

## FORD RANGER PX2

### MY2015-2018

## PREDATOR FRONT BAR

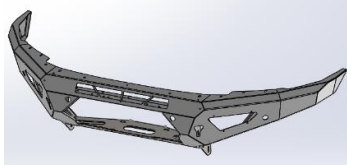
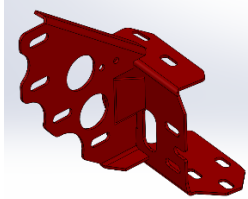
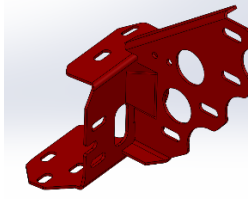
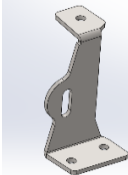
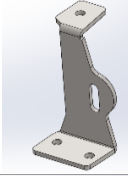
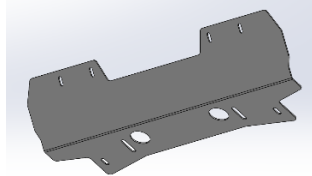
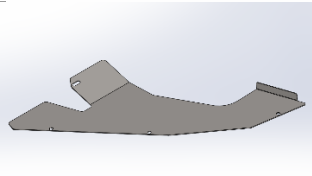
### **IMPORTANT! – READ BEFORE INSTALLATION**

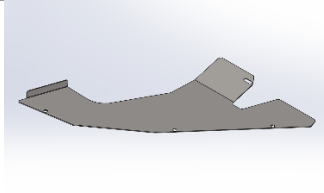
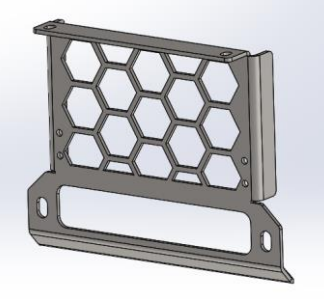
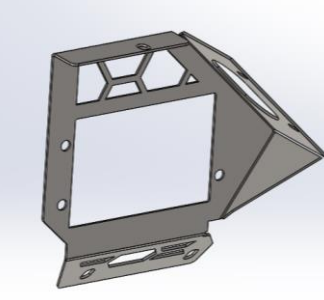
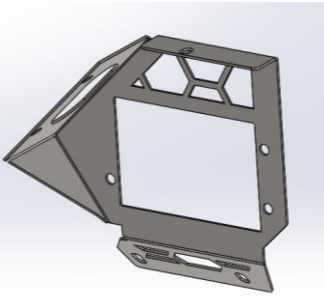
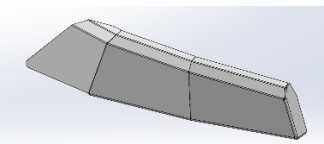
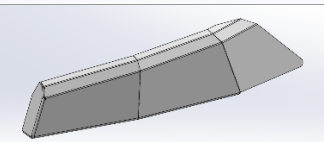
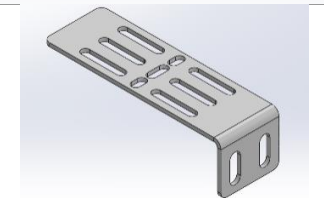
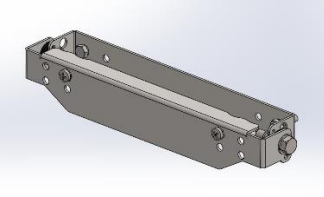
- When installed in accordance with these instructions, the front protection bar does not affect the operation of the vehicles SRS airbags.
- This product must be installed exactly as per these instructions using only hardware supplied.
- Take a few moments to read instructions thoroughly before beginning 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-FRA-PX2-15-PR-ASM1	Ford Ranger PX2 Predator Bar Weldment	
1	FB-FRA-PX-11-PR-ASM2R	IMPACT ASSY PREDATOR PX RANGER	
1	FB-FRA-PX-11-PR-ASM2L	IMPACT ASSY PREDATOR PX RANGER	
1	B-0082L	PX CHASSIS BRKT GUSSET	
1	B-0082R	PX CHASSIS BRKT GUSSET	
1	U-0010	PX Ranger Bash Plate	
1	U-0003L	px under panel	

1	U-0003R	px under panel	
1	M-0004	PX2 Mesh Fairlead Mount	
1	M-0003L	PX2 Mesh Infill Panel LHS	
1	M-0003R	PX2 Mesh Infill Panel RHS	
1	B-0083R	PX2 HEADLIGHT INFILL	
1	B-0083L	PX2 HEADLIGHT INFILL	
1	B-0216	Ranger Winch control box bracket	
1	NPF-COM-SM-ASM0	Number Plate Flip Assy Small	

<p><b>1</b></p>	<p>M-0002R</p>	<p>Light Cover Mesh</p>	
<p><b>1</b></p>	<p>M-0002L</p>	<p>Light Cover Mesh</p>	
<p><b>1</b></p>	<p>B-0186L</p>	<p>Fog Lamp Bracket - Ranger PX</p>	
<p><b>1</b></p>	<p>B-0186R</p>	<p>Fog Lamp Bracket - Ranger PX</p>	

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

Qty	Part Number	Description
16	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
22	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP
6	M6CN3MM	CAGE NUT M6x2.6-3.5
20	M6 FLAT WASHER BLACK ZINC	M6 FW BLACK ZP
20	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
14	M8 FLAT WASHER- BLACK ZINC	M8 FW- BLACK ZINC
10	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9 BLACK ZP
6	M8X20	Bolt Hex, M8X20X1.25, GR8.8 ZP
6	M8 FLAT WASHER	M8 FW
4	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP
20	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
30	M10 Flat Washer	M10 FW
8	M10 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
12	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
2	M10X20 BHCS	SCREW, BUTTON HEAD CAP, M10X20X1.5 GR12.9 ZP
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
8	M12 Nyloc nut	M12 NYLOC NUT
16	M12 FW LHD	M12 FW Large Heavy Duty
8	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP
8	M5X15 PAN	SCREW, PAN HEAD PHILLIPS, M5X15X0.8 GR4.6 ZP
2	P-0072	Predator Bash Plate Shim

# TOOLS REQUIRED

The following tools will be required to install the product.

<b>Hand Tools</b>	<b>Power Tools</b>	<b>Workshop Supplies</b>
Metric Socket Set 8-19mm Socket Extension Bar Metric Spanner Set 10-19mm Torx Drivers T25-T30 Hex (Allen) Key Set 4-8mm Trim Puller Tool Flat Blade Screwdriver set Phillips Head Screwdriver set Utility Knife	Electric Drill 6mm Drill Bit  Air Hacksaw or Angle Grinder (Optional for Integrated control box winch fitment)  Electric/Air Impact Driver (Optional)	Double Sided Adhesive Tape Panel Stand or Soft Blanket

# 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. Open Bonnet of Vehicle
2. Remove 5x plastic push rivets by levering center section upwards using flat bladed screwdriver or trim tool, as shown.

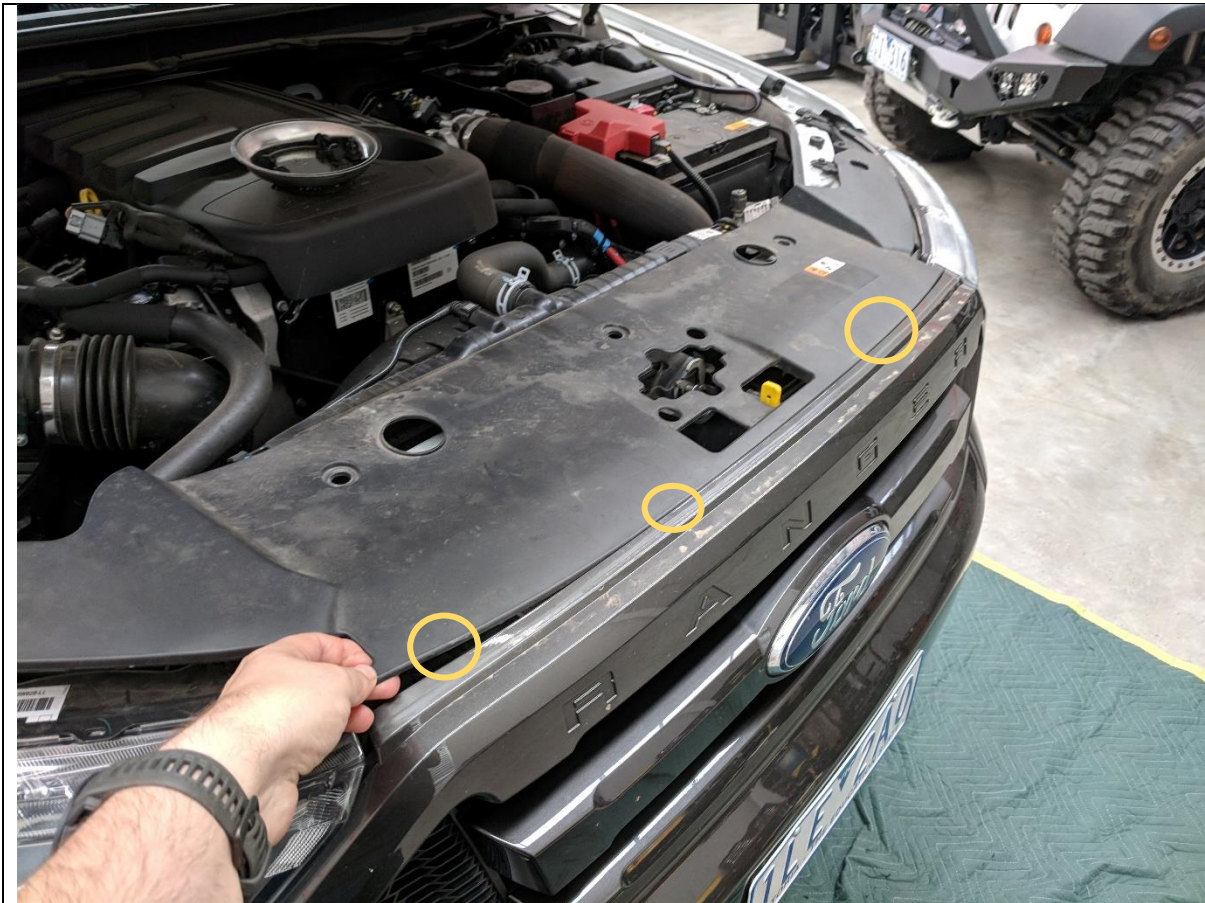
**TOOLS REQUIRED**

Flat Blade Screwdriver or Trim Tool

**FASTENERS**

5x Plastic Push Rivet  
Retain for Reassembly





3. Carefully lift up plastic top shroud trim to unfasten concealed plastic clips securing trim to grille.
4. A Trim tool can be used to assist if required. Take care not to mar the finish of grille if tool is used.
5. Remove shroud and place aside

**TOOLS REQUIRED**

Trim Tool

**FASTENERS**



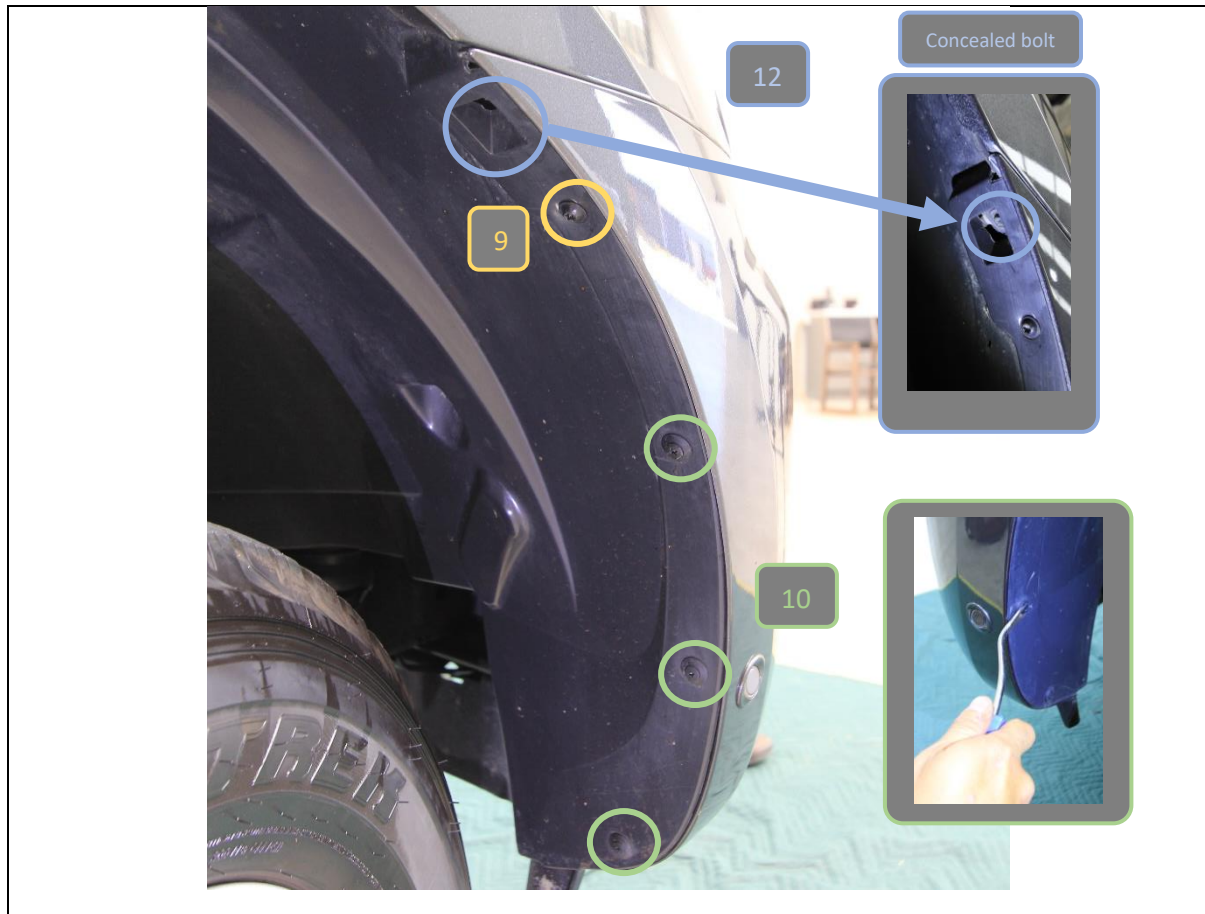
- 6. Remove Bolts securing the radiator grille using 10mm socket.
- 7. There are 2 bolts, one each side, recessed behind the grille that will require an extension bar to reach

**TOOLS REQUIRED**

10mm Socket  
Extension Bar

**FASTENERS**

4x 10mm head flanged bolts.  
Retain for reassembly



8. In the wheel arch remove the fasteners securing inner wheel arch liner to the bumper.
9. Remove Torx Screw with T30 Torx Driver.
10. Remove scrivets by using trim tool to prize out center section of rivet.
11. Remove concealed bolt with 8mm Socket.

**TOOLS REQUIRED**

10mm Socket  
Extension Bar

**FASTENERS**

6x Scrivet  
2x T30 Torx Screw  
2x 8mm head Bolt

Discard



- 12. Remove the 6x Bolts securing lower bumper to the support brackets behind, using 8mm socket.
- 13. The bolts fastening the lower valance to the bumper do not need to be removed.

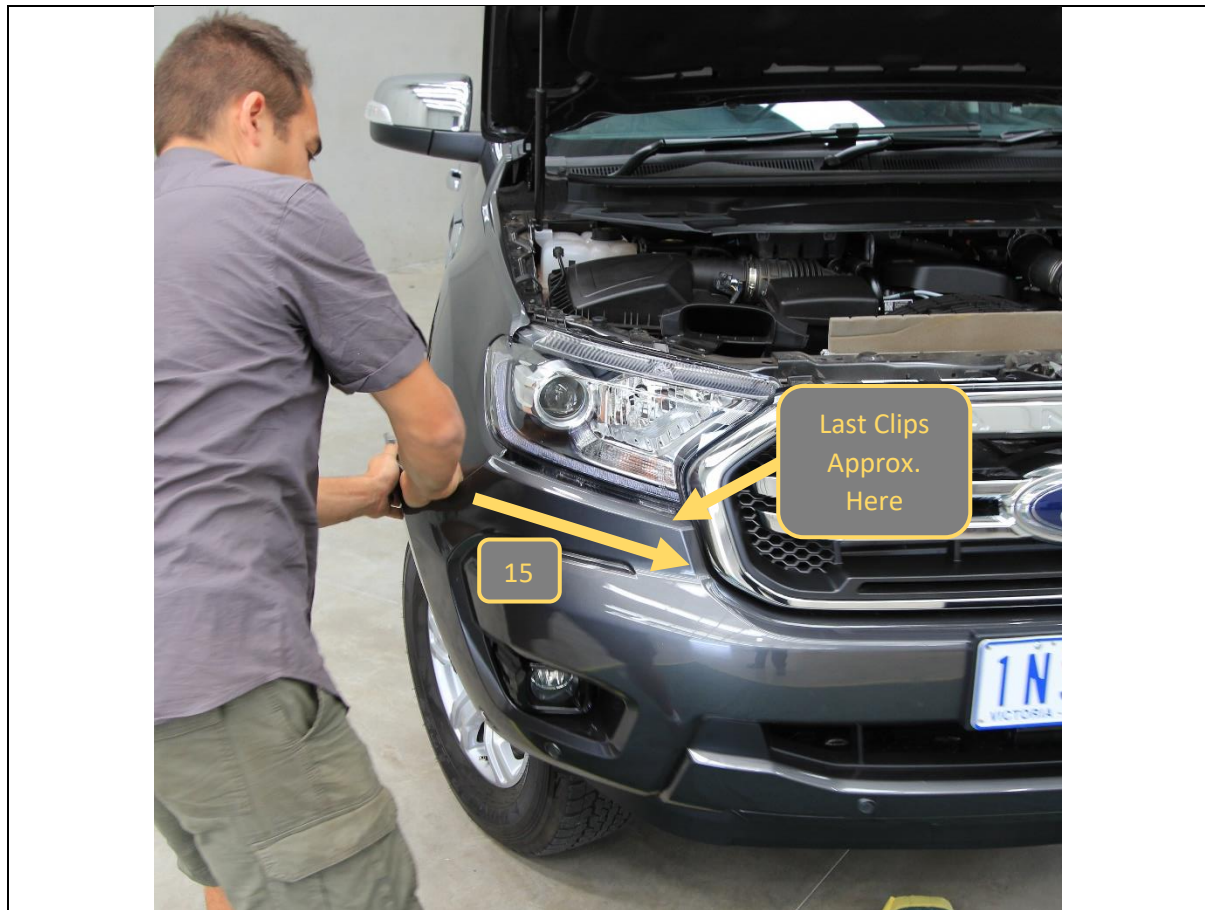
<b>TOOLS REQUIRED</b>
8mm Socket Extension Bar
<b>FASTENERS</b>
6x 8mm head flanged bolts. Discard



Start here and  
move across top  
/ bottom  
simultaneously

15

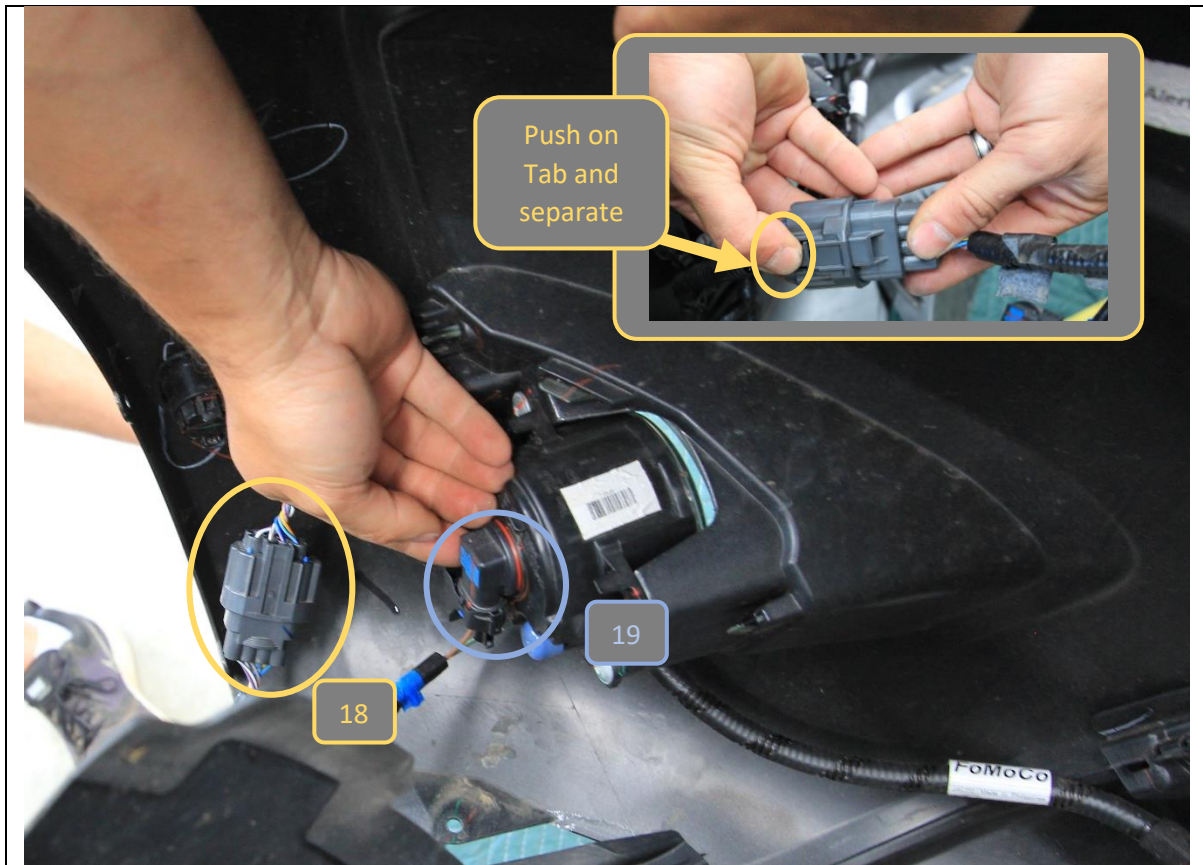
<p>14. Starting at the headlamp firmly but carefully pull the grille away from the bumper to release the clips.</p>	<p><b>TOOLS REQUIRED</b></p>
<p>15. As the clips release move the pressure toward the opposite side, simultaneously on the top and bottom edge of grille until the next clip releases. Continue until all clips are free.</p> <p>16. Carefully lift of grille once free and place on a non marking surface.</p>	<p><b>FASTENERS</b></p>



17. Starting at the wheel arch firmly but carefully pull the bumper away from the panel to release the clips.
18. As the clips release move the pressure toward the center of the car until the next clip releases. Continue until all clips on each side are free. The final clips are located underneath the headlight.
19. Repeat clip release on both sides of the bumper.

**TOOLS REQUIRED**

**FASTENERS**



20. Disconnect the main parking sensor loom, on the front passenger side by pushing down on the tab and pulling the connector apart.
21. Disconnect fog lights by rotating lamp holder 90 degrees and removing lamp from fog light assembly. Repeat fog lamp disconnection on both sides of vehicle.

**TOOLS REQUIRED**

**FASTENERS**

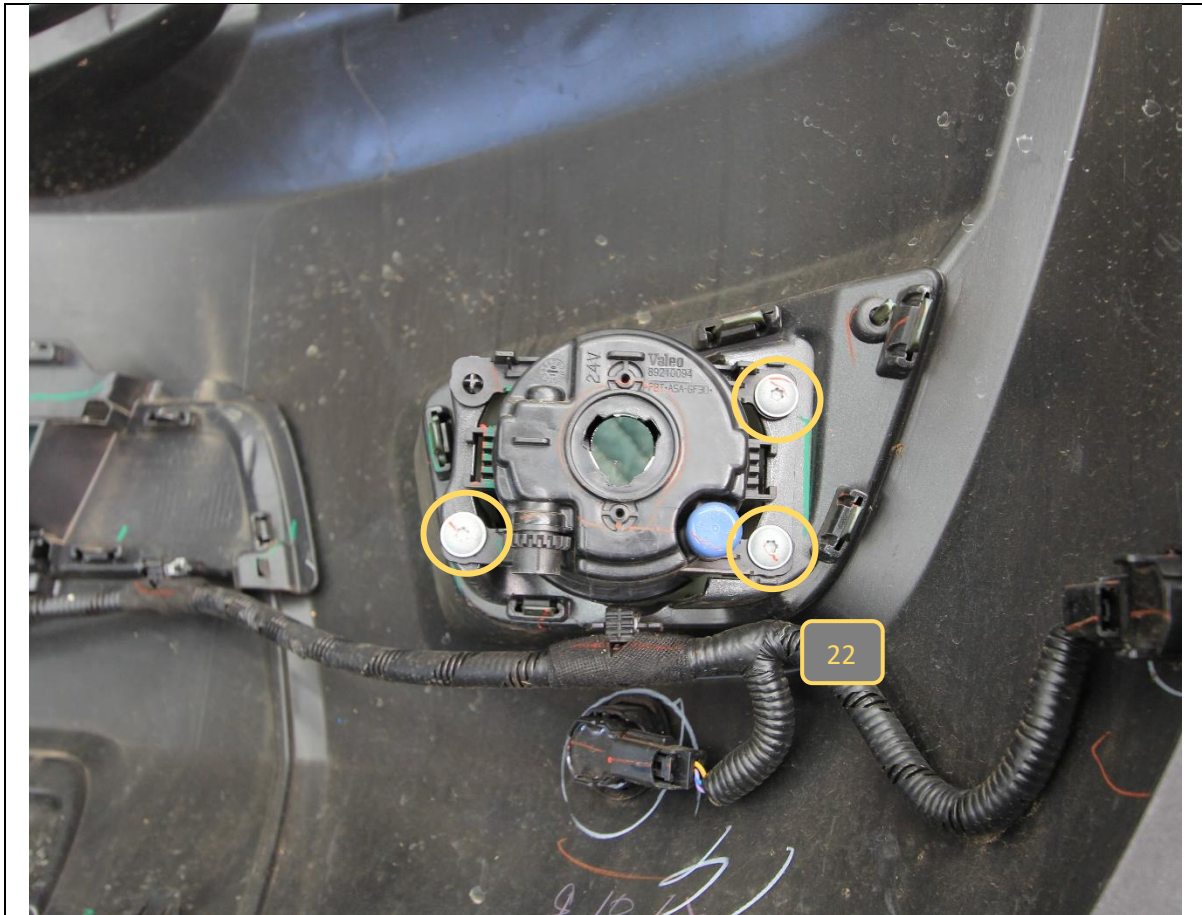


- 22. Once all clips are free and all wiring disconnected, lift the bumper off the car from the center section.
- 23. Place the bumper on a panel stand or blanket to ensure the grille is not marked.

**TOOLS REQUIRED**  
Panel Stand  
or  
Soft Blanket

**FASTENERS**





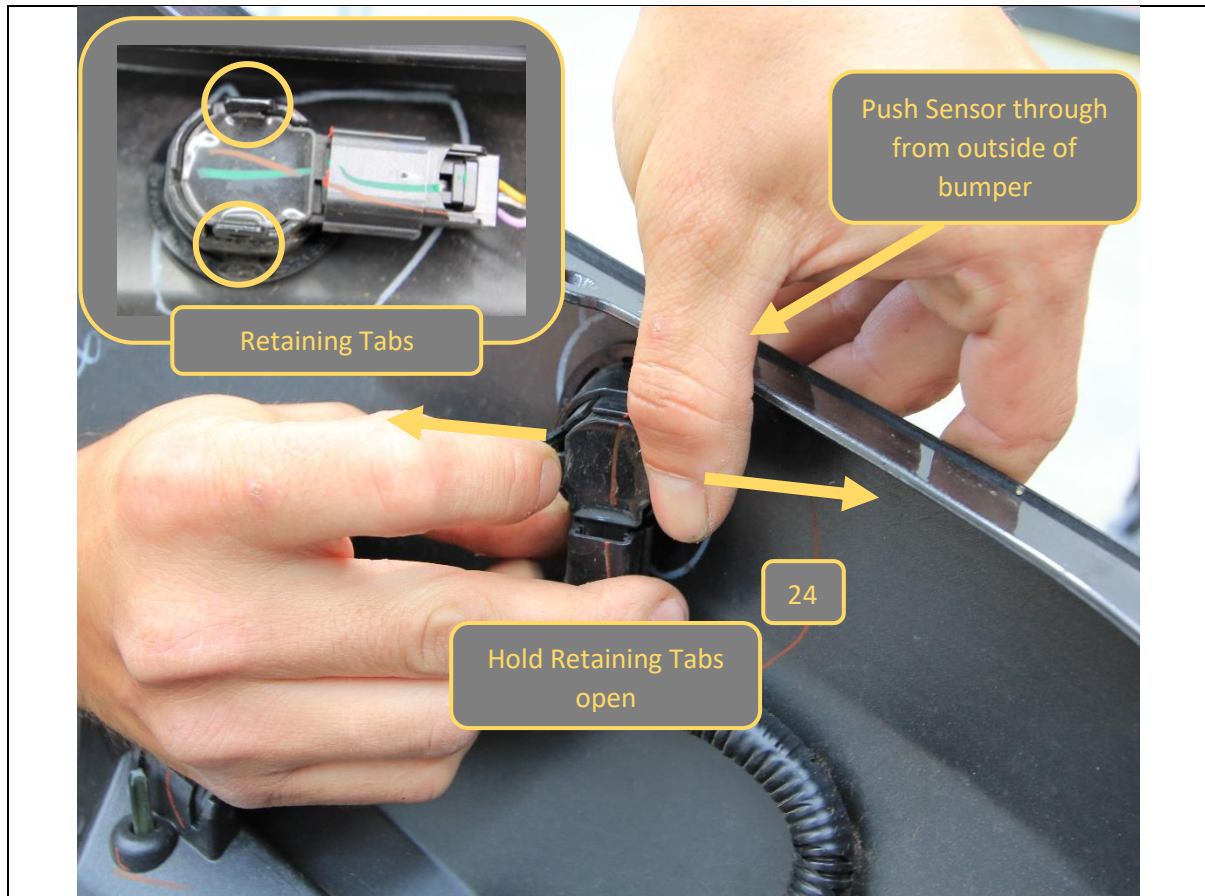
24. Remove fog lamp from bumper by removing the 3X T25 Torx screws.

25. Repeat for other fog lamp on opposite side of bumper. Retain fog lamps for re-fitment to front bar.

Note: Wildtrack fog lights are not compatible with bar, skip this step for Wildtrack.

**TOOLS REQUIRED**  
T25 Torx Driver

**FASTENERS**  
6x T25 Screw - Discard



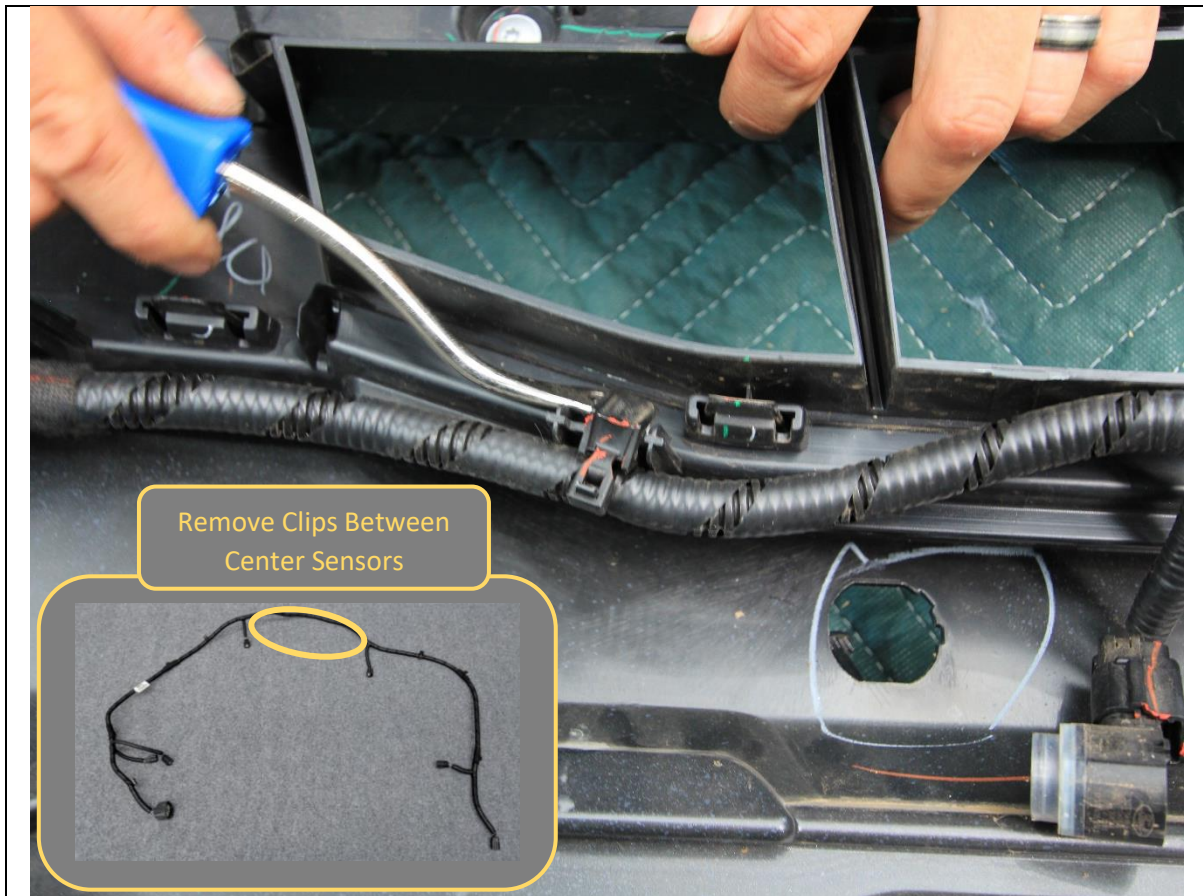
26. Remove parking sensors from housings, by holding open the retaining tabs, whilst pushing the sensor through the housing from the outside of the bumper

27. Repeat for all sensors in the bumper.

**TOOLS REQUIRED**

**FASTENERS**

<p>28. Remove parking sensor housings from bumper by squeezing the retaining tabs whilst pushing the inner housing through the bumper from the inside.</p> <p>29. Repeat for all sensors in the bumper. Take care to ensure that each inner and outer housing are matched. Label positions of housings to aid with re-fitment to bar.</p>	<p><b>TOOLS REQUIRED</b></p>
	<p><b>FASTENERS</b></p>



30. Separate parking sensor loom from bumper by prying off all the retaining clips using trim tool.
31. Remove the retaining clips between the two middle sensors by carefully cutting the zip tie part of the retaining clip with side cutters.

**TOOLS REQUIRED**  
Trim Tool  
Side Cutters

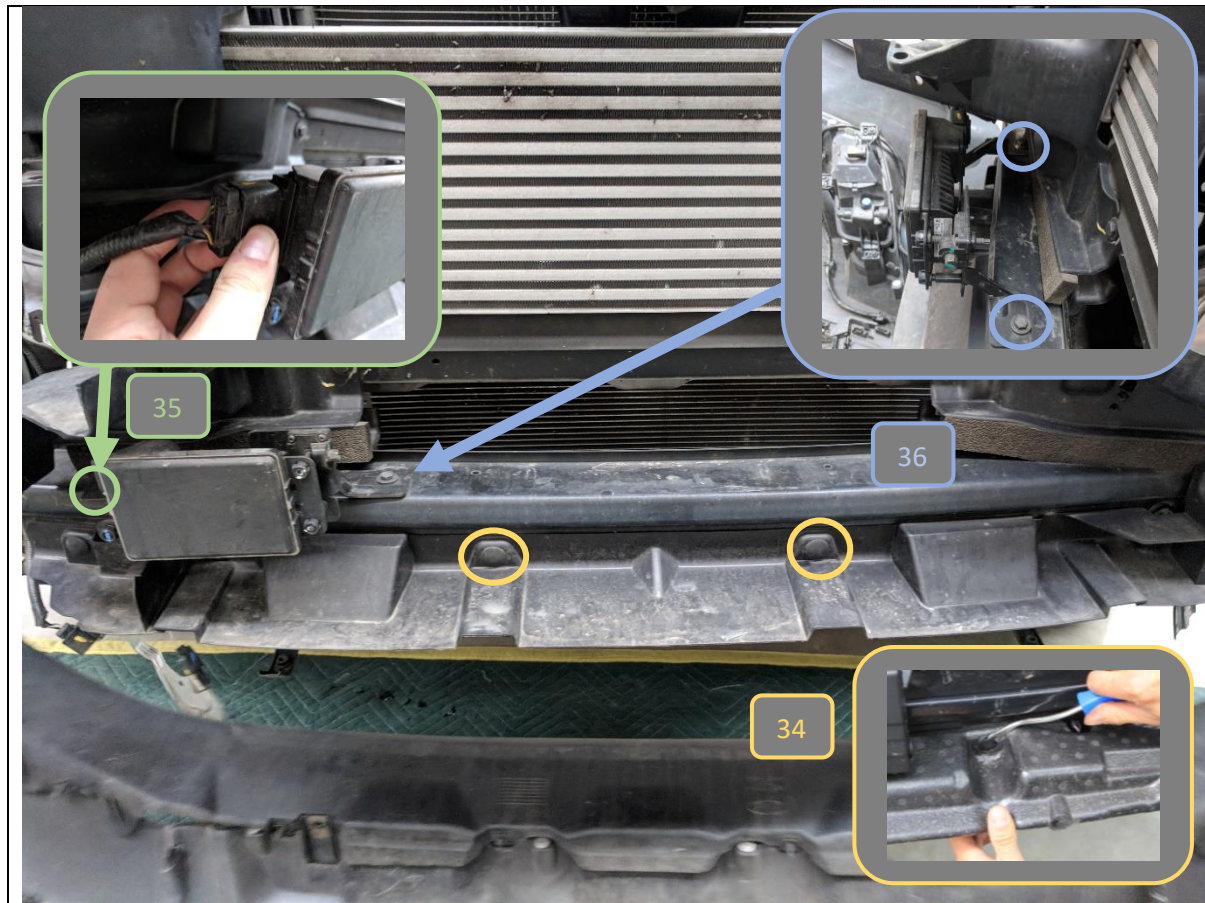
**FASTENERS**



32. Remove the plastic bumper retainer by removing the 4 securing bolts using a 10mm Socket.
33. Repeat for other side of vehicle

**TOOLS REQUIRED**  
10mm Socket

**FASTENERS**  
4x 10mm head bolts -  
Discard



34. Remove the plastic air guide by removing the 2x split head clips. Use a trim tool to pry top part of head to release clip.
  
35. Unplug and unfasten wiring loom from adaptive cruise control radar sensor (if equipped). Press down on tab on connector to release plug.
  

Use trim tool to pry off all harness clips securing loom to the bracket and impact beam.

36. Remove from adaptive cruise control radar sensor (if equipped), using a 10mm socket.

**TOOLS REQUIRED**  
10mm Socket  
Trim tool

**FASTENERS**  
3x 10mm head bolts – Discard  
2x Split head clips - Discard



37. Separate the adaptive cruise control bracket from the support bracket by pulling the bracket out of the ball and socket clips.
38. Take care not to drop or damage the adaptive cruise control module. Start with the side with the single clip and release clips one by one. A moderate to firm amount of force is require to release the clips.

**TOOLS REQUIRED**

**FASTENERS**



- 39. Remove the lower bumper retaining brackets, by removing the 2x 10mm head bolts. Discard bracket.
- 40. Repeat for other side of vehicle

**TOOLS REQUIRED**  
10mm Socket

**FASTENERS**  
4x 10mm head bolts –  
Retain 1x Discard 3x





41. Remove the FM radio antenna from the lower section of the wheel arch liner on the driver's side, using a trim tool to pry it up.
42. Release the cable clip securing the antenna wire from the body panel.
43. Remove the FM radio module from the chassis using 7mm socket / spanner.

**TOOLS REQUIRED**  
10mm Socket

**FASTENERS**  
4x 10mm head bolts -  
Discard



- 44. Using Electric drill and 6mm drill Bit, Open mounting hole of FM radio module to 6mm.
- 45. Re secure the FM radio module to the chassis using the threaded inserts and bolts originally used for the bottom bumper support bracket. Tighten with 10mm socket.

**TOOLS REQUIRED**  
Drill  
6mm Drill Bit  
10mm Socket

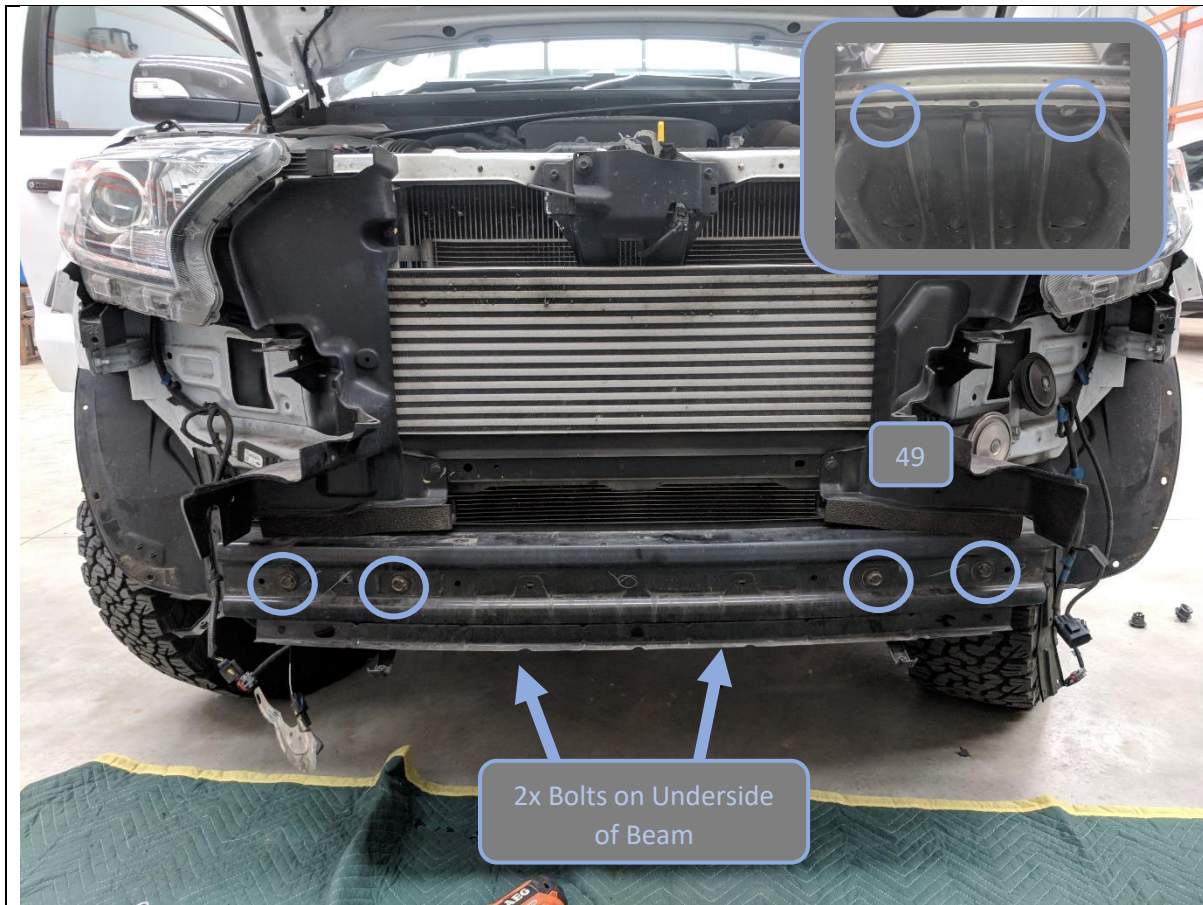
**FASTENERS**  
1x 10mm head bolts – re use from step 38



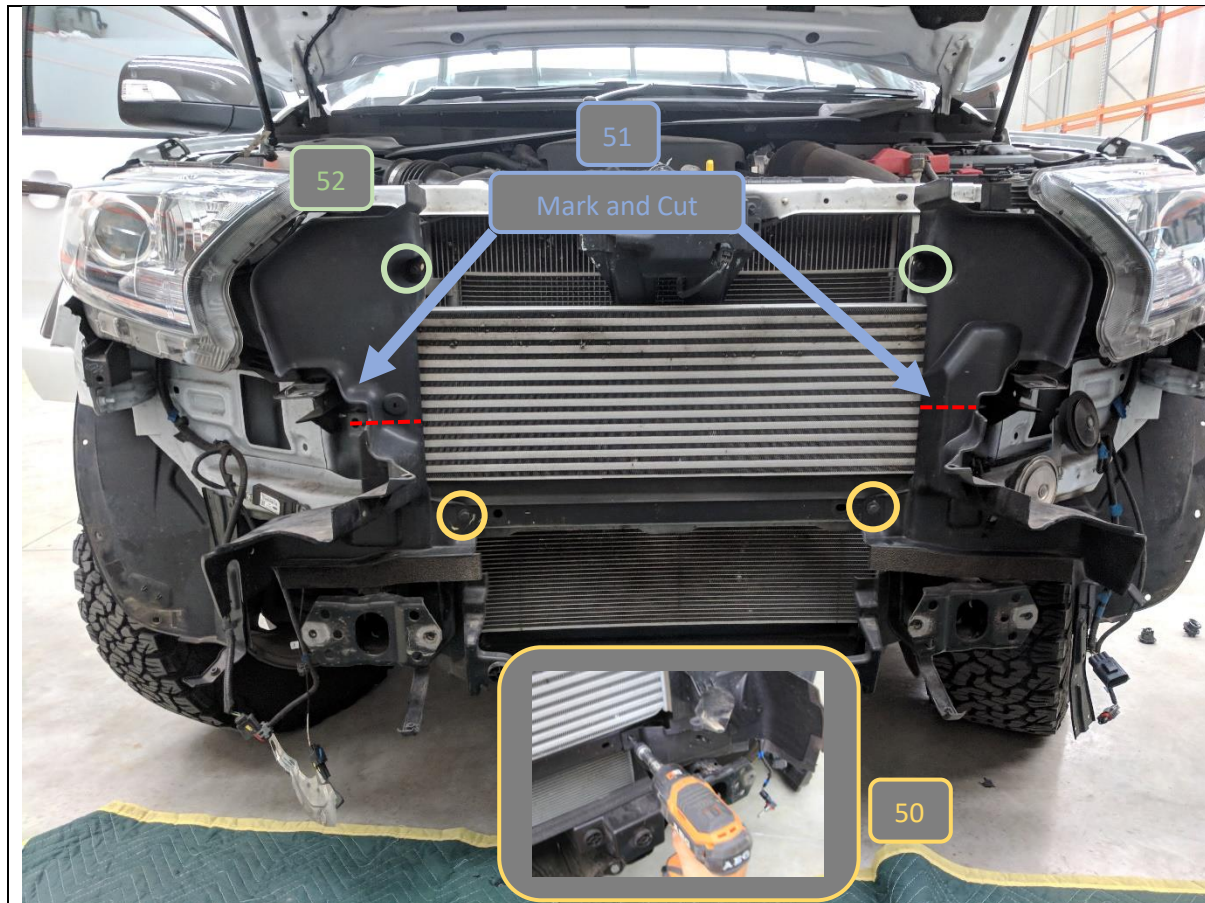
- 46. Apply Double sided adhesive tape to rear of FM radio antenna.
- 47. Reconnect the radio antenna cable.
- 48. Re secure the FM radio antenna to the backside of the wheel arch liner, up behind the headlight, using the double-sided adhesive tape

**TOOLS REQUIRED**  
Double sided adhesive tape

**FASTENERS**



<p>49. Remove the impact beam by removing the 4x M10 bolts securing it to the chassis and 2x bolts securing to bash plate, using a 15mm Socket.</p>	<p><b>TOOLS REQUIRED</b> 15mm Socket</p>
	<p><b>FASTENERS</b> 6x M10 Bolts</p> <p>Discard</p>



<p>50. Remove 2x M6 bolts securing side air guide to the chassis cross member, using 10mm socket.</p> <p>51. Mark the plastic air guide along the narrowest point, as indicated in figure above. Carefully cut along the mark using utility knife. Take care to ensure wiring looms are clear before cutting.</p>	<p><b>TOOLS REQUIRED</b> 10mm Socket Utility Knife</p>
<p>52. Remove both parts of the air guide from the vehicle. The top part is secured with 2x 10mm head bolts.</p>	<p><b>FASTENERS</b> 2x M6 bolts  Discard</p>



- 53. Remove the exterior air temp sensor from the bottom part of the air guide using a trim tool to pry up the clips.
- 54. Mark hole spacing required on top portion of air guide, using the sensor as guide.
- 55. Drill new mounting holes in top portion of air guide in positions marked using 6mm Drill bit.

**TOOLS REQUIRED**

- Trim Tool
- Drill
- 6mm Drill Bit

**FASTENERS**

- 2x M6 Bolt
- Retain for reassembly



56. Re-Fit top portion of air guide using original bolt.

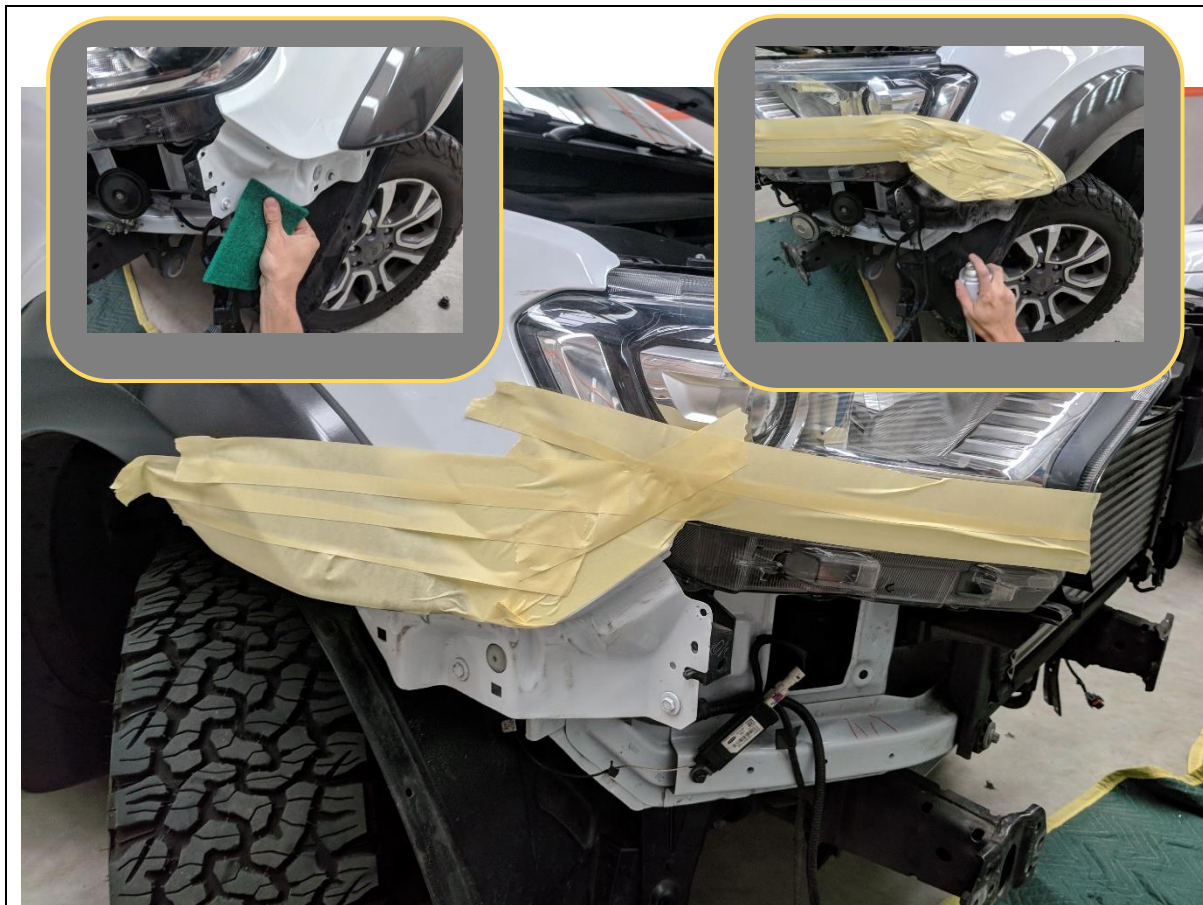
57. Re fit exterior temperature sensor by pushing clips into new holes drilled in top portion of air guide.

**TOOLS REQUIRED**

10mm Socket

**FASTENERS**

2x M6 bolts from step 50



- 58. If vehicle is light colour it is a good idea to paint the areas below the headlight that will be visible behind / under the bar when its fitted.
- 59. Start by cleaning all dirt from areas to be painted and rough up surface with scotch brite or fine sandpaper.
- 60. Carefully mask underneath headlight.
- 61. Spray paint area under headlight with matte black automotive paint. Offroad Animal recommends Motospray "Bumper Black"

**TOOLS REQUIRED**  
 Masking Tape  
 Scotch brite / fine grit sandpaper  
 Cloth/Rag  
 Cleaning solvent  
 Matte Black Automotive Paint

**FASTENERS**



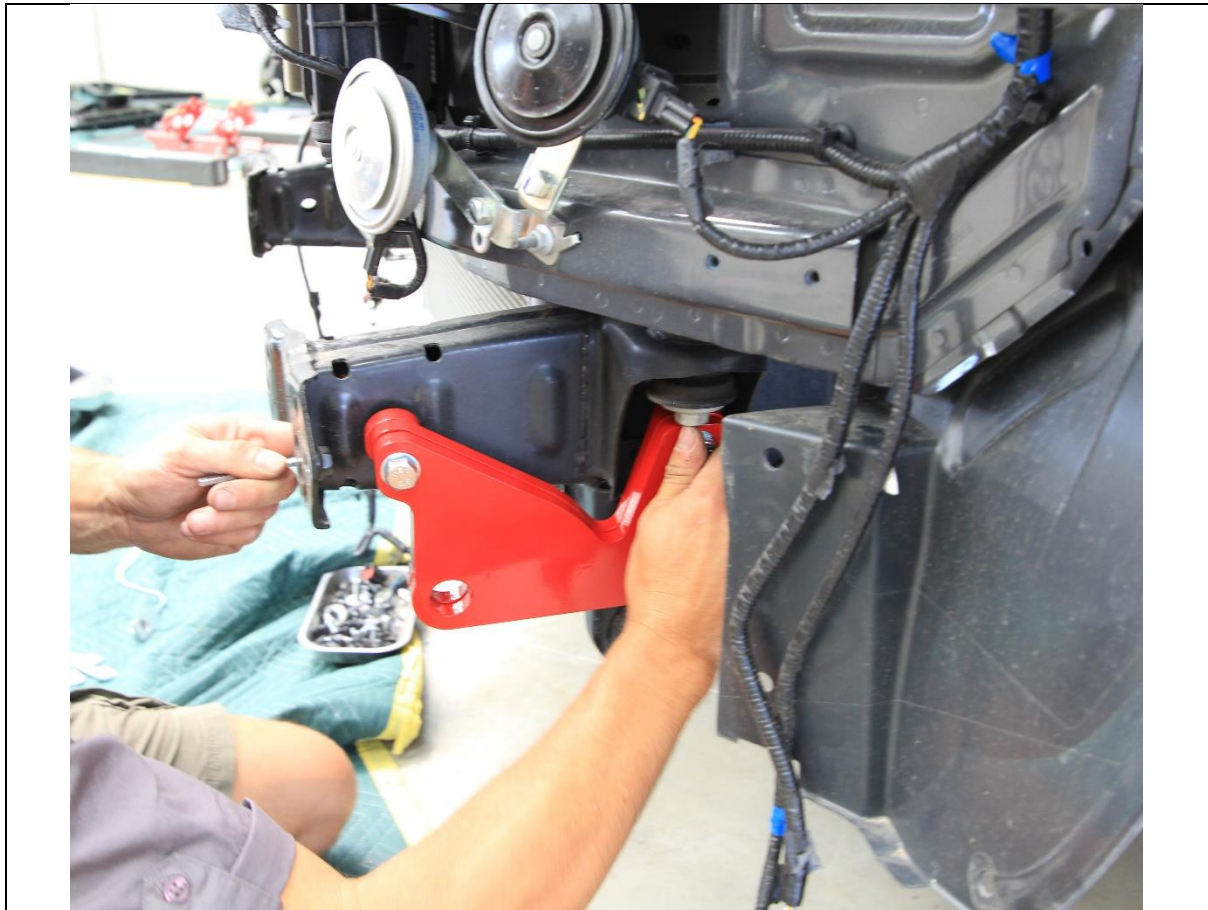


62. Allow paint to dry. It's a good idea to go on with further bar preparation steps whilst paint is drying.

63. Remove masking tape.

**TOOLS REQUIRED**

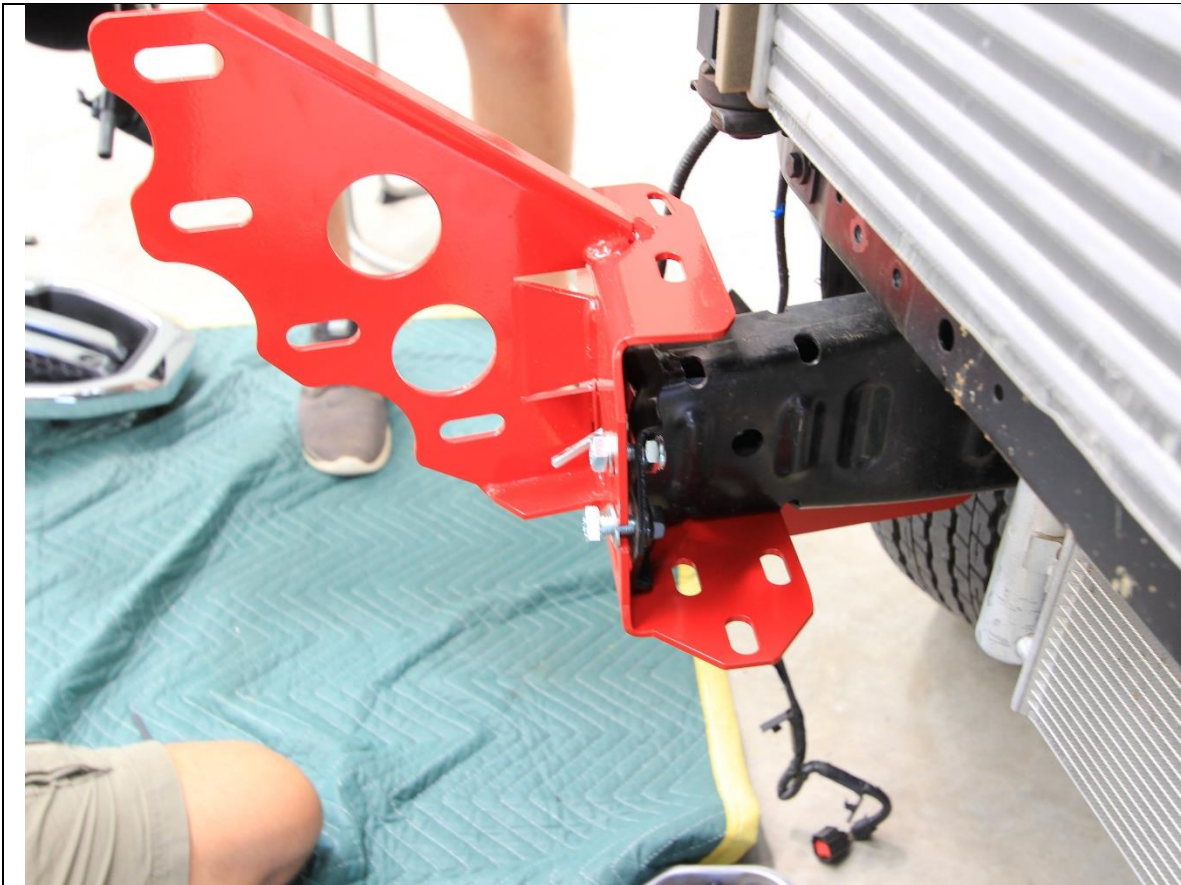
**FASTENERS**



- 64. If fitting Offroad animal tow points, do so at this stage.
- 65. Refer to fitting instructions supplied with tow points.

**TOOLS REQUIRED**  
Refer to Tow point instructions

**FASTENERS**  
Refer to Tow point instructions

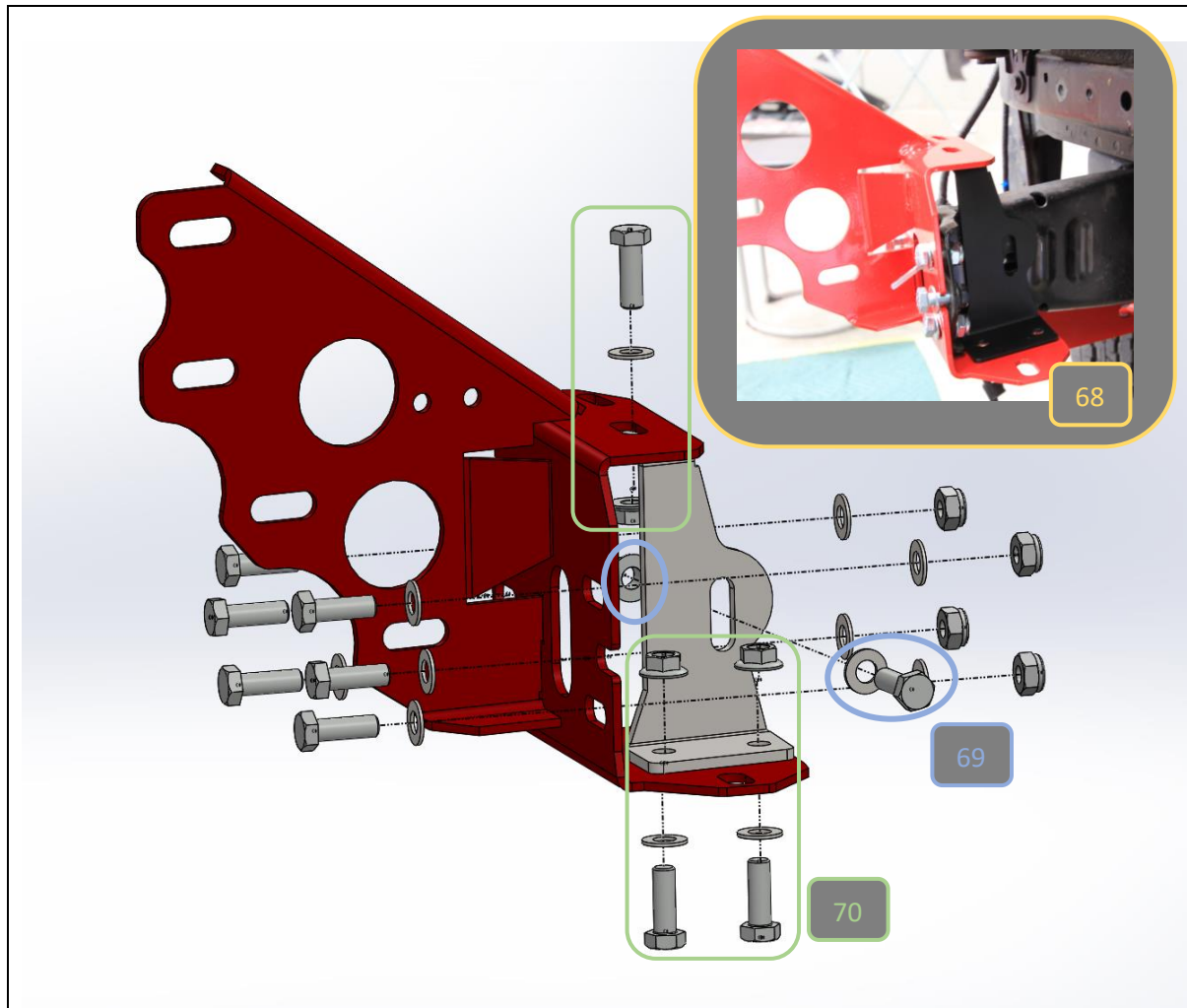


- 66. Fit front impact absorber mount assemblies to the chassis. Secure with M10x30 bolts and flat washers into existing threaded inserts on chassis, and M10x30 Bolts, flat washers and Nyloc Nuts in other locations.
- 67. Secure finger tight only at this stage. Repeat for other side of vehicle.

**TOOLS REQUIRED**

**FASTENERS**

- 6x M10x30 Bolt
- 4x M10 Nyloc Nut
- 10x M10 Flat Washer
- Per side - From Bolt Kit



68. Fit Chassis bracket gusset to chassis and mounts.

69. Secure to chassis with M10x30 Bolt, Flat washer and Flange nut, mounted inside the chassis.

70. Secure to mounts using 3x M10x30 Bolts, Flat washers and Flange nuts.

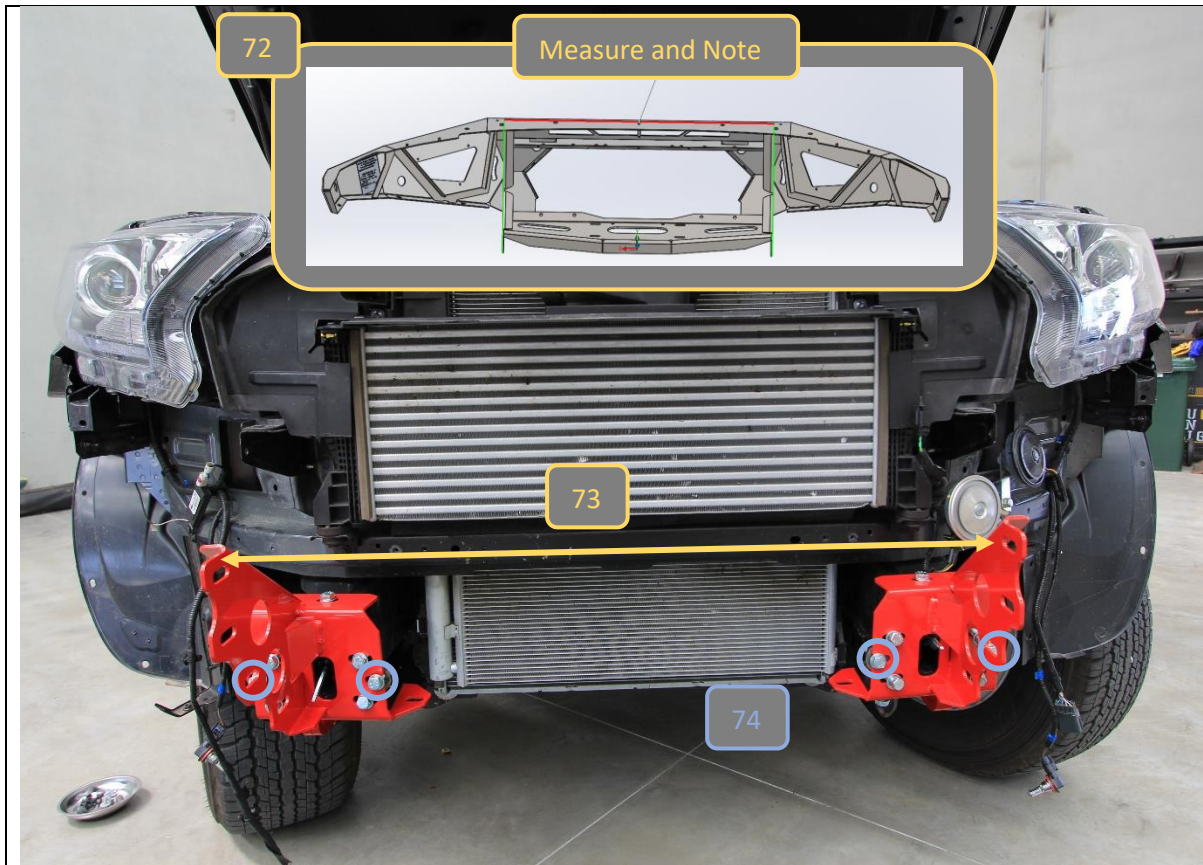
71. Secure finger tight only at this stage. Repeat for other side of vehicle.

**TOOLS REQUIRED**

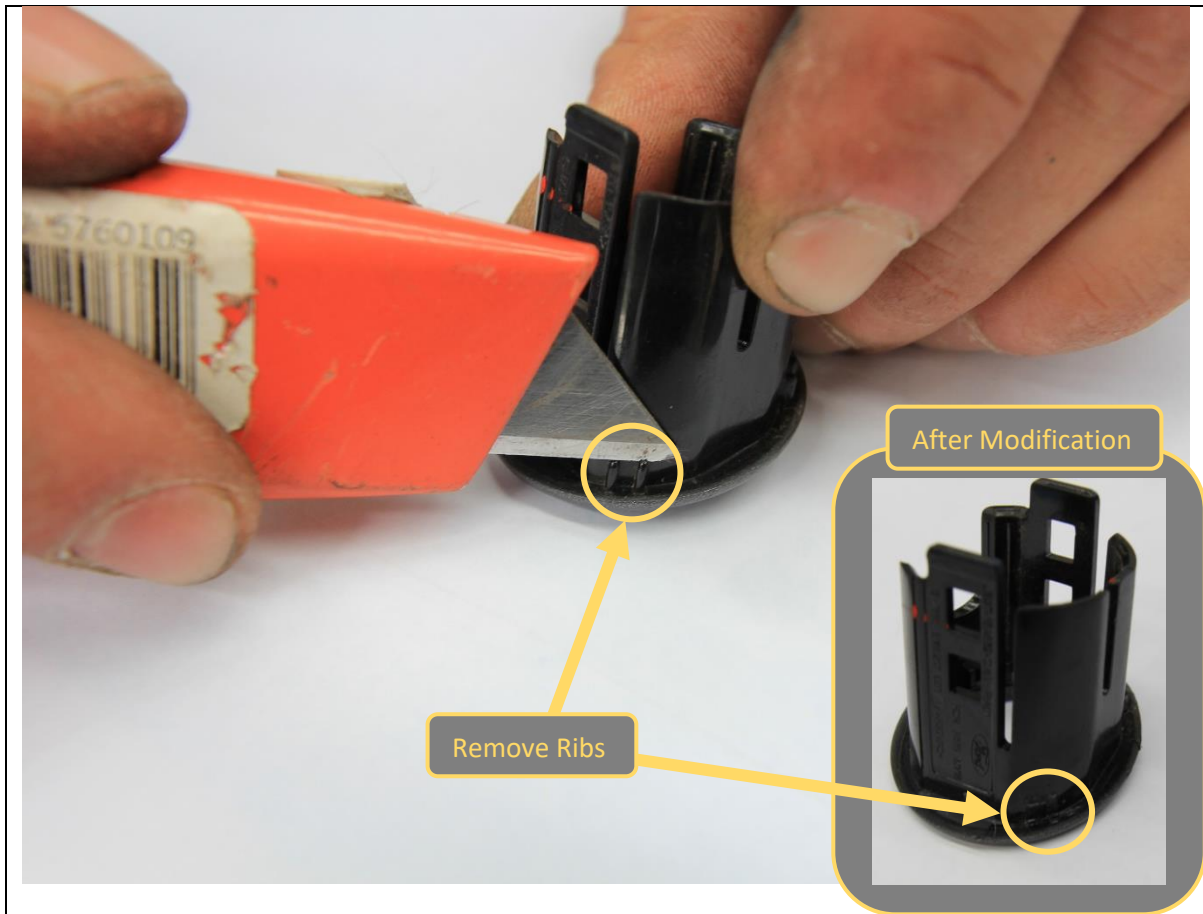
**FASTENERS**

- 4x M10x30 Bolt
- 4x M10 Flange Nut
- 4x M10 Flat Washer

Per side - From Bolt Kit



<p>72. Measure and note distance between outside of uprights on bar.</p> <p>Upright Distance _____mm</p>	<p><b>TOOLS REQUIRED</b> 16mm Socket &amp; Spanner. Soft blow hammer.</p>
<p>73. Measure and adjust distance between mounts to be 1-2mm larger than the distance measured on bar.</p> <p>74. Snug chassis insert bolts using 16mm Socket or spanner. Re check distance. Adjust distance with Soft blow hammer if required.</p> <p>75. Tighten all bolts using 16mm socket and spanner. Re check distance after all fasteners are secure.</p>	<p><b>FASTENERS</b></p>



<p>76. Modify sensor housings to fit in font bar by removing the small locating ribs using a utility knife.</p> <p>77. Complete these modifications for all sensor housings.</p>	<p><b>TOOLS REQUIRED</b> Utility Knife</p>
	<p><b>FASTENERS</b></p>



<p>78. Re-fit sensor housings to new front bar in original locations.</p> <p>79. Refitting is opposite of removal, insert the outer part through outside of bar, then replace inner and press together until an audible “click” is heard.</p>	<p><b>TOOLS REQUIRED</b></p>
	<p><b>FASTENERS</b></p>



<p>80. Route sensor loom through access hole in bar uprights, and behind wing braces ensuring loom is centered in bar.</p> <p>81. Re-fit sensors by pushing into housings until audible "click" is heard.</p>	<p><b>TOOLS REQUIRED</b></p>
	<p><b>FASTENERS</b></p>





82. 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

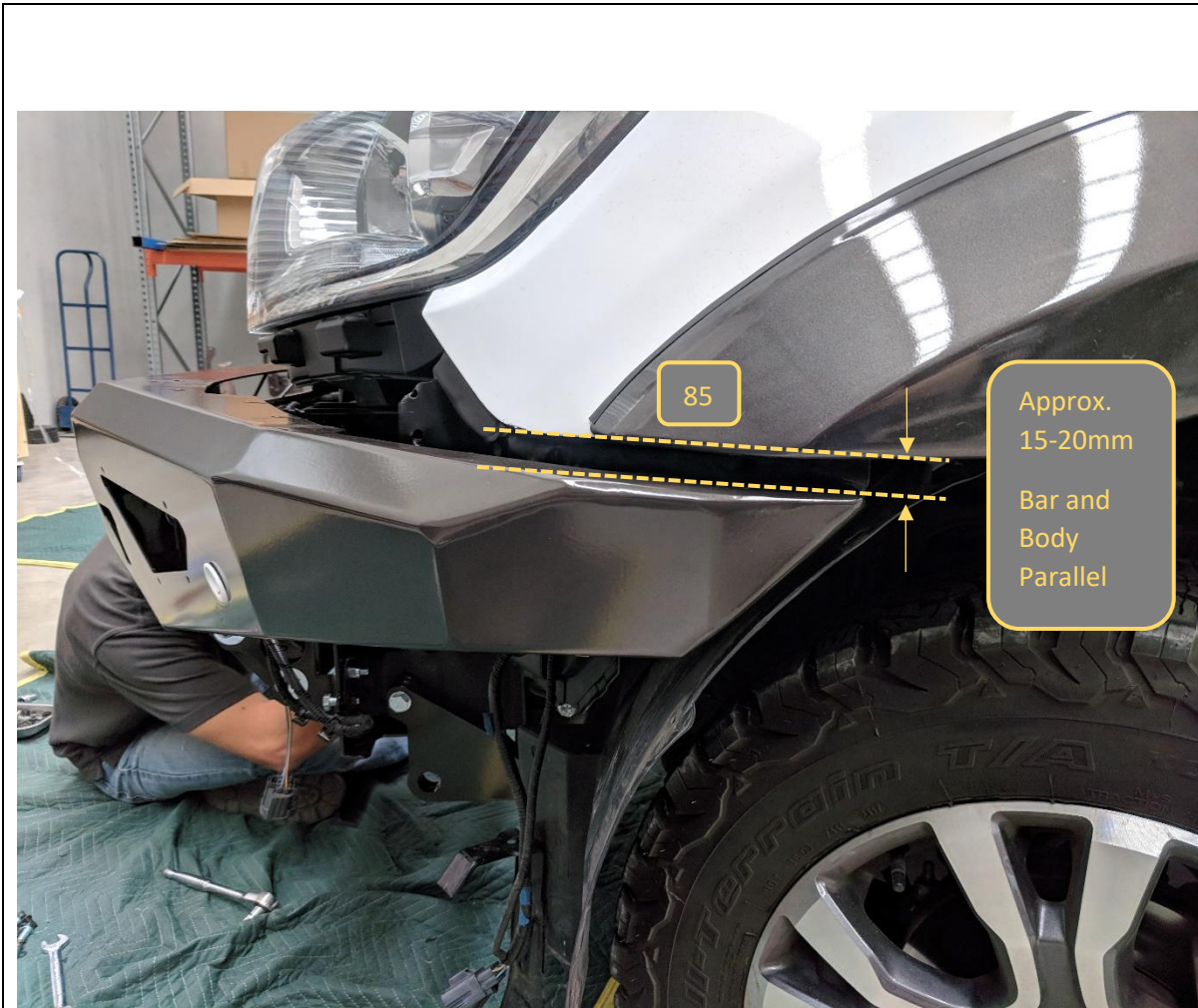
**FASTENERS**  
6x M6 Cage Nuts



83. With assistance from either a lifting trolley or another person, Lift the bar up to the vehicle mounts.
84. Secure with single M12x30 bolt, Flat washers and Nyloc nut each side at this stage. Leave finger tight.

**TOOLS REQUIRED****FASTENERS**

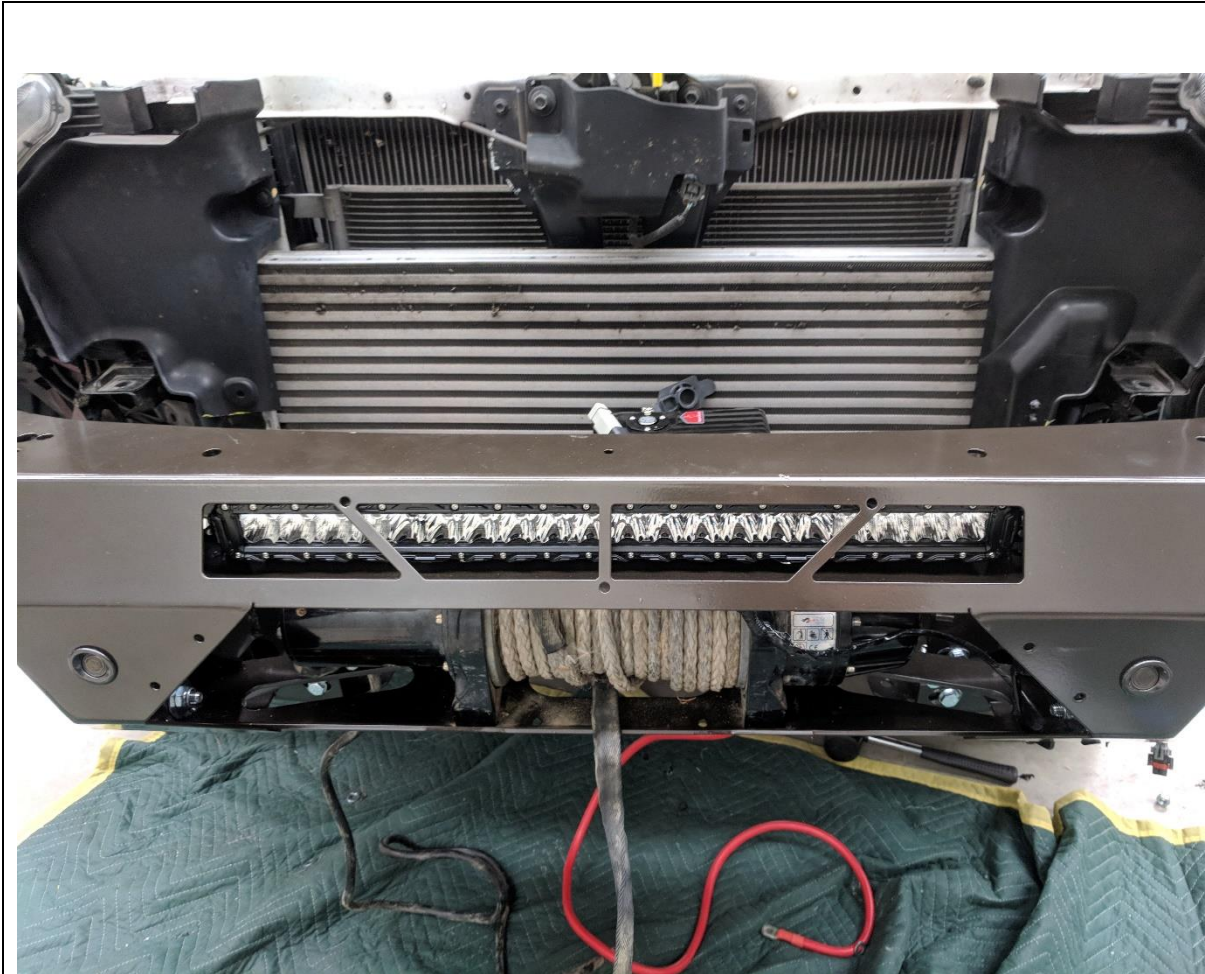
2x M12x30 Bolt  
4x Flat Washer  
2x M12 Nyloc Nut



85. Fit the rest of the M12x30 bolts, Flat washers and Nyloc nuts to the bar to mount interface.
86. Set the clearance between the bar and body and tighten all mounting bolts.
- This is best achieved by having another person hold the bar in the correct position whilst mounting bolts are tightened.

**TOOLS REQUIRED**  
18mm Socket & Spanner

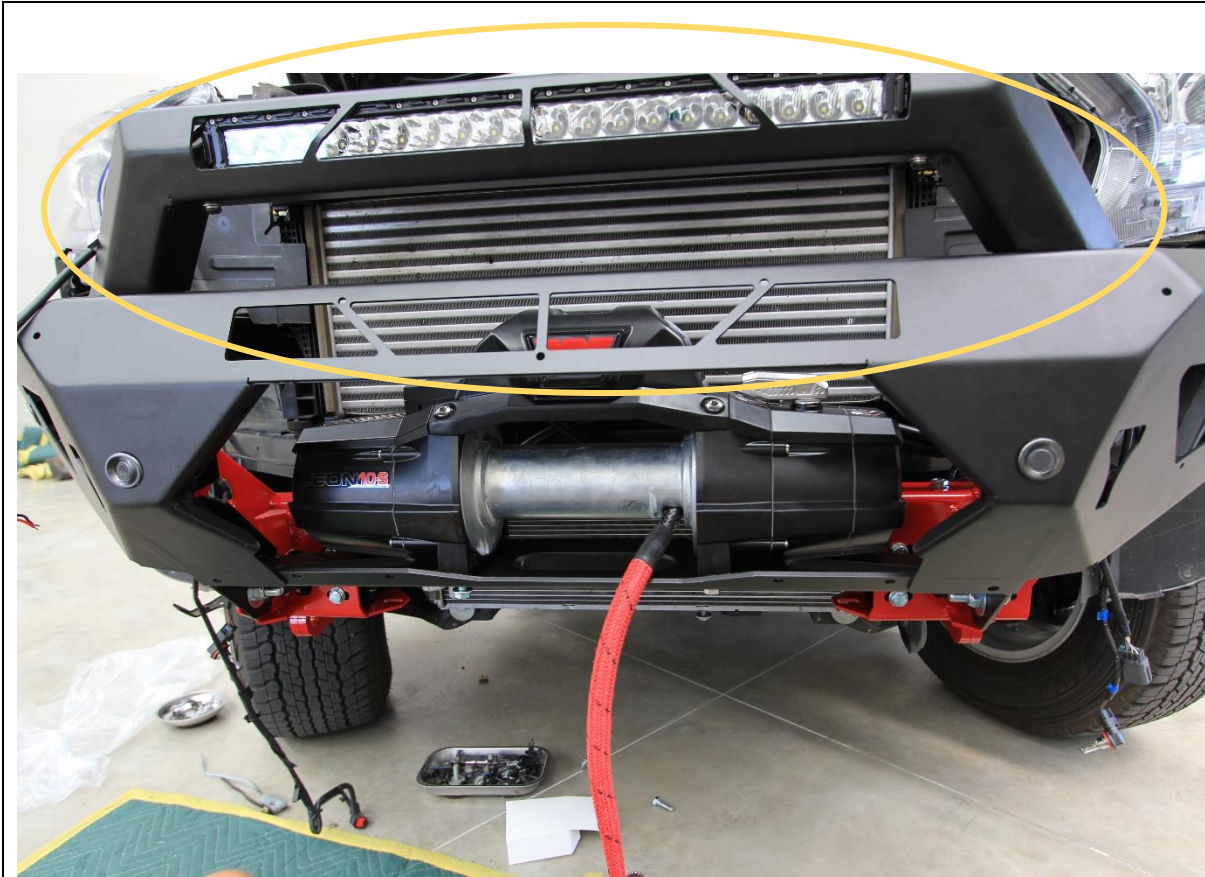
**FASTENERS**



- 87. If fitting a winch to the bar, do so at this stage. Follow the winch manufacturer's instructions.
- 88. The winch mounts feet down and is inserted through the front opening of the bar.

**TOOLS REQUIRED**  
Refer to winch instructions

**FASTENERS**  
Refer to winch instructions



- 89. If fitting a top hoop to the bar, do so at this stage. Follow instructions supplied with the top hoop kit.
- 90. It is also good time to complete any wiring required for fitment of Lights / UHF on the bar.

**TOOLS REQUIRED**  
Refer to hoop instructions

**FASTENERS**  
Refer to hoop instructions



91. Fit headlight infill panels to the top of the wing, using M6x16 button head bolts, M6 flat washers and Flange nuts. Secure finger tight only at first.
92. Align panels to have even gap with headlight and secure in place. Repeat for both sides of vehicle.

**TOOLS REQUIRED**  
4mm Hex key

**FASTENERS**  
4x M6 x16 button head  
4x M6 flat washer  
4x M6 flange nut



- 93. Grille needs to be trimmed on PX2 to fit with new Offroad animal bar.
- 94. Mark the cuts in the positions as shown above.
- 95. Cut the grille using an angle grinder or air hacksaw along the lines marked.
- 96. If fitting integrated control box winch, make same cuts as mentioned earlier in step

**TOOLS REQUIRED**  
Angle Grinder or Air Hacksaw  
Paint Marker

**FASTENERS**



- 97. If vehicle is equipped with Adaptive cruise control, prepare the sensor for re-fitment to bar.
- 98. Carefully remove the plastic retaining clips from the back of the sensor module bracket by squeezing with pliers, whilst pushing clip through the bracket.
- 99. Fit the sensor module to the cutout in the LHS Mesh panel using 3x M8x16 Button head bolts, flat washers and Flange nuts.

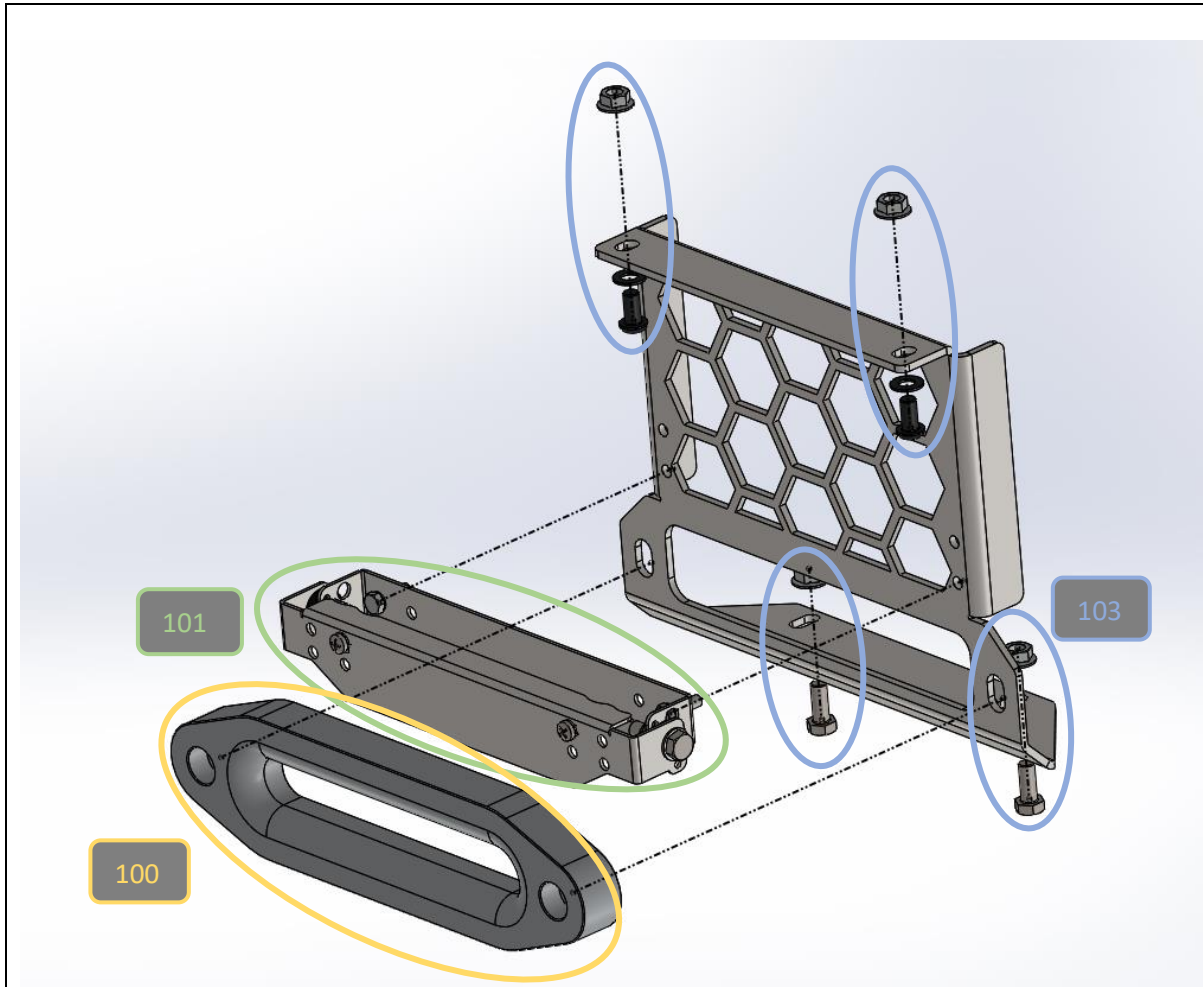
**TOOLS REQUIRED**

- Pliers
- 4mm Hex Key
- 10mm Spanner

**FASTENERS**

- 3x M8x16mm Button head bolts
- 3x M8 Flat Washer
- 3x M8 Flange Nuts





- 100. Prepare the center mesh panel for installation.
- 101. If fitting winch, fit the winch fairlead to the center panel, using fasteners supplied by the winch manufacturer.
- 102. Fit the number plate flip bracket, using 2x M6x20 Hex head bolts, Flat washers and flange nuts
- 103. Fit the center mesh panel to the bar, using M8x20 Button head (top) and Hex (bottom) bolts, M8 flat washers and M8 Flange nuts.

**TOOLS REQUIRED**  
4mm Hex Key,  
10mm Spanner  
13mm spanner & socket.

**FASTENERS**  
2xM6x20 Hex Head Bolts  
6x M6 Flat Washer  
6x M6 Flange Nuts  
2x M8x20 Hex Bolt  
2xM8x20 Button Head  
4x M8 Flat Washer  
4x M8 Nyloc Nut



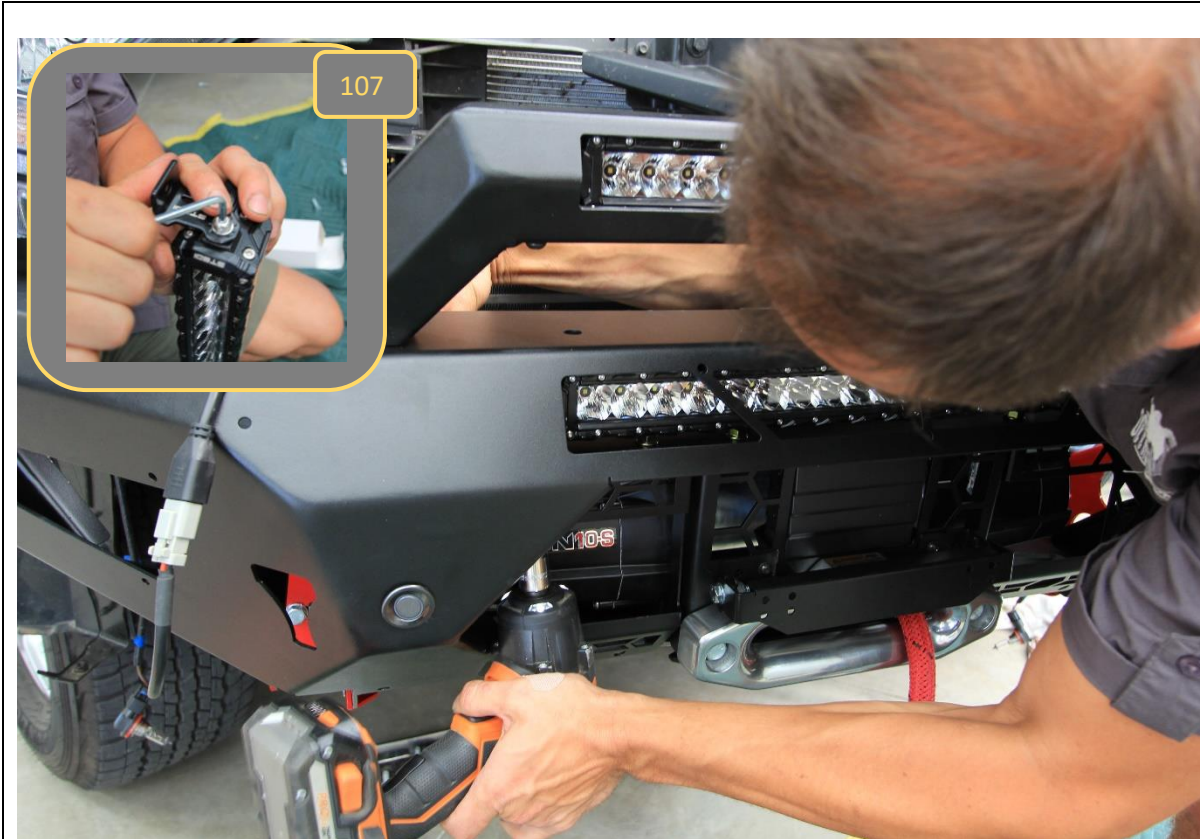
- 104. Reconnect wiring harness for adaptive cruise control sensor module
- 105. Fit the outside mesh panels, at the top only using M8x16 Button head bolts M8 Flat washers and M8 Flange nuts.

**TOOLS REQUIRED**

- Pliers
- 5mm Hex Key
- 13mm Spanner

**FASTENERS**

- 4x M8x16mm Button head bolts
- 4x M8 Flat Washer
- 4x M8 Flange Nuts



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

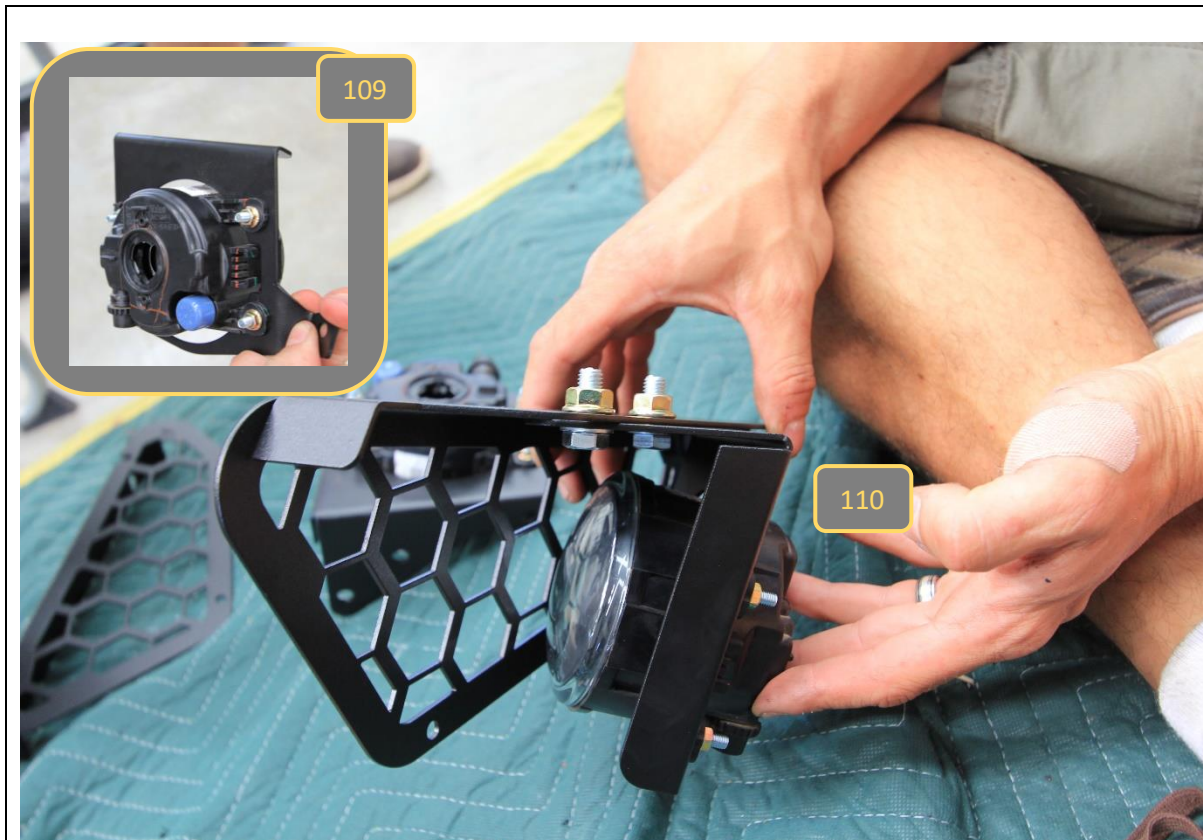
107. Assemble the STEDI Light bar with mounting feet in the outside position. Fit to bar from above through vehicle grille opening. Secure with hardware supplied with the light bar.

Note if not fitting a STEDI light bar, universal light bar mounting kit may be required.

108. If not fitting a light bar, fit cover plate to front of bar. Refer to cover plate kit instructions.

**TOOLS REQUIRED**  
Pliers  
5mm Hex Key  
13mm Spanner

**FASTENERS**  
(if fitting cover plate)  
5x M6x16mm Button head bolts  
5x M6 Flat Washer  
5x M6 Flange Nuts



109. If re-fitting factory fog lamps, fit the fog lamps to the supplied fog lamp brackets using the M5x15 screws and Flange nuts provided.

110. Fit the fog lamp brackets, to the light mesh panels using 3x M8x16 Button head bolts,

111. If fitting own lamps in light mesh, fit now using slots on panel, and hardware provided with lights.

112. Repeat for both sides of vehicle.

**TOOLS REQUIRED**

- Phillips Head Screwdriver
- 13mm Spanner / Socket
- 5mm Hex Key

**FASTENERS**

- (if fitting fog lamp)
- 4x M5x15mm screw
  - 4x M5 Flange Nuts

- 3x M8x16mm Button head bolts
- 3x M8 Flat Washer
- 3x M8 Flange Nuts

Per side



113. 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

114. Repeat for other side of vehicle.

**TOOLS REQUIRED**

- Pliers
- 5mm Hex Key
- 10mm Spanner

**FASTENERS**

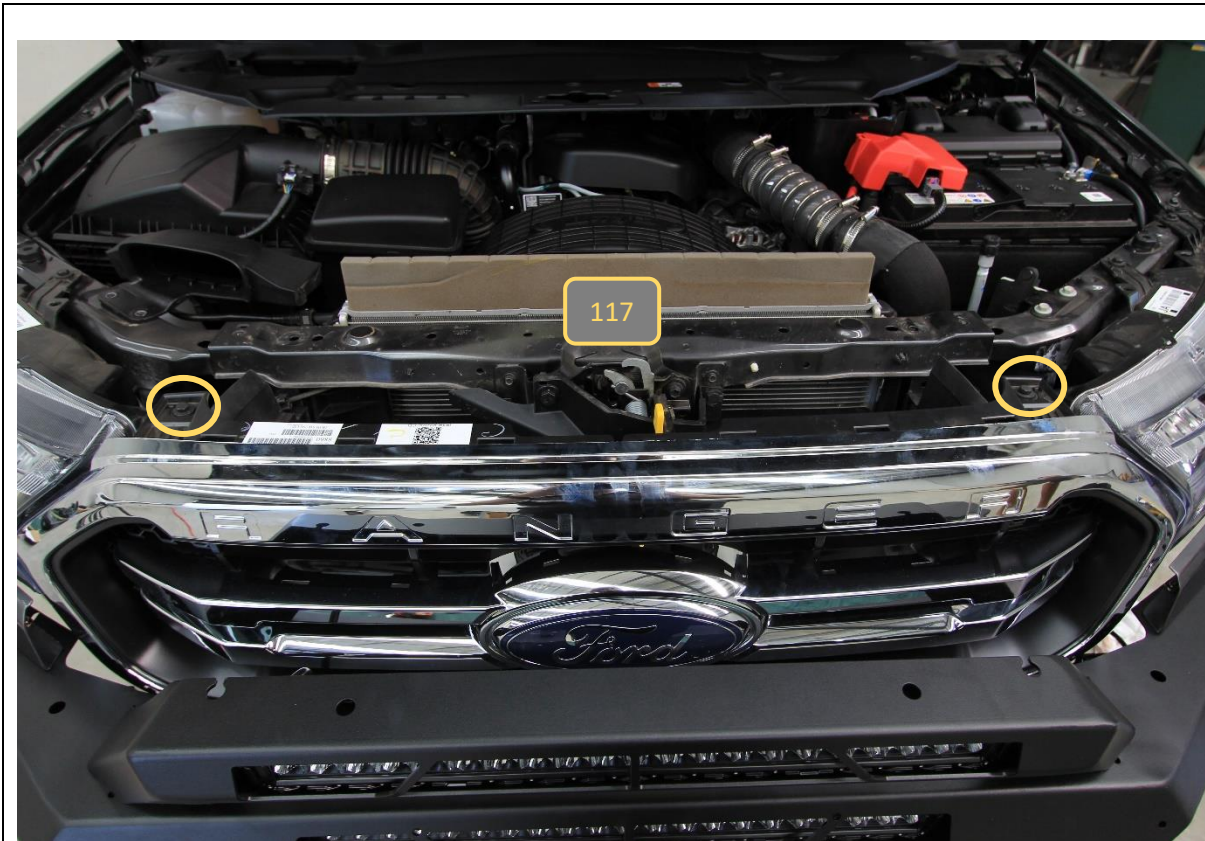
- 4x M6x16mm Button head bolt
- 4x M6 Flange Nut



- 115. Reconnect fog light bulbs to housing, by inserting lamp at 90degree angle and rotating to lock in place. Repeat for both sides of vehicle.
- 116. Reconnect Parking sensor loom. Push connector together until click is heard.

**TOOLS REQUIRED**

**FASTENERS**



117. Re-Fit grille to vehicle.

118. Secure grille at top using original bolts, removed earlier.

**TOOLS REQUIRED**  
10mm Spanner & Socket

**FASTENERS**  
2x M6x20 Bolt  
2xM6 Flat washer  
2x M6 Flange nut



- 119. Fit bash plate to bar first using M8X20 Button head bolts, flat washers, shim plate and M8 Flange nut.
- 120. Secure bottom of bash plate to mount using M10x30 button head bolts, Flat washer and M10 Flange nut.
- 121. Re-fit Factory underbody bash plate using original bolts. Secure to Offroad animal bash plate using supplied M10 flange nut, positioned through access hole.

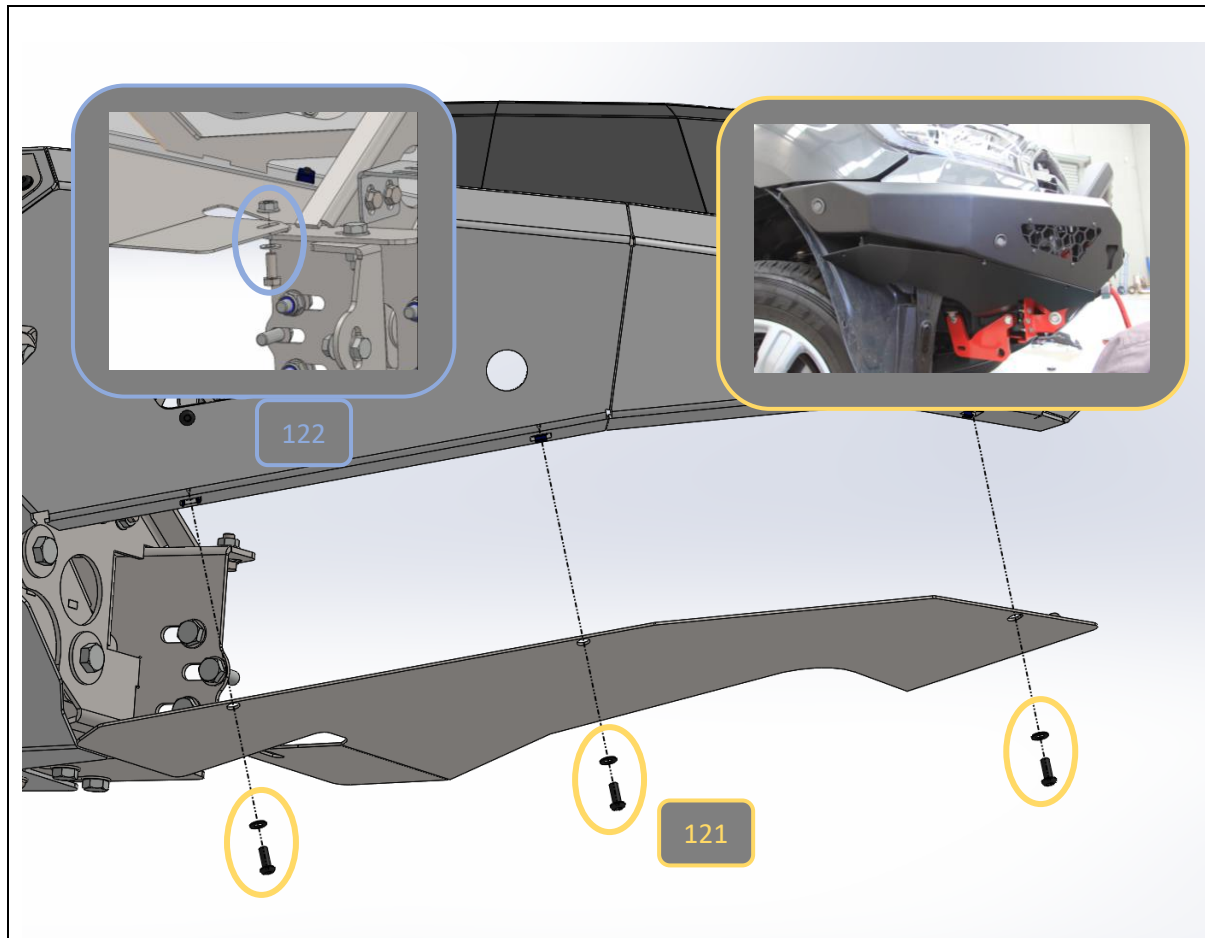
**TOOLS REQUIRED**

- 5mm Hex Key
- 6mm Hex Key
- 15mm Spanner & Socket
- 16mm Spanner & Socket

**FASTENERS**

- 4x M8x20 Button head bolt
- 4x M8 Flat Washer
- 2x Shim Plate
- 2xM10x20 Button head
- 2xM10 Flat Washer
- 4x M10 Flange nut
- 4x OE Flange Head Bolts (for bash plate)





122. Fit side under panels to bar and secure with 3x 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.

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

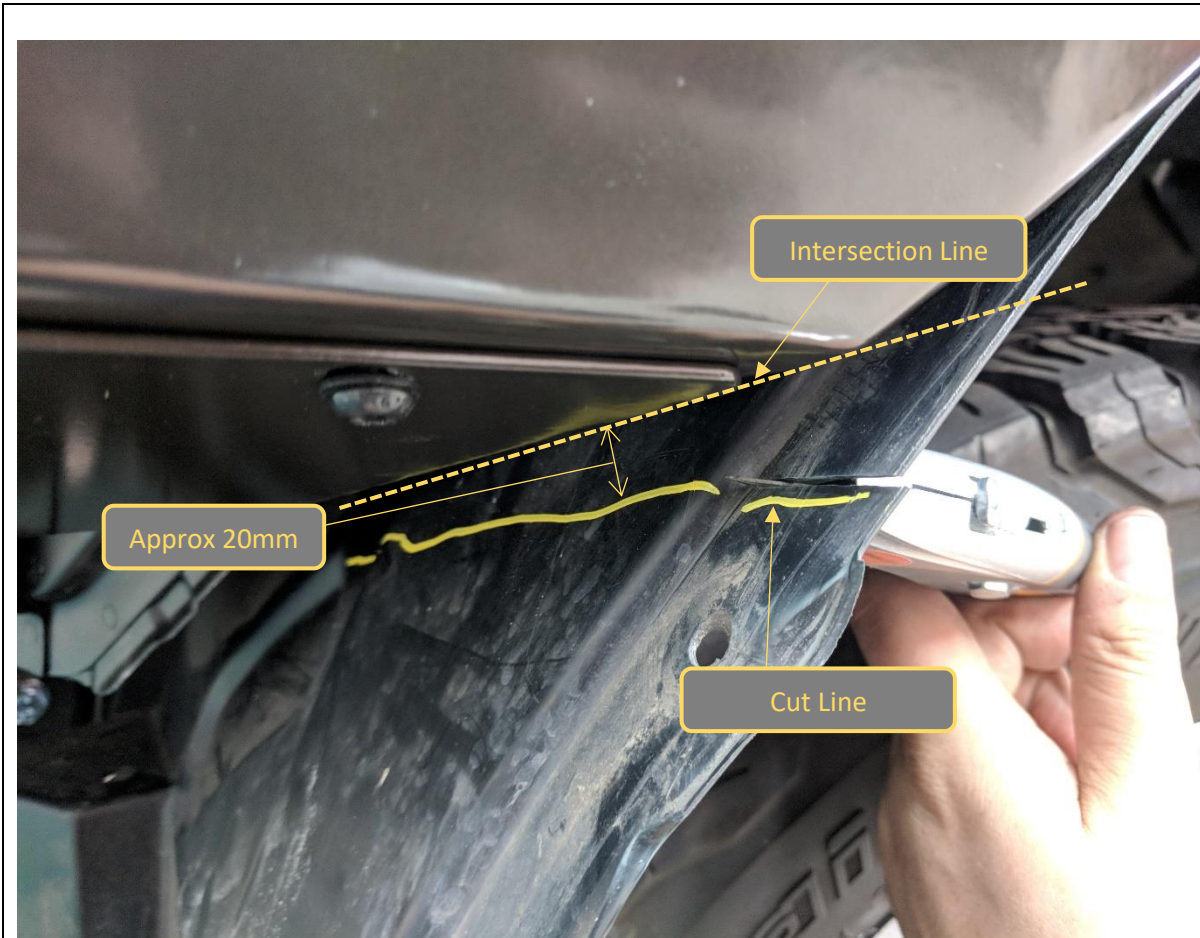
124. Repeat for other side of vehicle.

**TOOLS REQUIRED**

4mm Hex Key

**FASTENERS**

6x M8x20 Button head bolt  
6x M6 Flat Washer  
2xM8x20 Hex head  
2xM8Flat Washer  
2x M8 Flange nut



- 125. Mark where wheel arch liner intersects with side under panel with paint pen or other marker.
- 126. Create line offset approximately 20mm below intersection point.
- 127. Trim wheel arch liner to this line using utility Knife.
- 128. Insert wheel arch liner behind flange on side under panel.
- 129. Repeat for both sides of vehicle.

**TOOLS REQUIRED**

- Marker
- Utility Knife

**FASTENERS**

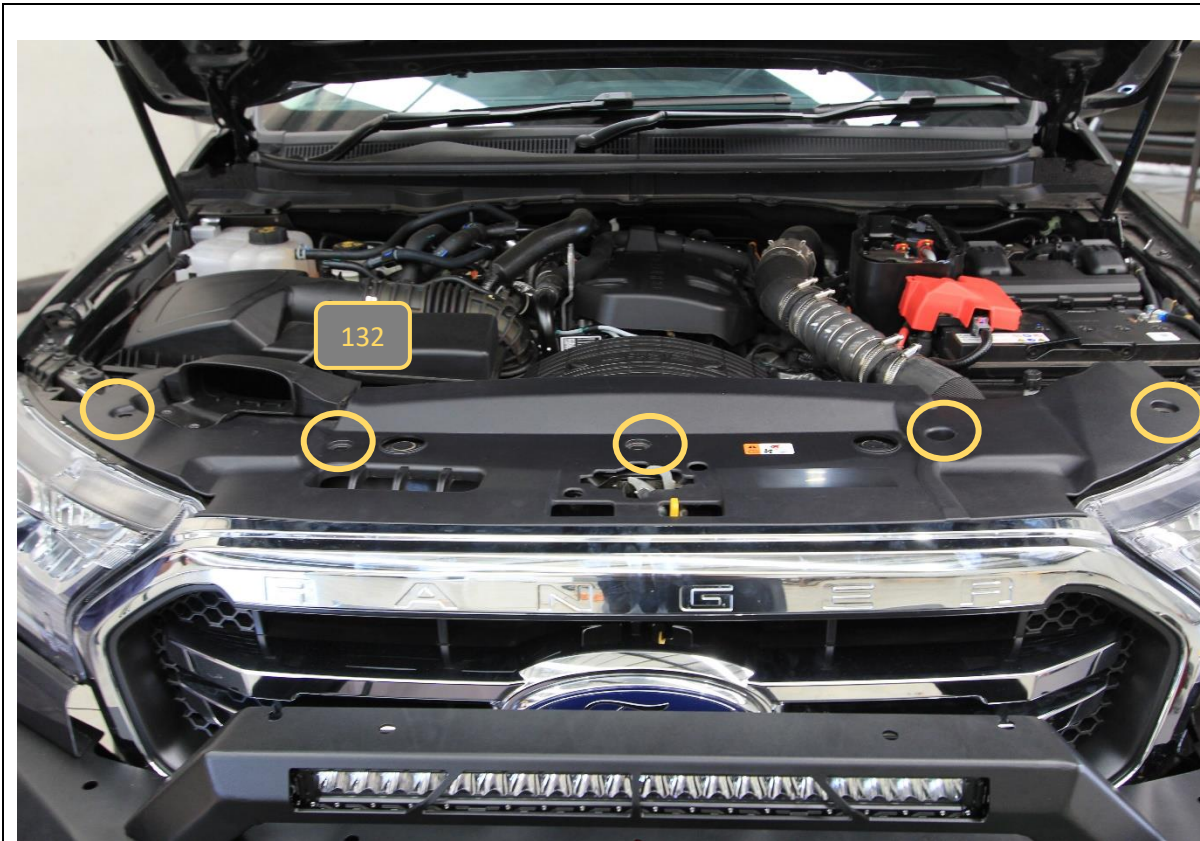


130. Re-Fit the number plate to the number plate flip, using the M5x15

131. Fit the Offroad animal logo to front face of bar, using the pre-applied double side adhesive.

**TOOLS REQUIRED**  
Phillips head screwdriver

**FASTENERS**  
M5x15 Phillips Head  
M5 Flange Nut



132. Replace plastic radiator trim. Replace 5x plastic push rivets inserting in hole, then pushing down center part.

133. Close the bonnet and you are done!

**TOOLS REQUIRED**

**FASTENERS**

5x Plastic Push Rivet



**Congratulations!**  
**Head for the tracks and enjoy your newly protected Ford Ranger!**