

OCAM

4x4
ACCESSORIES

INSTALLATION INSTRUCTIONS

PART NUMBER: BB2-Colorado-16

APPLICATION: Holden Colorado, Trailblazer 08-2016 onwards

FITTING TIME: 4 hours



OCAM 4x4 Accessories
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WARNING

- Do not attach Vehicle Frontal Protection System (**VFPS**) to the vehicle using anchor-ages 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.

During installation of this product some of the driver aids may have been relocated. Some of these may need to be re-calibrated after fitment by the dealer. While this product has been produced to provide continued functionality of “driver aids” as closely as possible to Original Equipment, road conditions and the combination of other accessories fitted to the vehicle may affect functionality and cannot be anticipated. ***The driver remains responsible for the vehicle at all times.***

IMPORTANT INFORMATION

- Always wear safety glasses and hearing protection.
- Make sure work area is kept clean at all times.
- Check that all components, as listed, are present.
- Thoroughly read all instructions.
- This product or its fasteners must not be modified in any way.
- These instructions are accurate as at the revision date and do not take into account any changes made by the vehicle manufacturer to vehicle design after the revision date, or other accessories that are or have been fitted to the vehicle.
- It is the responsibility of the installer to confirm correct operation/clearance of all components.
- All holes drilled must have all burrs and swarf removed then coated with a suitable rust preventative paint.
- Ensure that all hardware is fastened to torque list as detailed in these instructions.
- On completion of the job, these instructions are to be given to the customer.

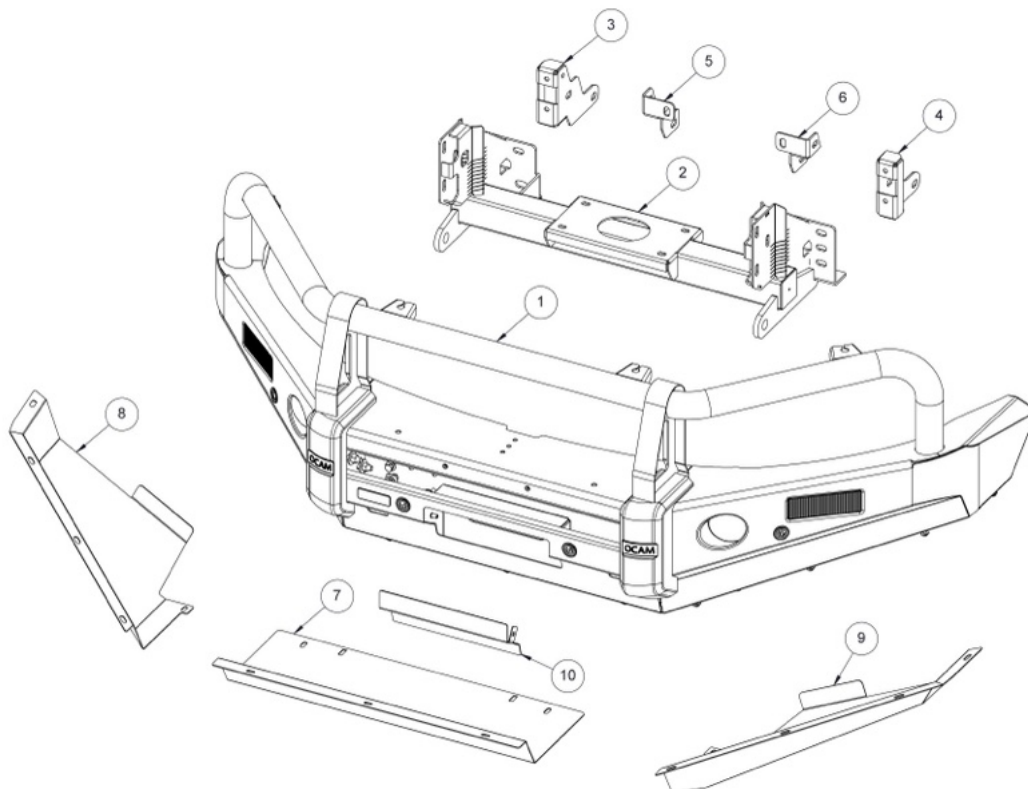
PRODUCT CARE

- To maintain the appearance of the product, wash and dry regularly using a quality car wash.
- The product should be periodically checked for tightness.

Torque Settings		
BOLT SIZE mm	TORQUE Nm	TORQUE ft.lb
M5	7	5
M6	11.8	8.7
M8	28.8	21.3
M10	57.5	42.3
M12	99.8	73.7

Tools Required

1. Metric socket and spanners
2. Phillips and flat head screwdrivers
3. Torx drivers
4. Torque wrench
5. Marking pen
6. 2" Masking tape
7. Air hacksaw or Multi-Tool



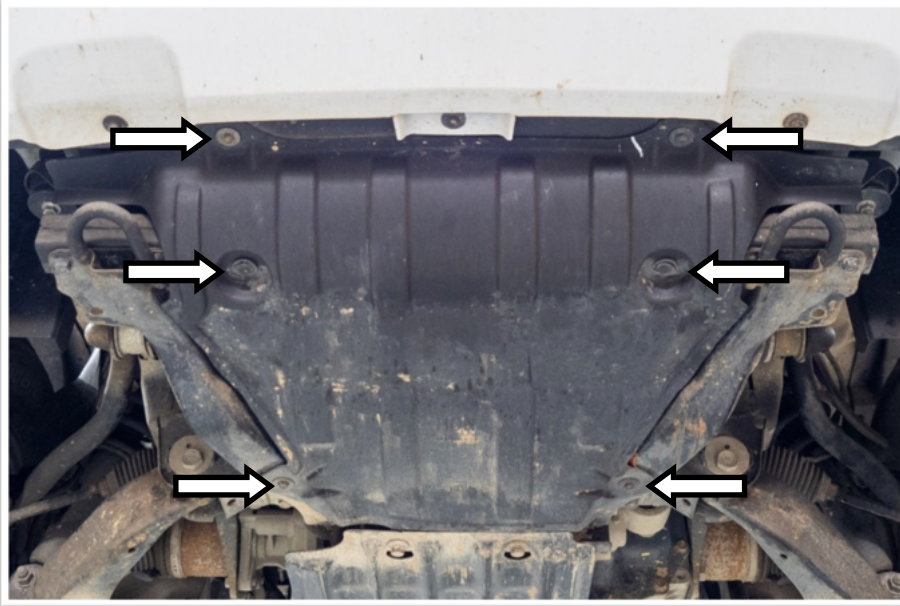
Item	Part number	Description	Qty
1	200303496	Channel assembly 	1
2	200304165	Winch frame 	1
3	200304206	Chassis bracket RH 	1
4	200304089	Chassis bracket LH 	1
5	200304210	Chassis bracket inner RH 	1
6	200304207	Chassis bracket inner LH 	1
7	200304219	Centre bash plate 	1
8	200347873	Outer bash plate RH 	1
9	200347872	Outer bash plate LH 	1

Hardware

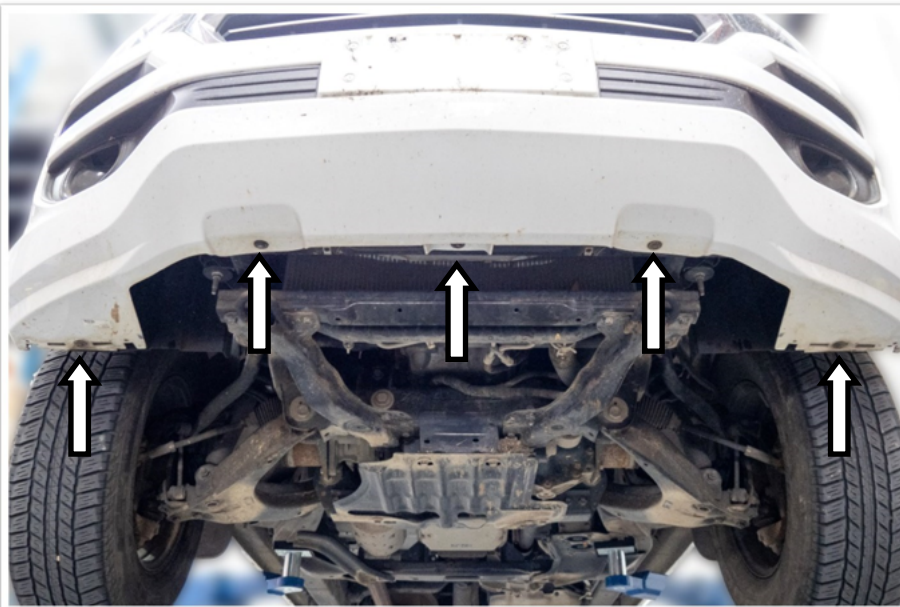
Item	Part number	Description	Qty
1	3002989	Hex bolt M12 x 1.25 x 80mm	4
2	3002826	Hex bolt M12 x 1.75 x 40mm	6
3	3000172	Spring washer M12	10
4	3004966	Flat washer M12 x 32mm	20
5	3001504	Hex nut M12 x 1.5	6
6	3001554	Hex nut M12 x 1.25	4
7	3003020	Hex bolt M10 x 1.25 x 30mm	6
8	3002701	Hex bolt M10 x 1.5 x 35mm	6
9	3000161	Spring washer M10	12
10	3005394	Flat washer M10	12
11	3001541	Flange nut M10 x 1.25	2
12	3006212	Combo bolt set M8 x 25mm	2
13	3001577	Flange nut M8	2
14	3006351	Combo bolt set M6	15
15	3001569	Flange nut M6	2
16		Cage nut M6	2



1. Park the vehicle in a suitable location.
2. Where fitted, remove the number plate.



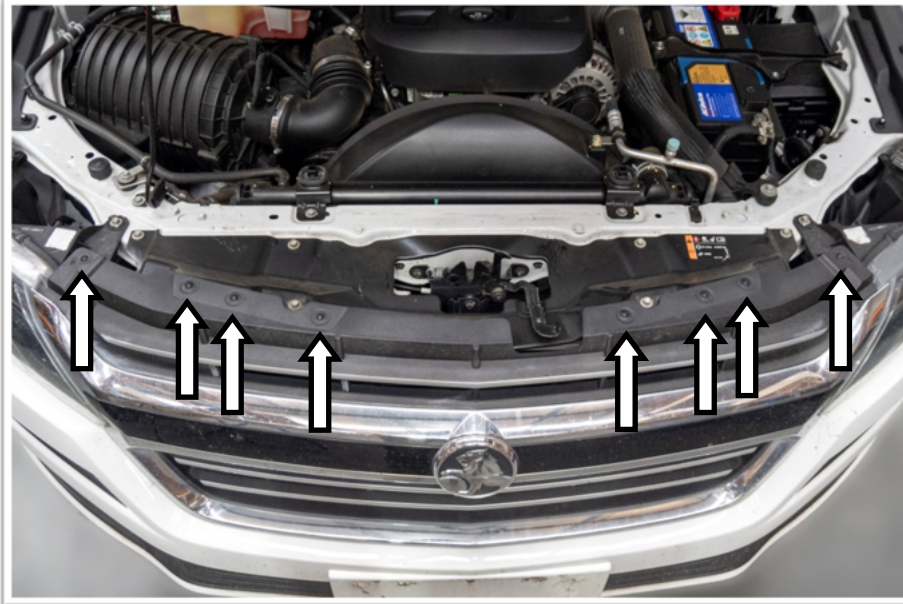
3. From underneath, remove the plastic stone tray.



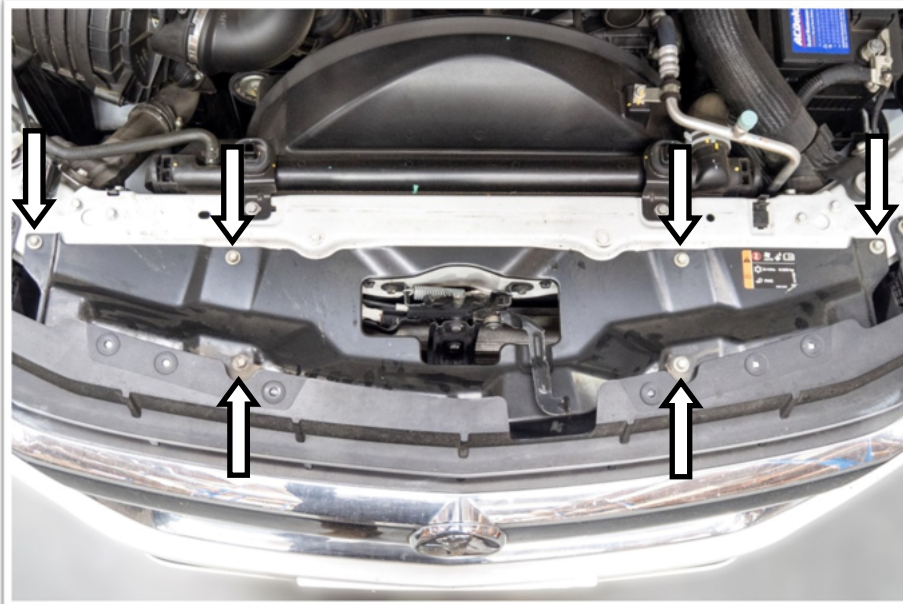
4. The bottom of the bumper bar is held in place with five fasteners, remove these and discard as they are no longer needed.



5. Remove the two Torx fasteners that attach the wheel arch liner to the bumper bar from either side of the vehicle.
6. If fog lights or parking sensors are fitted, disconnect from behind the wheelarch liner.



7. Remove the Torx screws that secure the top of the grille. Keep these as they are needed when refitting the grille.



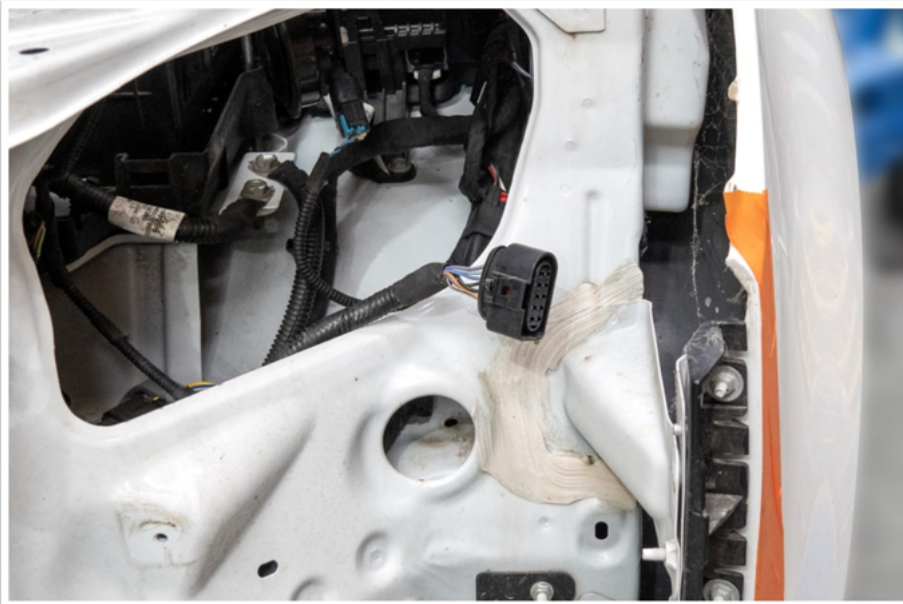
8. Remove the metal panel from the radiator support panel.



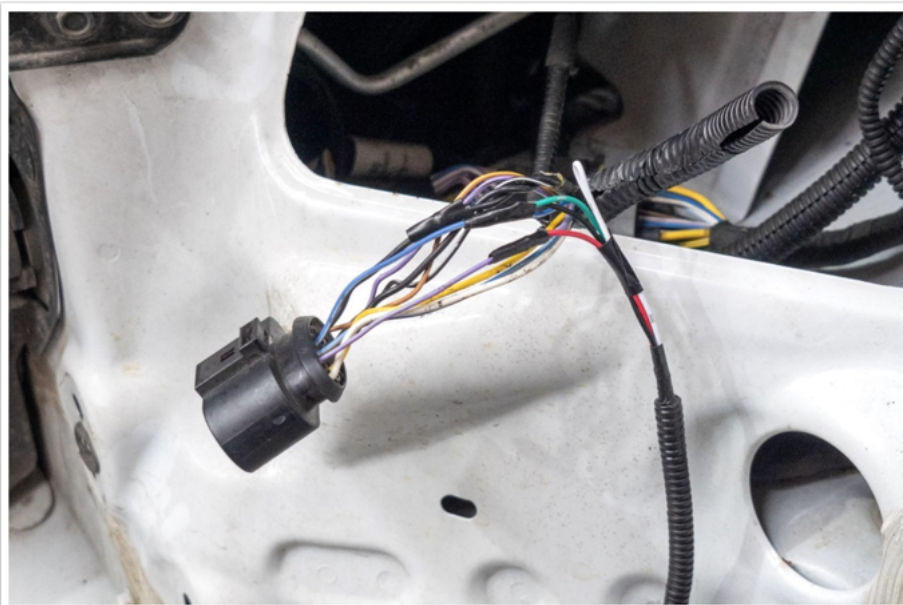
9. There are two clips that secure the bottom of the grille. These are very difficult to reach. You can use an 8mm socket or ring spanner to release them.
10. The other option, if you have spare clips, is to just pull the grill from the bottom. You are likely to break the clips this way, but it is quicker and easier.



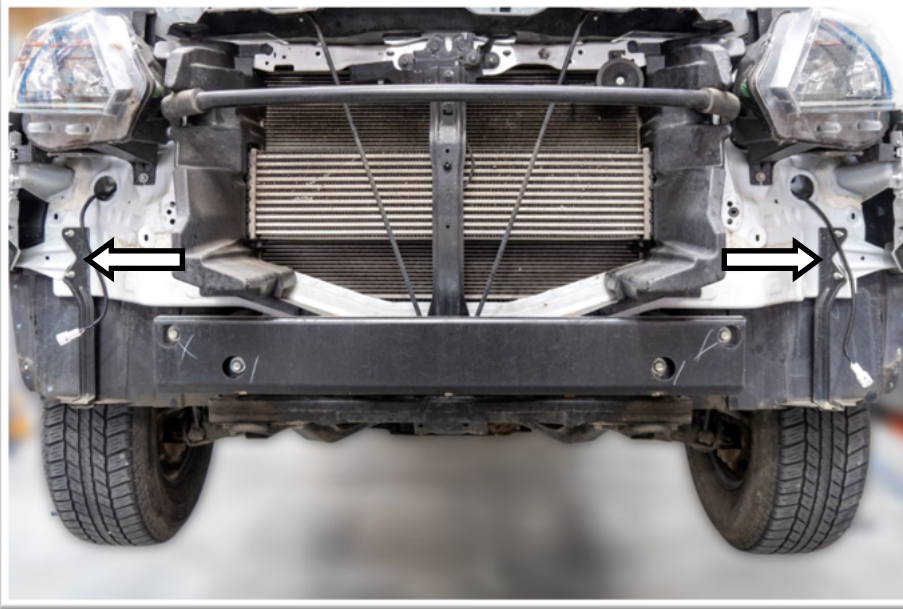
11. Remove the bumper and grille from the vehicle.



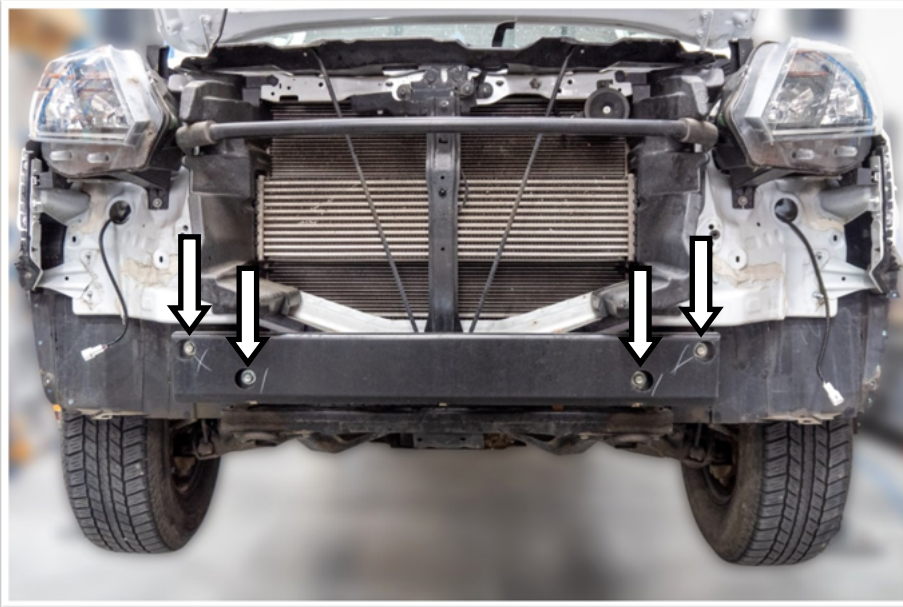
12. Remove the headlights to gain access to the connectors.



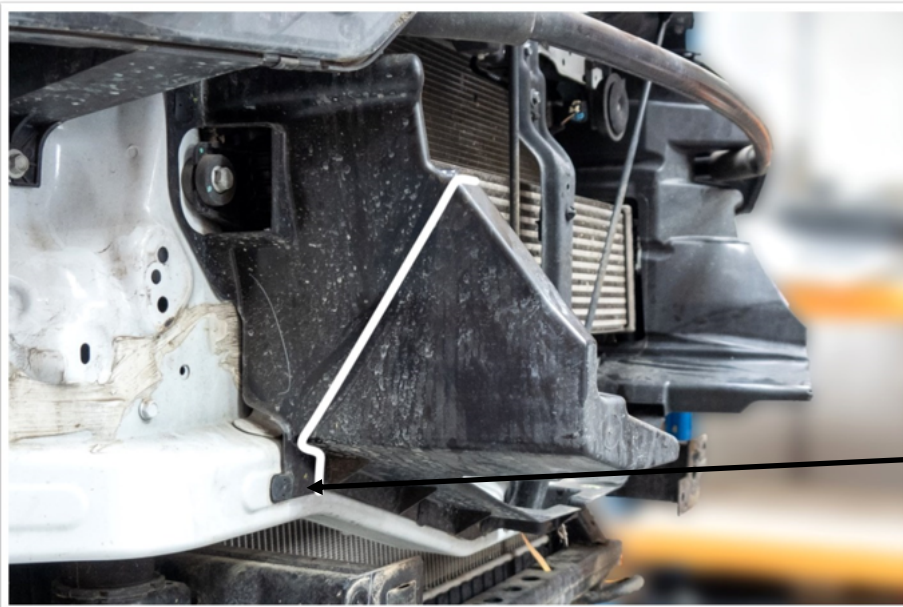
13. Using a LED test light determine the indicator, park and DRL wires.
14. Splice the combination light looms to the headlight looms. Green-indicator, white-DRL, red-position lamp, black-earth.
15. Test connection is correct, insulate the soldered joins and re-connect the headlight plugs.
16. Replace the headlights.



17. Remove the bumper bar retaining brackets from the vehicle. These can be discarded as they are no longer used.



18. Remove the intrusion beam.



19. The radiator air guides need to be trimmed to allow for the winch mount. Trim them as shown opposite. Make sure to keep the bottom fastener.

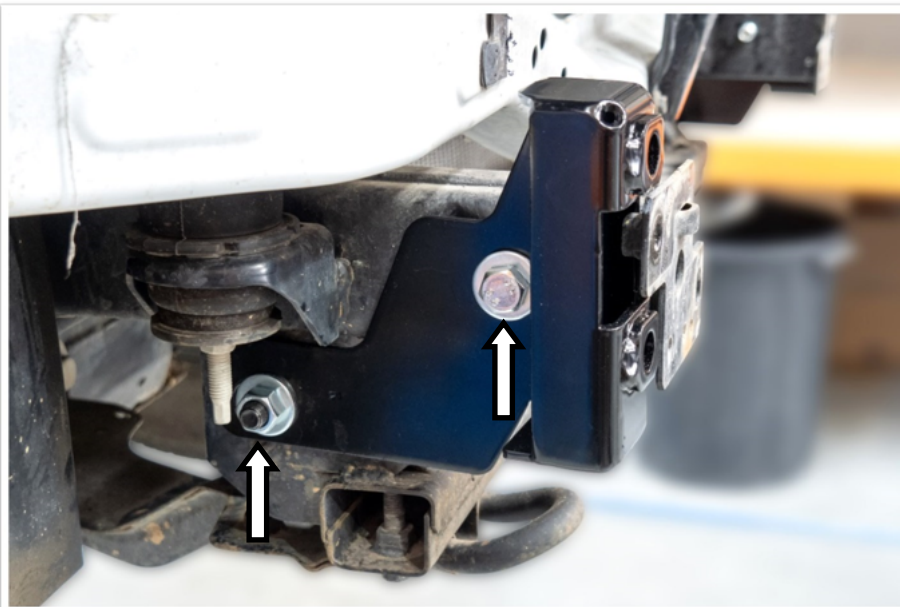




20. Trim the outer bumper bar retaining brackets in line with the bottom of the guards.

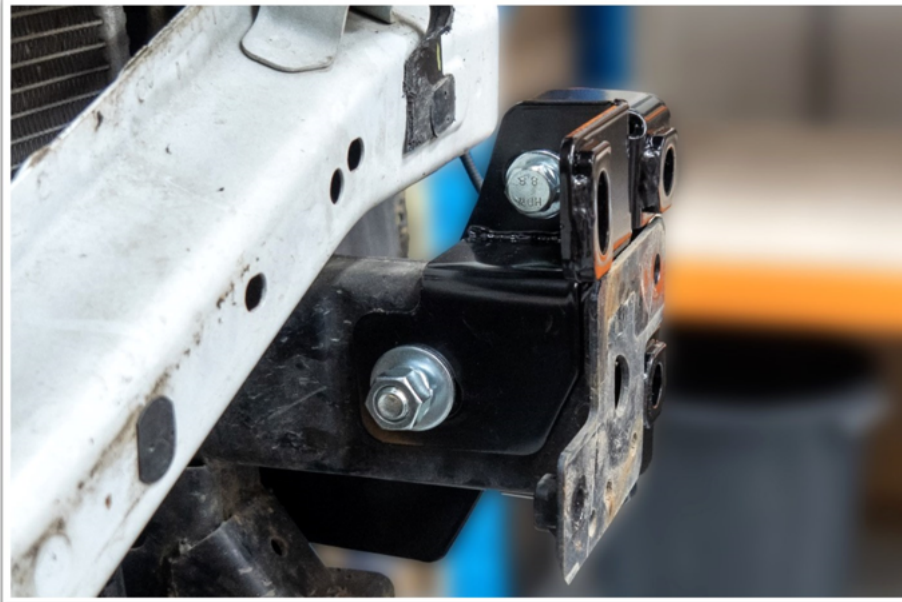


21. On lighter coloured vehicles it is advisable to paint the inside bottom section of the guard black.

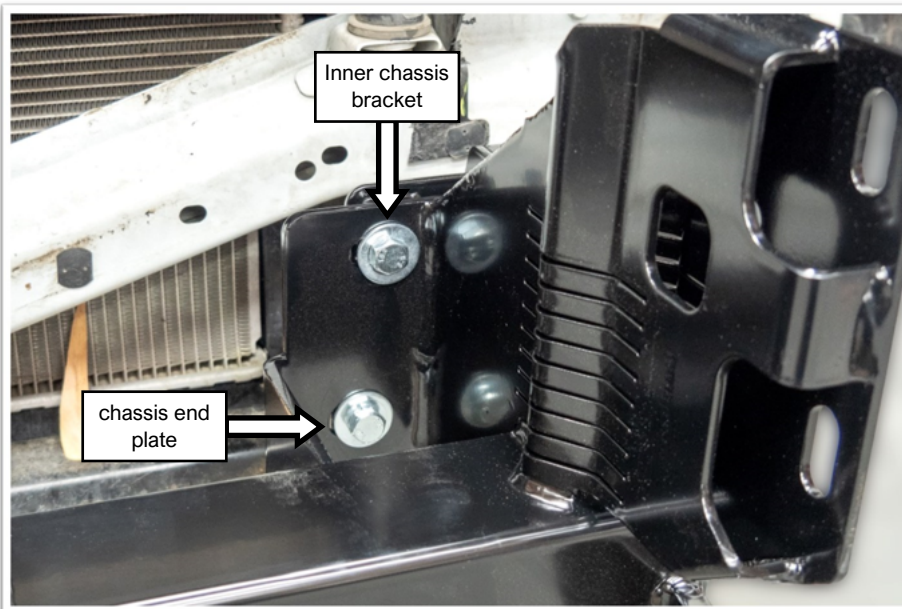


22. Fit the chassis brackets (item # 3 & 4) use M12 x 80mm hex bolts, M12 flat washers, M12 spring washers and M12 x 1.25 hex nuts for the lower hole.
23. Use the remaining M12 x 80mm hex bolts for the upper hole but do not fasten until the inner chassis brackets are fitted.

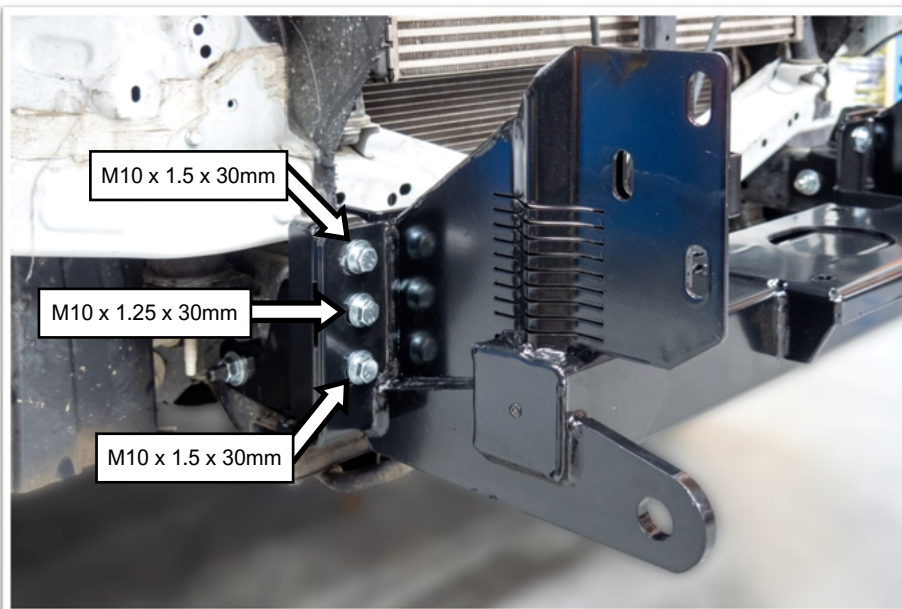
Caution: The lower bolt must be inserted from the inside otherwise damage to the radiator will occur.



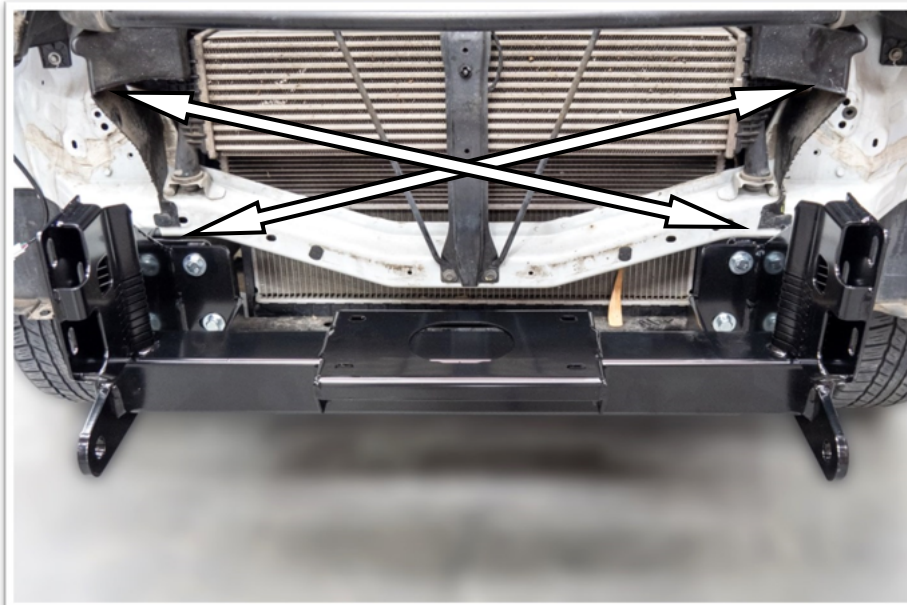
24. Fit the inner chassis brackets (item # 5 & 6). For the lower hole, secure to the previously installed M12 hex bolts with M12 flat and spring washers and M12 x 1.25 hex nuts.
25. The upper fastening location uses a M10 x 1.5 x 30mm hex bolt, M10 spring and flat washer.



26. Fit the winch bracket (item # 2) to the chassis end plates and inner chassis brackets. Where the winch bracket is fastened to the chassis end plates, use M10 x 1.25 x 30mm hex bolts, M10 spring and flat washers .
27. For fixing to the inner chassis bracket use M10 x 1.25 x 30mm hex bolts, M10 spring and flat washers and M10 flange nuts.



28. On the outsides use four M10 x 1.5 x 30mm hex bolts, M10 spring and flat washers to secure to the outer chassis bracket.
29. Use two M10 x 1.25 x 30mm hex bolts, spring and flat washers to secure to the chassis end plates.



30. Align the winch mount so that it is centred to the body of the vehicle.
31. Tighten all fasteners to the correct torque.
32. If a winch is being fitted, do so now. Use the hardware and instructions supplied with the winch.
33. Remove the winch cover plate from the bar.



34. If parking sensors are fitted, note the location and orientation of the parking sensors.
35. Remove the parking sensors.
36. Remove the parking sensor loom from the bumper bar.
37. Refit the parking sensors and parking sensor loom to the bull bar.



38. The bumper gets trimmed in a straight line from the crease where the outer bumper changes from vertical.



39. Apply masking tape across the bumper and trim using a suitable saw or multi-tool.
40. The bumper will also need sections cut out to clear the bar mount of the winch frame.
41. Deburr and clean up the cut edge.



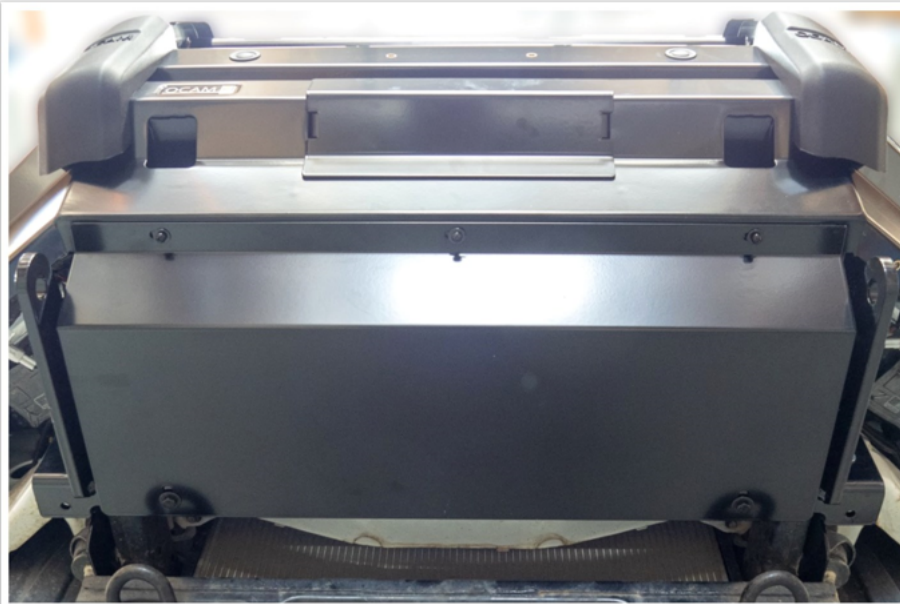
42. Reinstall the bumper and top covers using the original fasteners.



43. Lift the bull bar onto the winch mount bracket.
44. Secure using six M12 x 40mm hex bolts, M12 spring washers, twelve M12 flat washers and six M12 hex nuts. Tighten just enough to hold the bar in place.



45. Align the bar so that there is an even gap and the ends of the wings align with the guard.
46. Tighten all fasteners to the correct torque.
47. Connect the combination lamps, fog lights and parking sensors. Check they are all working correctly.
48. Using cable ties, neatly secure the looms away from any hot, sharp or moving objects.



49. Fit the M6 cage nuts to the inside rear of the centre bash plate (item # 7). These are used when refitting the plastic stone guard.
50. Fit the centre bash plate to the bull bar. For the front use three M6 dome head bolt sets. At the rear use two M6 dome head bolts sets and two M6 flange nuts.



51. Hold or temporarily secure the outer bash plates (item # 9 & 10) in place.
52. Mark a line on the wheel arc liners along the bottom edge of the bash plates.
53. Trim the wheel arch liners using a sharp knife or multi tool.



54. Tuck the trimmed guard liner behind the rear flange of the outer bash plates.
55. Secure the bash plates using four M6 dome head bolt sets along the outer edge and a M8 hex head bolt set and M8 flange nut for the inside rear.



56. Reinstall the plastic stone guard to the vehicle using the original fasteners at the rear and middle. At the front use two M6 dome head bolt sets.



57. Refit the number plate to the bar.