

## Toyota Landcruiser Prado 150 Series MY2018+ (Second Facelift) Front Bar Fitting Instruction

### 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.

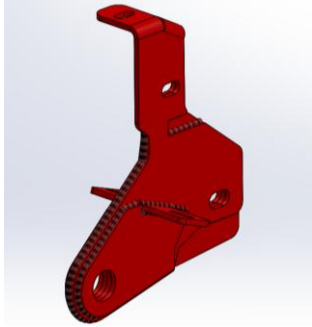
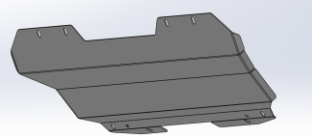
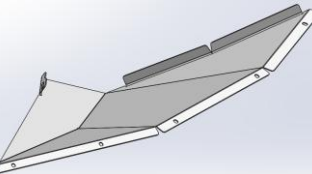
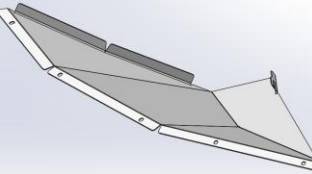
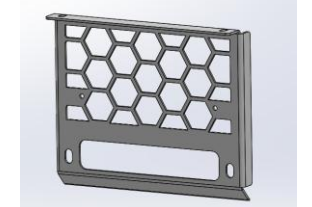
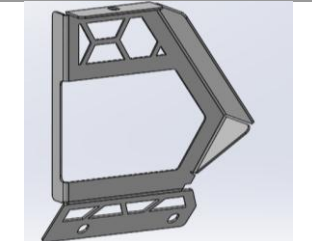
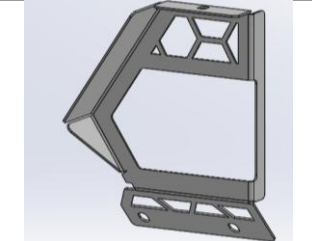
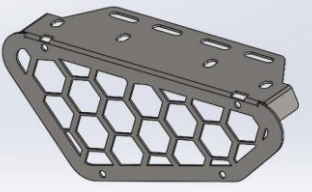
### Main Parts – In the Box

Qty	Part Number	Description	Image
1	FB-TPR-150-18-PR-ASM1	Toyota Prado 150 18+ Predator Front Bar Weldment	
<b>OR</b>			
1	FB-TPR-150-18-TOR-ASM1	Toyota Prado 150 18+ Toro Front Bar Weldment	
1	FB-TPR-150-18-PR-ASM2L	Toyota Prado 150 Series Impact Assy	
1	FB-TPR-150-18-PR-ASM2R	Toyota Prado 150 Series Impact Assy	
1	FB-TPR-150-18-PR-ASM3L	Toyota Prado 150 Tow Point Assy	

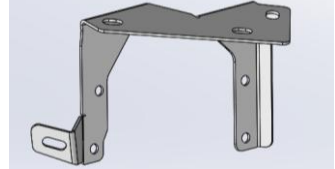



FB-TPR-150-18-PR-ASM0  
Fitting Instruction

2018+ Toyota Prado 150  
Predator & Toro Front Bar

1	FB-TPR-150-18-PR-ASM3R	Toyota Prado 150 Tow Point Assy	
1	U-0030	Prado 150 Predator- Center Under panel	
1	U-0029L	Prado 150 Predator- Side Under panel	
1	U-0029R	Prado 150 Predator- Side Under panel	
1	M-0014	DMax Predator Center Fairlead Mesh	
1	M-0014L	DMax Predator Side Mesh	
1	M-0014R	DMax Predator Side Mesh	
1	M-0002L	Light Cover Mesh	



1	M-0002R	Light Cover Mesh	
1	B-0185L	Toyota Style Fog Lamp Bracket LHS	
1	B-0185R	Toyota Style Fog Lamp Bracket RHS	
1	NPF-COM-SM-ASM0	Number plate flip asm Small	
1	B-0424L	Prado 150 Predator - Headlight Infill	
1	B-0424R	Prado 150 Predator - Headlight Infill	
1	B-00704	Prado 150 Predator – Pan Brace	
1	B-1054L	Prado 150 Corner infill	
1	B-1054R	Prado 150 Corner infill	
2	PWS-TOP-470	Pinch Weld PWS51T - Top Bulb Seal 470mm	No Image
2	PWS-SIDE-225	Pinch Weld PWS53S - Side Bulb Seal 225mm	No Image
2	TK-FB-THL-N80-15	Tape Kit, 3M 5952, 2x 25x8mm	No Image
1	FB-TPR-150-18-PR-ADRCP	ADR Compliance Plate Prado 150 MY18+	



## Predator Small Parts – Contained in Small Parts Kit Bag

QTY.	PART NO.	DESCRIPTION
2	FB-TPR-150-18-PR-ASM4	Headlight Washer Plug Assy - Prado 150
10	M8 FLAT WASHER- BLACK ZINC	M8 FW- BLACK ZINC
4	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9 BLACK ZP
6	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP
14	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
2	M8 X 30 HEX	Bolt Hex, M8X30X1.25, GR8.8 ZP
4	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
6	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
6	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
2	M12X40x1.25	Bolt Hex, M12X40x1.25, GR8.8 ZP
18	M12 FW LHD	M12 FW Large Heavy Duty
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
8	M12 Nyloc nut	M12 NYLOC NUT
2	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25 BLACK ZP
22	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
29	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP
3	M6x12 BHCS	SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9 ZP
10	M6CN3MM	CAGE NUT M6x2.6-3.5
32	M6 FLAT WASHER BLACK ZINC	M6 FW BLACK ZP
8	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
8	M8 FLAT WASHER	M8 FW
4	M5X15 BHCS	SCREW, BUTTON HEAD CAP, M5X15X0.8 GR12.9 ZP
4	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP
4	M5 Flat washer	M5 FW
4	SPFM18	Clip, 18mm Hole, Black Nylon, Essentra Components SPFM18



## Torro Small Parts Kit – Contained in Small Parts Kit Bag

QTY.	PART NO.	DESCRIPTION
2	FB-TPR-150-18-PR-ASM4	Headlight Washer Plug Assy - Prado 150
14	M8 FLAT WASHER- BLACK ZINC	M8 FW- BLACK ZINC
4	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9 BLACK ZP
10	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP
14	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
2	M8 X 30 HEX	Bolt Hex, M8X30X1.25, GR8.8 ZP
4	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
6	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
6	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
2	M12X40x1.25	Bolt Hex, M12X40x1.25, GR8.8 ZP
18	M12 FW LHD	M12 FW Large Heavy Duty
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
8	M12 Nyloc nut	M12 NYLOC NUT
2	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25 BLACK ZP
22	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
29	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP
3	M6x12 BHCS	SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9 ZP
10	M6CN3MM	CAGE NUT M6x2.6-3.5
32	M6 FLAT WASHER BLACK ZINC	M6 FW BLACK ZP
8	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
8	M8 FLAT WASHER	M8 FW
4	M5X15 BHCS	SCREW, BUTTON HEAD CAP, M5X15X0.8 GR12.9 ZP
4	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP
4	M5 Flat washer	M5 FW
4	SPFM18	Clip, 18mm Hole, Black Nylon, Essentra Components SPFM18
2	B-0429	Prado Torro - Antenna Bracket






## TOOLS REQUIRED

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Supplies
Metric Socket Set 8-19mm Socket Extension Bar Metric Spanner Set 10-19mm Hex (Allen) Key Set 4-6mm Trim Puller Tool Flat Blade Screwdriver set Phillips Head Screwdriver set Utility Knife Side Cutters Pliers	Electric Drill 6mm Drill Bit  Air Hacksaw or Angle Grinder  Electric/Air Impact Driver (Optional)	Double Sided Adhesive Tape Panel Stand or Soft Blanket Cable Ties Masking Tape Black Automotive paint Scotch Brite or Fine Sandpaper Automotive Sealant/Adhesive Bucket Hose Clamp

## 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 the Bonnet,
2. Remove clips securing the top radiator cowling. Press down on the center button of clip to unlock, then remove clip with trim tool.
3. Retain all clips for reassembly

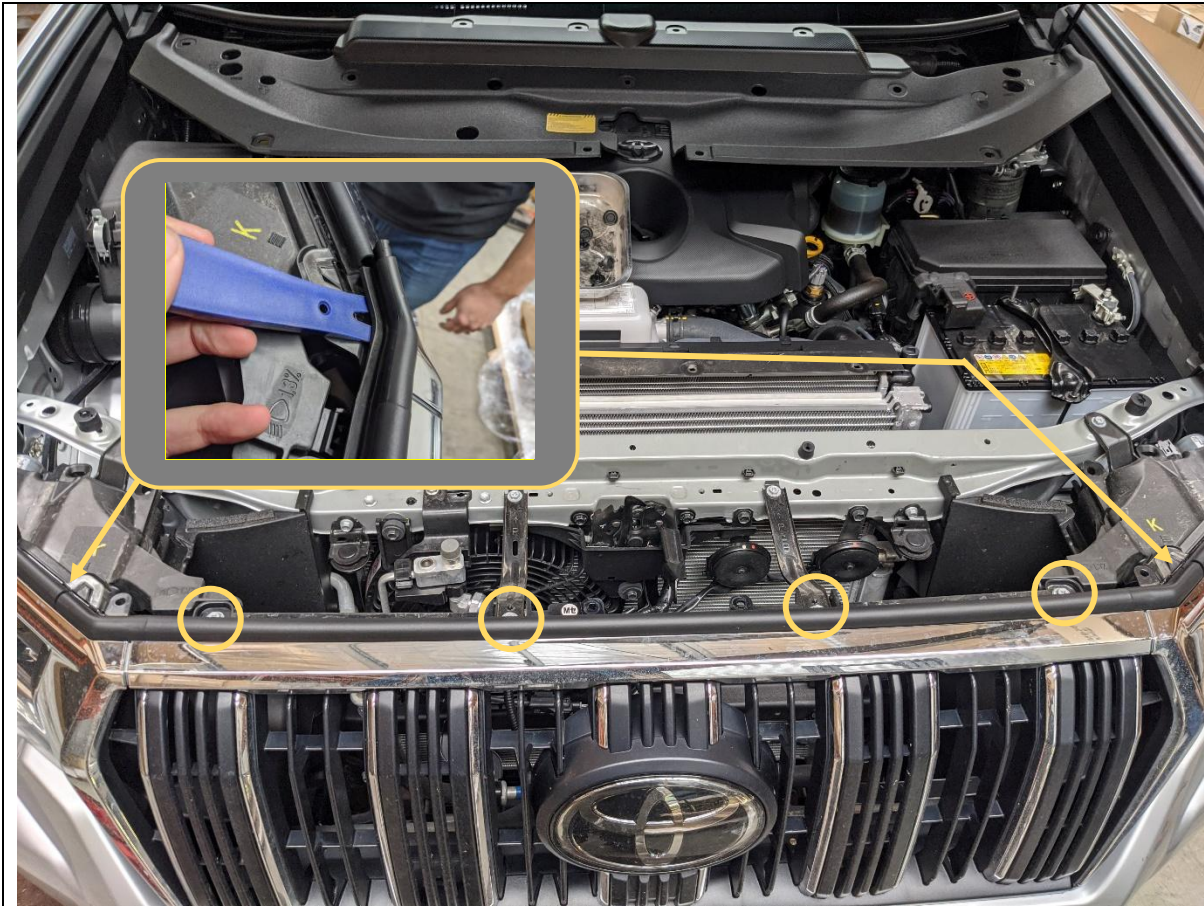
**TOOLS REQUIRED**

Trim Tool

**FASTENERS**

Retain Factory





4. Remove the 4x Bolts securing top of grille to body using 10mm socket.
5. Using Trim tool carefully lever out the seal over the top of the grille to headlight joint to uncouple the rubber seal.

**TOOLS REQUIRED**

10mm socket

**FASTENERS**

Retain Factory



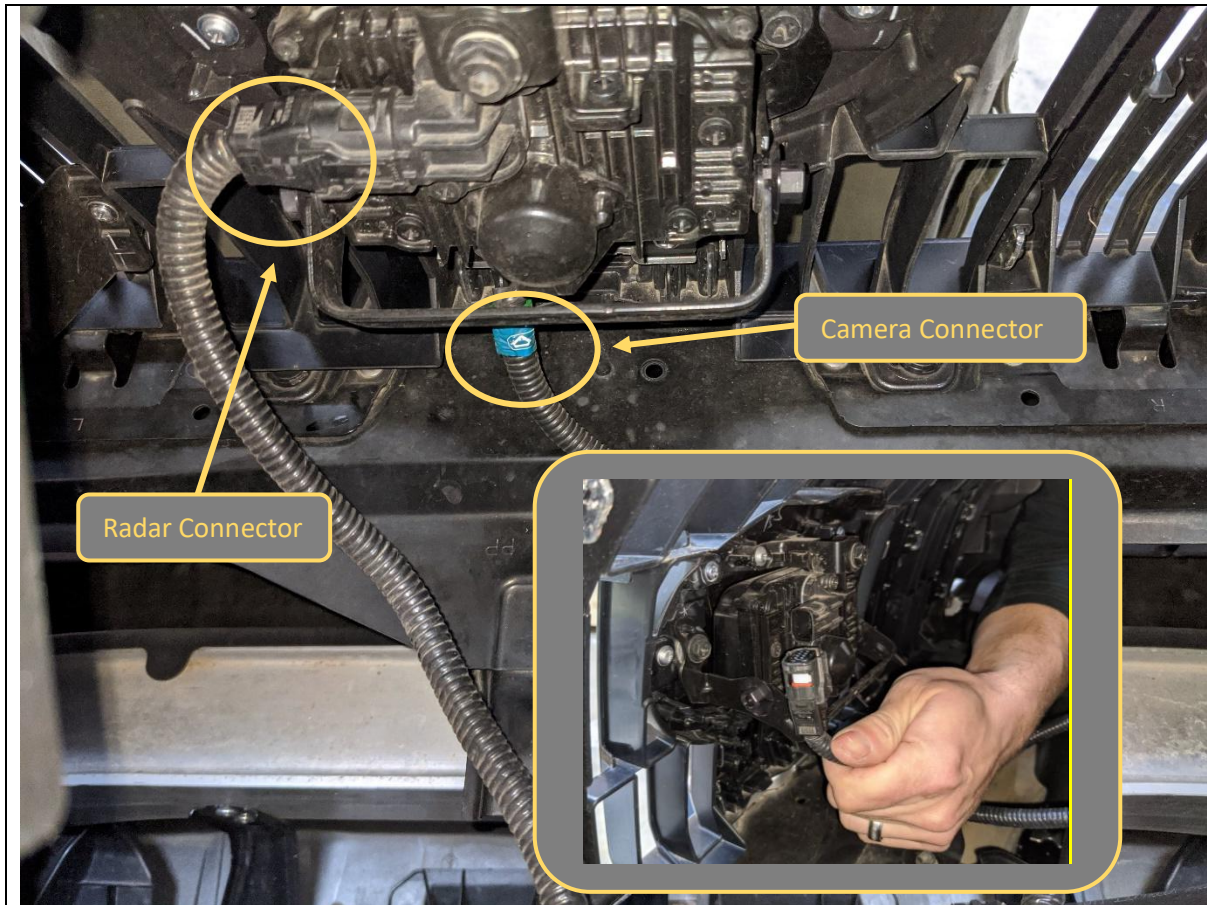
6. Using a rag or plastic tool to protect the chrome finish, carefully pry the L shape headlight trim to release the clips.
7. Complete for both sides of the vehicle.

#### TOOLS REQUIRED

Trim Tool

#### FASTENERS





8. For Vehicles equipped with Adaptive cruise radar sensor and / or front camera, disconnect the electrical harness connectors located on the back of the sensors behind the grille.

**TOOLS REQUIRED**

**FASTENERS**



9. Using a trim tool pry open the clips securing the bottom of the grille to the bumper.
10. Remove the grille from the vehicle and set aside for refitment later

#### TOOLS REQUIRED

Trim Tool

#### FASTENERS





11. Remove the 4x Clips securing the bumper to the body crossmember

**TOOLS REQUIRED**

Trim Tool

**FASTENERS**

Factory Clips (Discard)



12. Remove the 10mm head screws securing the bumper to the underbody bash plate.
13. Remove the center lock clips that also secure the bumper.

**TOOLS REQUIRED**

10mm socket  
Trim Tool

**FASTENERS**

Factory Bolts (Discard)



14. Remove the 10mm / Phillips screws securing bumper to the wheel arch liner.
15. Complete on both sides of the vehicles

#### TOOLS REQUIRED

Phillips screwdriver  
or  
10mm Socket

#### FASTENERS

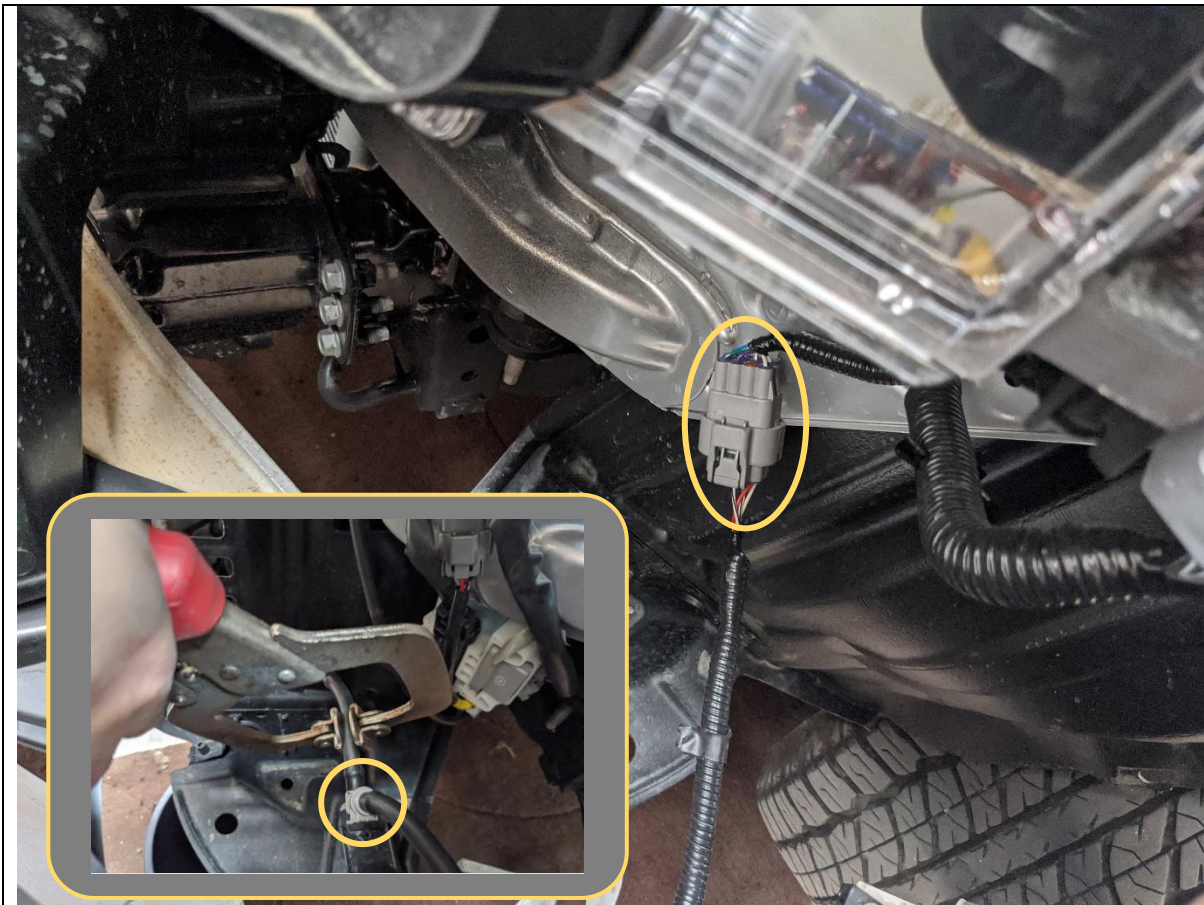




16. Starting from the wheel arch, carefully pull the bumper away from the body of the vehicle to release the clips.

#### TOOLS REQUIRED

#### FASTENERS



17. Disconnect the main electrical harness, located on the LHS of vehicle under headlight.

18. For vehicles equipped with headlight washers, disconnect the headlight washer hose at the quick connect fitting.

If there is any washer fluid in the reservoir it will spill out. Have a bucket on hand to drain the washer fluid or use a hose clamp to prevent the fluid from leaking

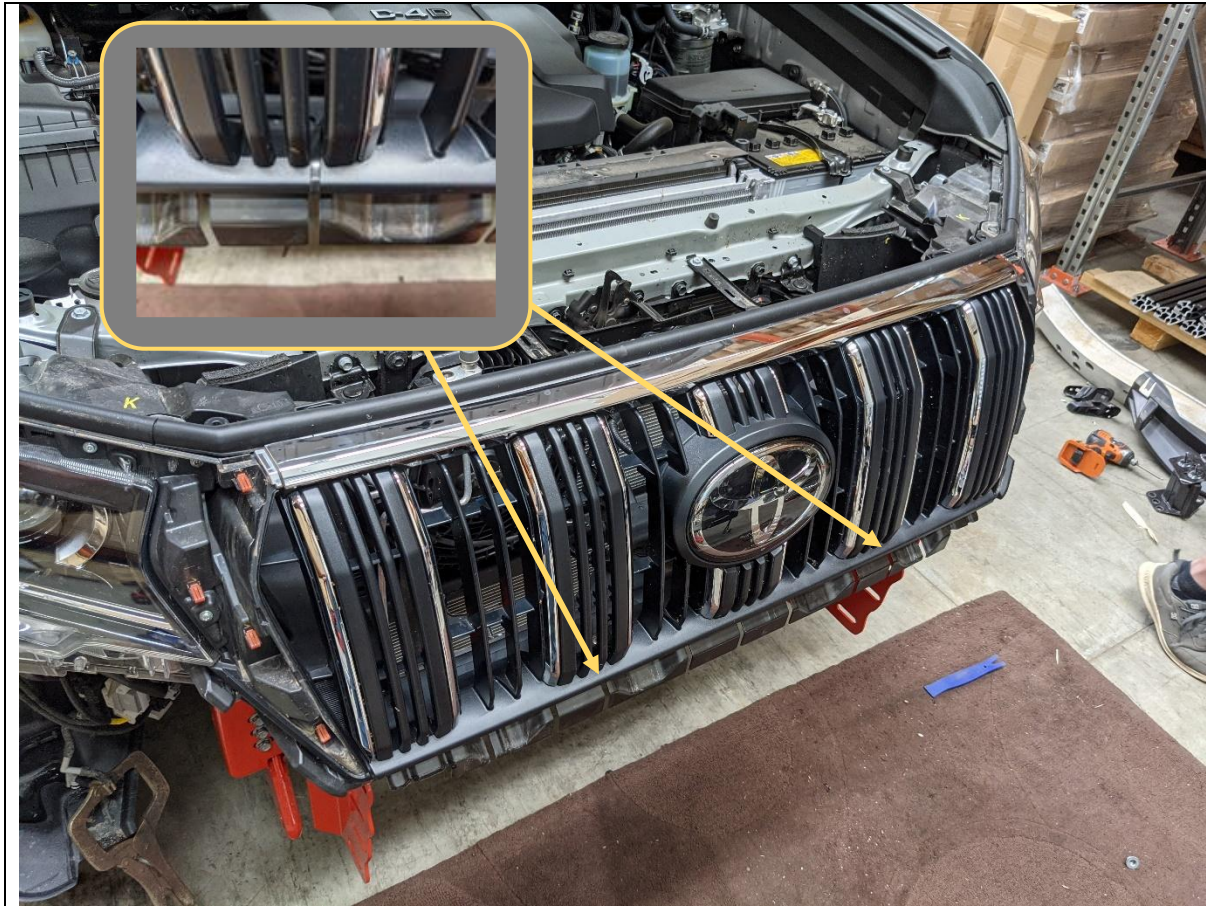
19. Once both are disconnected continue removing bumper. Once all clips are released, carefully lift the bumper from the car and set aside on a soft surface.

#### TOOLS REQUIRED

Bucket or Hose Clamp

#### FASTENERS





20. Re-Fit grille to vehicle, Secure the top of grille using the factory fasteners removed earlier.
21. Ensure the grille is located correctly on the locating lugs just above the bolt hole.
22. Secure the bottom of the grille using cable ties around the bumper support cross member as shown.

#### TOOLS REQUIRED

10mm Socket  
Cable Ties

#### FASTENERS

Re-Use Factory





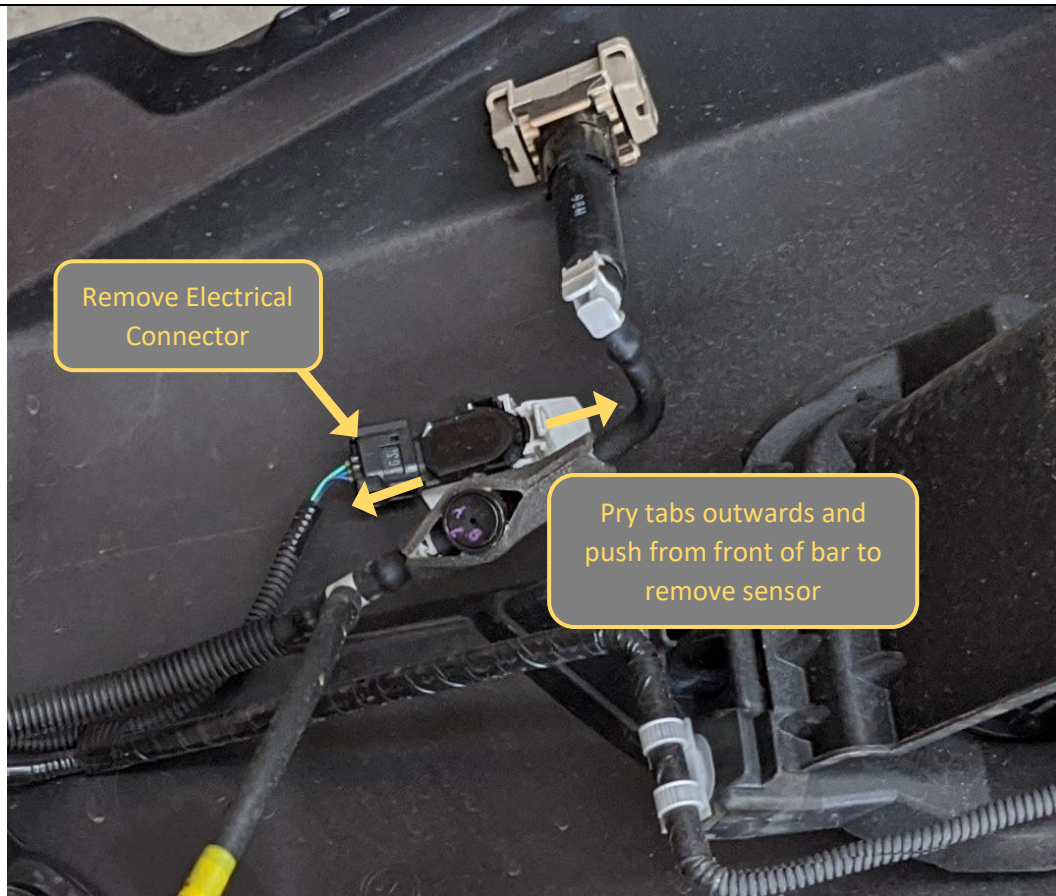
23. Disconnect the Fog light harness from the fog light.
24. Remove the fog lights from the bumper, by removing the three Philips head screws.
25. Remove both the electrical harness, and headlight washer pipes from the bar, by prying out the clips using trim tool.
26. Complete on both sides of bumper.

#### TOOLS REQUIRED

Phillips head Screwdriver  
Trim tool

#### FASTENERS

Discard Factory Screws



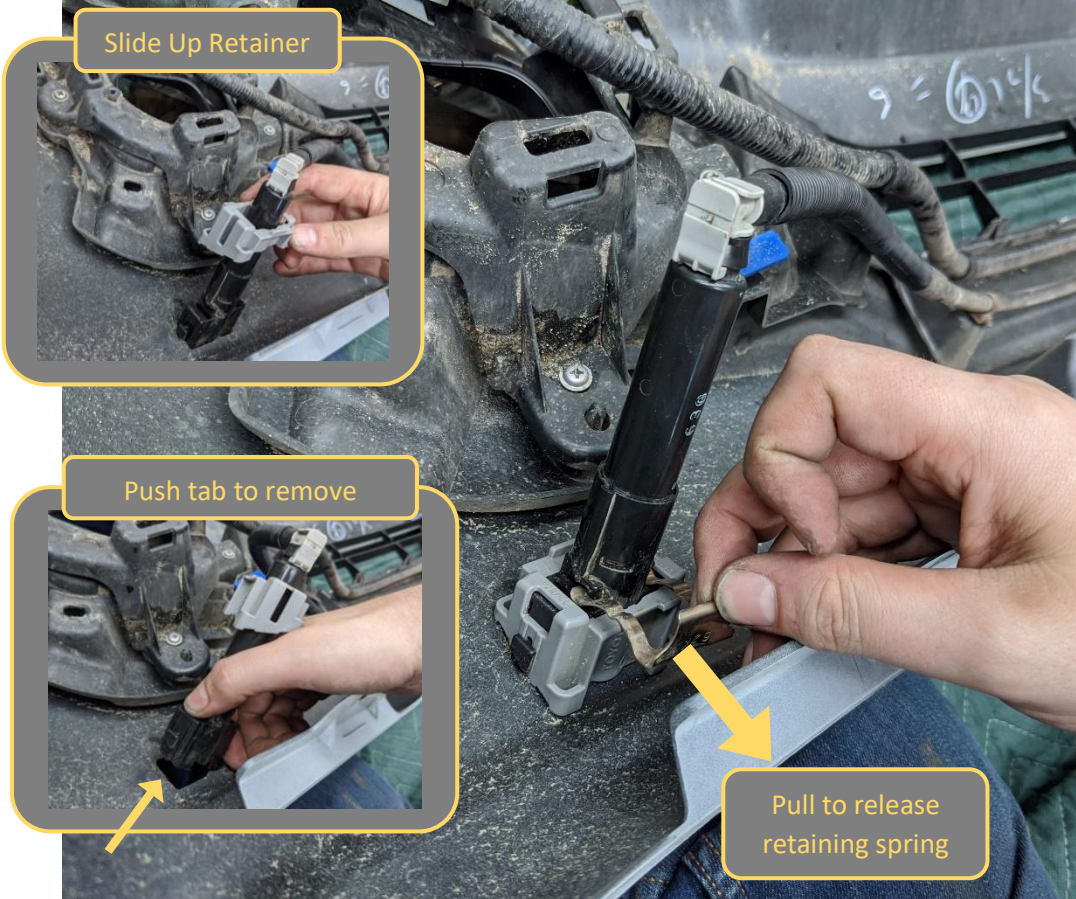
27. If car equipped with parking sensors Disconnect the parking sensors from the loom by squeezing the tab, then pulling to disconnect the multi plug connector.

28. Pry the two grey retaining tabs on the sensor housing outwards whilst applying pressure to the face of the sensor from the front side of the bumper. The sensor should release from the housing. Remove from the rear side of the bumper.

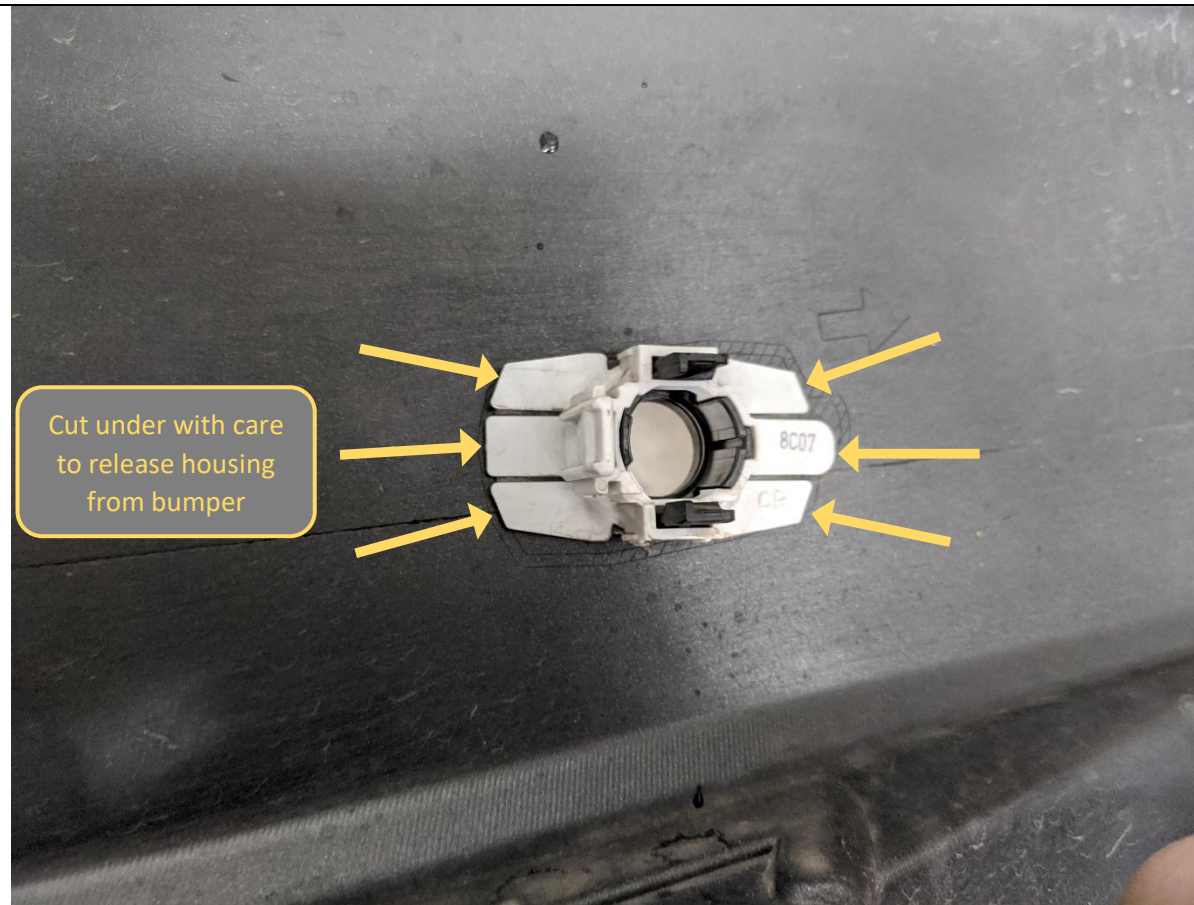
Take care to ensure the rubber isolation rings remain in place with the sensor

#### TOOLS REQUIRED

#### FASTENERS

	
<p>29. If vehicle is equipped, remove headlight washers from the bumper. Start by disconnecting the supply hose.</p> <p>30. Release the retaining spring by firmly pulling it as shown in the image.</p> <p>31. Next slide up the plastic retainer.</p> <p>32. Once loose pull on the small retaining tab on the side of the washer assembly to remove.</p>	<p><b>TOOLS REQUIRED</b></p>
	<p><b>FASTENERS</b></p>



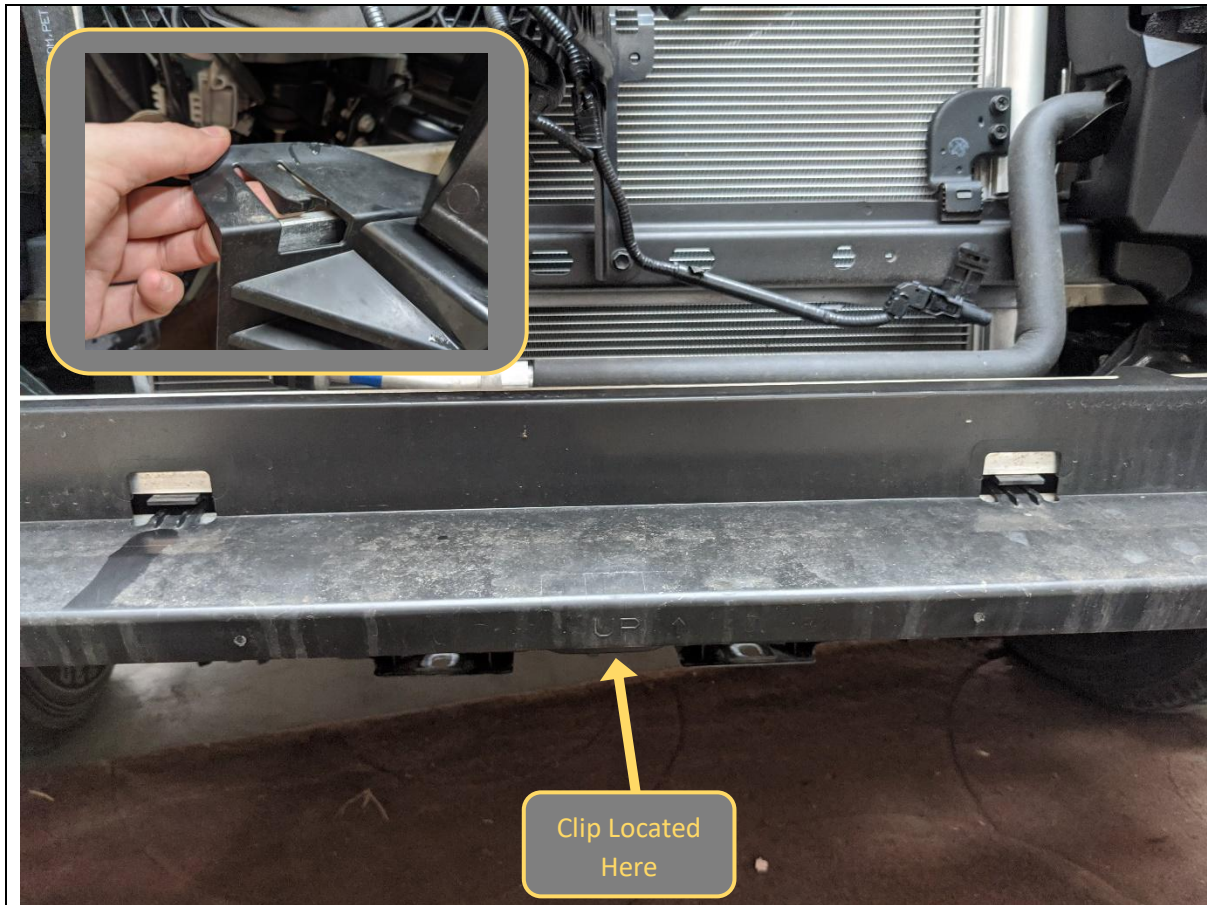


33. Remove the sensor housing from the bumper for refitment to the bar.
34. Using a utility knife and trim tool carefully cut through the adhesive under the grey parts of the sensor housing and pry it from the bumper.  
  
Heating up the surface slightly with a heat gun or hairdryer will make things easier. Take care not to overheat and melt things though.
35. Set aside housings taking care to note the correct positions for refitment.

#### TOOLS REQUIRED

Utility Knife  
Trim Tool

#### FASTENERS



36. Remove the Plastic covering the impact beam.
37. The plastic is secured by 3x molded clips in the front face, and clips on either end of the beam
38. Remove and set aside the plastic impact beam.

#### TOOLS REQUIRED

#### FASTENERS



39. Remove the 6x 14mm head Nuts holding the impact beam to the impact beam brackets.
40. Remove and set aside the aluminum impact beam.

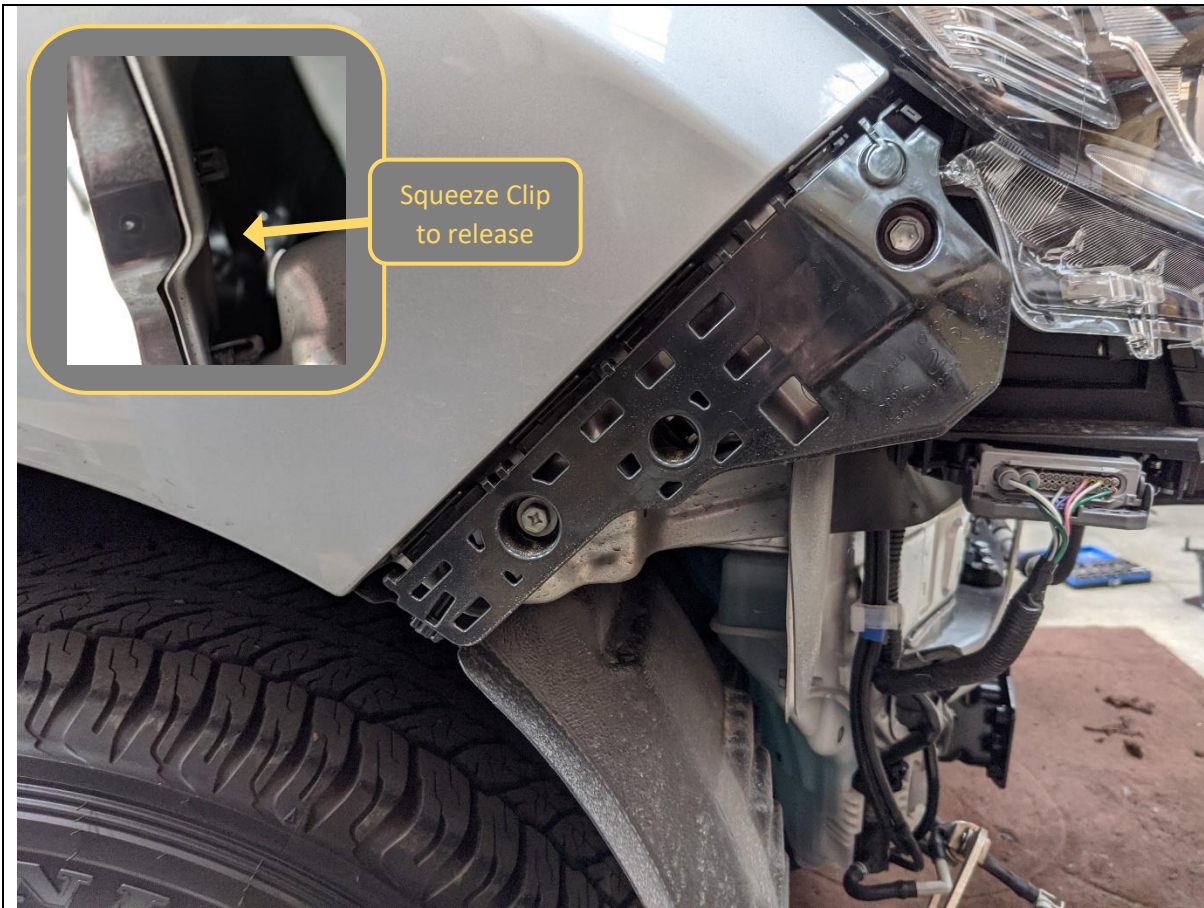
#### TOOLS REQUIRED

14mm Socket  
Extension Bar

#### FASTENERS

6x 14mm Head factory Flange Nuts





41. Remove the plastic bumper retainers by removing the Philips head and 10mm head screw, then prying out the large clip from behind using trim tool

#### TOOLS REQUIRED

Phillips head screwdriver  
10mm Socket  
Trim Tool

#### FASTENERS

Phillips Head screw.



42. Remove the plastic bumper retainers under the headlight by removing the 2x Phillips head screws.

43. Complete on both sides of the vehicle.

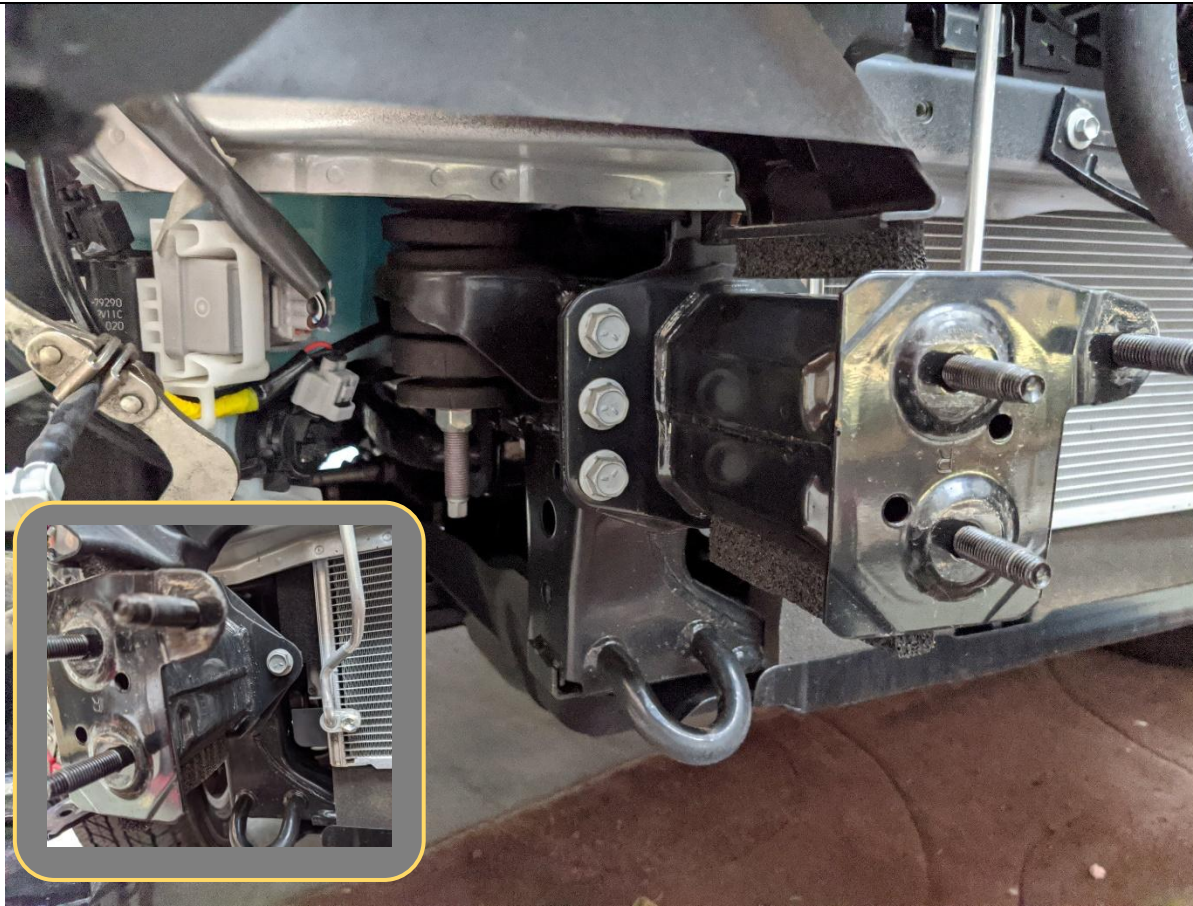
#### TOOLS REQUIRED

Phillips head screwdriver

#### FASTENERS

Phillips Head screw.  
Discard





44. Remove Steel impact beam mounts by removing the 5x 14mm head flange bolts on each side.

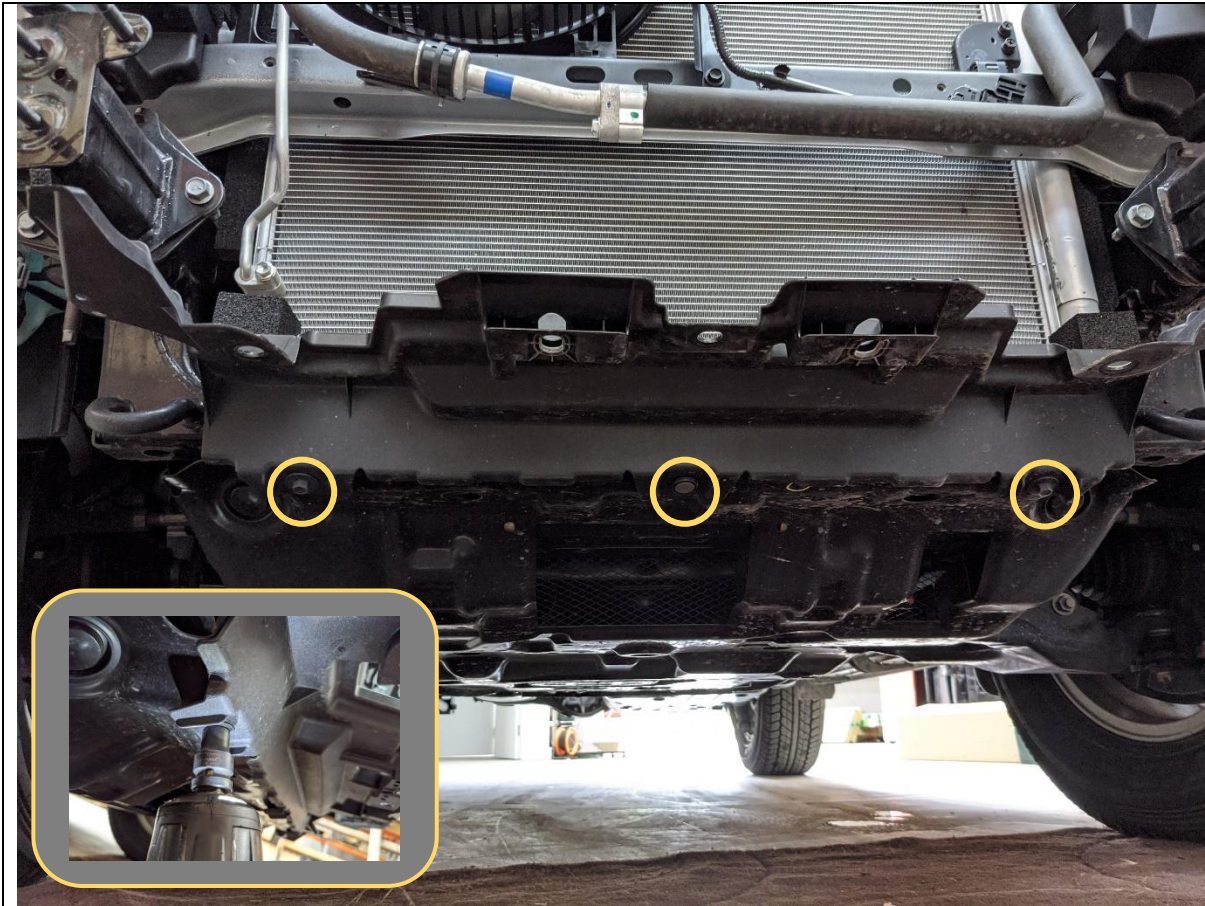
45. Retain bolts for fitment of bullbar mounts.

#### TOOLS REQUIRED

14mm Spanner / Socket

#### FASTENERS

14mm Head Factory Flange Bolts



46. Remove the Plastic undertray, by removing the 2x10 mm head factory bolts and center clip.
47. Retain bolts for fitment of bash plate.

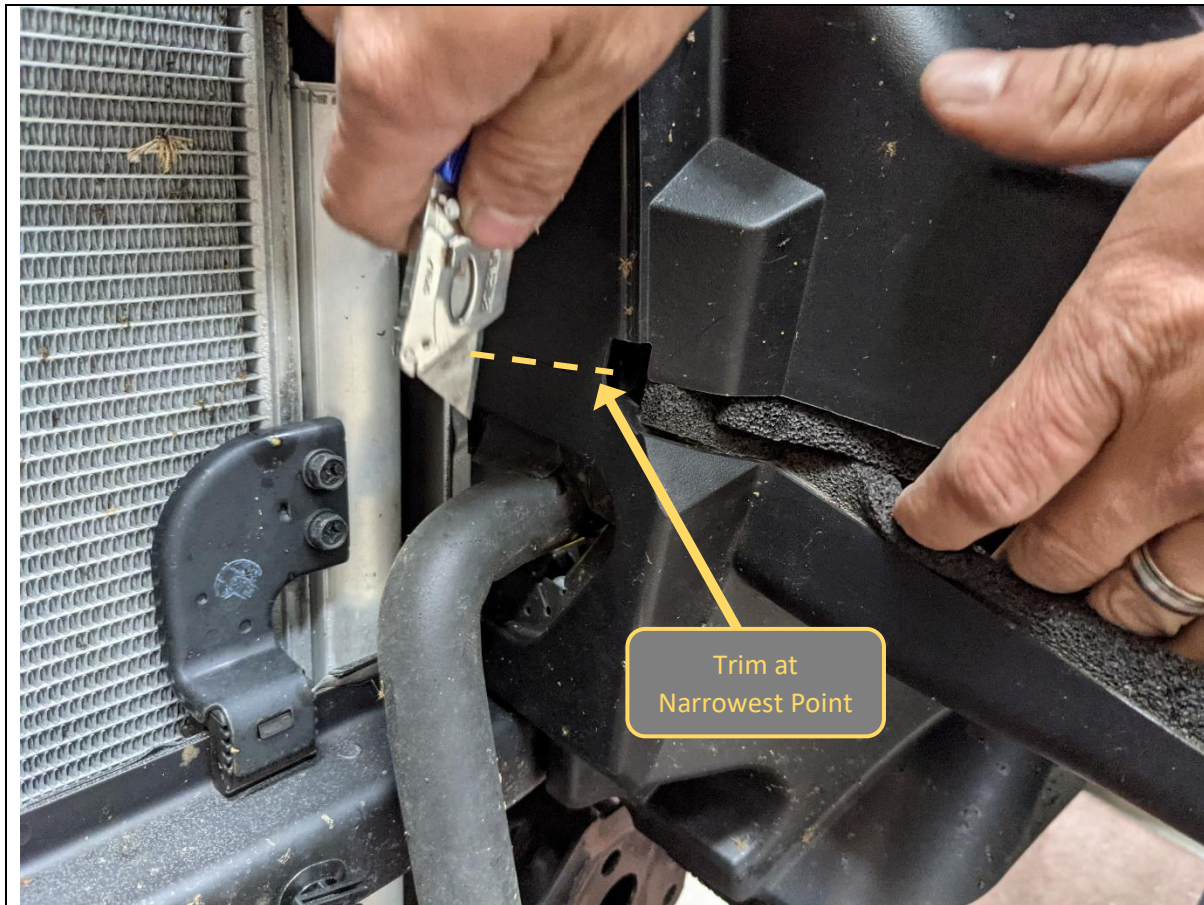
#### TOOLS REQUIRED

10mm Socket

#### FASTENERS

10mm Head Factory Bolts





48. Plastic air guides need to be trimmed to allow clearance for the bullbar mounts.
49. Using a sharp utility knife or an air hacksaw, cut along the narrowest section of the guide as shown in the image.
50. Repeat for both sides of the vehicle. The RHS of vehicle is much easier to cut if it is removed from the vehicle. Air guide is secured with 1x clip

#### TOOLS REQUIRED

Utility knife  
Or  
Air Hacksaw

#### FASTENERS



51. Loosely fit the Impact mounts to the chassis, re using the original factory flange Bolts.

52. Loosely fit the tow point to the chassis and impact mounts using M8x30 and M12x40x1.25 Bolts into captive nuts on chassis, and M10x30 Bolts, Washers and Flange Nuts to the impact bracket

**Note:** Captive threads in chassis can be tight. Ensure bolts are not cross threaded and drive in manually with socket. Do not tighten at this stage.

53. Leave bolts finger tight at this stage.

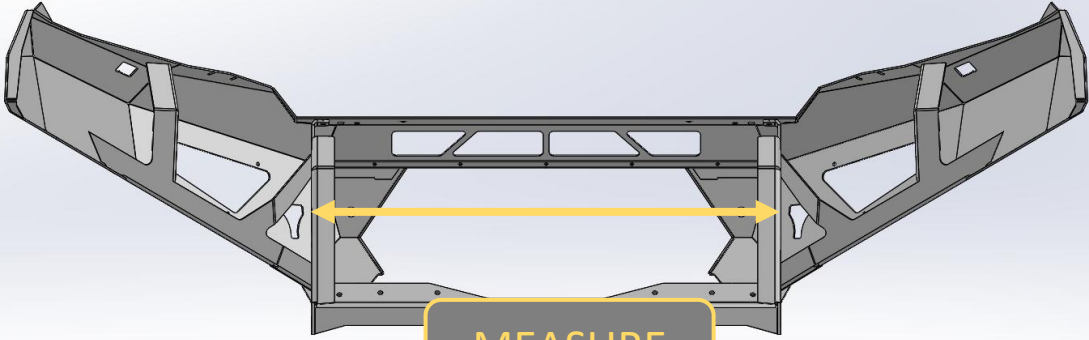
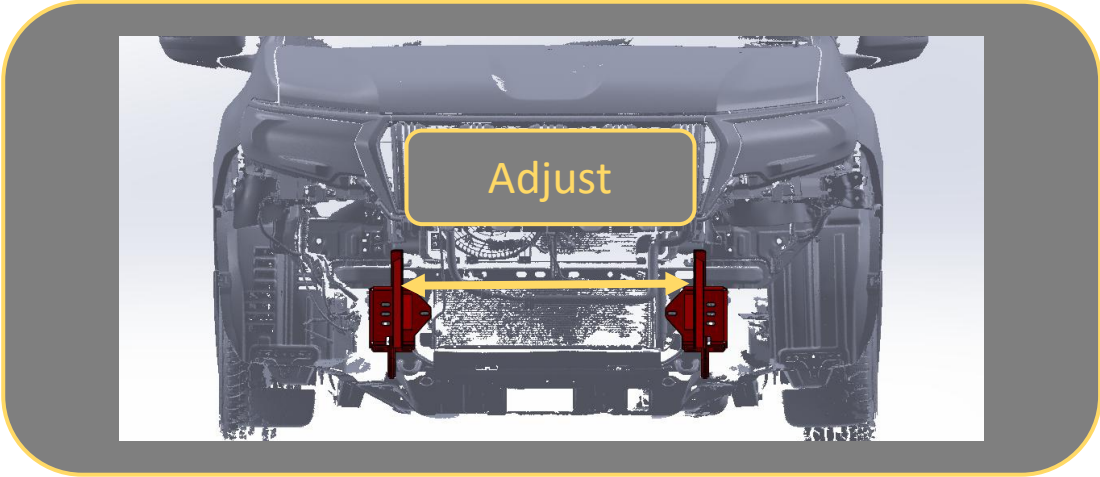
#### TOOLS REQUIRED

13,14,16 & 18mm Sockets

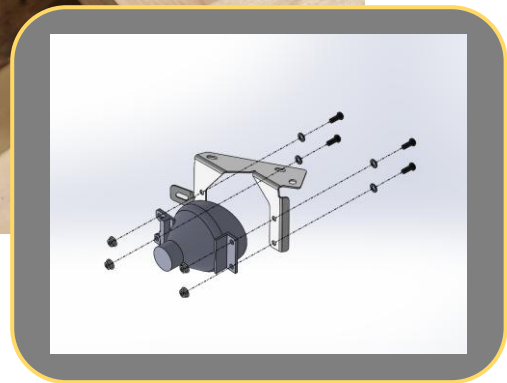
#### FASTENERS

1x M8x30 Hex Bolt  
1x M12x40x1.25 Bolt  
3x M10x30 Bolt  
3xM10 Flat Washer  
3xM10 Flat washers

Per side

 <p style="text-align: center; background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;">MEASURE</p>	
 <p style="text-align: center; background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;">Adjust</p>	
<p>54. Measure Distance between outside edges uprights on bar using tape measure. Write distance below for reference if required.</p> <p>Bar Upright Width = _____mm</p> <p>55. Adjust mounts by sliding mounts on slots, such that distance between outside edges of mounts is approximately 2mm less than bar.</p> <p>56. Secure and tighten mounts. Tighten bolts that secure the Impact assembly to chassis first, then tow point to chassis bolts and finally impact assembly to tow point bolts.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Tape measure</p>
	<p><b>FASTENERS</b></p>





57. Re-Fit fog lamps to the Fog light brackets (B-0185L/R) using M6X16 Button head Bolts, Flat washers and Flange nuts from the Small Parts Kit.

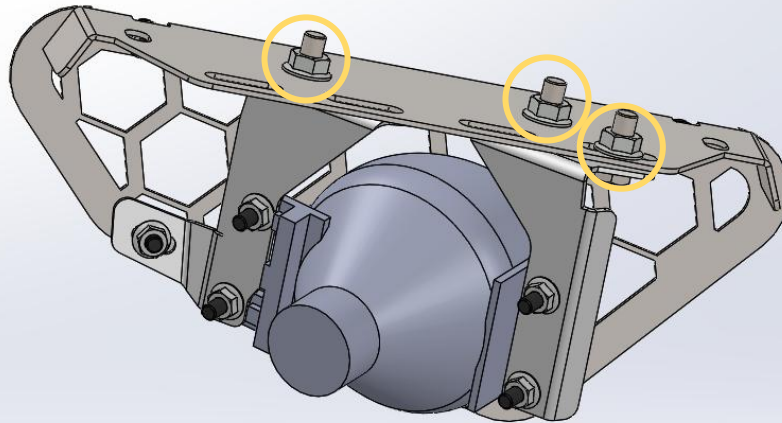
58. Secure and tighten using 4mm Allen Key and 10mm Spanner

#### TOOLS REQUIRED

4mm Allen Key  
10mm Spanner / Socket

#### FASTENERS

4x M6x16 BHCS – Black  
4x M6 Flat Washer  
4x M6 Flange Nut



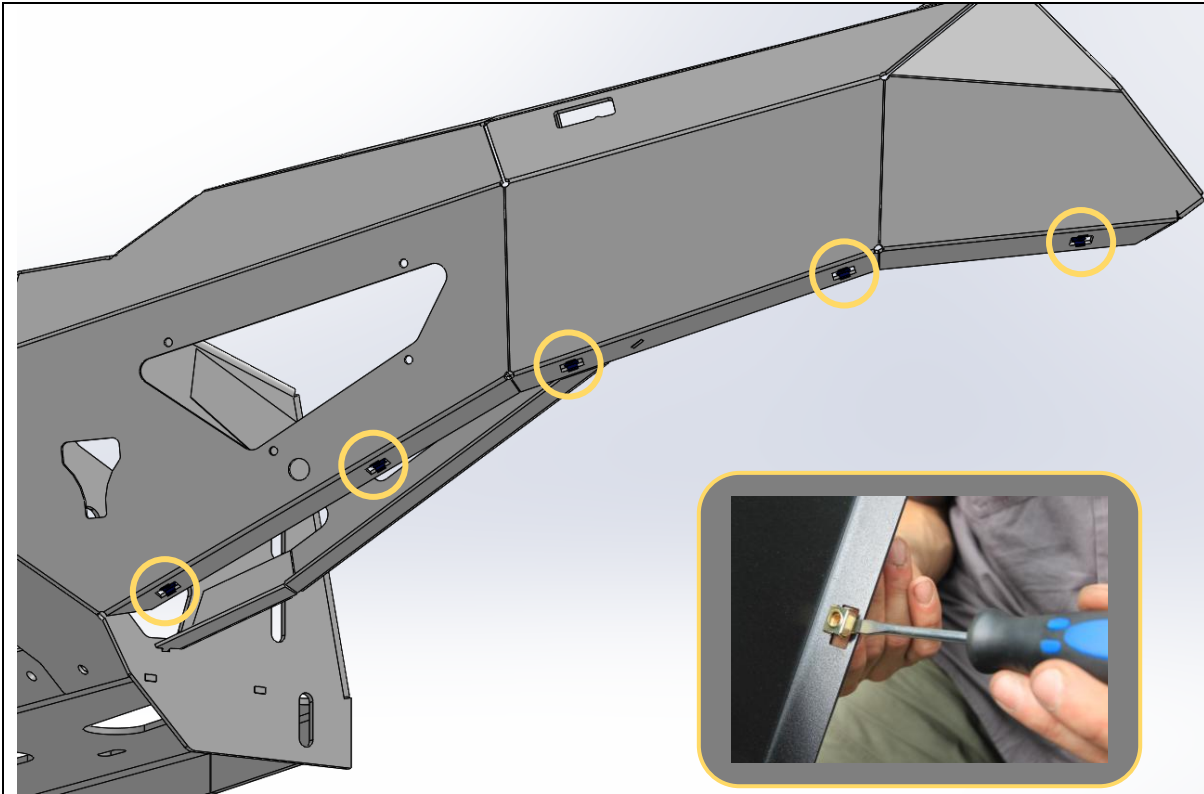
59. Fit fog light bracket, with fog light in place to the Mesh panel using 3x M8x25, flat washers and flange nuts.
60. Secure and tighten using 13mm Spanner or socket.
61. Repeat for other side of bar.

#### TOOLS REQUIRED

13mm Spanner / Socket

#### FASTENERS

3x M8x25 Hex  
3x M8 Flat Washer  
3x M8 Flange Nut



62. Fit 5x Cage nuts from small parts kit to rectangular slots in bottom of wing.

Use a small flat bladed screwdriver to push the edge of the cage to engage with the slot to aid fitting.

63. Repeat for other side of Bar

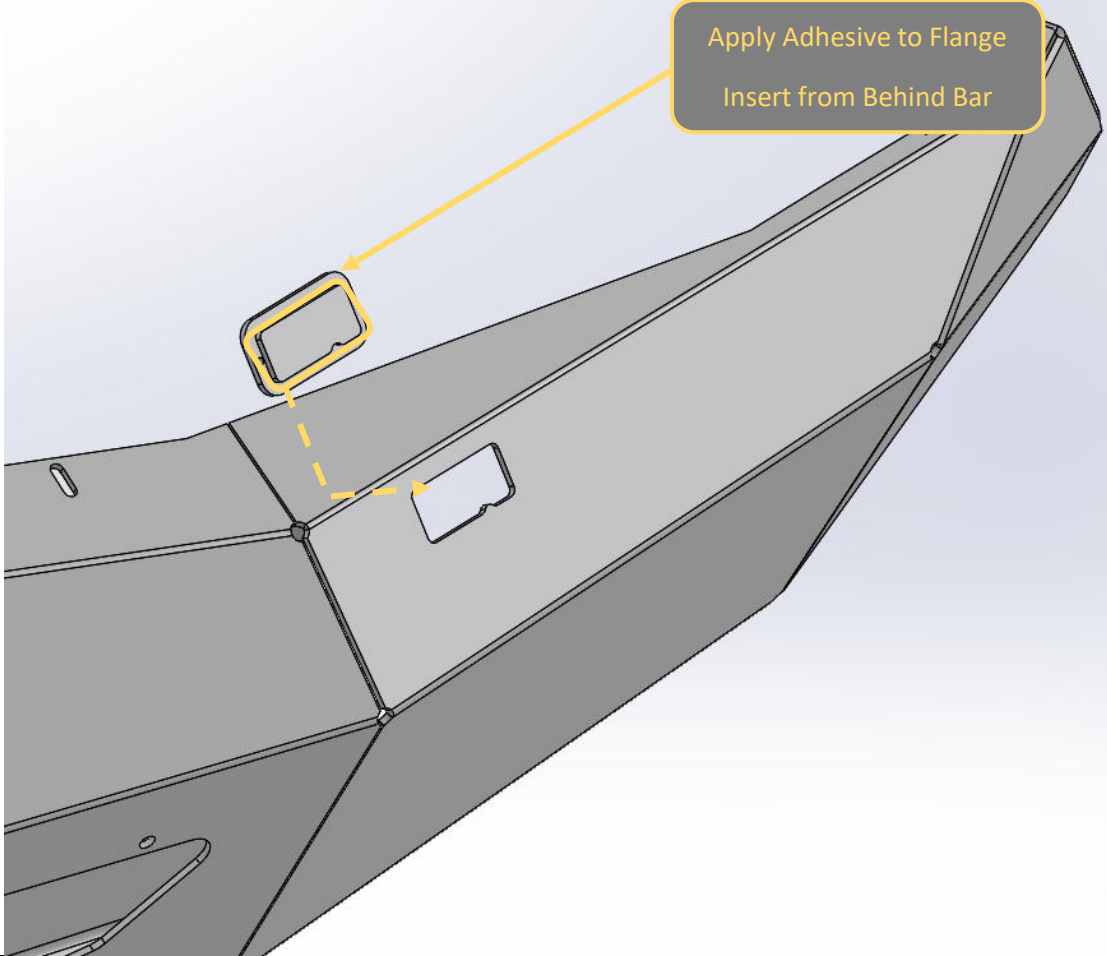
#### TOOLS REQUIRED

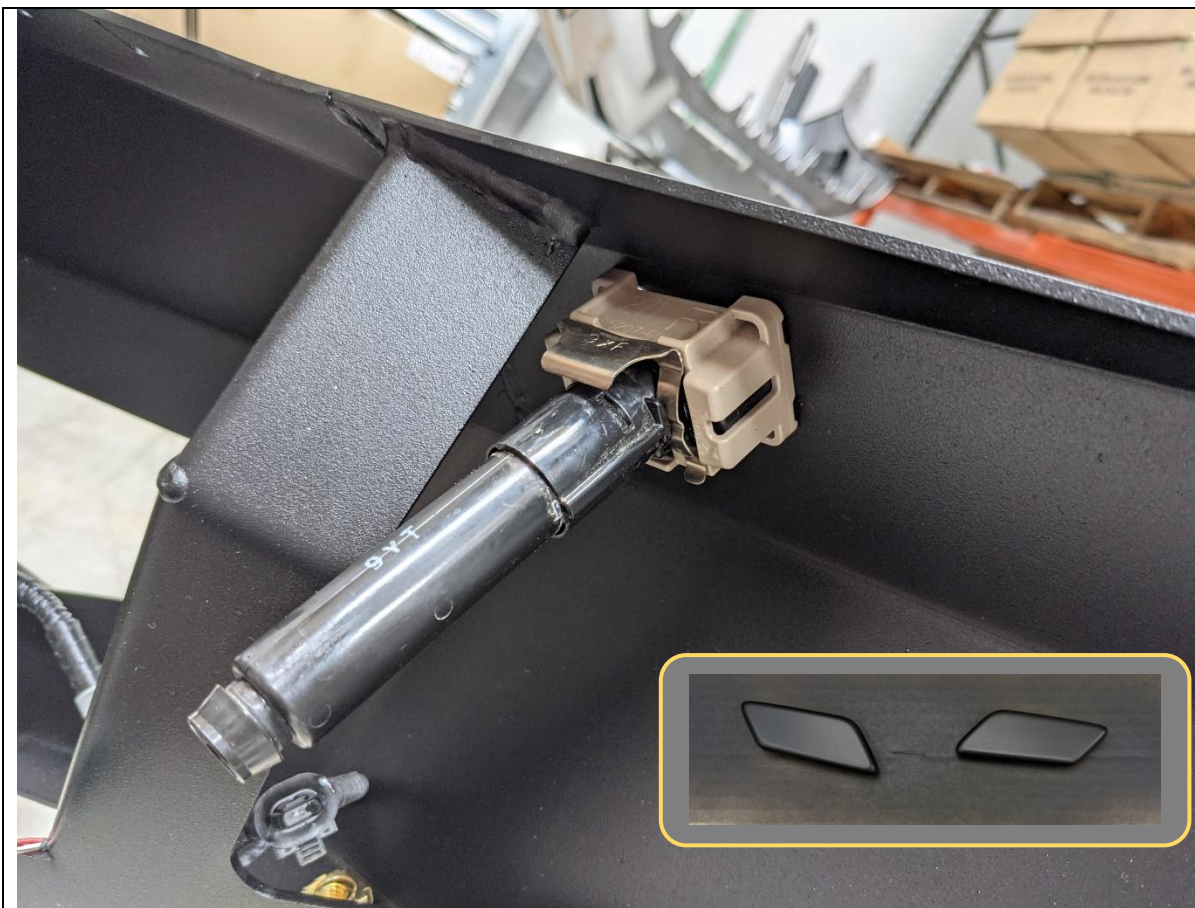
Small Flat Bladed Screwdriver

#### FASTENERS

5x M6 Cage Nut  
Per side



	
<p>64. If not fitting headlight washers install supplied plug plates, using Automotive grade adhesive (Offroad Animal recommends Sikaflex227)</p>	<p><b>TOOLS REQUIRED</b></p> <p>Automotive adhesive</p>
	<p><b>FASTENERS</b></p>



65. If equipped, re-fit headlight washers to bar. Fitment procedure is reverse of removal
66. If the bar is not to be colour coded, paint the headlight washer covers black before refitting
67. Once fitted pull out the washer assembly with long nose pliers and adjust the washer nozzles to squirt towards the headlights, final adjustment can be performed when the bar is fitted to the car.

#### TOOLS REQUIRED

Long Nose Pliers  
Scotch Brite / Sandpaper  
Matte Black Paint

#### FASTENERS



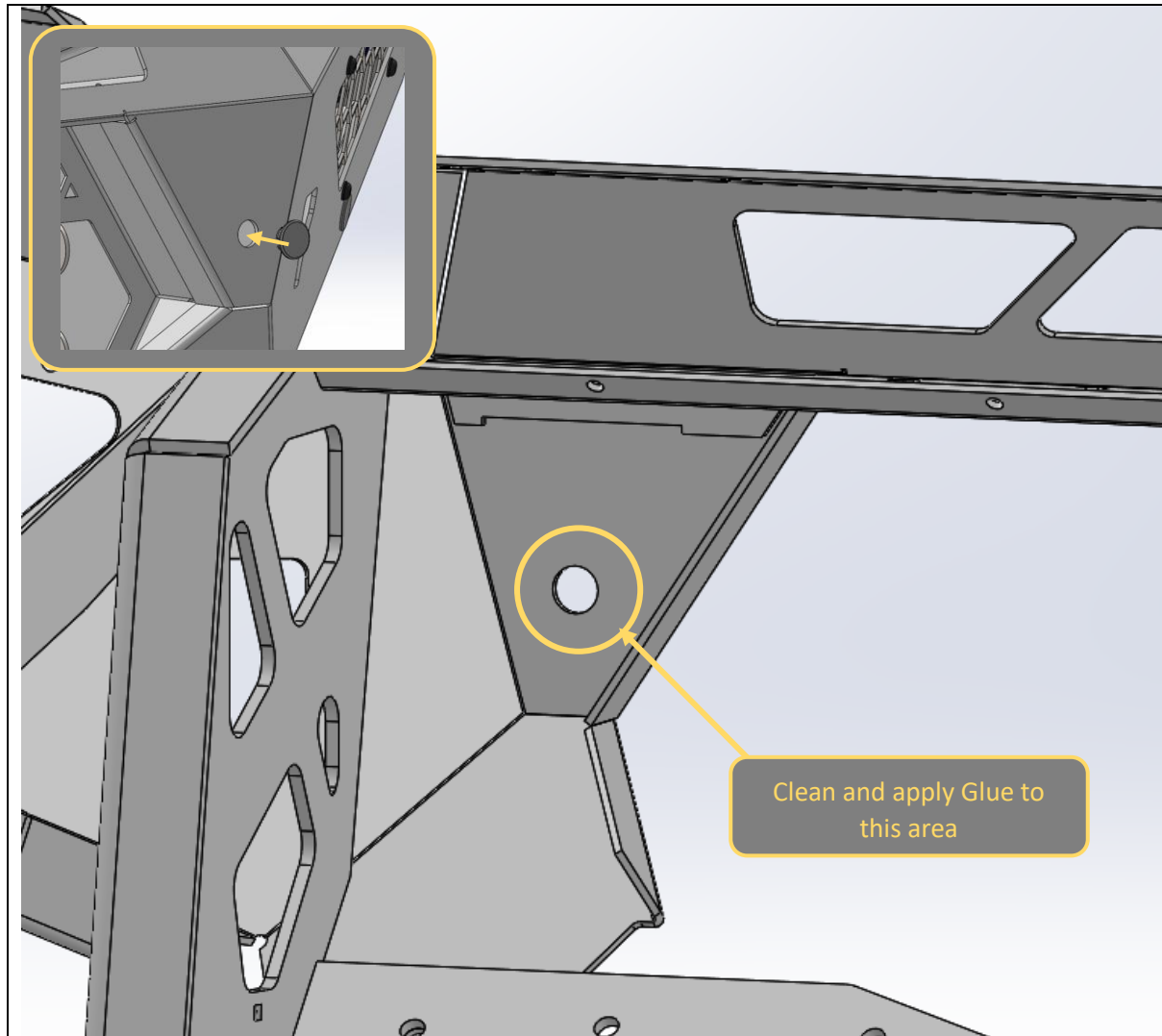
68. Pre fit the headlight infill panels to the top face of the bar, using M5 Button head screws, M5 Flat washers, and M5 Flange nuts. Secure finger tight at this stage
69. Ensure the heads of the bolts are underneath and nuts on top as shown. This will make tightening on the vehicle much easier.

#### TOOLS REQUIRED

#### FASTENERS

4x M5x16 BHCS  
4x M5 Washer  
4x M5 Flange Nut





<p>70. Re-fit parking sensors to the bar.</p> <p>71. Clean area on back side of bar adjacent to sensor holes with isopropyl alcohol.</p> <p>72. Apply a small amount of automotive grade adhesive (ORA recommends Sikaflex227) around the hole and glue the sensor housings in place, in their original positions. Hold in place with tape until glue sets.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Automotive adhesive</p>
<p>73. Refit sensors to relocated housings once glue has set.</p> <p>74. Re fit electrical harness and Headlight washer hose to bar. Secure using cable ties.</p> <p>75. If parking sensors are not fitted, fit plastic cover plugs by pushing into hole.</p>	<p><b>FASTENERS</b></p> <p>Cable Ties</p>



76. If fitting an integrated light bar, do so now.

77. The bar is designed to fit an Offroad Animal 22in or STEDI ST3K 21.5 inch light bar. If fitting this light bar, assemble bar with legs inward, and it will line up with the slots in the center gusset. Secure with M8 Fasteners supplied with the light bar.

78. The bar can accommodate most other "20 inch" size light bars.

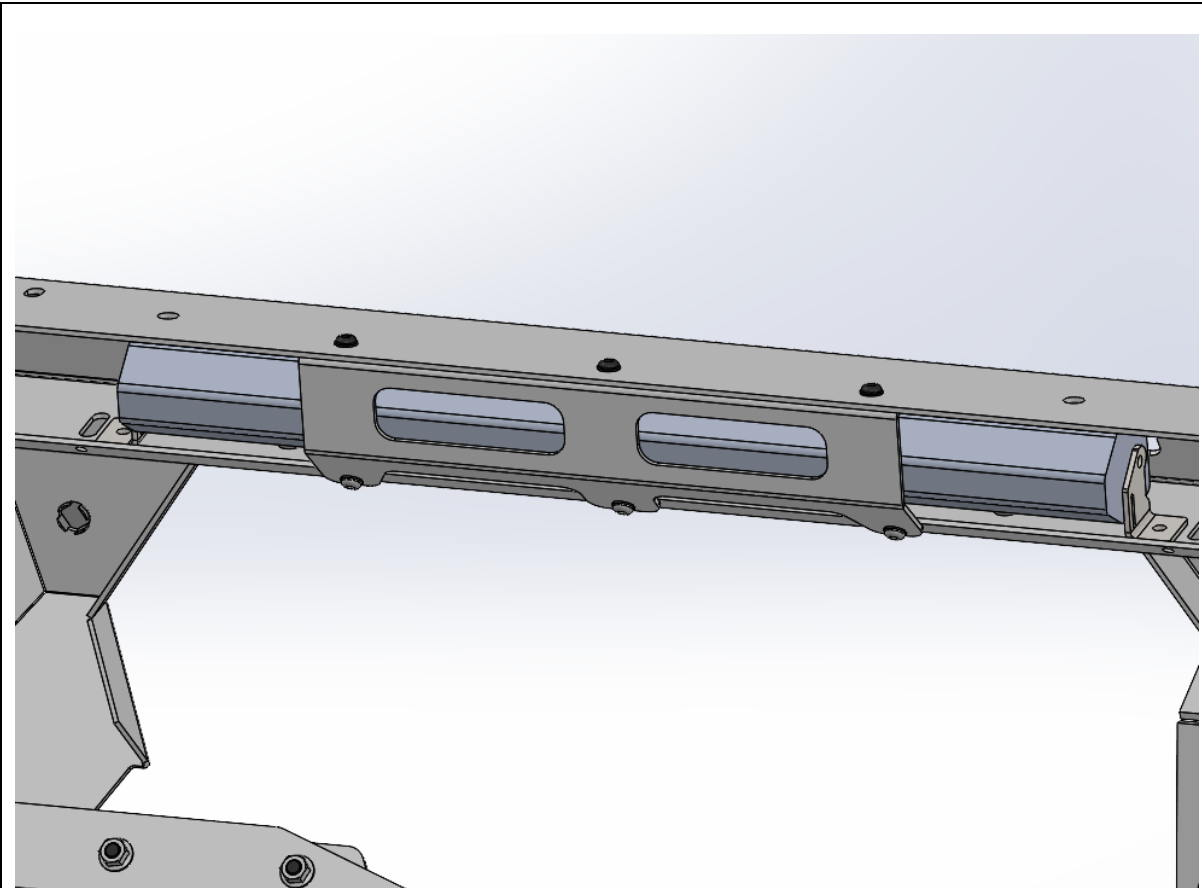
79. If fitting driving lights to the bar this is also the most convenient time to do so.

#### TOOLS REQUIRED

Refer to light instructions

#### FASTENERS

Supplied with Light Bar



80. Fit the Pan Brace between the center gusset and pan using the M6x16 Button heads, washers and Nuts on top and M6x12 Button heads, washers, and Nuts on bottom.

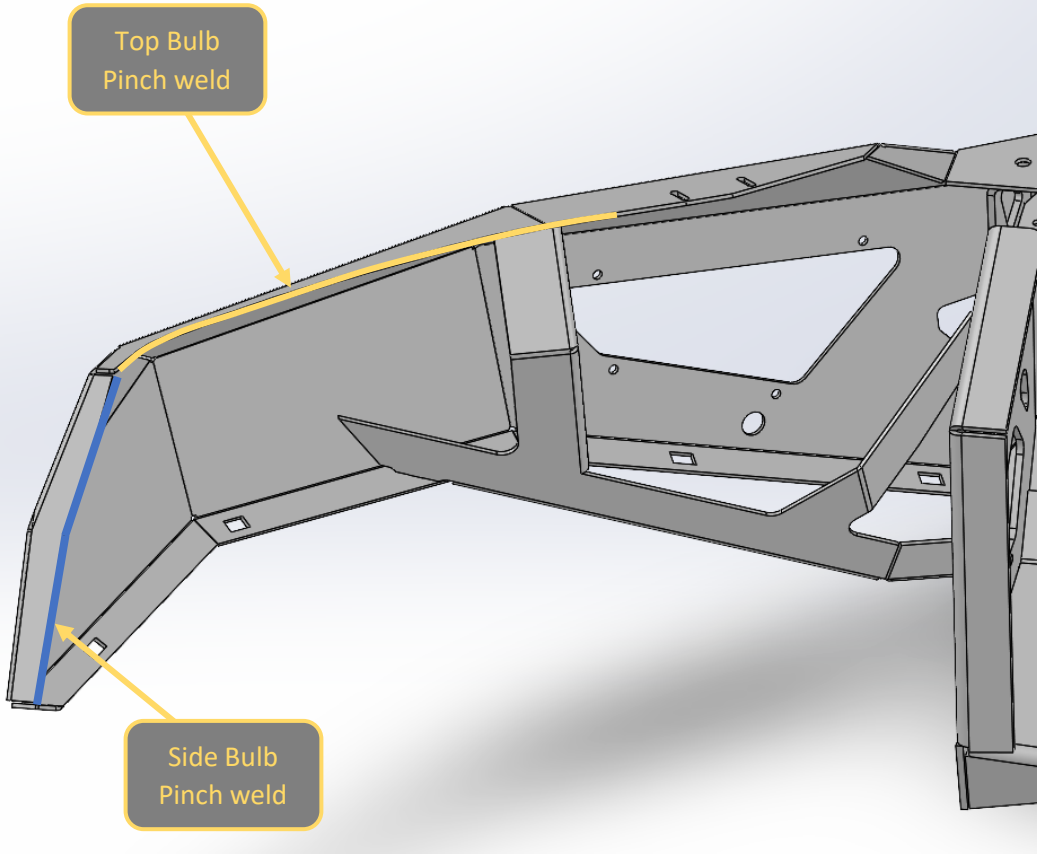
#### TOOLS REQUIRED

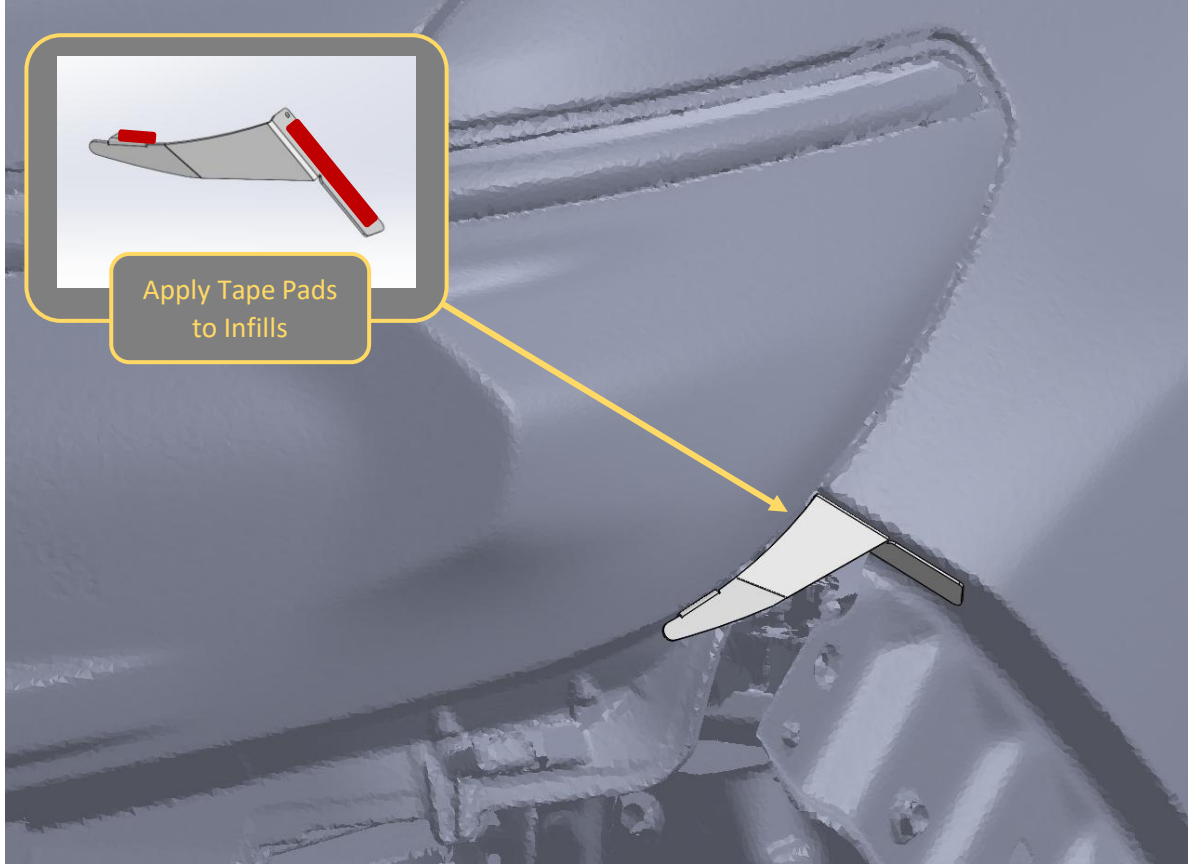
4mm Hex Key

#### FASTENERS

3xM6x16 Black BHCS  
3xM6x12 BHCS  
6x M6 Black Washer  
6xM6 Flange Nut



	
<p>81. Fit the Pinch weld to the wings in the locations shown.</p> <p>82. Complete on both sides</p>	<p><b>TOOLS REQUIRED</b></p>
	<p><b>FASTENERS</b></p>

	
<p>83. Clean the underside of the headlight, end of fender and small corner infill brackets with isopropyl alcohol to ensure they are clean and ready for bonding.</p> <p>84. Using scissors or a knife trim the supplied tape pads to size and fit to the small infill panels in the locations shown.</p> <p>85. Remove the backing and bond to the headlight and fender panel in the location shown. Apply pressure to bond for 20-30 secs to ensure good adhesion</p> <p>86. Repeat on both sides of the vehicle.</p>	<p><b>TOOLS REQUIRED</b></p> <p>Scissors / Knife Isopropyl Alcohol</p>
	<p><b>FASTENERS</b></p> <p>Tape Pads</p>



87. With assistance, either from another person, or a lifting trolley, lift the bar onto the mounts on the vehicle.
88. Secure with 4x M12x30 Bolts, Heavy Duty washers and M12 Nyloc Nuts per side, Finger tight at this stage.

#### TOOLS REQUIRED

Lifting Trolley

#### FASTENERS

8x M12x30 Bolt  
16x M12 Heavy Duty Large  
Washer  
8x M12 Nyloc Nut





89. With assistance from another person, align the bar with the edges of the vehicle. Adjust such that the clearances are neat and even side to side.

Acceptable range of clearances shown in image above.

**IMPORTANT:** It is the installer's 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. Once in position, tighten the M12 Bolts using socket and spanner. An impact driver may be used to speed up this process.

#### TOOLS REQUIRED

Lifting Trolley  
19mm Socket and Spanner

#### FASTENERS

8x M12x40 Bolt  
16x M12 Heavy Duty Large Washer  
8x M12 Nyloc Nut



91. Align the headlight infills with the headlights. Ensure that the headlight infills sit **IN FRONT OF**, not underneath the headlights to avoid the infill panel touching the headlight.

**IMPORTANT:** It is the installer's responsibility to ensure clearances are set so that no part of the bar touches the vehicle.

92. Once in position tighten the M5 button head bolts from underneath using a ball end Allen key.
93. Once tightened, re-fit chrome headlight trims.

#### TOOLS REQUIRED

3mm Allen Key (Ball end)

#### FASTENERS





94. If fitting a winch, do so now.

95. The bar is designed to fit most low mount winches, in foot down configuration. WARN ZEON 10 is largest winch confirmed to fit.

96. The control box can be mounted on top of the winch. Winches usually come with a bracket to allow this. Refer to winch manufacturer.

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

#### TOOLS REQUIRED

Refer to winch fitting instructions

#### FASTENERS

Supplied with winch





98. If Required, Fit winch fairlead to Mesh Fairlead Mount (M-0014). Use M10 or 3/8" Fasteners supplied with winch. The bar is only compatible with Hawse type fairleads.
99. Fit the Mesh Fairlead Mount (M-0014) to the center of the bar, using M8x16 Button head (Top), M8x20 Hex (Bottom) and M8 Flat washers.
100. Tighten fasteners using 13mm socket / spanner and 5mm Allen Wrench.
101. Fit Number plate flip kit to fairlead mount, using fasteners supplied in kit.

#### TOOLS REQUIRED

13mm Spanner  
5mm Allen Wrench

#### FASTENERS

2x M8x16 Button Head  
2x M8x20 Hex Head  
4xM8 Flat Washer



102. Fit Mesh Infill Panels (M-0015L/R). Use M8x16 Button head bolt and M8 flat washer into the captive thread in the bullbar.
103. Don't fit any bolts to bottom holes at this stage.
104. Tighten top fasteners using 13mm socket / spanner and 5mm Allen Wrench.

#### TOOLS REQUIRED

5mm Allen Wrench

#### FASTENERS

2x M8x16 Button Head  
2x M8 black washer





105. Fit Light cover mesh to bar using 4x M6x16  
Button head bolts, Flat washers and M6 Flange  
Nuts

106. Secure and tighten using 4mm Allen Key and  
10mm Spanner

#### TOOLS REQUIRED

4mm Allen Key  
10mm Spanner / Socket

#### FASTENERS

4x M6x16 BHCS – Black  
4x M6 Flat Washer  
4x M6 Flange Nut

Per side





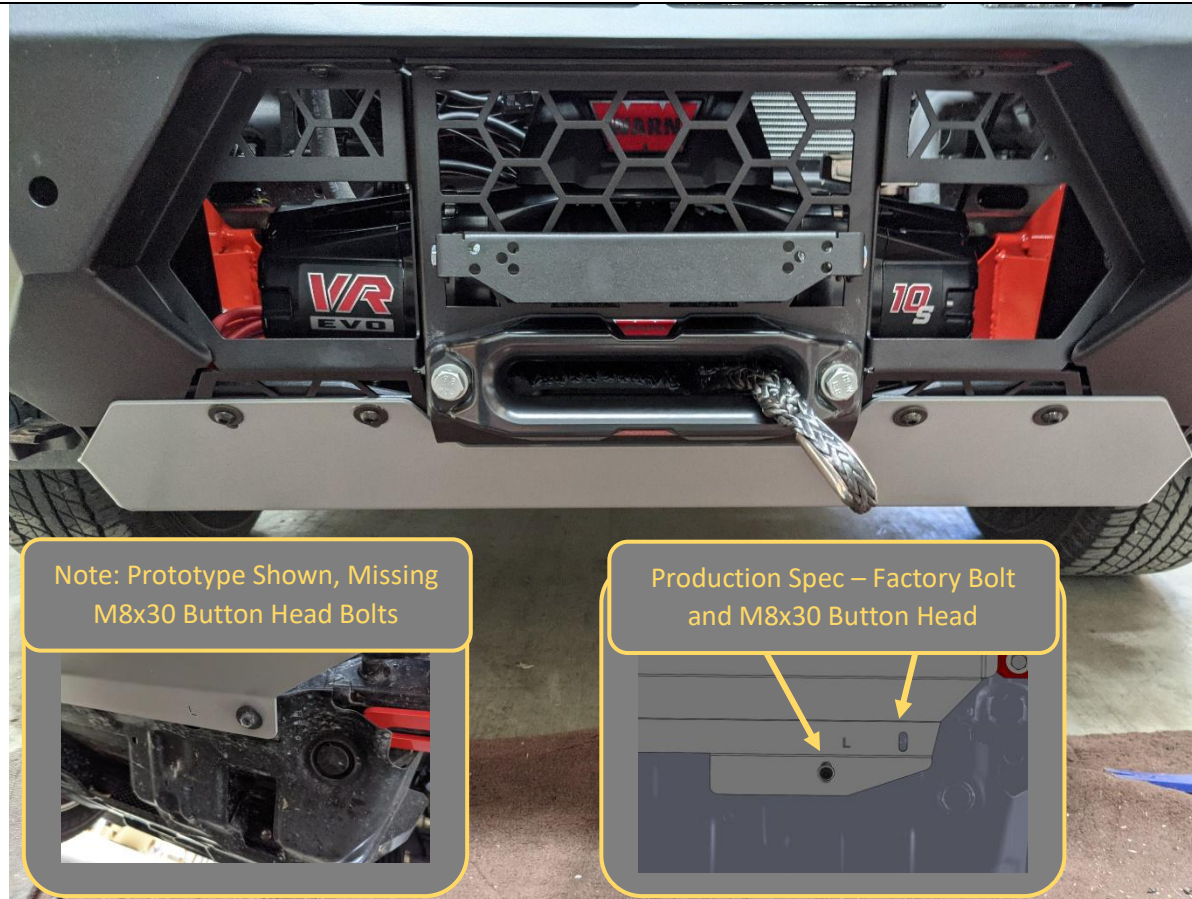
107. Re Connect Electrical Harness, fog lights and headlight washers. Make Sure to also reconnect Radar and Camera harnesses.

108. Replace upper radiator cowl using original clips.

#### TOOLS REQUIRED

#### FASTENERS

Factory clips (re-use)



109. Fit Center Bash Plate (U-0030) using M8x20 button head and flat washer to front face. Ensure these fasteners pass through the side mesh panels also.
110. Remove 2x factory bolts securing the front of the factory metal underbody pan.
111. Secure back of Center Bash Plate (U-0030) using 2x 10mm large flange factory bolts removed earlier to the outside points and supplied M8x30 Button head and HD Flat washer into the thread in the chassis.
112. Tighten Bottom fasteners using 5mm Allen wrench and 10mm spanner.
113. Tighten front fasteners using 5mm Allen Wrench.

#### TOOLS REQUIRED

10, 13 mm Spanner  
5mm Allen Wrench

#### FASTENERS

2x M8x30 Button Head  
2x M8 HD Flat Washer  
4x M8x20 Button Head  
4xM8 Flat Washer



114. Fit Side Under panels (U-0029L/R) using, M6x16 button head and flat washer into the cage nuts placed earlier.
115. Secure back of side under panel to mount using M8x20 Hex Bolt, Flat washer and M8 Flange Nut.
116. Leave finger tight at this stage.

#### TOOLS REQUIRED

4mm Allen wrench

#### FASTENERS

10x M6x16 Button Head  
10x M6 Flat Washer  
2x M8x25 Hex Head  
2x M8 Flange Nut  
2x M8 Flat Washer





117. Using the edge of the under panel as a guide mark the wheel arch liner, approximately 15mm beyond the intersection of the under panel.

118. Cut along line as marked using utility Knife

119. Tuck the wheel arch liner behind the flange on the under panel

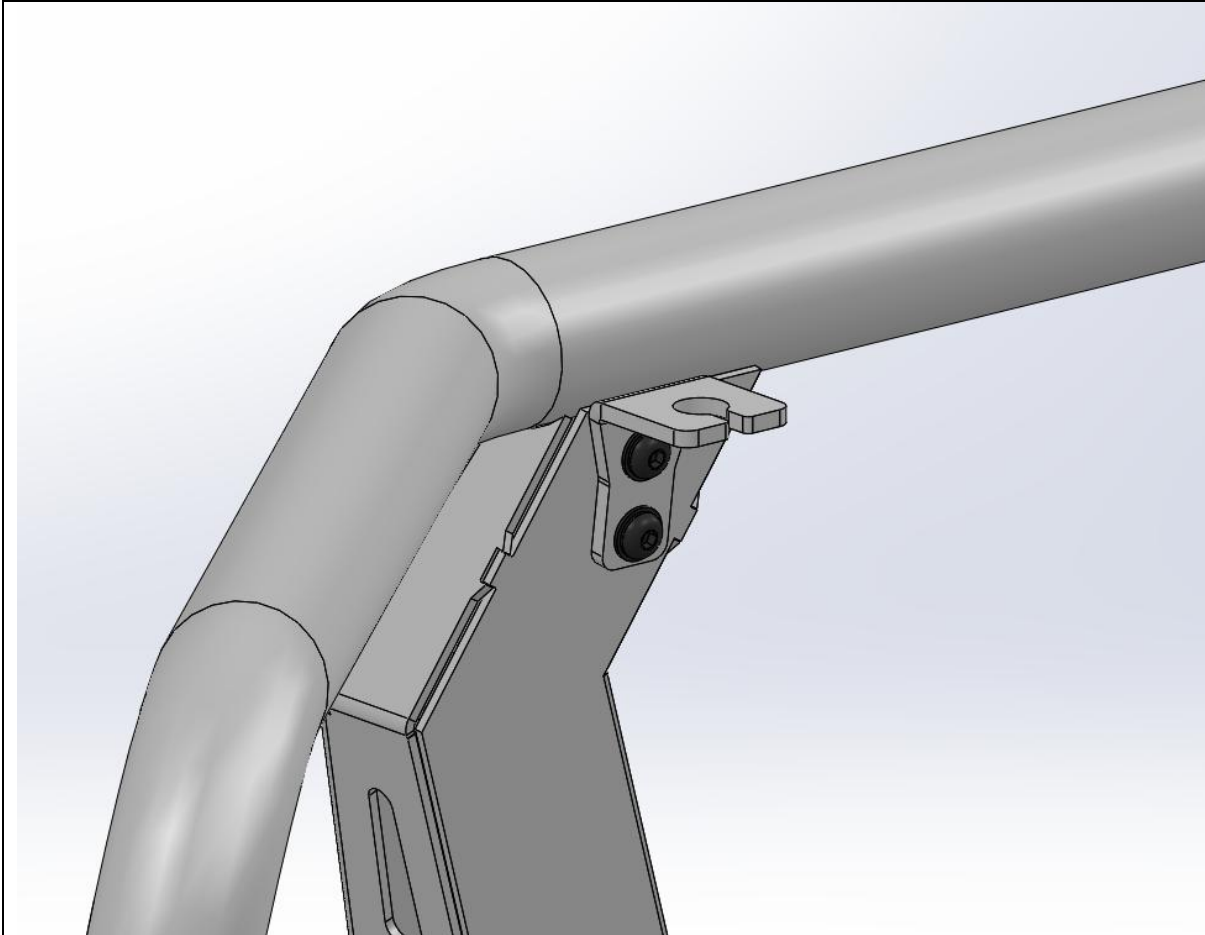
120. Tighten all under panel bolts

121. Complete for other side of vehicle.

#### **TOOLS REQUIRED**

Utility Knife  
13mm Spanner  
4mm Allen Wrench

#### **FASTENERS**



122. **Toro only.** Fit antenna brackets to Toro uprights using M8x20 black button head bolts and black washers.
123. **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 Allen Key

#### FASTENERS

2x M8x20 Button Head Screw  
2x M8 Black Flat Washer



124. Check all Fasteners are tight.
125. Re-Fit number plate to number plate flip.
126. Fit the compliance plate in a visible location on the underside of the bar. We recommend placing it on the bottom of the centre bash plate.
127. Head Bush and Enjoy your newly protected Prado!

**For contact details see [www.offroadanimal.com](http://www.offroadanimal.com)**