N-FAB
DESERT BORN, ROAD READY.™

Components and Hardware: HWKT-13497X
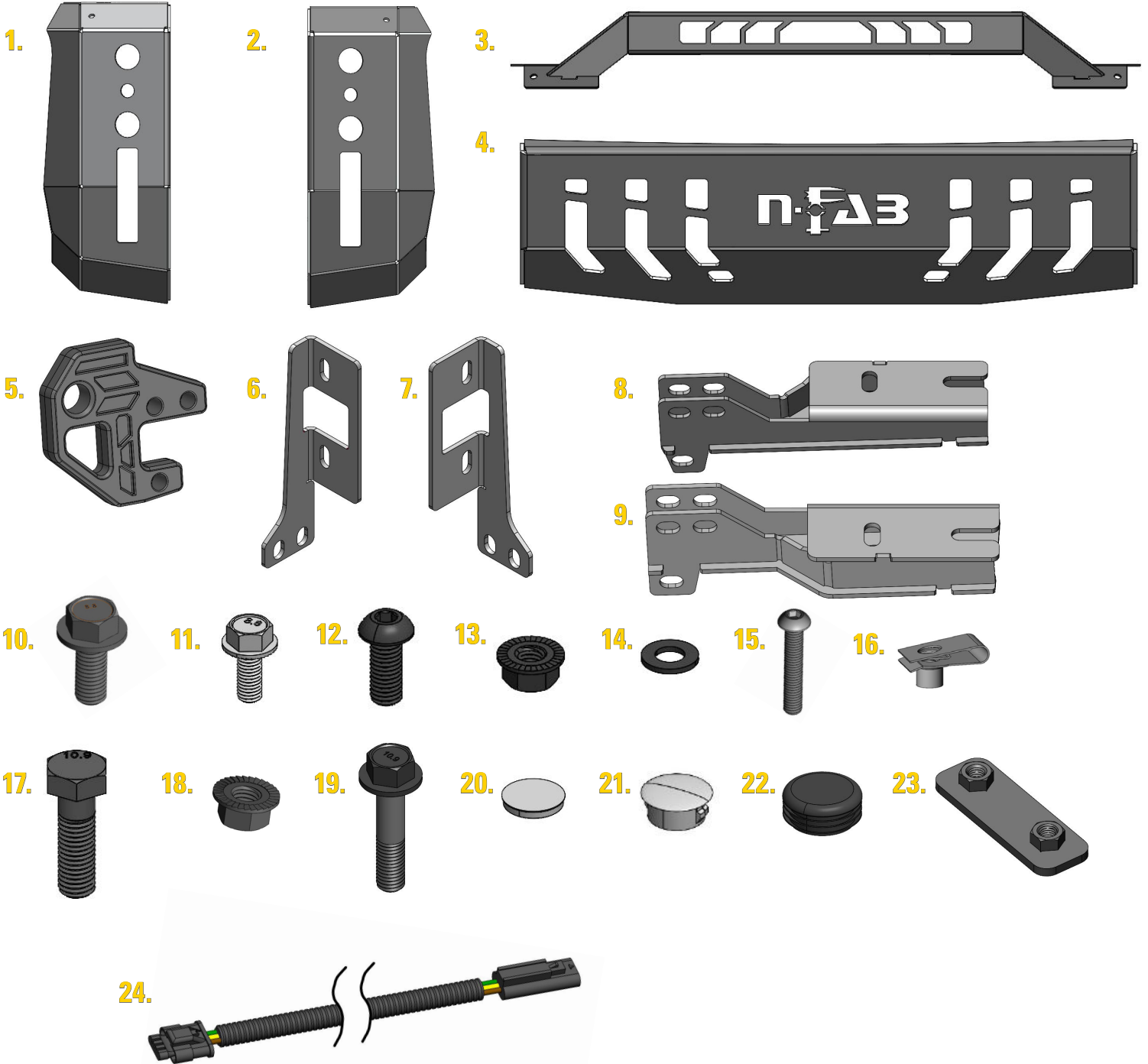
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N-FAB® TECHNICAL SUPPORT
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FOR WARRANTY INFORMATION VISIT: WWW.N-FAB.COM

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 flange hex bolt...(4)
11. M8-1.25x20mm flange hex bolt...(4)
12. M8-1.25x20mm button head bolt...(4)
13. M8-1.25 serrated flange hex bolt...(8)
14. M8 flat washer..(4)
15. M6-1.0x35mm button head bolt...(2)
16. M6-1.0mm barrel clip...(2)
17. M12-1.75x40mm flange hex bolt..(4)
18. M12-1.75 serrated hex nut...(10)
19. M12-1.75x55mm flanged hex bolt..(6)
20. Adhesive backing pad..(2)
21. Locking panel plug...(2)
22. Plug -1.75 tube plug...(2)
23. M12 nut plate...(2)
24. Plug & Play sensor wire extension ....(2)

Tools for Installation:

Socket wrench
- 13mm socket
- 15mm socket
- 16mm socket
- 5.0 hex socket
- 13mm wrench
- 18mm wrench

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INSTALL

Step 1. Assemble (#2) driver side and (#1) passenger side uprights to (#4) skid plate using (#11)x4 M8-1.2x20mm flange hex bolt, (#13)x4 M8-1.25 serrated flange hex nut and loosely tighten. **(Fig 1)**

(Fig 1) Skid plate install
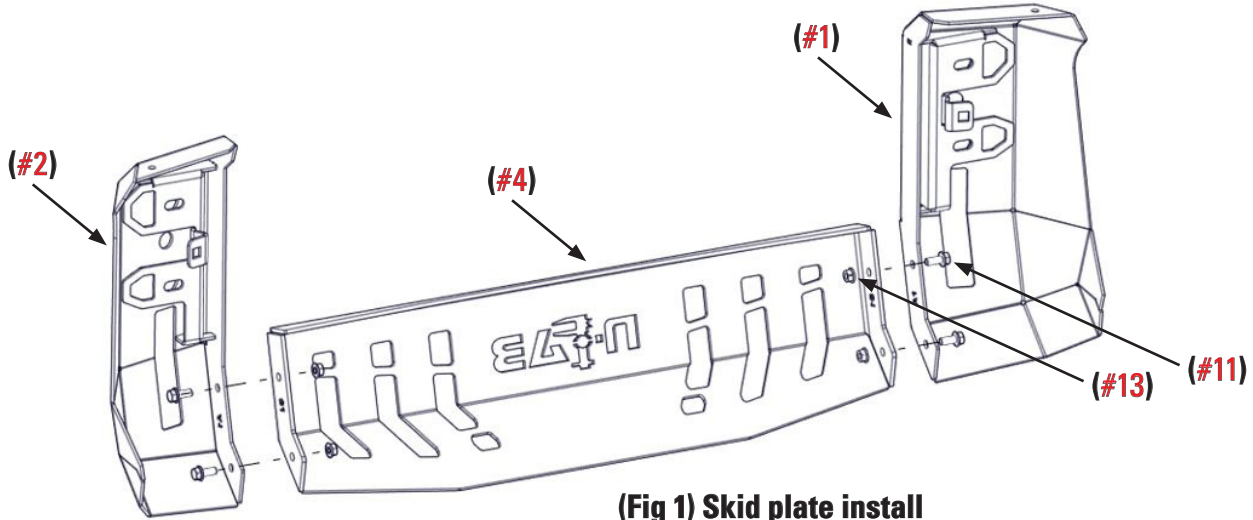
Step 2. Assemble (#3) light hoop to (#2) and (#1) uprights using (#12)x4 M8x20mm button head bolt, (#14)x4 M8 washer and (#13)x4 M8-1.25 serrated flanged hex nut. **(Fig 2)**
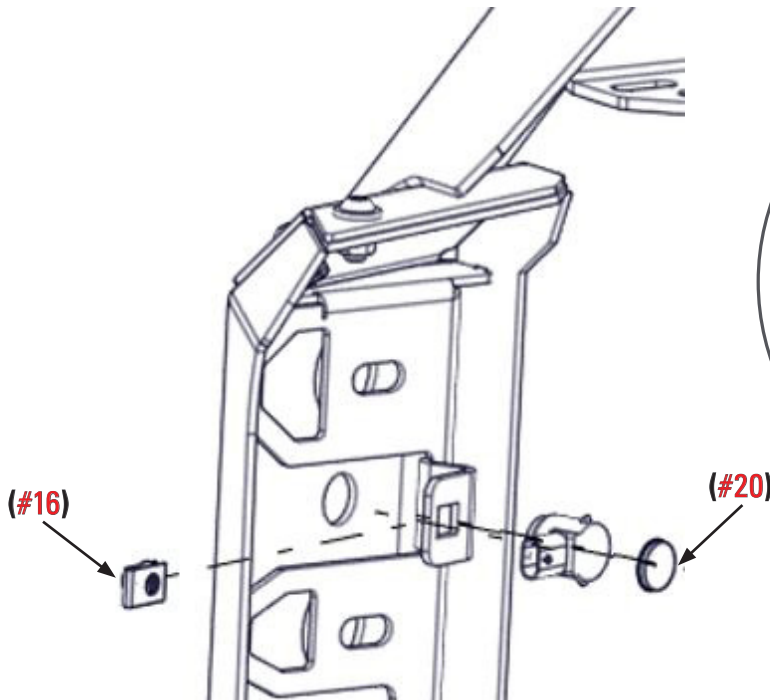

(Fig 2) Light hoop install

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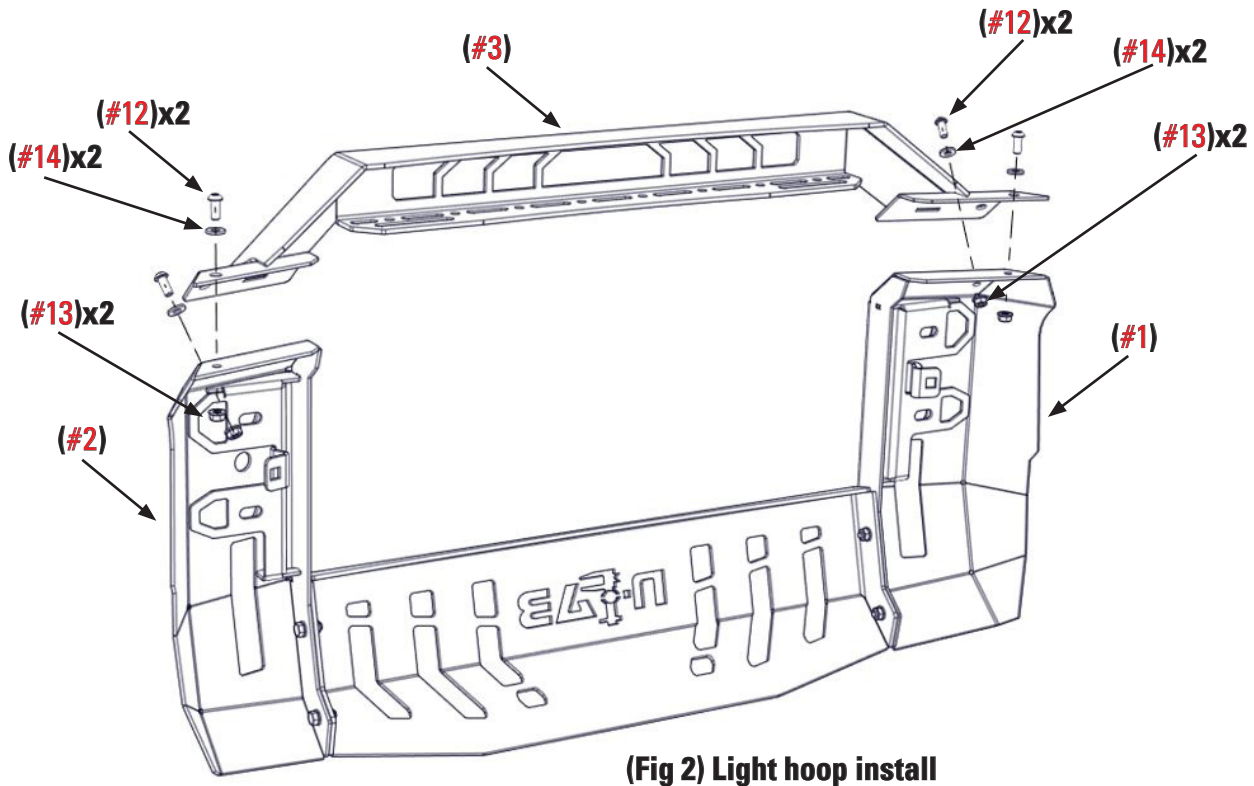
INSTALL

Step 3. If Your vehicle is equipped with parking sensors, you have the option to relocate them to the Bull Bar uprights. First, locate x2 sensors nearest to the center of bumper and disconnect plug from back of sensor and main harness. Then remove sensors from plastic retainer. Plastic retainer will remain in bumper.

Step 4. Install (#16)x2 M6x1.0mm barrel clips into (#1) passenger side and (#2) driver side up rights. **(Fig 3)**

Step 5. Install (#20)x2 rubber adhesive backing pads to back face of sensor. **(Fig 3-A)**

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

(#16)

(#20)

(#15)

(Fig 4) Sensor install with #15 retaning bolt

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

(Fig 3) #16 barrel clip install
(Fig 3-A) #20 Adhesive backing pad install

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

Step 8. Route the (#24)x2 harness extension from the back side of bumper, through the driver and passenger side tow hook openings and up through both uprights. Connect extension x2 to both sensors and to main harness. **(Fig 5)**

(OE WIRING HARNESS)

(#24 sensor wire extension)
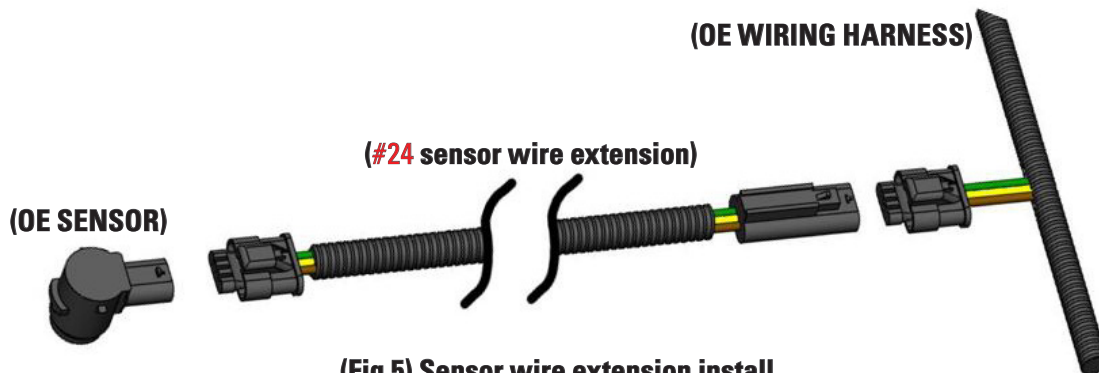
(OE SENSOR)

(Fig 5) Sensor wire extension install
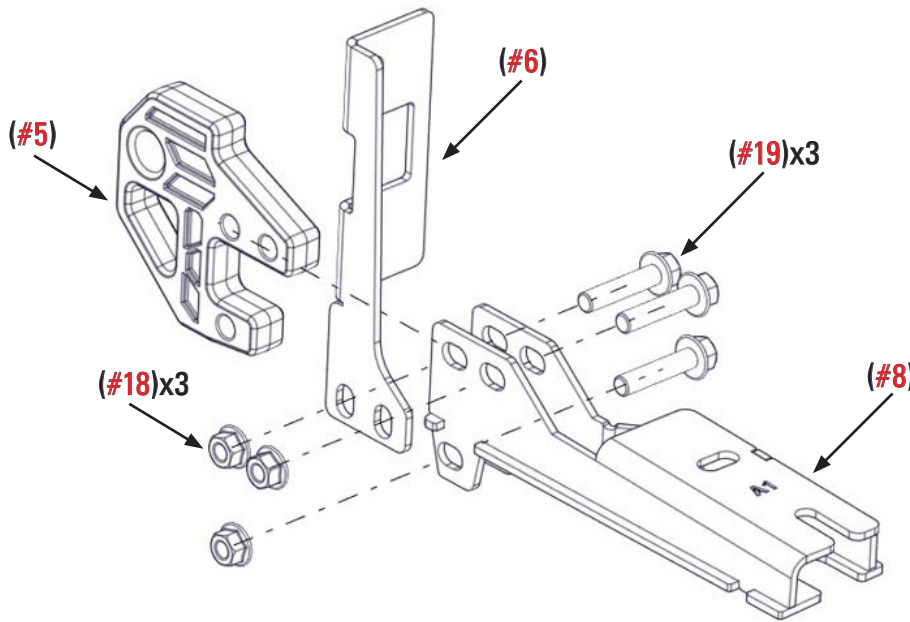
INSTALL

Step 9. Place (#21)x2 sensor plug caps in plastic sensor retainers in bumper from step 3. If not relocating sensors, place into Bull Bar facia. **(Fig 6)**
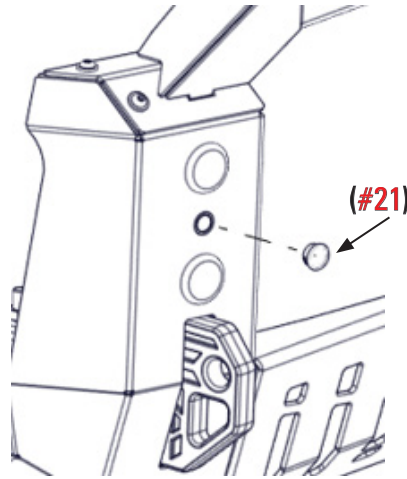
(Fig 6) Sensor plug install

Step 10. Remove factory tow hooks if equipped. Remove front bolt, but only loosen rear bolt; this will allow easier installation of new frame brackets. Next, slide tow hook and plastic backing cover out through the bumper.

Step 11. Attach (#5) tow hook, (#6) vertical mounting bracket, and (#8) frame bracket using (#19)x3 M12-1.75x55mm hex bolt and (#18)x3 M12-1.75 hex nut to make a driver and passenger side assembly. Tighten all hardware to (50-60 ft/lbs) of torque. **(Fig 7)**
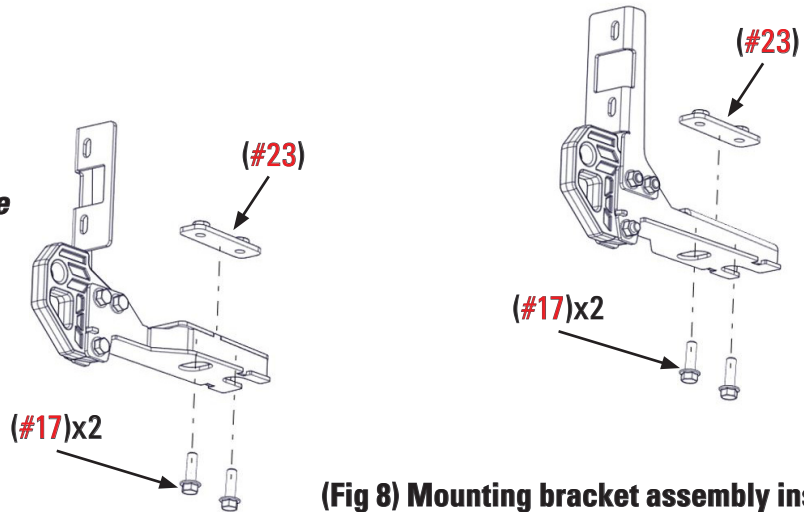

(Fig 7) Tow hook and mounting bracket assembly

INSTALL

Step 12. Slide driver and passenger side bracket assembly onto loosened rear bolt and reinstall front bolt.

Step 13. Loosely tighten frame bolts for finial adjustments. **(Fig 8)**

(#23)

Note: If not equipped with factory tow hooks, slide (#23)x2 nut plates into frame and use (#17) M12x40mm hex bolts to attach.

(#23)

(#17)x2

(#17)x2

(Fig 8) Mounting bracket assembly install

Step 14. 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 15. Use (#10)x4 M12-1.75x25mm hex bolt and (#18)x4 M12 serrated hex nuts and carefully attach Bull Bar to the vertical up-rights 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)**
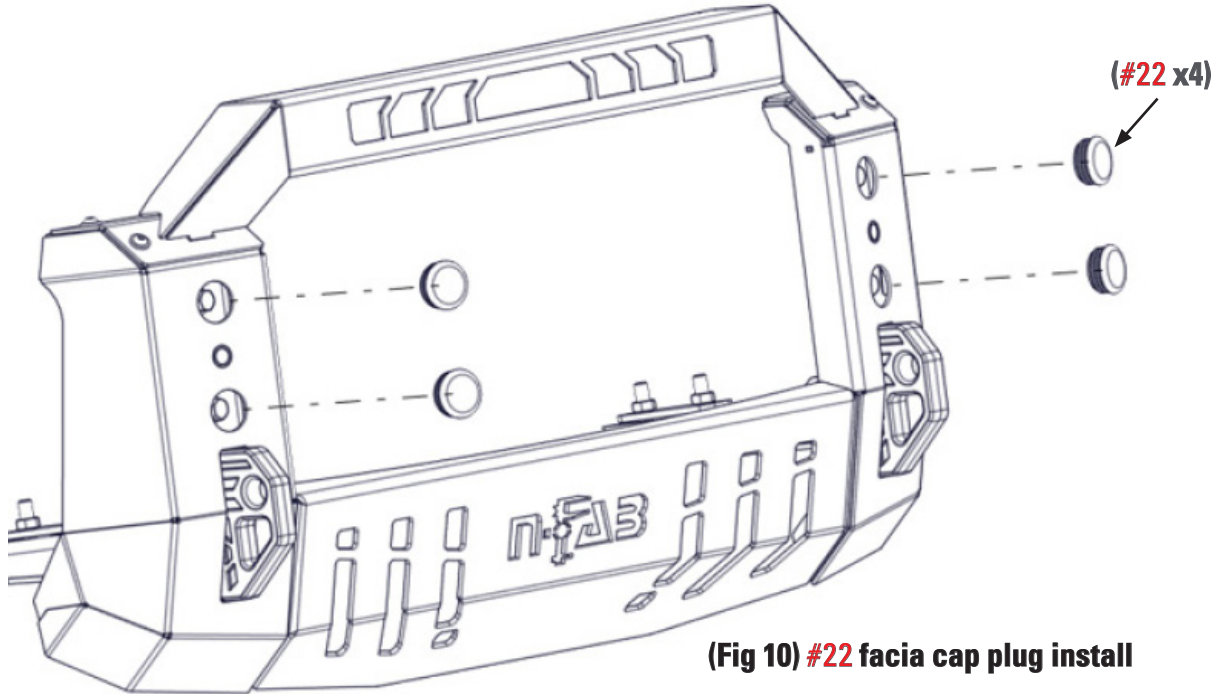
Note: If you have lights/light bar, it is recommended to install before Bull Bar is attached to vertical uprights.

(#10)x4

(#18)x4
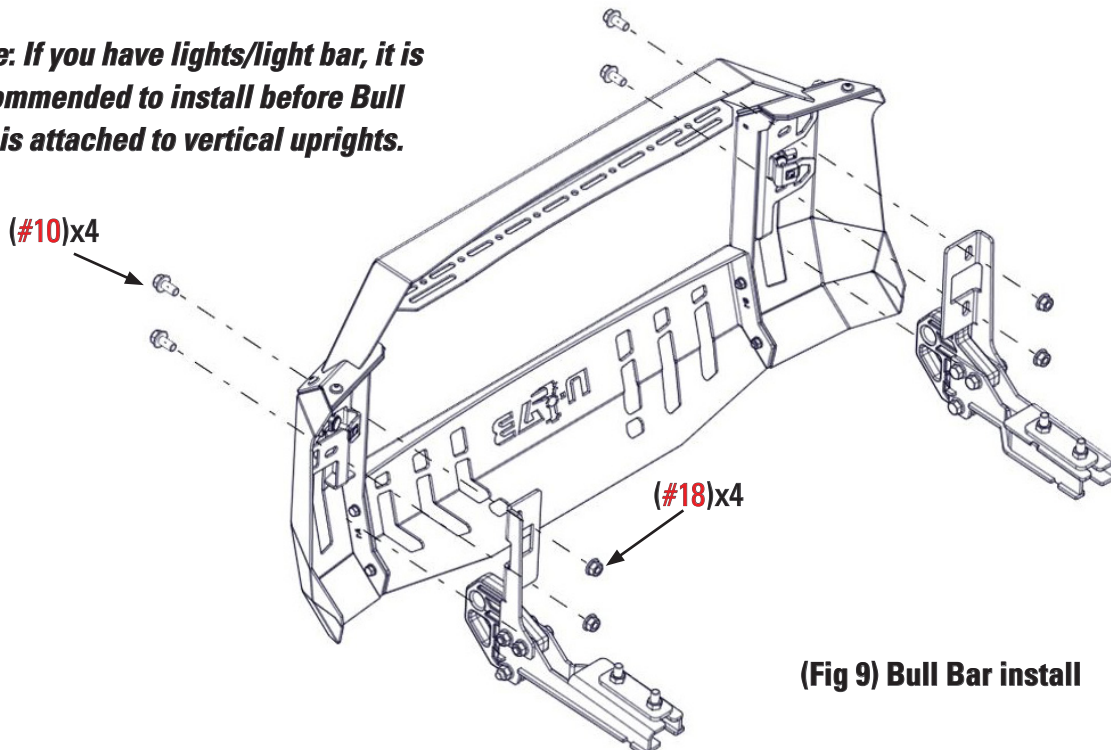
(Fig 9) Bull Bar install

INSTALL

Step 16. Insert (#22)x4 tube plugs in Bull Bar facia to cover hardwere. **(Fig 10)**

(**#22** x4)

(Fig 10) #22 facia cap plug install

Step 17. Use a drive way or parking lot to ensure sensors are working properly.