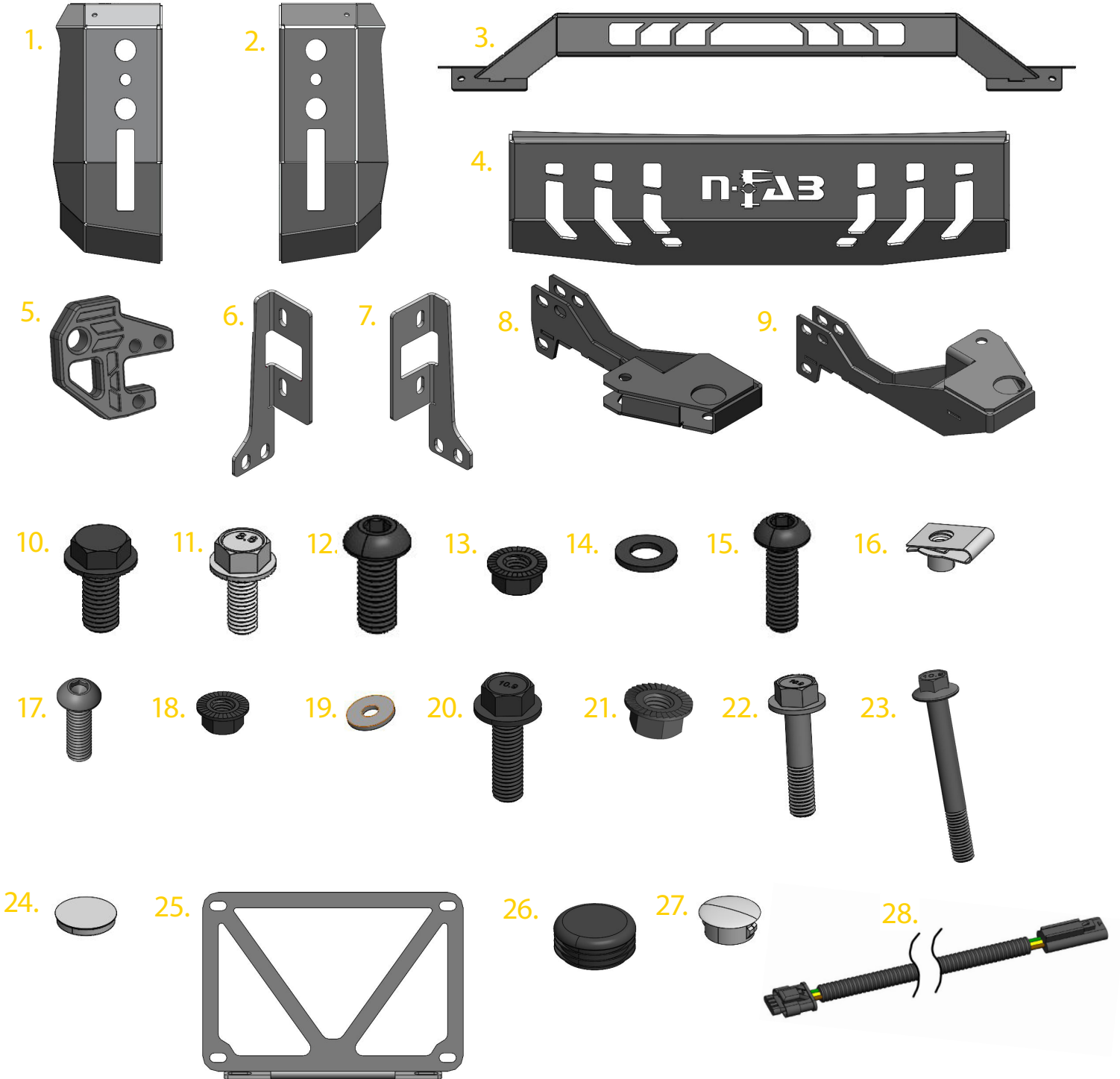


Components and Hardware: HWKT-13959X





DESERT BORN, ROAD READY.™

PART# D19BB01-TX
19-23 RAM 1500

HVM BULL BAR
INST-02446

Components and Hardware:

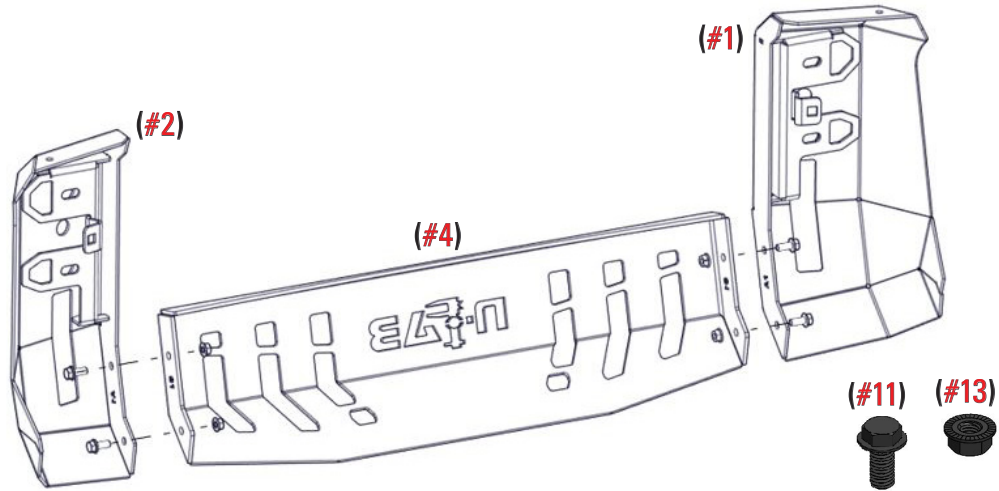
- 1. Passenger side up-right.....(1)
- 2. Driver side up-right.....(1)
- 3. Light hoop.....(1)
- 4. Skid plate.....(1)
- 5. Tow hook.....(2)
- 6. Driver Vertical mounting plate.....(1)
- 7. Passenger Vertical mounting plate.....(1)
- 8. Driver side frame bracket.....(1)
- 9. Passenger side frame bracket.....(1)
- 10. M12-1.75x25mm flanged hex bolt.....(4)
- 11. M8-1.25x20mm flanged hex bolt.....(4)
- 12. M8-1.25x20mm button head bolt.....(4)
- 13. M8-1.25 serrated flange hex nut.....(8)
- 14. M8 flat washer.....(4)
- 15. M6-1.0x35mm button head bolt.....(2)
- 16. M6 x 1.0mm barrel clip.....(2)
- 17. M6-1x20mm button head bolt.....(6)
- 18. M6 flange nut.....(6)
- 19. M6 flat washer.....(6)
- 20. M14-2.0x60mm hex flange bolt.....(2)
- 21. M12-1.75 serrated hex nut.....(10)
- 22. M12-1.75X55mm flanged hex bolt.....(6)
- 23. M12-1.75x105mm flanged hex bolt.....(2)
- 24. Adhesive-back pads.....(2)
- 25. License plate relocation bracket.....(1)
- 26. Plug-1.75" tube plug.....(4)
- 27. Locking panel plug(2)
- 28. Plug & Play sensor extension.....(2)

Tools for Installation:

- Socket wrench
- 13mm socket
- 18mm socket
- 19mm socket
- 21mm socket
- 5.0 hex socket
- 4.0 hex socket
- 13mm wrench
- 19mm wrench
- Vice grips
- Small hammer

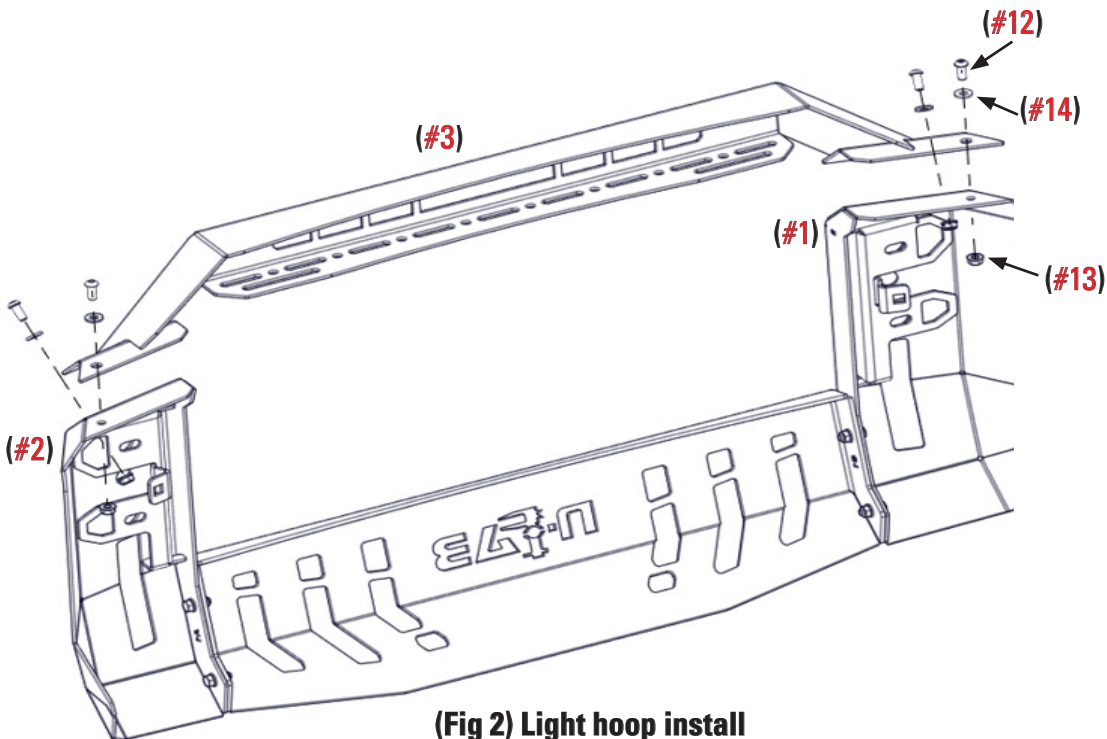
INSTALL

Step 1. Assemble (#2) driver side and (#1) passenger side upright to (#4) skid plate using (#11)x4 M8-1.25x20mm flanged hex bolt, (#13)x4 M8-1.25 serrated flange hex nuts and loosely tighten. **(Fig 1)**



(Fig 1) Skid plate install

Step 2. Assemble (#3) light hoop to (#2) and (#1) uprights using (#12)x4 M8x20mm button head bolts, (#14)x4 M8 washers and (#13)x4 M8-1.25 serrated flange hex nuts. **(Fig 2)**



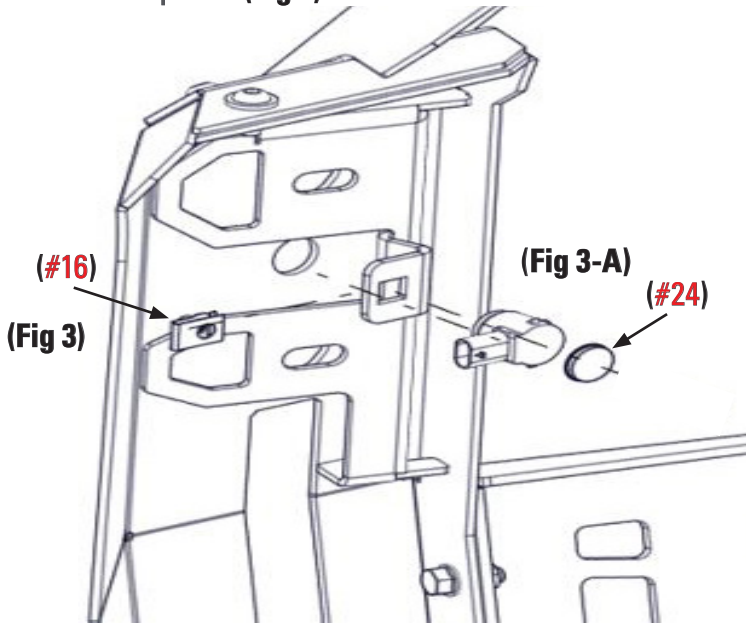
(Fig 2) Light hoop install

Step 3. If your vehicle is equipped with parking sensors, you have the option to relocate them to the Bull Bar uprights. First, remove x2 sensors nearest to the center of bumper and remove from plastic retainer. Plastic retainers will remain in bumper.

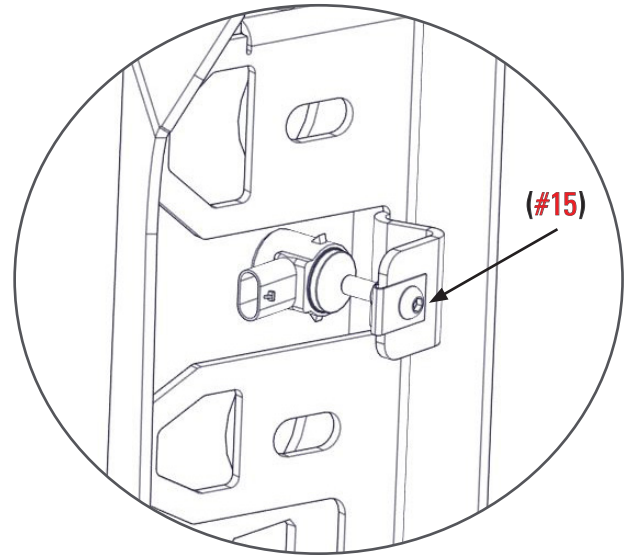
Step 4. Install (#16)x2 M6 x 1.0mm barrel clips into (#1) passenger side and (#2) driver side uprights. **(Fig 3)**

Step 5. Install (#24)x2 rubber adhesive backing pads to back face of sensors. **(Fig 3-A)**

Step 6. Place sensors into round opening on back side of up-rights and secure using (#15)x2 M6x35mm button head bolts to hold in place. **(Fig 4)**



(Fig 3) #16 Barrel clip install
(Fig 3-A) #24 Adhesive backing pad install

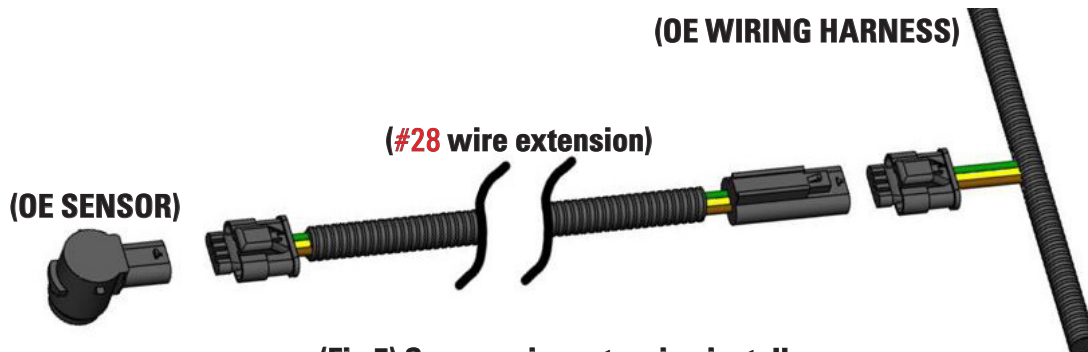


(Fig 4) Sensor install with #15 retaining bolt

⚠ To ensure no damage to sensor, DO NOT OVER TIGHTEN !

Step 7. If parking sensors were relocated in steps 3-6, proceed to step 8, if not, skip to step 9.

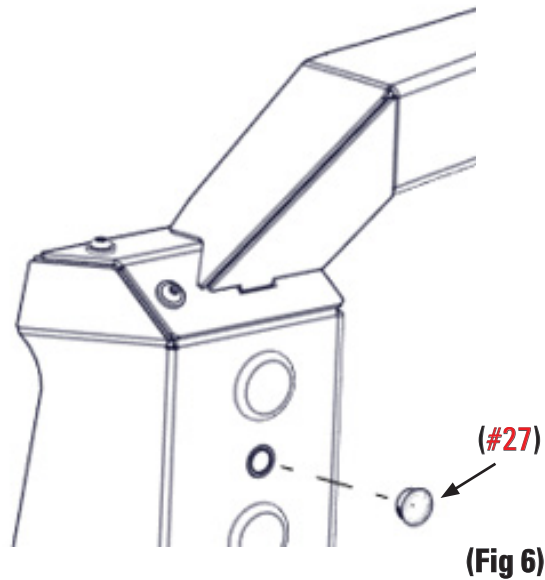
Step 8. Route the (#28)x2 harness extension from the back side of bumper, through the driver and passenger tow hook openings and up through both uprights. Connect extension x2 to both sensors and to main harness. **(Fig 5)**



(Fig 5) Sensor wire extension install

Step 9. Place (#27)x2 sensor plug caps in plastic sensor retainers from step 3. If not relocating sensors, place into Bull Bar fascia.

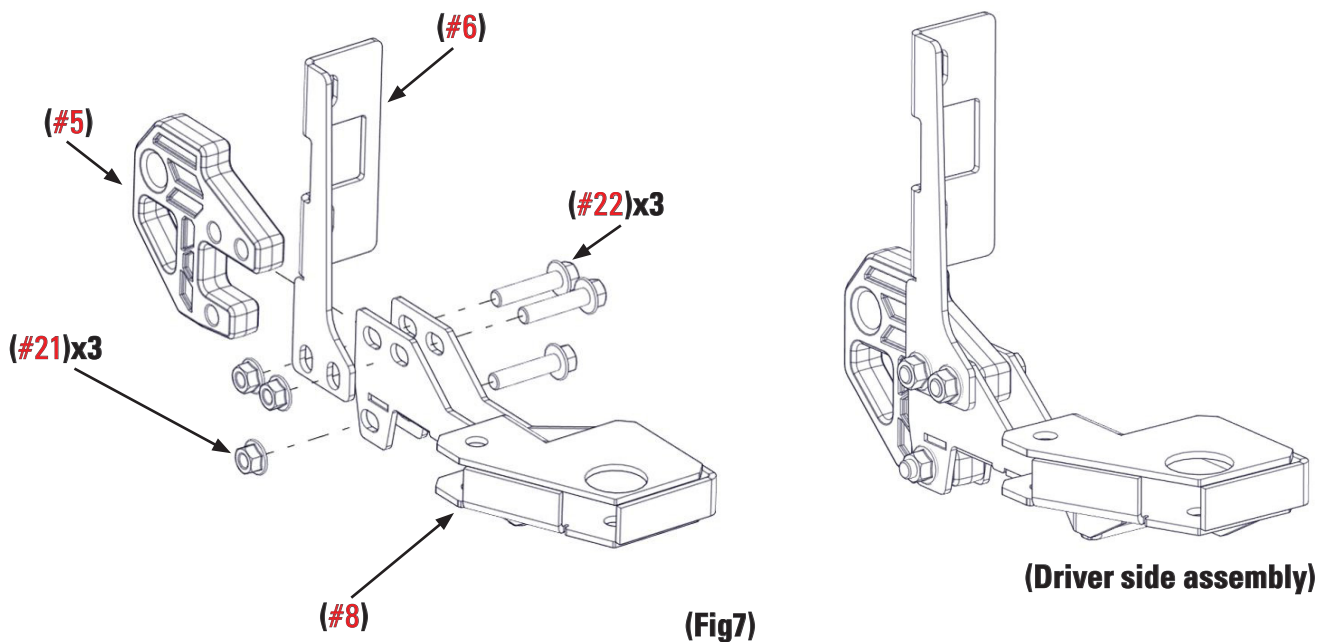
(Fig 6)



(Fig 6)

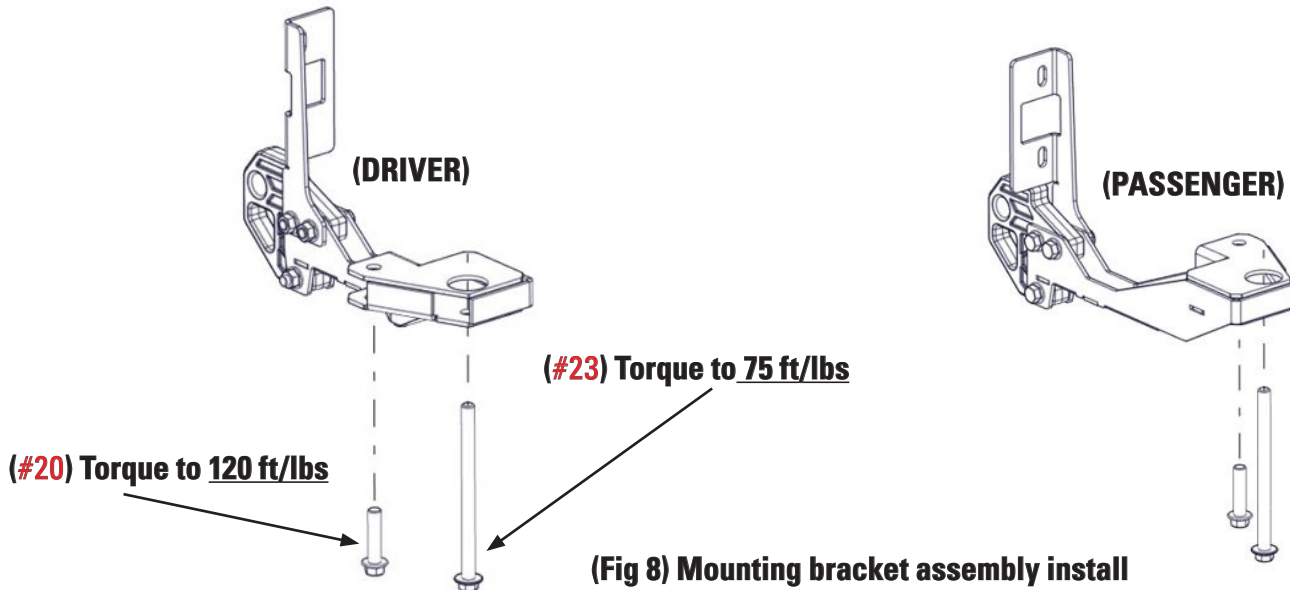
Step 10. Remove factory tow hooks if equipped. Begin with driver side and remove the rear 18mm tow hook bolt. The bolt has a retaining clip that keeps bolt from being completely removed. Clamp vice grips on head of bolt and tap out with a hammer (clips will not be reused in install). Then remove the front 21mm bolt and slide tow hook out.

Step 11. Attach (#5) tow hook, (#6) vertical mounting bracket, and (#8) frame bracket to make a driver side and passenger side assembly. Use #5, #7, #9 for passenger side assembly. Tighten all hardware to (50-60 ft/lbs) of torque. (Fig7)



(Fig7)

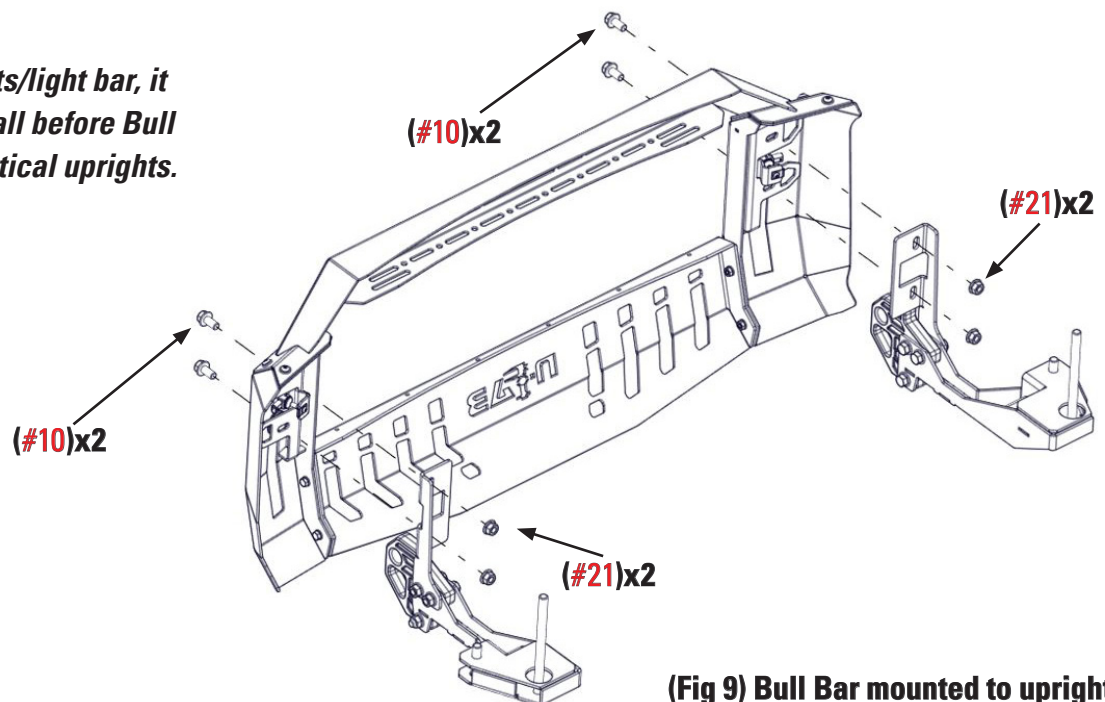
Step 12. Slide driver side assembly through tow hook opening in front of bumper. Use (#20) M14-2.0x60mm flanged hex bolt and (#23) M12-1.75x105mm flanged hex bolt and completely tighten. Repeat process with passenger side. **(Fig. 8)**



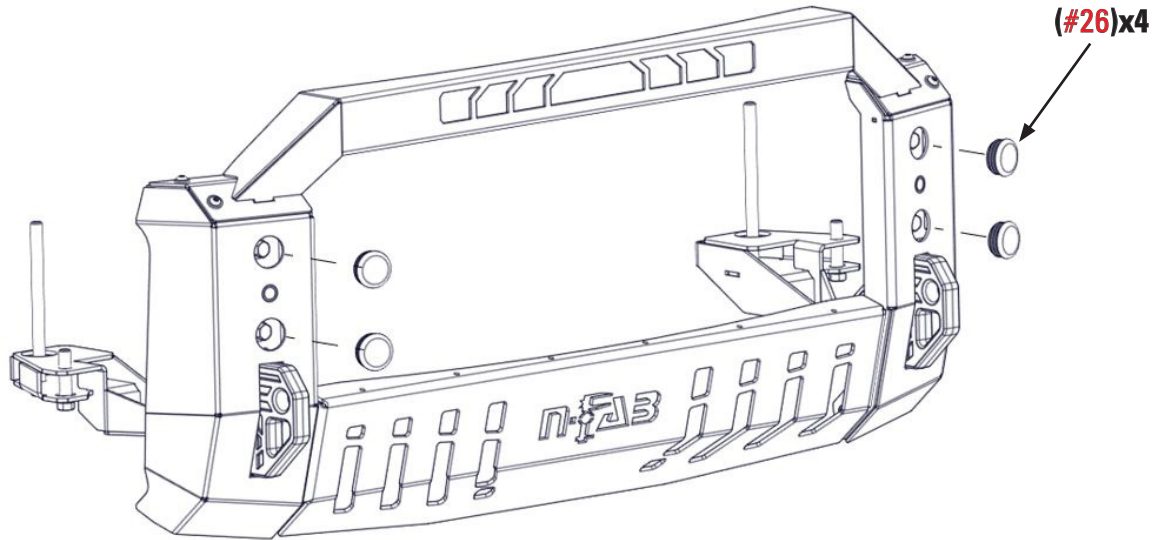
Step 13. It is recommended to apply painters tape to tow hooks and also to bumper, where Bull Bar may come into contact. This will eliminate any damage while aligning Bull Bar.

Step 14. Use the (#10)x4 M12x25mm hex bolts and (#21)x4 M12 hex nuts and carefully attach Bull Bar to the vertical uprights so tow hooks protrude through the rectangular cut outs. Make adjustments needed to the frame mounts to ensure assembly is centered on vehicle. Tighten to (55-60 ft/lbs). **(Fig 9)**

Note: If you have lights/light bar, it is recommend to install before Bull Bar is attached to vertical uprights.

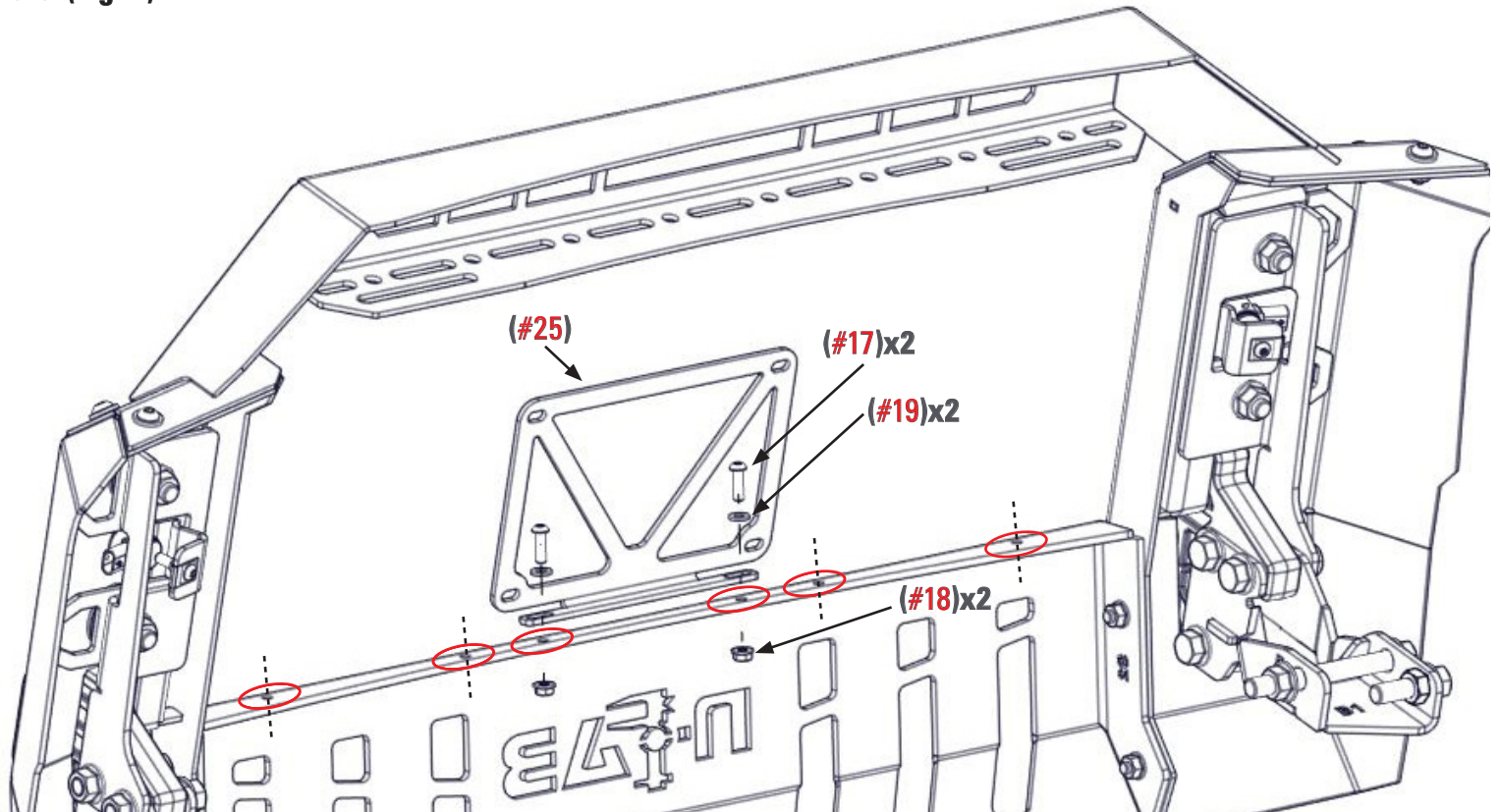


Step 15. Insert (#26)x4 tube plugs in Bull Bar fascia to cover hardware. (Fig 10)



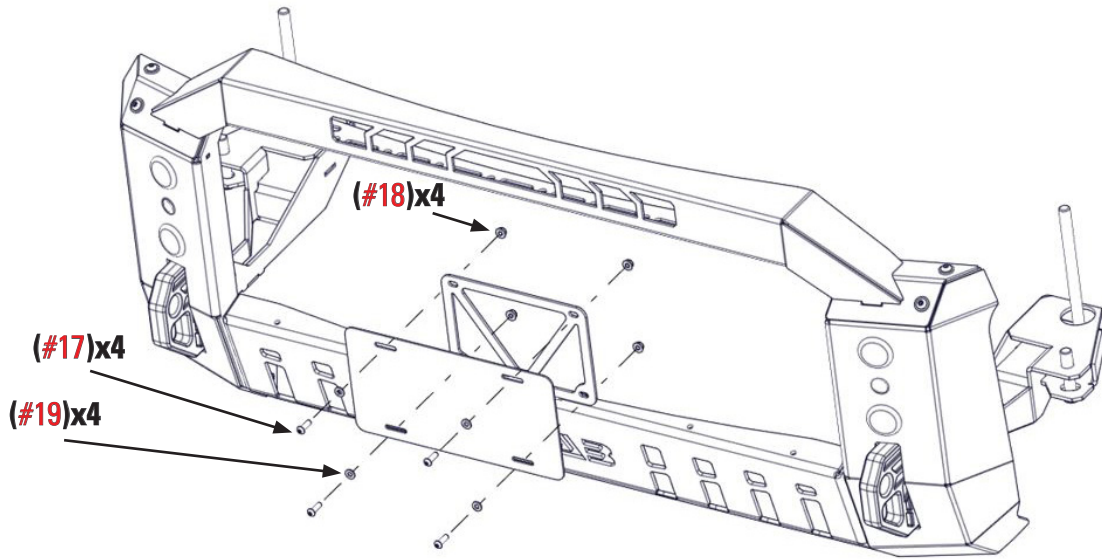
(Fig 10) #26 fascia cap plug install

Step 16. Install the (#25) license plate relocation bracket using the supplied (#17)x2 M6x20mm button head bolt, (#19) narrow washer, and (#18)x2 flanged hex nut to one of three mounting location on top of skid plate. Fully tighten hardware. (Fig 11)



Step 17. Attach license plate to relocation bracket using supplied (#17)x4 M6-1x20mm button head bolt, (#19)x4 M6 narrow washer, and (#18)x4 M6 flanged hex nut and fully tighten. **(Fig 12)**

Step 18. To complete the install, use a driveway or parking lot to ensure the sensors work properly.



(Fig 12) License plate install