

## Toyota Hilux N80 Rogue Widebody MY2023 on Predator & Toro Front Bar

### **IMPORTANT! – READ BEFORE INSTALLATION**

- When installed in accordance with these instructions, the front protection bar does not affect the operation of the vehicles SRS airbags.
- 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.

## 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 trip or on an annual basis) on the installed product. 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.

### Main Parts – In the Box

Qty	Part Number	Description	Image
1	FB-THL-N8W-23-PR-ASM1	Hilux N80 Widebody Predator Bar Weldment	
<b>OR</b>			
1	FB-THL-N8W-23-PR-ASM1	Hilux N80 Widebody Predator Bar Weldment	
1	FB-TFT-N160-21-PR-ASM2L	Fortuner Chassis Mount Assy	
1	FB-TFT-N160-21-PR-ASM2R	Fortuner Chassis Mount Assy	
1	B-0152L	Hilux Front Mount - Chassis Brace	
1	B-0152R	Hilux Front Mount - Chassis Brace	

1	M-0005	Hilux Mesh - Center Fairlead Support	
1	M-0006L	Hilux Mesh Infill LHS	
1	M-0006L	Hilux Mesh Infill RHS	
1	NPF-COM-SM-ASMO	Number plate flip asm Small	
1	U-0009	Hilux N80 Bash Plate	
1	U-0057L	Hilux Front Bar - Side Underpanel	
1	U-0057R	Hilux Front Bar - Side Underpanel	
1	M-0002L	Light Cover Mesh	
1	M-0002R	Light Cover Mesh	



1	B-0514L	Hilux 21+ Style Fog Lamp Bracket LHS	
1	B-0514R	Hilux 21+ Style Fog Lamp Bracket RHS	
1	B-0814	Hilux Widebody Grille Support Bracket	
1	B-0886L	Hilux N80 Headlight Corner Infill	
1	B-0886R	Hilux N80 Headlight Corner Infill	
1	N-0009L	Hilux MY21 Plastic Bolt on Headlight Infill	
1	N-0009R	Hilux MY21 Plastic Bolt on Headlight Infill	
1	B-1137	Hilux N80 Pan Brace	
2	TK-FB-THL-N80-15	Tape Kit - Hilux N80, 3M 5952, 2x 25x8mm	No Image
1	TK-COM-PSEN-4	Tape Kit - 4 Sensor Universal	No Image
1	FB-THL-N80-15-PR-ADRC	ADR Compliance Plate Hilux N80	

**Small Parts – Contained in Small Parts Kit Bag**

Qty	Part Number	Description
<b>41</b>	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, ISO4042 ZnNi BLACK PASSIVATED FINISH
<b>29</b>	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
<b>41</b>	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16 GR12.9, ZnNi BLACK PASSIVATED FINISH
<b>8</b>	M8 FLAT WASHER	M8 FW
<b>14</b>	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
<b>8</b>	M8X20	Bolt Hex, M8X20X1.25, GR8.8 ZP
<b>12</b>	M10 Flat Washer	M10 FW
<b>12</b>	M10 FLANGE NUT	Flange Nut, M12x1.5 G8.8 ZP
<b>10</b>	M10 x 30	Bolt Hex, M10x30x[1 .5], GR8.8 ZP
<b>6</b>	M 12 FLAT WASHER	M12 FW
<b>2</b>	M 12X30X1.25	Bolt Hex, M12X30x1.25, GR8.8 ZP
<b>4</b>	M 12X30	Bolt Hex, M12x30x1.75, GR8.8 ZP
<b>2</b>	NP-THL-N80-15- PR	Nut Plate - Hilux Predator
<b>2</b>	M10X30 BHCS	SCREW, BUTTON HEAD CAP, M10X30X1.5 GR12.9 ZP
<b>8</b>	M8 FLAT WASHER- BLACK ZINC	M8 FLAT WASHER, 16.5x8.4x1.2, ISO4042 ZnNi BLACK PASSIVATED FINISH
<b>6</b>	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20x1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
<b>2</b>	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16x1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
<b>10</b>	M6CN3MM	CAGE NUT M6x2.6-3.5
<b>16</b>	M12 FW LHD	M 12 FW Large Heavy Duty
<b>8</b>	M 12 Nyloc nut	M12 NYLOC NUT
<b>8</b>	M12X40	Bolt Hex, M12X40X1.75, GR8.8 ZP

**Toro Bars Only – Additional Parts**

Qty	Part Number	Description
<b>1</b>	B-0631L	Hilux Toro - Antenna mount bracket
<b>1</b>	B-0631R	Hilux Toro - Antenna mount bracket
<b>4</b>	M8 FLAT WASHER- BLACK ZINC	M8 FLAT WASHER, 16.5x8.4x1.2, ISO4042 ZnNi BLACK PASSIVATED FINISH
<b>4</b>	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20x1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH

TOOLS REQUIRED

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 8-19mm Socket Extension Bar Metric Spanner Set 10-19mm Hex (Allen) Key Set 4-8mm Trim Puller Tool Flat Blade Screwdriver set Phillips Head Screwdriver set Utility Knife	Electric/Air Impact Driver (Optional)  Air Hacksaw or Angle grinder. Oscillating multi tool & Plastic blade.	Panel Stand or Soft Blanket  Automotive Adhesive Sealant.  Glue Removal Solvents

## 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>



1. Remove the Radiator shroud by removing the 6x clips securing it to the grille and cross member.
2. Push down on the center of the clips to release then remove with trim tool.

**TOOLS REQUIRED**

Trim Tool

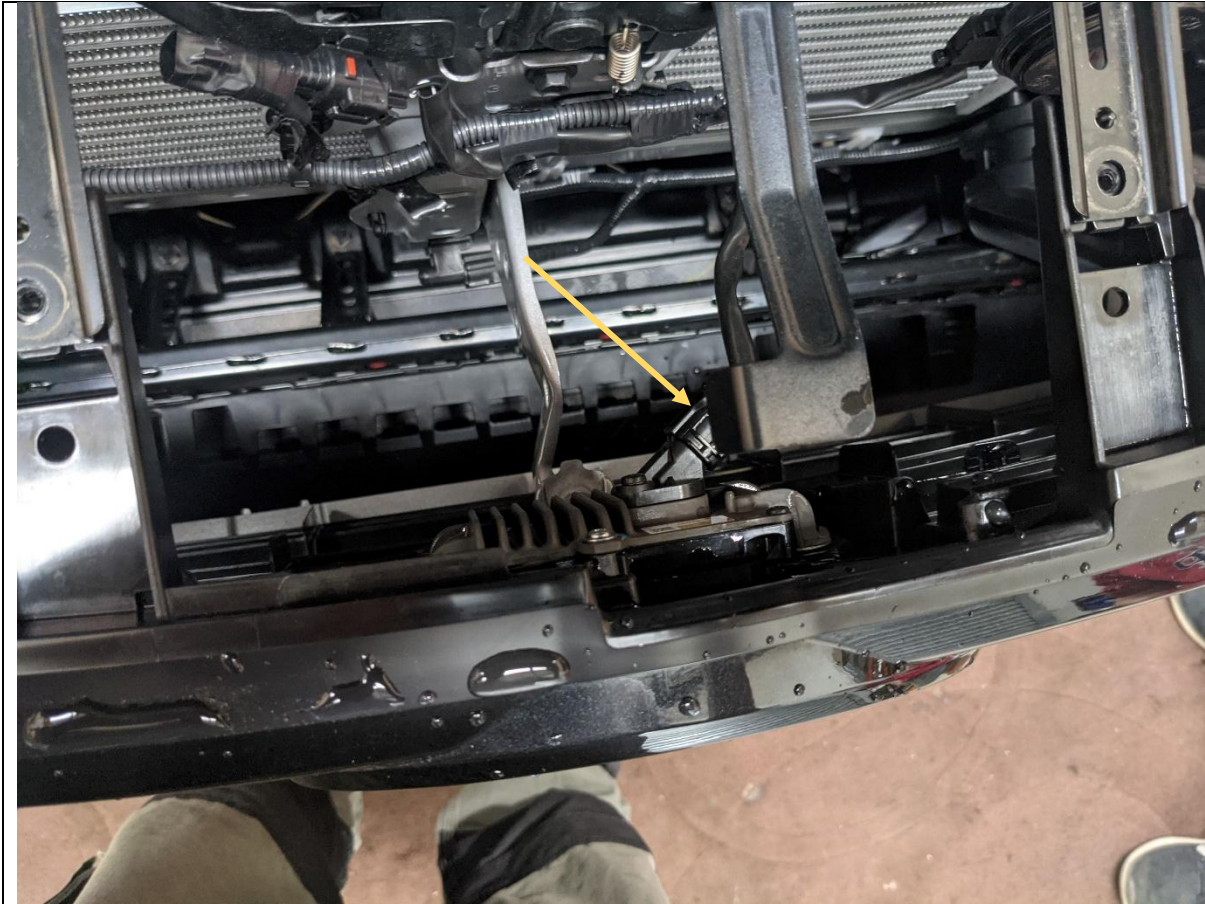
**FASTENERS**

Push Center Clips



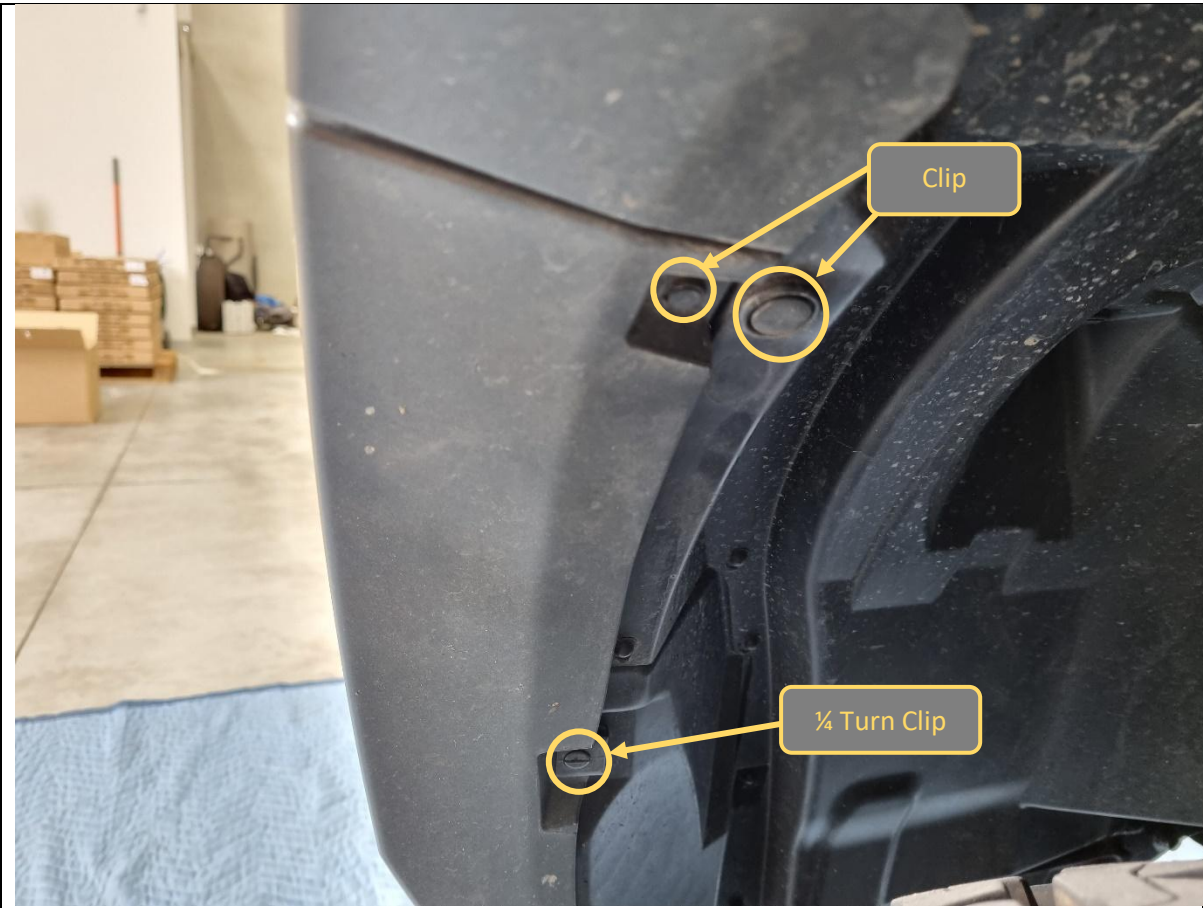


<div>3. Remove the 4x 10mm Head screws securing the top of the grille</div> <div>4. Retain fasteners for re fitment.</div>	<div>TOOLS REQUIRED</div> <div>10mm Socket / Spanner</div>
	<div>FASTENERS</div> <div>10mm Head Screws</div>



5. Unplug the radar sensor module wiring connector, located on the back of the Toyota Badge / sensor.

**TOOLS REQUIRED****FASTENERS**

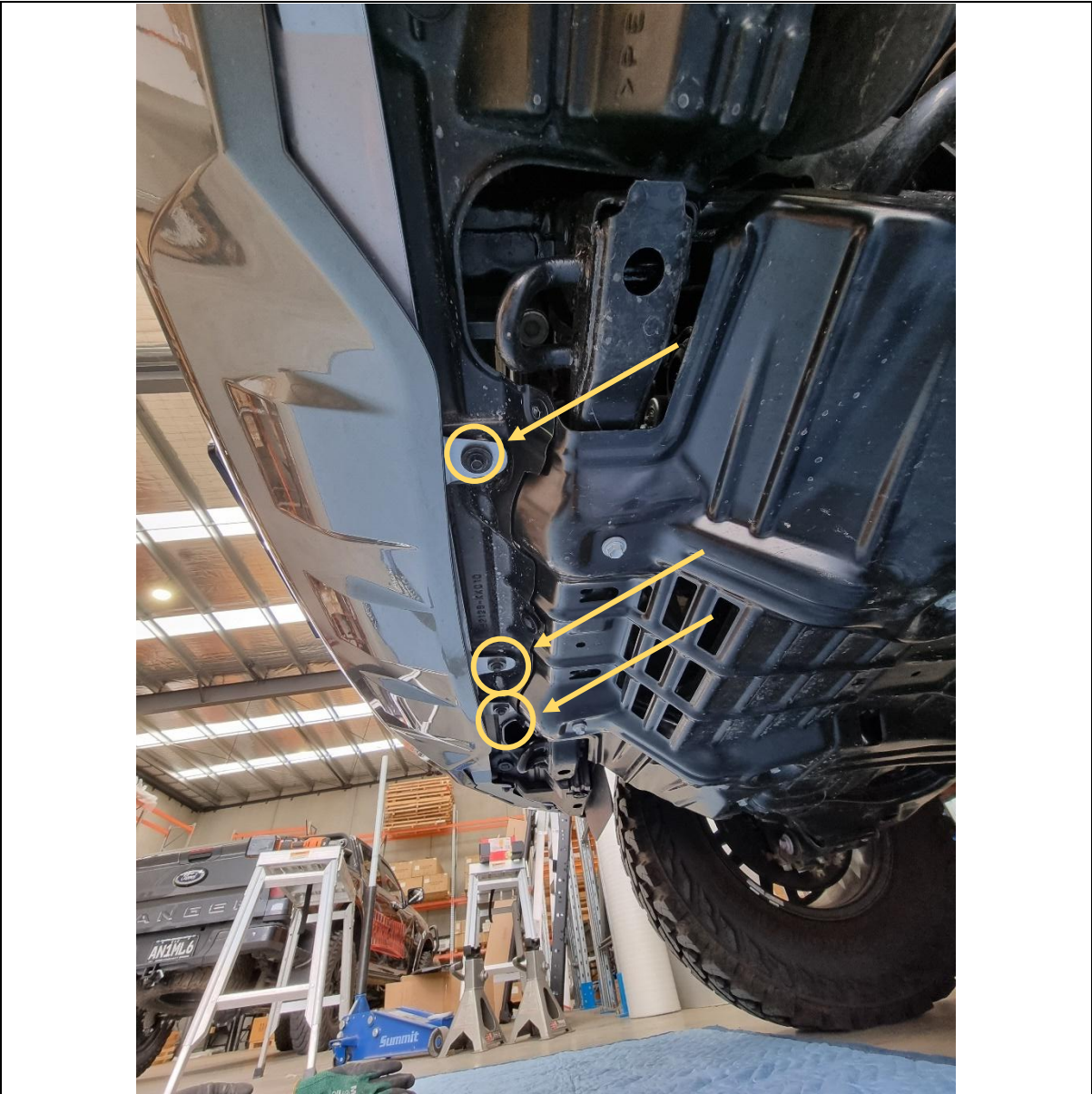


<div>6. Remove the clips securing the bumper to the inner wheel arch liner.</div> <div>7. The top clip is a center release type. Pry up the center section to unlock then remove.</div> <div>8. The lower clip is a ¼ turn type. Rotate with large flat head screwdriver to release.</div>	<div>TOOLS REQUIRED</div> <div>Trim Tool</div> <div>Flat head screwdriver</div>
	<div>FASTENERS</div> <div>Factory Clip and Screw</div>





<div>9. Remove the 3x Screws securing bottom corner of bumper to inner wheel arch liner with 10mm socket or large Phillips screwdriver.</div> <div>10. Complete on both sides of Vehicle</div>	<div>TOOLS REQUIRED</div> <div>10mm Socket / Spanner</div>
	<div>FASTENERS</div> <div>Factory Screws</div>



11. Remove the 3x Factory Screws securing bottom center section of bumper to inner wheel arch liner. Use 10mm socket / spanner.	<b>TOOLS REQUIRED</b>  10mm Socket / Spanner
	<b>FASTENERS</b>  Factory Screws

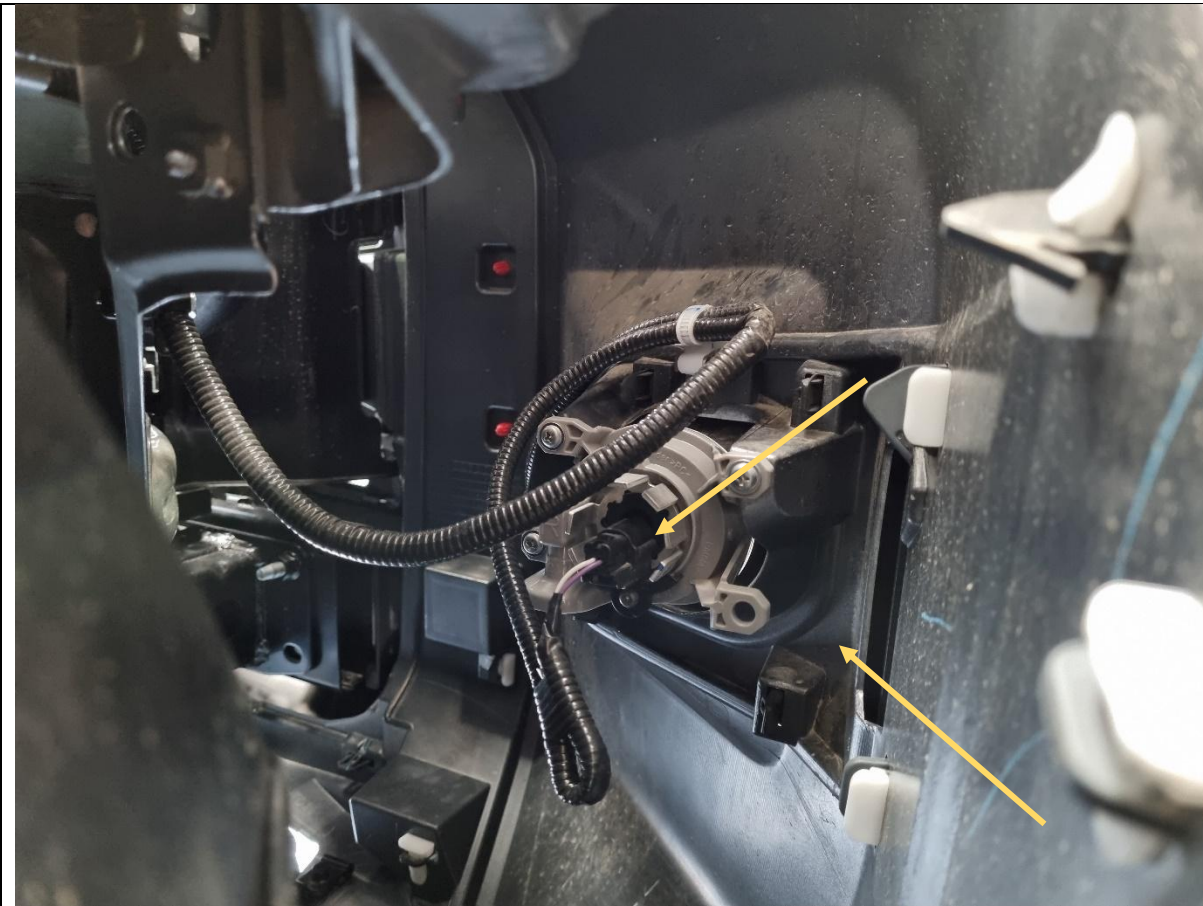


<p>12. Remove the 2x 10mm Head/Phillips screws securing the bumper to crossmember.</p> <p>These screws are located on the edge near the headlights behind the grille.</p>	<p><b>TOOLS REQUIRED</b></p> <p>10mm socket/spanner</p>
	<p><b>FASTENERS</b></p> <p>Factory screws</p>

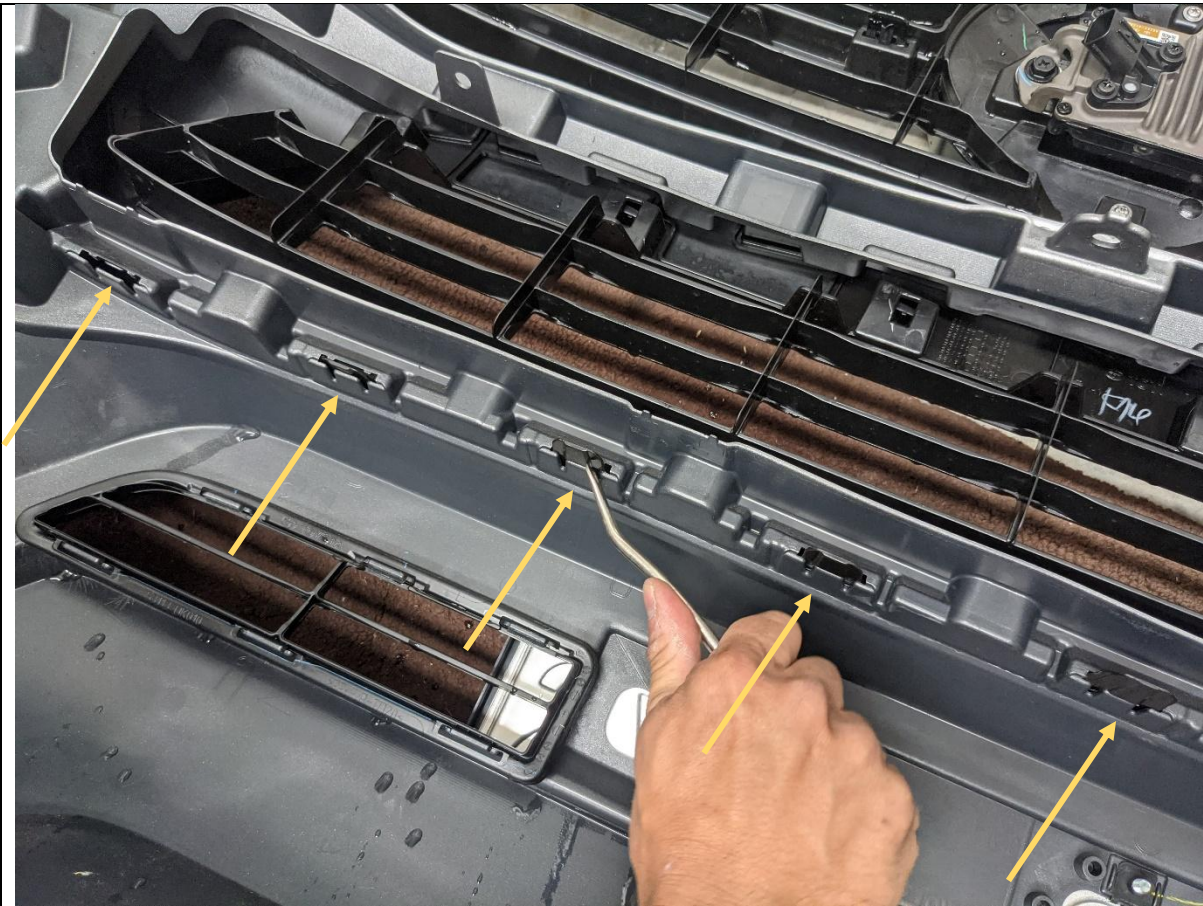




<p>13. Remove the bumper. Start by pulling from the outside where the bumper meets the wheel arch and work towards the center from both sides.</p>	<p><b>TOOLS REQUIRED</b></p>
	<p><b>FASTENERS</b></p>



<div>14. With assistance once the bumper is loose, unplug and release the parking sensor and fog light harnesses.</div> <div>15. It is easiest to remove the sensor from the bumper by releasing the clips on back side then pushing sensor through the bumper, leaving it hanging on the cable.</div> <div>16. This needs to be done on both sides of the vehicle.</div>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>



<div>17. Once bumper is removed set aside on soft non marking surface or panel stand.</div> <div>18. Release the bumper from the grille by releasing all the clips along the bottom of grille with a trim tool</div>	<div>TOOLS REQUIRED</div> <div>Trim Tool</div>
	<div>FASTENERS</div>





<div>19. Remove the front bumper support plastic fasteners using trim tool and Phillips screwdriver to pry whilst loosening as shown.</div> <div>20. Remove the forward bolt using 10mm socket.</div> <div>21. Remove the bumper support using a trim tool.</div> <div>22. Complete on both sides of the vehicle.</div>	<div>TOOLS REQUIRED</div> <div>Trim Tool Phillips Screwdriver 10mm socket</div>
	<div>FASTENERS</div>



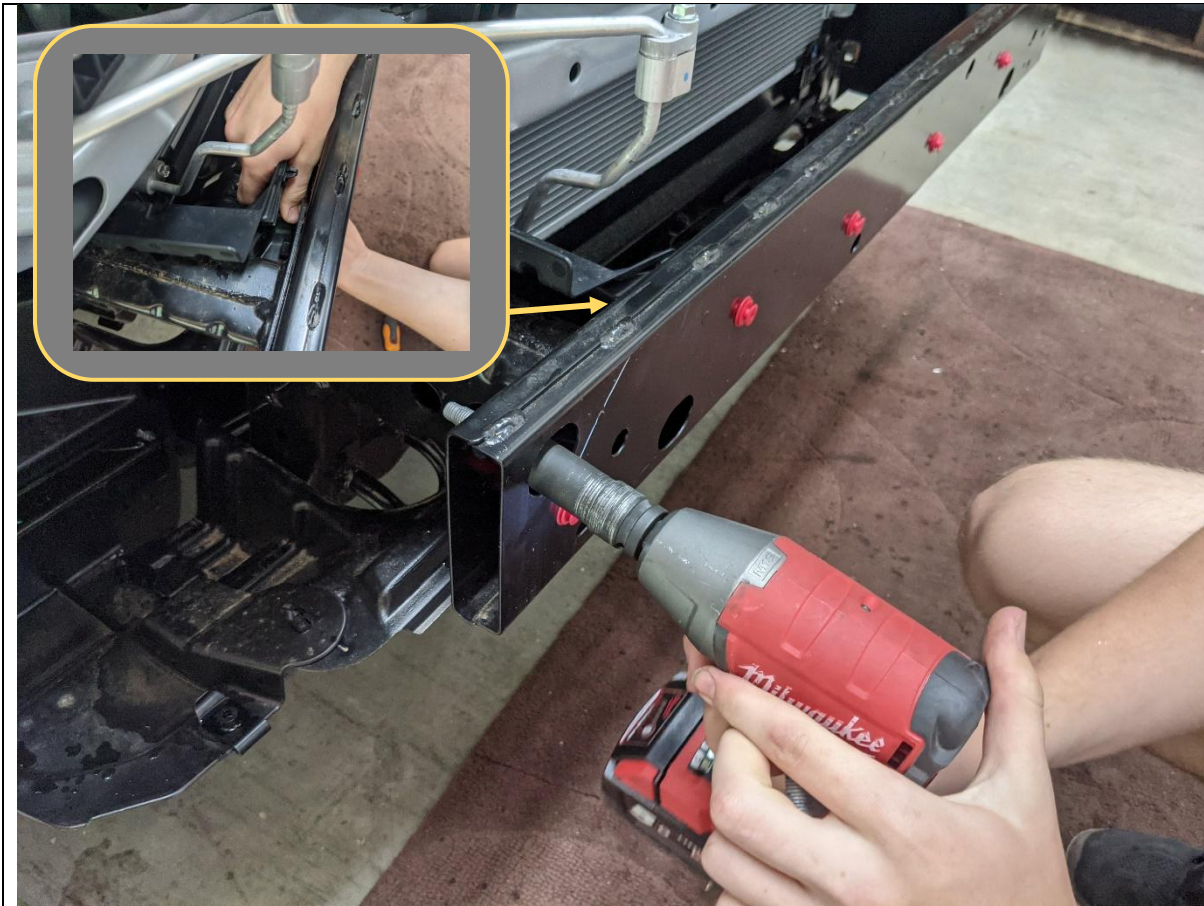
<p>23. Replace the forward bolt to re-secure the headlight to the wing.</p> <p>24. Complete on both sides of the vehicle</p>	<p><b>TOOLS REQUIRED</b></p> <p>10mm Socket</p>
	<p><b>FASTENERS</b></p>





25. Remove the plastic cover from the impact beam by strongly pulling in the direction shown to release it from the clips

**TOOLS REQUIRED****FASTENERS**



26. Remove the impact beam by removing the 4x factory flange bolts securing it to the chassis rail
27. Release plastic clips on behind the impact beam in the air guides.

**TOOLS REQUIRED**

15mm Socket  
Trim Tool

**FASTENERS**

Factory flange bolts  
Retain





28. Take impact beam off car and discard.

**TOOLS REQUIRED****FASTENERS**



29. Vehicle chassis rails should now be totally exposed as shown.

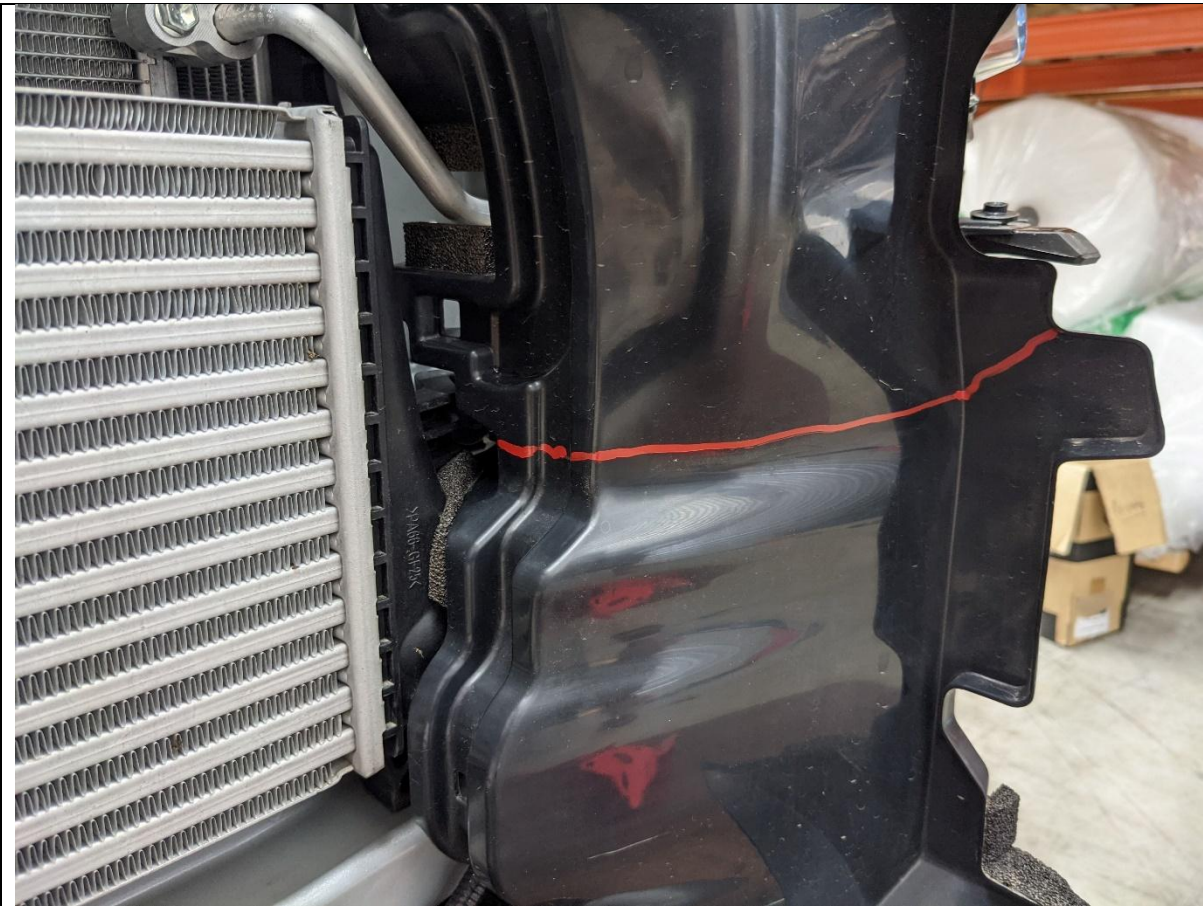
30. For light colored vehicles it is a good idea to paint the exposed panels beneath the headlight black, to ensure neat appearance once bar is fitted.

**TOOLS REQUIRED****FASTENERS**






<div>31. Mark air guide on Right hand side of vehicle as shown in the above image.</div> <div>32. Remove air guide from vehicle by releasing the 3x clips holding it to the chassis.</div>	<div>TOOLS REQUIRED</div> <div>Paint Marker</div> <div>Trim tool</div>
	<div>FASTENERS</div>



<div>33. Mark air guide on Left hand side of vehicle as shown in the above image.</div> <div>34. Remove air guide from vehicle by releasing the 3x clips holding it to the chassis.</div>	<div>TOOLS REQUIRED</div> <div>Paint Marker</div> <div>Trim tool</div>
	<div>FASTENERS</div>



	
<p>35. Trim the air guides along the lines marked, using a sharp utility knife or air hacksaw.</p> <p>36. Re-Fit the top half of the air guides trimmed to the vehicle.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Utility Knife</p>
	<p><b>FASTENERS</b></p>



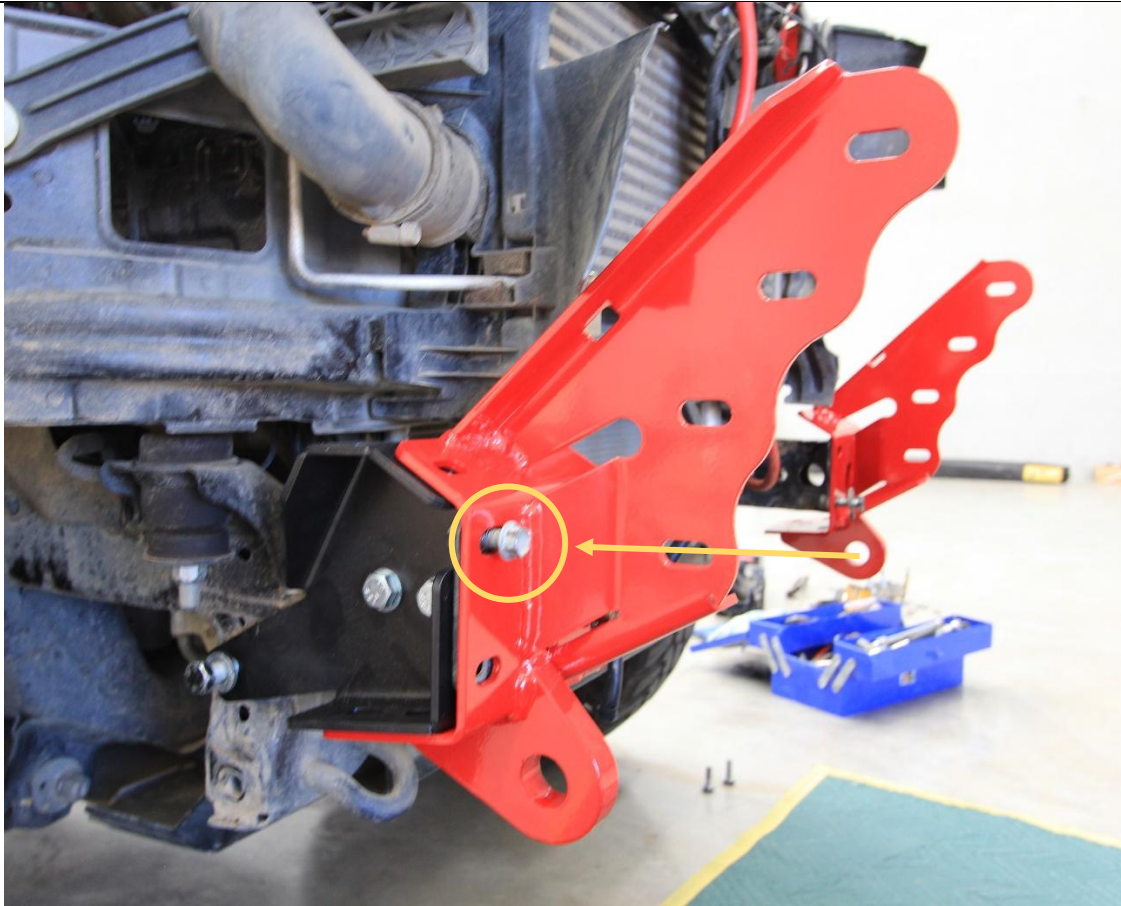
37. Take the chassis brace and fit loosely to the threaded M12 fine pitch insert in chassis, using M12x30x1.25 Bolt and flat washer.
38. Insert the Nut Plate into the chassis rail through the opening on the front of the chassis.
39. Secure the nut plate with M12x30 standard pitch bolts and flat washers through the holes shown. Leave finger tight at this stage.
40. Repeat for other side of vehicle.

**TOOLS REQUIRED****FASTENERS**

1x M12x30x1.25p Bolt  
2x M12x30x1.75p Bolt  
3x M12 Flat washer

Per side



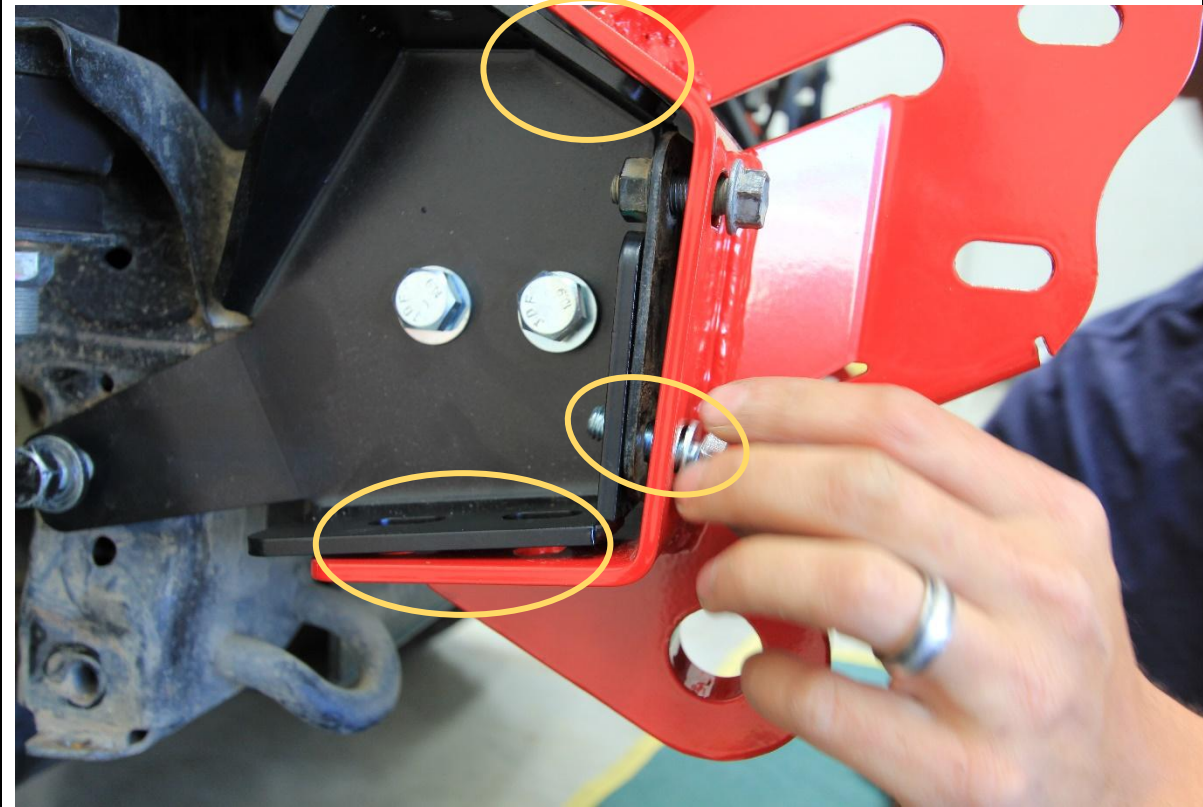


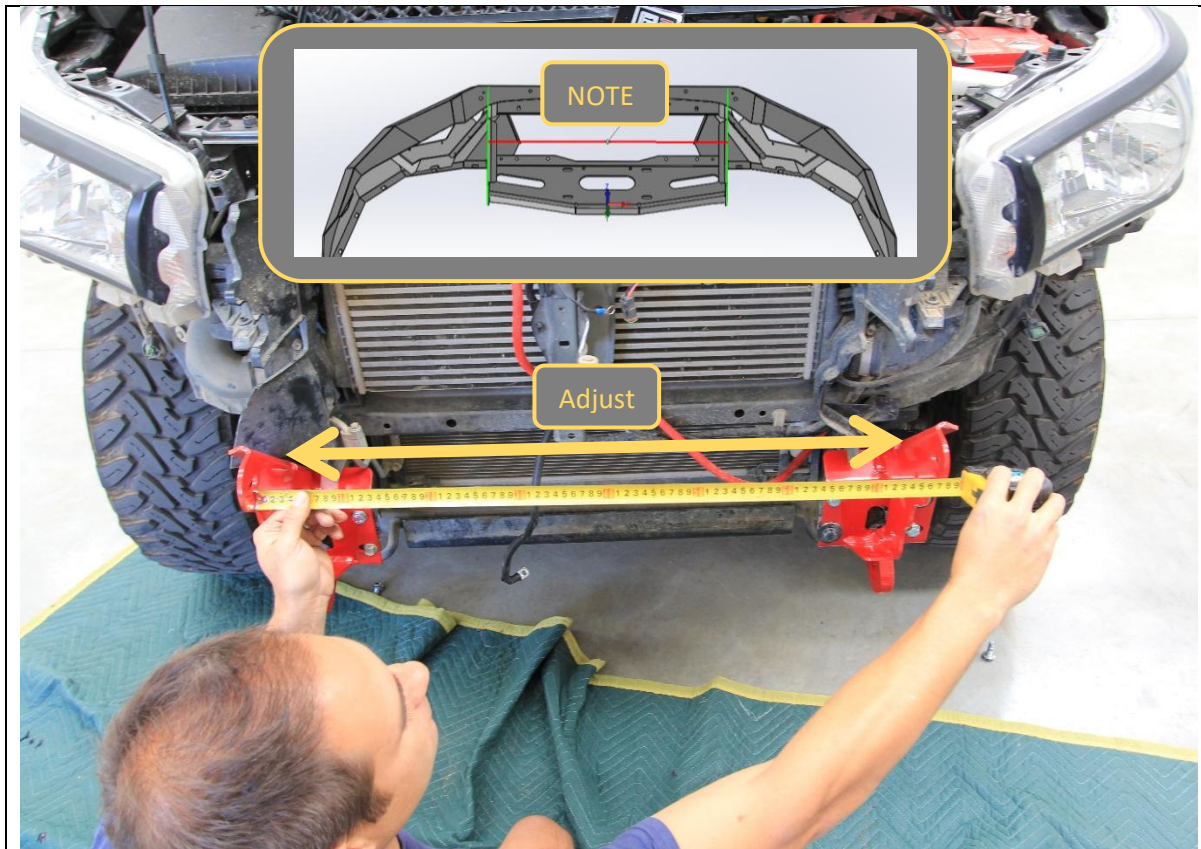
41. Fit the impact assembly to the end of the chassis rail.
42. Secure finger tight with the original M10 bolts in the threaded inserts in chassis.
43. Repeat for other side of vehicle

**TOOLS REQUIRED****FASTENERS**

2x Factory M10 flange  
bolt

Per side

	
<div>44. Fit remaining bolts to the impact assembly. 2x M10x30 Bolts, 2x Flat washers and 2x flange nuts to front face.</div> <div>45. Fit 2x M10x30 Bolts, 2x Flat washers and 2x flange nuts to Bottom face.</div> <div>46. Fit 1x M10x30 Bolt, 1x Flat washer and 1x flange nut to Top face.</div>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>  5x M10x30 Bolt 5x M10 Flat washer 5x M10 Flange nut  Per side



47. Measure the distance between the outside faces of the uprights on the bar. Note this distance

Bar uprights \_\_\_\_\_ mm

48. Adjust the distance between the impact assemblies to be approx. 1-2mm greater than the upright distance on the bar.
49. Tighten bolts on the impact assemblies and re-check distance. Loosen and adjust as required until the distance between mount when mounts are tight is correct.

#### TOOLS REQUIRED

Tape measure  
16mm Spanner  
16mm Socket

#### FASTENERS





50. Remove the 3x Screws securing the fog lights to the bumper, then remove the fog light from the bumper.	<b>TOOLS REQUIRED</b>  Screwdriver
	<b>FASTENERS</b>  Factory Screws



51. Remove parking sensors from housings, by prying apart the locking tabs, whilst pushing sensor from front side of bumper.

**TOOLS REQUIRED****FASTENERS**



52. Carefully pry the sensor housings away from the back of the bumper, using a trim tool or similar.	<b>TOOLS REQUIRED</b>  Trim Tool
	<b>FASTENERS</b>





53. Remove remnant adhesive from the face of the sensor housing, using a utility knife and / or solvents.

**TOOLS REQUIRED**

Utility Knife  
Solvents

**FASTENERS**



54. Clean the areas on the inside of the bullbar adjacent to the round parking sensor holes with isopropyl alcohol.

55. Break the bulb of the supplied Primer 94 ampule to activate the primer dispensing.

56. Apply Primer 94 to all areas adjacent to the parking sensor locations, on both the bar and the sensor housings.

**Important:** allow at least 5 minutes for the primer to chemically bond to the surfaces.

57. Apply supplied VHB tape pads to all sensor housings as shown in the inset photo.

#### TOOLS REQUIRED

Isopropyl alcohol  
Rag

#### FASTENERS

VHB Tape pads  
Primer 94 Ampule



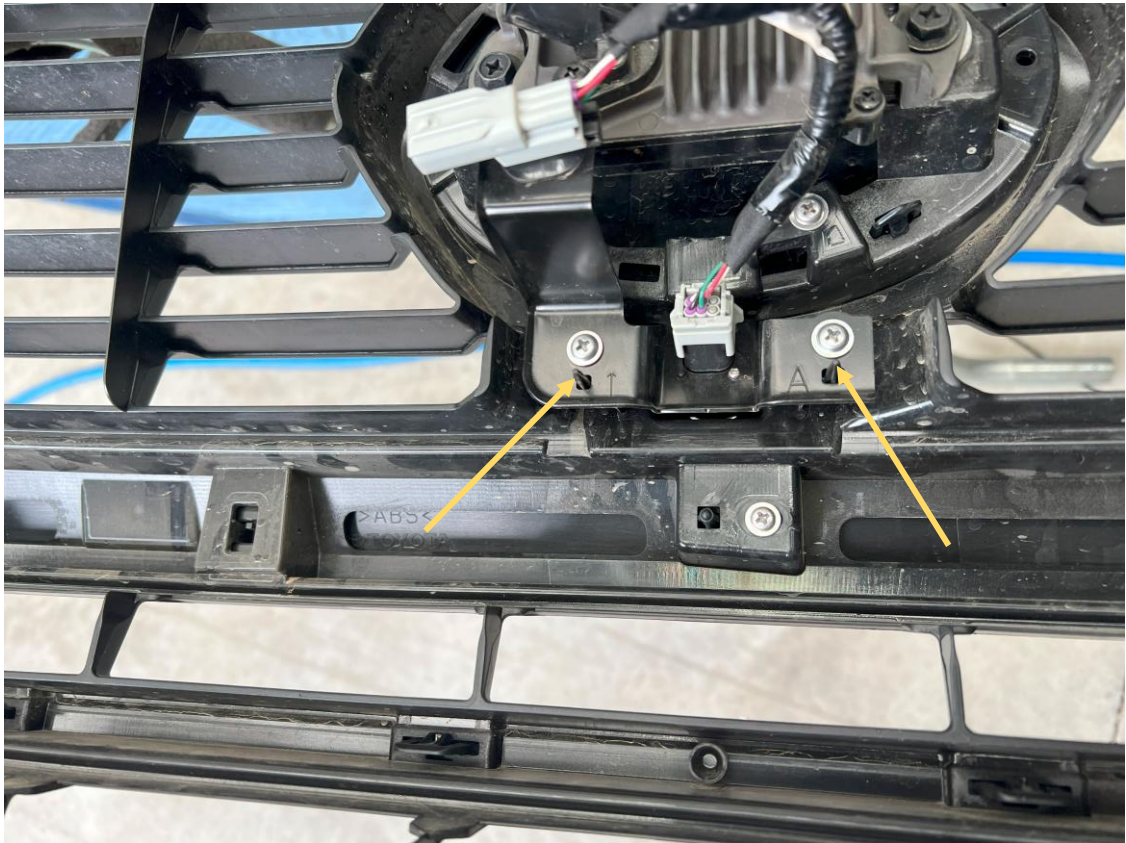


58. Fit sensor into housings, then dry fit to bar to check plug position is as per above photo.

59. Remove backing and adhere sensors in position in bar. Apply pressure for 10-30sec after positioning for best adhesion.

**TOOLS REQUIRED**

**FASTENERS**  
VHB Tape pads  
Primer 94 Ampule



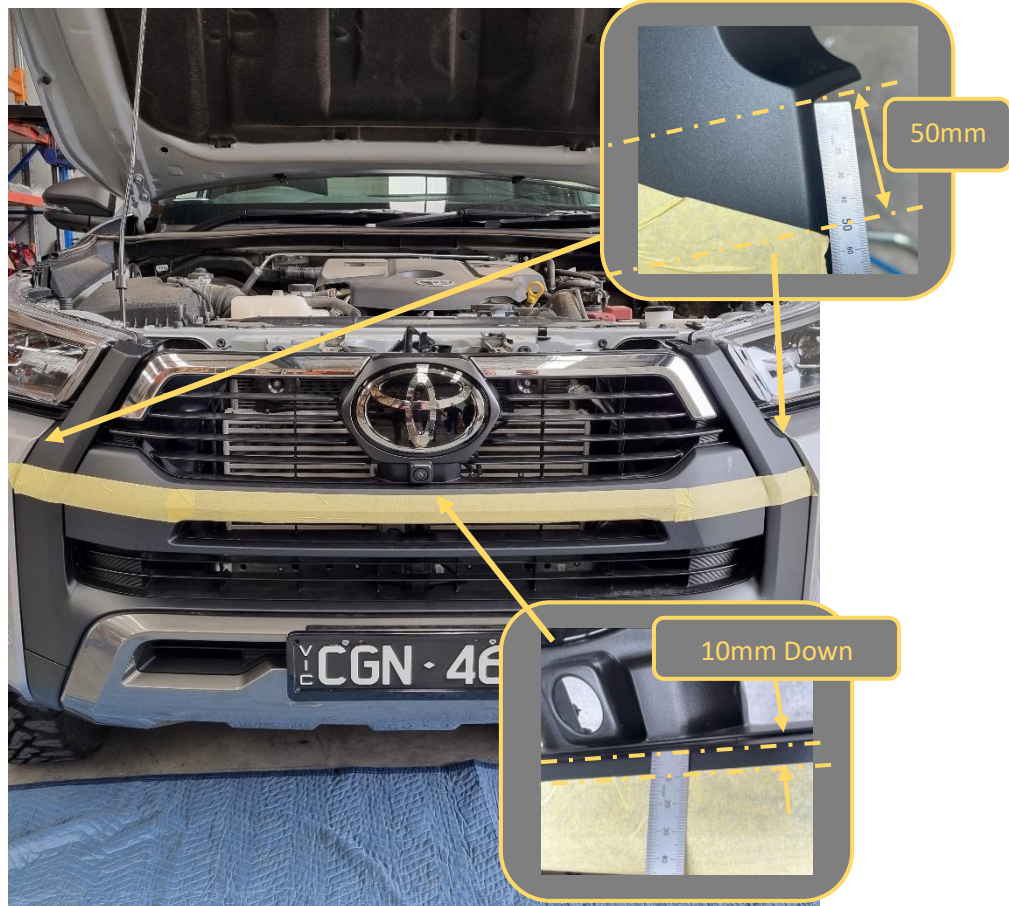
<p>60. Remove the front camera module by removing the 2x Phillips head screws securing in.</p> <p>61. Retain screws for fitment of grille support bracket.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Phillips Head Screwdriver</p>
	<p><b>FASTENERS</b></p> <p>Factory Screws</p> <p>Retain</p>



62. Separate the center grille from the rest of the bumper.
63. Release all the “Wedge” Clips by pressing down on the locking tab and sliding sideways.

**TOOLS REQUIRED****FASTENERS**



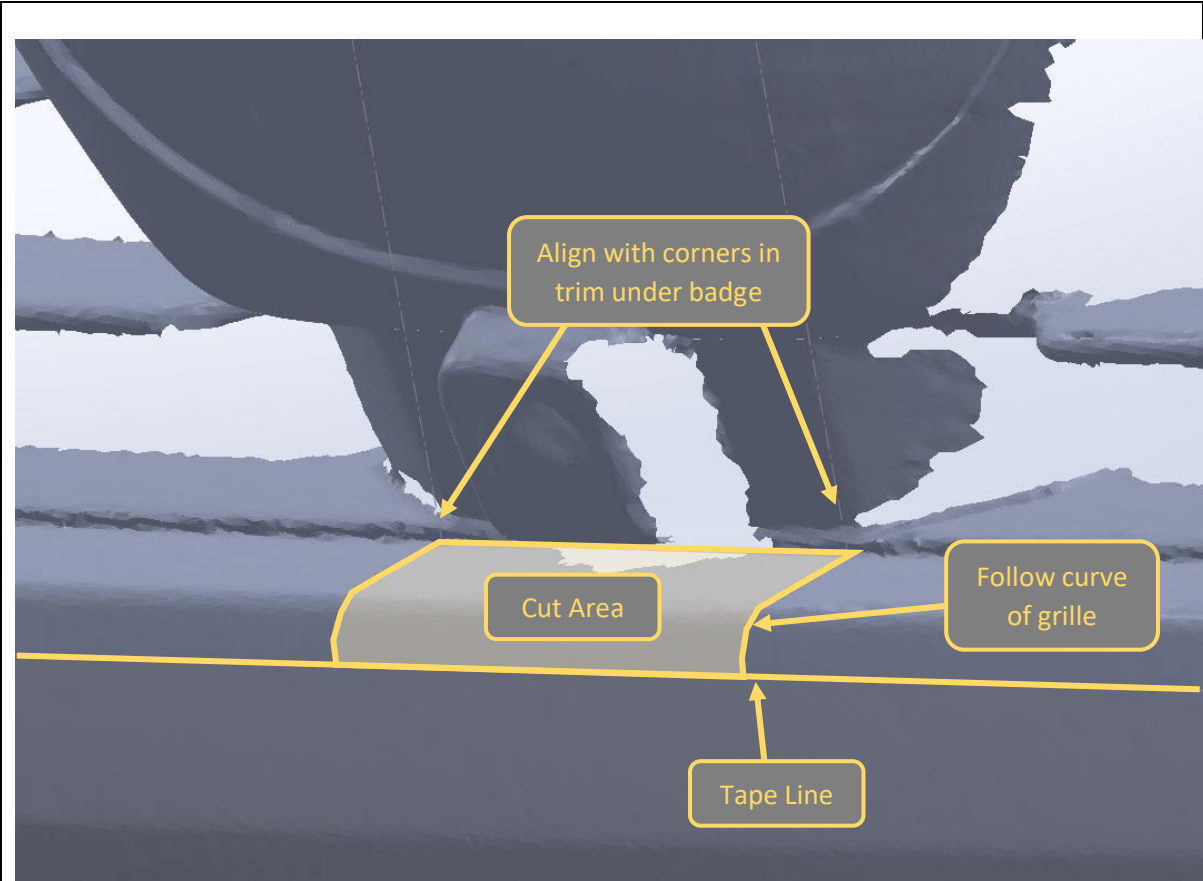


64. Mark out positions shown on the front grille. On each edge, place mark 50mm from corner as shown in top inset image.
65. In center place mark 10mm down from bottom of lower slat edge, as shown in bottom inset image.
66. Then mark out the grille cut as denoted by horizontal line joining the marked points. This is best marked by using the edge of a long straight length of masking tape to mark the cut line.

**TOOLS REQUIRED**

Masking Tape  
Marker pen

**FASTENERS**

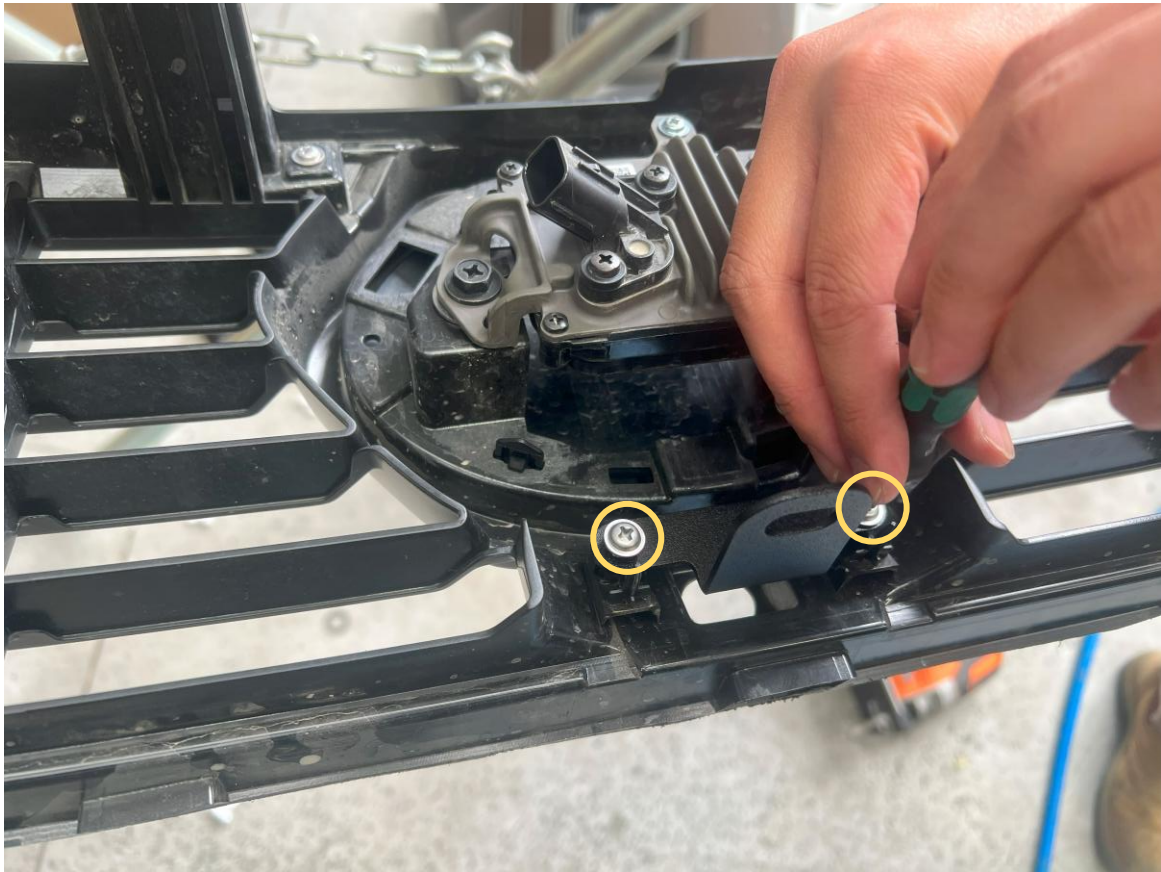


<p>67. Using a Paint marker or similar, mark out the additional trim for pan brace clearance under the front badge.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Marker Pen Ruler</p>
	<p><b>FASTENERS</b></p>

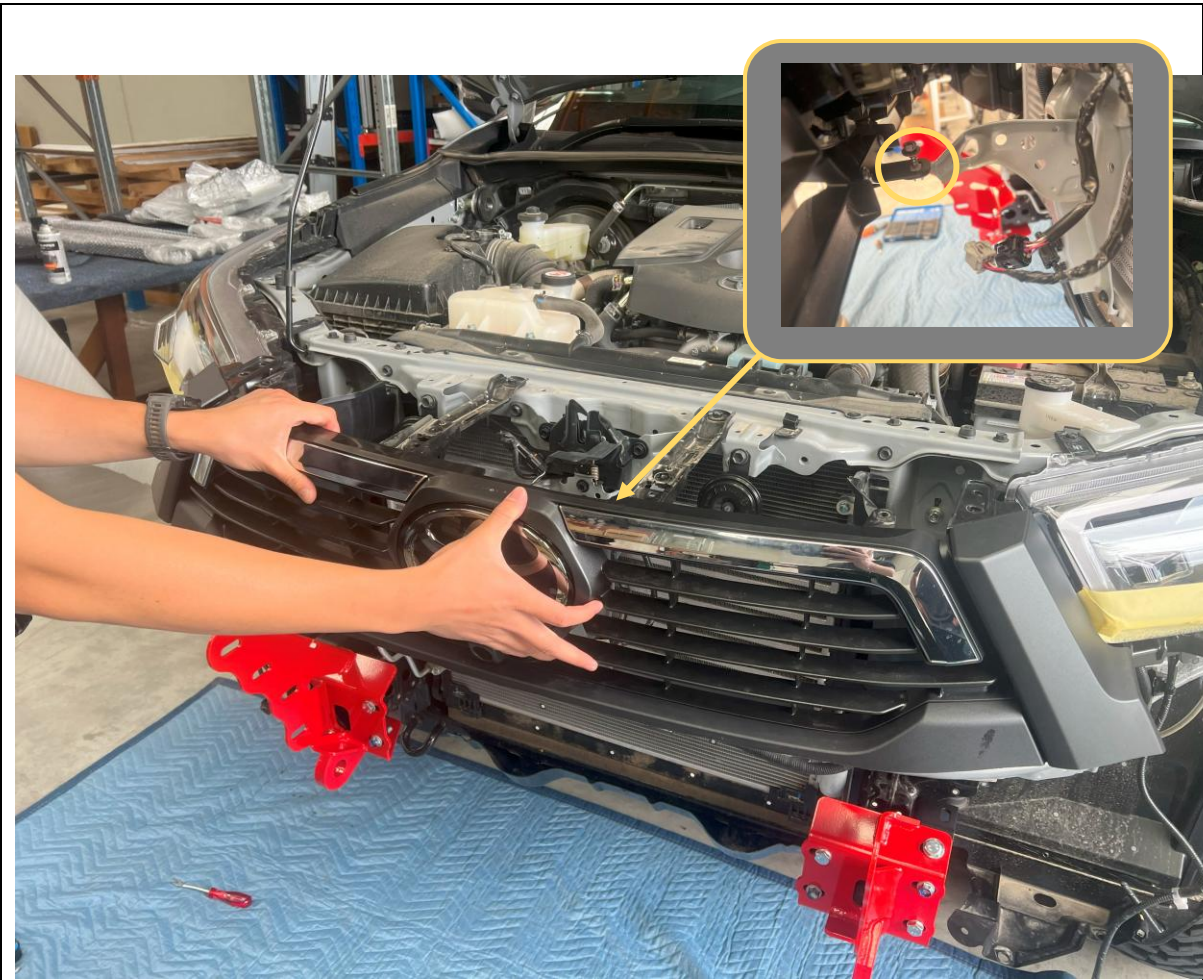


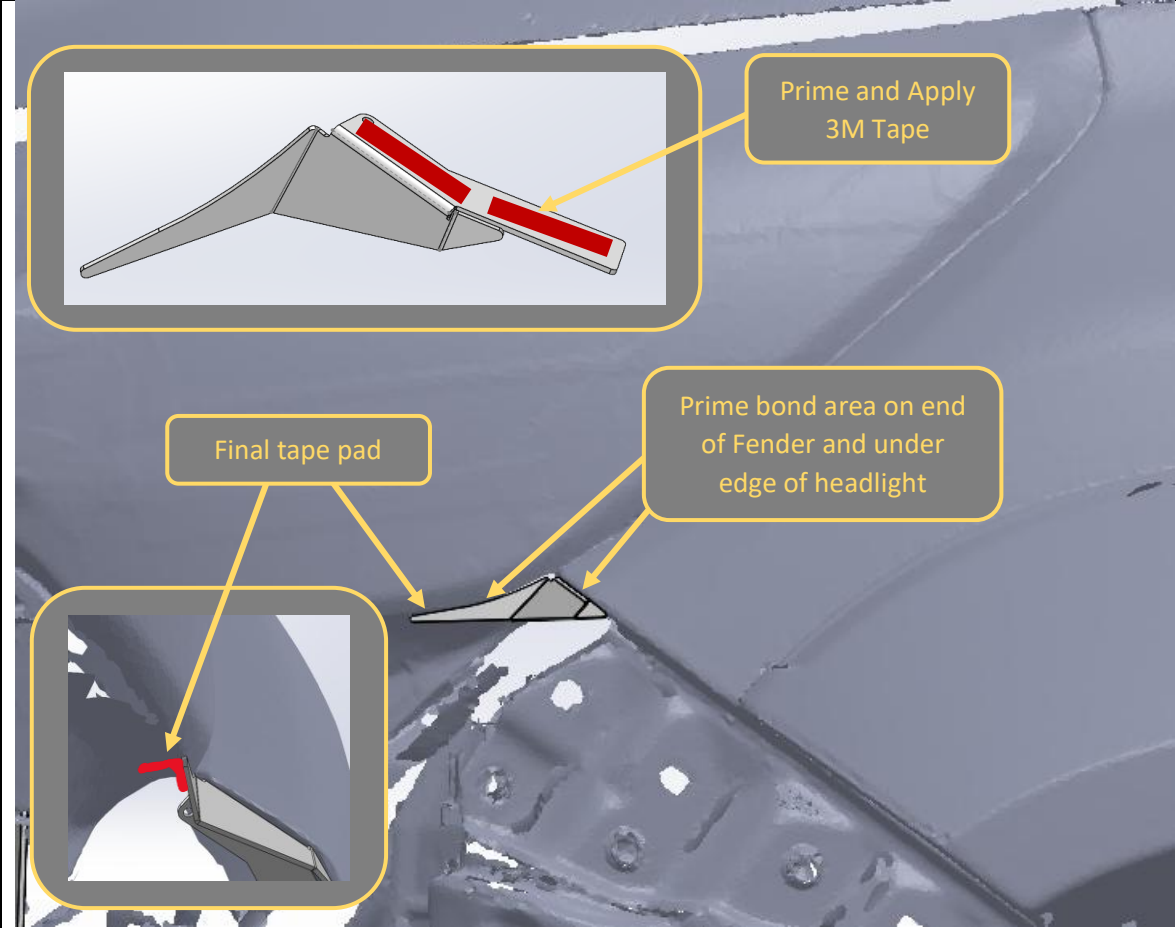
<p>68. Using angle grinder, oscillating multi tool or air hacksaw, cut along marked cut line.</p> <p>69. Ensure cut is neat and straight.</p> <p>70. After doing the straight cut, drill 6mm holes (for neat corners) in the corners of the marked extra trim area then cut out marked section.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Angle Grinder or Air Hacksaw</p> <p>Drill 6mm Drill Bit</p>
	<p><b>FASTENERS</b></p>



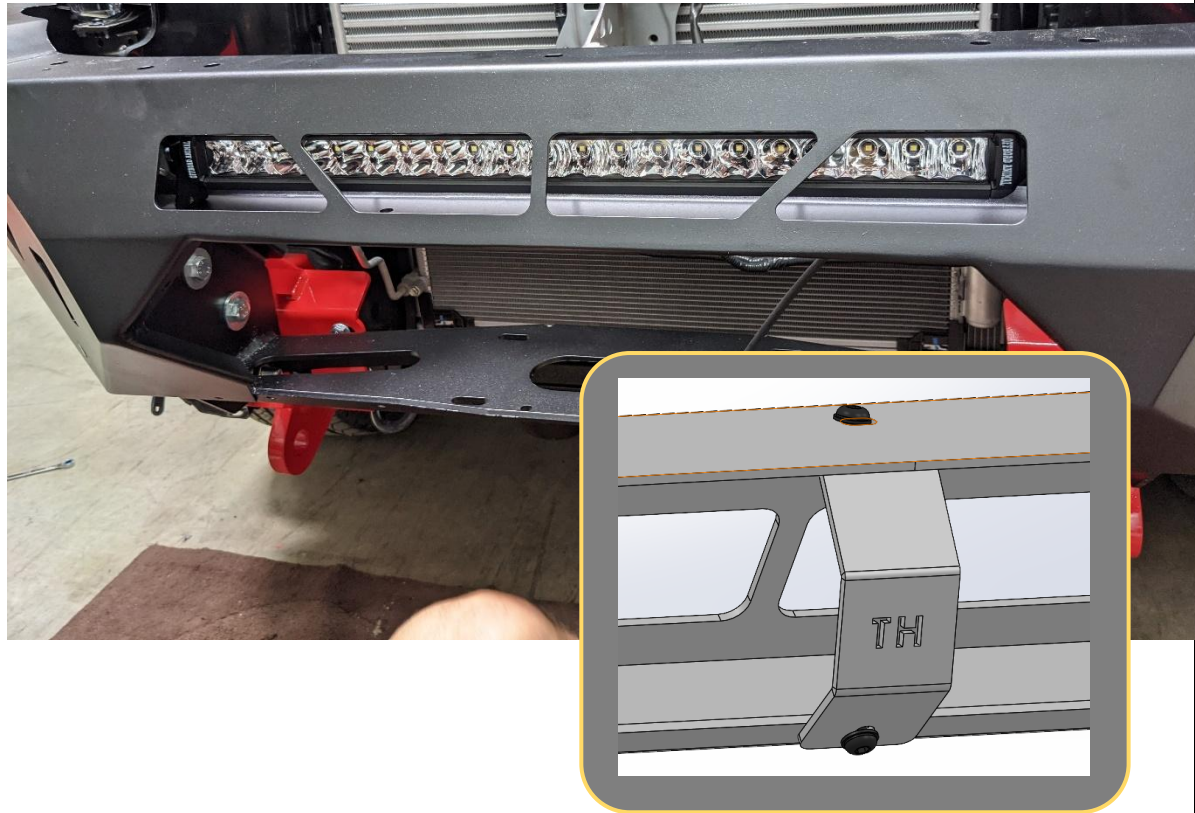


<div>71. Fit the bottom grille support bracket to the middle of the top section of the grille, under the adaptive cruise radar sensor.</div> <div>72. Remove the existing Philips head screws, then re fit with bracket in place.</div>	<div>TOOLS REQUIRED</div> <div>Phillips head screwdriver</div>
	<div>FASTENERS</div> <div>Factory screws</div>

	
<p>73. Re fit the trimmed section of the grille to the vehicle.</p> <p>74. Secure top of grille using original 10mm Fasteners.</p> <p>75. Secure the grille support bracket to the plastic insert in the using a self tapping Philips screw (retained from factory bumper).</p>	
<p><b>TOOLS REQUIRED</b></p> <p>10mm Socket Phillips screwdriver</p>	
<p><b>FASTENERS</b></p> <p>Factory screws</p>	

	
<p>76. Using 3M primer stick from parking sensors, apply primer to end of fender panel and small headlight infill in the bonding area as shown.</p> <p><b>Important:</b> allow at least 5 minutes for the primer to chemically bond to the surfaces.</p> <p>77. Cut and apply length of 3M tape to the small headlight infill panel as shown in the top inset image.</p> <p>78. Fit the headlight infill using the 3M tape. Apply pressure for 10-30 seconds to ensure strong bond.</p> <p>79. Use final tape pad to secure the backside edge of the infill to the underside of the headlamp.</p>	<p><b>TOOLS REQUIRED</b></p>
	<p><b>FASTENERS</b></p> <p>3M Primer 94 3M Tape</p>






80. If fitting a light bar to the center section of the bar, do so at this stage, before fitting the bar to the car.
81. Use hardware provided with the Lights to fit to the bar.
82. This is also the best time to fit driving lights or top hoop to the bar.
83. After fitment of driving lights fit the pan brace between the gusset and Top pan using supplied M6 hardware as shown.

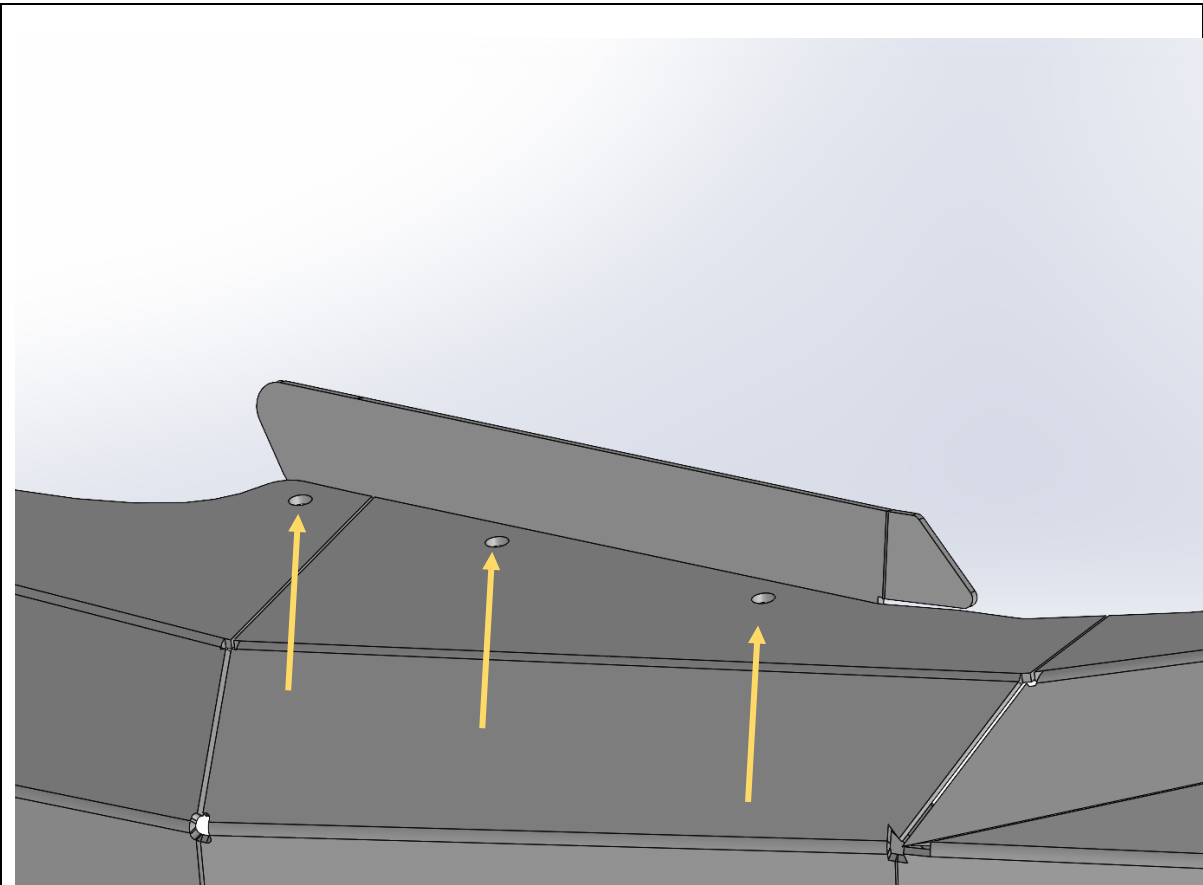
**TOOLS REQUIRED**

4mm Hex  
10mm Socket / Spanner

**FASTENERS**

2x M6x16 Button Head  
2x M6 Flat Washer  
2x M6 Flange nut

		
<p>84. Insert cage nuts to square slots in bottom of wings. Seat cage nut against one edge of slot then push other edge in with flat bladed screwdriver.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Flat bladed screwdriver</p>	
	<p><b>FASTENERS</b></p> <p>5x M6 Cage Nuts</p> <p>Per side</p>	



85. Fit the plastic infill panels to the bar, using supplied M6x16 Black Button head bolts, Black washers, and flange nuts.	<b>TOOLS REQUIRED</b>  4mm hex key
	<b>FASTENERS</b> 3x M6x16 Black button head 3x M6 Black washer 3x Flange Nut  Per side





86. With assistance, from either another person or mechanical lifting aid such as a lift trolley, offer the bar up to the mounts.
87. Secure the bar to the mounts using single M12x30 Bolt 2x M12 Heavy Duty flat washers and M12 Nyloc Nut per side.
88. Loosely fit the other 3x M12x30s Bolt 6x M12 Heavy Duty flat washers and 3xM12 Nyloc Nuts per side.

**TOOLS REQUIRED**

Lifting trolley

**FASTENERS**

8x M12x30 Bolt  
16x M12 HD Washer  
8x M12 Nyloc Nuts



89. Align the bar with the body. Aim for 15-20mm clearance between the wing and body.

**IMPORTANT:** It is the installers responsibility to ensure clearances are set so that no part of the bar touches the vehicle. Remember that body is rubber mounted and will move relative to bar in use.

90. With assistance, Hold the bar in position and tighten all the Bar to mount bolts, using 18/19mm socket and spanner.

An Electric Impact wrench makes this process much easier.

#### TOOLS REQUIRED

18/19mm socket  
18/19mm spanner

#### FASTENERS





91. If fitting a winch to the bar, do so at this stage. Follow the winch manufacturer's instructions.
92. The winch mounts feet down and is inserted through the front opening of the bar.
93. Most winches will fit underneath the triangular cross brace. Warn Zeon 10 winches will need to trim this cross brace to gain sufficient clearance.

**TOOLS REQUIRED**

Refer to winch Instructions

**FASTENERS**

Refer to winch Instructions





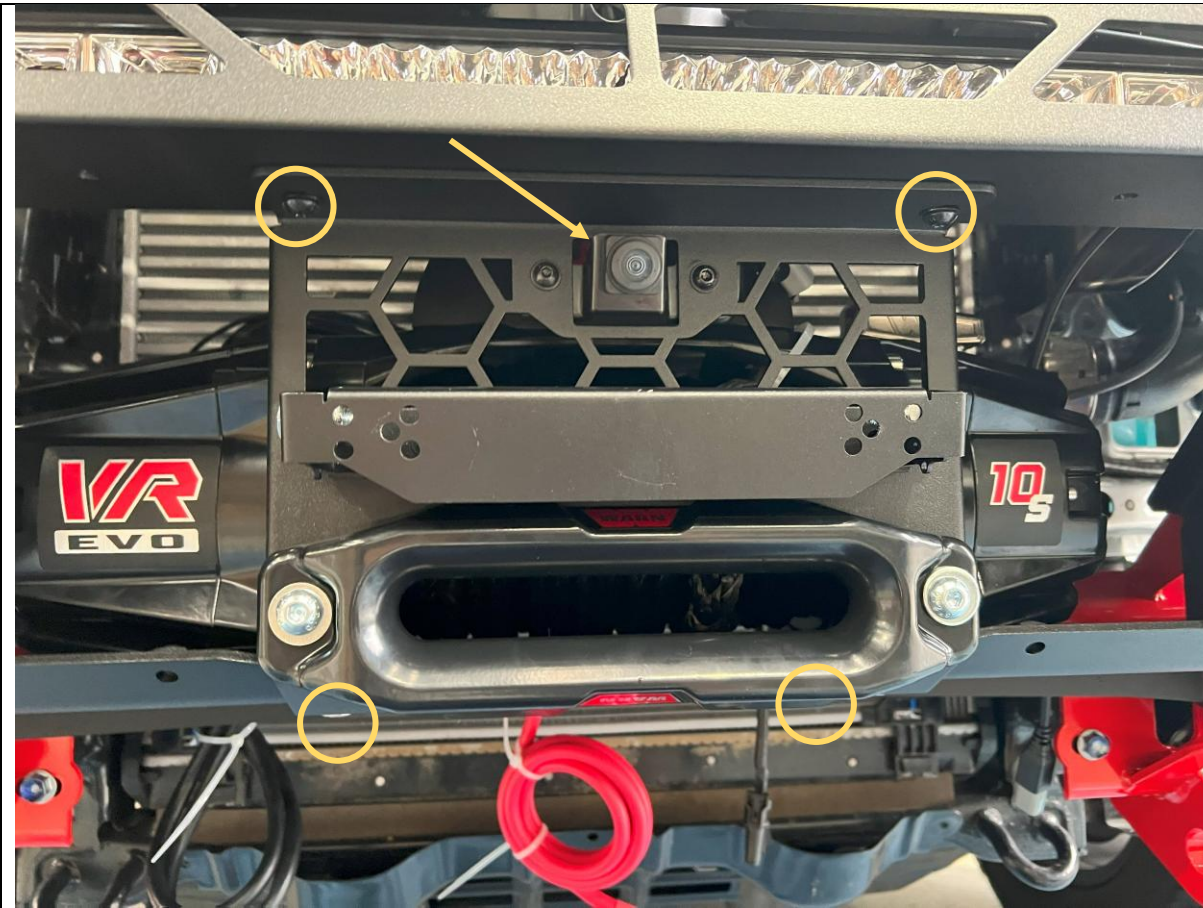
94. Fit the camera module to the center mesh panel, using the original bracket, and supplied M6x16 button head screws, flat washers and flange nuts.
95. If fitting winch, attach fairlead to center mesh panel using bolts supplied in winch fitting kit. Ensure winch rope is fed through fairlead.
96. Fit number plate flip to mesh panel using M6x20 Hex bolt, Flat washer, and flange nut, supplied in number plate flip kit.

**TOOLS REQUIRED**

10mm Socket  
4mm hex key

**FASTENERS**

2x M6x20 Hex Bolt  
4x M6 Flat washer  
4x M6 Flange Nut  
2x M6x16 Black Button Head



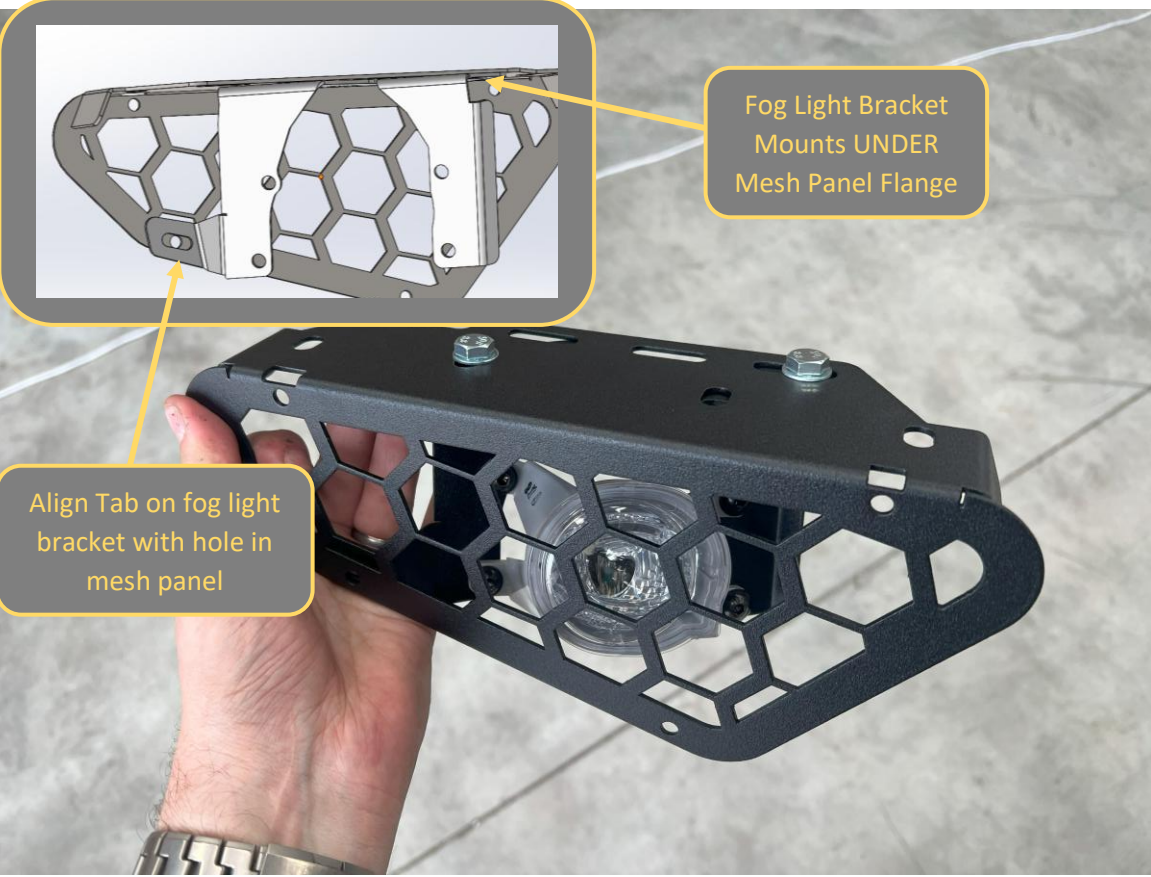
<p>97. Fit Mesh panel to the bar. Secure with 2x M8x16 Black Button Head Screws and M8 black washers to the threaded inserts at top and 2x M8x20 hex bolts and M8 Flat washer to the threaded inserts at Bottom.</p> <p>98. Re-connect the camera harness to the relocated camera module.</p>	<p><b>TOOLS REQUIRED</b></p> <p>5mm Hex Key 13mm Spanner</p>
	<p><b>FASTENERS</b></p> <p>2x M8x16 Button Head 2x M8 Black Flat Washer 2x M8x20 hex bolt 2x M8 Flat Washer</p>




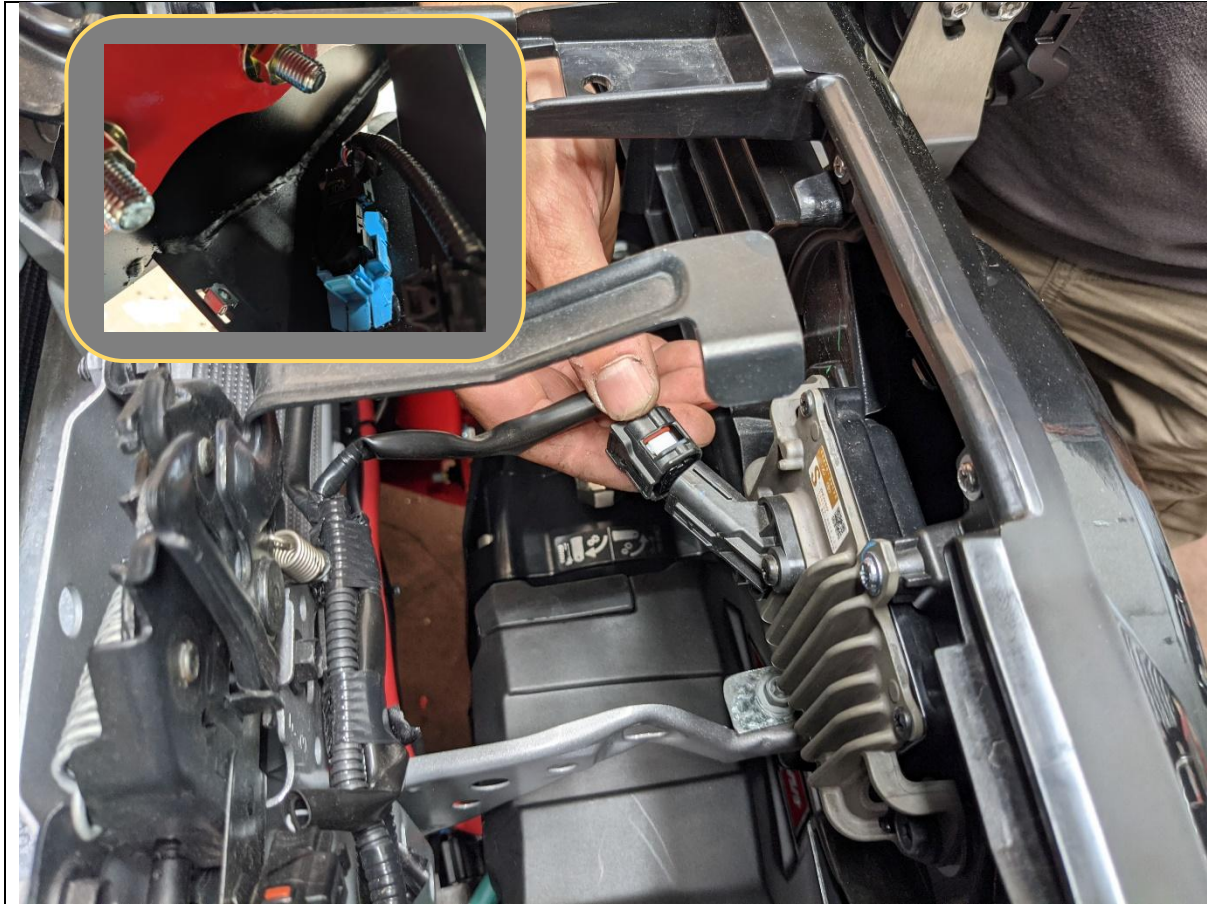


<div>99. Fit the side mesh panel to the bar, using only the top and side points at this stage. Secure with 2x M6x16 Black Button head, bolts, 2x Black M6 Flat washer and 1x flange nut.</div> <div>100. Repeat for other side of vehicle.</div> <div>101. Fit Number Plate to number plate flip, using M5 fasteners supplied with number plate flip.</div>	<div>TOOLS REQUIRED</div> <div>4mm Hex Key 10mm Socket 10mm Spanner</div>
	<div>FASTENERS</div> <div>4x M6x16 Button Head 4x M6 Black Flat Washer 2x M6 Flange Nut</div>



	
<p>102. If re-fitting factory fog lamps, fit the fog lamps to the supplied fog lamp brackets using the M6x16 black button head bolts, black washers and Flange nuts provided.</p> <p>103. Fit the fog lamp brackets to the light mesh panels using 2x M8x20 Hex head bolts at the top.</p> <p>104. If fitting own lamps in light mesh, fit now using slots on panel, and hardware provided with lights.</p> <p>105. Repeat for both sides of vehicle.</p>	<b>TOOLS REQUIRED</b>  4mm Hex Key 10mm Spanner 13mm Spanner
	<b>FASTENERS</b>  (if fitting fog lamp) 4x M6x16mm black button head 4x M6 black washer 4x M6 Flange Nuts  2x M8x20mm Button head bolts 2x M8 Flat Washer 2x M8 Flange Nuts  Per side

	
<p>106. Fit light mesh panels to the bar. Position the panel from underneath the bar and align with the mounting holes in the wing. Secure with 4x M6x16mm Button head bolts, M6 black washers and M6 Flange Nuts.</p> <p>107. Repeat for other side of vehicle.</p> <p>108. Reconnect fog lights, or additional driving lights, depending on what was fitted.</p>	<b>TOOLS REQUIRED</b>  4mm Hex Key 10mm Spanner
	<b>FASTENERS</b>  4x M6x16mm Button head bolt 4x M6 black washer 4x M6 Flange Nut  Per side



109. Re-connect all wiring harnesses to the adaptive cruise sensor, parking sensors and fog lights.

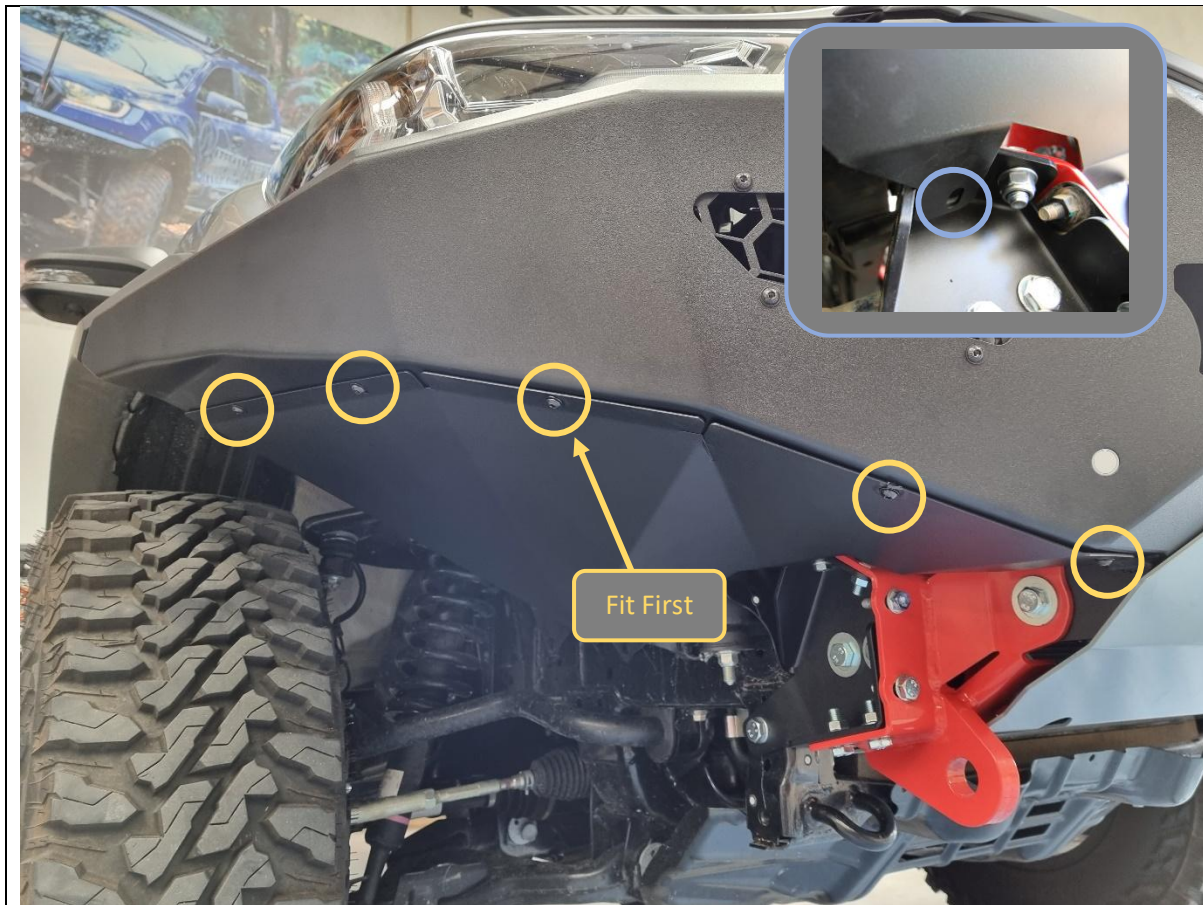
110. Replace the radiator shroud to top of grille, Secure with factory push center clips.

**TOOLS REQUIRED****FASTENERS**





<div>111. Fit bash plate to vehicle.</div> <div>112. First secure the top of the bash plate to the bottom of bar, with the mesh panels sandwiched in between. Secure with M8x20 black button head bolts and black washers into the threaded inserts in the bar.</div> <div>113. Secure bottom of bash plate to mounts using M10x30mm Button head Bolt, Flat washer and M10 Flange Nut. Insert nut through access hole in bash plate as shown.</div>	<div>TOOLS REQUIRED</div> <div>5mm Hex key 6mm Hex key 15mm Spanner</div>
	<div>FASTENERS</div> <div>4x M8x20 Button head Bolt 4xM8 Flat washer</div> <div>2x M10x30 Button head Bolt 2x M10 Flat washer 2x M10 Flange nut</div>



114. Fit side under panels to bar and secure with 5x M6x16 Button head bolts and M6 Flat washers, into M6 cage nuts fitted earlier.

Fitting center bolt first will make it easier to align panel to bar.

115. Secure the back corner of under panel to mount using M8x20 Hex bolt, Flat washer and M8 Flange Nut.

116. Repeat for other side of vehicle.

#### TOOLS REQUIRED

4mm Hex Key  
13mm Spanner / Socket

#### FASTENERS

10x M6x16 Button head bolt  
10x M6 Flat Washer

2x M8x20 Hex head  
2x M8 Flat Washer  
2x M8 Flange nut



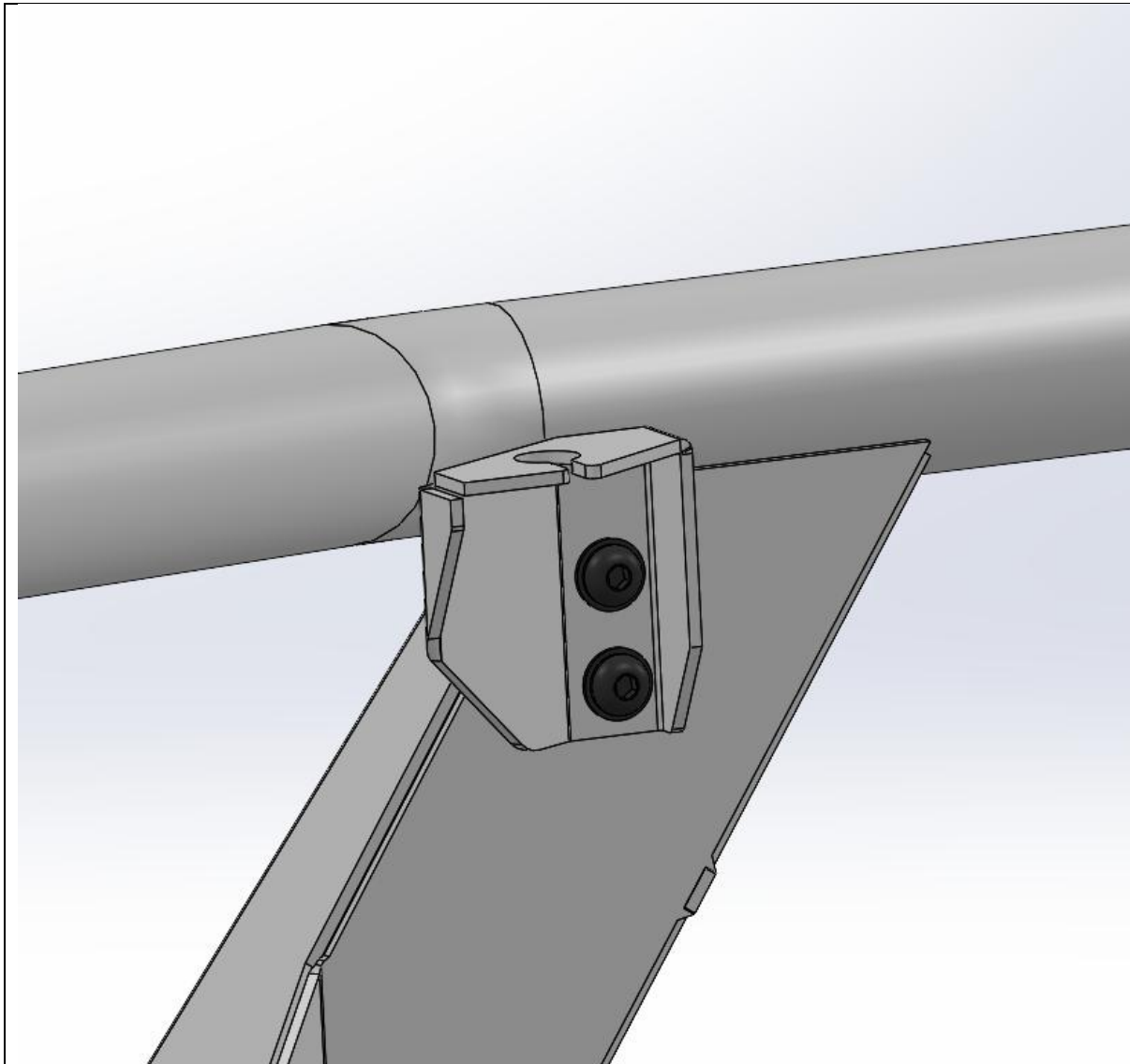
117. Mark where wheel arch liner intersects with side under panel with paint pen or another marker.
118. Create line offset approximately 20mm below intersection point.
119. Trim wheel arch liner to this line using utility Knife.
120. Insert wheel arch liner behind flange on side under panel.

**TOOLS REQUIRED**

Marker  
Utility Knife

**FASTENERS**





121. **Toro only.** Fit antenna brackets to Toro uprights using M8x20 black button head bolts and black washers.

**Note:** Due to close fitting nature of bar oversized UHF antenna bases are not suitable for fitment.

122. **Toro only.** 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 Key

**FASTENERS**

2x M8x20 Black Button head  
2xM8 Black Flat Washer

Per side



<div>123. Fit the logo plate to the front of the bar as shown.</div> <div>124. Fit the Compliance plate in a visible location on the underside of the bar. We recommend placing it on the bottom of the center bash plate.</div> <div>125. Review fitment and double check all bolts are tight.</div>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>



**Congratulations!**  
**Head for the tracks and enjoy your newly protected Toyota Widebody Hilux Rogue!**