

MAX

FITTING INSTRUCTIONS

**PART NUMBER
MAX-GWMCAN21**

**APPLICATION
GWM UTE
NPW 2021 ON**

**FITTING TIME
300 MIN**

REV 03





- Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mounting bolts).
- Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.
- Do not remove the plaque or label from the VFPS.
- Do not modify the structure of the VFPS in any way.

Read instructions thoroughly before commencing any work. Check that all parts listed in this manual are included and that there is no damage to any parts.

Always wear safety glasses and hearing protection. Make sure work area is kept clean at all times.

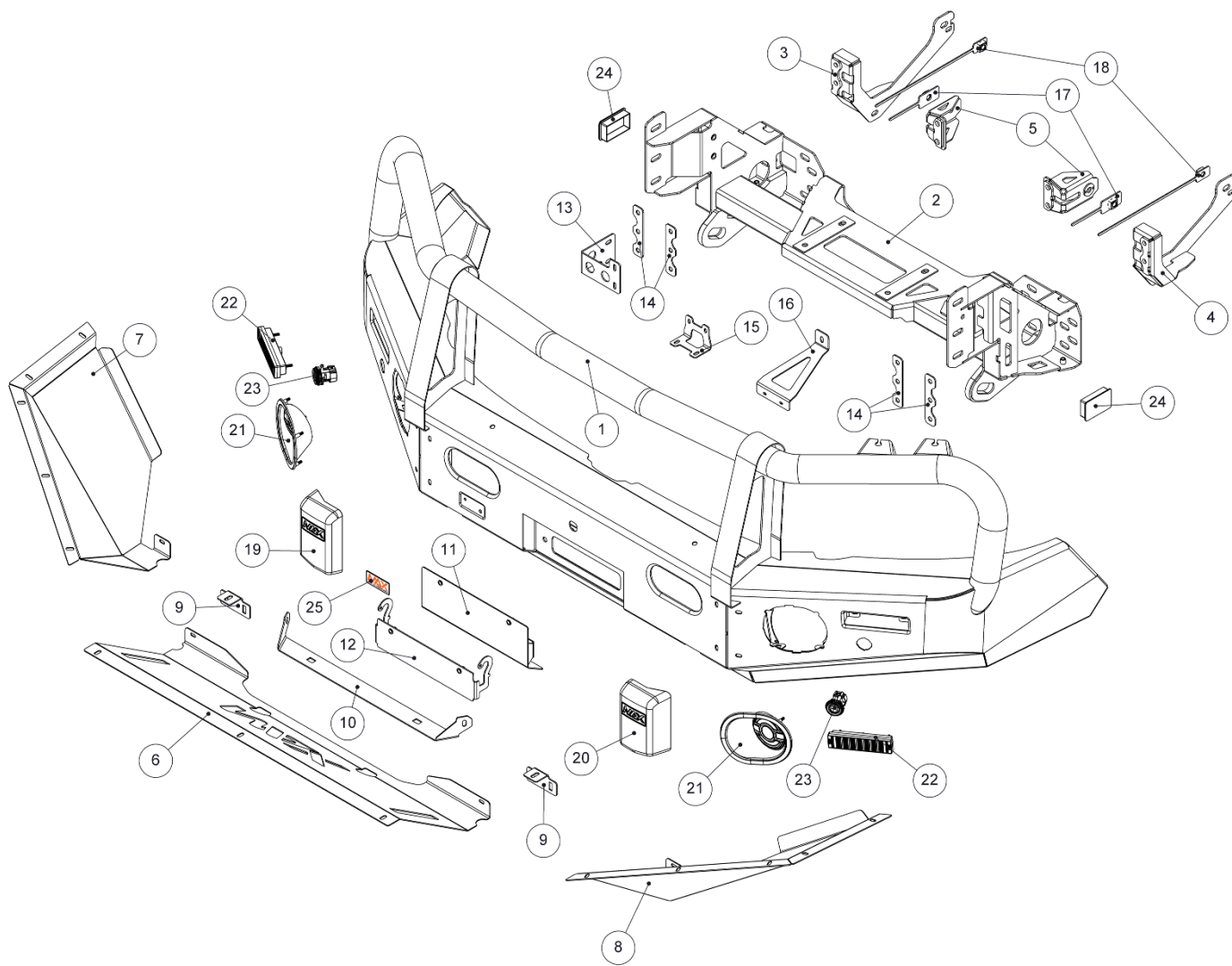
During the installation of this product it may have been necessary to move driver aids. Some of these may need to be re-calibrated after fitment by the dealer. All care is taken to test that these aids will work as the manufacturer intended but not all circumstances can be tested. The driver remains responsible for the vehicle at all times.

Any electrical work required during this installation should be performed by a qualified auto electrician. It is the responsibility of the fitter to ensure all electrical work is correct.

Wash and dry the vehicle regularly using car wash to maintain the appearance of this product.

These instructions are to be given to the customer on completion of the job.

BOLT SIZE	TORQUE Nm	TORQUE ft.lb
M5	5	4
M6	9	7
M8	22	16
M10	44	32
M12	77	57



ITEM	DESCRIPTION	QTY
1	Welded assembly	1
2	Chassis mount bracket	1
3	Chassis support bracket RH	1
4	Chassis support bracket LH	1
5	Chassis support inner	2
6	Stone tray centre	1
7	Stone tray outer RH	1
8	Stone tray outer LH	1
9	Stone tray mount bracket	2
10	OE Stone tray bracket	1
11	Winch cover plate	1
12	Number plate bracket	1
13	Control box mount	1
14	Chassis washer plate	4
15	Camera relocation bracket	1
16	Grille support bracket	1
17	M12 Nut plate 150mm	2
18	M12 Nut plate 340mm	2
19	Override RH	1
20	Override LH	1
21	Fog light housing	2
22	Combination + DRL lamp	2
23	Parking sensor holder	2
24	End cap 80 x 50mm	2
25	Gel sticker small	1
FASTENERS		
1	M12 x 1.75 x 35mm Hex bolt	10
2	M12 Spring washer	10
3	M12 Flat washer	16
4	M12 x 1.75 Hex nut	6
5	M10 x 1.25 x 90mm Hex bolt	2
6	M10 x 1.25 x 30mm Hex bolt	2
7	M10 x 1.5 x 35mm Hex bolt	8
8	M10 Spring washer	8
9	M10 Flat washer	14
10	M10 Flange nut	4

ITEM	DESCRIPTION	QTY
11	M8 x 25mm Hex bolt	2
12	M8 x 20mm Hex bolt	5
13	M8 Spring washer	5
14	M8 Flat washer	6
15	M8 Flange nut	2
16	M8 Cage nut	2
17	M6 x 20mm Hex bolt black	21
18	M6 x 20mm Button head	2
19	M6 x 16mm Pan head screw	2
20	M6 Spring washer black	21
21	M6 Panel washer black	21
22	M6 Nylon washer	2
23	M6 Flat washer 12mm	4
24	M6 Nyloc nut	2
25	M6 Cage nut 2.5mm	14
26	M6 Flange nut	9
27	M5 x 16mm Pan head screw	2
28	M5 Nyloc nut	10
29	M5 Flat washer	4
30	Pinch mould @500mm	2



- BASIC TOOL KIT
- TORQUE WRENCH
- 10mm DRILL BIT
- OSCILLATING MULTI-TOOL
- FILE OR SANDPAPER
- MASKING TAPE (50mm)
- FELT TIPPED MARKER
- LED TEST LIGHT / MULTIMETER
- SOLDERING IRON
- RUST PREVENTATIVE
- ELECTRICAL TAPE
- CABLE TIES



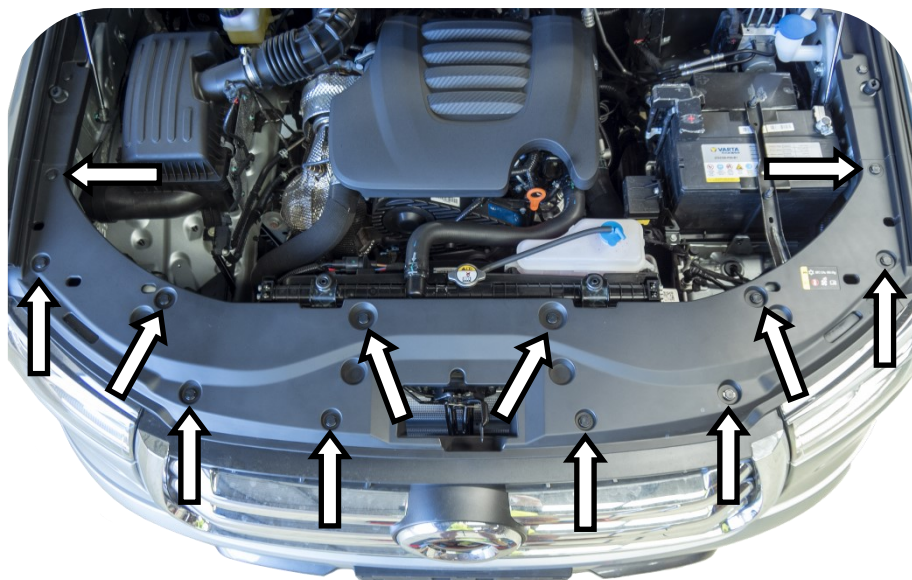
1. Locate vehicle in a suitable area.



2. Where fitted, remove the number plate.



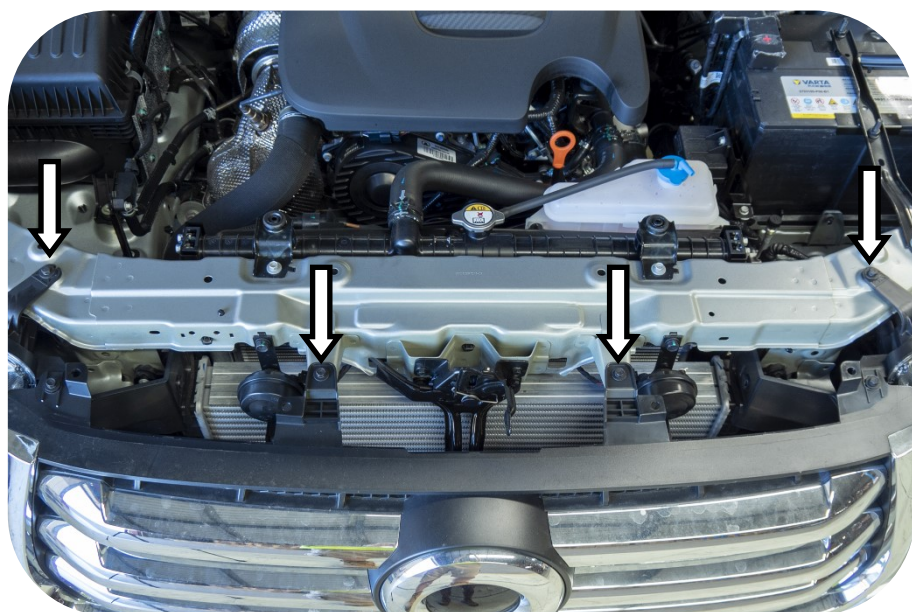
3. Remove and retain the plastic clips securing the radiator top cover.



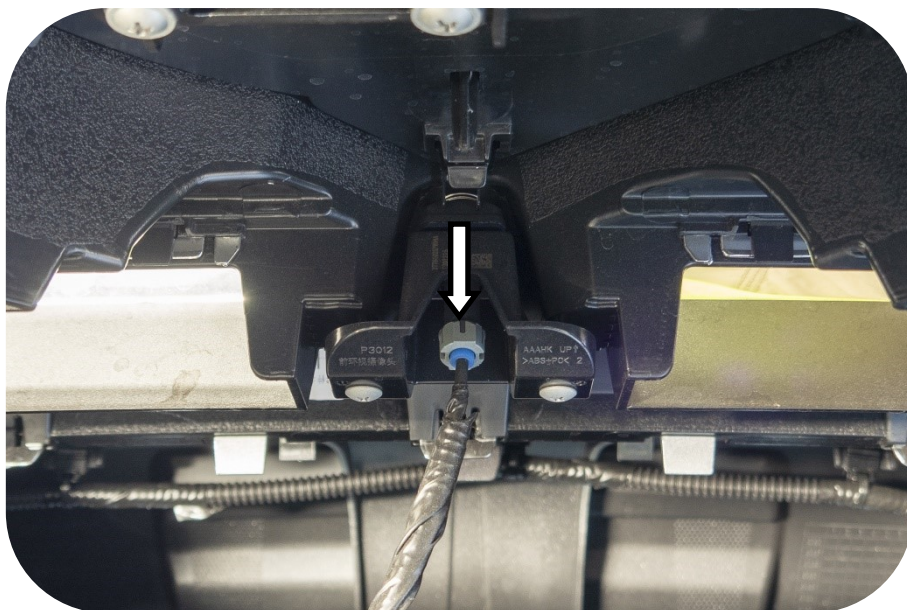
4. Carefully disconnect the rubber strips connected to the radiator top cover.
5. Remove the top cover.



6. Remove and retain the four bolts securing the grille to the radiator support panel.



7. Disconnect the front camera loom.



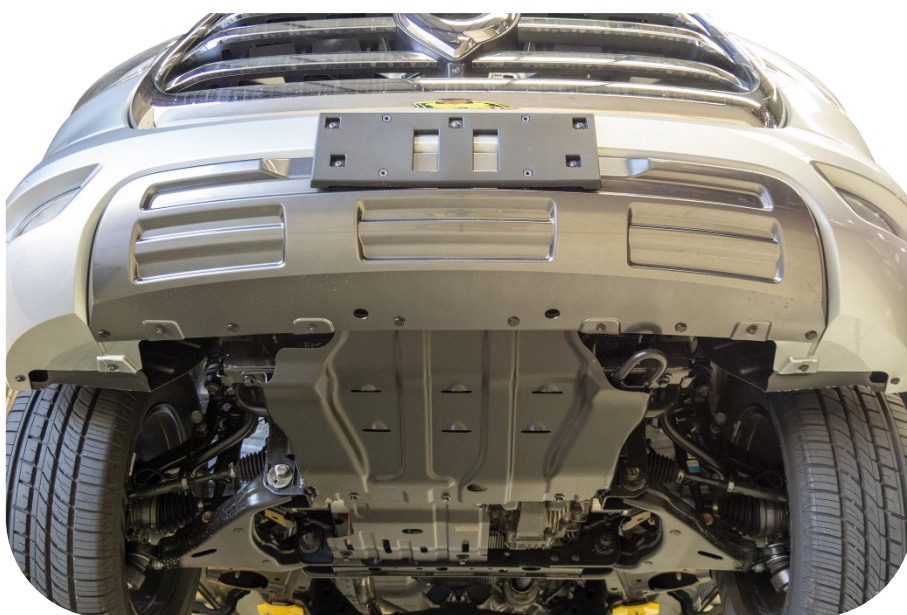
8. Remove the four fasteners (both sides) connecting the bumper to the inner guard. Retain the top fastener.



9. Remove and retain the fasteners securing the inner guards.



10. From underneath, remove and discard the fasteners retaining the bumper bar to the vehicle.



11. Very carefully disconnect the flare from the bumper bar and front half of the guard.

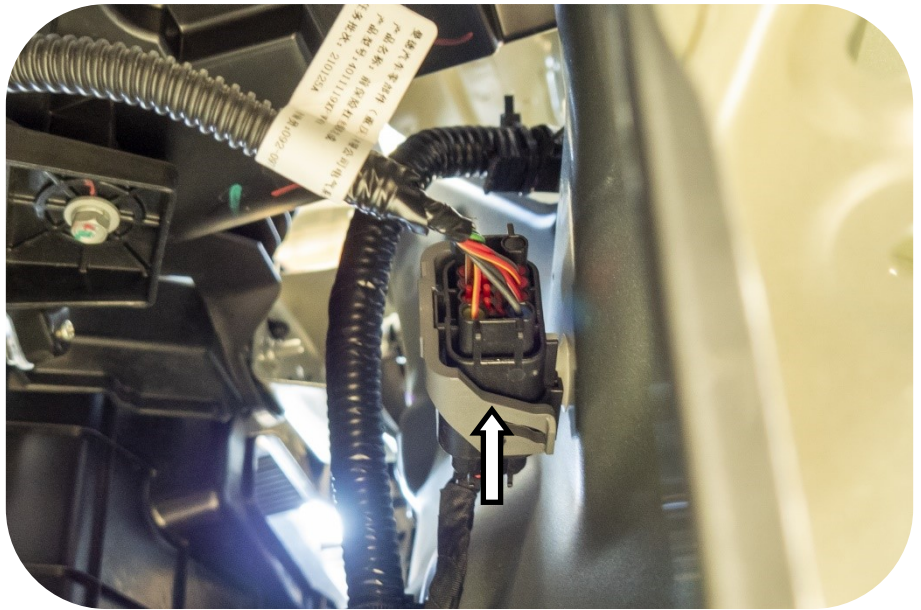
NOTE: There is a tab at the bottom of the flare that locates into the bumper bar



12. Behind the flares, remove and discard the two screws (each side) securing the bumper bar to the vehicle.

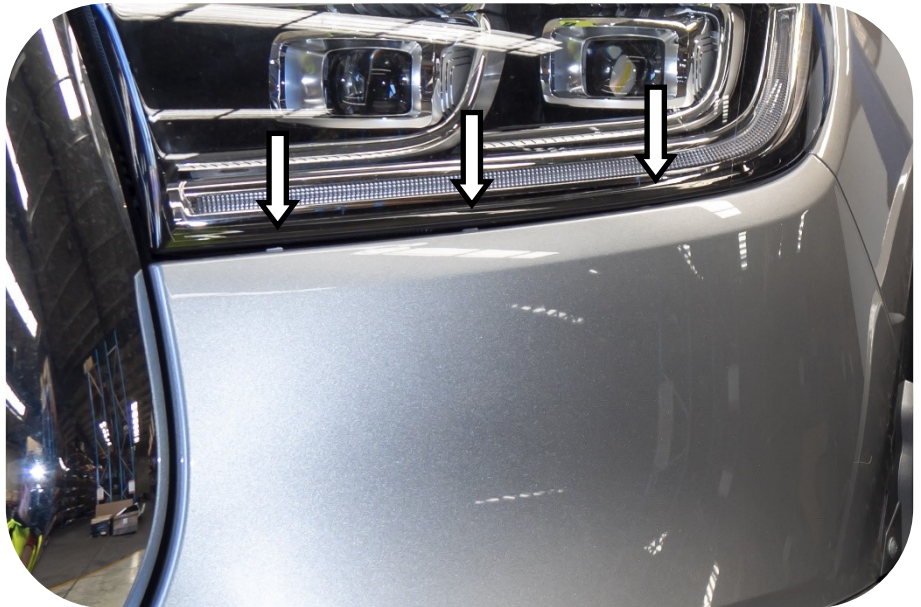


13. From inside the left hand wheel arch, disconnect the loom running to the bumper bar.



14. Under each headlight are three clips which retain the bumper. Use a trim tool to disengage the clips.

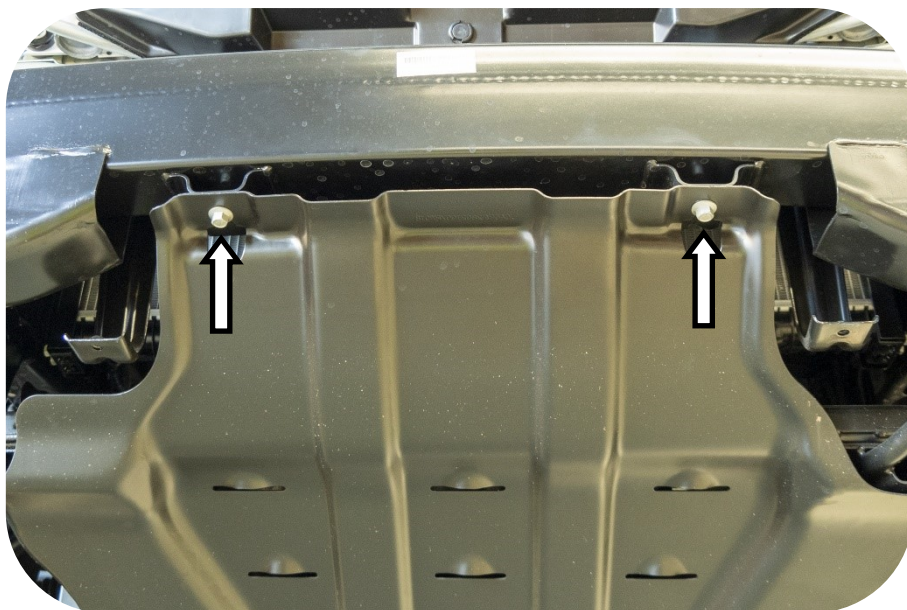
NOTE: If you try to pull the bumper bar off without disengaging the clips you will split the bumper bar.



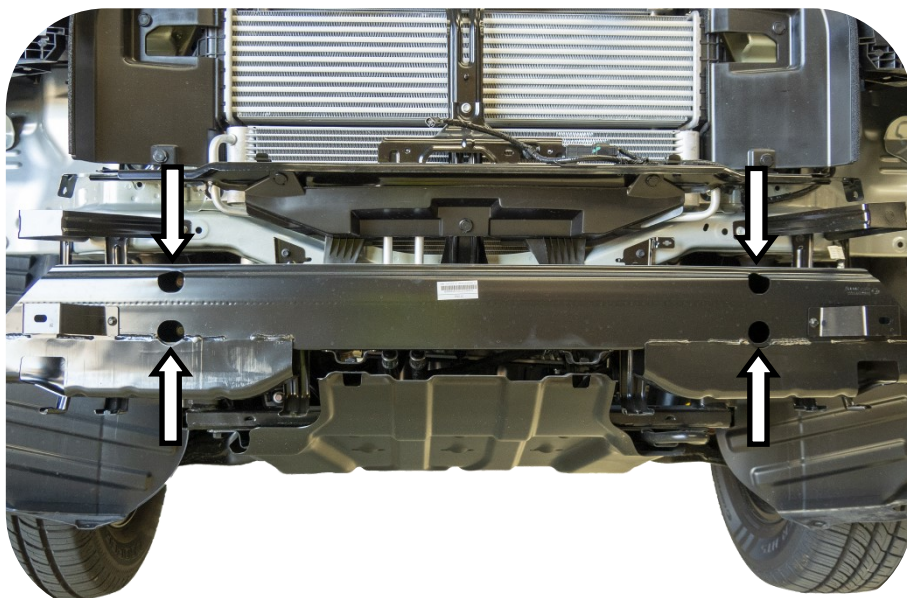
15. Remove the bumper bar and grille assembly from the vehicle.



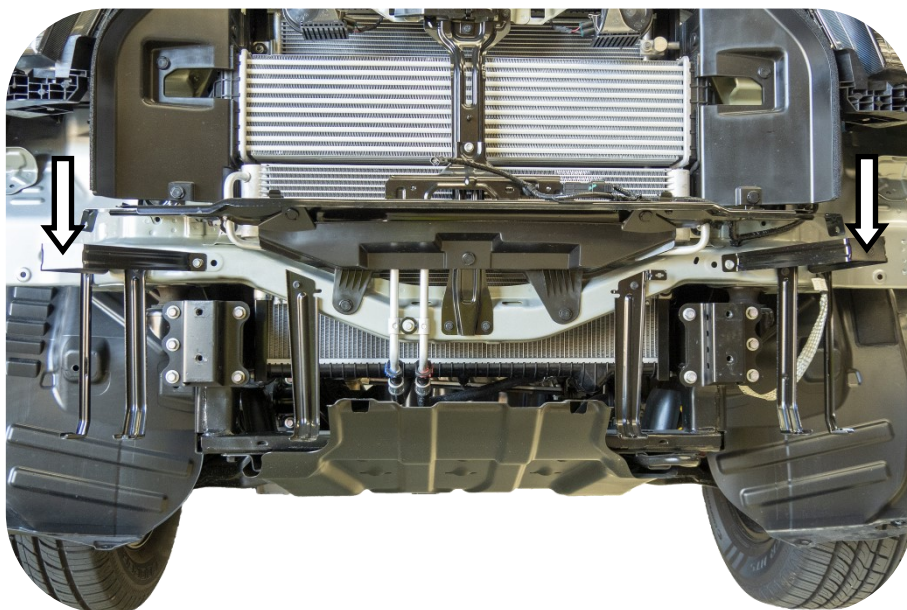
16. Remove and retain the two front bolts securing the front stone tray.



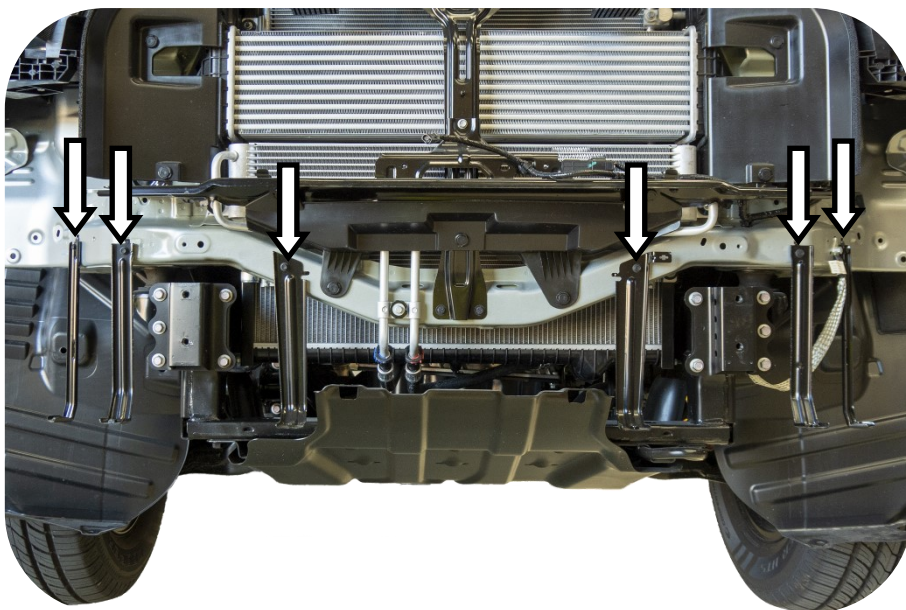
17. Remove and discard the front intrusion beam.



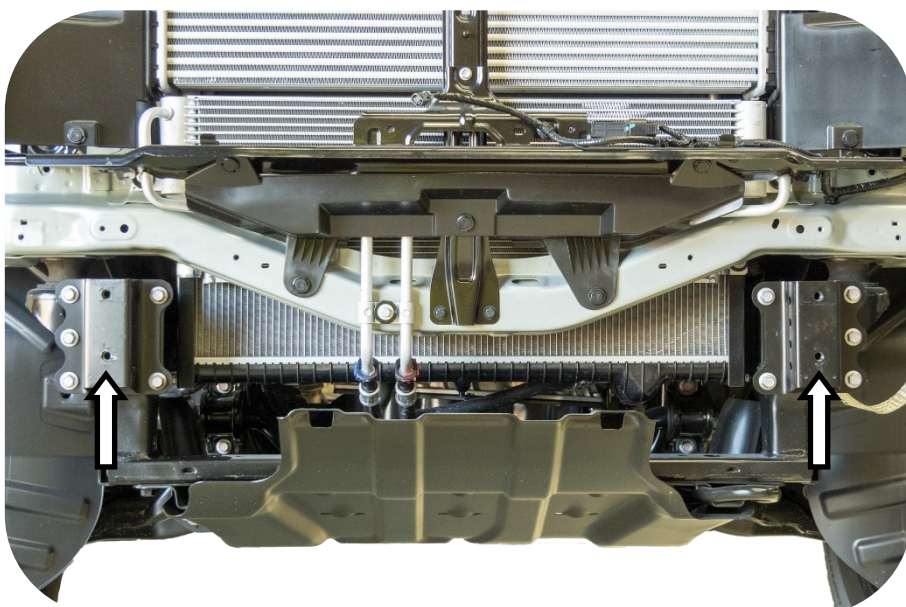
18. Remove and discard the two upper bumper support brackets.



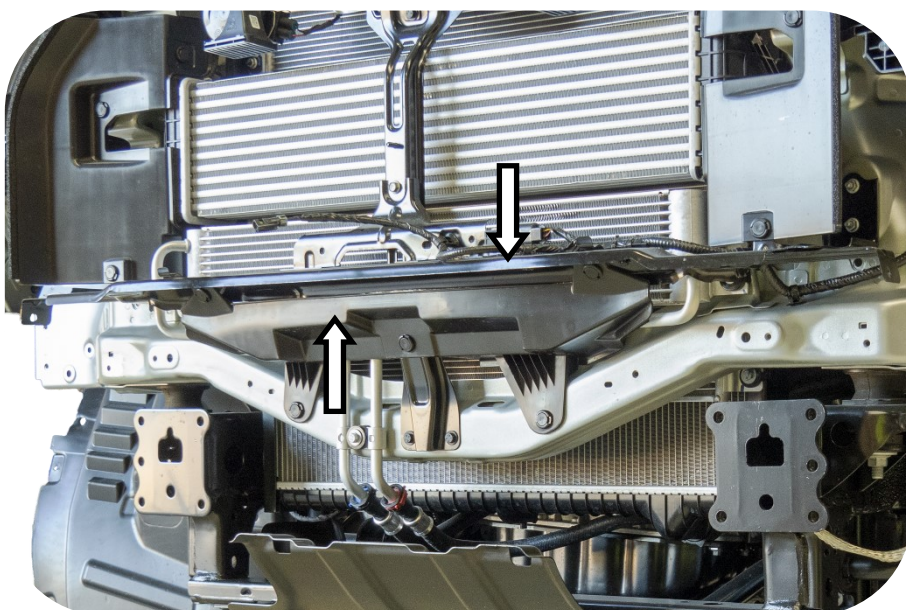
19. Remove and discard the six bumper support brackets.



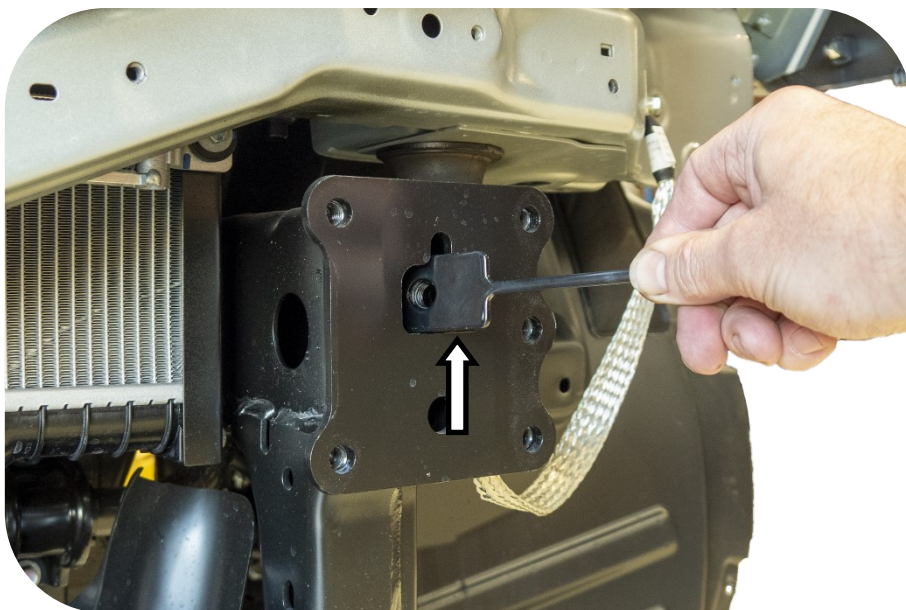
20. Remove and discard the two chassis end brackets. Retain the fasteners for fitment of the chassis mount.



21. If fitting a winch, unclip the looms from the grille support panel. Remove and discard the panel.

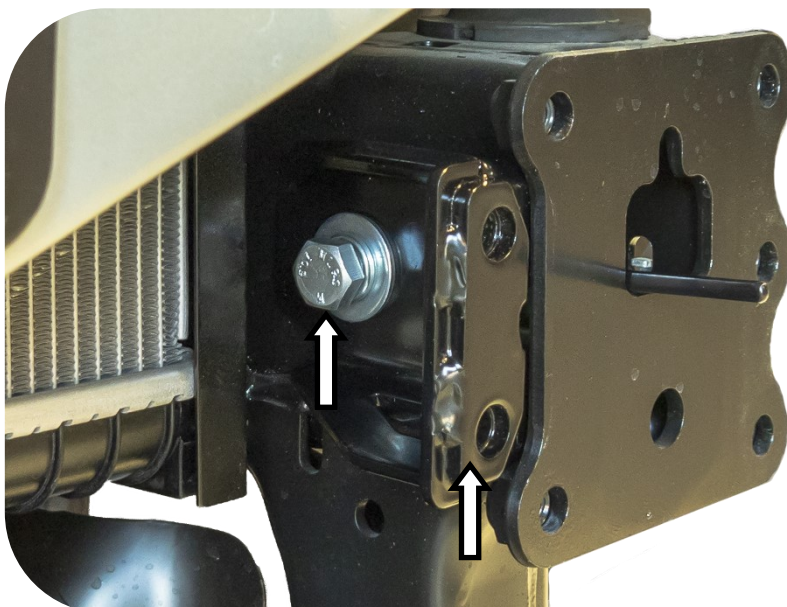


22. Insert the 150mm nut plates (item 17) through the chassis endplates.



23. Fit the inner chassis support brackets (item 5) to the inside of the chassis rails. Secure to the nut plate installed prior using two M12 x 35mm hex bolts, M12 spring and flat washers.

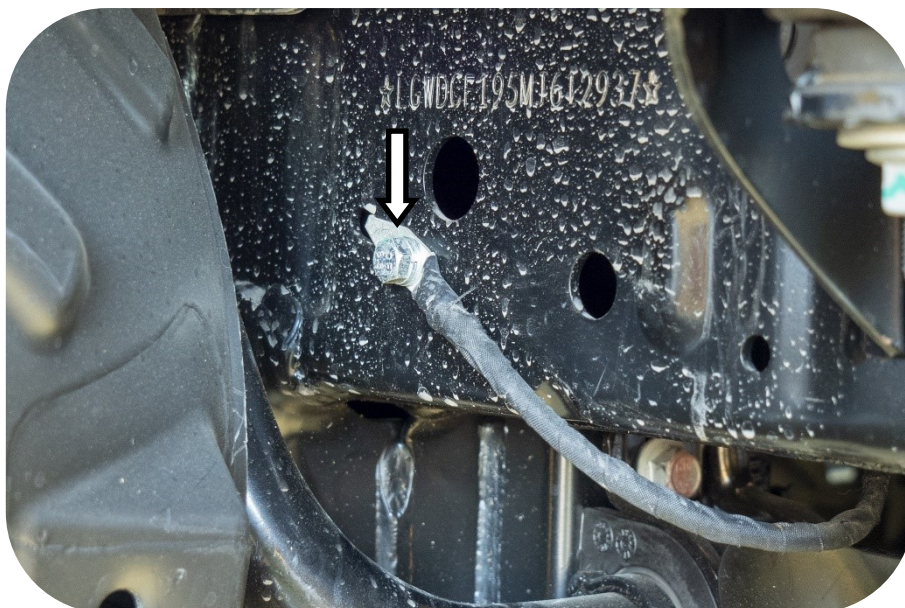
Do not tighten.



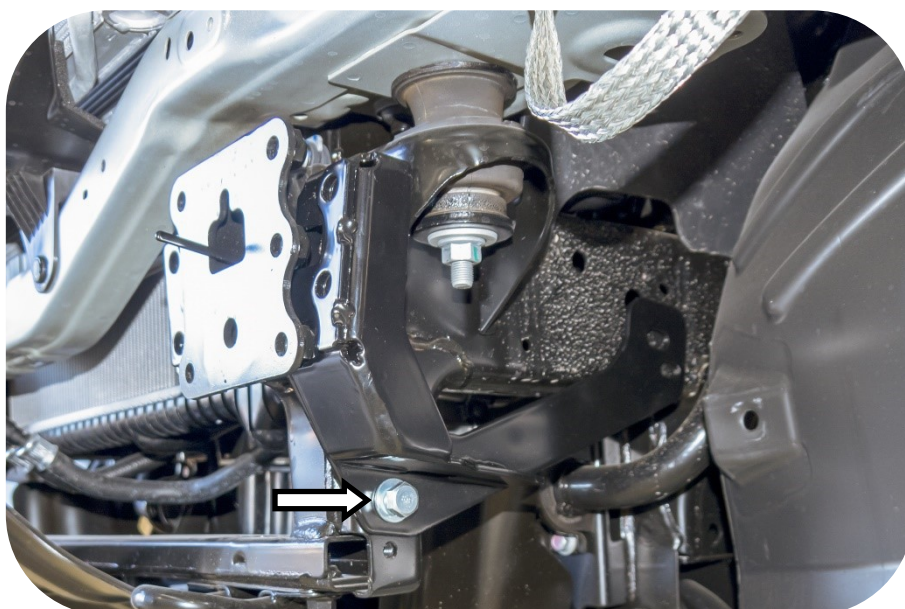
24. Remove the earth strap from the left hand chassis rail.



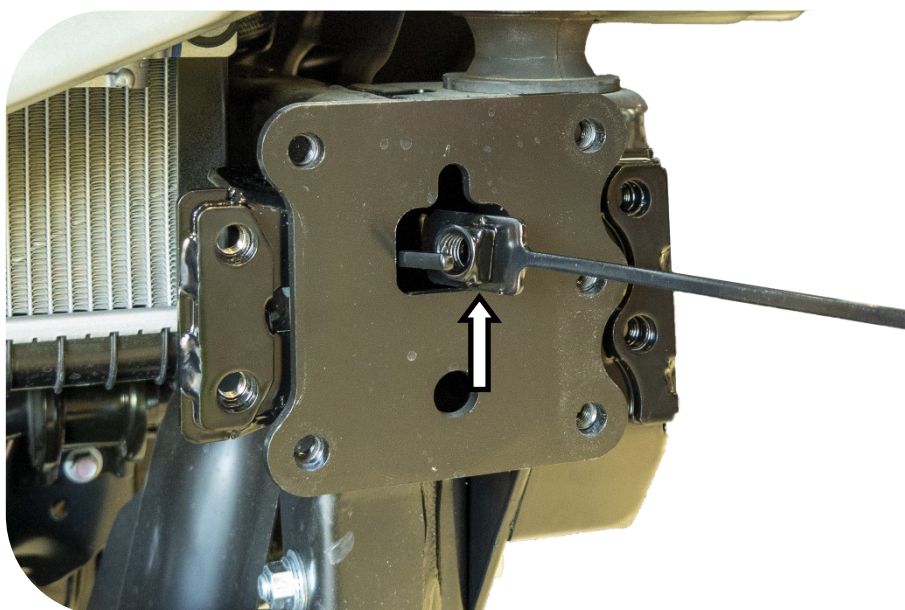
25. Remove the earth strap from the right hand chassis rail. Retain the fastener for re-fitment.



26. Fit the chassis support brackets (items 3 & 4) to the vehicle using two M10 x 90mm hex bolts, four M10 flat washers and two M10 flange nuts. **Do not tighten.**



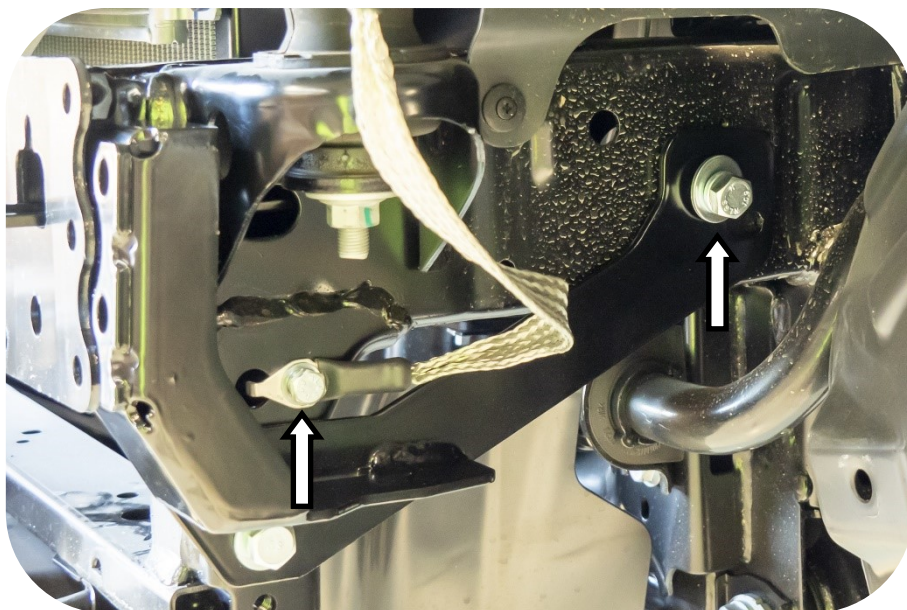
27. Insert the 340mm nut plates (item 18) through the chassis endplates.



28. Secure the left hand chassis support bracket with a M12 x 35mm hex bolt, M12 spring and flat washers.

Do not tighten.

31. Re-fit the earth strap to the threaded hole beneath the front body mount using a M8 x 20mm hex bolt and M8 spring washer. Ensure the connection is correctly earthed.

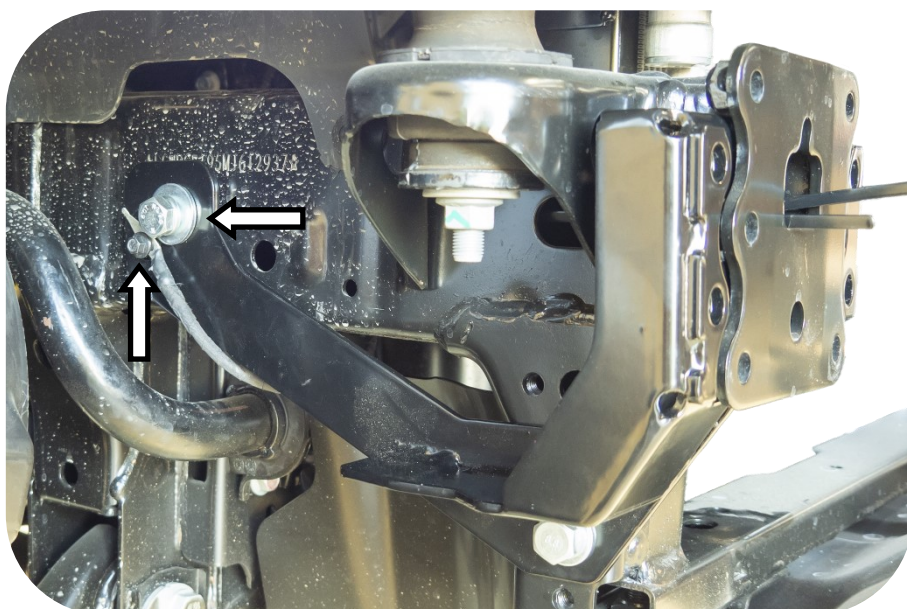


30. Secure the right hand chassis support bracket with a M12 x 35mm hex bolt, M12 spring and flat washers.

Do not tighten.

31. Re-fit the earth strap to the original location.

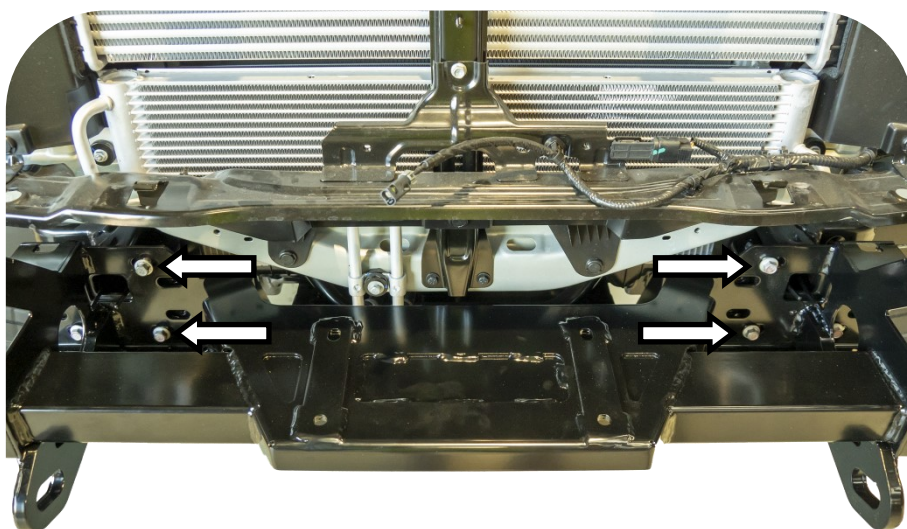
Do not tighten.



32. Install the chassis mount (item 2) onto the chassis end plates.

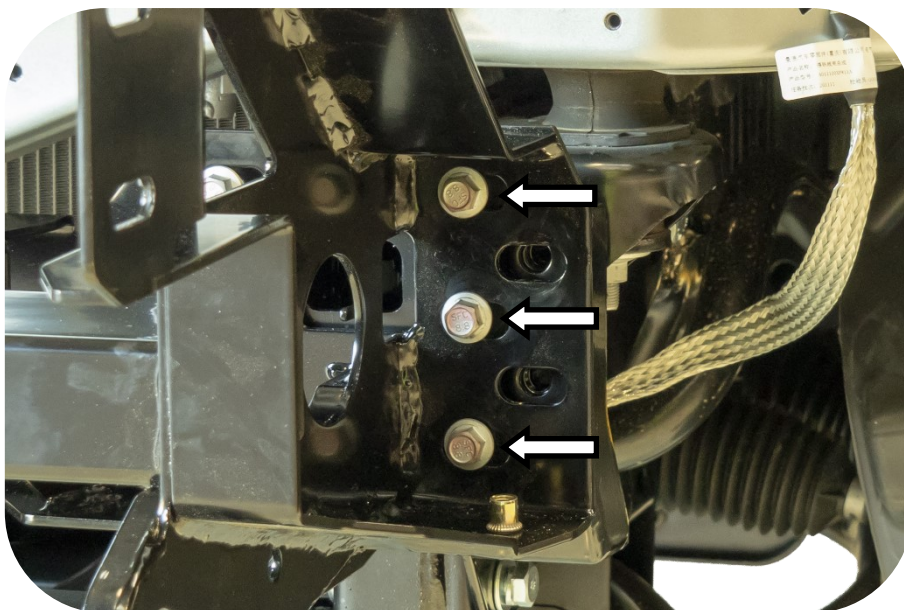
33. Secure the inside of the chassis mount using the original bolts and two chassis washer plates (item 14, not shown).

Do not tighten.



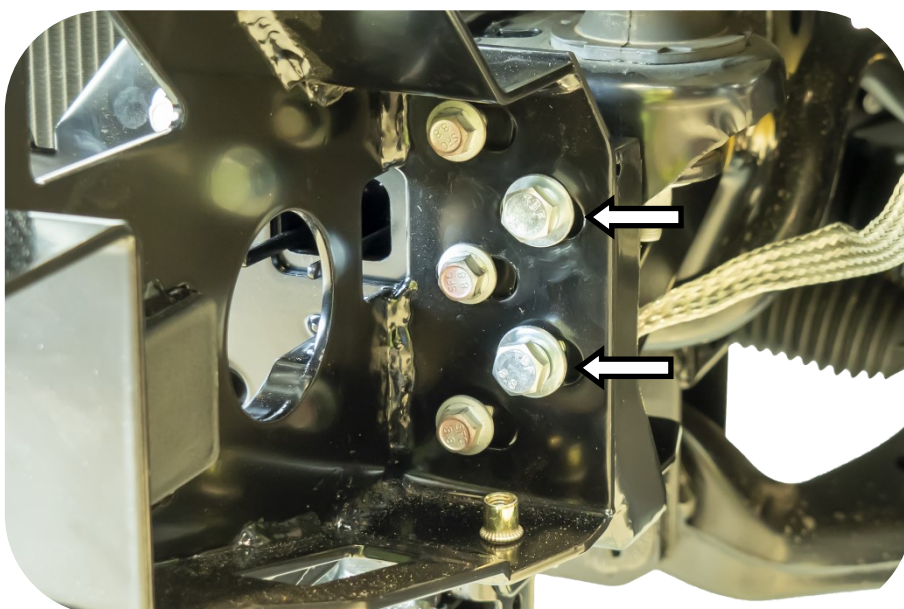
34. Secure the outside of the chassis mount using the original bolts and two chassis washer plates (item 14, not shown).

Do not tighten.



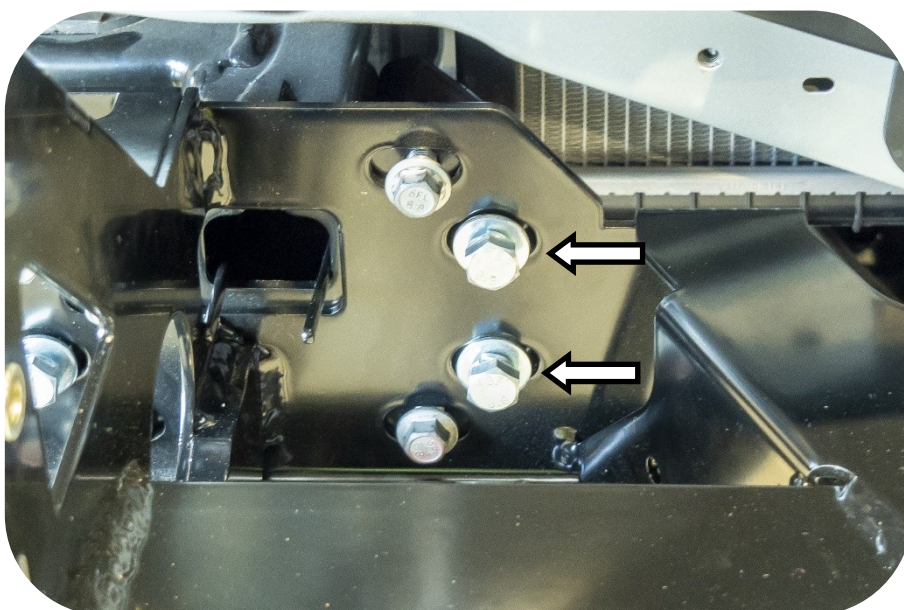
35. Secure the chassis mount to the outer chassis support brackets with four M10 x 35mm hex bolts, M10 spring and flat washers.

Do not tighten.

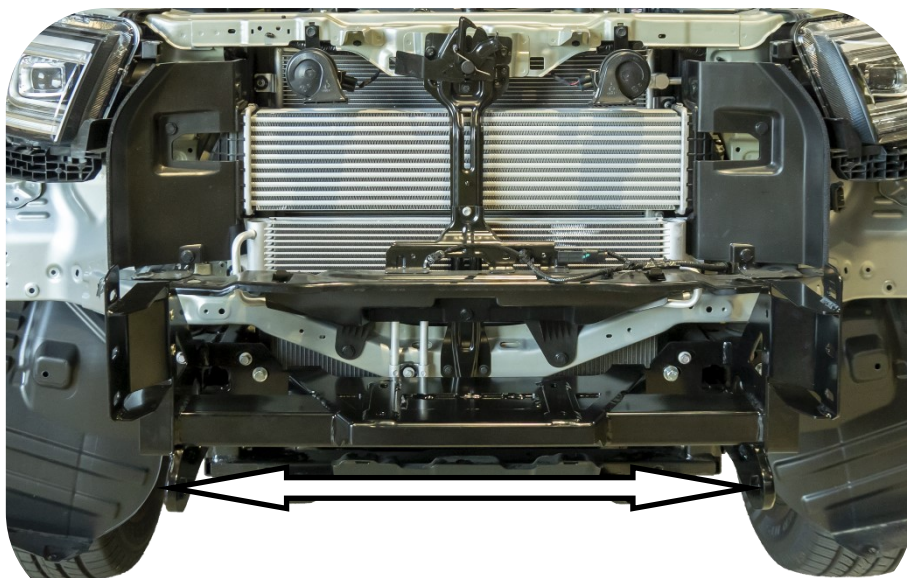


36. Secure the chassis mount to the inner support brackets with four M10 x 35mm hex bolts, M10 spring and flat washers.

Do not tighten.

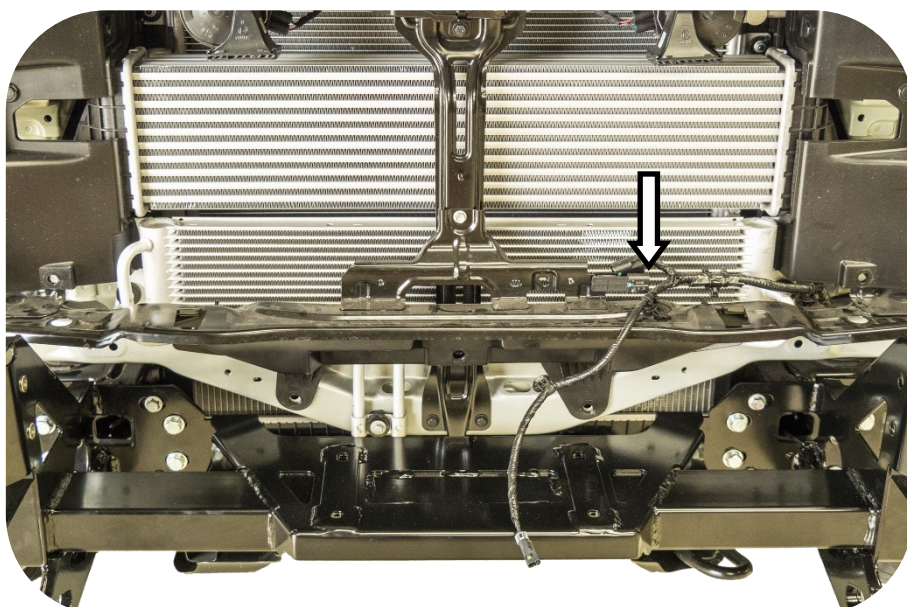


37. Align the chassis mount so that it is positioned evenly to the body of the vehicle.
31. Tighten all fasteners to the correct torque. Ensure the earth strap connections are correctly earthed.



39. Unclip the front camera loom from the grille support.

NOTE: If fitting a winch, the grille support panel was removed in step 21.



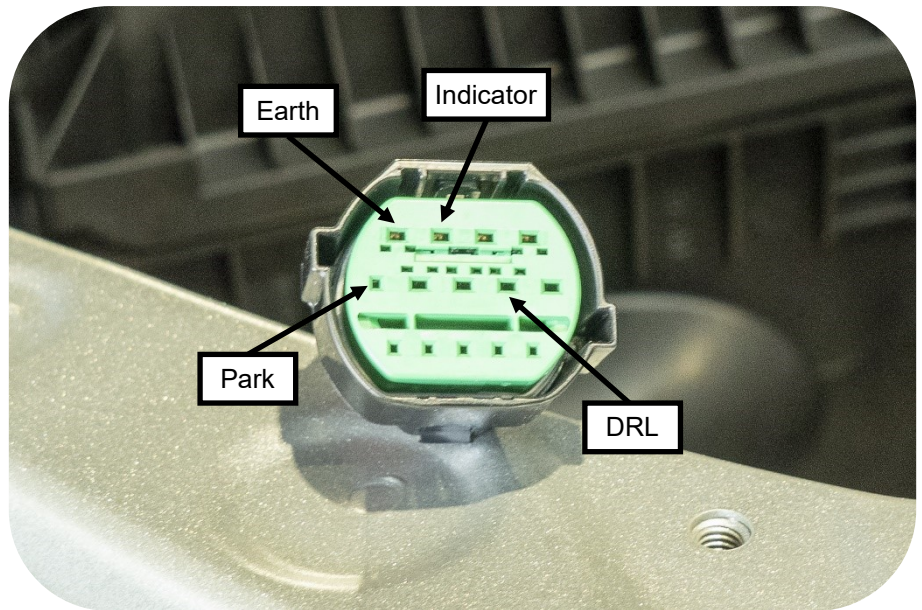
40. If you are fitting a winch, do so now following the instructions supplied with the winch.
41. A control box bracket (item 13) is supplied with the bar, this bracket is designed to suit VRS winch control boxes.
42. The control box bracket is fitted to the inside of the chassis mount on the right hand side using two M8 x 20mm hex bolts, M8 spring and flat washers.



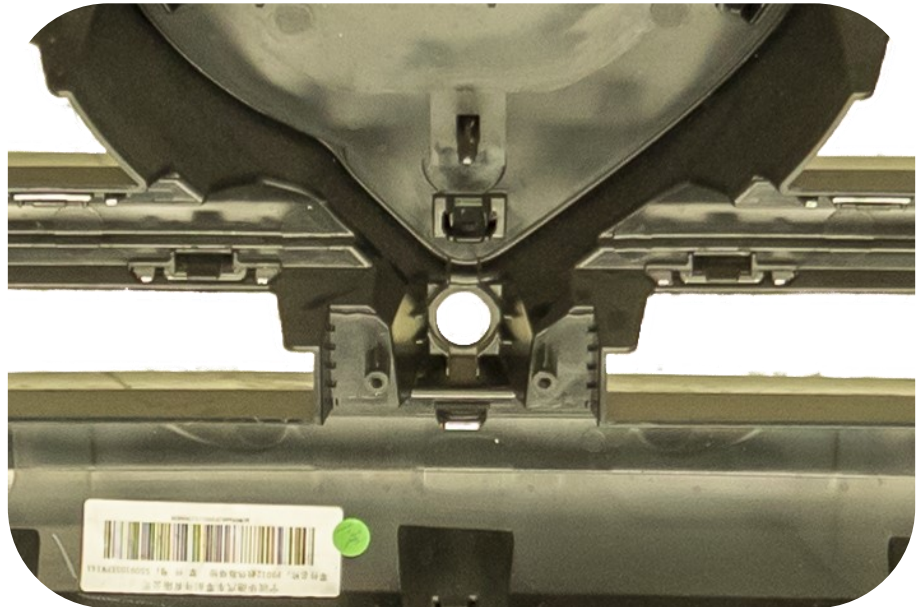
43. Disconnect the loom plugs from the back of the headlights. Using a multimeter, locate the park, DRL, indicator and earth wires. **Do not rely on the instructions!**
44. Splice and solder the existing loom to the looms for the combination lamps.

COMBINATION LAMP WIRING

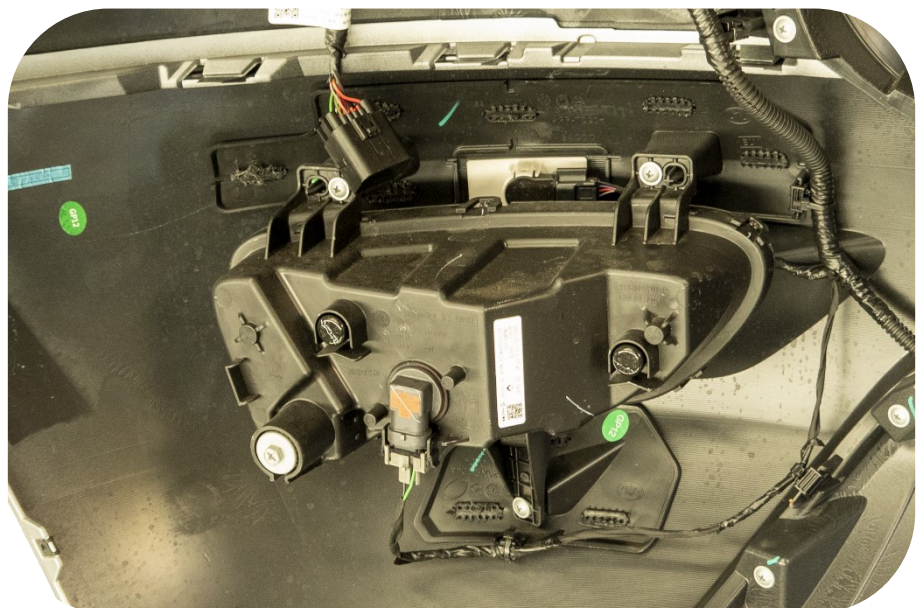
WHITE	=	DRL
GREEN	=	INDICATOR
RED	=	PARK LIGHT
BLACK	=	EARTH



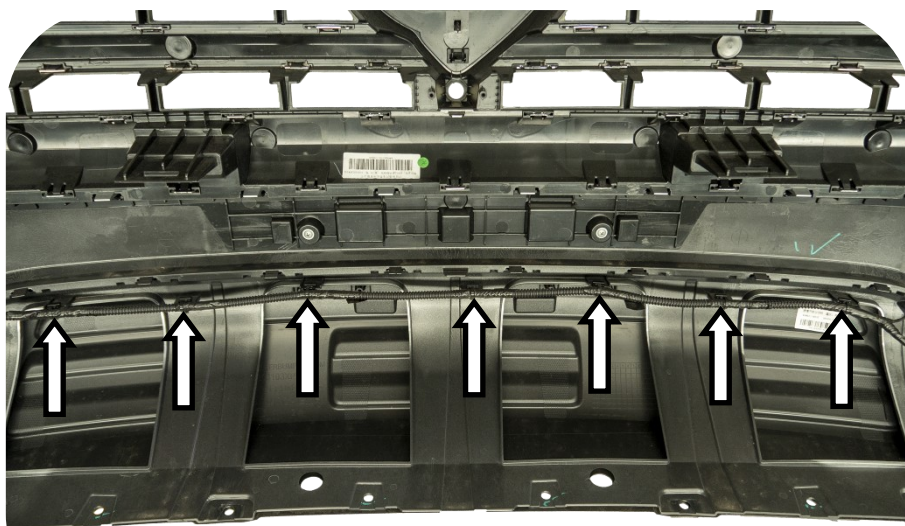
45. Remove the front camera from the grille. Retain the screws to mount the grille support bracket.



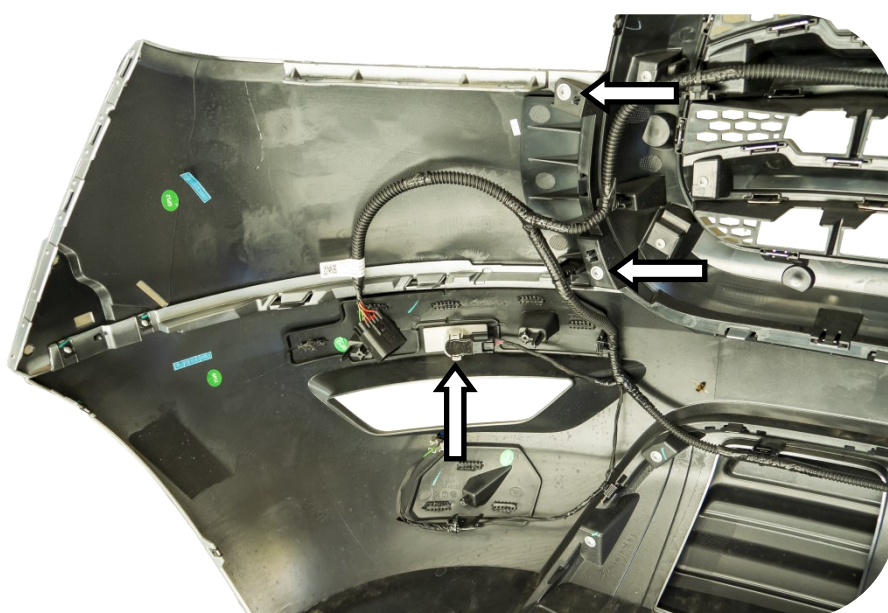
46. Remove the fog lights from the bumper bar to gain access to the front parking sensors.



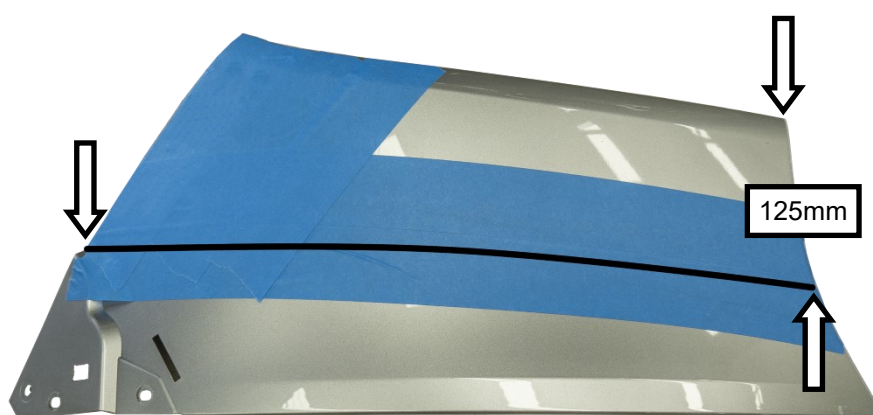
47. Unclip the wiring loom from the bumper bar.
48. Disconnect the radar unit in the grille.



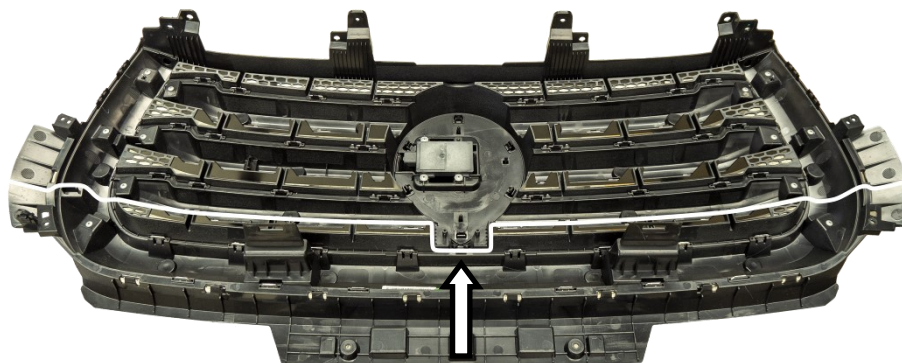
49. Take note of location and orientation of the parking sensors.
50. Remove the parking sensors from the bumper bar.
51. Separate the bumper and grille. Retain the screws securing the bumper sides to the grille.



52. Apply masking tape to the outer bumper sections.
53. Mark a point 125mm down from the inside top of the bumper sections.
54. From this position draw a line across the bumper to the top of the raised section.
55. Trim and discard the lower sections.



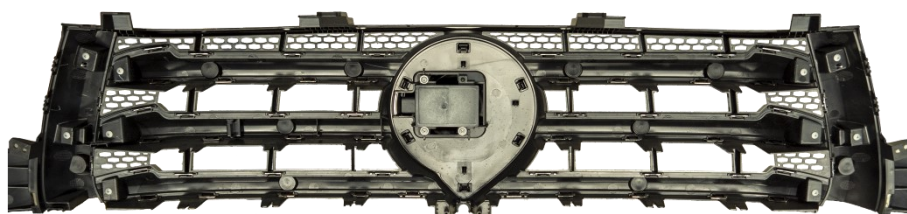
56. The grille needs to be trimmed below the third horizontal spar and around the camera mounting as shown opposite.



57. Ensure the trimming line is below the slot for the bumper clip.



58. Using a multi-tool, carefully trim the grille along the line as described in the above steps.



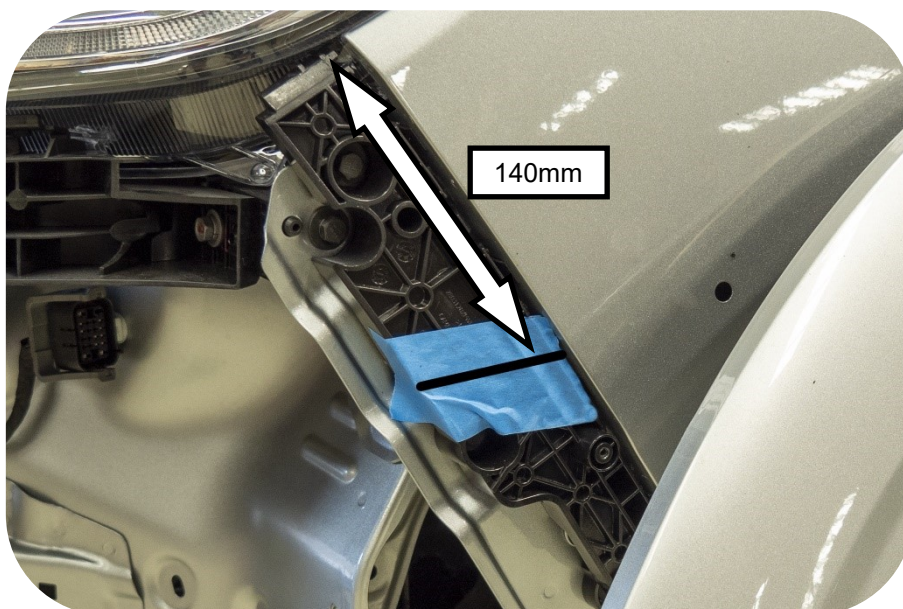
59. Re-attach the bumper sections to the grille.



60. Mark a line on the grille retaining clips parallel to the ground and 140mm down from the top of the guard.

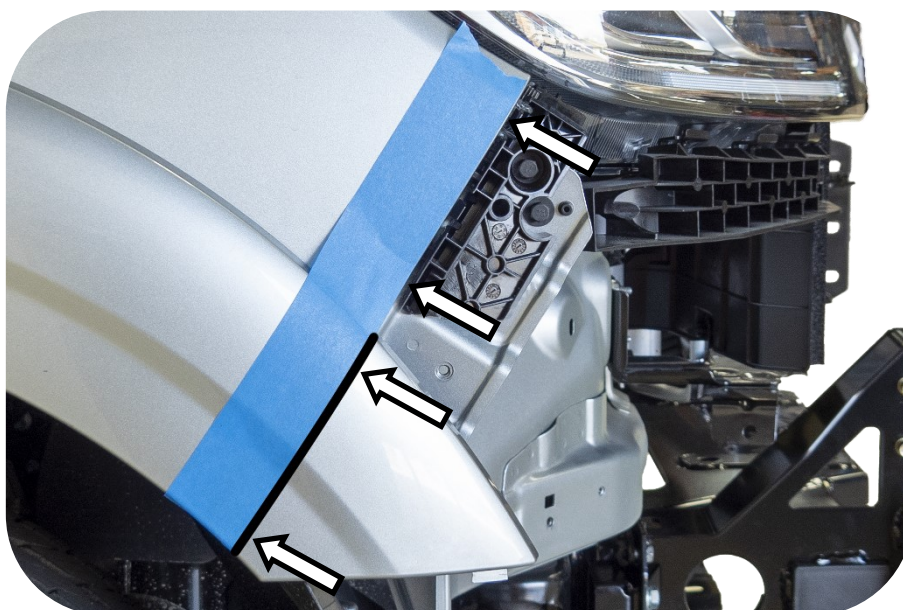
61. Remove the clips and trim along the marked line. Discard the lower section.

62. Re-fit the retaining clips to the vehicle.



63. Apply masking tape to the flare and guard. Mark a line along the flare collinear with the edge of the guard.

64. Using a multi-tool, trim the flares.

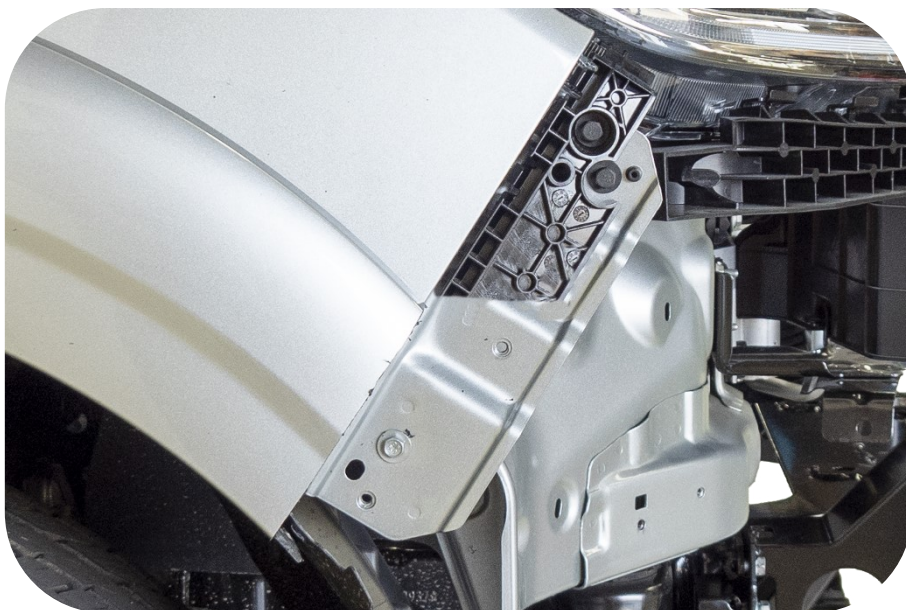


65. The section of the guard below the bumper clip can be painted black, this has the effect, especially on lighter coloured vehicles, of hiding the gap between the guard and bull bar.

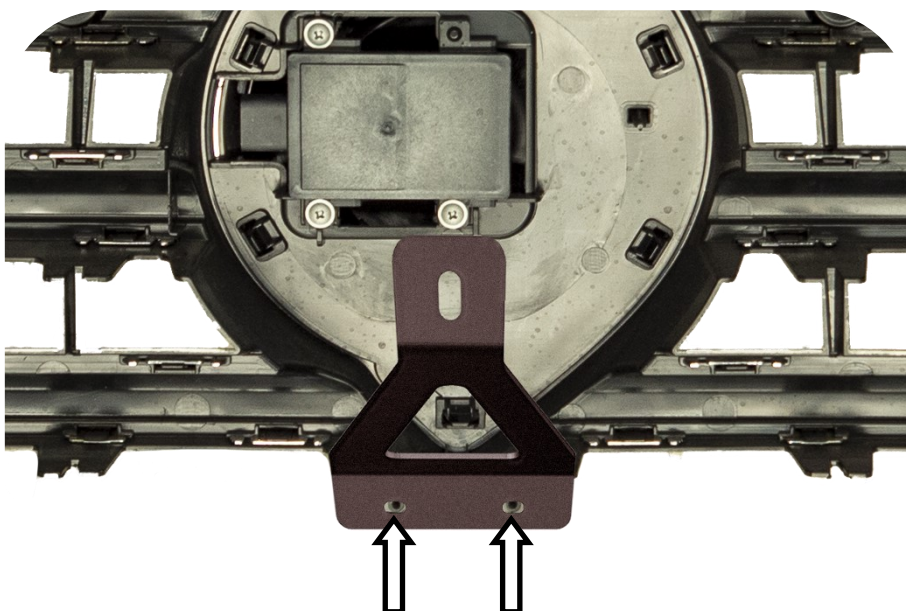
66. Lightly sand the area- Scotchbrite pads are ideal. Clean the surface with prep-wash.

67. Mask the surrounding areas.

68. Paint both sides and allow to dry.

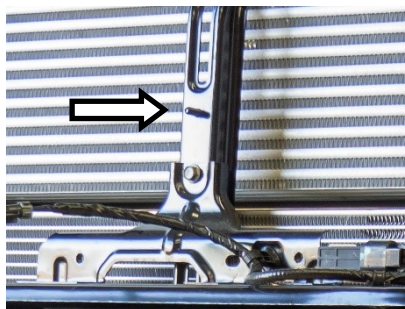


69. Fit grille support bracket (item 16) to the grille where the camera was located using the screws removed in step 45.

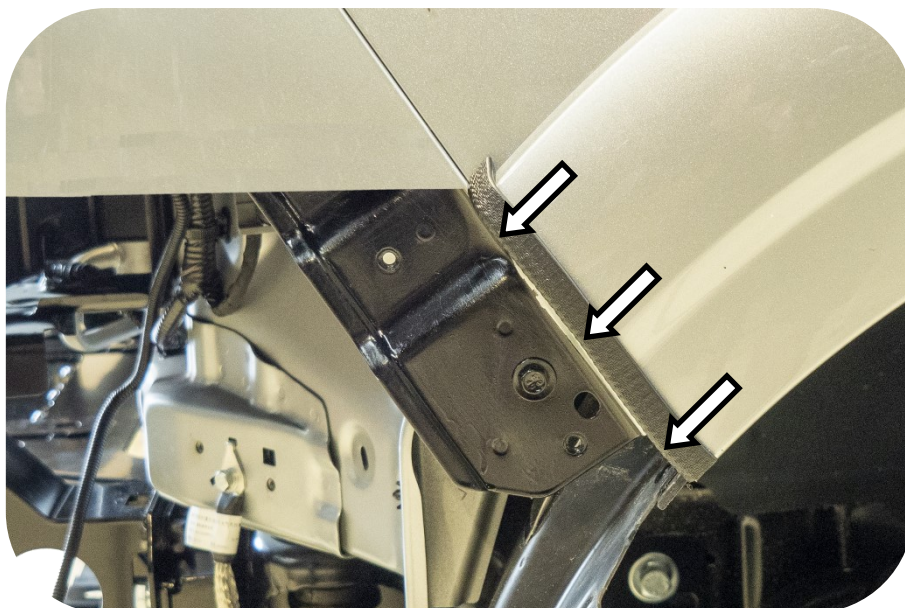


70. Re-install the grille and bumper section using the original fasteners.

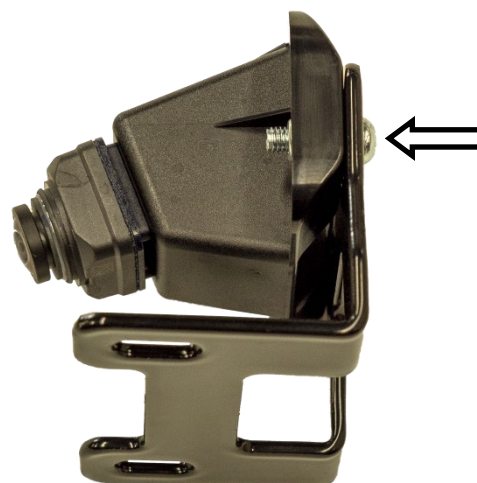
71. Attach the grille support bracket to the stud on the vertical support using a M6 flange nut.



72. Fit the supplied pinch mould to the trimmed flares.

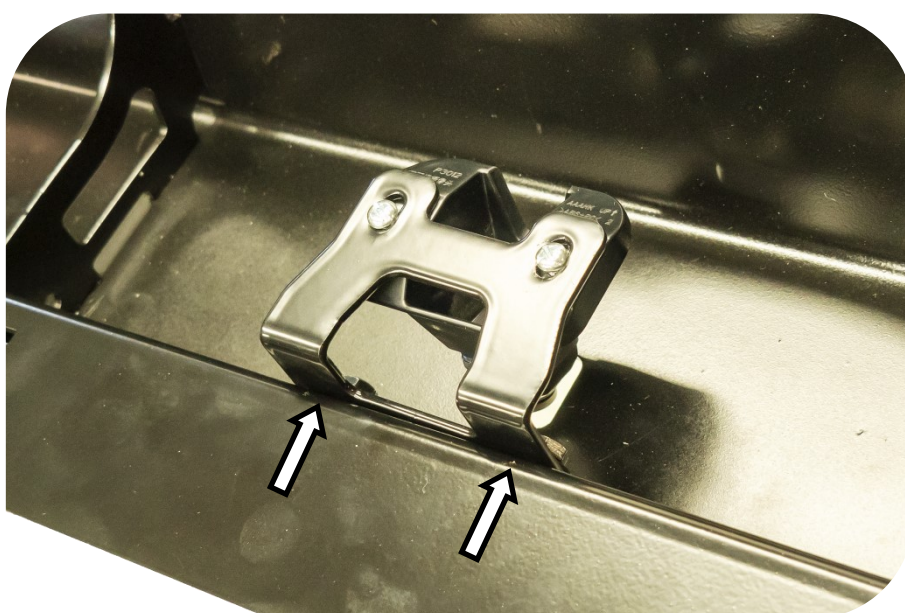


73. Fit the camera, (removed earlier), to the camera relocation bracket (item 15) using two M5 pan head screws, four M5 flat washers and M5 nyloc nuts.

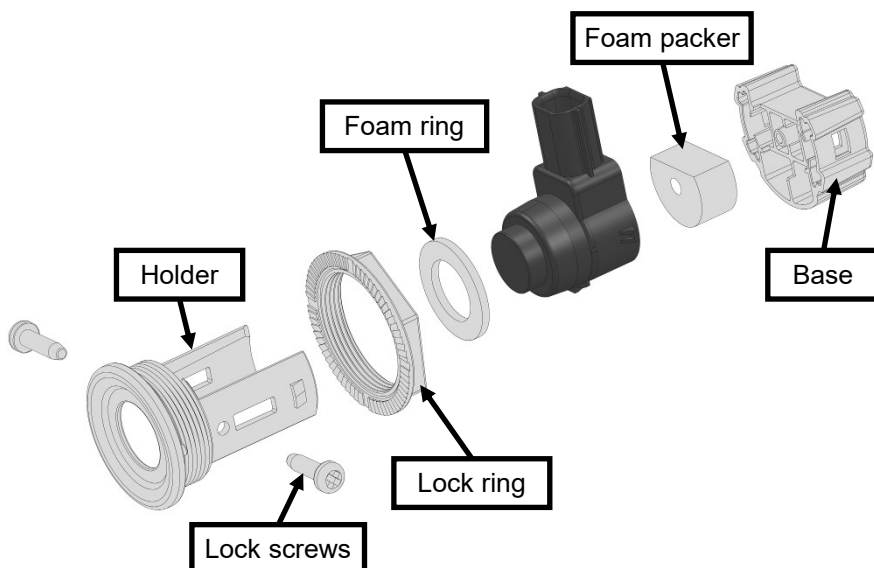


74. Fit the camera bracket to the bar using two M6 x 20mm hex bolts, M6 spring and panel washers.

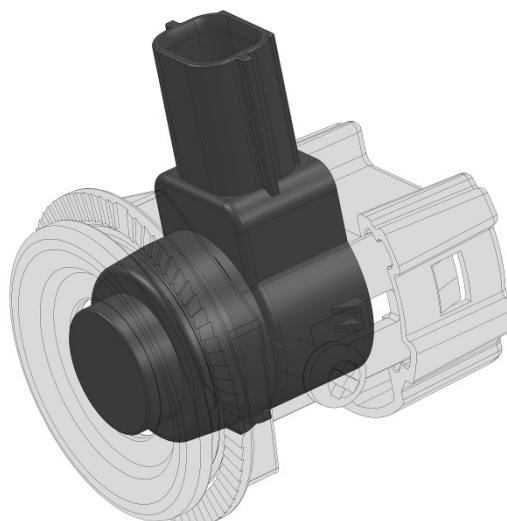
75. Align the bracket and camera to the hole in the bar. Tighten bolts to correct torque.



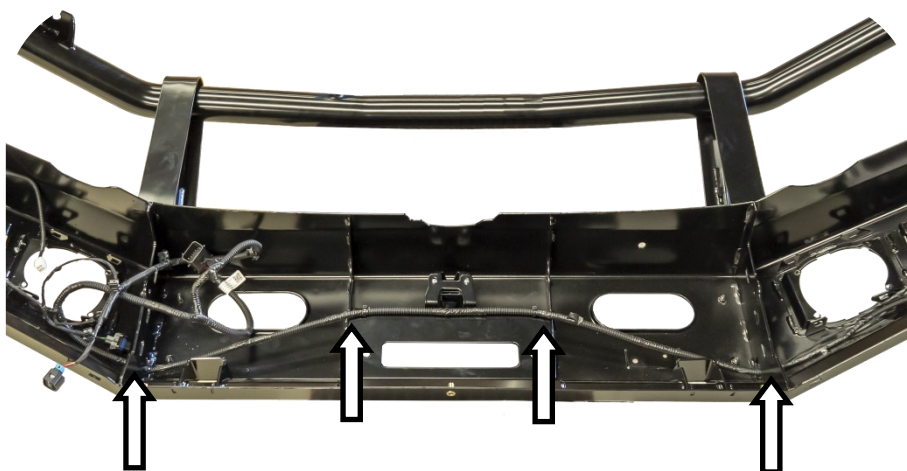
76. Install the parking sensors in the following order.
- Remove the backing from the foam ring and place into the holder.
 - Fit the holder into the bar and tighten.
 - Insert the screws.
 - Insert the parking sensor. Carefully tighten the screws to secure the parking sensor.
 - Remove the backing, place the foam packer on the base.
 - Snap the base onto the holder.



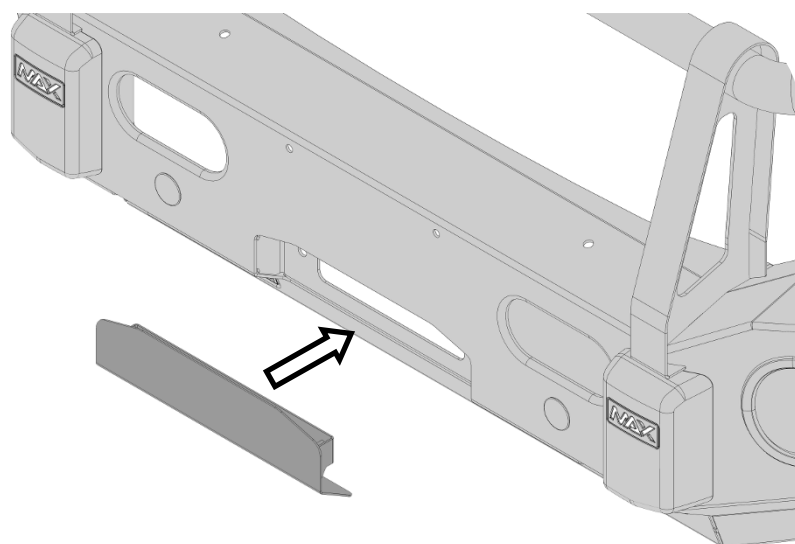
77. When assembled the parking sensor should not protrude past the front of the holder.



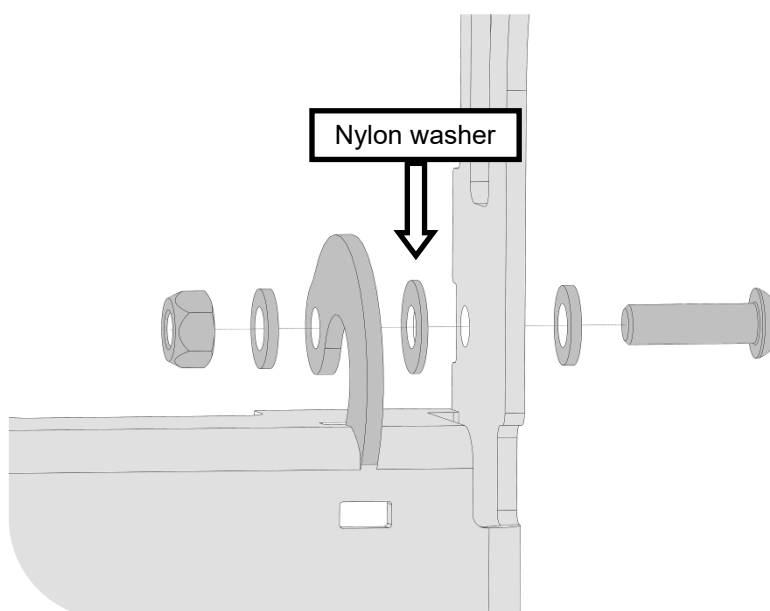
78. Route the loom removed from the bumper bar through the holes in the uprights.
79. Secure the loom using cable ties, ensuring the looms are routed and secured away from any sharp, hot or moving parts.
80. If fitting fog lights, do so now using the instructions supplied with the fog light kit.



81. If no winch is being fitted, fit the supplied cover plate (item 11) to the bar using two M6 x 20mm bolts, M6 spring and panel washers.
82. Fit ten cage nuts to the wings of the bull bar.



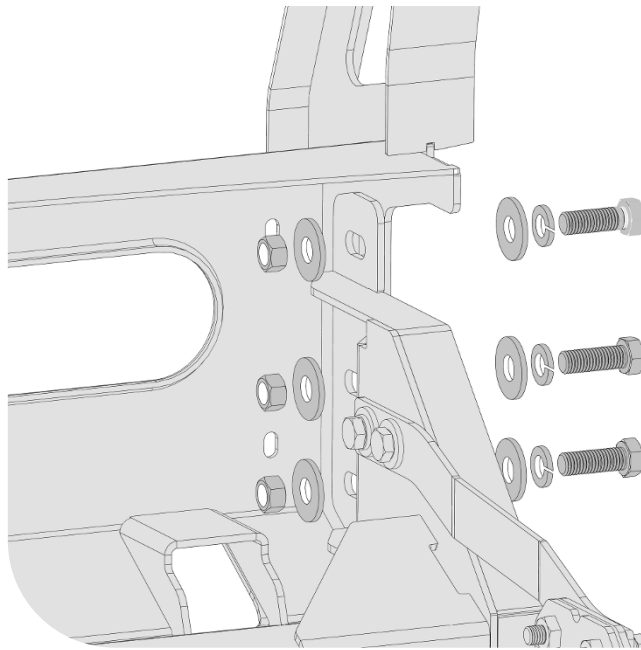
83. If a winch is fitted, fit the number plate bracket (item 12) to the bar using two M6 x 20mm button head bolts, four M6 flat washers, two M6 nylon washers and two M6 Nyloc nuts.
84. Place the nylon washer between the number plate bracket and the Hawse mount. Tighten the Nyloc nuts so that the number plate bracket can be moved using moderate force. **DO NOT OVER TIGHTEN.**



85. Lift the bull bar onto the chassis mount.

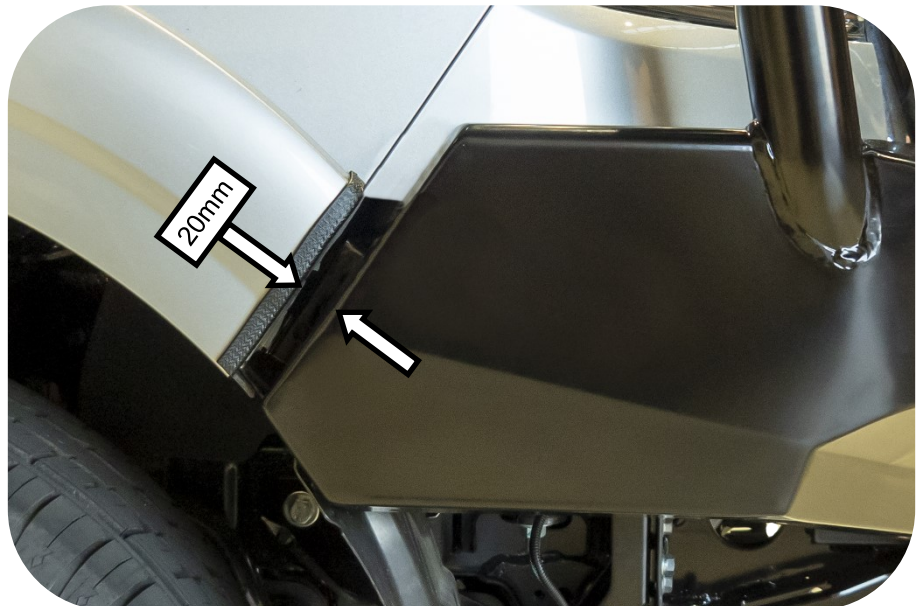


86. Secure the bar to the chassis mounts using six M12 x 35mm hex bolts, six M12 spring washers, twelve M12 flat washers, and six M12 hex nuts. Tighten enough so that the bar is secure but still able to be adjusted.

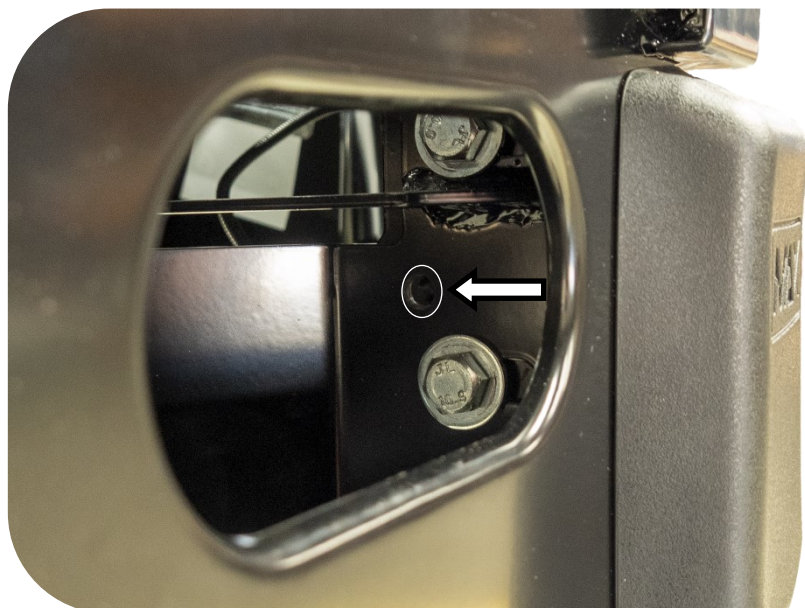


87. Adjust the bar so that the end of the wings are parallel to the guard with a minimum 20mm gap to the bumper cut. Once happy with the fit of the bull bar, tighten the six bolts to the correct torque.

NOTE: If the bar is not even side to side, loosen the chassis mounting bolts to enable adjustment. Once centred, tighten all the mounting bolts to the correct torque.



88. Drill a pinning hole with a 10mm drill bit using the hole in the upright as a guide.
89. Deburr and treat with rust preventative.



90. Secure using a M10 x 30mm hex bolt, M10 flat washer and M10 flange nut.

91. Repeat for the other side.



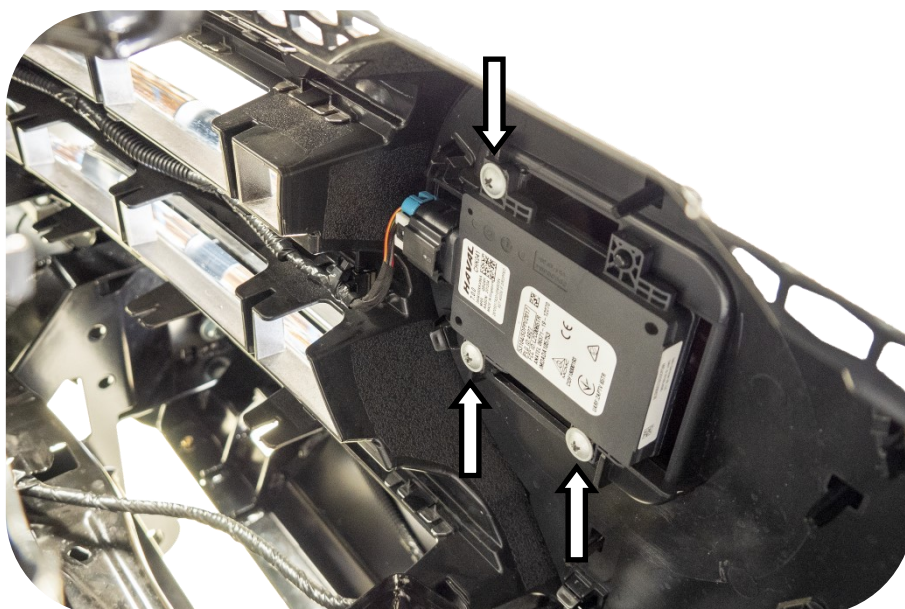
92. Re-connect the wiring loom to the radar unit. Re-fit the radar unit into the grille.

93. Re-attach the radar units wiring loom to the grille, re-connect the wiring loom to the vehicle.

94. Where fitted, connect the fog lights to the loom.

95. Connect the combination lamps to the looms installed earlier.

96. Re-fit the radiator top cover.

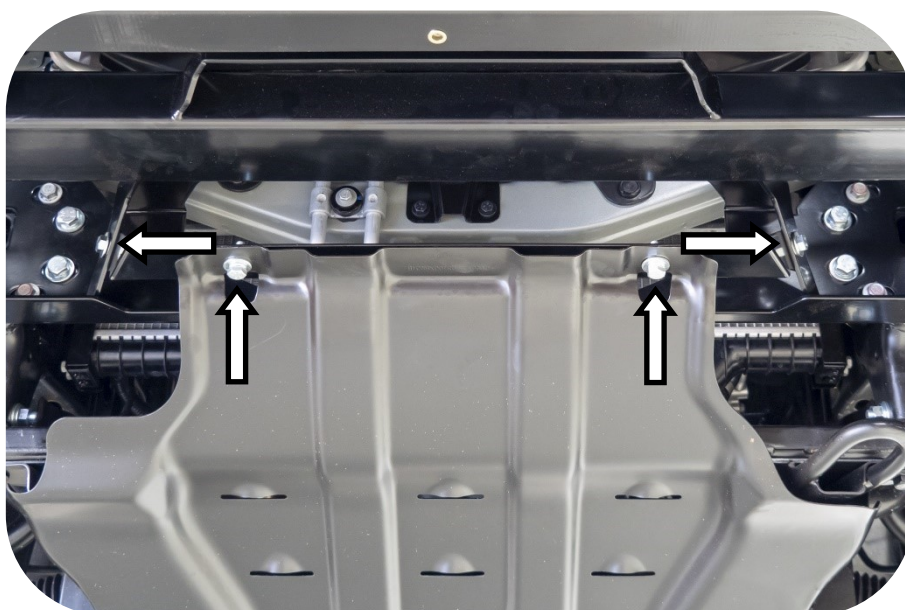


97. Fit the OE stone tray bracket (item 10) with two M8 cage nuts.

98. Fit the bracket to the chassis mount using two M8 x 20mm hex bolts, M8 flat washers and M8 flange nuts.

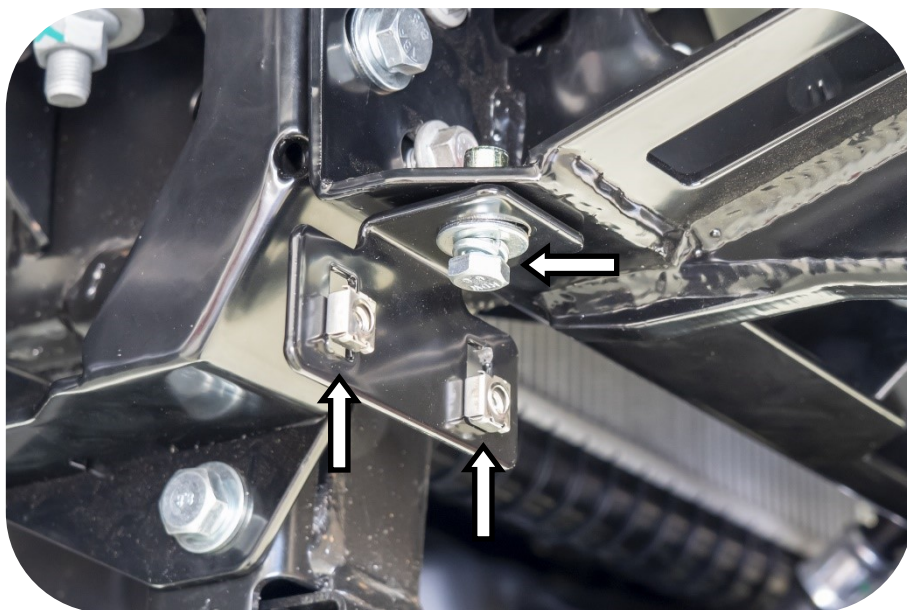
99. Secure the OE stone tray to the bracket with the original fasteners.

100. Tighten all fasteners to the correct torque.



101. Fit four M6 cage nuts to the stone tray mount brackets (item 9).
102. Using two M8 x 25mm hex bolts, M8 spring and flat washers, fit the stone tray mount brackets to the bottom of the chassis mount as shown.

Do not tighten.



103. Fit the centre stone tray (item 6) to the bar using three M6 x 20mm hex bolts, M6 spring washers and M6 panel washers.

Do not tighten.



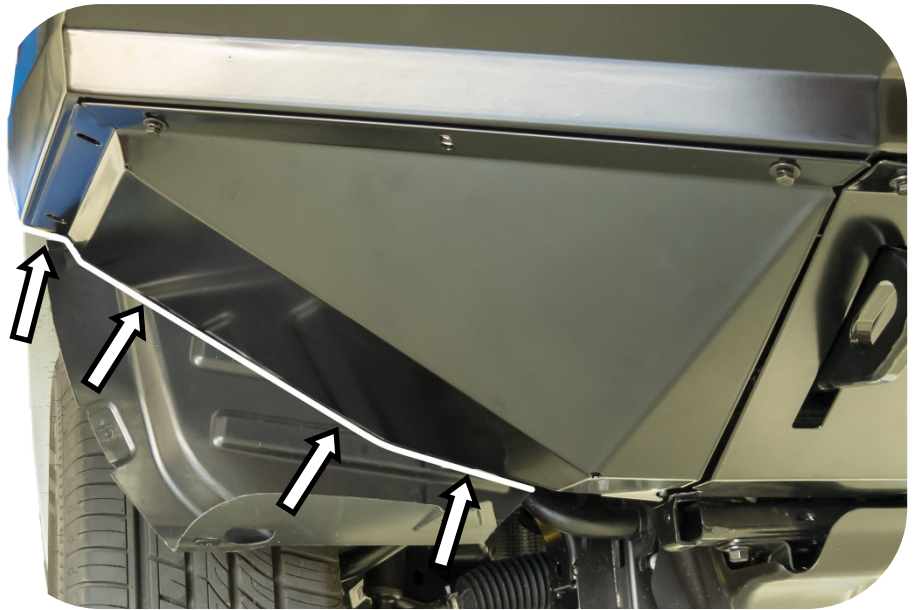
104. Secure the rear of the stone tray to the stone tray mount brackets with two M6 x 20mm hex bolts, M6 spring and panel washers.

Do not tighten.



105. Fit or hold the outer stone trays (items 7 & 8) in place so that a line can be marked on the inner guard where it meets the bottom of the stone tray.

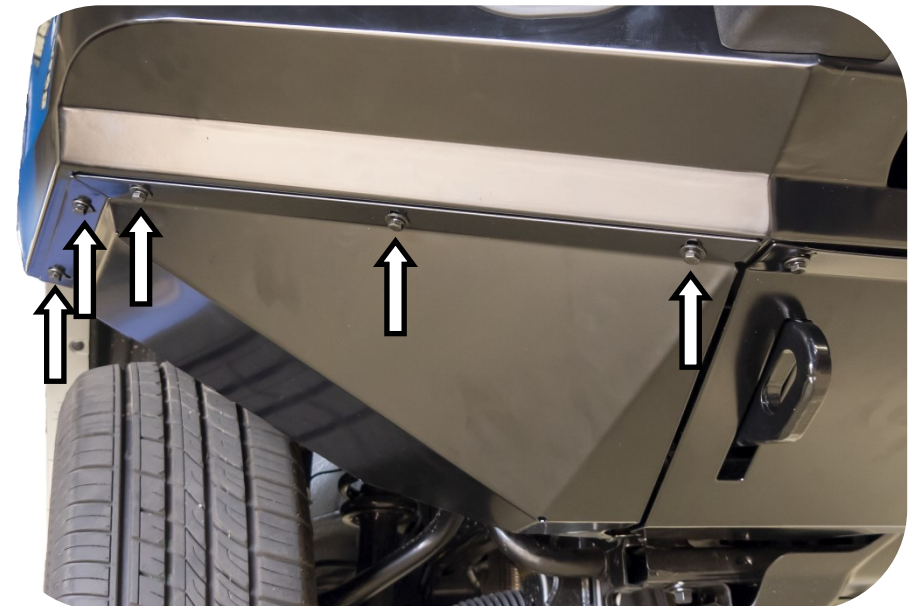
106. Trim the inner guard approximately 5mm above the marked line.



107. Ensure the inner guard is tucked in behind the rear flange of the stone tray.

108. Secure the right hand stone tray (item 8) to the bar with five M6 x 20mm hex bolts, M6 spring and panel washers.

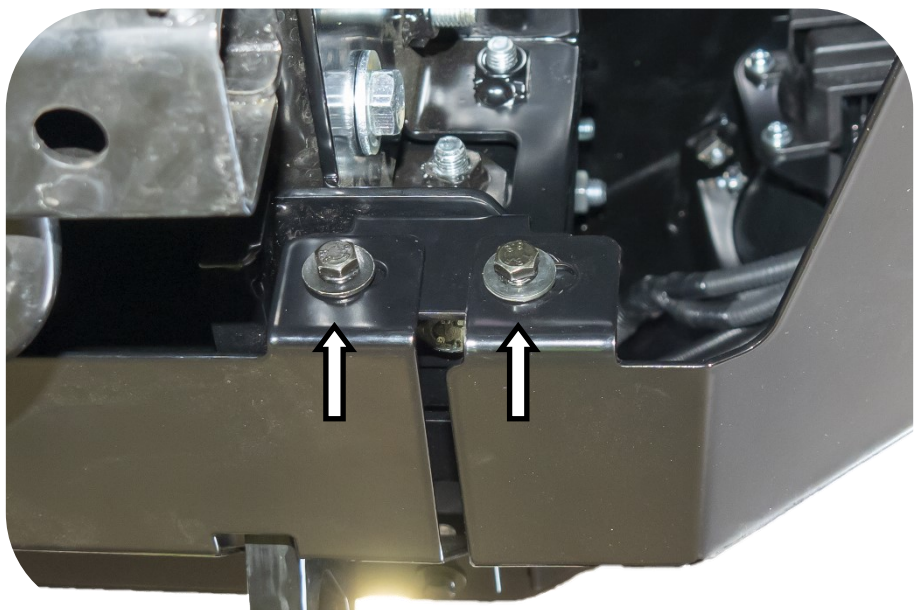
Do not tighten.



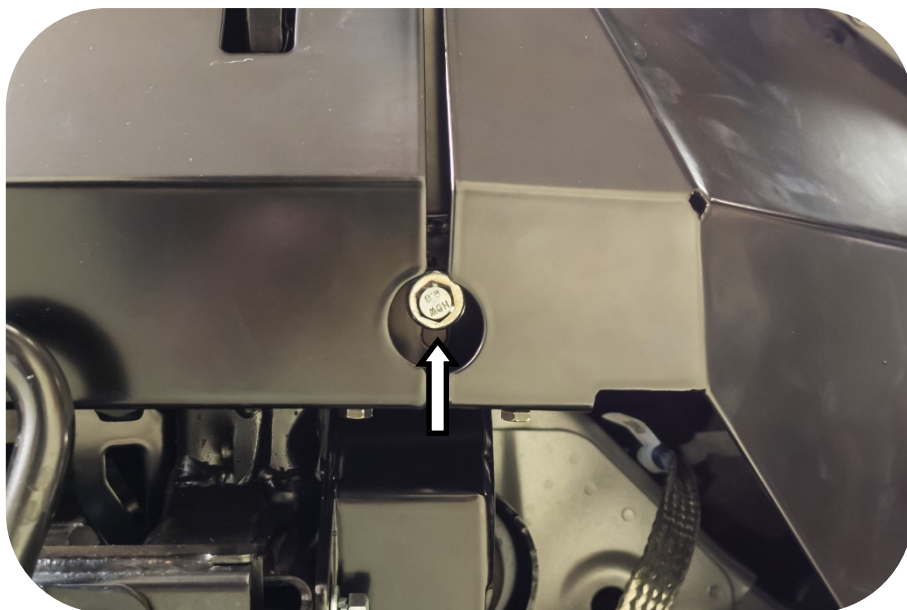
109. Secure the stone tray to the stone tray mount bracket using a M6 x 20mm hex bolt, M6 spring and panel washer.

Do not tighten.

110. Repeat for the opposite side.



111. Align the stone trays and tighten the stone tray bolts to the correct torque.



112. Fit the number plate to the bar or pivoting number plate bracket using two M6 pan head screws.





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