



Nissan Patrol GU (Y61) Series 4-6

2005-2016

Predator, Toro & Cougar Front Bar Fitting Instruction

IMPORTANT! – READ BEFORE INSTALLATION

- This product must be installed exactly as per these instructions using only hardware supplied.
- Take a few moments to read instructions thoroughly before beginning work.
- In the event of damage to any bar component please contact OFFROAD ANIMAL to arrange repair/replacement of components.
- Do not use this product for any vehicle make or model other than that specified on these instructions.
- Do not remove labels from this product.
- This product and its fixings must not be modified in any way unless stated in these fitting instructions.
- The installation of this product is recommended for trained personnel.
- These instructions are correct at time of publication. OFFROAD ANIMAL cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer. If you find something has changed, please contact us to let us know!
- During installation it is the duty of the installer to check correct operation/clearances of all components.
- If Instructions are to be printed for reference in the workshop, it is recommended that they are printed in colour, for best legibility.

Fitting Difficulty

Predator / Toro: 6/10

Cougar: 7/10

GENERAL CARE AND MAINTENANCE

Only wash the product with a PH neutral car wash to prevent paint damage and discolouration.

Plastic parts may be maintained with silicone spray.

Do not use acidic or alkaline based cleaning products.

It is important to perform regular checks (pre/during/post trip or on an annual basis) on the installed product. More frequent checks may be required in extreme use cases. Checks include:

- Visual inspection for damage (eg. cracks, chips, dents etc.)
- Electrical wiring is not rubbing anything or worn out
- Bolts are torqued to correct specification (see torque guide below)

For touching up small stone chips, Offroad Animal recommends the following paint products:

- Dupli-Color Trim & Bumper Paint Black (TB101)
- VHT Hood, Bumper & Trim Paint Black (SP27)

BOLT TORQUE SETTINGS

Use the following bolt torques on all general fasteners, unless otherwise specified.

GENERAL FASTENERS	
Size	Torque Nm
M5	5 Nm
M6	9 Nm
M8	22 Nm
M10	44 Nm
M12	77 Nm

Use the following bolt torques on all structural front bar mount and tow point fasteners, and rear towbar fasteners, unless otherwise specified.

FRONT BAR MOUNTS AND TOW POINTS + REAR TOWBAR	
Size	Torque Nm
M10	57 Nm
M12	100 Nm
M14	164 Nm
M16	248 Nm

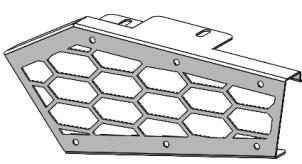
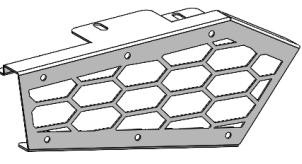
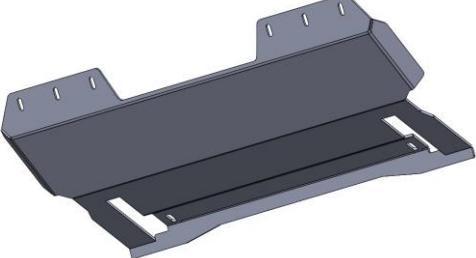
Always use a torque wrench to set correct torque settings. Ensure torque wrench is set to Nm unit of measurement. Otherwise perform conversion to lb-ft.

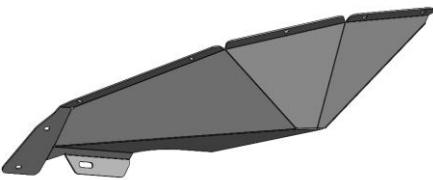
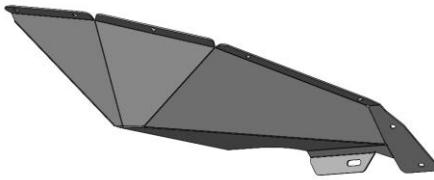
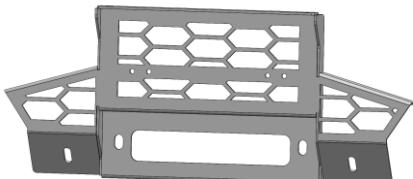
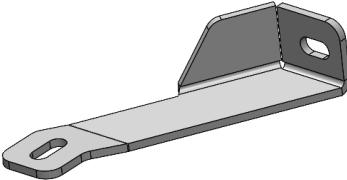
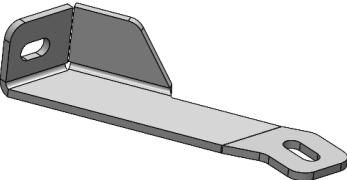
PARTS LISTING

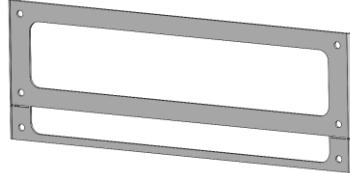
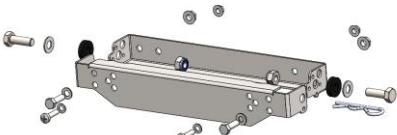
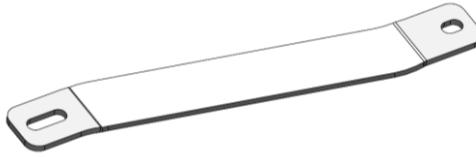
IMPORTANT: Check all parts are present before beginning work! Contact OFFROAD ANIMAL if something is missing.

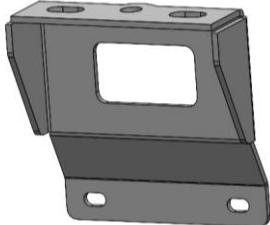
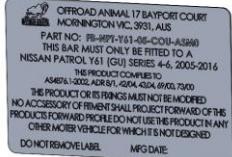
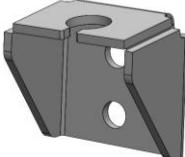
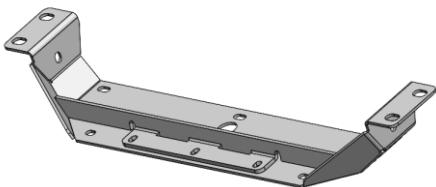
Parts List

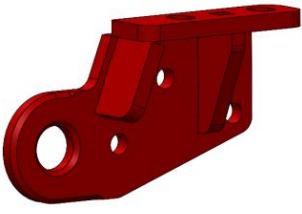
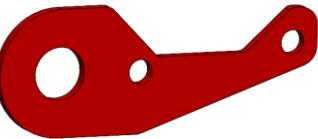
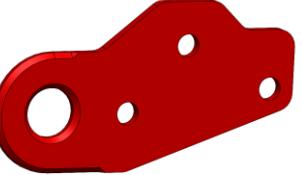
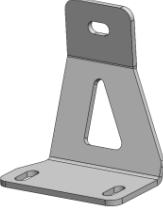
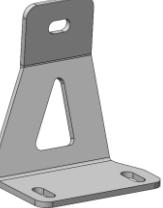
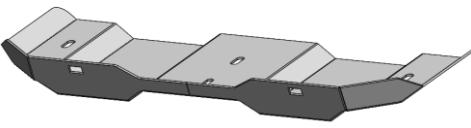
Qty	Part Number	Description	Image
1	FB-NPT-Y61-05-PR-ASM1	Nissan Patrol GU S4-6 Predator Bar Weldment	
OR			
1	FB-NPT-Y61-05-TOR-ASM1	Nissan Patrol GU S4-6 Toro Bar Weldment	
OR			
1	FB-NPT-Y61-05-COU-ASM1	Nissan Patrol GU S4-6 Cougar Bar Weldment	
COMMON PARTS			
1	FB-NPT-Y61-05-PR-ASM2L	Patrol GU Impact Assy	
1	FB-NPT-Y61-05-PR-ASM2R	Patrol GU Impact Assy	

1	FB-NPT-Y61-05-PR-ASM5L	GU Patrol S4 Tow Point Assy	
1	FB-NPT-Y61-05-PR-ASM5R	GU Patrol S4 Tow Point Assy	
1	B-1543L	GU Patrol S4 Impact Assy Outer Brace	
1	B-1543R	GU Patrol S4 Impact Assy Outer Brace	
1	M-0068L	GU Patrol S4 Front Bar - Wing Mesh Panel	
1	M-0068R	GU Patrol S4 Front Bar - Wing Mesh Panel	
1	U-0106	Nissan Patrol GU Bash Plate	

1	U-0107L	GU Patrol S4 Side Under panel	
1	U-0107R	GU Patrol S4 Side Under panel	
2	PWS-TOP-850	Pinch Weld PWS51T - Top Bulb Seal 850mm	
PREDATOR & TORO ONLY PARTS			
1	FB-NPT-Y61-05-PR-ASM4	GU Patrol Mesh Fairlead Assy	
1	B-1589L	GU Patrol S4 Winch Brace Bracket Low Mount	
1	B-1589R	GU Patrol S4 Winch Brace Bracket Low Mount	

1	B-1485	22" Lightbar Mesh Infill	
2	B-1521	GU Patrol Predator Pan Brace	
1	B-1458	Number Plate Flip Base	
1	B-1446	Number Plate Flip - Large	
1	FB-NPT-Y61-05-PR ADRCP	ADR Compliance Plate Patrol Y61 S4 Pred / Toro	
COUGAR ONLY PARTS			
1	NPF-COM-SM-ASMO	Number plate flip asm Small	
1	B-1604L	Patrol GU Hi Mount Winch Brace	

1	B-1604L	Patrol GU Hi Mount Winch Brace	
2	B-1603	Patrol GU Hi Mount Pan Brace	
1	FB-NPT-Y61-05- COU-ADRCP	ADR Compliance Plate Patrol Y61 S4 Cougar	
ANTENNA BRACKET (COUGAR & TORO ONLY)			
1	B-1602L	Patrol GU Toro Antenna Bracket	
1	B-1602R	Patrol GU Toro Antenna Bracket	
HIGH CAPACITY COOLING SYSTEM FITTING KIT			
1	FB-NPT-Y61-05- PR-ASM7	GU Patrol Crossmember Brace Assy	
1	FB-NPT-Y61-05- PR-ASM6L	GU Patrol Laminated Tow Point Assy	

1	FB-NPT-Y61-05-PR-ASM6R	GU Patrol Laminated Tow Point Assy	
2	P-0537	GU Patrol Laminated Tow Point Spacer	
1	P-0538L	GU Patrol Laminated Tow Point Outer Plate	
1	P-0538R	GU Patrol Laminated Tow Point Outer Plate	
1	B-1793L	GU Patrol Crossmember Winch Brace	
1	B-1793R	GU Patrol Crossmember Winch Brace	
1	U-0131	GU Patrol Upper Bash Plate	
1	U-0132	GU Patrol Lower Bash Plate	

HIGH CAPACITY COOLING SYSTEM FITTING KIT – COUGAR ONLY			
1	B-1804L	GU Patrol Cougar Crossmember Winch Brace	
1	B-1804R	GU Patrol Cougar Crossmember Winch Brace	

PREDATOR Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
8	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
10	M12X30X1.25	Bolt Hex, M12X30x1.25, GR8.8 ZP
21	M12 FW HT	M12 FW High Tensile
12	M6 X 16 HEX	M6X16 HEX BOLT, ZP, 8.8
12	M6 FLAT WASHER	M6 FW
27	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
20	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
14	M6CN3MM	CAGE NUT M6x2.6-3.5
8	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
12	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
12	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
4	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
4	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
2	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
6	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
4	M6 X 12 CSK BZP	SCREW, COUNTERSUNK CAP, M6X12X1 Black ZP
9	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
5	M6x12 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
8	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
2	M6 NYLON WASHER	Nylon Flat Washer, M6x12x1mm
2	M6 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
2	M6 X 8 CSK BZP	SCREW, COUNTERSUNK CAP, M6X8X1 Black ZP
2	M6 HALF NUT	Hex Half Nut, M6x1 G8.8 ZP
4	M14X40X1.5 GR10.9	Bolt Hex, M14X40x1.5, GR10.9 ZP
7	M14 FW LHD	WASHER, FLAT M14X30X3.8 ZP
3	M12X50	Bolt Hex, M12X50x1.75, GR8.8 ZP
3	M14X50X1.5 GR10.9	Bolt Hex, M14X50x1.5, GR10.9 ZP
3	NP-COM-M12-360LP-ASM0	Low Profile 360mm stem M12 Lolypop Plate

TORO Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
12	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
10	M12X30X1.25	Bolt Hex, M12X30x1.25, GR8.8 ZP
21	M12 FW HT	M12 FW High Tensile
12	M6 X 16 HEX	M6X16 HEX BOLT, ZP, 8.8
12	M6 FLAT WASHER	M6 FW
27	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
20	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
14	M6CN3MM	CAGE NUT M6x2.6-3.5
8	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
12	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
12	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
4	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
4	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
2	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
6	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
4	M6 X 12 CSK BZP	SCREW, COUNTERSUNK CAP, M6X12X1 Black ZP
9	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
5	M6x12 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
8	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
2	M6 NYLON WASHER	Nylon Flat Washer, M6x12x1mm
2	M6 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
4	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
2	M6 X 8 CSK BZP	SCREW, COUNTERSUNK CAP, M6X8X1 Black ZP
3	NP-COM-M12-360LP-ASM0	Low Profile 360mm stem M12 Lolyop Plate
2	M6 HALF NUT	Hex Half Nut, M6x1 G8.8 ZP
4	M14X40X1.5 GR10.9	Bolt Hex, M14X40x1.5, GR10.9 ZP
7	M14 FW LHD	WASHER, FLAT M14X30X3.8 ZP
3	M14X50X1.5 GR10.9	Bolt Hex, M14X50x1.5, GR10.9 ZP
3	M12X50	Bolt Hex, M12X50x1.75, GR8.8 ZP

COUGAR Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
4	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
10	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
10	M12X30X1.25	Bolt Hex, M12X30x1.25, GR8.8 ZP
17	M12 FW HT	M12 FW High Tensile
4	M12 FW LHD	M12 FW Large Heavy Duty
12	M6 X 16 HEX	M6X16 HEX BOLT, ZP, 8.8
12	M6 FLAT WASHER	M6 FW
18	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
18	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
14	M6CN3MM	CAGE NUT M6x2.6-3.5
8	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
12	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
12	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
2	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
2	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
2	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
6	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
4	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
8	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
3	M12X50	Bolt Hex, M12X50x1.75, GR8.8 ZP
3	NP-COM-M12-360LP-ASM0	Low Profile 360mm stem M12 Lolypop Plate
4	M14X40X1.5 GR10.9	Bolt Hex, M14X40x1.5, GR10.9 ZP
7	M14 FW LHD	WASHER, FLAT M14X30X3.8 ZP
3	M14X50X1.5 GR10.9	Bolt Hex, M14X50x1.5, GR10.9 ZP

Hi-Capacity Cooling Package Fitting Kit Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
2	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
3	M8 X 40 HEX	Bolt Hex, M8X40X1.25, GR8.8 ZP
2	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
3	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
2	M8 Cage nut	NUT, CAGE, M8X1.25 ZINC PLATE
5	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
5	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
5	M10 x 20	Bolt Hex, M10X20x[1.5], GR8.8 ZP
6	M12 FW HT	M12 FW High Tensile
6	M12X40	Bolt Hex, M12X40X1.75, GR8.8 ZP
6	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
4	M14X50X1.5 GR10.9	Bolt Hex, M14X50x1.5, GR10.9 ZP
4	M14 FW LHD	WASHER, FLAT M14X30X3.8 ZP

TOOLS REQUIRED

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric socket set 10-21mm	Electric/Air Impact Driver (Optional)	Masking tape
Torque Wrench	Air hacksaw or Die grinder or Oscillating multi-tool	Marker pen
Socket extension bar		Ruler
Metric spanner set 7-21mm		Lubricant (eg. WD-40)
Hex (Allen) key set 4-6mm		Solder
Flat blade screwdriver set		Soldering iron
Phillips head screwdriver set		Electrical tape
Side cutters		Lifting Trolley Or Engine Crane / Chain Block
M14x1.5 metric tap		
M12x1.25 metric tap		
M8x1.25 metric tap		

WORKSHOP SAFETY

It is the responsibility of the installer to always complete works in a safe manner. Make sure the following safety equipment is available and precautions are observed whilst fitting this product.

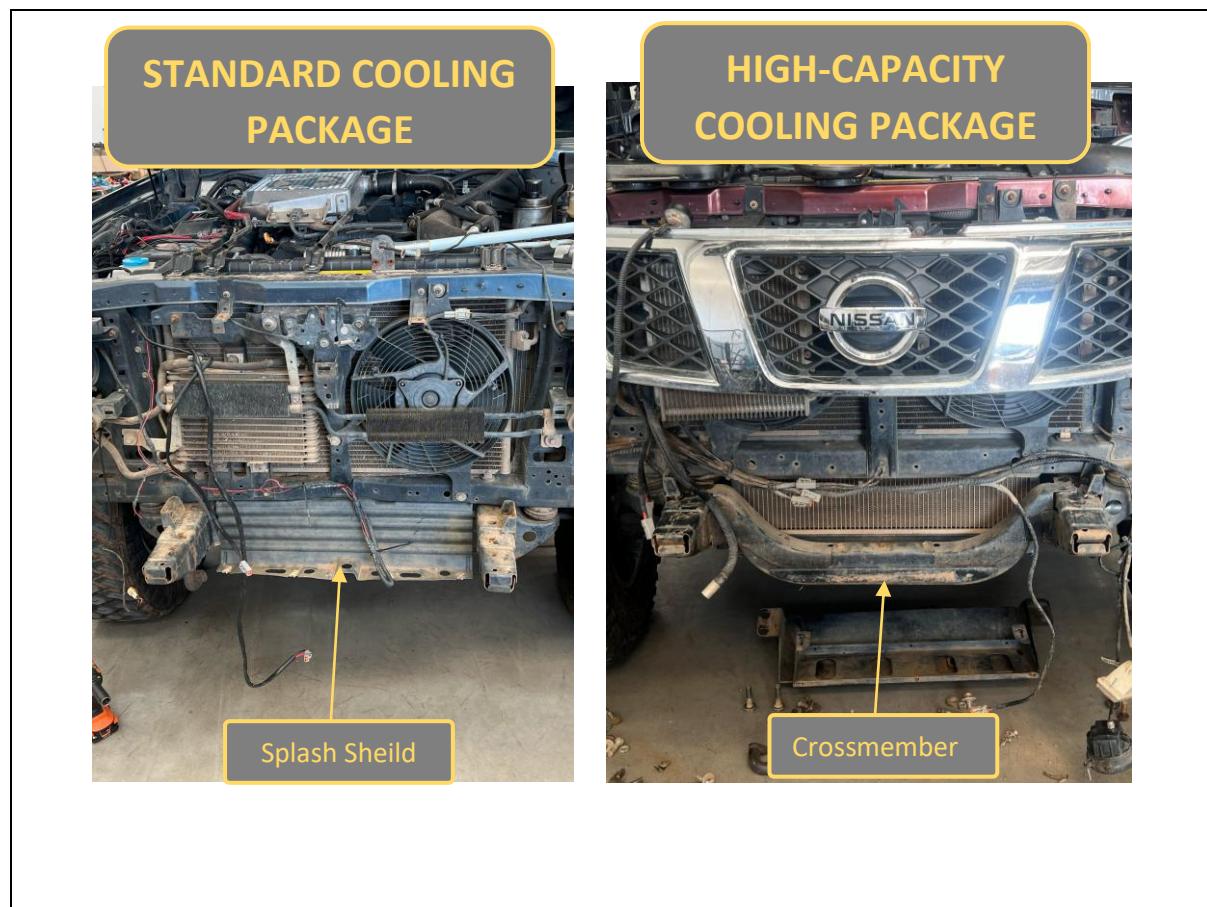
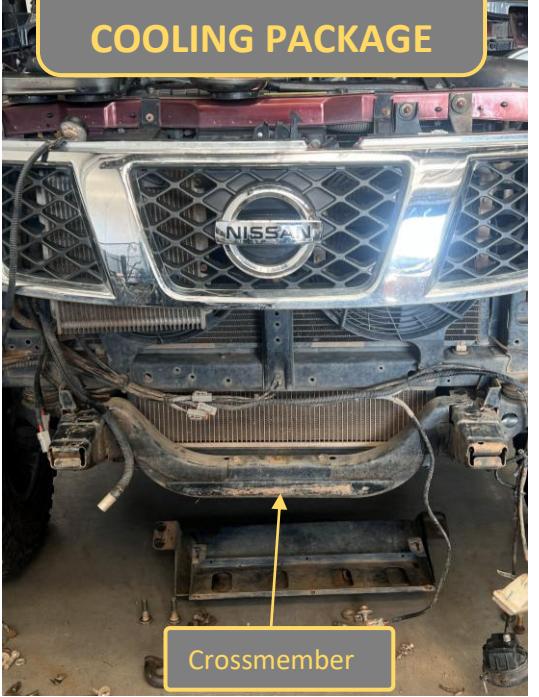
<p>Hearing Protection</p> 	<p>Always wear ear protection when using power tools.</p>
<p>Eye Protection</p> 	<p>Ensure eye protection is always worn when cutting or drilling.</p>
<p>Manual Handling</p> 	<p>Do not attempt to lift bar assemblies or rock sliders on your own.</p> <p>Always use two people to lift or use mechanical Lifting aid such as hydraulic lifting trolley.</p>
<p>Vehicle Support</p> 	<p>Always ensure vehicle is properly supported when working on it. Do not attempt to fit products whilst suspension work is being carried out. Do not work under a vehicle supported only by a jack.</p>

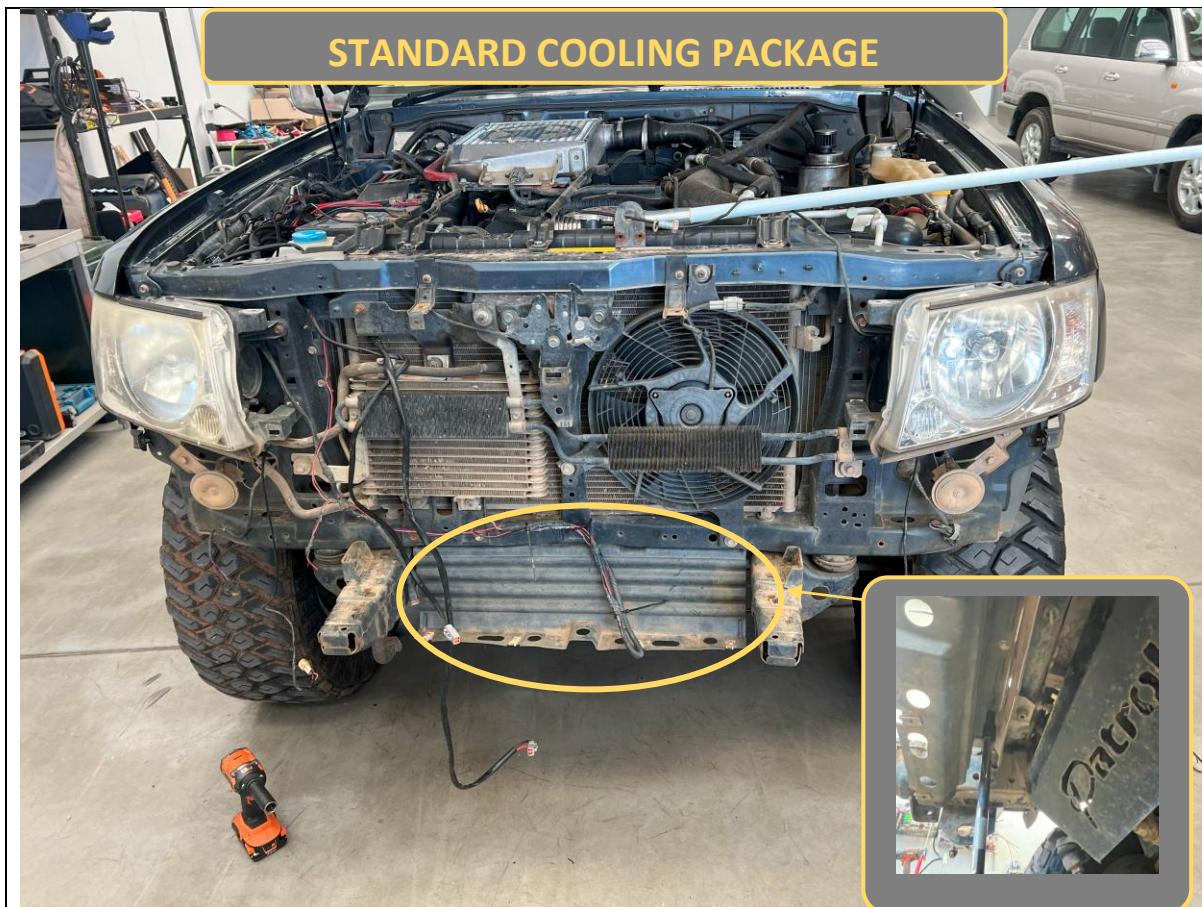


<ol style="list-style-type: none">1. Remove the number plate and set aside.2. Remove the stock bumper or existing bullbar (including all mounting hardware) from the vehicle. Refer to YouTube guides or aftermarket instructions for removal process. It is highly recommended to use penetrating oil when removing all bolts, since these vehicles are old.3. Remove tow hooks (factory or aftermarket).	TOOLS REQUIRED Lubricant or penetrating oil (eg. WD-40) Spanners / Sockets Screwdrivers
	FASTENERS OE Fasteners - Discard

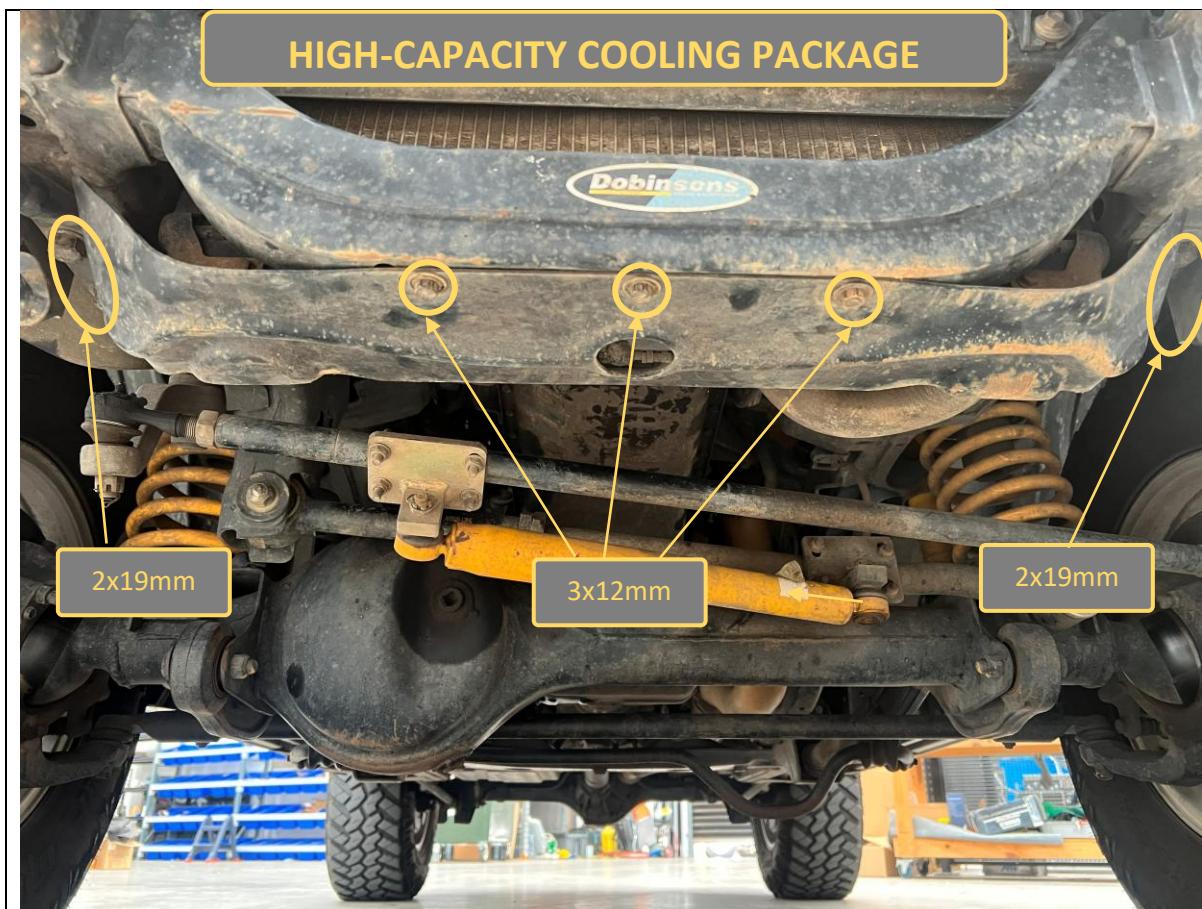


<ol style="list-style-type: none">4. Remove the clips securing the top edge of the grille, using a trim tool5. Release the clip behind the Nissan badge in the center of the grille, squeezing with a trim tool or long pliers6. Remove the grille from the vehicle and set aside. Retain all fasteners	<p>TOOLS REQUIRED</p> <p>Trim Tool</p>
	<p>FASTENERS</p> <p>Factory Clips Retain</p>

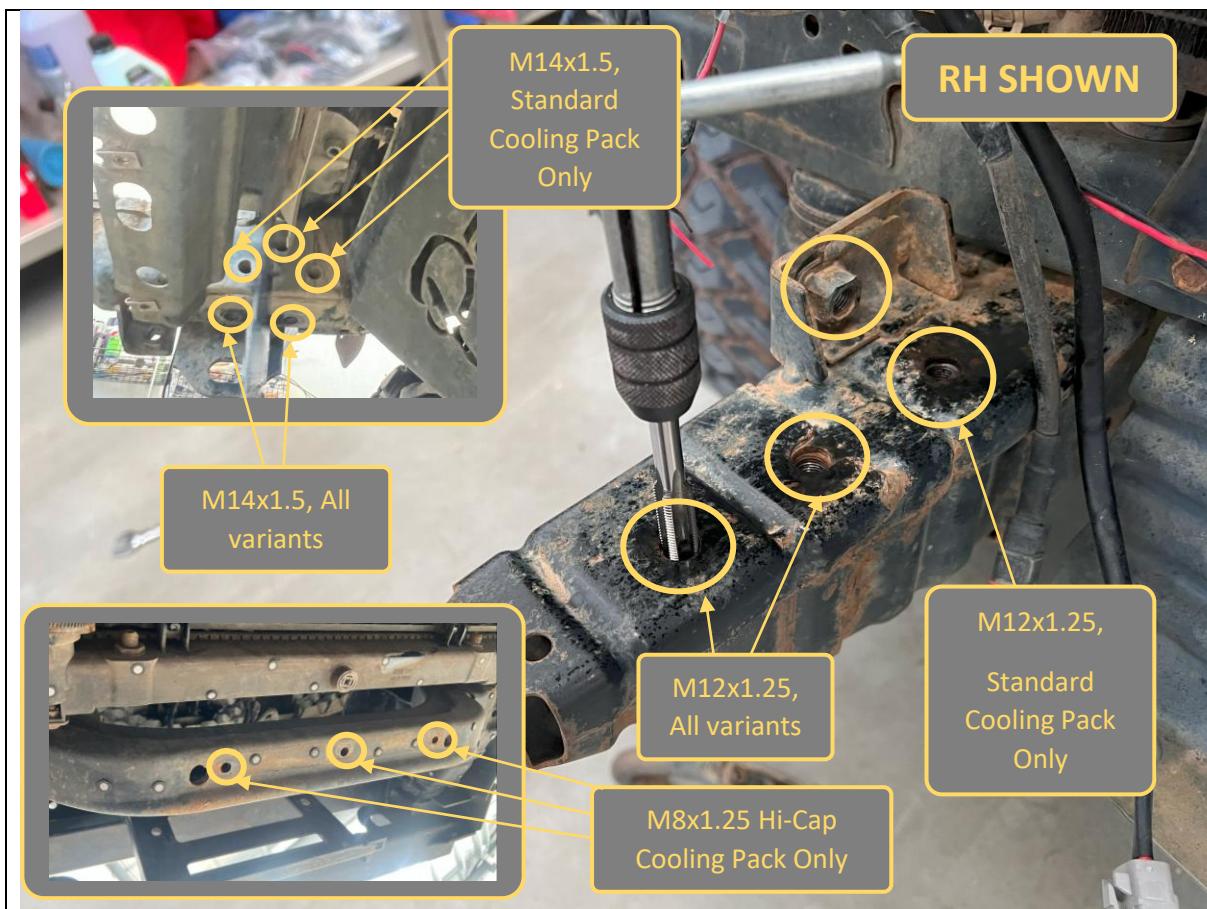
	
<p>STANDARD COOLING PACKAGE</p>  <p>Splash Sheild</p>	<p>HIGH-CAPACITY COOLING PACKAGE</p>  <p>Crossmember</p>
<p>7. There is a difference in the front end of the vehicle depending on if the vehicle is fitted with the standard, or high-capacity cooling package.</p> <p>8. Standard package has no crossmember, a shallower radiator and plastic splash shield. This setup appears to be fitted to 3.0 Diesel and 4.2 Diesel non-intercooled vehicles.</p> <p>9. High-capacity cooling package has an additional crossmember and a deeper radiator. This setup appears to be fitted to 4.8 Petrol and 4.2 Diesel Intercooled vehicles. Vehicles with High-capacity cooling package require FB-NPT-Y61-05-PR-ASM8 Fitting kit.</p> <p>10. Identify cooling package on your vehicle by referencing above images and follow or disregard steps as labeled.</p>	<p>TOOLS REQUIRED</p> <p>FASTENERS</p>



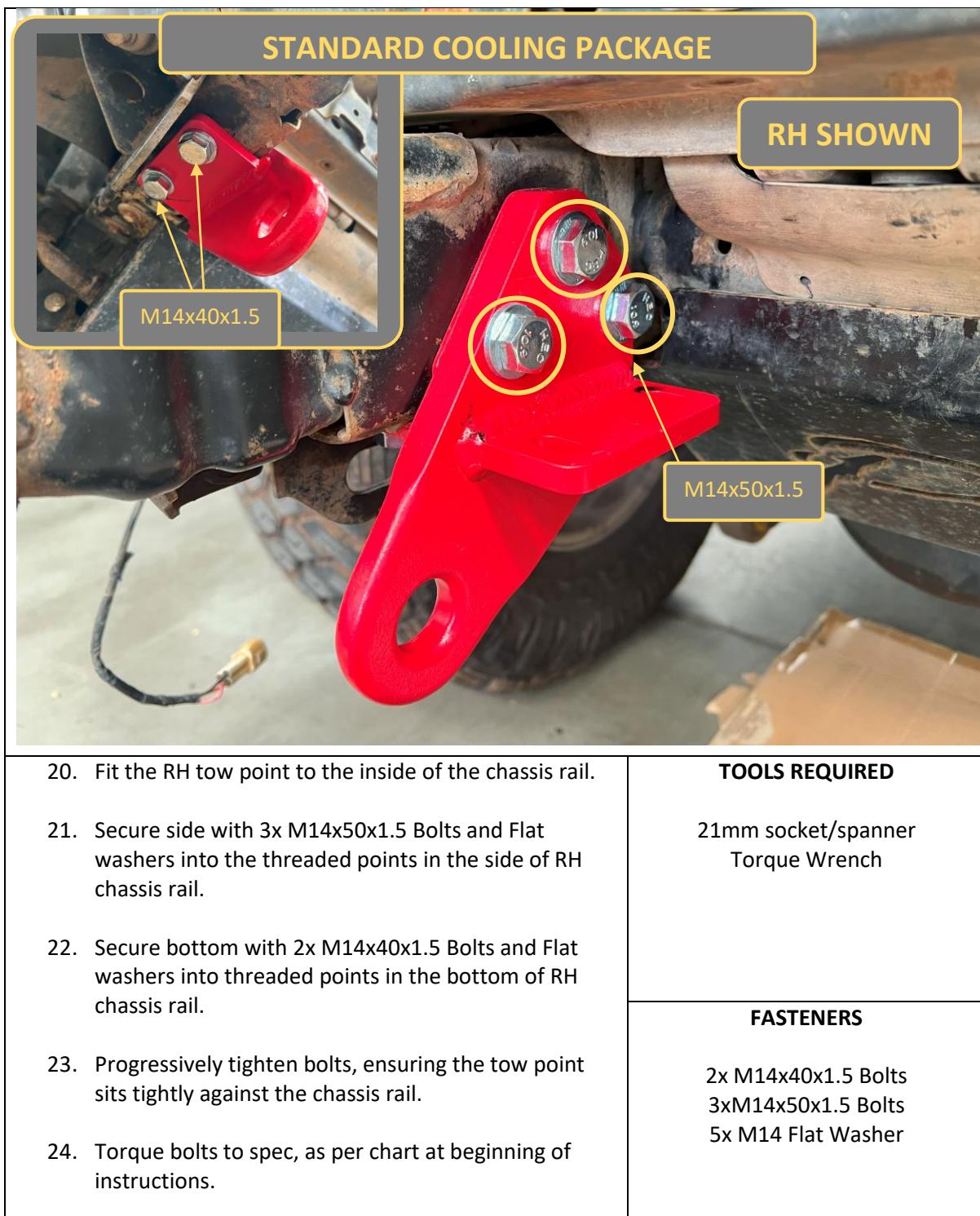
<ol style="list-style-type: none">11. Remove the plastic splash guard using 10mm socket.12. Discard Splash Guard	TOOLS REQUIRED 10mm Socket
	FASTENERS Factory Bolts - Discard

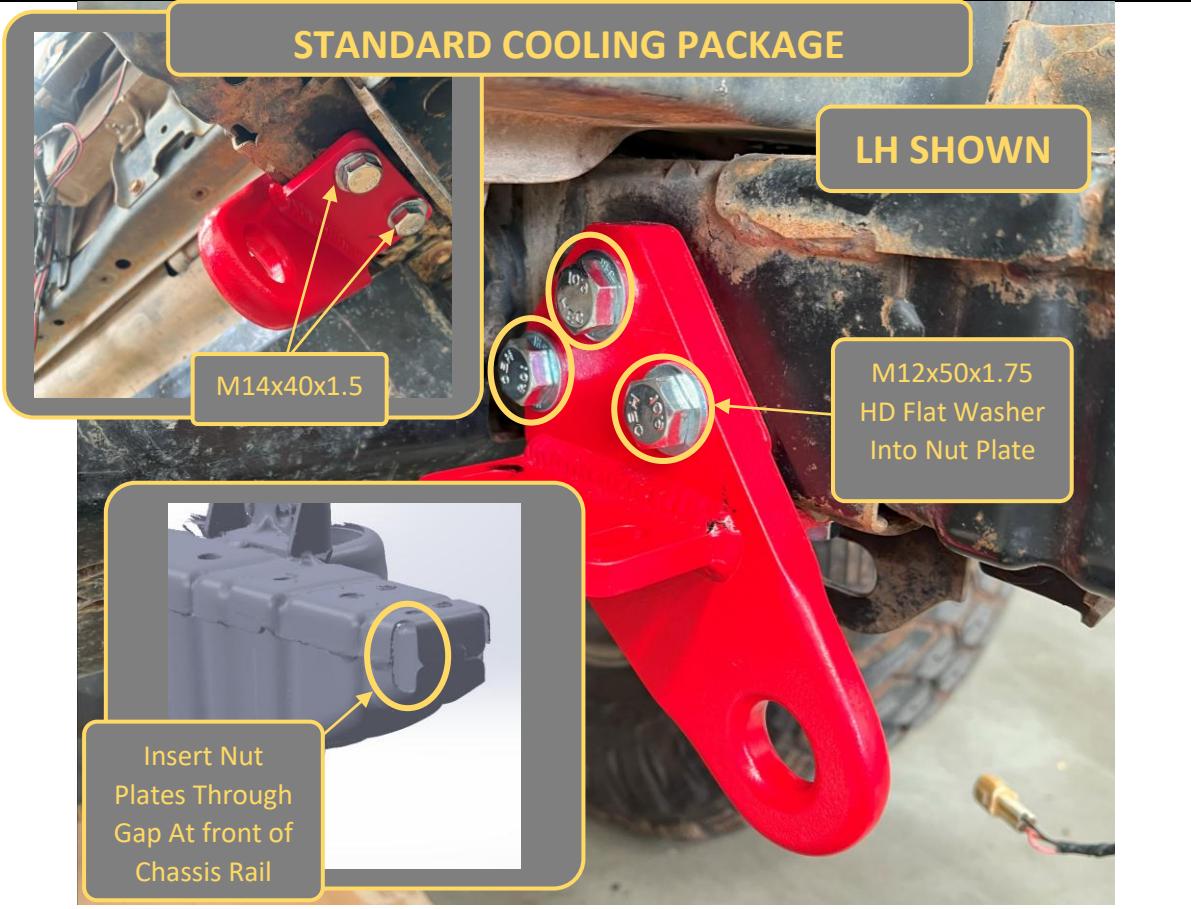


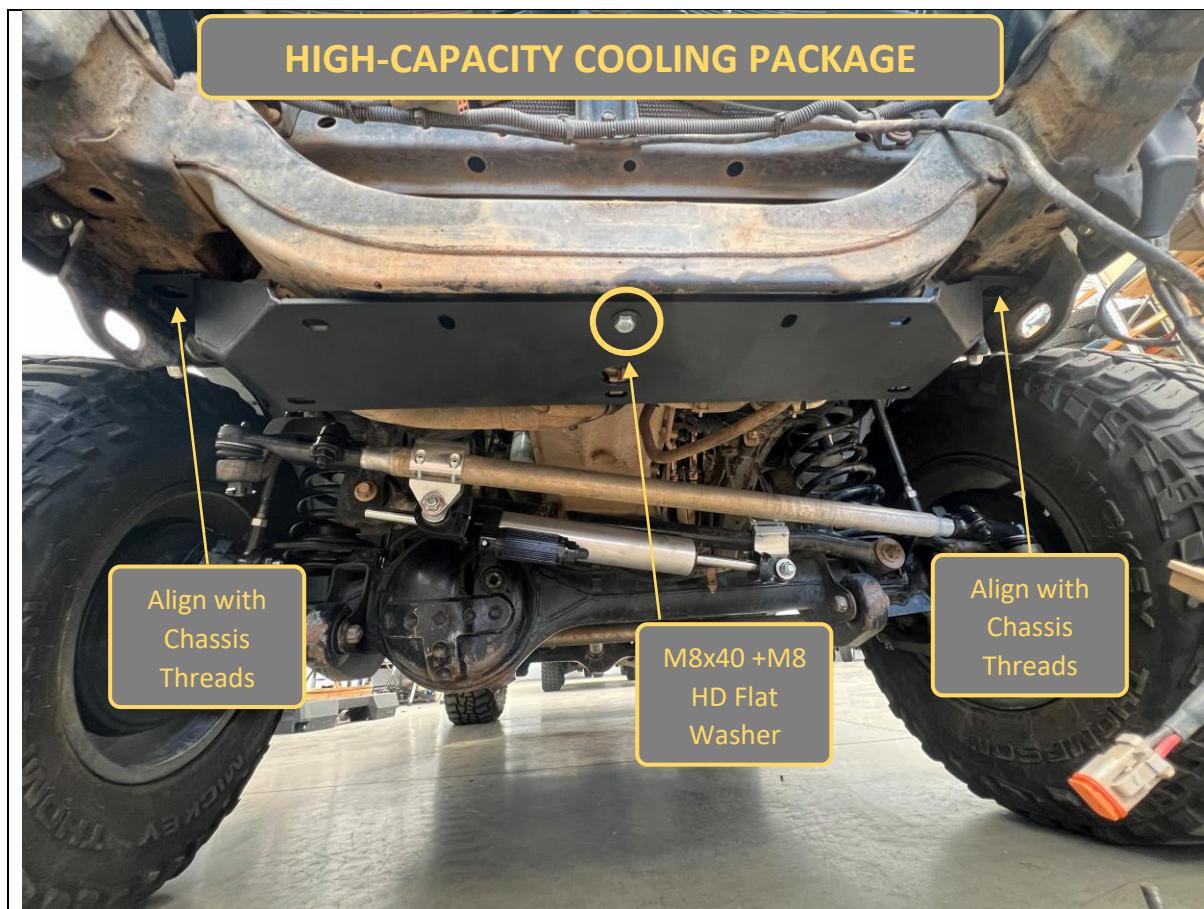
<p>13. Remove the skid plate on the bottom of the crossmember. Use 12mm and 19mm sockets to remove the 3x 12mm bolts on bottom of crossmember and 4x 19mm head bolts securing to the chassis.</p> <p>14. Discard skid plate, tow point and fasteners.</p>	<p>TOOLS REQUIRED</p> <p>12 & 19 mm Socket</p>
	<p>FASTENERS</p> <p>Factory Bolts - Discard</p>



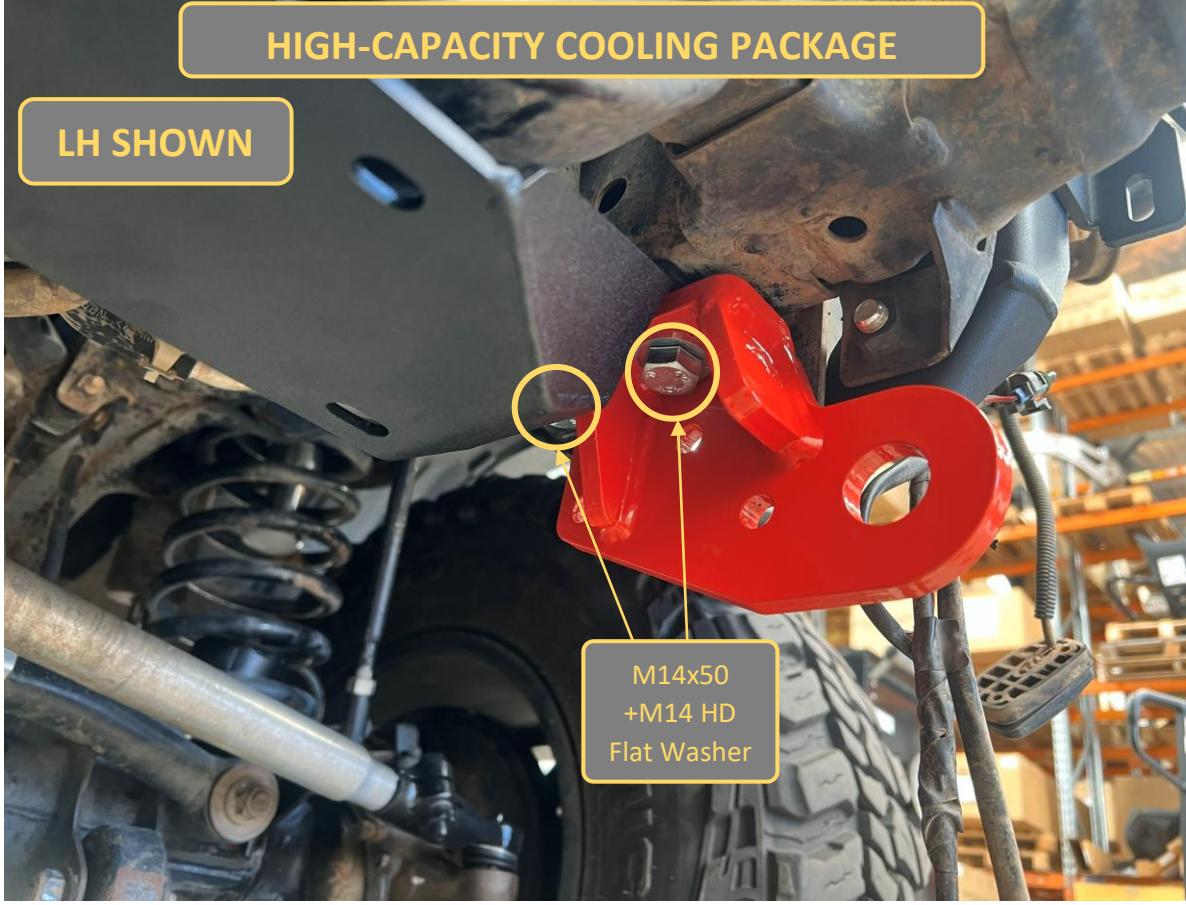
<p>15. Clean up all chassis mounted threads, using a Tap and some light lubricant such as WD 40. This step is necessary, as even the newest vehicles are at least 10 years old, and the threads will likely be corroded or filled with debris that will prevent bolts running freely.</p> <p>16. Threads are M12x1.25 in the top of chassis rail and on the side brackets.</p> <p>17. Threads are M14x1.5 at the tow point location on the Bottom of chassis rail and on RH inside of chassis rail.</p> <p>18. Threads are M8x1.25 in the bottom of the crossmember on High-capacity cooling vehicles only.</p> <p>19. The side M14 tow point and rearmost top chassis threads are not present on vehicles with High-capacity cooling pack.</p>	TOOLS REQUIRED
	FASTENERS

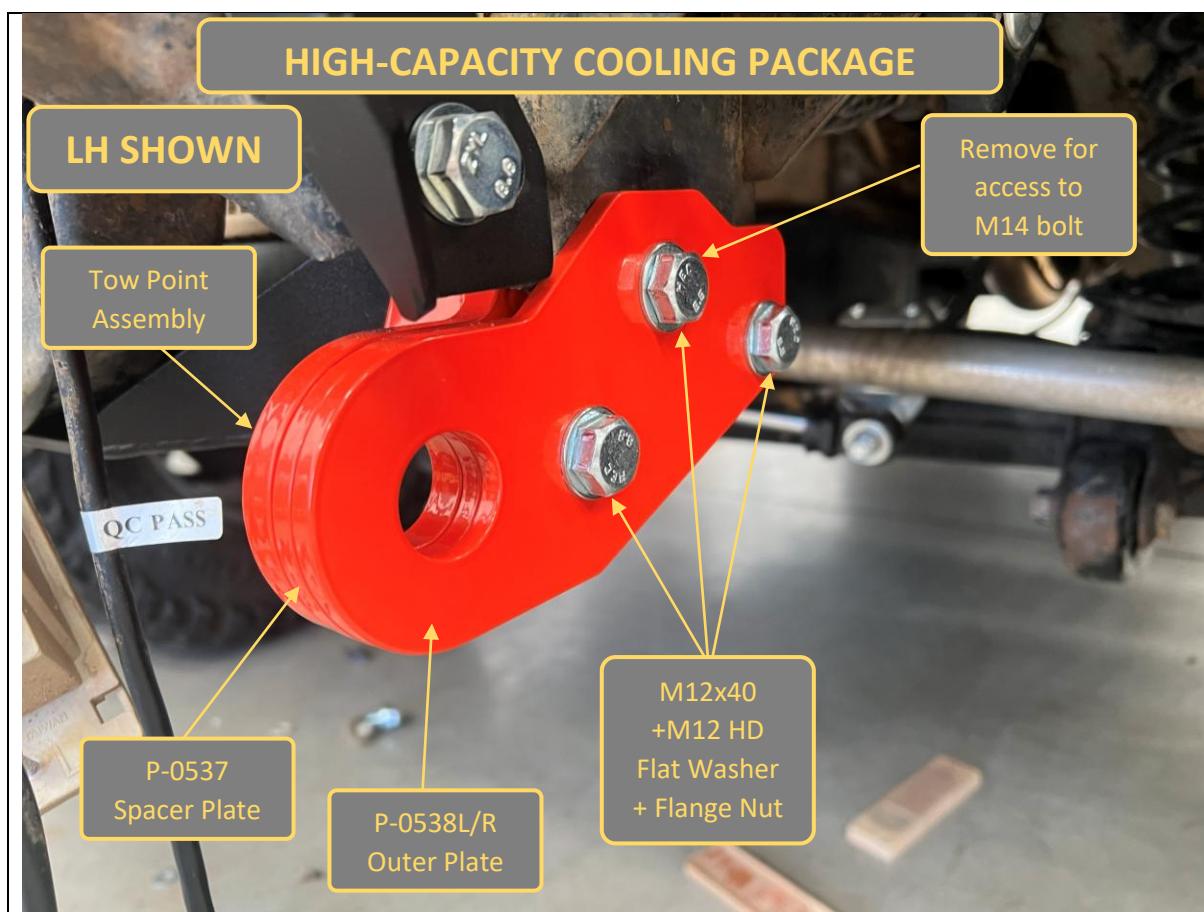


 <p>STANDARD COOLING PACKAGE</p> <p>LH SHOWN</p> <p>M14x40x1.5</p> <p>M12x50x1.75 HD Flat Washer Into Nut Plate</p> <p>Insert Nut Plates Through Gap At front of Chassis Rail</p>	
<p>25. Fit the LH tow point to the inside of the chassis rail.</p> <p>26. Secure bottom with 2x M14x50x1.5 Bolts and Flat washers into threaded points in the bottom of RH chassis rail.</p> <p>27. Secure side with 3x M12x50x1.75 HD Flat Washers Into supplied long stem nut plates, inserted through the gap at the front of the chassis rail. If required use pliers to open the gap slightly to allow nut plates to be inserted.</p> <p>28. Progressively tighten bolts, ensuring the tow points sit tightly against the chassis rail.</p> <p>29. Tighten and Torque bolts.</p>	<p>TOOLS REQUIRED</p> <p>21mm socket/spanner 18/19mm socket/spanner Torque Wrench Pliers</p> <p>FASTENERS</p> <p>2x M14x40x1.5 Bolts 2x M14 Flat Washer 3xM12x50x1.75 Bolts 3x M12HD Flat Washer 3x Long Stem M12 Nut Plate</p>

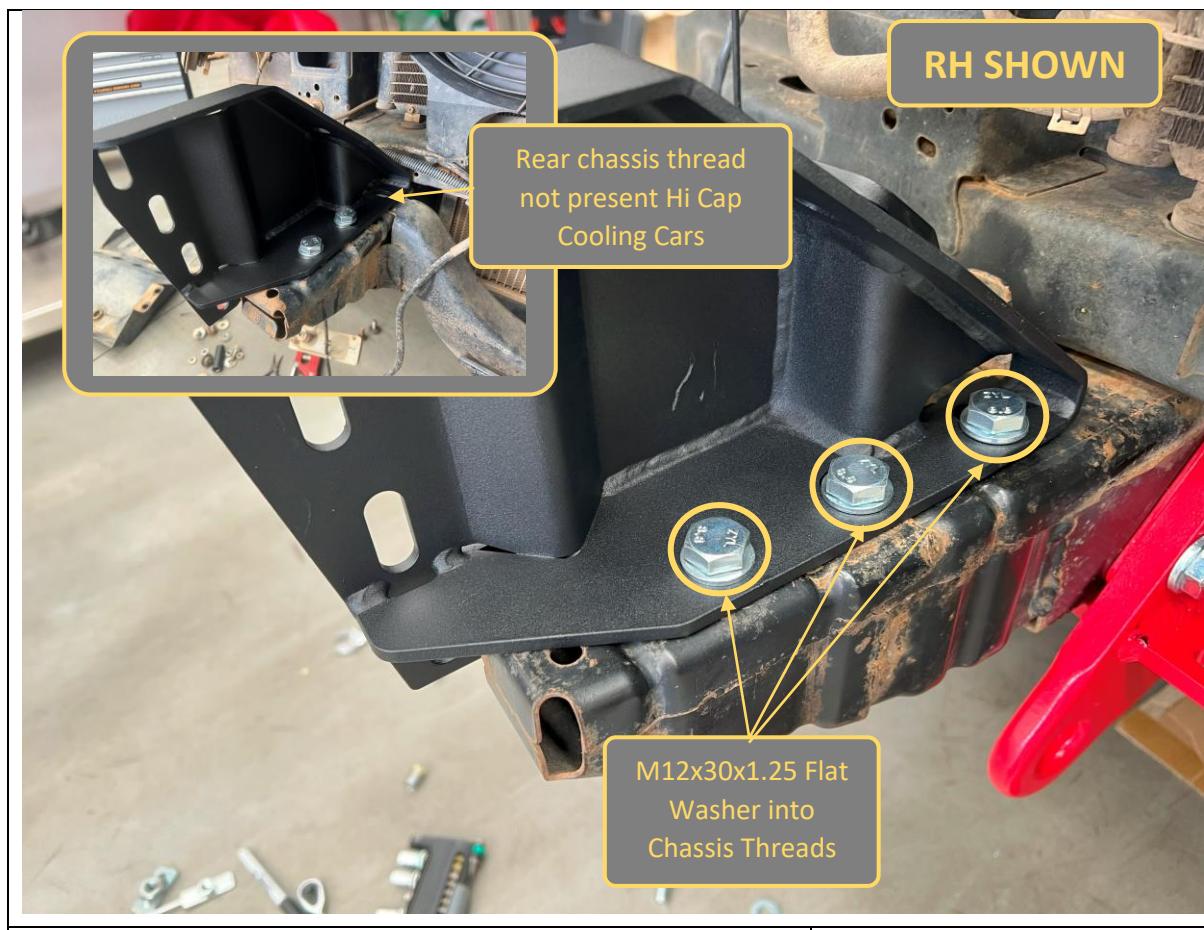


<p>30. Fit the crossmember brace to the radiator crossmember, securing in position using single M8x40 Bolt and M8 HD flat washer from the ASM8 Kit. Leave finger tight at this stage.</p> <p>31. Align the slots in the crossmember brace with the M14x1.5 threaded points in the bottom of the chassis.</p>	TOOLS REQUIRED
	FASTENERS
	1x M8x40 Hex 1x M8 HD Flat Washer

HIGH-CAPACITY COOLING PACKAGE	
LH SHOWN	
<p>32. Fit the main tow point from the ASM8 Kit to the chassis using M14x50x1.5 Bolts and M14 HD Flat washers (also from ASM8 Kit).</p> <p>33. Leave bolts finger tight at this stage but ensure that the tow point and crossmember brace are snug against the bottom of the chassis rail.</p> <p>34. Complete tow point fitment on both sides of the vehicle.</p> <p>35. Remove the M8x40 Bolt in center and retain for refitment of the lower bash plate.</p>	TOOLS REQUIRED FASTENERS 2x M14x50 Hex 1x M8 HD Flat Washer



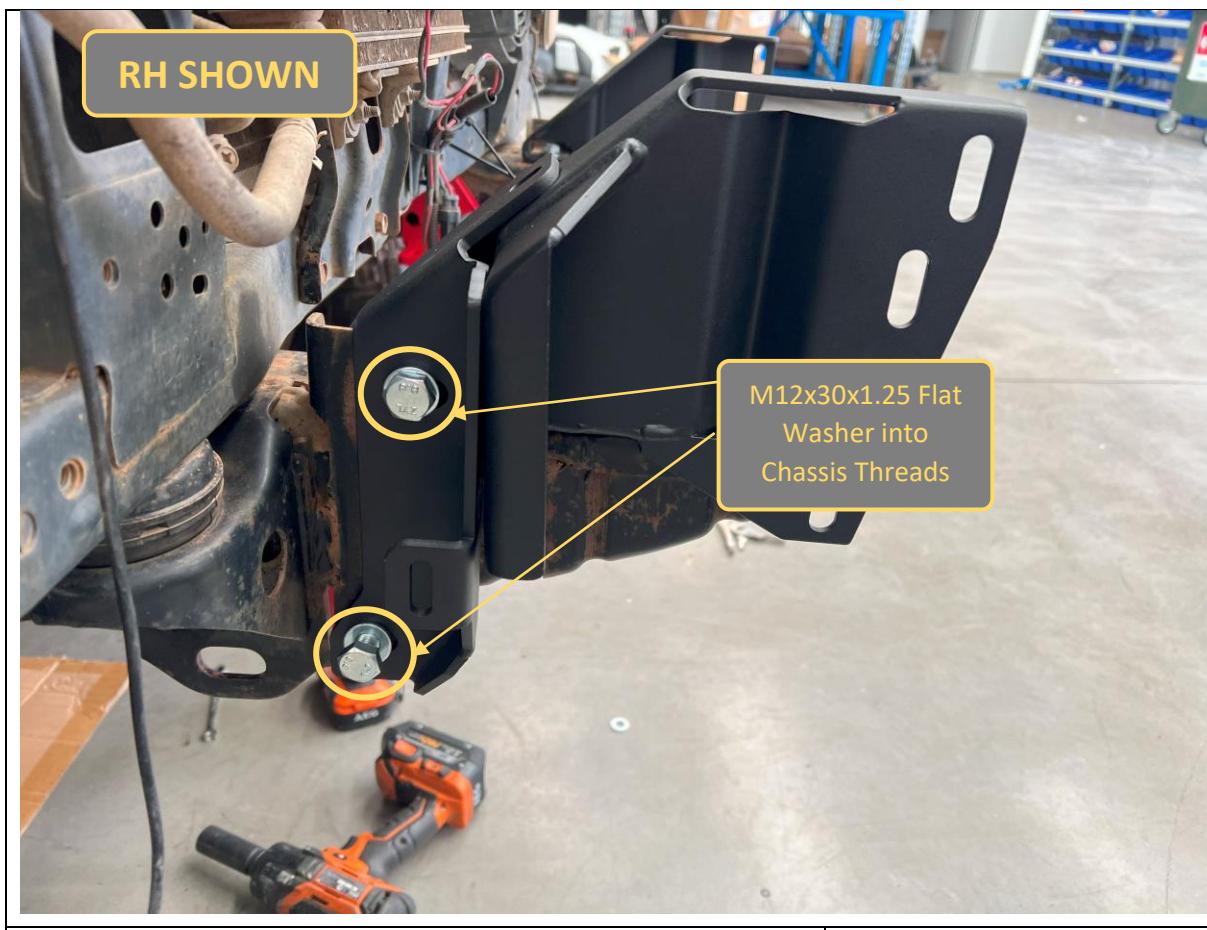
<p>36. Fit the P-0537 Spacer and P-0538L/R outer plates to the tow point, sandwiching the factory tie down point welded to the chassis.</p> <p>37. Snug tight the M12 bolts to ensure the tow point is sitting flush against the side of the welded tie down point.</p> <p>38. Remove the top M12 bolt to provide access to the front M14 bolt securing the tow point to the chassis on the underside, installed in the previous step.</p> <p>39. Tighten & torque M14 bolts on the underside, using 21mm socket and extension bar.</p> <p>40. Replace top M12 bolt, align bore of tow point then tighten & torque the 3x M12x40 Hex bolts, using 18/19mm socket.</p> <p>41. Complete lamination plate fitting and tightening on other side of vehicle.</p>	<p>TOOLS REQUIRED</p> <p>21mm Socket Extension Bar 18/19mm Socket Torque Wrench</p>
	<p>FASTENERS</p> <p>3x M12x40 Hex 3x M12 HD Flat Washer 3x M12 Flange Nut (From ASM8 kit)</p>



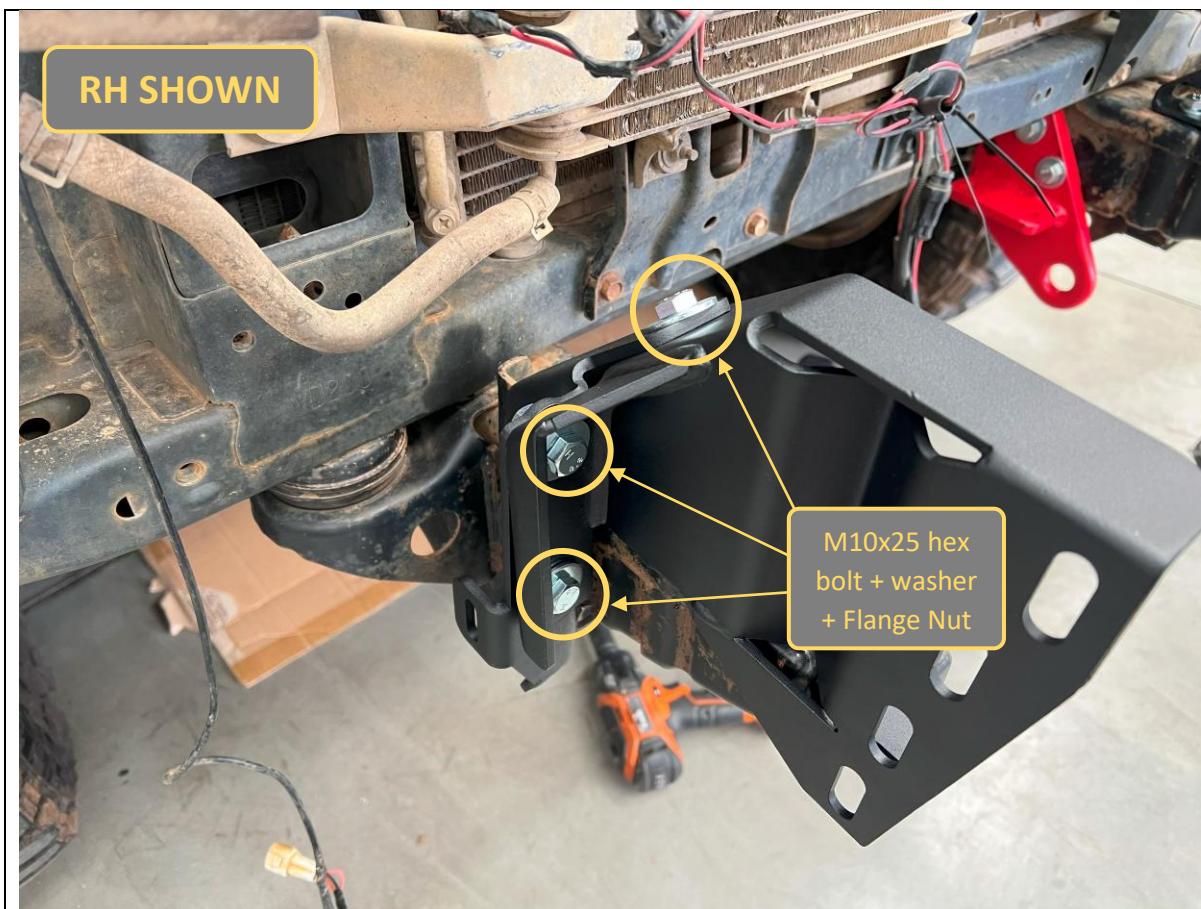
42. Fit the Impact assemblies to the top of the chassis rails. Secure with supplied M12x30x1.25p Bolts and Flat washers into the captive threads in the chassis rail.
43. The rearmost captive thread in the chassis is not present on high-capacity cooling package vehicles. Use 2x bolts on these vehicles.
44. Leave all bolt finger tight at this stage

TOOLS REQUIRED**FASTENERS**

3x M12x30x1.25p Hex Bolts
3x M12 Flat Washer



<p>45. Fit the outer brace bracket to the chassis, using M12x30x1.25 bolts and Flat washers into threaded inserts in the outside edge of the chassis rail.</p> <p>46. Snug bolts so that the chassis brace sits square to the side of the chassis but can still be adjusted.</p>	TOOLS REQUIRED
	FASTENERS <p>2x M12x30x1.25p Hex Bolts 2x M12 Flat Washer</p>



47. Secure the impact assembly to the chassis brace using 3x M10x25 Hex Bolts, M10 HD washers and M10 Flange Nuts.
48. Leave all bolts finger tight at this point.
49. Complete impact assembly and chassis brace fitment for other side of vehicle.

TOOLS REQUIRED

FASTENERS
3x M10x25 Hex Bolts
3x M10 HD Flat Washer
3x M10 Flange Nut



50. Time to adjust the Impact Assemblies. First measure the **INSIDE** distance between the uprights. This is Dimension A. You can write it below for Reference.

Dimension A = _____

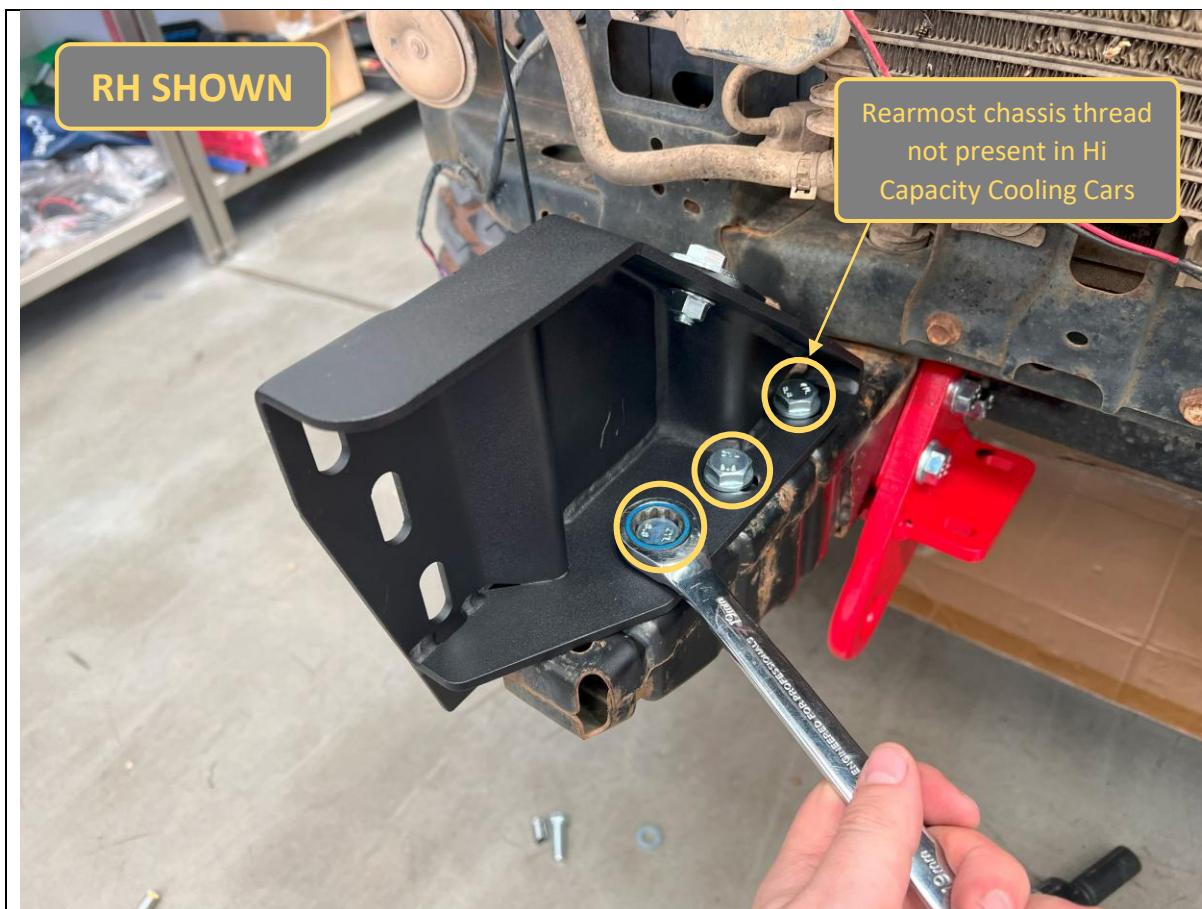
51. Measure the Distance from the front top corner of the mount to an identifiable point on the outside of the vehicle (e.g. the headlight bracket). This is Dimension B. The exact points measured don't really matter, but they must be the same for both sides.

52. Adjust the mounts side to side (whilst maintaining dimension A) such that Dimension B is the same on both sides of the vehicle. This will ensure the bar sits centered on the body, as the body and chassis are not necessarily perfectly aligned.

TOOLS REQUIRED

Tape Measure

FASTENERS



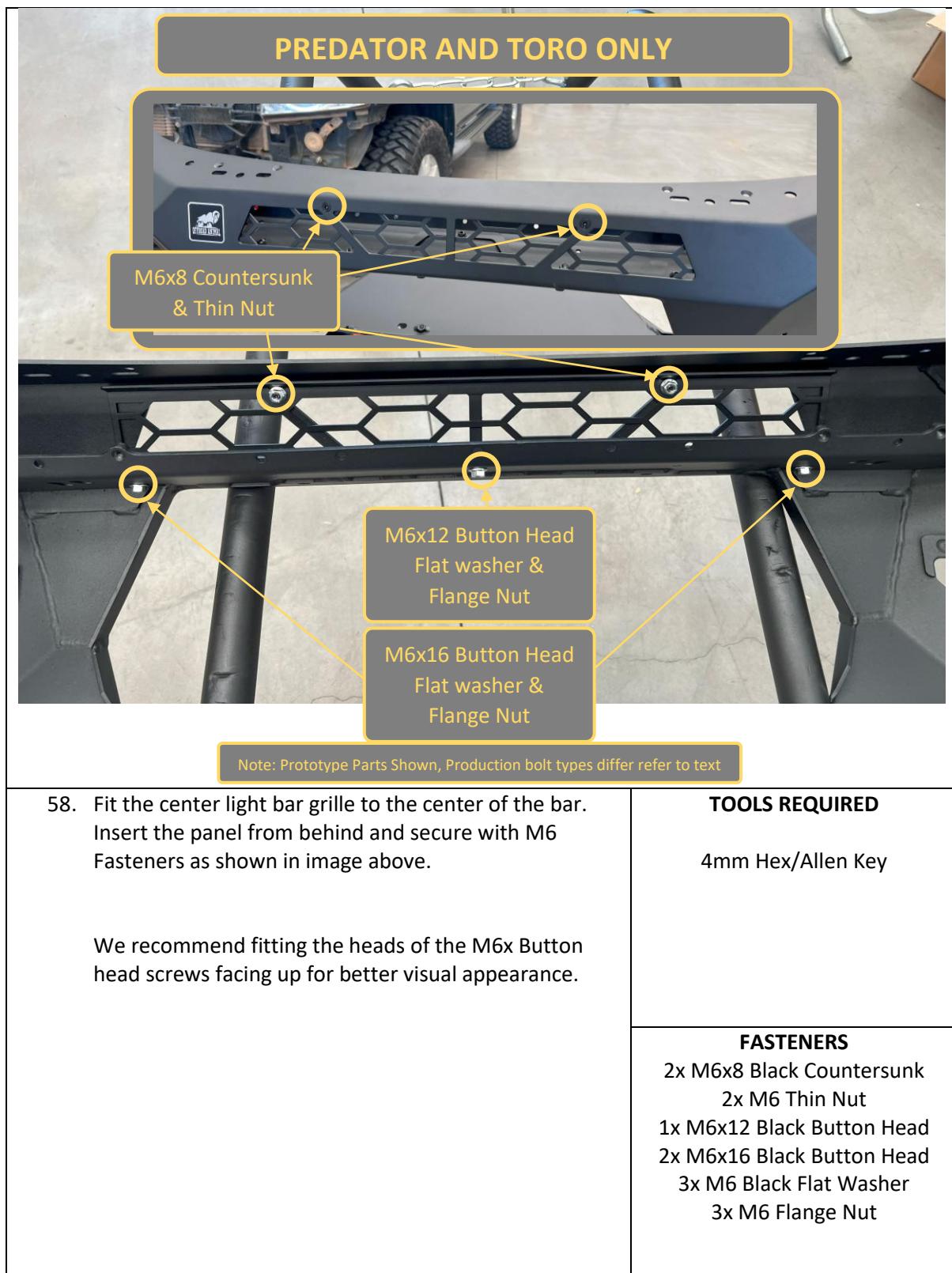
53. Once happy with alignment tighten the impact assembly bolts in the following order
54. First Tighten M12 Bolts securing impact assembly to the chassis using 18/19mm Socket & Spanner. The last bolt will likely require an open end spanner or crows foot socket due to limited clearance.
55. Next Tighten M12 Bolts Securing the Brace bracket to the side of the chassis, using 18/19 mm socket
56. Finally Tighten M10 Bolts securing impact assembly to the chassis brace, using 16mm socket / spanner.
57. Torque bolts as per chart at beginning of instructions.

TOOLS REQUIRED

16mm Socket / Spanner
18mm Socket / Spanner
19mm Socket / Spanner
18mm crows foot socket

FASTENERS

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59. If fitting an integrated light bar, do so now from the back.

This bar is designed to fit the Offroad Animal 22-inch light bar. If fitting this light bar, assemble the light bar with legs facing outward, and line it up with the slots in the centre gusset. Secure with M6 fasteners supplied with the light.

This bar can accommodate most other “20-22 inch” size light bars. Stedi ST3K light bars require legs facing inwards.

TOOLS REQUIRED

Supplied with light bar

FASTENERS

Supplied with light bar



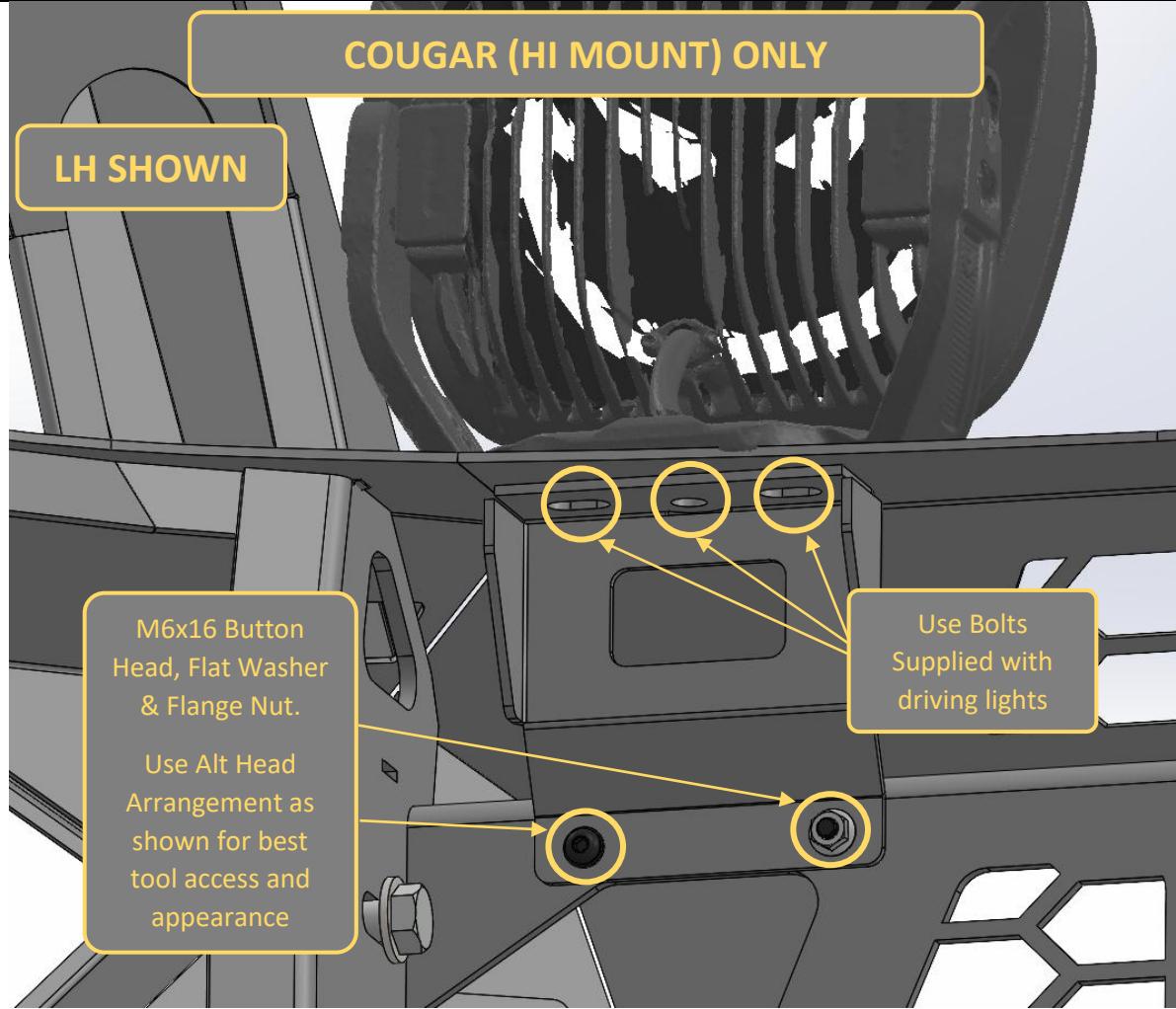
60. Fit the pan brace to the back of the middle section of the bar.
61. Secure at the top with 2x M6x12 black countersunk head bolts and flange nuts.
62. Secure at the bottom with 2x M6x12 black button head bolts, washers and flange nuts.
63. Complete for both sides of bar.

TOOLS REQUIRED

4mm hex/Allen key

FASTENERS
2x M6x12 Black Countersunk
2x M6x12 Black Button Head
2x M6 Black Flat Washer
4x M6 Flange Nut

Per side

	
<p>64. For COUGAR bars If fitting driving lights. Do so NOW. It is NOT POSSIBLE to fit once the bar is fitted to the vehicle.</p> <p>Cougar bar can support up to 2x 8.5" Stedi Type X Evo or 7" Round driving lights.</p> <p>65. First fit the B-1603 Support brackets to the bar, using M6x16 Button head bolts, Black Flat washers and Flange Nuts. Ensure the top slots align with the slots in the top face of the bar.</p> <p>66. Fit the driving lights to the Bar and secure through both the top face of bar and support bracket, using fasteners supplied with driving lights.</p>	<p>TOOLS REQUIRED</p> <p>4mm hex/Allen key Socket / Spanner to suit driving light fasteners</p> <p>FASTENERS</p> <p>2x M6x16 black button head bolt 2x M6 black flat washer 2x M6 flange nut Per Side</p> <p>Fasteners supplied with Driving Lights</p>



<p>67. If fitting driving lights to predator or toro bars, this is also the most convenient time to do so. It may be possible to do it later but would be MUCH more difficult.</p>	<p>TOOLS REQUIRED Supplied with driving lights</p>
<p>Driving lights that have fasteners tightened from above are much easier to fit.</p> <p>The Predator bar can support up to 2x 9" driving lights, while the Toro & bar can support up to 2x 8.5" Stedi Type X Evo or 7" Round driving lights.</p> <p>Fit lights to slots in top of bar using fasteners supplied with the lights</p>	<p>FASTENERS Supplied with driving lights</p>



68. Fit 12x M6 cage nuts into the rectangular slots on the bottom of the bar wing (6x per side).

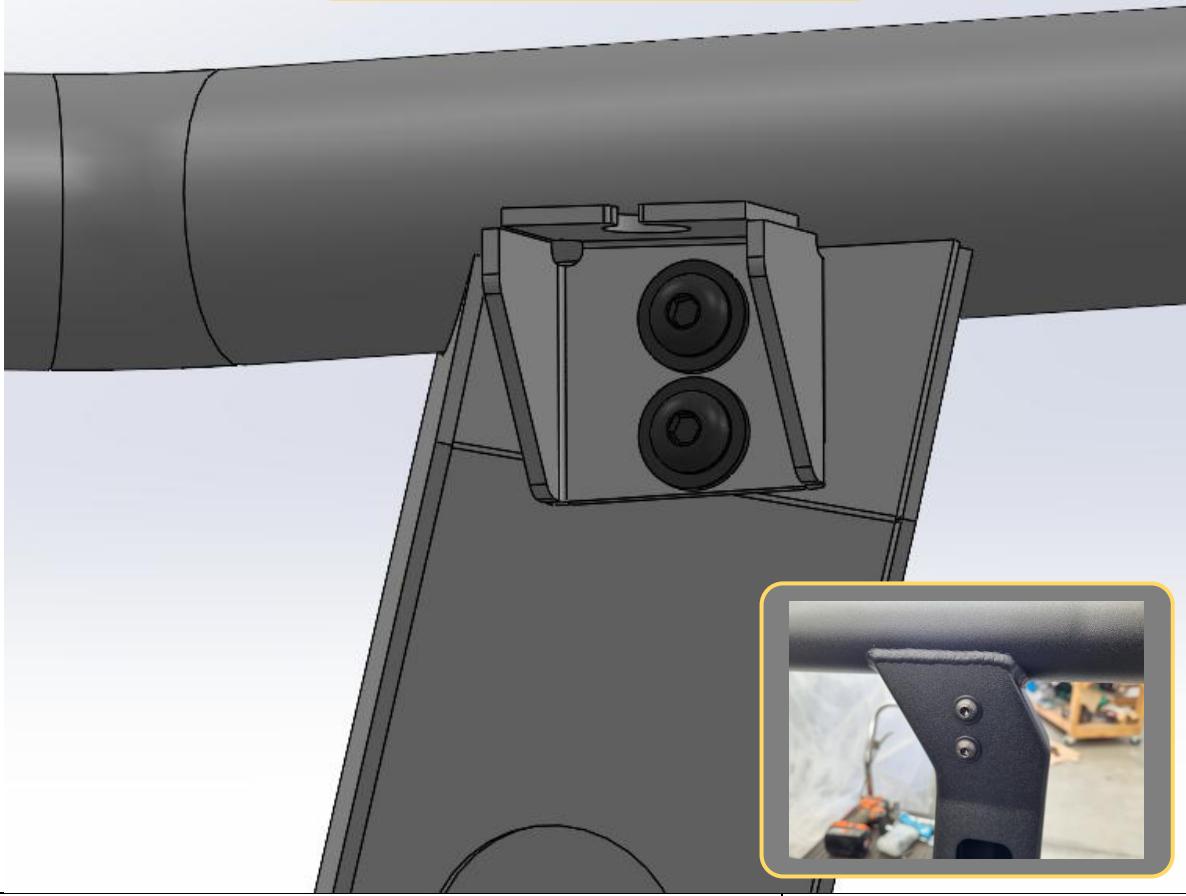
To aid fitting, use a small flat blade screwdriver to push the edge of the cage nut to engage with the slot.

TOOLS REQUIRED

Flat blade screwdriver

FASTENERS

12x M6 cage nut

TORO & COUGAR ONLY

69. Fit antenna brackets to Toro/Cougar uprights using M8x20 black button head bolts and black washers.

Brackets are handed, ensure correct side is fitted and top of bracket is level with bar.

70. Else fit the 2x M8x20 black button head bolts and black washers to the back of each bullbar upright, to protect nut threads in bar for future use.

TOOLS REQUIRED

5mm hex/Allen key

FASTENERS

4x M8x20 black button head
4x M8 black flat washer

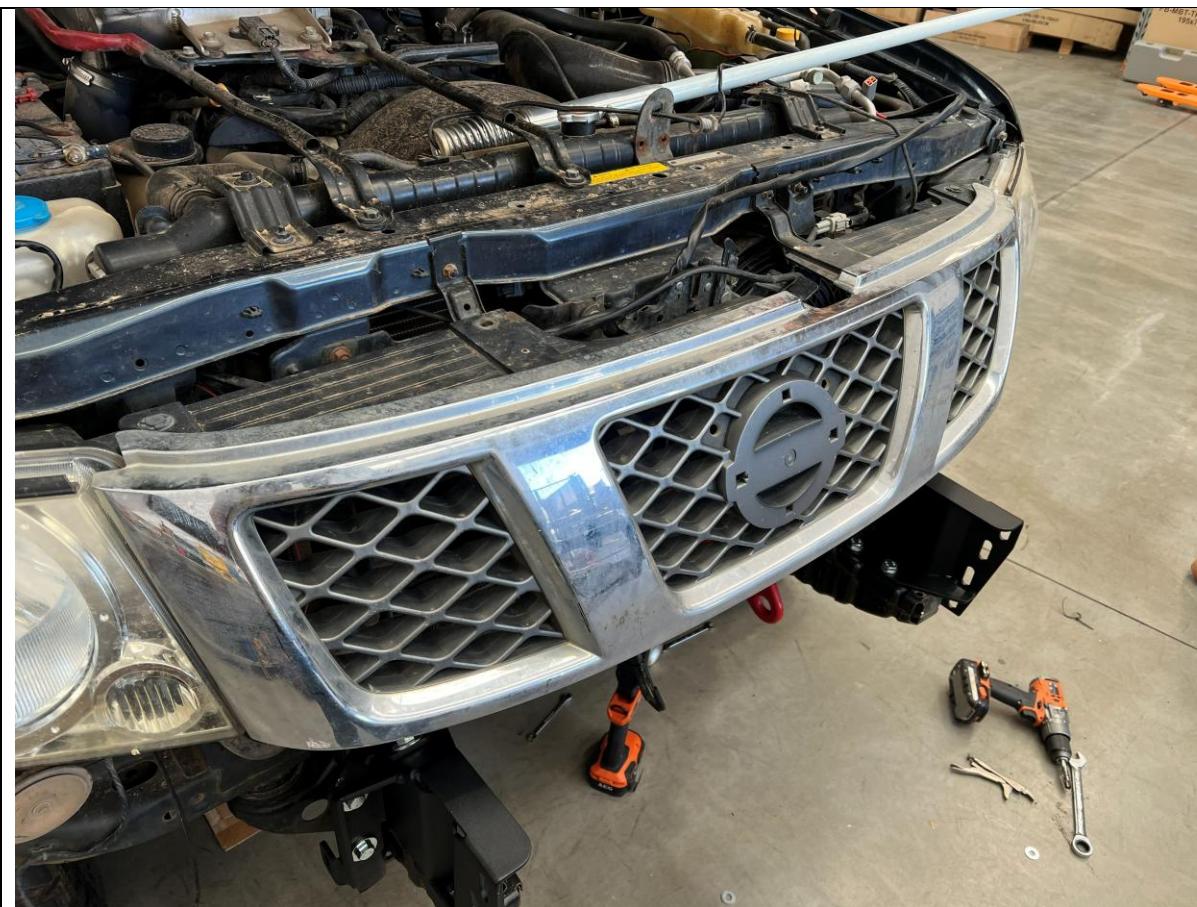


<p>71. Fit the 2x supplied lengths of top bulb pinch weld rubber to each wing on the bullbar in locations shown on diagrams above.</p> <p>Ensure the pinch weld is fully seated on the edge of the bar for neat appearance.</p>	TOOLS REQUIRED
	FASTENERS

<p>72. This bar can accommodate wing mounted cube style lights, maximum 2x per side or 1x 8" single row light bar.</p> <p>73. If choosing to fit the lights, secure each of them to the mounting slots in the mesh bracket using fasteners supplied with the lights.</p> <p>74. Vertical spacing of mounting points are designed to suit Offroad Animal lights, other brands may require spacing down to sit centered in the opening.</p>	<p>TOOLS REQUIRED 10mm Socket / Spanner 13mm Socket / Spanner</p> <p>FASTENERS Fasteners supplied with lights</p>



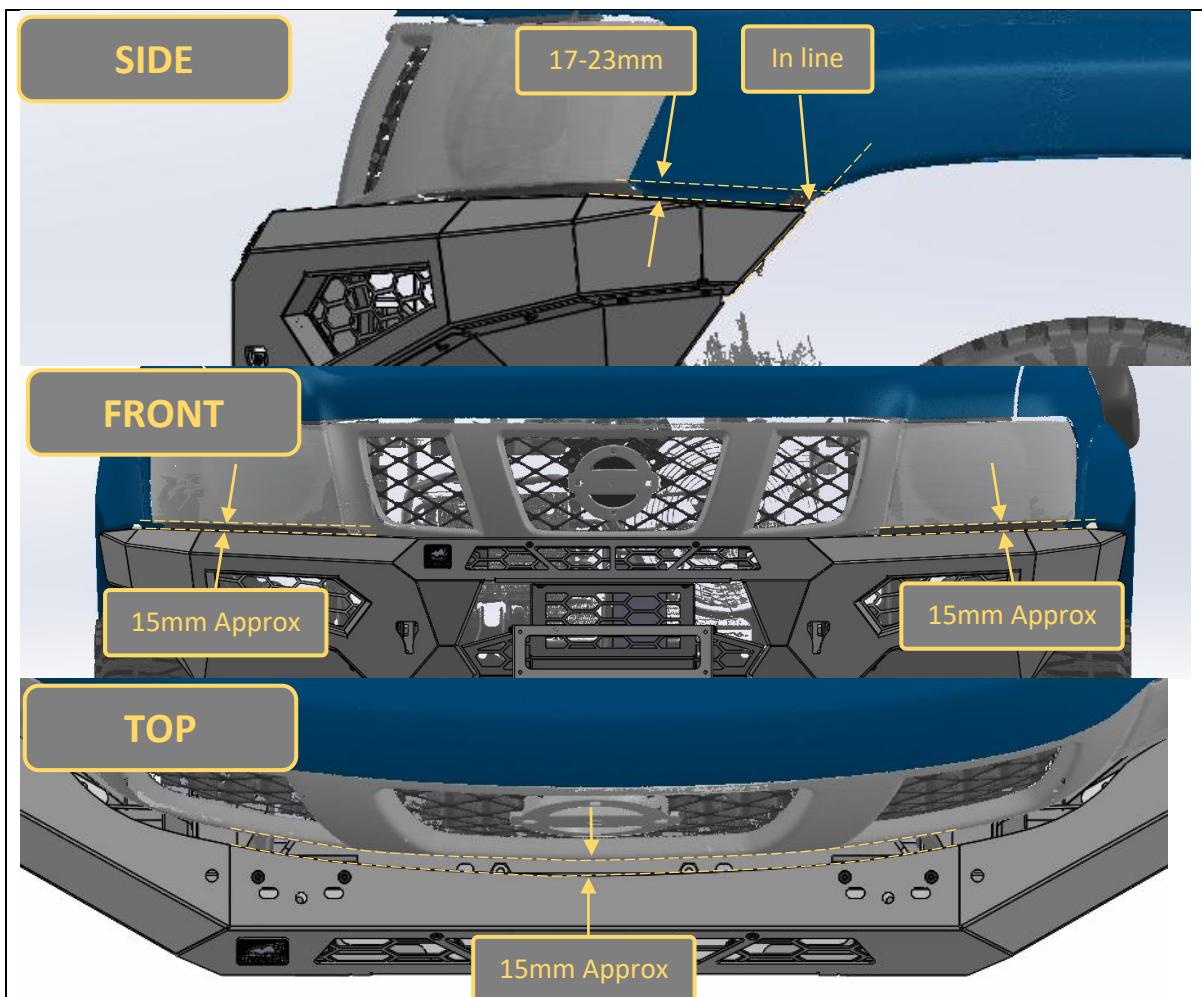
<p>75. Fit the wing mesh brackets to the inside of the bar wing.</p> <p>76. Secure to wing using 6x M6x16 Hex bolts and flat washers into the captive nuts in the wing.</p> <p>77. Repeat for other side.</p>	<p>TOOLS REQUIRED</p> <p>10mm Socket / Spanner</p>
	<p>FASTENERS</p> <p>6x M6x16 Hex bolt 6x M6 flat washer</p> <p>Per side</p>



<p>78. We are nearly ready to fit the bar.</p> <p>79. For PREDATOR AND TORO Bars, Refit the grille before fitting the bar. Resecure with orginal clips and fasteners removed during dissassembly.</p> <p>80. For COUGAR Bars, DO NOT re-fit the grille before fitting the bar, as access is needed for fitment of the High Mount Winch. If desired the grille can be dry fitted to provide extra reference for bar alignment.</p>	<p>TOOLS REQUIRED</p>
	<p>FASTENERS</p> <p>Re Use OE Clips and Fasteners</p>



<p>81. With assistance, either from another person, or a lifting trolley, lift and slide the bar onto the chassis.</p> <p>82. Secure the bar to the impact assemblies using 8x M12x30 Hex Bolts, HD Flat washers and Flange Nuts.</p> <p>83. The bottom bolt on each side needs to be accessed via the tool access cutout. This bolt must have its head toward the outside of the vehicle.</p> <p>Access is tight, use a 18mm 3/8" Drive socket and extension bar for easiest access.</p>	<p>TOOLS REQUIRED</p> <p>Lifting trolley 18mm Socket / Spanner 18mm 3/8" Drive Socket 3/8" Drive Extension Bar</p>
	<p>FASTENERS</p> <p>8x M12x30 Hex Bolts 8x M12 HT Flat washers 8x M12 Flange Nuts</p>



84. With assistance, from another person, align the bar with the edges of the vehicle. Adjust such that the clearances are neat, and the bar is symmetric left/right on the vehicle.

Front view: The top of the bar should sit horizontally level. The wings of the bull bar should be parallel to the bottom of the headlights with approximately 15mm clearance.

Side view: The end of the bar wing should be in line with the wheel arch liner. Top edge of the wing should be parallel to underside of the fender flare, with 17-23mm clearance.

Top view: There should be around 15mm clearance between the grille and back edge of the bar.

85. Once happy with alignment, tighten & Torque all 8x M12 bolts.

TOOLS REQUIRED

Lifting trolley
18mm Socket / Spanner
Torque Wrench

FASTENERS



86. Assemble the Number plate flip. Ensure the fasteners are in the correct order as shown in the image above.
87. Fit the number plate flip to the front of the bar, using supplied M6x20 Bolts, Flat washers and Flange Nuts
88. Adjust the tension of the M8 Bolts so that the flip bracket can be moved by hand with some friction resistance.

TOOLS REQUIRED

10mm Socket / Spanner
13mm Socket / Spanner

FASTENERS

2x M8x25 Hex head bolt
2x M8 flat washer
2x Black Plastic spacer
2x M8 Nyloc nut
2x M6x20 Hex head bolt
2x M6 flat washer
2x M6 Flange nut



89. If fitting a winch, do so now.

This Predator and Toro bars are designed to fit most low mount winches, in foot down configuration. Warn Zeon 12s is the largest winch confirmed to fit.

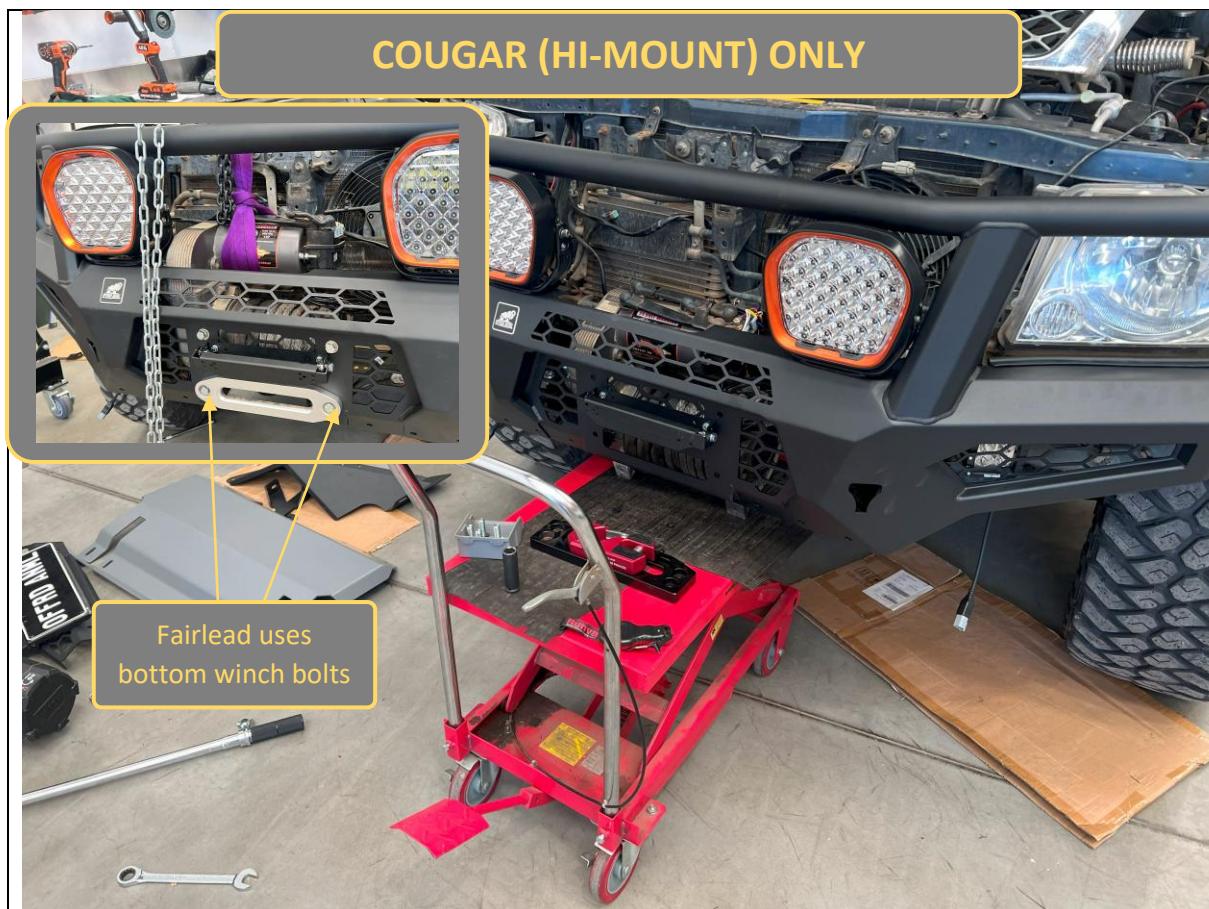
Ensure clutch handle will be accessible through opening in front mesh panel. Refer to winch instructions regarding changing clutch handle location.

TOOLS REQUIRED

Refer Winch Manufacture instructions

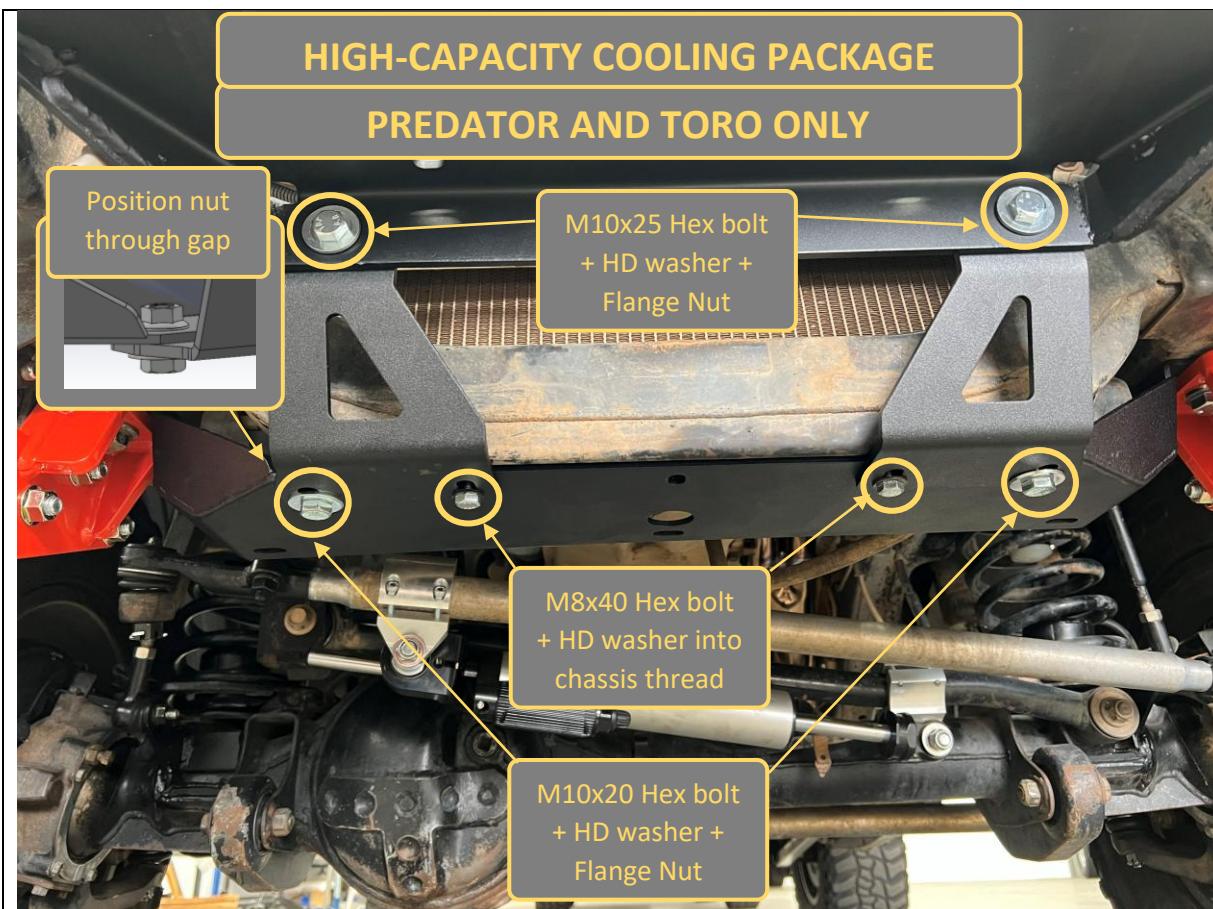
FASTENERS

Supplied with Winch



<p>90. If fitting a winch, do so now.</p> <p>91. The Cougar bar is designed to fit a Warn High mount winch, model M8274 Only. High mount winches by other brands patterned after this model may also work, but compatibility is not guaranteed.</p> <p>92. Given the heavy weight of these winches, we recommend using mechanical assistance to fit the winch, by either by jacking from underneath, using a lift trolley and blocks, or lifting from above using engine crane or overhead chain block.</p> <p>93. Secure winch to bar using fasteners supplied with the winch. Fit top fasteners first, then bottom fasteners in conjunction with the fairlead. Feed the winch rope through the fairlead once winch is secured.</p>	<p>TOOLS REQUIRED</p> <p>Lifting equipment. Socket / Spanner to suit winch fasteners</p>
	<p>FASTENERS</p> <p>Supplied with winch</p>

<p>94. Fit the winch straps between the back of the winch cradle and the tow points using M10x25 Hex Bolts, HD washers and Flange Nuts.</p> <p>95. Complete on both sides of the vehicle.</p>	<p>TOOLS REQUIRED</p> <p>16mm Socket / Spanner</p>
	<p>FASTENERS</p> <p>2x M10x25 Hex Bolts</p> <p>2x M10 HD washers</p> <p>2x M10 Flange Nuts.</p> <p>Per side</p>



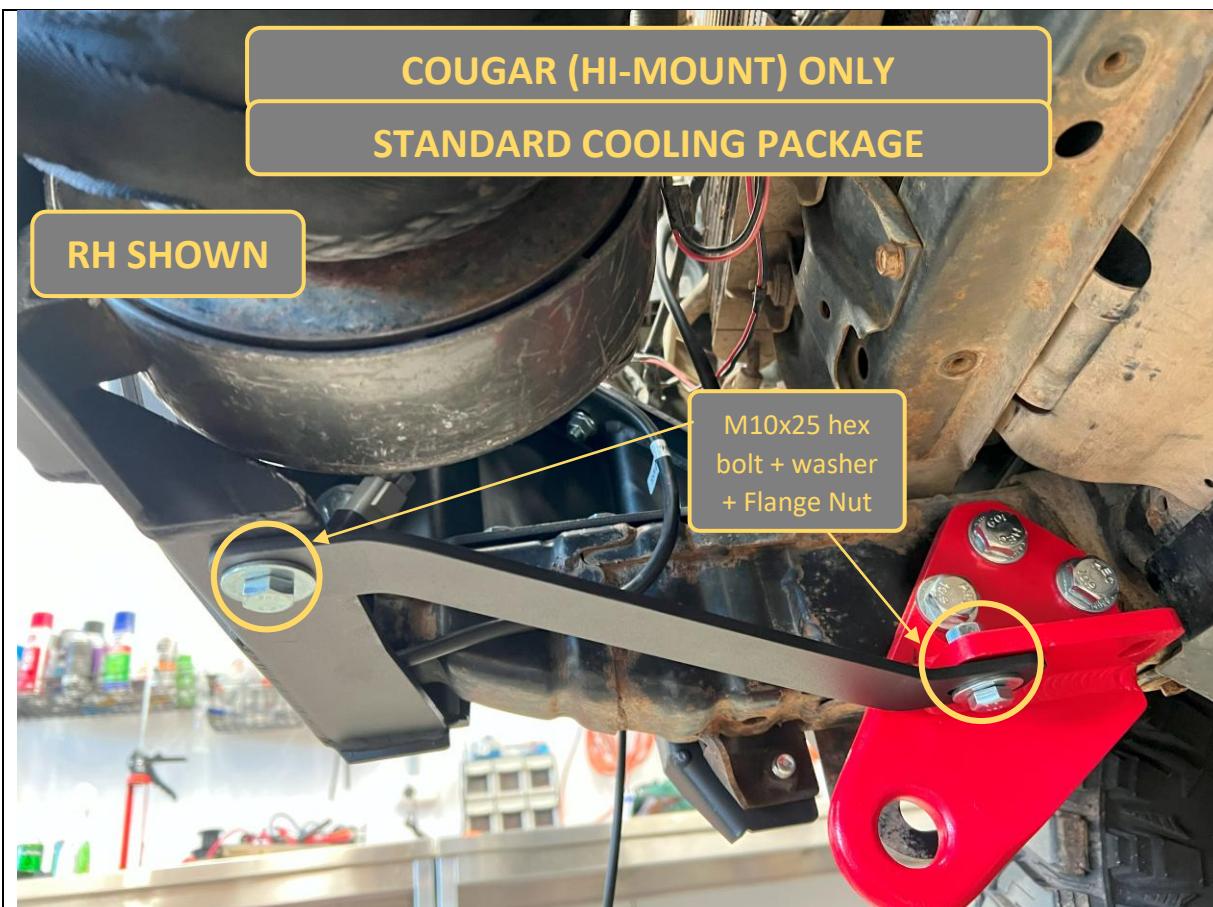
96. Fit the winch straps supplied in ASM8 Kit between the back of the winch cradle and the Crossmember brace using fasteners shown in above image.

TOOLS REQUIRED

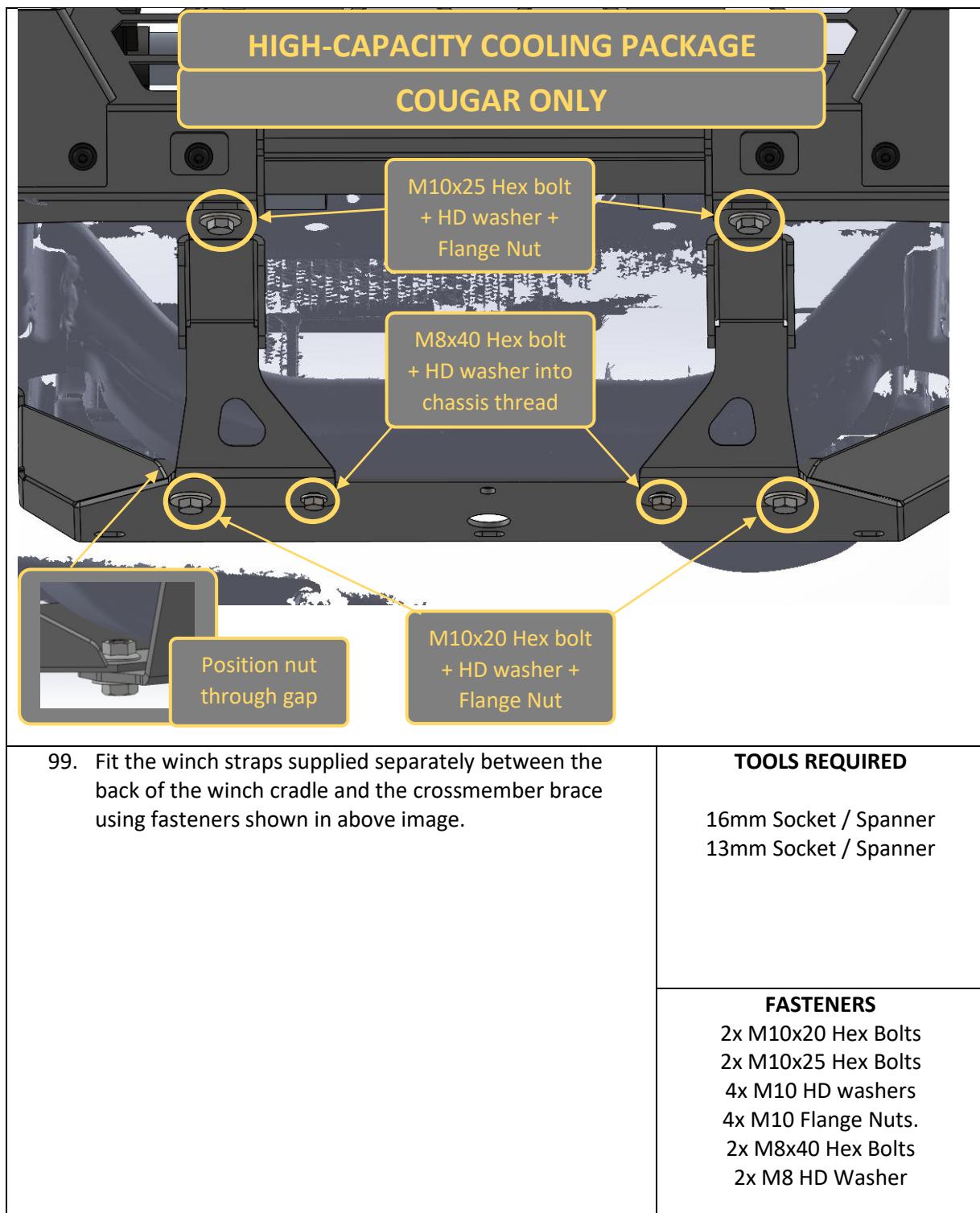
16mm Socket / Spanner
13mm Socket / Spanner

FASTENERS

2x M10x20 Hex Bolts
2x M10x25 Hex Bolts
4x M10 HD washers
4x M10 Flange Nuts.
2x M8x40 Hex Bolts
2x M8 HD Washer



<p>97. Fit the winch straps between the bottom of the winch cradle and the tow point using M10x25 Hex Bolts, HD washers and Flange Nuts.</p> <p>98. Complete on both sides of the vehicle.</p>	<p>TOOLS REQUIRED</p> <p>16mm Socket / Spanner</p>
	<p>FASTENERS</p> <p>2x M10x25 Hex Bolts</p> <p>2x M10 HD washers</p> <p>2x M10 Flange Nuts.</p> <p>Per side</p>





<p>100. The grille needs to be trimmed to suit the motor and control box of the high mount winch. The exact cut will differ depending on the specific specification of the motors and control box.</p> <p>The winch we used for fitment had an aftermarket motor and bus bars fitted.</p>	TOOLS REQUIRED Masking Tape Pencil or Marker
<p>101. Start by applying masking tape to the grille in the area that needs to be cut.</p> <p>102. Place the grille as close as possible to the winch and conservatively mark the required area to be removed.</p>	FASTENERS



103. Using a power tool suitable for plastic cutting (we recommend a oscillating multi tool), Trim the area marked in the previous step.

104. Re-fit the trimmed grille and re-mark any refinements to the trim. Continue the iterative mark, trim, refit and check process until satisfactory clearances are achieved.

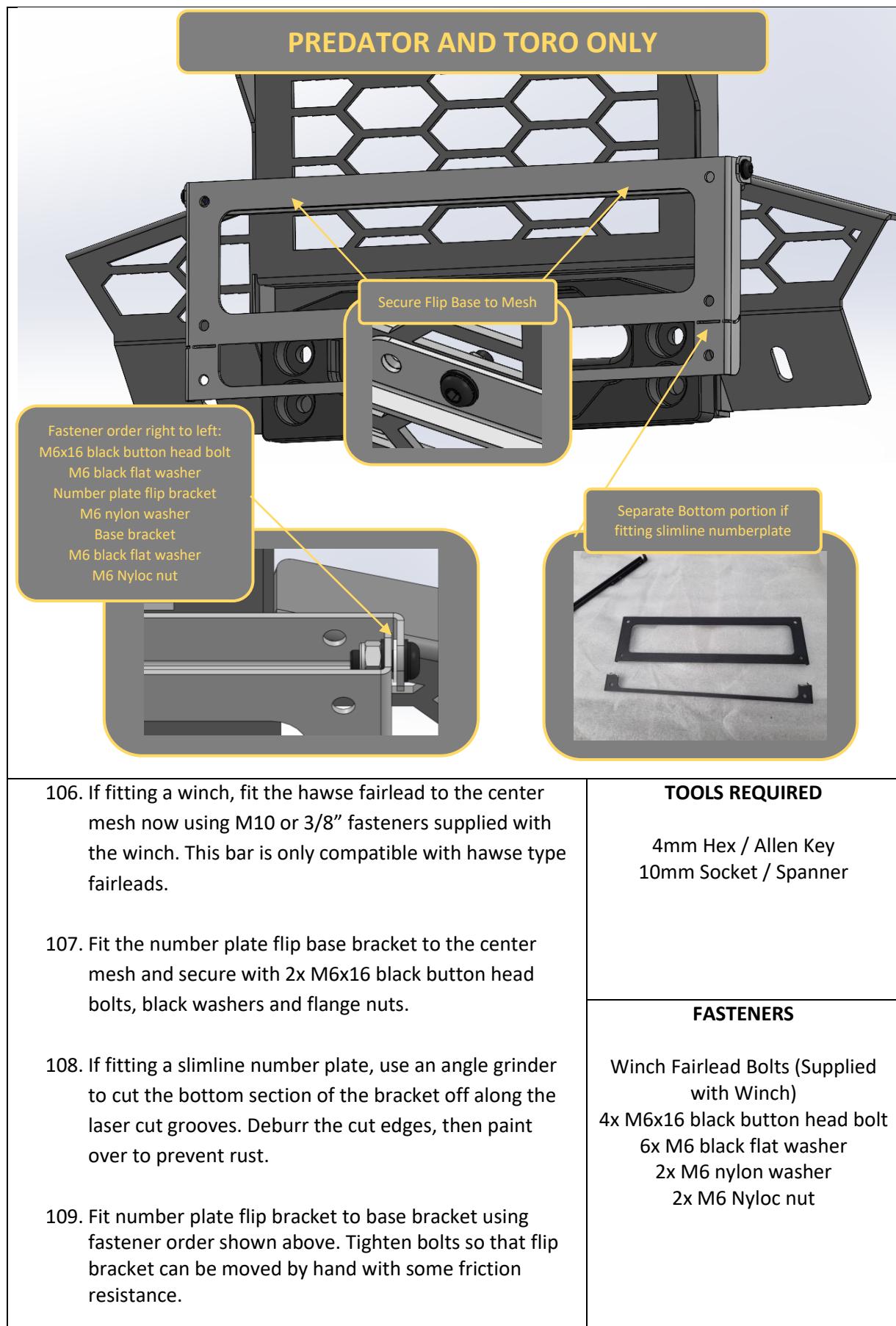
105. Once happy with the trim, re-fit the grille to the vehicle, using original clips and fasteners.

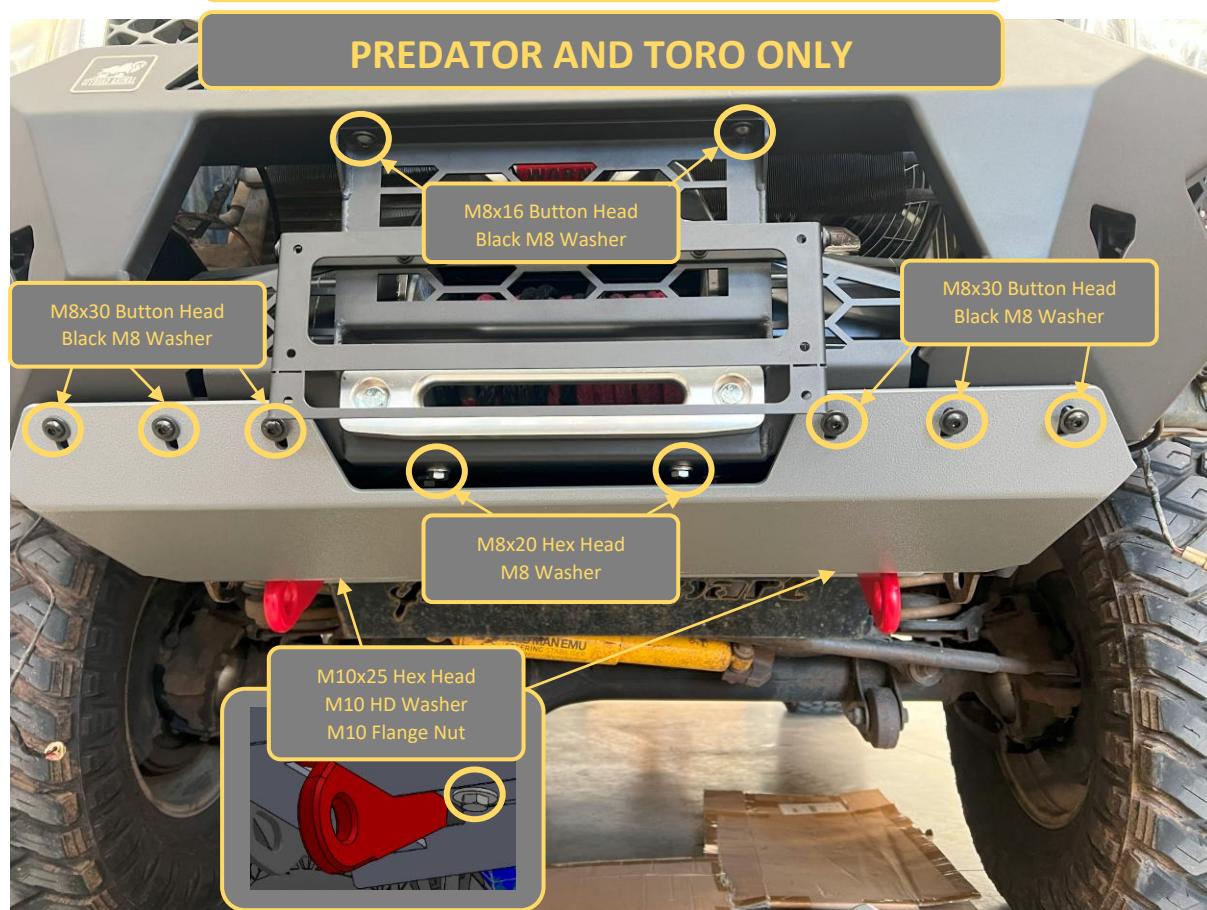
TOOLS REQUIRED

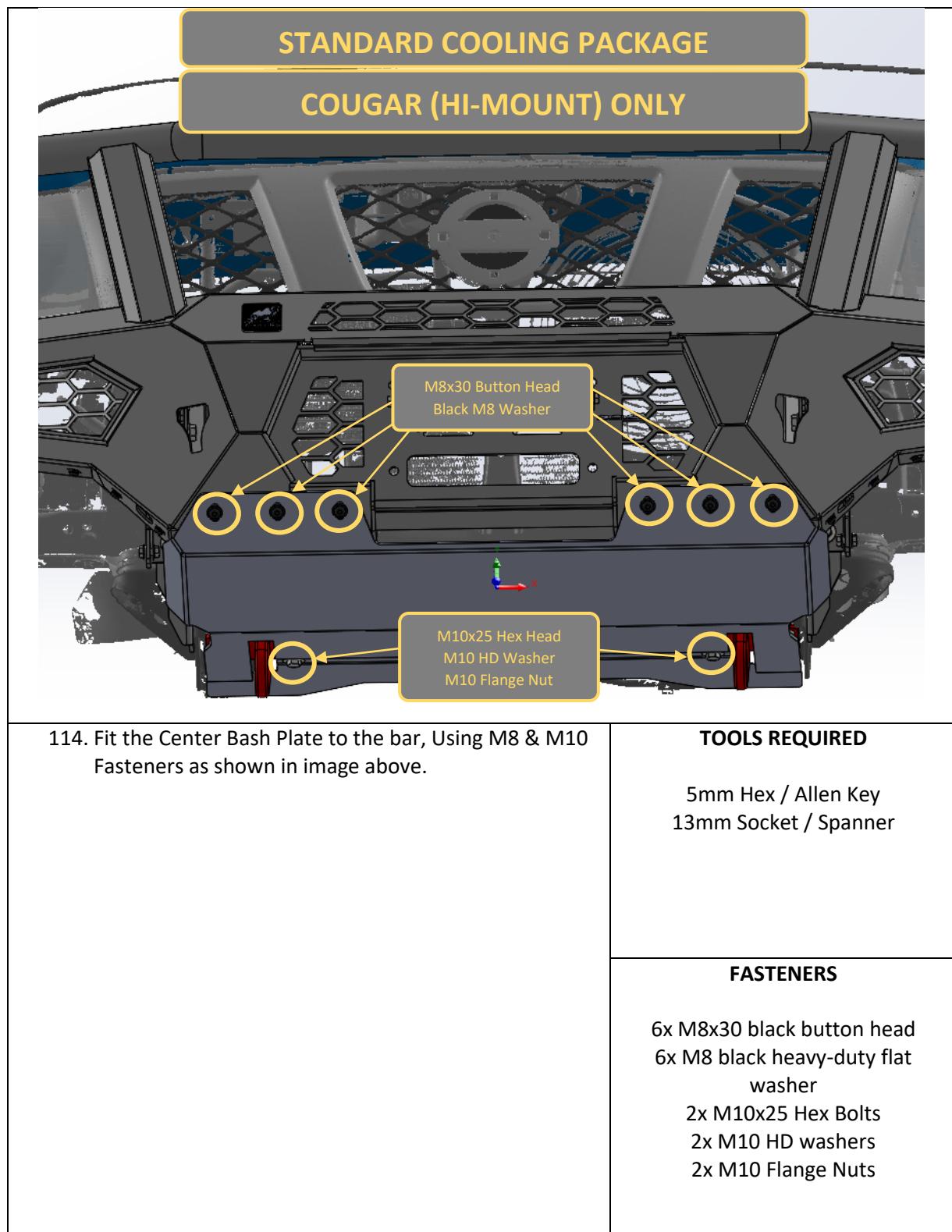
Power tool for Plastic Cutting
Oscillating Multi Tool
recommended
Masking Tape

FASTENERS

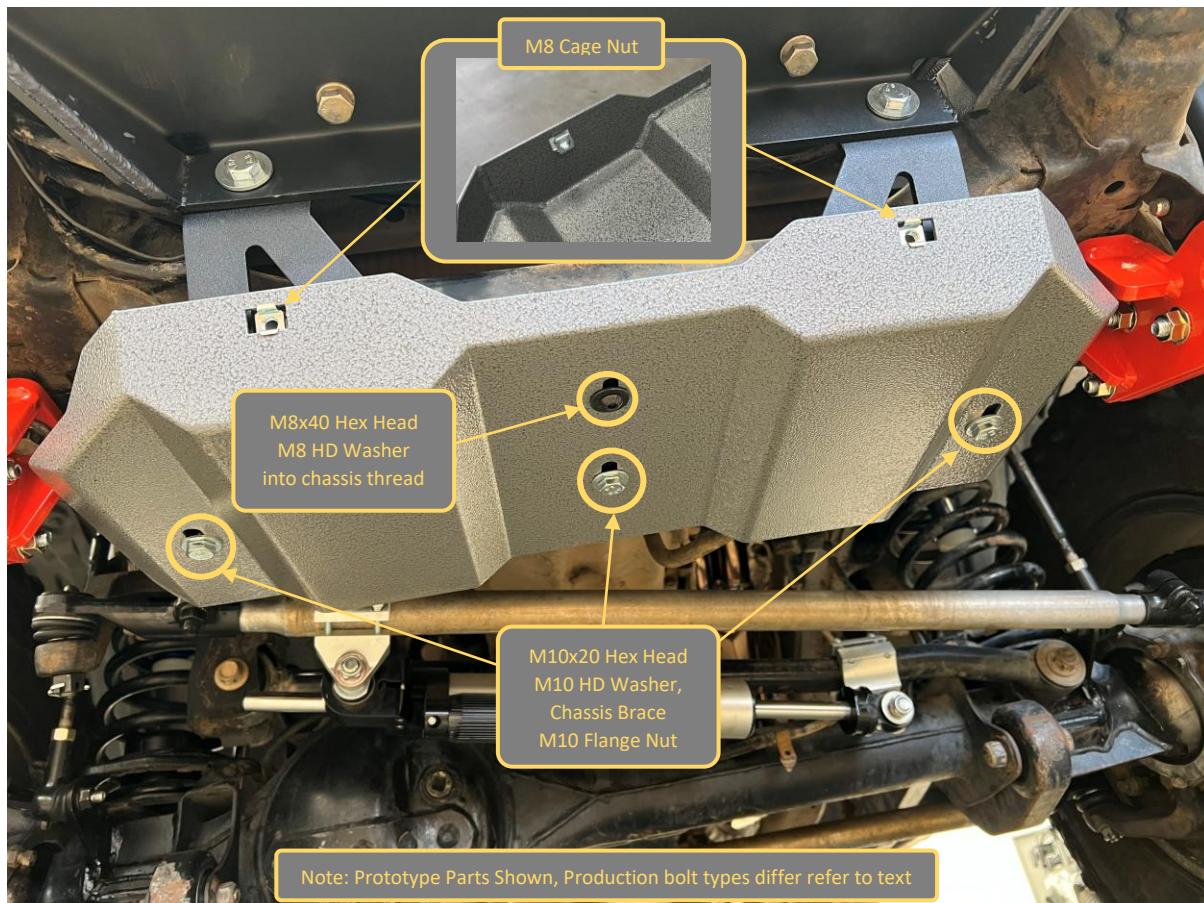
Re use OE grille fasteners



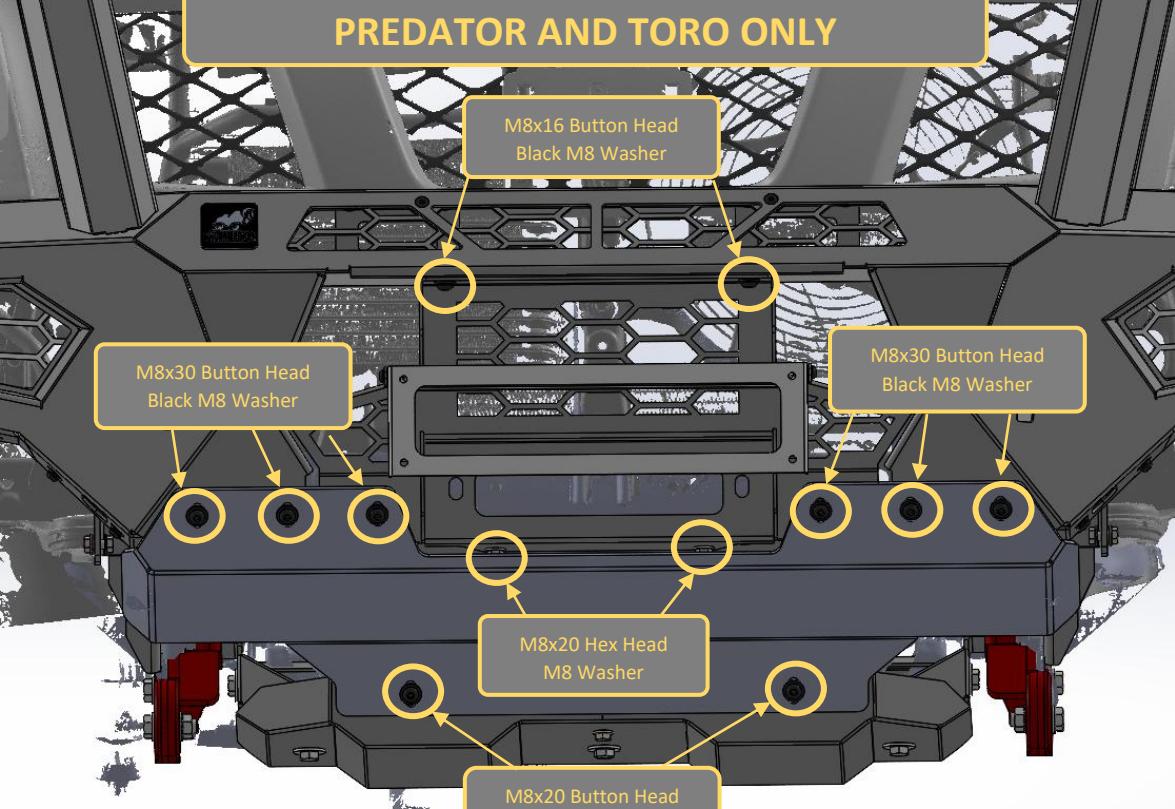
STANDARD COOLING PACKAGE PREDATOR AND TORO ONLY	
 <p>110. Fit the Fairlead Mesh to the bar, using M8 fasteners as shown in image above.</p> <p>111. If fitted, feed the winch rope through the fairlead.</p> <p>112. Fit the Center Bash Plate to the bar, Using M8 & M10 Fasteners as shown in image above.</p> <p>113. Repeat for other side.</p>	<p>TOOLS REQUIRED</p> <p>5mm Hex / Allen Key 13mm Socket / Spanner</p> <p>FASTENERS</p> <p>2x M8x16 black button head 6x M8x30 black button head 2x M8x20 Hex Head 2x M8 heavy-duty flat washer 8x M8 black heavy-duty flat washer 2x M10x25 Hex Bolts 2x M10 HD washers 2x M10 Flange Nuts</p>

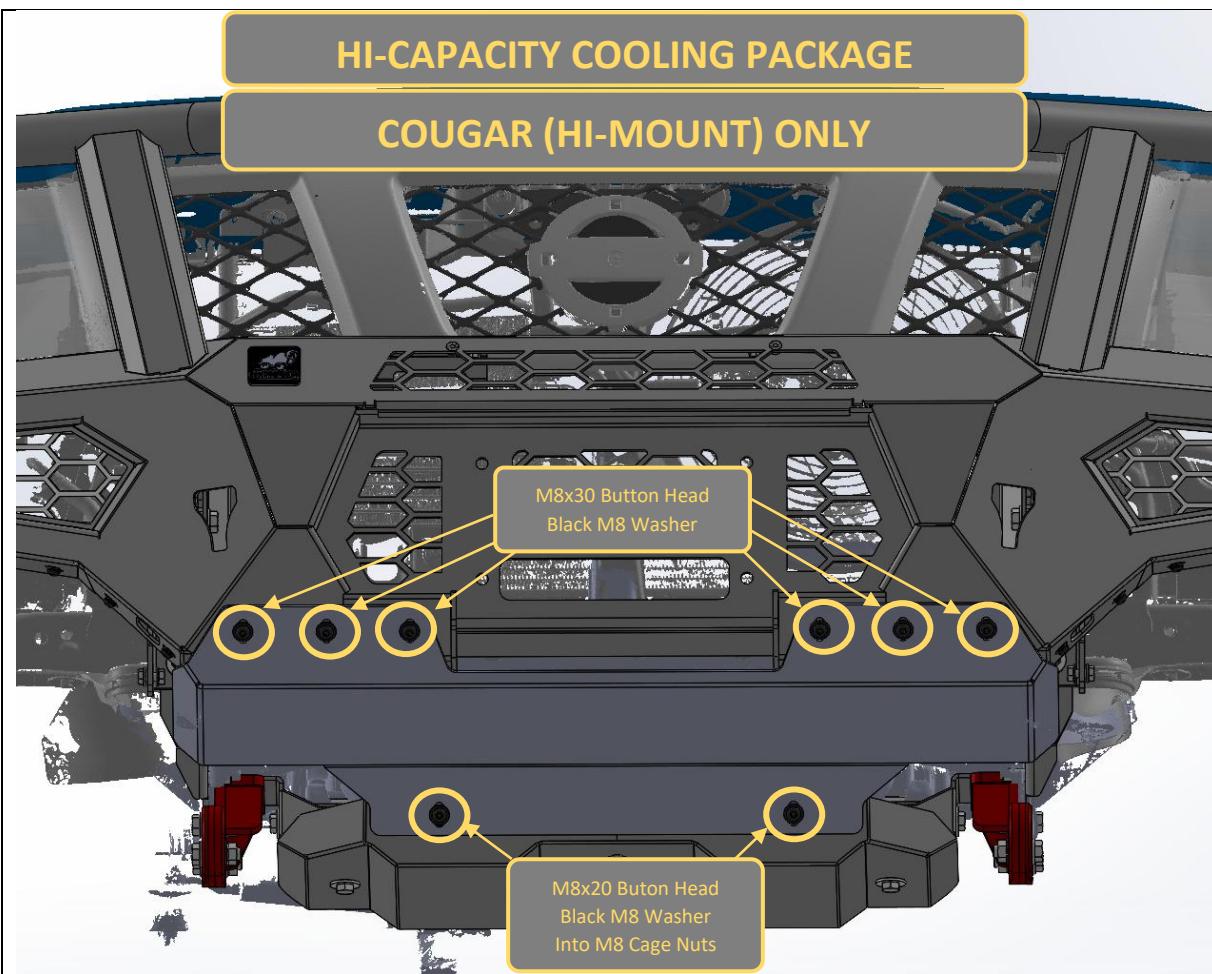


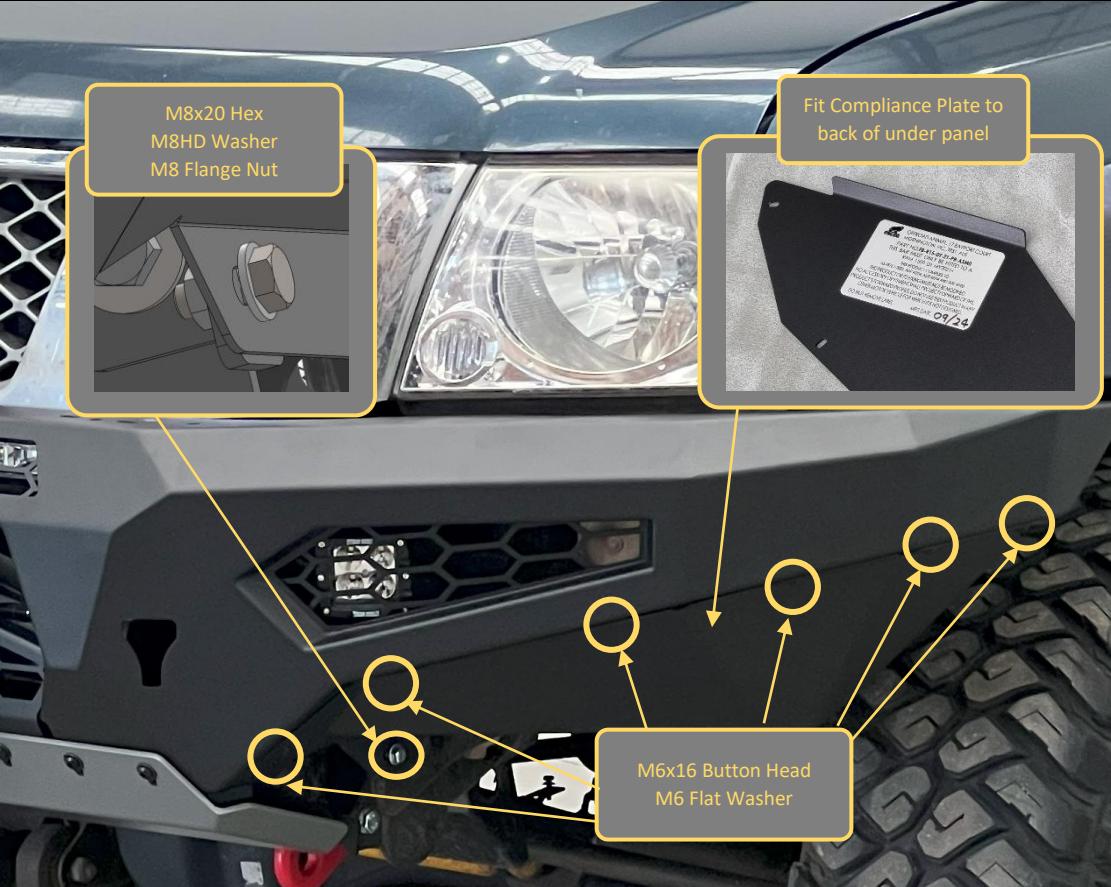
HI-CAPACITY COOLING PACKAGE



<p>115. Fit 2x M8 cage nuts to the square slots in the front edge of the lower bash plate.</p> <p>116. Fit the lower bash plate to the crossmember. Secure first with M8x40 hex bolt and flat washer into chassis thread in center of crossmember.</p> <p>117. Secure bash plate to the slots in the back of the crossmember brace with 3x M10x20 Hex Bolts, HD flat washers and flange nuts. The flange nuts can be positioned from the rear edge of the bash plate.</p> <p>118. Leave lower bash plate finger tight at this stage and able to slide fore / aft.</p>	<p>TOOLS REQUIRED</p> <p>FASTENERS</p> <p>1x M8x40 Hex Head 1x M8 heavy-duty flat washer 3x M10x20 Hex Bolts 2x M10 HD washers 2x M10 Flange Nuts 2x M8 Cage Nuts</p> <p>(From ASM8 Kit)</p>
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 <div style="text-align: center; border: 1px solid black; border-radius: 10px; padding: 5px; margin: 10px 0;"> HI-CAPACITY COOLING PACKAGE </div> <div style="text-align: center; border: 1px solid black; border-radius: 10px; padding: 5px; margin: 10px 0;"> PREDATOR AND TORO ONLY </div>	
<p>119. Fit the Fairlead Mesh to the bar, using M8 fasteners as shown in image above.</p> <p>120. If fitted, feed the winch rope through the fairlead.</p> <p>121. Fit the Upper Bash Plate to the bar, Using M8 & Fasteners as shown in image above.</p> <p>122. Once all bolts are fitted tighten all fasteners. Tighten Mesh fairlead fasteners first, then Lower Bash plate and Finally Upper bash plate.</p>	<p>TOOLS REQUIRED</p> <p>5mm Hex / Allen Key 13mm Socket / Spanner 16mm Socket / Spanner</p> <p>FASTENERS</p> <p>2x M8x16 black button head 2x M8x20 black button head 6x M8x30 black button head 2x M8x20 Hex Head 2x M8 heavy-duty flat washer 10x M8 black heavy-duty flat washer</p>

	
<p>123. Fit the Upper Bash Plate to the bar, Using M8 & Fasteners as shown in image above.</p> <p>124. Once all bolts are fitted, tighten all fasteners, Lower Bash plate first then Upper Bash plate.</p>	<p>TOOLS REQUIRED</p> <p>5mm Hex / Allen Key 13mm Socket / Spanner 16mm Socket / Spanner</p> <p>FASTENERS</p> <p>6x M8x30 black button head 2x M8x20 Hex Head 8x M8 black heavy-duty flat washer</p>



<p>125. Fit the supplied compliance label to the inside of one of the side under panels using the self-adhesive backing.</p> <p>126. Secure the side under panel to the cage nuts in the bar with 6x M6x16 black button head bolts and black flat washers.</p> <p>127. Secure the side underpanel to the Mounts (see inset) using 1x M8x20 Hex head bolt, HD Flat washer and flange nut.</p> <p>128. Repeat for other side underpanel.</p>	<p>TOOLS REQUIRED</p> <p>4mm hex/Allen key 5mm hex/Allen key</p>
	<p>FASTENERS</p> <p>12x M6x16 black button head 12x M6 black flat washer</p> <p>2x M8x20 hex head bolt 2x M8 HD flat washer 2x M8 flange nut</p>



<p>129. Review fitment and double check all bolts are tightened correctly.</p> <p>130. Re-Fit number plate to number plate flip on the bar.</p> <p>131. Congratulations! You're done! Hit the tracks with your refreshed GU!</p>	<p>TOOLS REQUIRED Phillips Screwdriver</p>
	<p>FASTENERS 2x M5x20 Pan Screw 2x M5 Flange Nut</p>