



## Toyota Hilux N80 MY2021 on Predator Front Bar

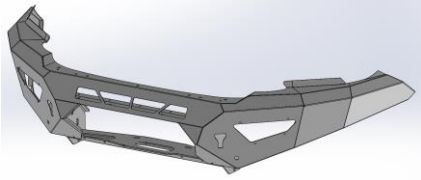
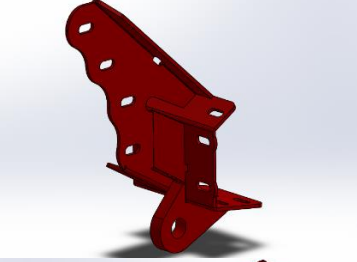
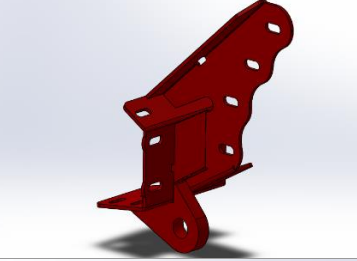
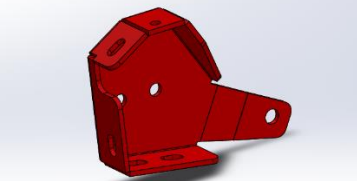
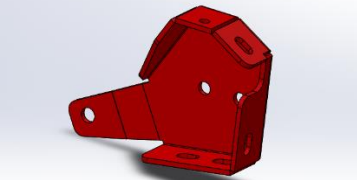
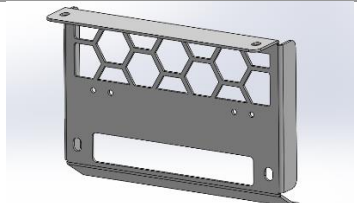
### **IMPORTANT! – READ BEFORE INSTALLATION**

- 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.

## 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-N80-21-PR-ASM1	Hilux N80 Predator Bar Weldment	
1	FB-THL-N80-15-PR-ASM2L	Hilux Chassis Mount Assy	
1	FB-THL-N80-15-PR-ASM2R	Hilux 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-ASM0	Number plate flip asm Small	
1	U-0009	Hilux N80 Bash Plate	
1	U-0006L	Hilux Front Bar - Side Underpanel	
1	U-0006R	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	

<b>1</b>	B-0514R	Hilux 21+ Style Fog Lamp Bracket RHS	
<b>1</b>	B-0515	Hilux 21+ Grille Support Bracket	
<b>1</b>	B-0195	Hilux Grille Support Bracket	



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

Qty	Part Number	Description
21	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
37	M6 FLAT WASHER BLACK ZINC	M6 FW BLACK ZP
37	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP
8	M12X40	Bolt Hex, M12X40X1.75, GR8.8 ZP
16	M12 FW LHD	M12 FW Large Heavy Duty
8	M12 Nyloc nut	M12 NYLOC NUT
10	M6CN3MM	CAGE NUT M6x2.6-3.5
8	M8X20	Bolt Hex, M8X20X1.25, GR8.8 ZP
8	M8 FLAT WASHER	M8 FW
16	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
8	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP
8	M8 FLAT WASHER- BLACK ZINC	M8 FW- BLACK ZINC
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9 BLACK ZP
2	M10X30 BHCS	SCREW, BUTTON HEAD CAP, M10X30X1.5 GR12.9 ZP
12	M10 Flat Washer	M10 FW
12	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
2	NP-THL-N80-15-PR	Nut Plate - Hilux Predator
6	M12 FLAT WASHER	M12 FW
4	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
10	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
2	M12X30X1.25	Bolt Hex, M12X30x1.25, GR8.8 ZP
1	OFA-LOGO	OFFROAD ANIMAL METAL LOGO
2	P-0072	Predator Bash Plate Shim

## TOOLS REQUIRED

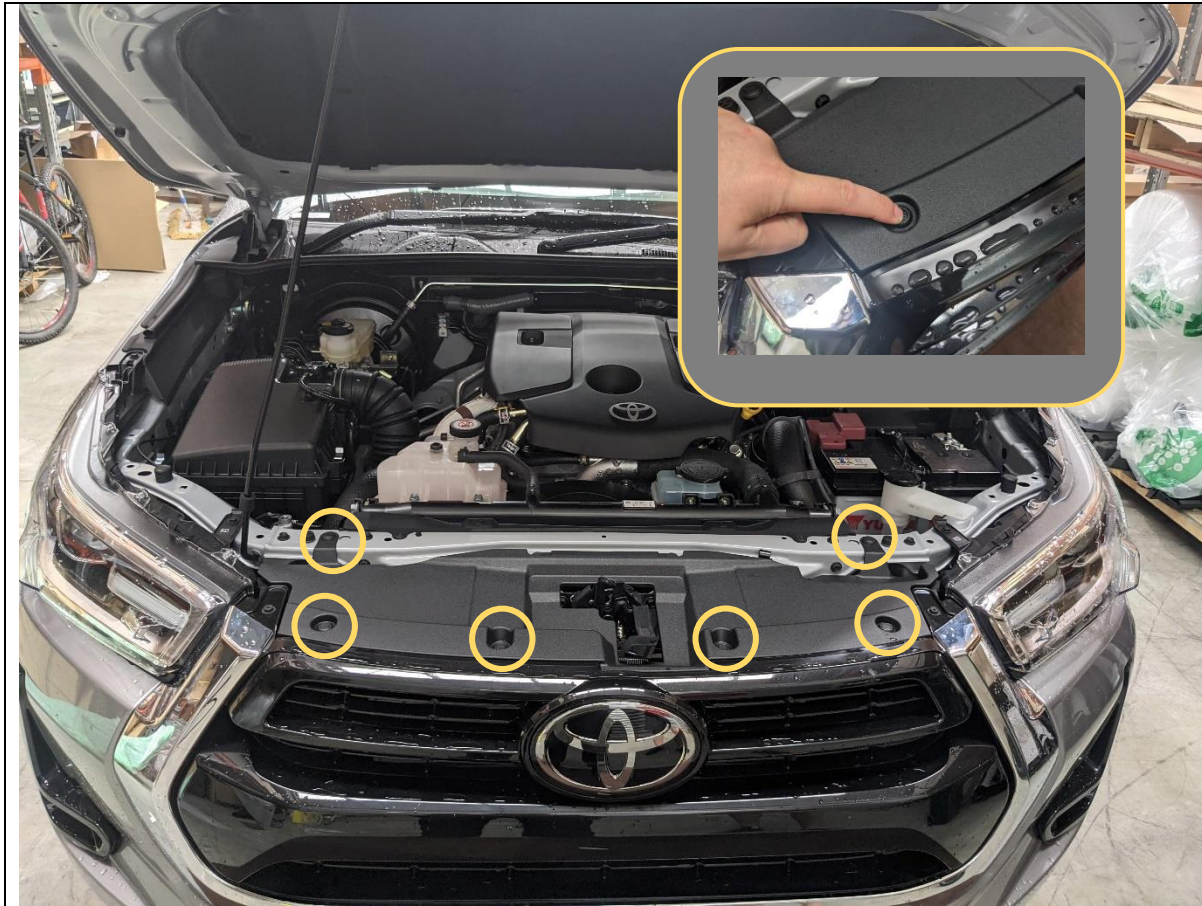
The following tools will be required to install the product.

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	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

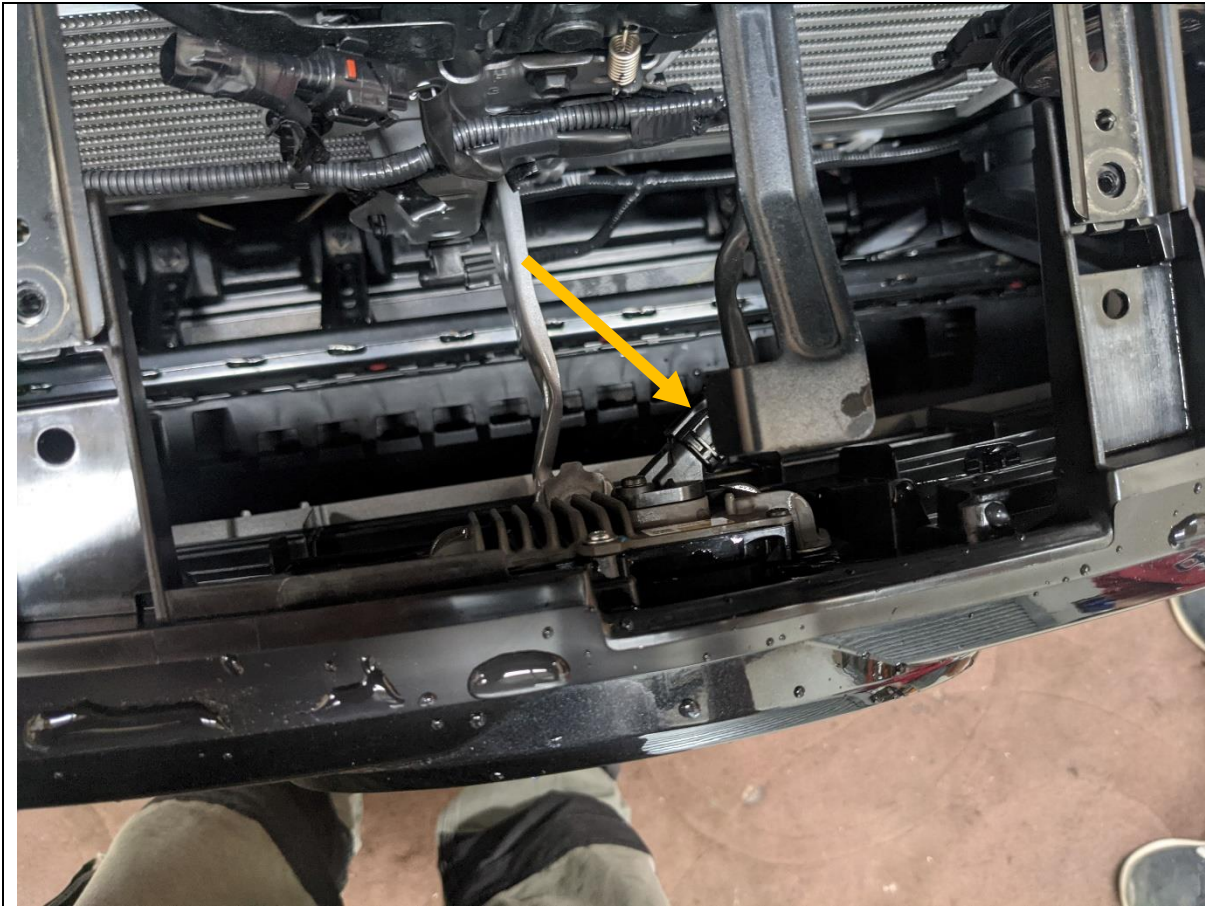
**FASTENERS**

Push Center Clips



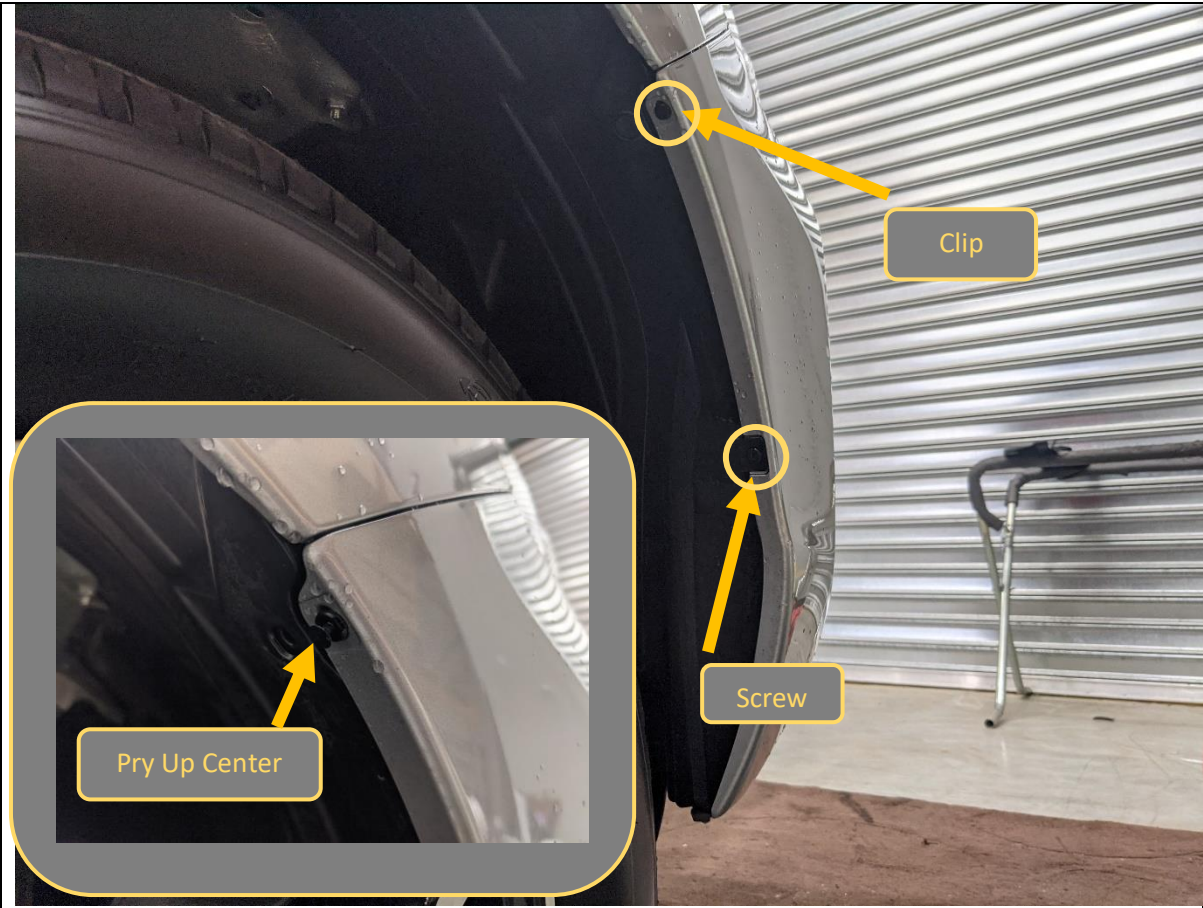
<div>3. Remove the 4x 10mm Head screws securing the top of the grille</div> <div>4. Retain fasteners for re fitment.</div>	<div>TOOLS REQUIRED</div> <div>10mm Socket / Spanner</div>
	<div>FASTENERS</div> <div>10mm Head Screws</div>





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

**TOOLS REQUIRED****FASTENERS**



<div>6. Remove the small screw and clip securing the bumper to the inner wheel arch liner.</div> <div>7. Clip is a center release type. Pry up the center section to unlock then remove.</div>	<div>TOOLS REQUIRED</div> <div>8mm Socket</div> <div>Trim Tool</div>
	<div>FASTENERS</div> <div>Factory Clip and Screw</div>



<div>8. Remove the 3x 10mm head Screws securing bottom corner of bumper to inner wheel arch liner.</div> <div>9. Complete on both sides of Vehicle</div>	<div>TOOLS REQUIRED</div> <div>10mm Socket / Spanner</div>
	<div>FASTENERS</div> <div>Factory Screws</div>





10. Remove the 3x 10mm head Screws securing bottom center section of bumper to inner wheel arch liner.

**TOOLS REQUIRED**

10mm Socket / Spanner

**FASTENERS**

Factory Screws



11. Remove the 2x 10mm Head/Phillips screws securing the bumper to crossmember.

These screws are located on the edge near the headlights behind the grille.

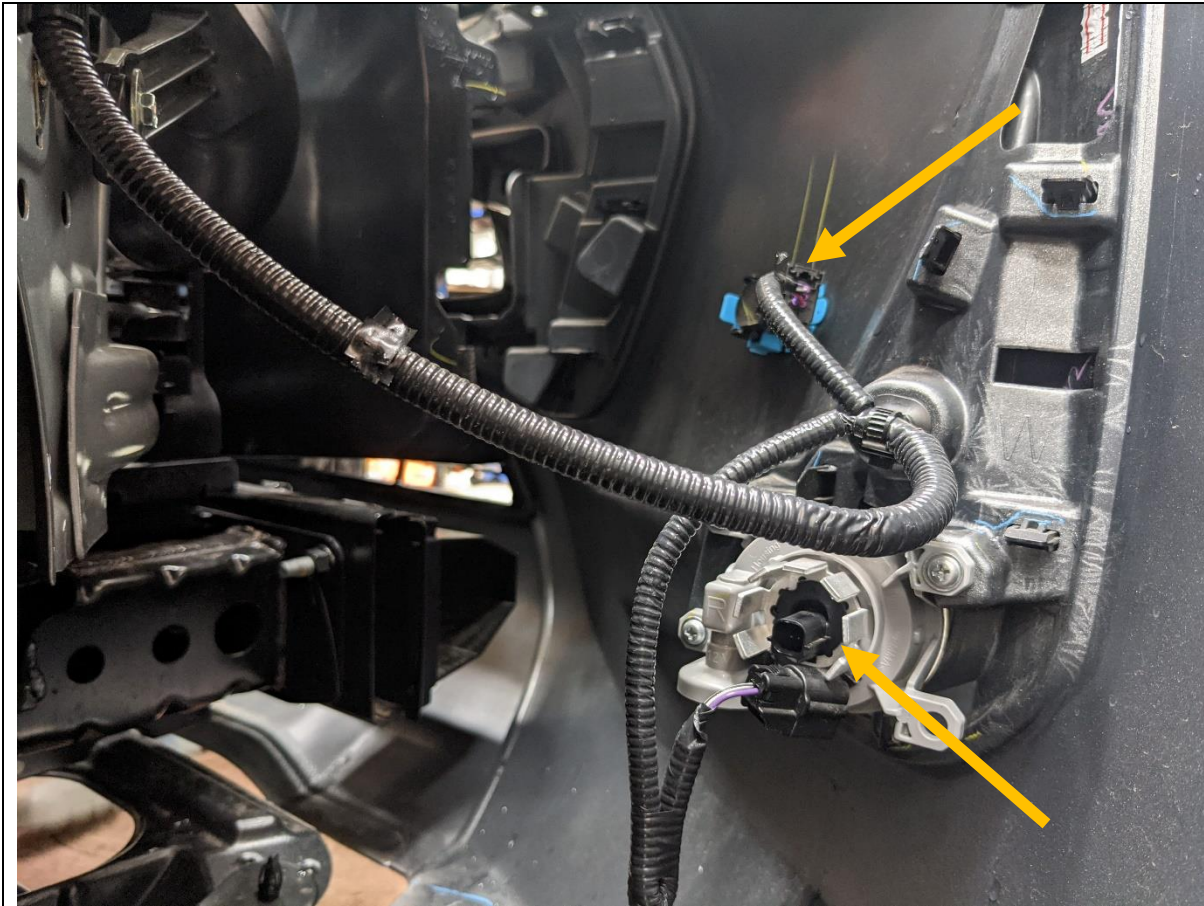
**TOOLS REQUIRED****FASTENERS**



12. Remove the bumper. Start by pulling from the outside where the bumper meets the wheel arch and work towards the center from both sides.

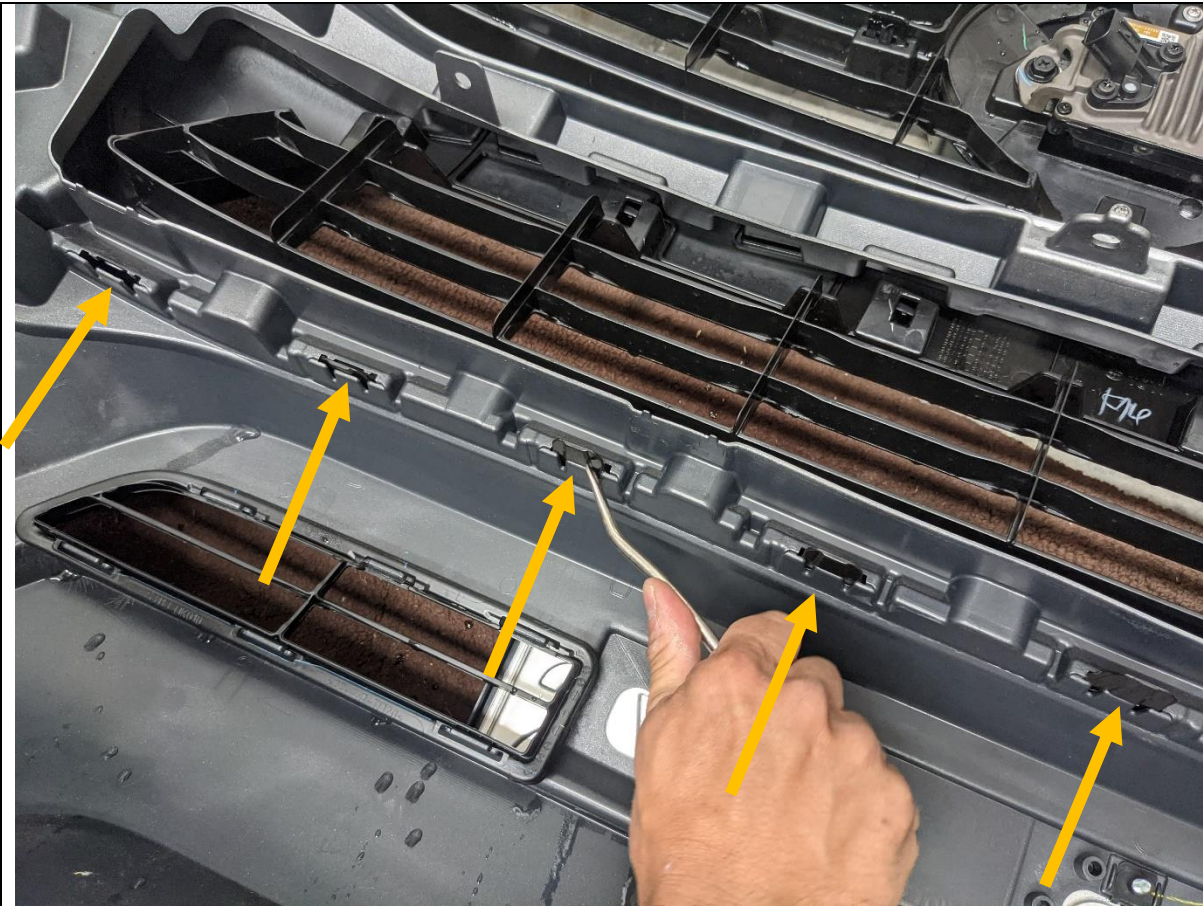
**TOOLS REQUIRED****FASTENERS**





13. With assistance once the bumper is loose, unplug and release the parking sensor and fog light harnesses.
14. 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.
15. This needs to be done on both sides of the vehicle.

**TOOLS REQUIRED****FASTENERS**



<div>16. Once bumper is removed set aside on soft non marking surface or panel stand.</div> <div>17. 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>18. Remove the front bumper support plastic fasteners using trim tool and Phillips screwdriver to pry whilst loosening as shown.</div> <div>19. Remove the forward bolt using 10mm socket.</div> <div>20. Remove the bumper supports using a trim tool.</div> <div>21. Complete on both sides of the vehicle.</div>	<div><b>TOOLS REQUIRED</b></div> <div>Trim Tool</div> <div>Phillips Screwdriver</div> <div>10mm socket</div>
	<div><b>FASTENERS</b></div>



22. Replace the forward bolt to re-secure the headlight to the wing.

23. Complete on both sides of the vehicle

**TOOLS REQUIRED**  
**10mm Socket**

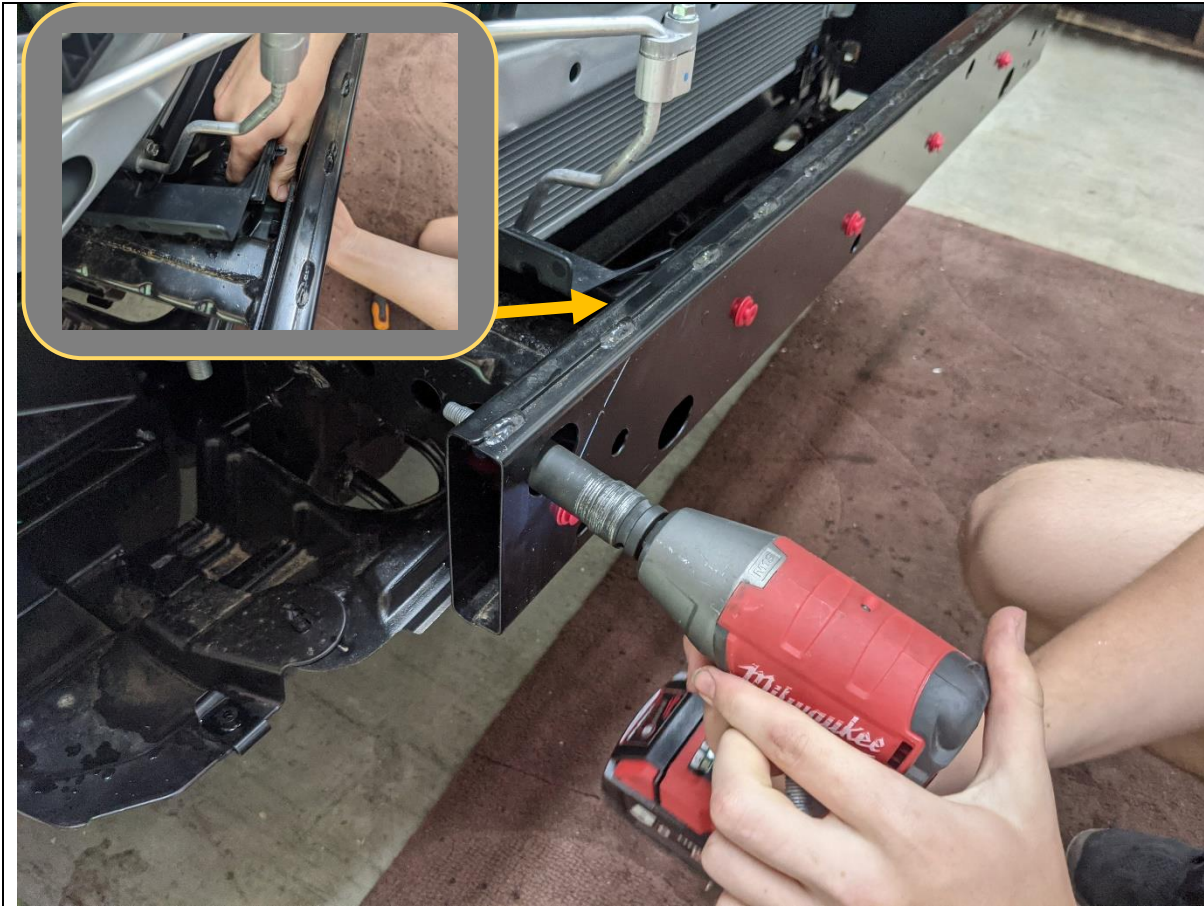
**FASTENERS**



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

**TOOLS REQUIRED****FASTENERS**





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

**TOOLS REQUIRED**

15mm Socket  
Trim Tool

**FASTENERS**



27. Take impact beam off car and discard.	TOOLS REQUIRED
	FASTENERS





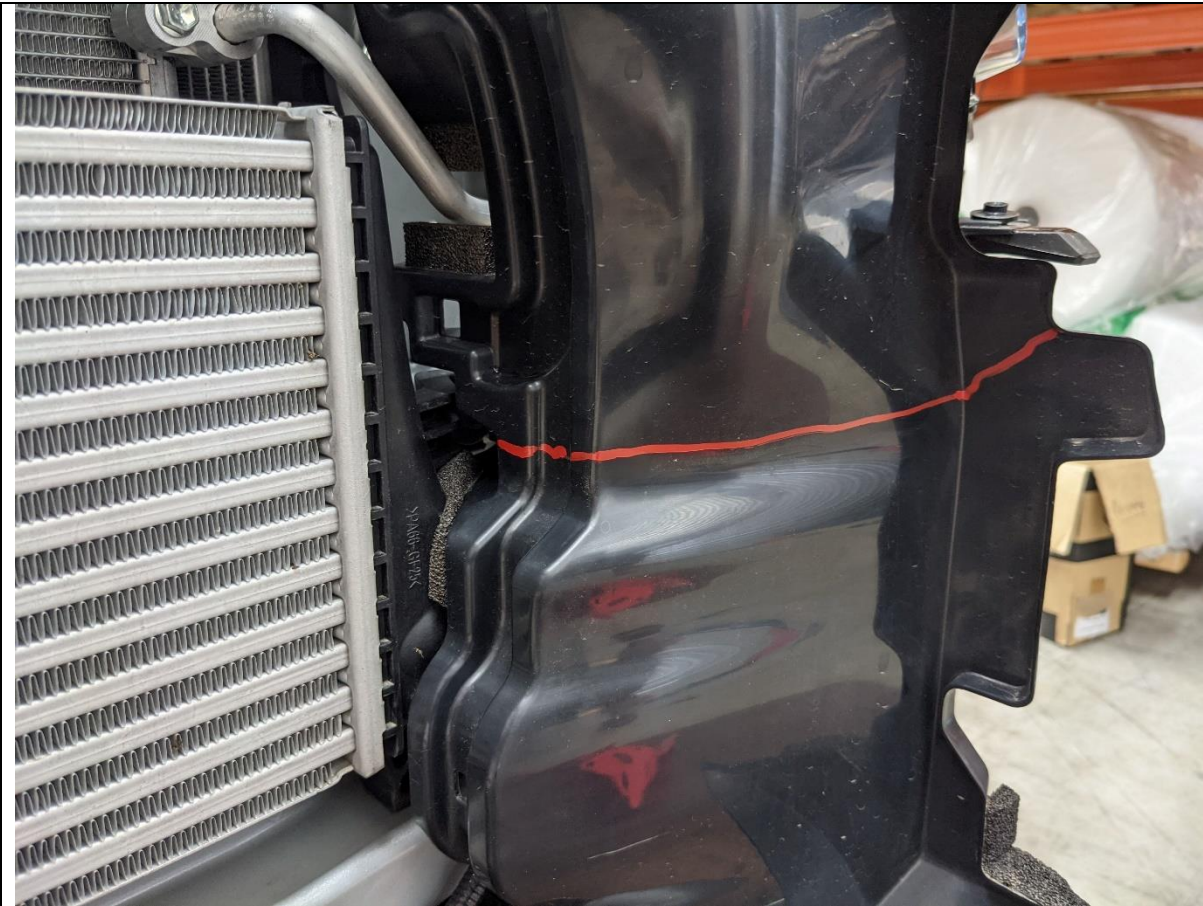
28. Vehicle chassis rails should now be totally exposed as shown.
29. For light colored vehicles it is a good idea to paint the exposed panels beneath the headlight black, to ensure neat appearance once bar is fitted.

**TOOLS REQUIRED****FASTENERS**

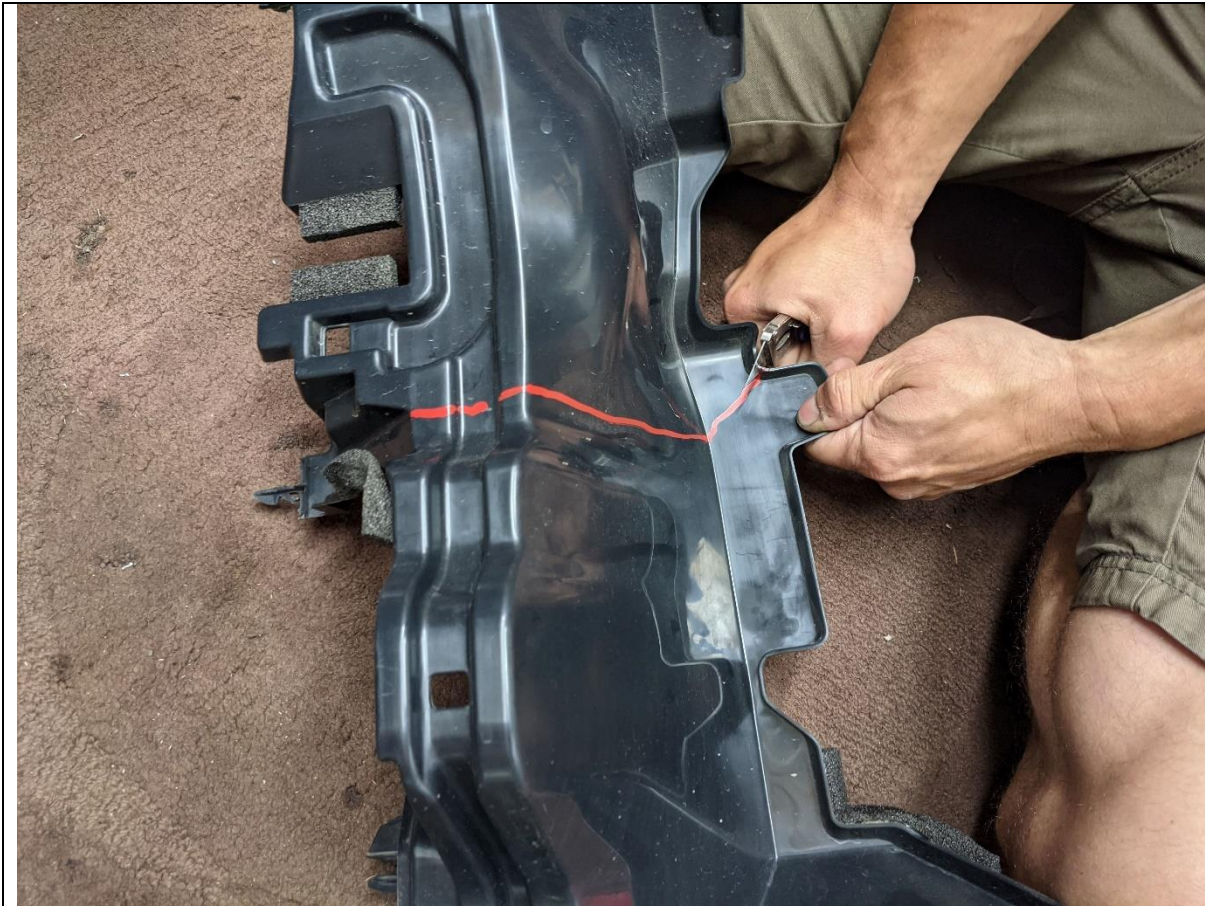


<div>30. Mark air guide on Right hand side of vehicle as shown in the above image.</div> <div>31. Remove air guide from vehicle by releasing the 3x clips holing it to the chassis</div>	<div>TOOLS REQUIRED</div> <div>Paint Marker</div>
	<div>FASTENERS</div>





<div>32. Mark air guide on Left hand side of vehicle as shown in the above image.</div> <div>33. Remove air guide from vehicle by releasing the 3x clips holing it to the chassis</div>	<div>TOOLS REQUIRED</div> <div>Paint Marker</div>
	<div>FASTENERS</div>



34. Trim the air guides along the lines marked, using a sharp utility knife or air hacksaw.

35. Re-Fit the top half of the air guides trimmed to the vehicle,

**TOOLS REQUIRED**

Utility Knife

**FASTENERS**



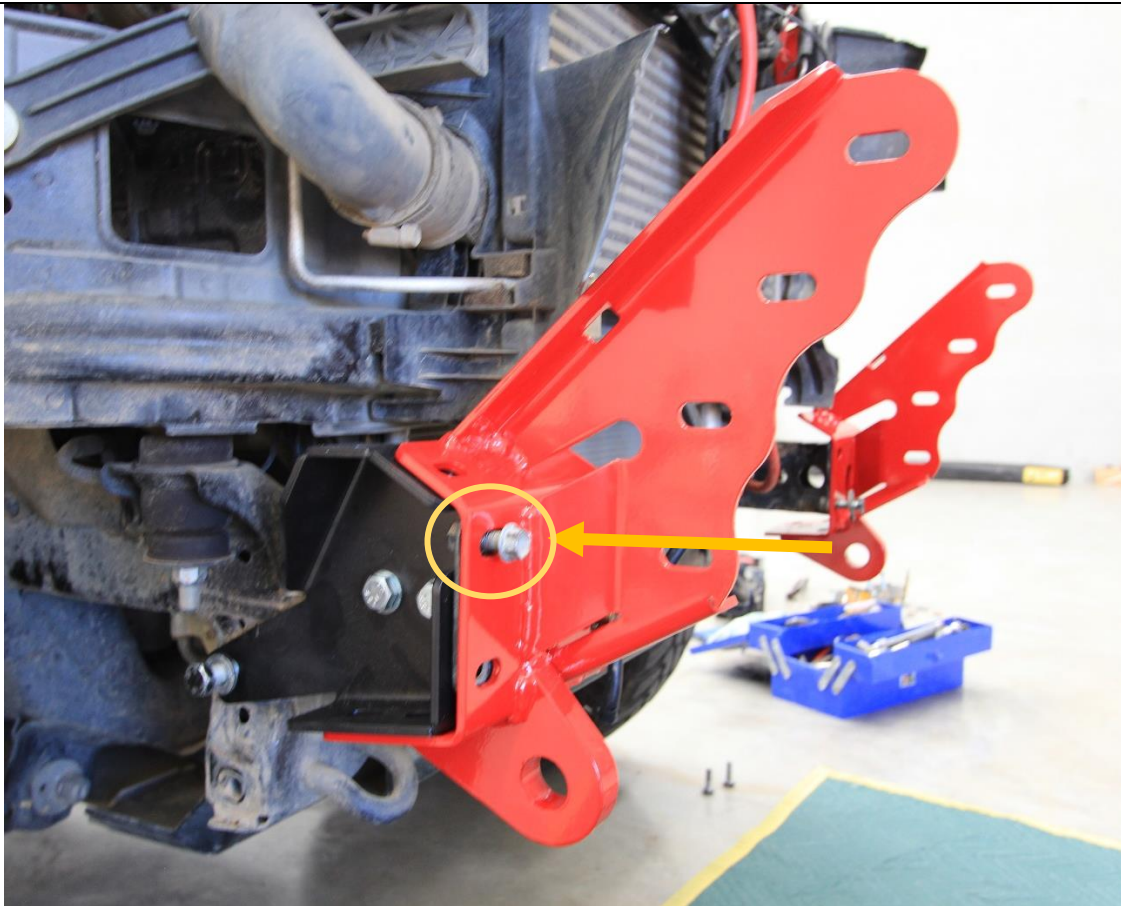


36. Take the chassis brace and fit loosely to the threaded M12 Fine pitch point in chassis, using M12x30x1.25 Bolt and flat washer.
37. Insert the Nut Plate into the chassis rail through the opening on the front of the chassis.
38. Secure the nut plate with M12x30 Standard pitch bolts and flat washers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

**TOOLS REQUIRED****FASTENERS**

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

PER SIDE

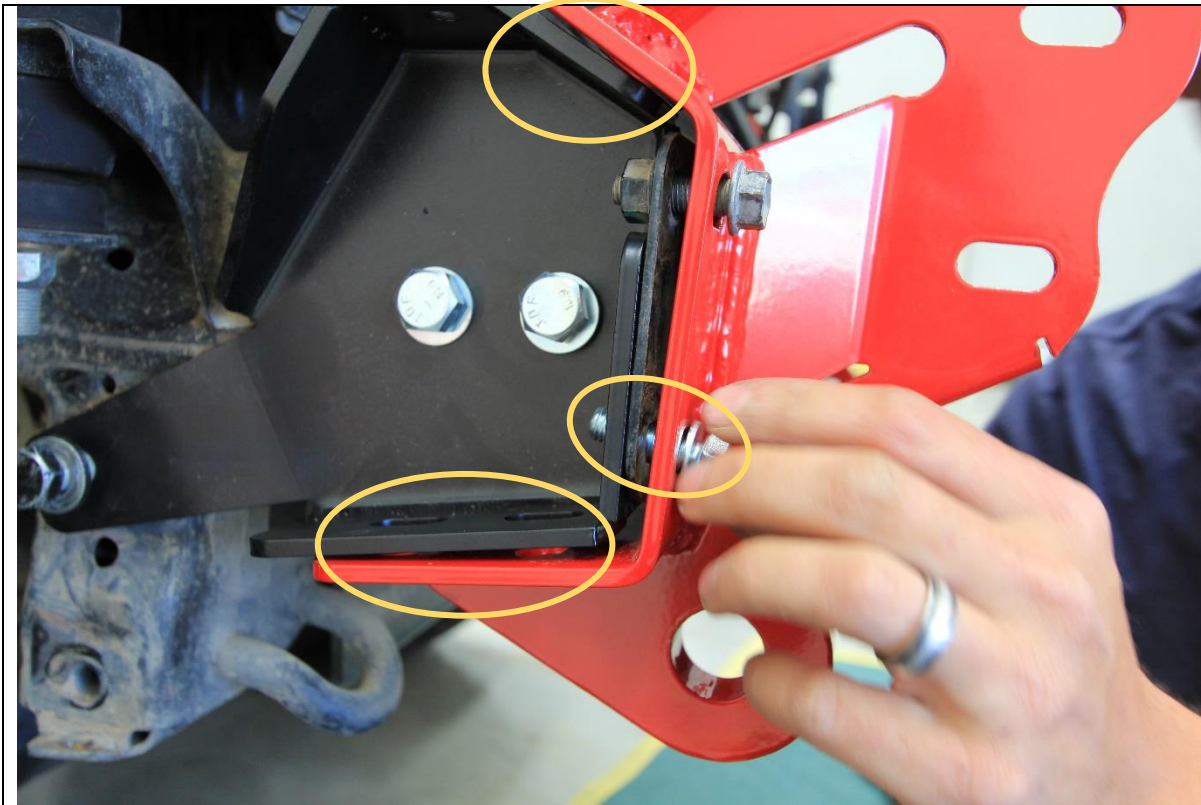


40. Fit the impact assembly to the end of the chassis rail.
41. Secure finger tight with the original M10 bolts in the threaded inserts in chassis.
42. Repeat for other side of vehicle

**TOOLS REQUIRED****FASTENERS**

2x Factory M10 flange  
bolt  
  
per side.

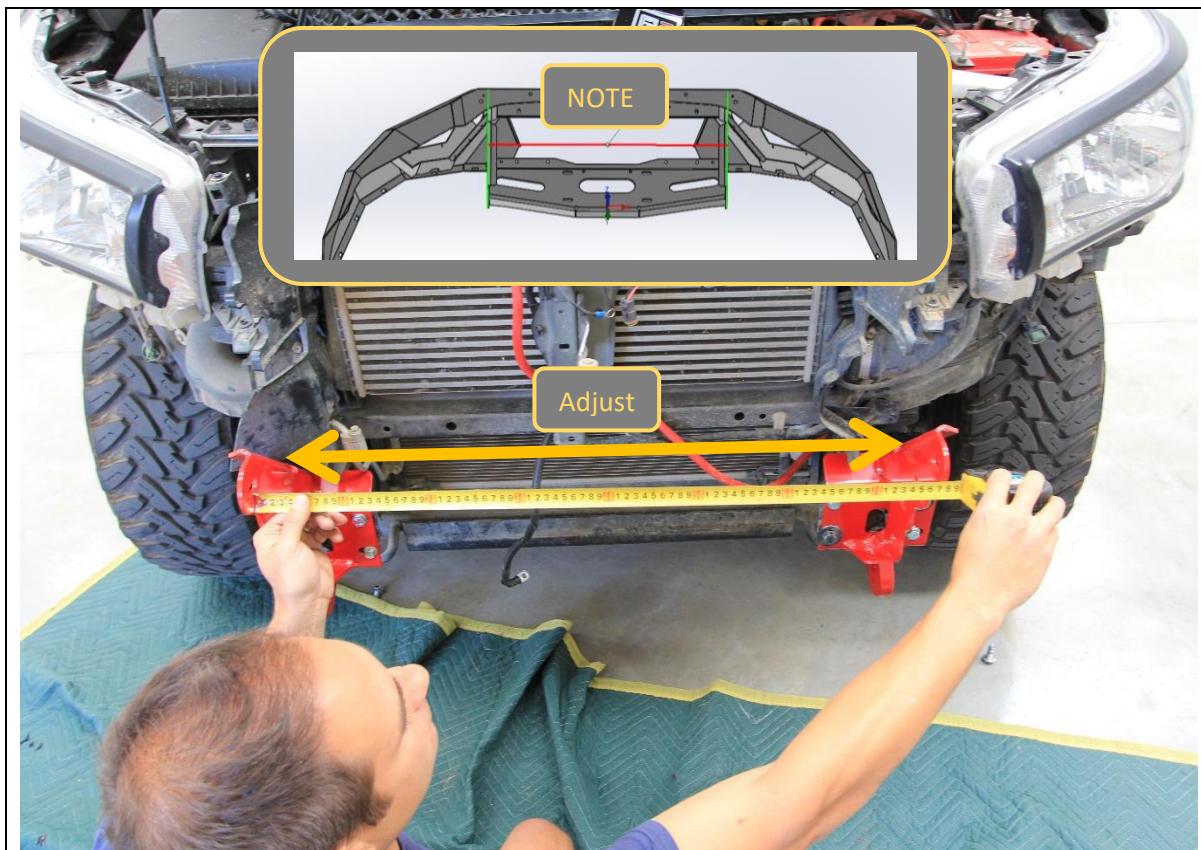




43. Fit remaining bolts to the impact assembly. 2x M10x30 Bolts, 4x Flat washers and 2x Nyloc nuts to front face.
44. Fit 2x M10x30 Bolts, 4x Flat washers and 2x Nyloc nuts to Bottom face.
45. Fit 1x M10x30 Bolt, 2x Flat washers and 1x Nyloc nuts to Top face.

**TOOLS REQUIRED****FASTENERS**

5x M10x30 Bolt  
10x M10 Flat washer  
5x Nyloc Nut  
  
per side.



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

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

47. Adjust the distance between the impact assemblies to be approx. 1-2mm greater than the upright distance on the bar.

48. 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

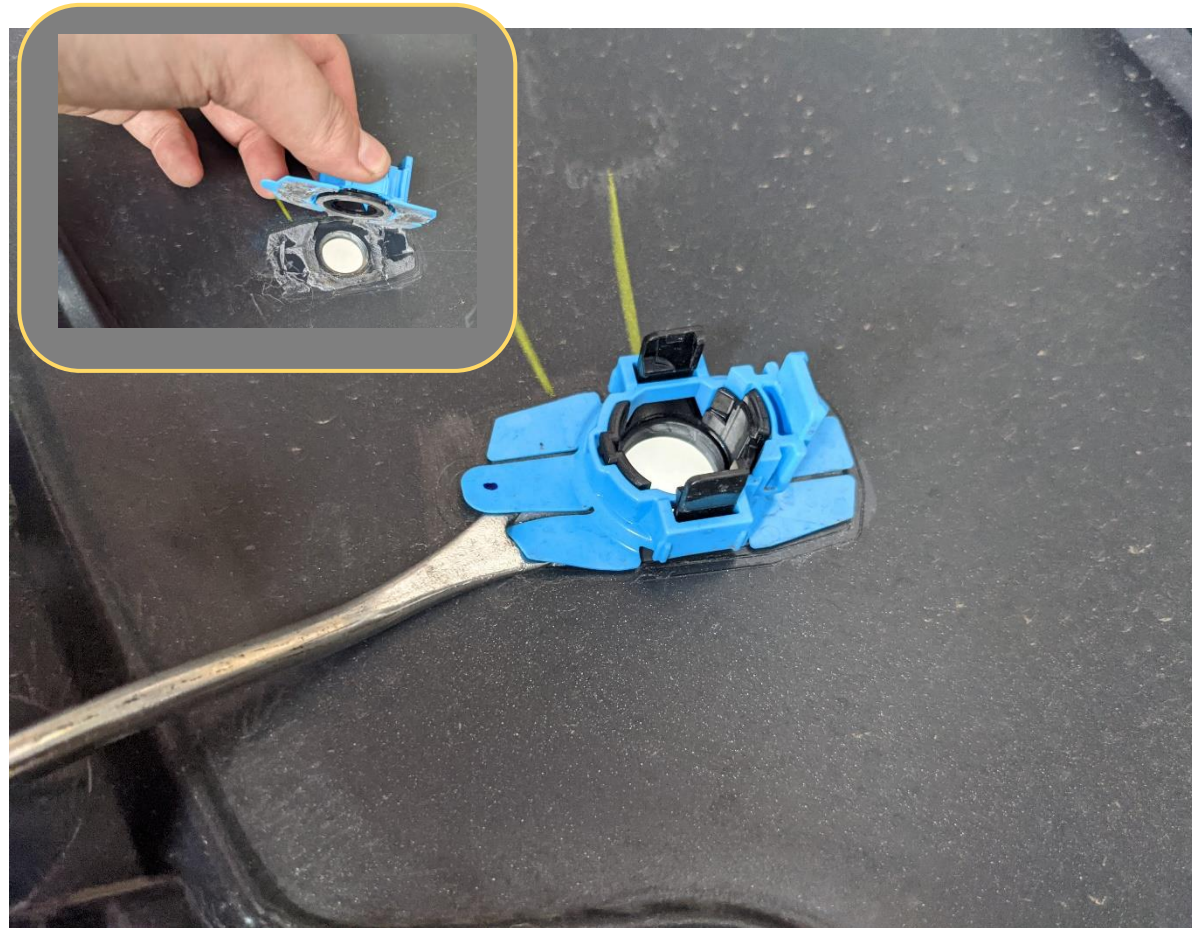


49. Remove the 3x Screws securing the fog lights to the bumper, then remove the fog light from the bumper

**TOOLS REQUIRED**  
Screwdriver

**FASTENERS**  
Factory Screws





50. Carefully pry the sensor housings away from the back of the bumper, using a trim tool or similar.

**TOOLS REQUIRED**  
Trim Tool

**FASTENERS**



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

52. Fit sensor into housing, ensuring it fully clips into position.

**TOOLS REQUIRED**

Utility Knife  
Solvents

**FASTENERS**



53. Apply automotive grade adhesive sealant to the flanges of the sensor housing.
54. Glue the sensor housing in place on the bar in the orientation shown.
55. Hold sensors in position with tape whilst adhesive cures.

**TOOLS REQUIRED**

Tape  
Automotive grade adhesive sealant.

**FASTENERS**





56. Place masking tape on the grille, in the location shown just below the center horizontal bar.

57. The Mark out the grille cut as denoted by lines in image. Ensure it is symmetric, reposition the tape if required.

**TOOLS REQUIRED**

Masking Tape

**FASTENERS**



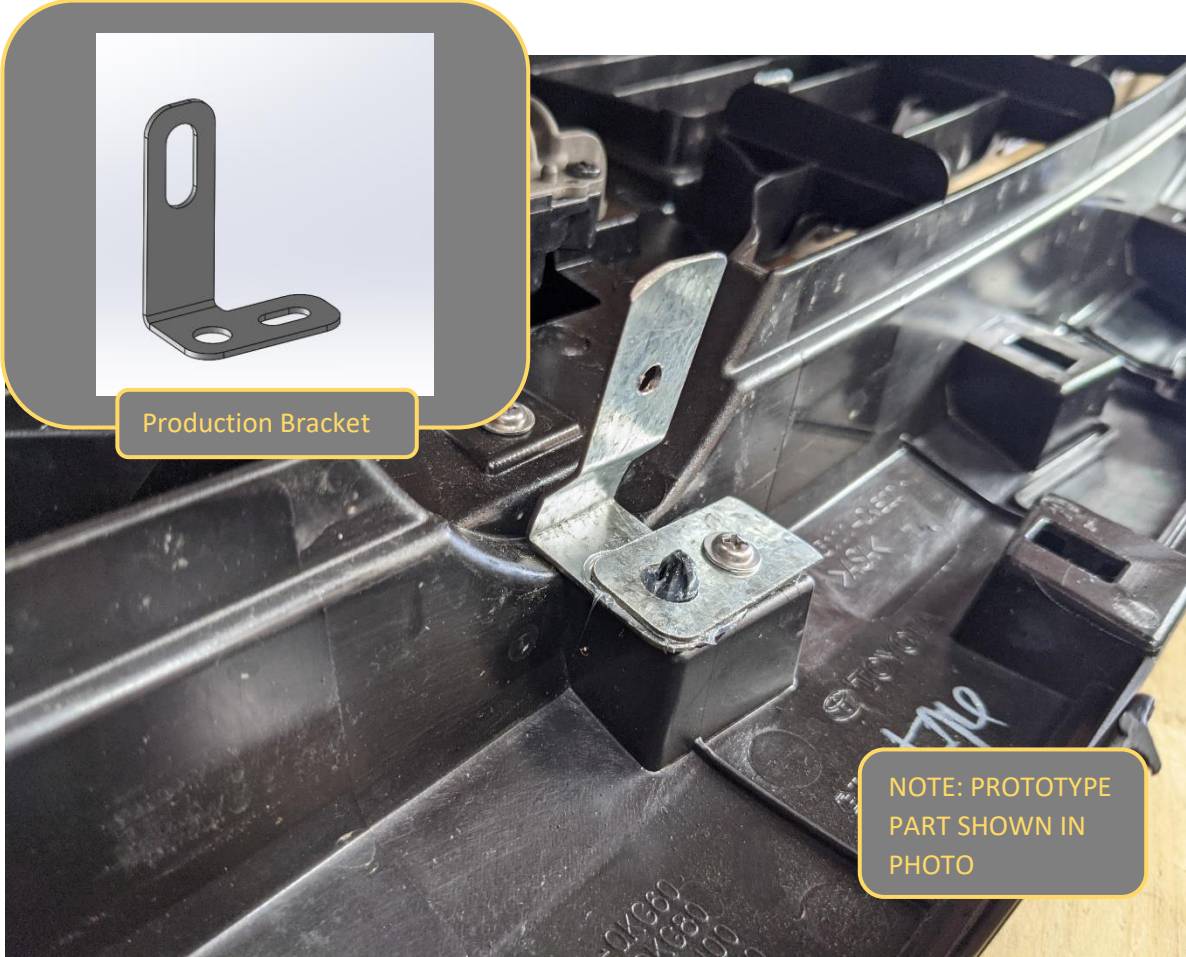
58. Using angle grinder or air hacksaw, cut along edge of the tape.

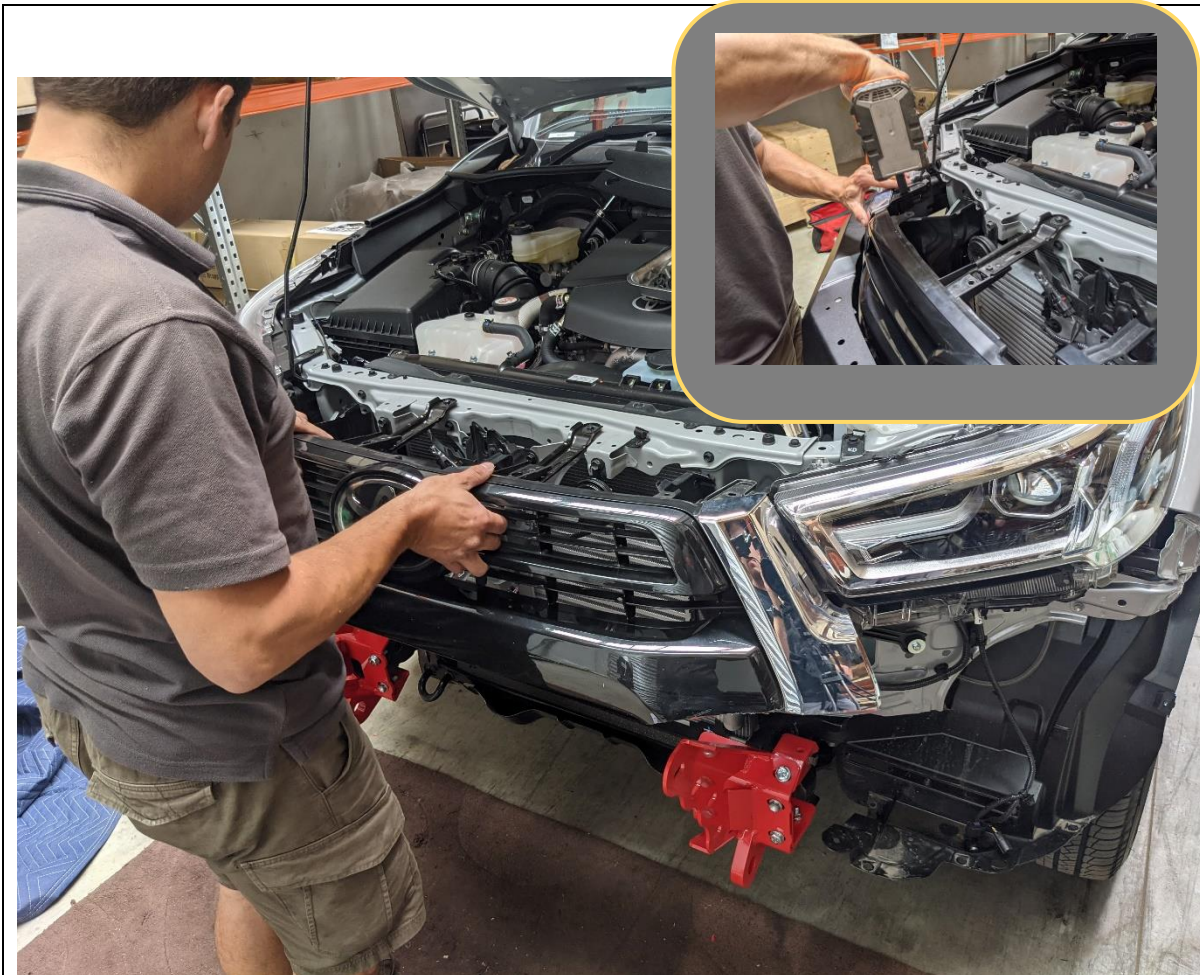
59. Cut all vertical slats just below horizontal bar to allow the grille to separate into two pieces.

**TOOLS REQUIRED**  
Angle Grinder or Air Hacksaw

**FASTENERS**



 <p>Production Bracket</p> <p>NOTE: PROTOTYPE PART SHOWN IN PHOTO</p>	
<p>60. Fit the bottom grille support bracket to the middle of the top section of the grille, under the adaptive cruise radar sensor.</p> <p>61. Remove the existing Philips head screw, then re fit with bracket in place.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Flat bladed screwdriver</p>
	<p><b>FASTENERS</b></p> <p>6x M6 Cage Nuts</p>



62. Re fit the trimmed section of the grille to the vehicle.
63. Secure top of grille using original 10mm Fasteners.
64. Secure the grille support bracket to the plastic insert in the using a self tapping Philips screw

**TOOLS REQUIRED**  
10mm Socket  
Phillips screwdriver

**FASTENERS**



65. If fitting a light bar to the center section of the bar, do so at this stage, before fitting the bar to the car.

66. Use hardware provided with the Lights to fit to the bar.

**TOOLS REQUIRED**  
Flat bladed screwdriver

**FASTENERS**  
6x M6 Cage Nuts





67. 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.

**TOOLS REQUIRED**  
Flat bladed screwdriver

**FASTENERS**  
6x M6 Cage Nuts



68. With assistance, from either another person or mechanical lifting aid such as a lift trolley, offer the bar up to the mounts.
69. Secure the bar to the mounts using single M12x30 Bolt 2x M12 Heavy Duty flat washers and M12 Nyloc Nut per side
70. 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



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

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

An Electric Impact wrench makes this process much easier.

**TOOLS REQUIRED**

19mm socket  
19mm spanner

**FASTENERS**

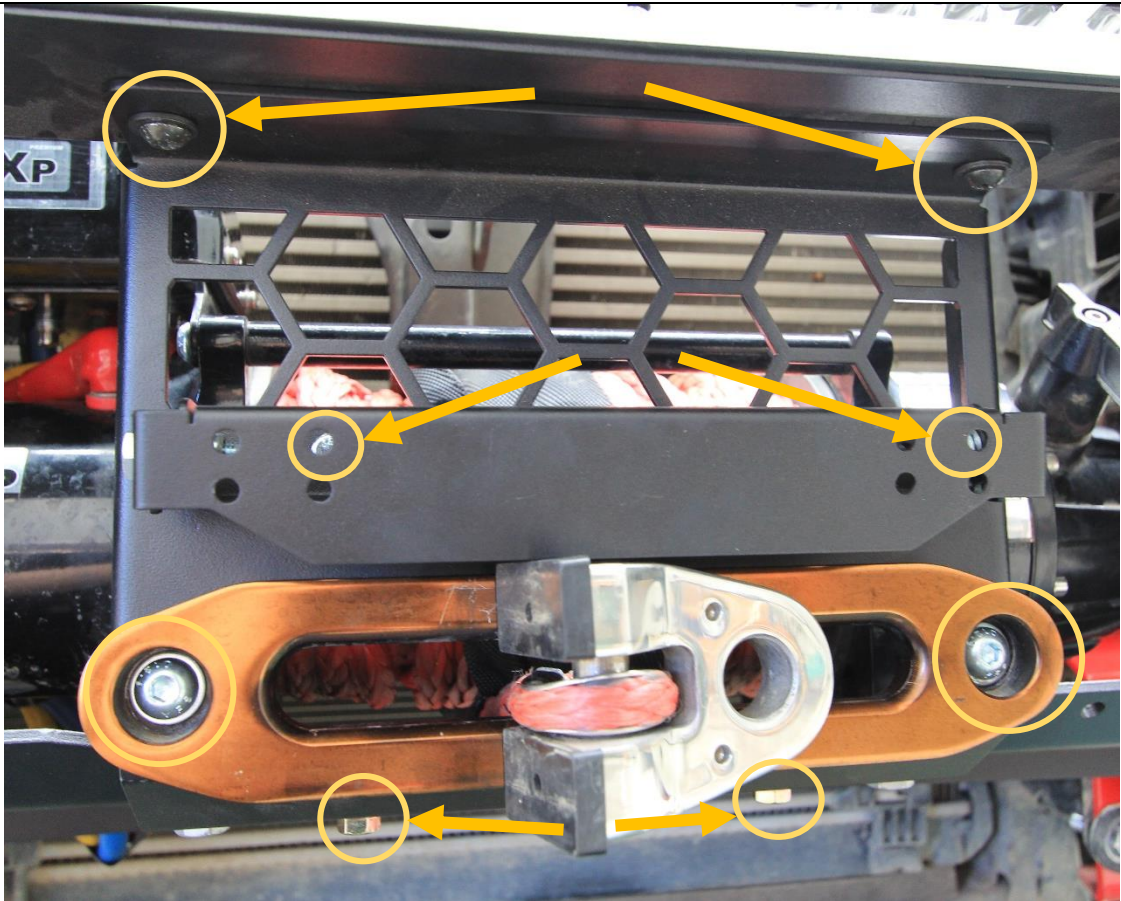




73. If fitting a winch to the bar, do so at this stage. Follow the winch manufacturer's instructions.
74. The winch mounts feet down and is inserted through the front opening of the bar.
75. Most winches will fit underneath the triangular cross brace. Warn Zeon 10 winches will need to trim this cross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

**TOOLS REQUIRED**  
Refer to winch Instructions

**FASTENERS**  
Refer to winch Instructions



<p>76. If fitting winch, attach fairlead to center mesh panel using bolts supplied in winch fitting kit. Ensure winch rope is fed through fairlead.</p> <p>77. Fit number plate flip to mesh panel using M6x20 Hex bolt, Flat washer and flange nut, supplied in number plate flip kit.</p> <p>78. Fit Mesh panel to the bar. Secure with 2x M8x16 Black Button Head Screws, M8 Flat washer and M8 Flange nuts at top and 2x M8x20 Black BHCS M8 Flat washer and M8 Flange nuts at Bottom</p>	<p><b>TOOLS REQUIRED</b></p> <p>5mm Hex Key 13mm Spanner 10mm spanner</p>
	<p><b>FASTENERS</b></p> <p>2x M6x20 Hex Bolt 2x M6 Flat washer 2x M6 Flange Nut 2x M8x16 Button Head 2x M8x20 Button Head 4x M8 Black Flat Washer 4x M8 Flange Nut</p>





79. 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, Black M6 Flat washer and flange nut.

80. Repeat for other side of vehicle.

81. Fit Number Plate to number plate flip, using M5 fasteners supplied with number plate flip

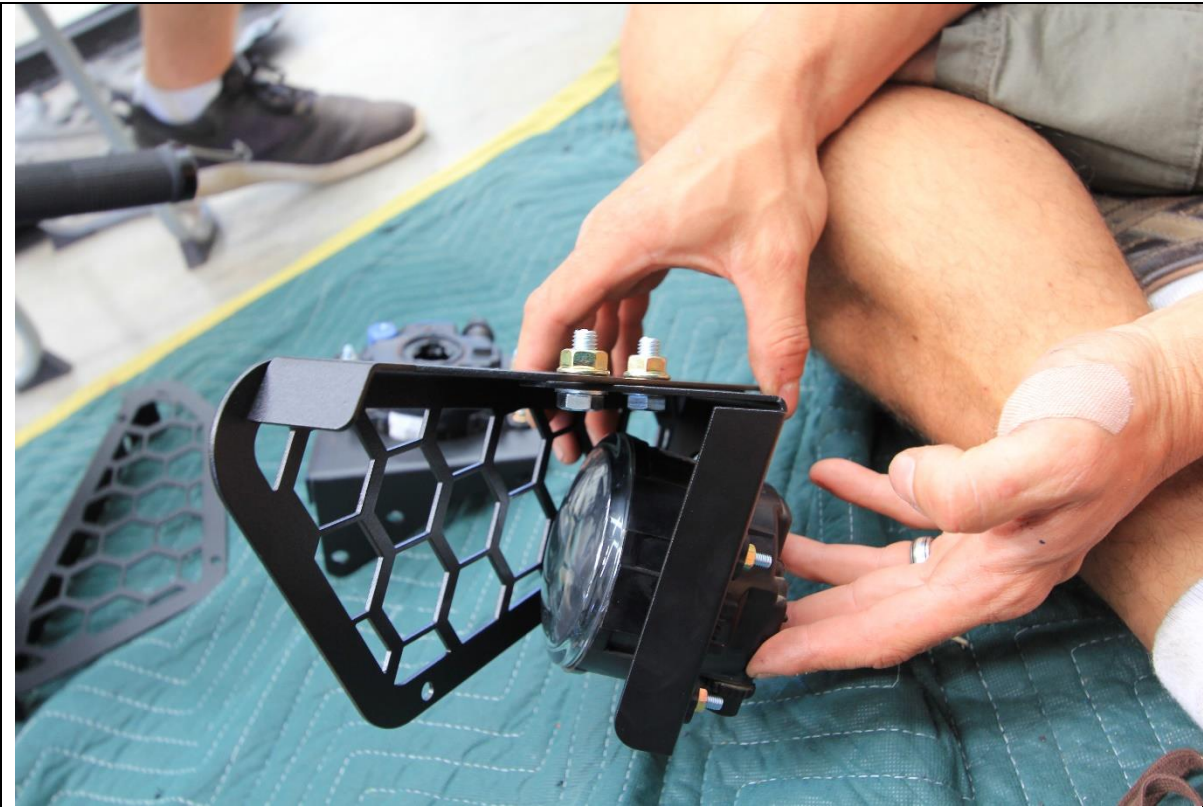
**TOOLS REQUIRED**

4mm Hex Key  
10mm Socket  
10mm Spanner

**FASTENERS**

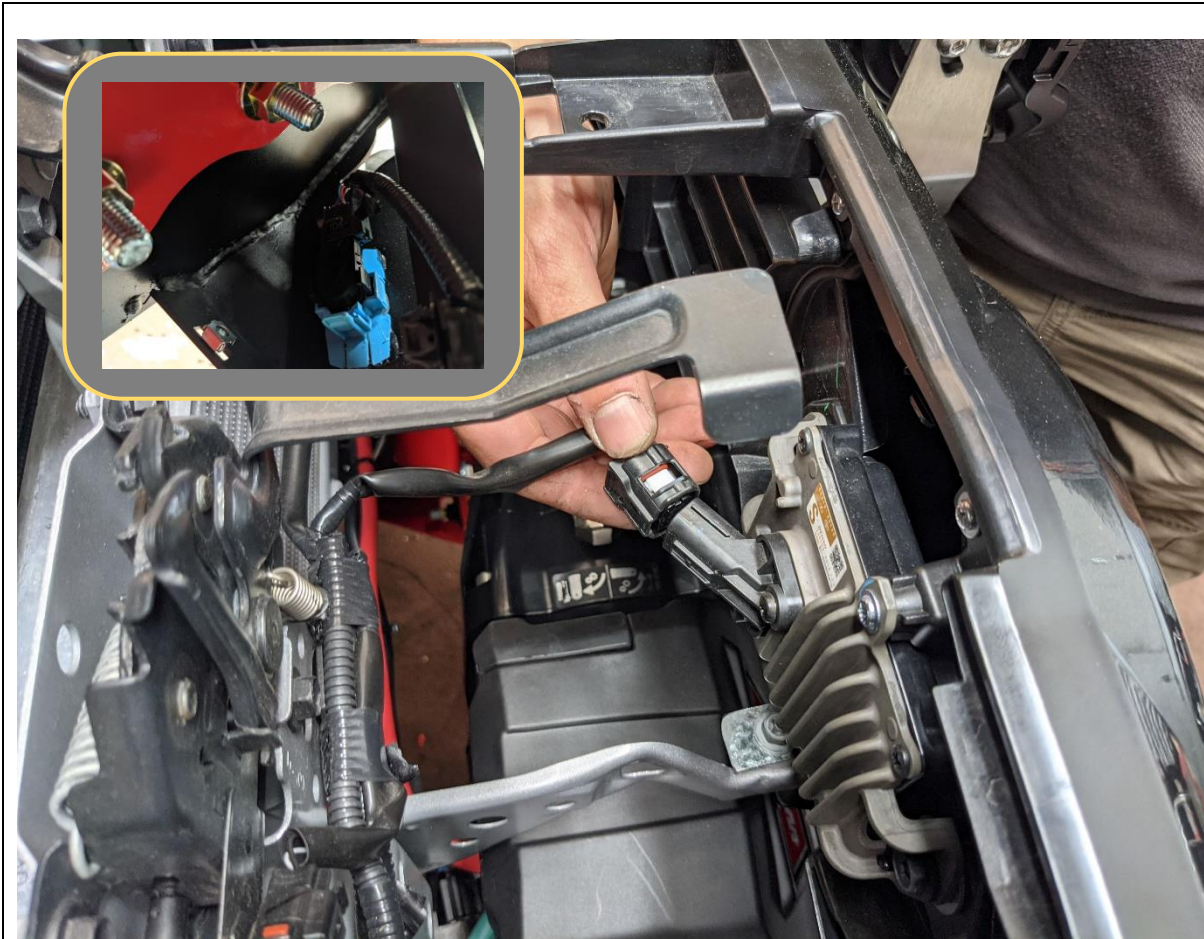
4x M6x16 Button Head  
4x M6 Black Flat Washer  
4x M6 Flange Nut





<p>82. If re-fitting factory fog lamps, fit the fog lamps to the supplied fog lamp brackets using the M6x16 screws and Flange nuts provided.</p> <p>83. As fitting kit is common with pre-faclift Hilux there are two sets of fog light brackets. Use the narrower brackets with the MY2021 fog lights.</p> <p>84. Fit the fog lamp brackets, to the light mesh panels using 3x M8x16 Button head bolts,</p> <p>85. If fitting own lamps in light mesh, fit now using slots on panel, and hardware provided with lights.</p> <p>86. Repeat for both sides of vehicle.</p>	<p><b>TOOLS REQUIRED</b></p> <p>4MM Hex Key 10mm Spanner</p>
	<p><b>FASTENERS</b></p> <p>(if fitting fog lamp) 4x M6x16mm screw 4x M6 Flange Nuts</p> <p>3x M8x16mm Button head bolts 3x M8 Flat Washer 3x M8 Flange Nuts</p> <p>Per side</p>

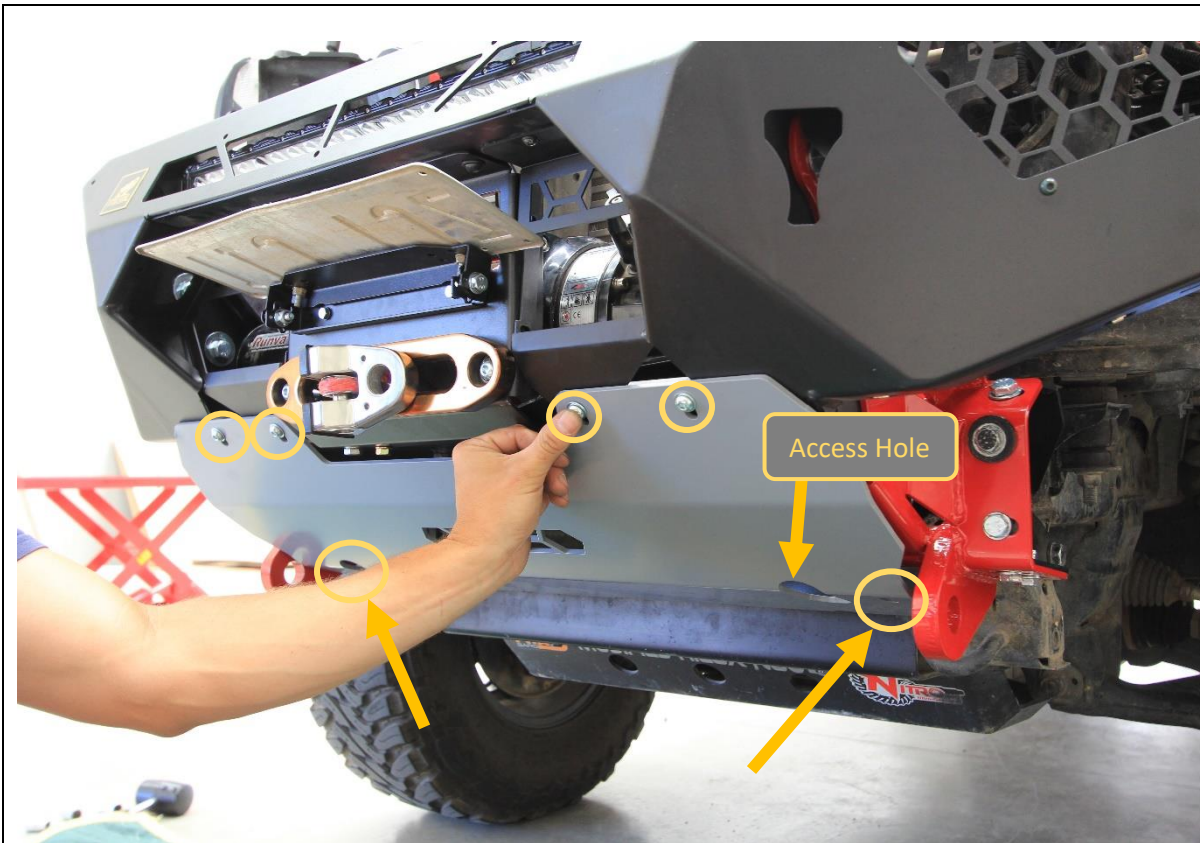
	
<p>87. Fit light mesh panels to the bar. Position the panel from underneath the bar and align with the mounting holes in the wing. Secure with 4x M6x16mm Button head bolts and M6 Flange Nuts</p> <p>88. Repeat for other side of vehicle.</p> <p>89. Reconnect fog lights, or additional driving lights, depending on what was fitted.</p>	<b>TOOLS REQUIRED</b> 4mm Hex Key 10mm Spanner
	<b>FASTENERS</b> 4x M6x16mm Button head bolt 4x M6 Flange Nut



90. Re-connect all wiring harnesses to the adaptive cruise sensor, parking sensors and fog lights
91. Replace the radiator shroud to top of grille, Secure with factory push center clips.

**TOOLS REQUIRED****FASTENERS**





92. Fit bash plate to vehicle.

93. First secure the top of the bash plate to the bottom of bar, through Shim plate, Mesh panel, then bar itself. Secure with M8x20 Button head bolts, Flat washer and Flange Nuts.

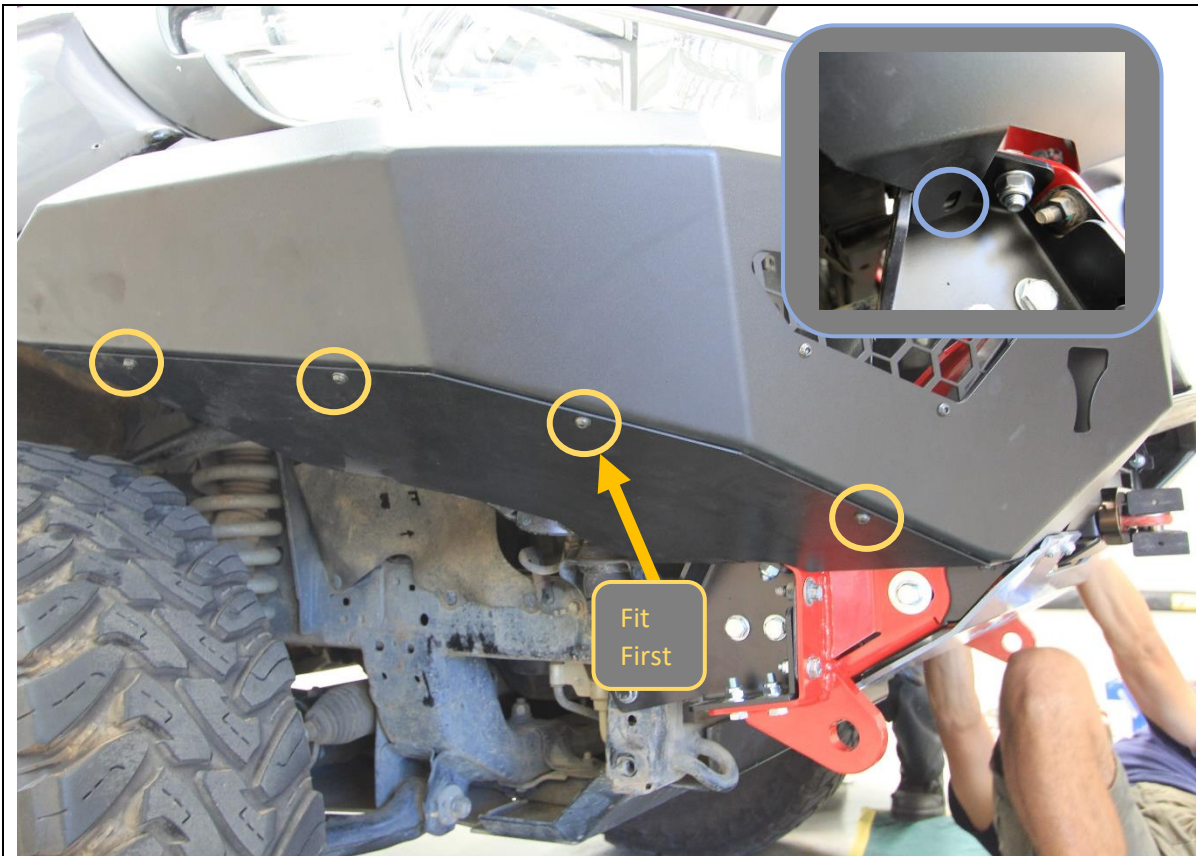
94. Secure bottom of Bash plate to mounts M10x30mm Button head Bolt, Flat washer and M10 Flange Nut. Insert nut through access hole in bash plate as shown.

**TOOLS REQUIRED**

5mm Hex  
6mm Hex  
13mm Spanner & Socket  
15mm Spanner

**FASTENERS**

4x M8x20 Button head Bolt  
4xM8 Flat washer  
2x M8 Flange nut  
2x M10x30 Button head Bolt  
2x M10 Flat washer  
2x M10 Flange nut



95. Fit side under panels to bar and secure with 4x 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.

96. Secure the back corner of underpanel to mount using M8x20 Hex bolt, Flat washer and M8 Flange Nut.

97. Repeat for other side of vehicle.

**TOOLS REQUIRED**

4mm Hex Key  
13mm Spanner / Socket

**FASTENERS**

8x M8x20 Button head bolt  
8x M6 Flat Washer  
2xM8x20 Hex head  
2xM8Flat Washer  
2x M8 Flange nut



98. Mark where wheel arch liner intersects with side under panel with paint pen or other marker.

99. Create line offset approximately 20mm below intersection point.

100. Trim wheel arch liner to this line using utility Knife.

101. Insert wheel arch liner behind flange on side under panel.

**TOOLS REQUIRED**

Marker  
Utility Knife

**FASTENERS**





<div>102.           Fit the logo plate to the front of the bar as shown.</div> <div>103.           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>104.           Review fitment and double check all bolts are tight.</div>		<div>TOOLS REQUIRED</div> <div>Marker</div> <div>Utility Knife</div>
		<div>FASTENERS</div>



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