



TOYOTA LANDCRUISER 100 SERIES

1998-2007

PREDATOR AND TORO 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.

GENERAL CARE AND MAINTENANCE

Use caution when cleaning with pressure washers, as they may compromise the product coating's integrity. Exercise care to avoid surface damage.

Only wash the product with a PH neutral car wash to prevent paint damage and discolouration.

Do not use acidic or alkaline based cleaning products.

Plastic parts may be maintained with silicone spray.

It is important to perform regular checks (pre/during/post trip or on an annual basis) on the installed product. More frequent checks may be required in extreme use cases. 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.


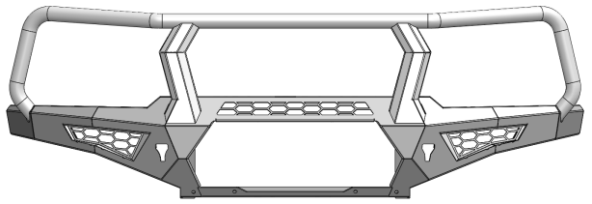
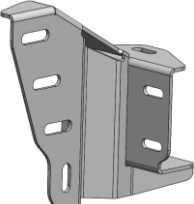
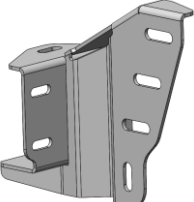
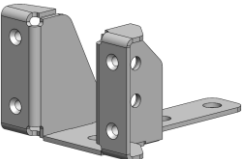
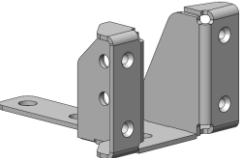
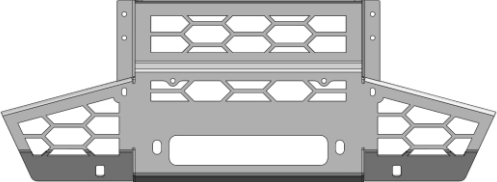
FRONT BAR MOUNTS AND TOW POINTS + REAR TOWBAR	
Size	Torque Nm
M10	57 Nm
M12	100 Nm
M14	164 Nm
M16	248 Nm

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.

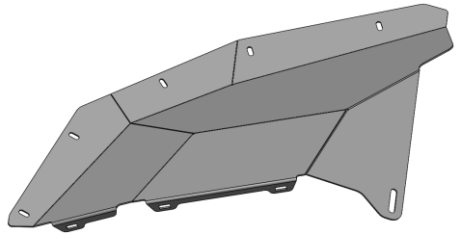
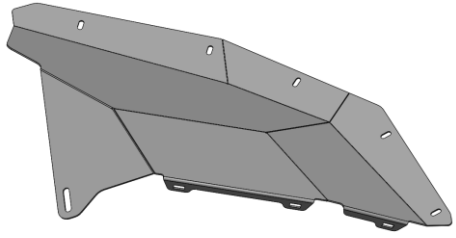

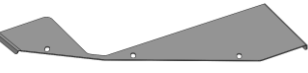


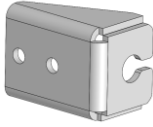
PARTS LISTING

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-TLC-100-98-PR-ASM1	LC100 Predator Bar Weldment	
OR			
1	FB-TLC-100-98-TOR-ASM1	LC100 Toro Bar Weldment	
1	FB-TLC-100-98-PR-ASM2R	LC100 Impact Assembly RH	
1	FB-TLC-100-98-PR-ASM2L	LC100 Impact Assembly LH	
1	FB-TLC-100-98-PR-ASM3R	LC100 Chassis Brace RH	
1	FB-TLC-100-98-PR-ASM3L	LC100 Chassis Brace LH	
1	FB-TLC-100-98-PR-ASM4	LC100 Mesh Fairlead Welded Assembly	

2	B-1406	LC100/105 Pan Brace	
1	B-1750R	LC100 Tow Point Chassis Bracket RH	
1	B-1750L	LC100 Tow Point Chassis Bracket LH	
1	B-1753R	LC100 Side Underpanel Mount RH	
1	B-1753L	LC100 Side Underpanel Mount LH	
1	B-1754R	Fog Light Bracket, to suit Halo and Type A RH	
1	B-1754L	Fog Light Bracket, to suit Halo and Type A LH	
2	P-0523	LC100 Tow Point Main Plate	
2	P-0524	LC100 Tow Point Outer Plate	
1	U-0126	LC100 Bash Plate	

1	U-0127R	LC100 Side Underpanel RH	
1	U-0127L	LC100 Side Underpanel LH	
1	U-0128	LC100 Wheel Arch Guard RH	
1	U-0129	LC100 Wheel Arch Guard LH	
1	FB-TLC-105-98-PR-ADRCP	ADR Compliance Plate 105 Series	
1	OFA-LOGO	Offroad Animal Metal Logo	
1	FI Note	Fitting Instruction Note	N/A
2	PWS-TOP-LGE-700	Pinch Weld Large Top Bulb Seal, Ambassador P/N PW721, Length 700mm	N/A
TORO ONLY			
2	B-0649	Toro Antenna Bracket - 90 Degree Tall	

PREDATOR Small Parts – Contained in Small Parts Kit Bag

Qty	Part Number	Description
4	M5X15 BHCS BZP	SCREW, BUTTON HEAD CAP, M5X15X0.8 GR12.9 ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M5 Flat washer BZP	M5 Flat Washer, 10x5.3x1, ISO4042 ZnNi BLACK PASSIVATED FIN
4	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP
8	M6 X 12 HEX	M6X12 HEX BOLT, ZP, 8.8
28	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
8	M6 FLAT WASHER	M6 Flat Washer
28	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
16	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
16	M6CN3MM	CAGE NUT M6x2.6-3.5
6	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
6	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
6	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
12	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
6	M10 x 35	Bolt Hex, M10X35x[1.5], GR8.8 ZP
18	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
10	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
2	M12X140	Bolt Hex, M12X140x1.75, GR8.8 ZP
14	M12 FW LHD	M12 FW Large Heavy Duty
8	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
2	M12 Nyloc nut	M12 NYLOC NUT
4	M14X40X1.5 GR10.9	Bolt Hex, M14X40x1.5, GR10.9 ZP
4	M14 FW LHD	WASHER, FLAT M14X30X3.8 ZP
2	T-0061	Silverado 1500 Crush Tube 95mm
4	NP-COM-M10-80-ASM0	M10 LOLLYPOP NUT PLATE 80MM LONG
2	NP-COM-M12-300-ASM0	M12 NUT PLATE 300MM STEM

TORO Small Parts – Contained in Small Parts Kit Bag

Qty	Part Number	Description
4	M5X15 BHCS BZP	SCREW, BUTTON HEAD CAP, M5X15X0.8 GR12.9 ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M5 Flat washer BZP	M5 Flat Washer, 10x5.3x1, ISO4042 ZnNi BLACK PASSIVATED FIN
4	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP
8	M6 X 12 HEX	M6X12 HEX BOLT, ZP, 8.8
28	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
8	M6 FLAT WASHER	M6 Flat Washer
28	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
16	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
16	M6CN3MM	CAGE NUT M6x2.6-3.5
6	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
6	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
10	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
12	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
6	M10 x 35	Bolt Hex, M10X35x[1.5], GR8.8 ZP
18	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
10	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
2	M12X140	Bolt Hex, M12X140x1.75, GR8.8 ZP
14	M12 FW LHD	M12 FW Large Heavy Duty
8	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
2	M12 Nyloc nut	M12 NYLOC NUT
4	M14X40X1.5 GR10.9	Bolt Hex, M14X40x1.5, GR10.9 ZP
4	M14 FW LHD	WASHER, FLAT M14X30X3.8 ZP
2	T-0061	Silverado 1500 Crush Tube 95mm
4	NP-COM-M10-80-ASM0	M10 LOLLYPOP NUT PLATE 80MM LONG
2	NP-COM-M12-300-ASM0	M12 NUT PLATE 300MM STEM



TOOLS REQUIRED

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 10-21mm	Electric/Air Impact Driver (Optional)	Panel Stand or Soft Blanket
Socket Extension Bar	Angle Grinder	Lifting Trolley
Metric Spanner Set 10-21mm	Soldering Iron	Measuring Tape
Hex (Allen) Key Set 3-6mm		Lubricant (eg. WD-40)
Trim Removal Tool		Cold galvanising paint
Plastic Auto Trim Tool Set		Cleaning Solvent
Flat Blade Screwdriver Set		Black Spray Paint
Phillips Head Screwdriver Set		Heat shrink
Utility Knife		Electrical tape
Side Cutters		
Pliers		
Deburring Tool		
M15x1.5 metric tap		
Torque wrench		
Wire Strippers		

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>



Note: The photos in this instruction are mainly of a 2003-2007 post-facelift model. 1998-2002 pre-facelift models may differ slightly in some areas but do not affect fitment.

Bumper removal process shown below. If other brand bull bar has been fitted, strip all installed parts off the car (including tow hooks) and skip to 15.

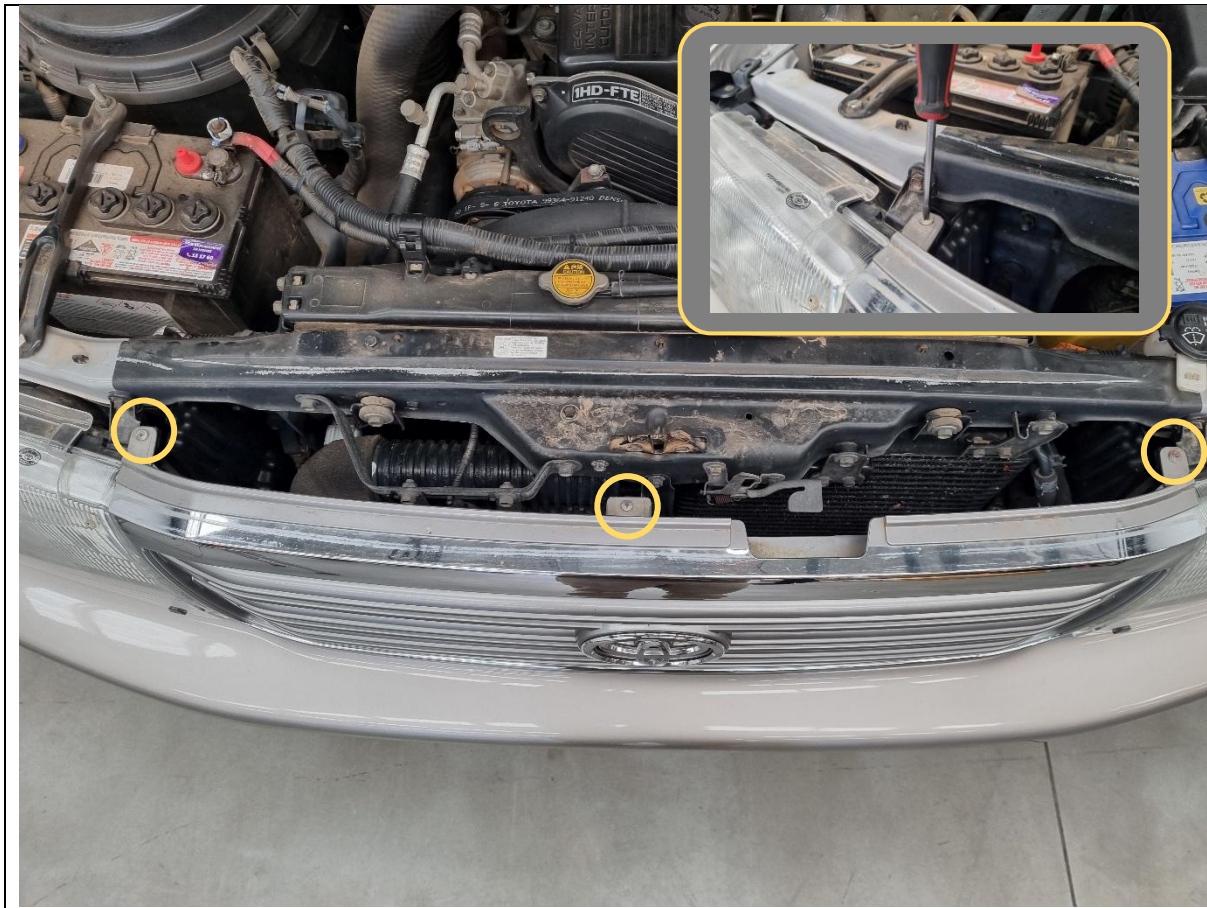
1. Remove number plate and set aside.
2. Open the bonnet.

TOOLS REQUIRED

Phillips head screwdriver

FASTENERS

Discard



3. Remove 3x Phillips head screws holding the top of the grille.

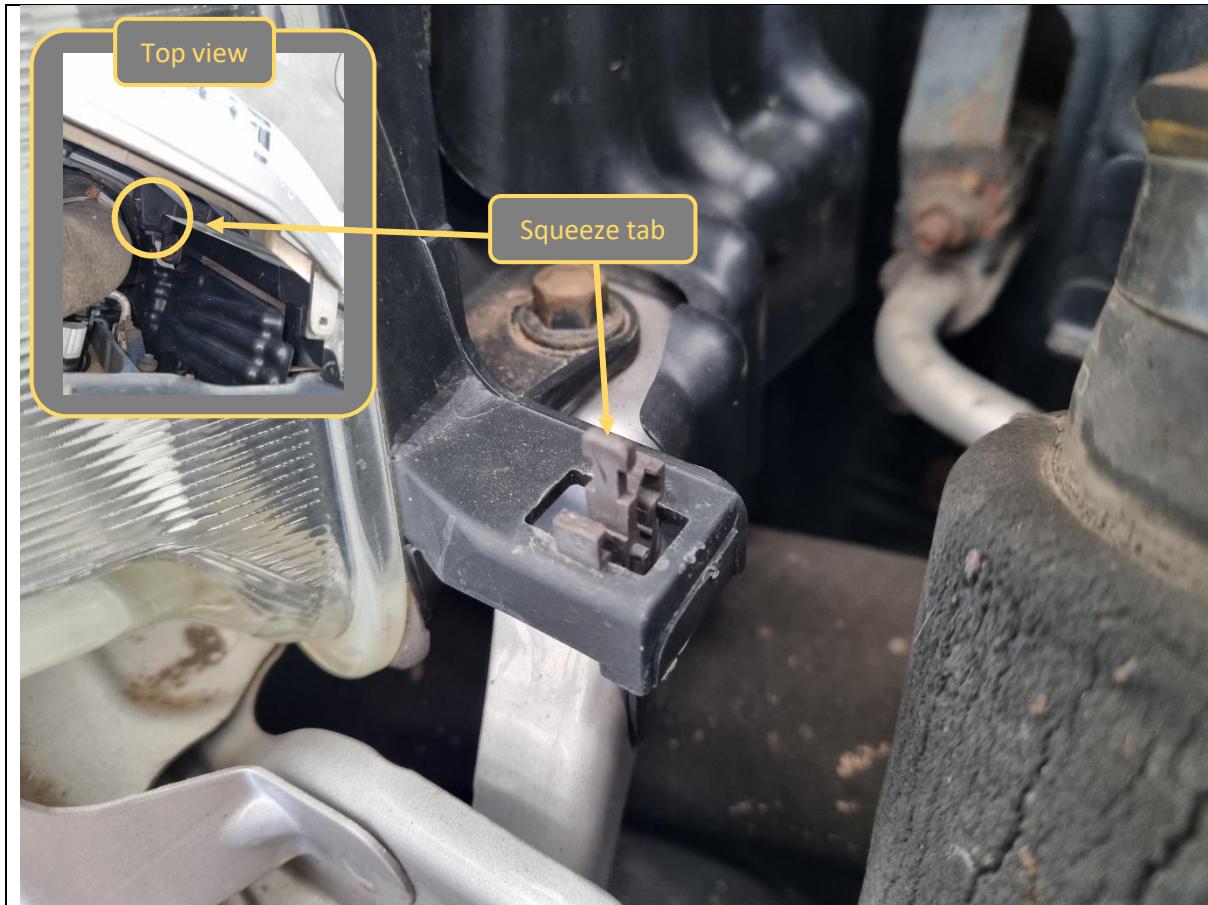
TOOLS REQUIRED

Phillips head screwdriver

FASTENERS

3x Phillips head screw

Retain for re-assembly



4. Look down behind the grille and locate 2x clips either side. Press and squeeze on the tab to release the clips.

Grille removed in main photo above to show the clip and tab.

TOOLS REQUIRED

FASTENERS

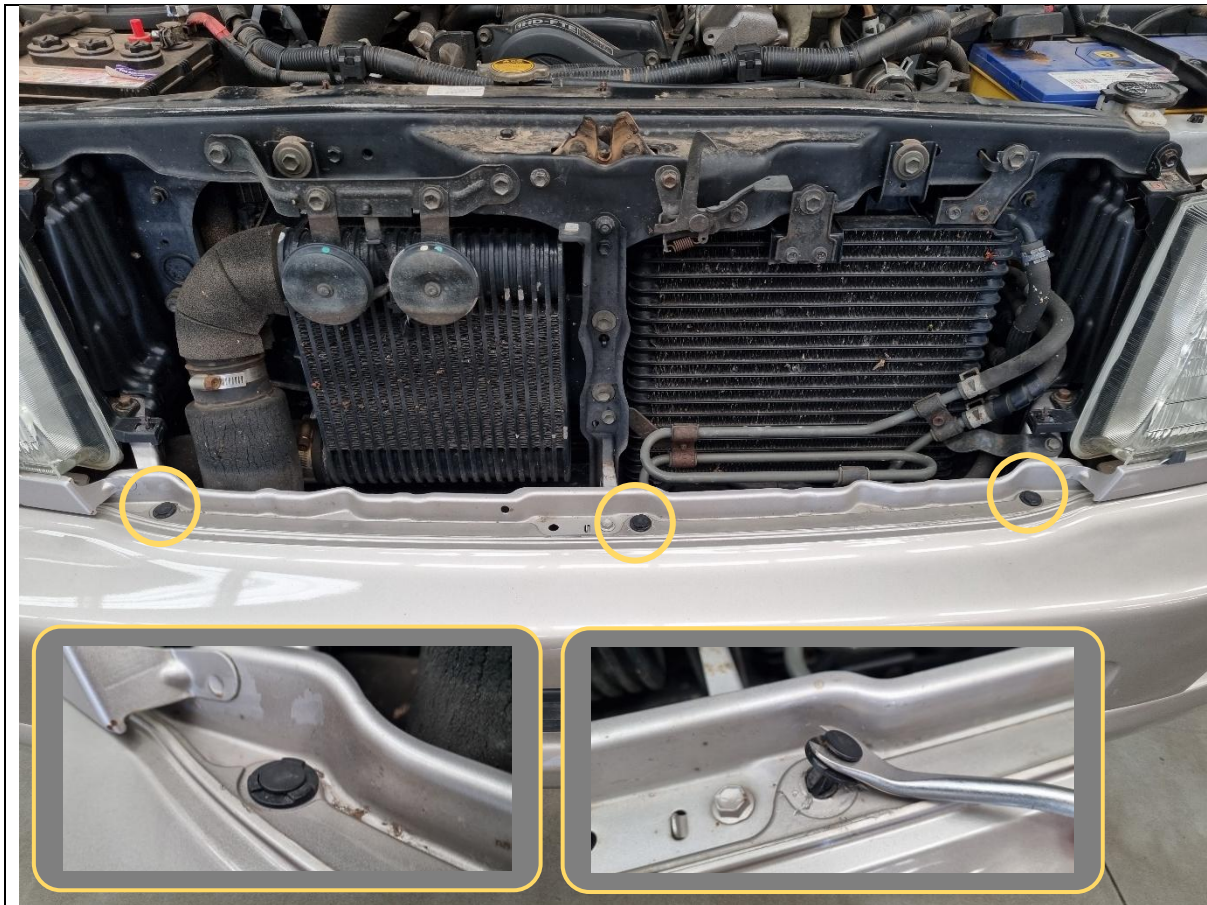


5. Remove grille and set aside.

TOOLS REQUIRED

FASTENERS

Discard



6. Remove 3x plastic push clips holding the bumper to the body.

Use a flat blade screwdriver or trim tool to pry up the centre section of the clip to remove.

TOOLS REQUIRED

Trim tool
or
Flat blade screwdriver

FASTENERS

3x plastic clips

Discard



7. Locate and remove 1x 10mm hex screw holding each corner of the bumper to the quarter panel.

TOOLS REQUIRED

10mm socket/spanner
or
Phillips head screwdriver

FASTENERS

2x 10mm hex screw

Discard



8. Remove 4x 10mm hex bolts holding the underside of the bumper.

TOOLS REQUIRED

10mm socket/spanner

FASTENERS

4x 10mm hex bolt

Discard



9. If equipped, reach in behind the bumper and remove the fog light bulbs from the light housing. They should be bayonet style quarter turn to release.

TOOLS REQUIRED

FASTENERS



10. Remove and discard the bumper. The factory fog lights can not be re-used in the bull bar.

TOOLS REQUIRED

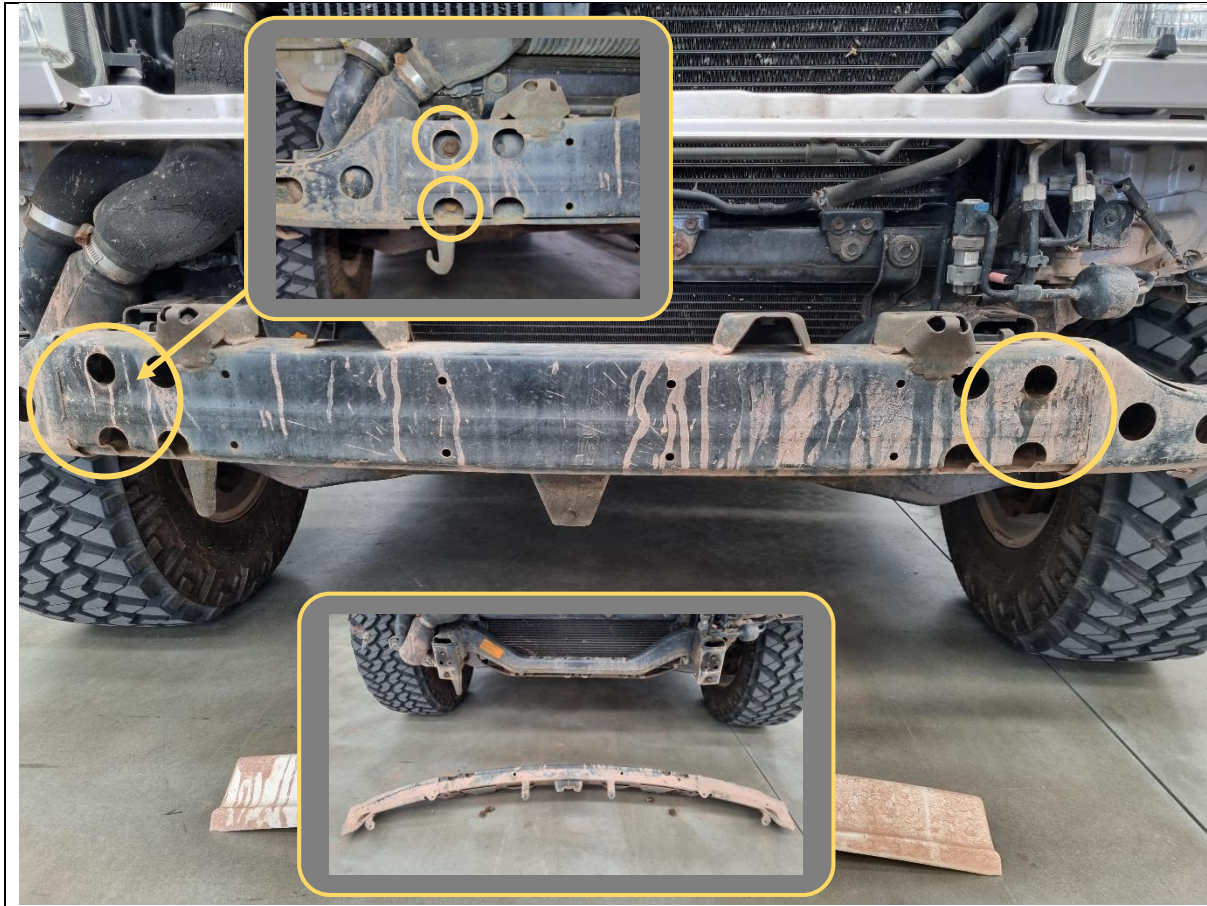
FASTENERS



11. Pull the foam impact absorber off the crash beam.

TOOLS REQUIRED

FASTENERS



12. Remove 4x 14mm hex bolts holding the steel impact beam.

It is highly recommended to use penetrating oil when removing these bolts, since these vehicles are old.

13. Lift the steel impact beam to unhook from the chassis and remove/discard.

TOOLS REQUIRED

Lubricant or penetrating oil
(eg. WD-40)

14mm socket

FASTENERS

4x 14mm hex bolt

Discard



RH DRIVER SIDE SHOWN

LH passenger side

14. Remove 2x 19mm hex bolts holding each tow hook/tie down point to the underside of the chassis.

It is highly recommended to use penetrating oil when removing these bolts.

TOOLS REQUIRED

Lubricant or penetrating oil
(eg. WD-40)

19mm socket/spanner

FASTENERS

4x 19mm hex bolts

Discard



15. The bottom of the chassis horns need to be cut off so the underside of the chassis is perfectly flush.

If fitting to a vehicle that previously had another brand aftermarket bull bar, this modification may have already been done.

16. Use safety PPE and an angle grinder to cut off the bottom of the chassis horns.

TOOLS REQUIRED

Safety glasses
Hearing protection

Angle grinder

FASTENERS



17. Check if you have cut enough off the chassis horn by dry test fitting the ASM3 chassis braces. The bottom of the brace should be able to sit perfectly flush with the underside of chassis.

If not, remove more material where it is interfering.

18. Once chassis cut is complete, deburr and clean the exposed bare metal, and apply cold galvanizing paint to prevent corrosion.

Follow paint instructions and allow to dry.

TOOLS REQUIRED

Deburring tool
Cleaning solvent

Cold galvanising paint

FASTENERS



19. While chassis paint is drying, for light coloured vehicles, it is recommended to paint the guard under the headlight black.

Clean the panels before applying any paint. Mask off surrounding areas to prevent overspray.

TOOLS REQUIRED

Cleaning solvent
Black spray paint

FASTENERS



20. Clean the tow hook hole threads on the underside of the chassis with an M14x1.5 fine pitch metric tap.

TOOLS REQUIRED

M14x1.5 tap

FASTENERS



21. Fit the ASM3 chassis brace and B-1750 tow point chassis brace bracket to the underside of the chassis.

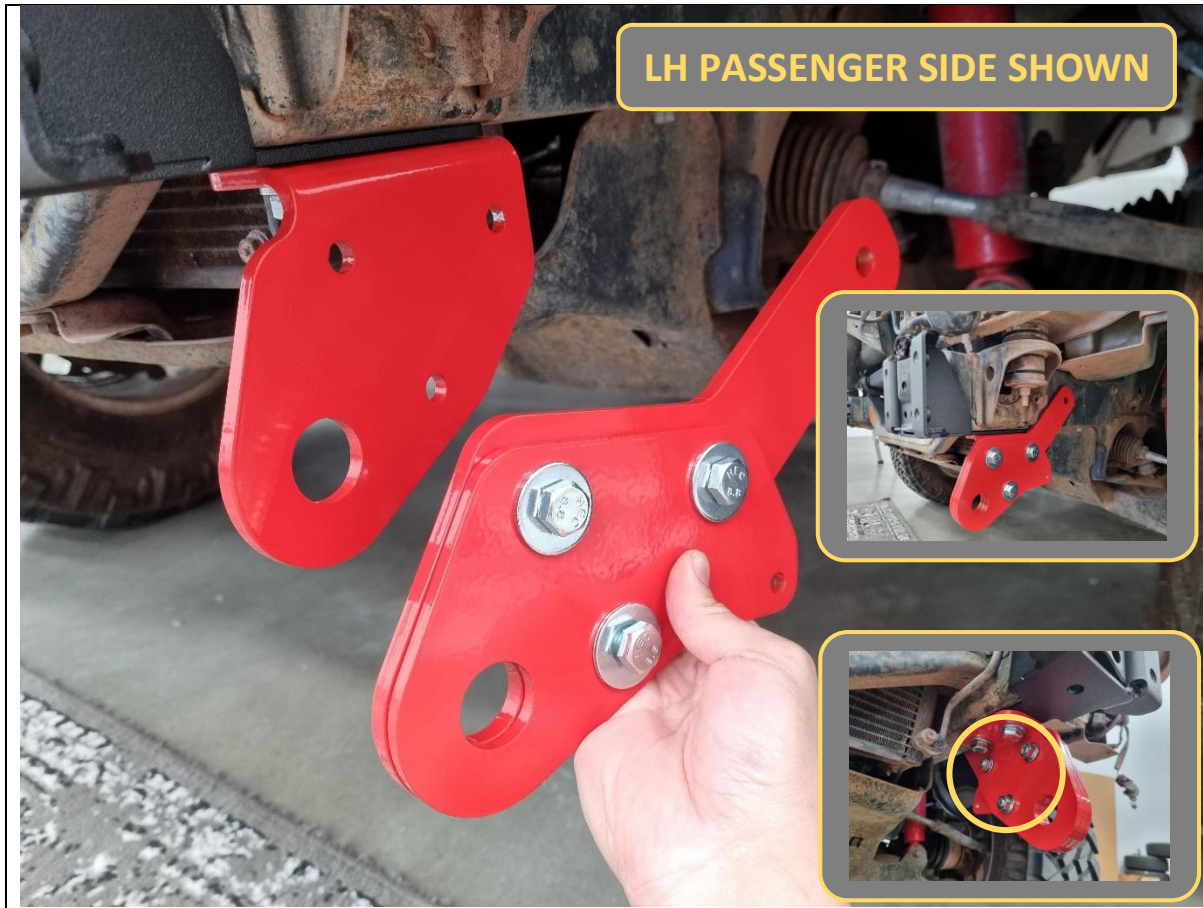
Note: The chassis braces are not symmetric, there is an LH and RH version. You can tell you have the correct side when the holes on the underside line up with the chassis holes.

22. Loosely secure both brackets with 2x M14x40x1.5 fine pitch bolts and washers, per side of the car.

TOOLS REQUIRED

FASTENERS

4x M14x40x1.5 hex bolt
4x M14 washer



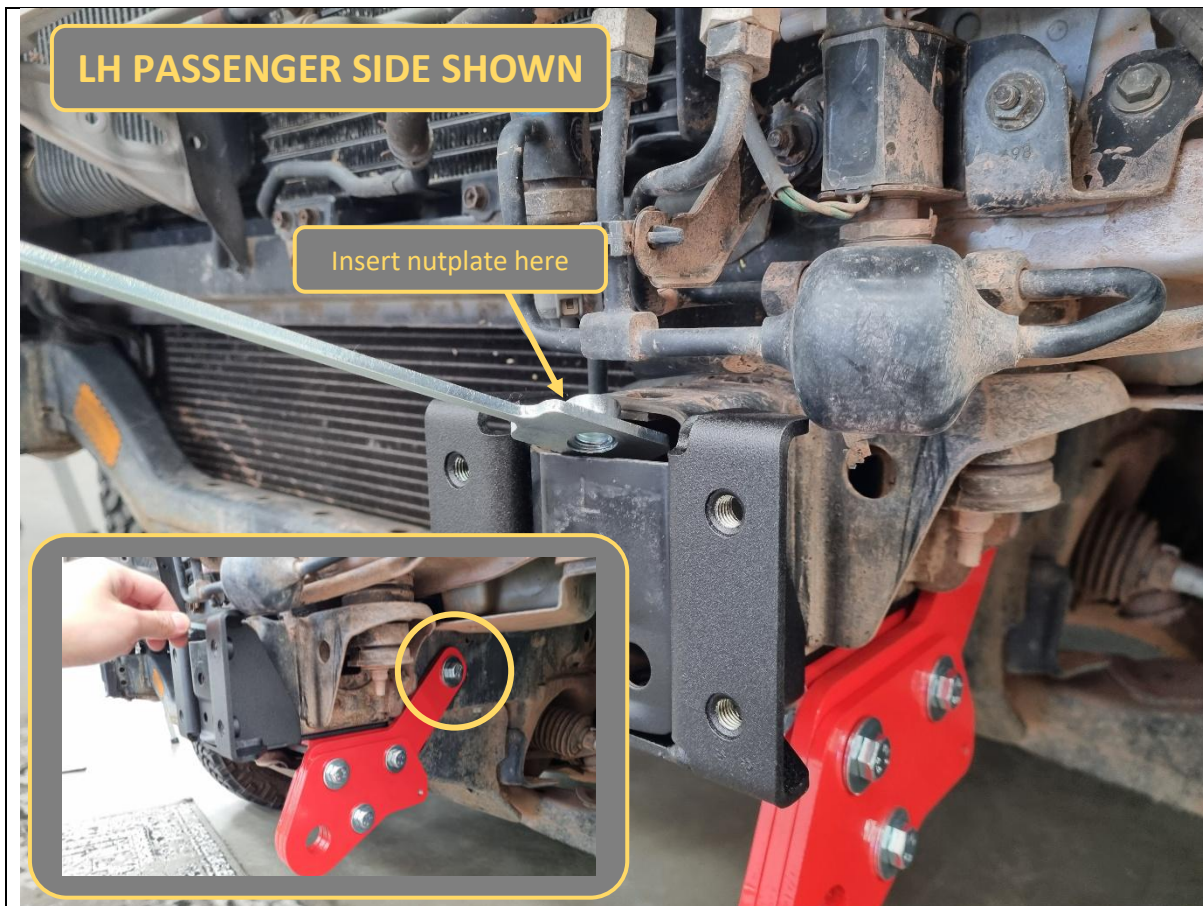
23. Next stack the P-0524 tow point outer plate on top of the P-0523 tow point main plate, then fit to the outside of the tow point chassis bracket.

24. Loosely secure with 3x M10x35 hex bolts, washers and flange nuts, per side.

TOOLS REQUIRED

FASTENERS

- 6x M10x35 hex bolt
- 6x M10 washer
- 6x M10 flange nut

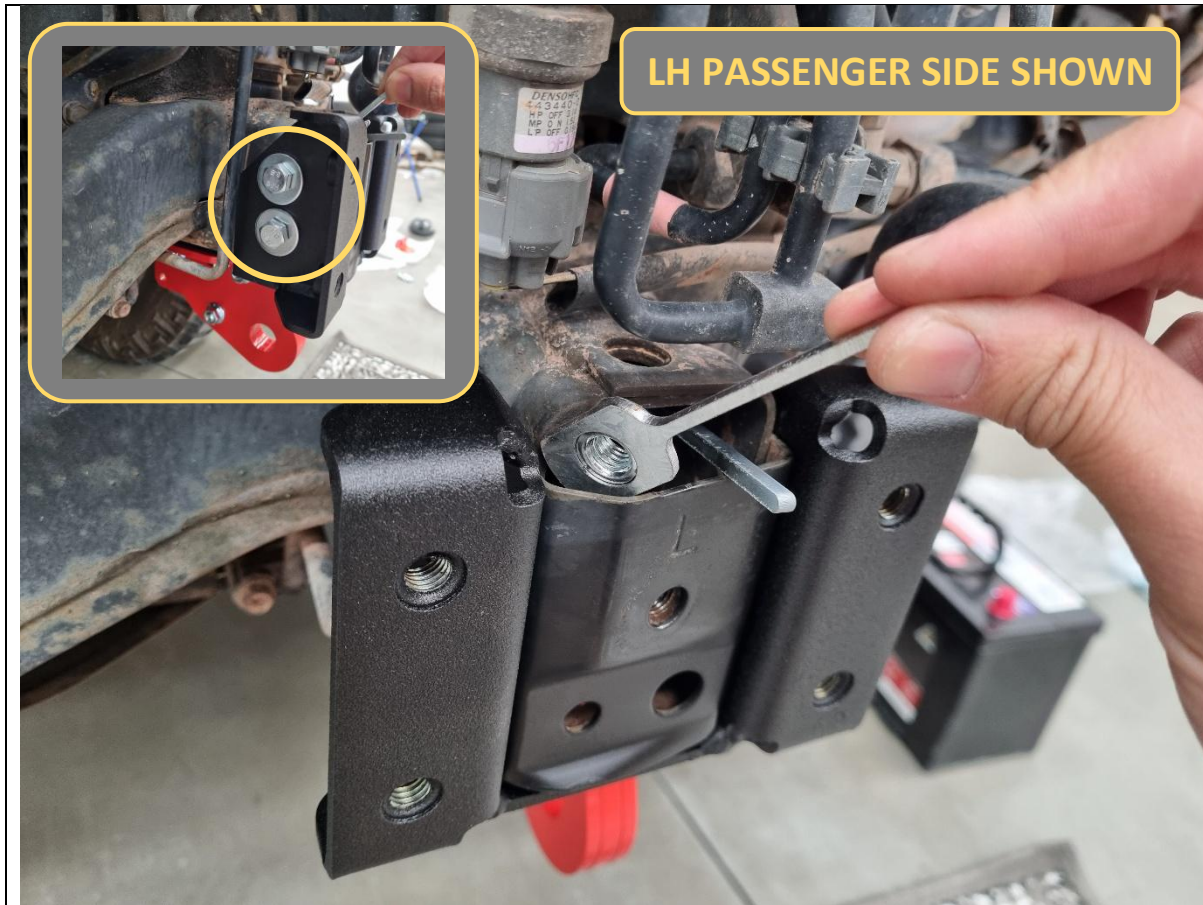


25. Insert 1x long M12 lollipop nut plate through the small opening at the front of the chassis and line it up with the hole in the chassis at the rear of the tow point main plate.
26. Loosely secure 1x M12x30 hex bolt and washer to the nutplate, as circled. Do this for both LH and RH.

TOOLS REQUIRED

FASTENERS

- 2x M12x30 hex bolt
- 2x M12 washer
- 2x M12 lollipop nutplate

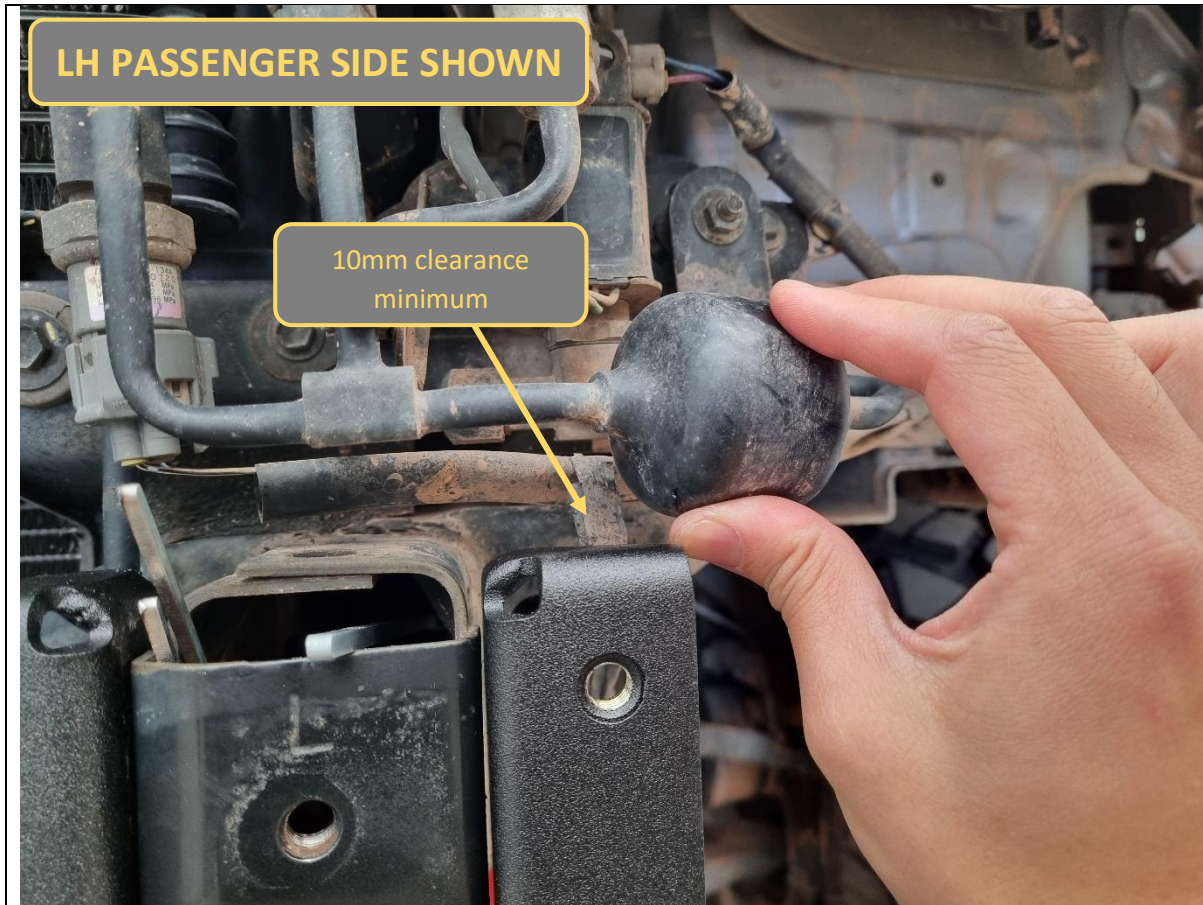


27. Insert 2x short stem M10 lollipop nutplates through the same opening in the front of the chassis.
28. Align the nutplates with the holes on the inner face of the chassis rail end.
29. Loosely secure 2x M10x25 hex bolts and washers to the 2x nutplates, as circled. Do this for both LH and RH.

TOOLS REQUIRED

FASTENERS

- 4x M10x25 hex bolt
- 4x M10 washer
- 4x M10 lollipop nutplate

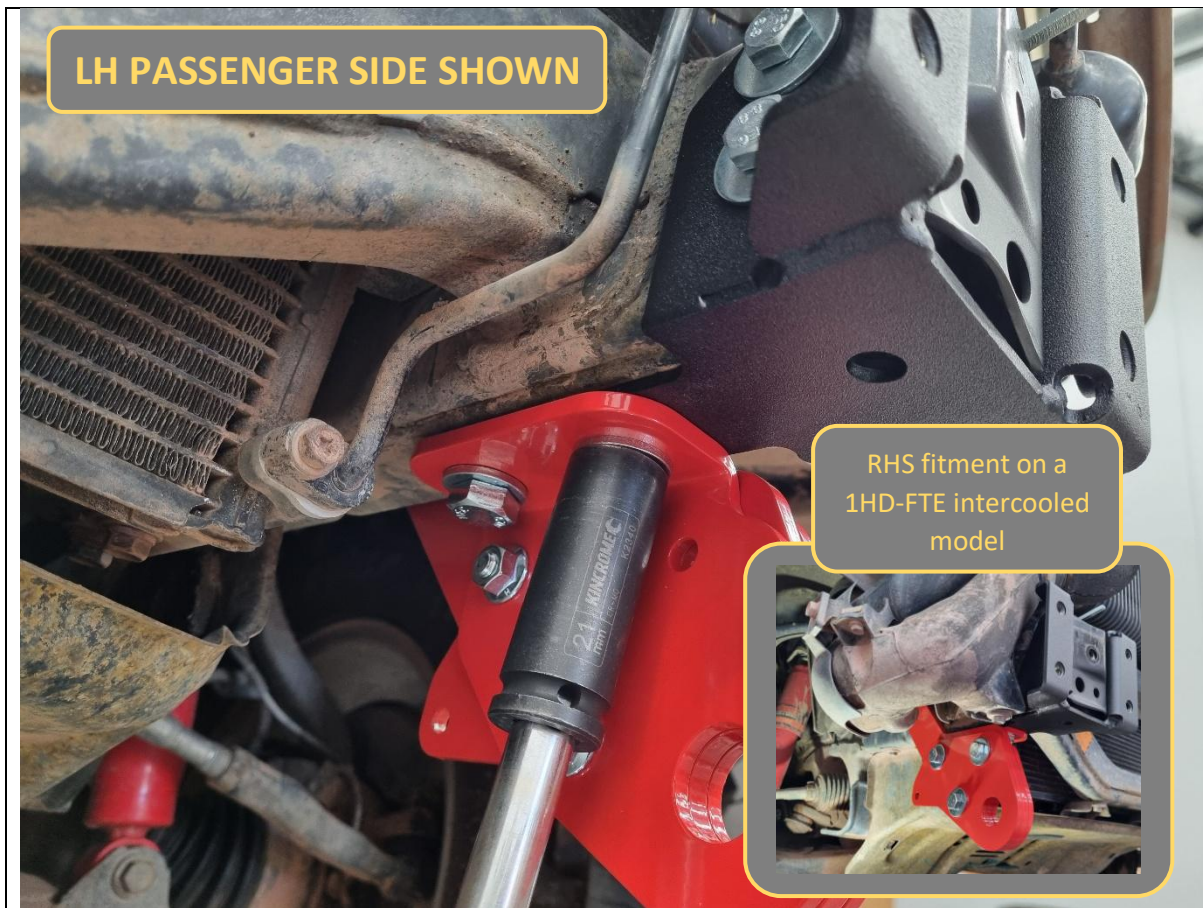


30. Check clearances between chassis braces and AC lines/expansion chambers on both sides of the car.

Gently bend any lines by hand (do not use tools as they may cause break/damage to the AC system) to achieve 10-15mm clearance.

TOOLS REQUIRED

FASTENERS



31. Tighten all bolts holding chassis braces and tow points in the following order:
- a. Bottom M14 bolts (might need to temporarily remove side M10s for tool access)
 - b. Side M10 bolts (both inner and outer of chassis)
 - c. Rear M12 bolt

TOOLS REQUIRED

16/17mm socket/spanner
18/19mm socket/spanner
21mm socket/spanner

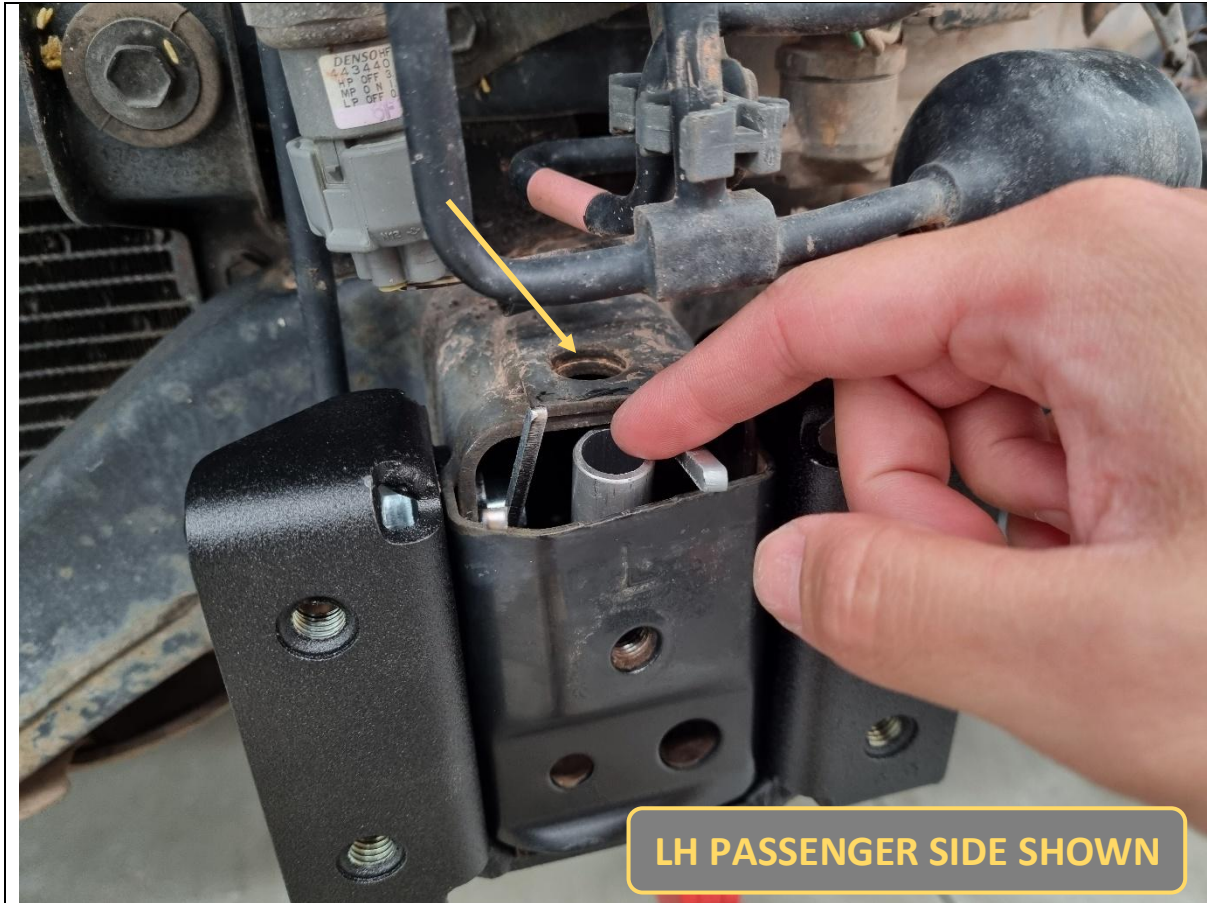
FASTENERS



Front of vehicle should now look like this.

TOOLS REQUIRED

FASTENERS



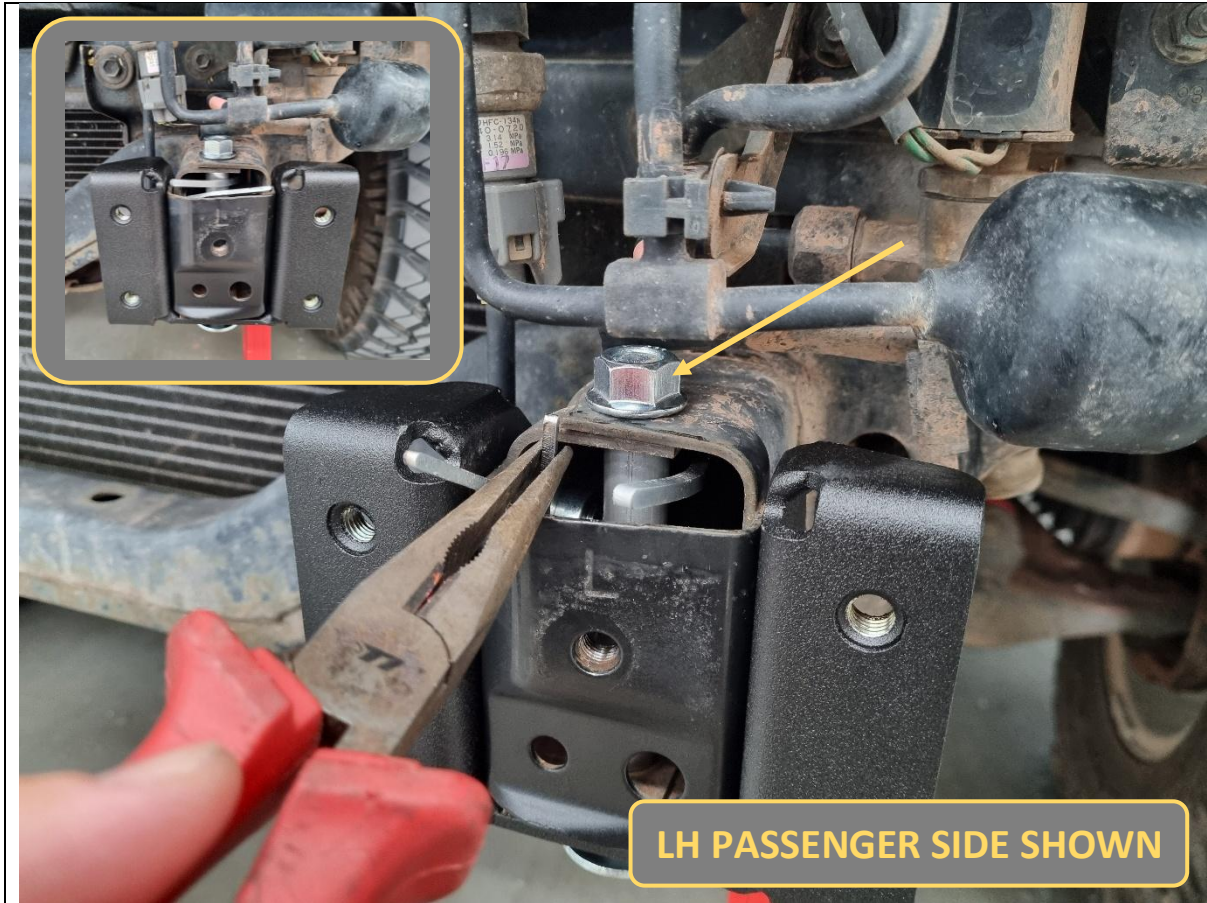
32. Drop a crush tube down the front opening of the chassis and line it up with the hole on the top and bottom of the chassis.

Use pliers to assist with holding the crush tube so it doesn't fall on its side.

TOOLS REQUIRED

Pliers

FASTENERS



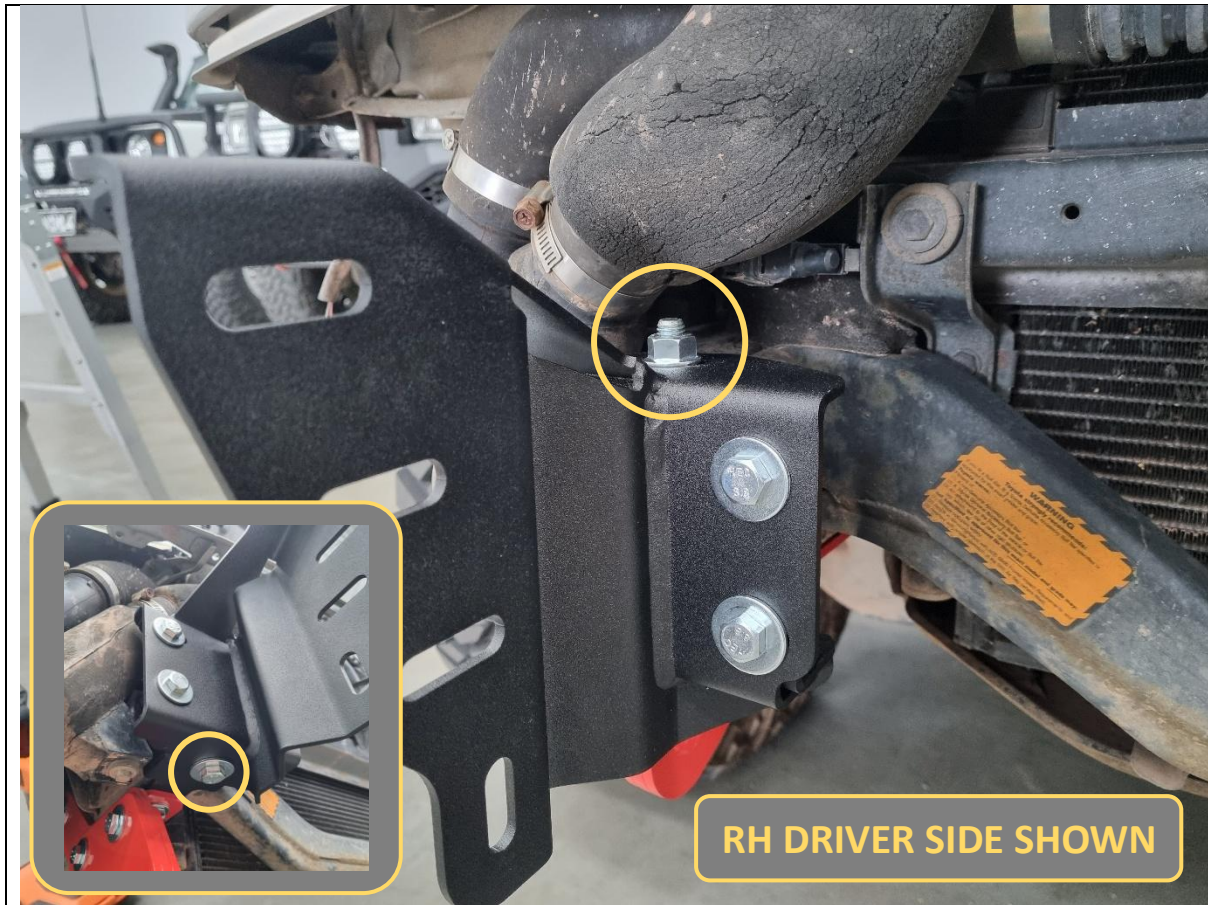
33. Use a long M12x140 hex bolt (and nut) to hold the crush tube in place for the time being.
34. Use pliers to bend the nutplate stems out of the way they don't protrude past the front mounting face of the chassis brace.

TOOLS REQUIRED

Pliers

FASTENERS

2x M12 hex bolt



35. Remove the long M12 bolts so you can fit the impact assemblies onto the ends of the chassis.

Loosely secure the impact assembly to the chassis with the long M12x140 hex bolt, washer and flange nut. Do this for both LH and RH.

Ensure the crush tube is still lined up in the chassis when doing this.

Bolt head on underside and flange nut on top.

TOOLS REQUIRED

FASTENERS

- 2x M12x140 hex bolt
- 2x M12 washer
- 2x M12 flange nut

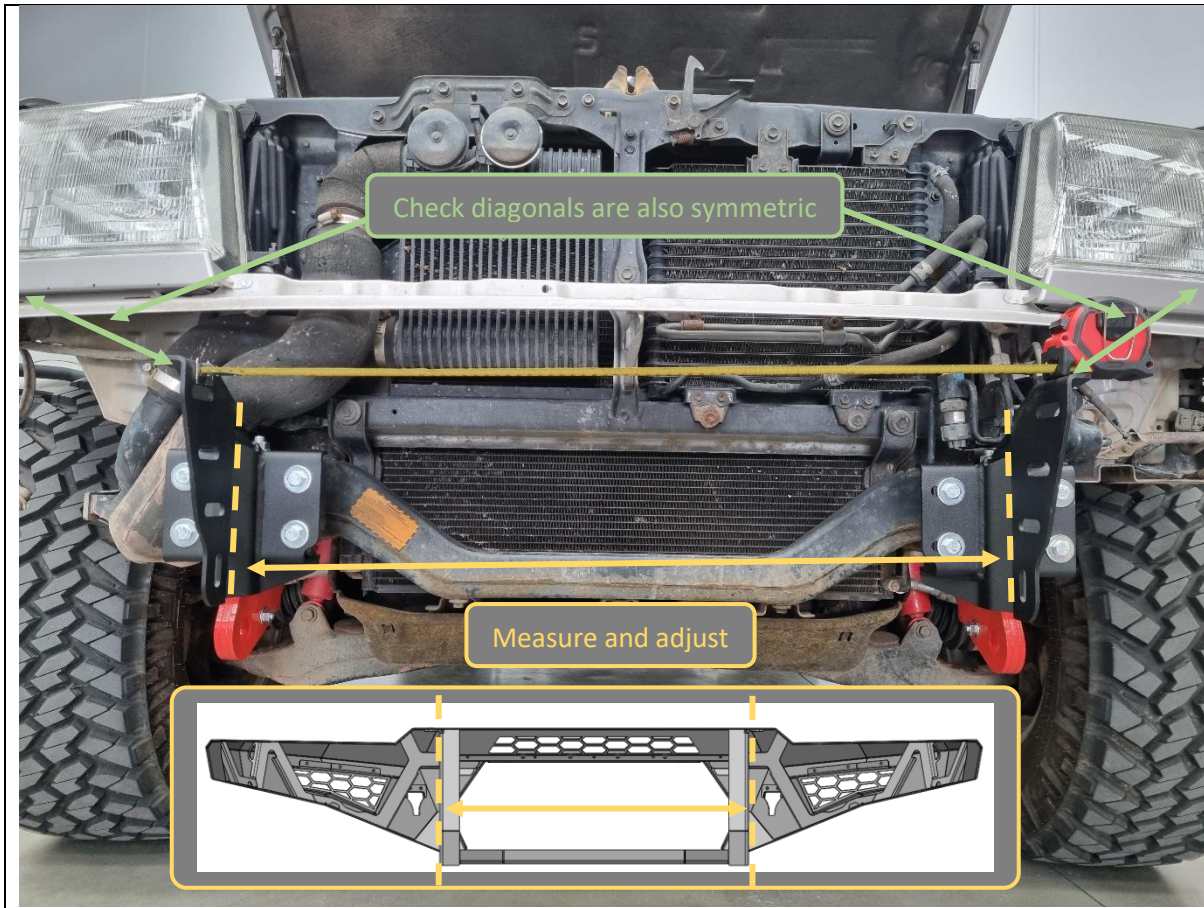


36. Loosely secure the impact assembly to the nutserts in the chassis brace with 4x M10x25 hex bolts and washers. Do this for both LH and RH.

TOOLS REQUIRED

FASTENERS

8x M10x25 hex bolt
8x M10 washer



37. Measure the distance between the outside faces of the uprights on the bull bar using a tape measure. Write the distance below for reference if required:

Bar upright width = _____ mm

38. Adjust the impact assemblies by sliding left/right on the slots, such that the distance between the inner mounting faces of the impact assemblies are 2-5mm more than the bull bar distance. Ensure the mount faces are vertically upright.

39. Also ensure the mount faces are vertically upright and symmetric left/right on the vehicle.

Measure to the corners of the headlights or similar to check, rather than using the chassis as reference.

This is because the body of the vehicle may not necessarily be mounted centrally on the chassis.

TOOLS REQUIRED

Tape measure

FASTENERS



40. Once happy with alignment, tighten (and check with torque wrench) all bolts holding impact assemblies, tow points and chassis braces in the following order:

1. Front M10 bolts
2. Top/bottom M12 bolts

41. Re-check the distance and re-adjust if required.

TOOLS REQUIRED

16/17mm socket/spanner
18/19mm socket/spanner

Torque wrench

FASTENERS



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

This bar is designed to fit the Offroad Animal 22-inch light bar. If fitting this light bar, assemble the light bar with legs facing outwards, and line it up with the slots in the centre gusset. Secure with M6 fasteners supplied with the light.

This bar can accommodate most other “20-22inch” size single row light bars. Stedi ST3K light bars require legs facing inwards.

TOOLS REQUIRED

Supplied with accessories

FASTENERS

Supplied with accessories



43. Fit the 2x pan braces behind the integrated light bar area and secure each one to the bar using 2x M6x16 black button head bolts, black washers and flange nuts (top) and 2x M6x12 hex bolts and washers (bottom).

The pan brace is required for all fitments, even if no lights are installed.

TOOLS REQUIRED

4mm hex/Allen key
10mm socket/spanner

FASTENERS

4x M6x16 black button head
4x M6 black washer
4x M6 flange nut

4x M6x12 hex bolt
4x M6 washer



44. If fitting driving lights or top tubes (Stealth Hoop, Round Hoop or Rally Hoop), now is the best time to do so. It is still possible later, but it is more difficult.

The Predator bar supports up to 3x 9" round driving lights.

The Toro bar supports up to 3x 9" round driving lights, so long as the light is less than 230mm tall.

TOOLS REQUIRED

Supplied with accessories

FASTENERS

Supplied with accessories



RH DRIVER SIDE SHOWN

<p>45. Fit 10x M6 cage nuts into the rectangular slots in bottom of the bull bar wings (5x per side).</p> <p>Use a small flat blade screwdriver to push the edge of the cage to engage with the slot to aid fitting.</p>	<p>TOOLS REQUIRED</p> <p>Flat blade screwdriver</p>
	<p>FASTENERS</p> <p>10x M6 cage nuts</p>



- 46. B-1754 brackets are supplied for fitting Type A fog lights. On Predator bars fitment is optional, however Toro bars are supplied with a 4-in-1 light equipped with indicators as standard.
- 47. Fit light to the bracket using 4x M6x16 black button head bolts, black washers and flange nuts.
- 48. Then secure each light with mounting bracket to the inside the bull bar wings using 2x M6x12 hex bolts, washers and flange nuts.

TOOLS REQUIRED

4mm hex/Allen key
10mm socket/spanner

FASTENERS

8x M6x16 black button head
8x M6 black flat washer
4x M6x12 hex bolt
4x M6 flat washer
12x M6 flange nut



- 49. For Predator bars, B-1169 mounting brackets can be provided if wanting to fit a cube light or an 8" light bar into each bull bar wing.
- 50. Secure each mounting bracket to the inside the bull bar wings using same fasteners as the fog light brackets.

TOOLS REQUIRED

10mm socket/spanner

Supplied with accessories

FASTENERS

4x M6x12 hex bolt
4x M6 flat washer
4x M6 flange nut

Supplied with accessories



51. Fit the supplied rubber pinch weld to each bull bar wing as shown. Trim ends with side cutters if oversized.

TOOLS REQUIRED

Side cutters

FASTENERS



52. **Toro only.** If required, fit the supplied antenna mounting brackets to the back of the bar, and secure with 2x M8x20 black button head bolts and black washers, each.

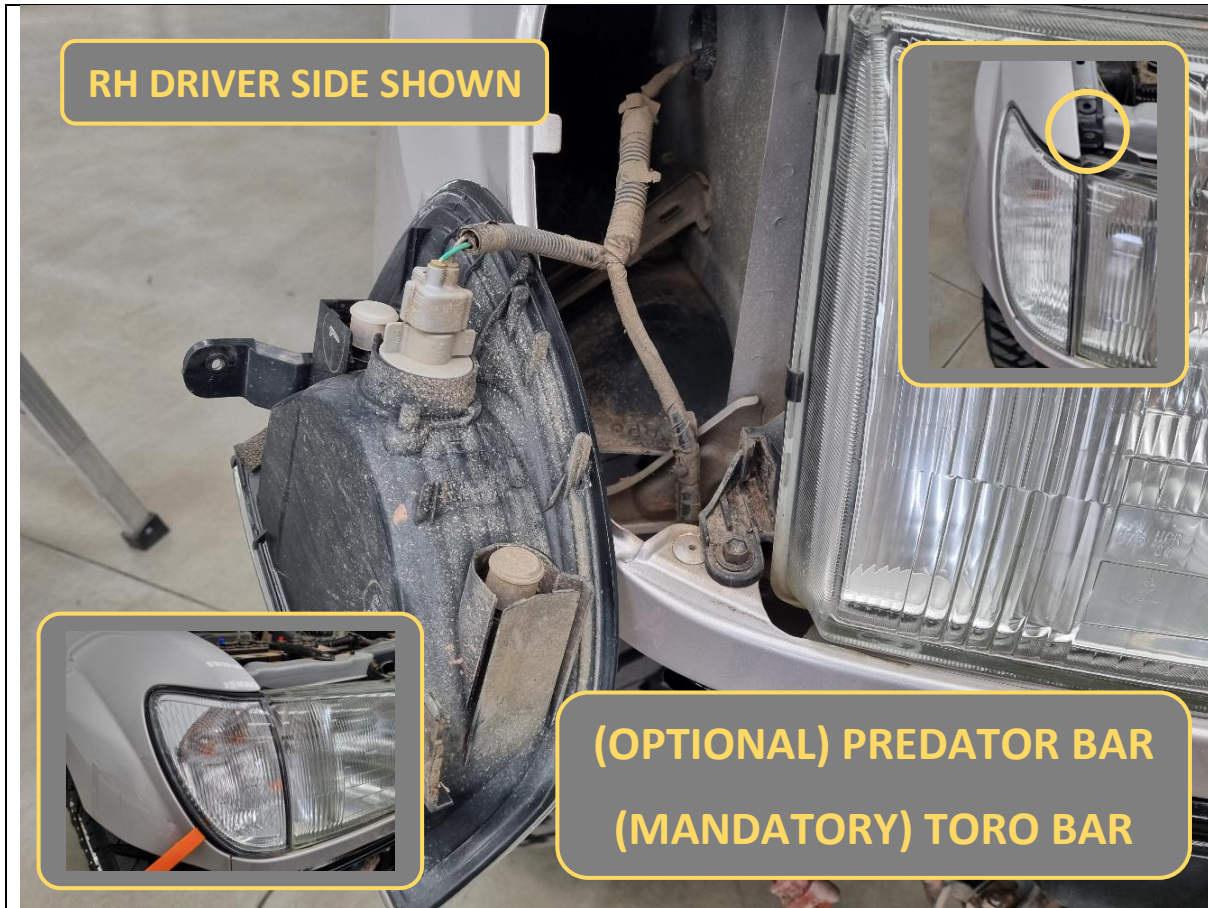
53. **Toro only.** Else, fit the 2x M8x20 black button head bolts and black washers to the back of each bull bar upright, to protect nut threads in bar for future use.

TOOLS REQUIRED

5mm hex/Allen key

FASTENERS

4x M8x20 black button head
4x M8 black flat washer



Follow these steps for wiring indicators and parker lights when using the 4-in-1 fog light.

- 54. Remove 1x Phillips head screw holding the top of the indicator light cluster.
- 55. Use a plastic trim tool to pry off the indicator light cluster.

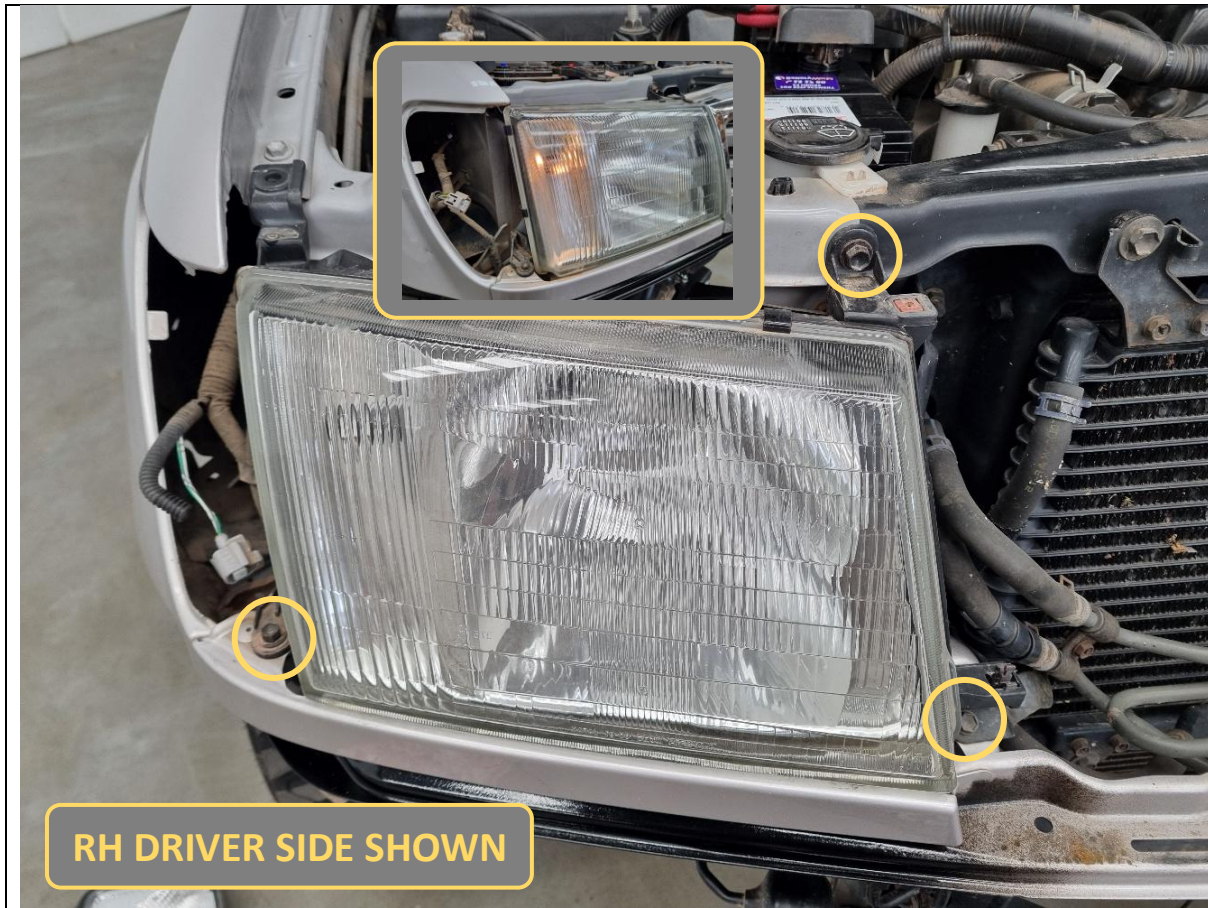
TOOLS REQUIRED

Phillips head screwdriver
Plastic trim tool

FASTENERS

2x Phillips head screws

Retain



RH DRIVER SIDE SHOWN

Some vehicles will have the parker light in the main headlight cluster, otherwise it may also be found on the indicator light cluster.

56. Remove 3x 10mm hex bolts holding the headlight cluster to get access to the plugs on the back.

TOOLS REQUIRED

10mm socket/spanner

FASTENERS

6x 10mm hex bolts

Retain



- 57. Locate and splice into the indicator and parker light wires for both RH and LH. Use a test light to confirm signal and ground wires.
- 58. Use heat shrink or electrical tape to insulate solder connections. Ensure new wires will not get caught on any sharp edges, protect with conduit tubing if required.
- 59. Re-fit the light clusters in reverse order.

TOOLS REQUIRED

- Test light
- Cutting pliers
- Wire strippers
- Soldering iron
- Solder
- Automotive electrical wire
- Heat shrink
- Heat gun
- Electrical tape
- Phillips head screwdriver
- 10mm socket/spanner

FASTENERS

- 2x Phillips head screw
- 6x 10mm hex bolt
- Retained



- 60. If fitting a winch with a central top mount control box (eg. Warn ZEON Winch), the bottom of the grill mount needs to be cut off with an angle grinder.
- 61. Paint the cut edge to prevent rust forming.

TOOLS REQUIRED

- Angle grinder
- Deburring tool
- Cleaning solvent
- Cold galvanising paint

FASTENERS



62. Re-fit the grille to the car.

TOOLS REQUIRED

Phillips head screwdriver
10mm socket/spanner

FASTENERS

3x Phillips head screw
Retained



63. With assistance, either from another person or a lifting trolley, lift the bar onto the mounts on the vehicle.

64. Secure the bar to the mounts with 8x M12x30x1.25p fine pitch bolts, heavy-duty washers and Nyloc + flange nuts. Leave finger tight at this stage.

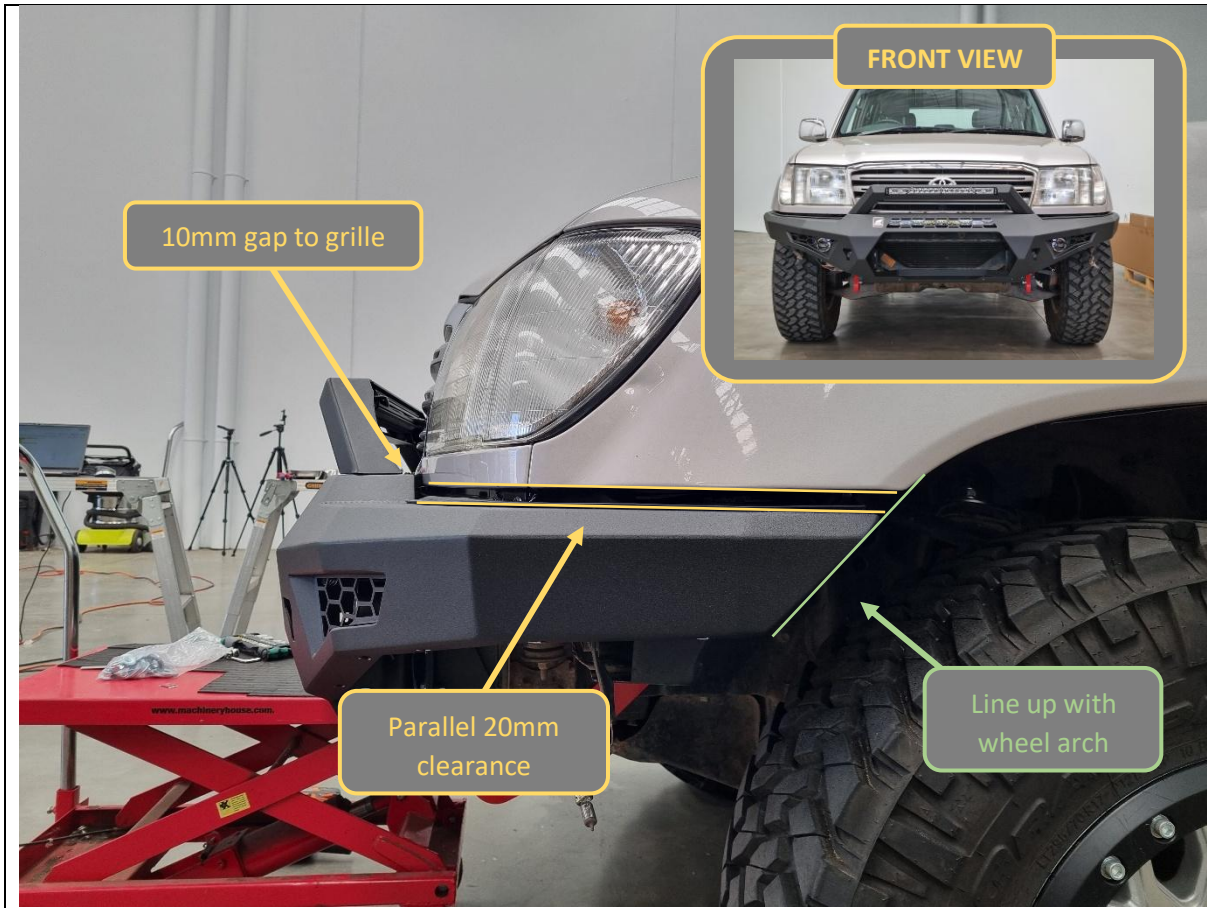
Note: Use a washer on both bolt and nut side for the Nyloc nut. 1x Nyloc required per side of the bar. 1x washer on the bolt side is all that is required with flange nuts.

TOOLS REQUIRED

Lifting trolley
18/19mm socket/spanner

FASTENERS

8x M12x30 hex bolt
10x M12 heavy duty washer
2x M12 Nyloc nut
6x M12 flange nut



65. With assistance, from another person, align the bar with the edges of the vehicle.

Adjust such that the clearances are neat, and the bar is symmetric left/right on the vehicle. If not symmetric, mounts may need to be loosed and adjusted.

Front view: The bar should sit horizontally level.

Side view: The end of the bar wing should line up with the wheel arch. The top face of the wing should sit 20mm below the guard and be parallel.

Top view: There should be around 10mm clearance between the bar and the grille.

66. Once happy with alignment, tighten all 8x M12 bolts.

TOOLS REQUIRED

- Lifting trolley
- 18/19mm socket/spanner
- Torque wrench

FASTENERS



67. Connect up fog lights and indicator/parker lights (if equipped). Turn the car on and confirm functionality.

Fog light wiring requires cutting off the factory plug.

TOOLS REQUIRED

FASTENERS



68. If fitting a winch, do so now. Lift and pivot the winch into the opening at the front of the bull bar.

This bar is designed to fit most low mount winches, in foot down configuration. Secure the winch with bolts underneath the cradle.

WARN ZEON 12 is the largest winch confirmed to fit.

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

TOOLS REQUIRED

Refer to instructions supplied by winch

FASTENERS

Supplied with winch



69. Fit number plate to the mesh fairlead using 4x M5x15 black button head bolts, black washers and flange nuts.

A flip up number plate mount (Part No. NPF-COM-SM-ASM0) may also be fitted. Please contact Offroad Animal to purchase.

70. If required, fit the winch fairlead to the mesh fairlead mount using M10 or 3/8" fasteners supplied with the winch. This bar is only compatible with hawse type fairleads.

TOOLS REQUIRED

3mm hex/Allen key

Refer to instructions supplied by winch

FASTENERS

4x M5x15 black button head
4x M5 black washer
4x M5 flange nuts

Supplied with winch



71. Fit the mesh fairlead mount to the centre of the bar, using 2x M8x16 black button head bolts + black washers (top), 2x M8x20 hex head bolts + heavy duty washers (bottom).
72. Tighten fasteners using 13mm socket/spanner and 5mm hex/Allen key.
73. Feed winch cable through the hawse fairlead if applicable.

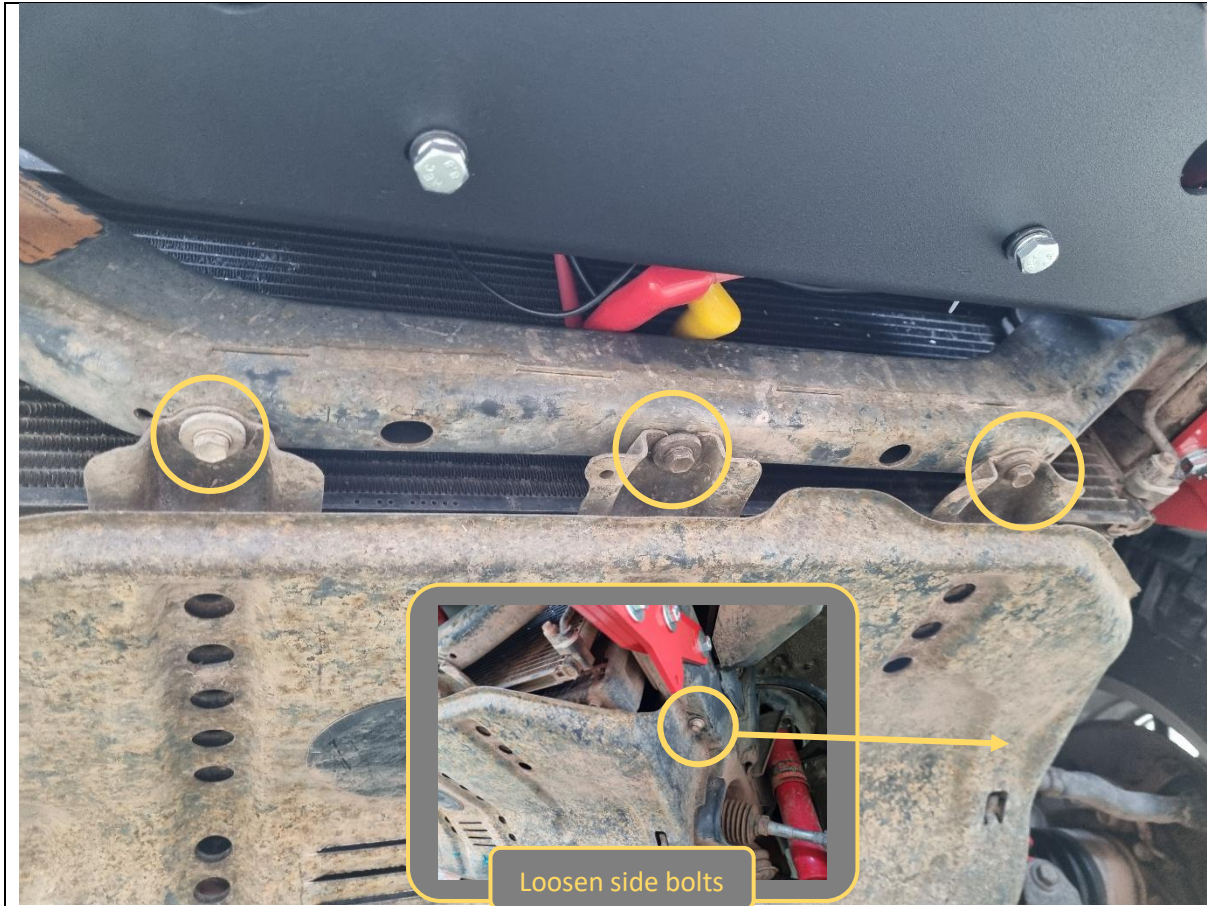
TOOLS REQUIRED

13mm socket/spanner
5mm hex/Allen key

FASTENERS

2x M8x16 black button head
2x M8 black flat washer

2x M8x20 hex head
2x M8 heavy duty washer



The supplied bash plate fits between the chassis and factory stone shield.

- 74. Remove the 3x front 12mm bolts holding the stone shield to the chassis.
- 75. Loosen 2x 12mm bolts on the side of the stone shield (1x per side). This should allow the stone shield to drop down and leave a gap to the chassis for the bash plate to slot into.

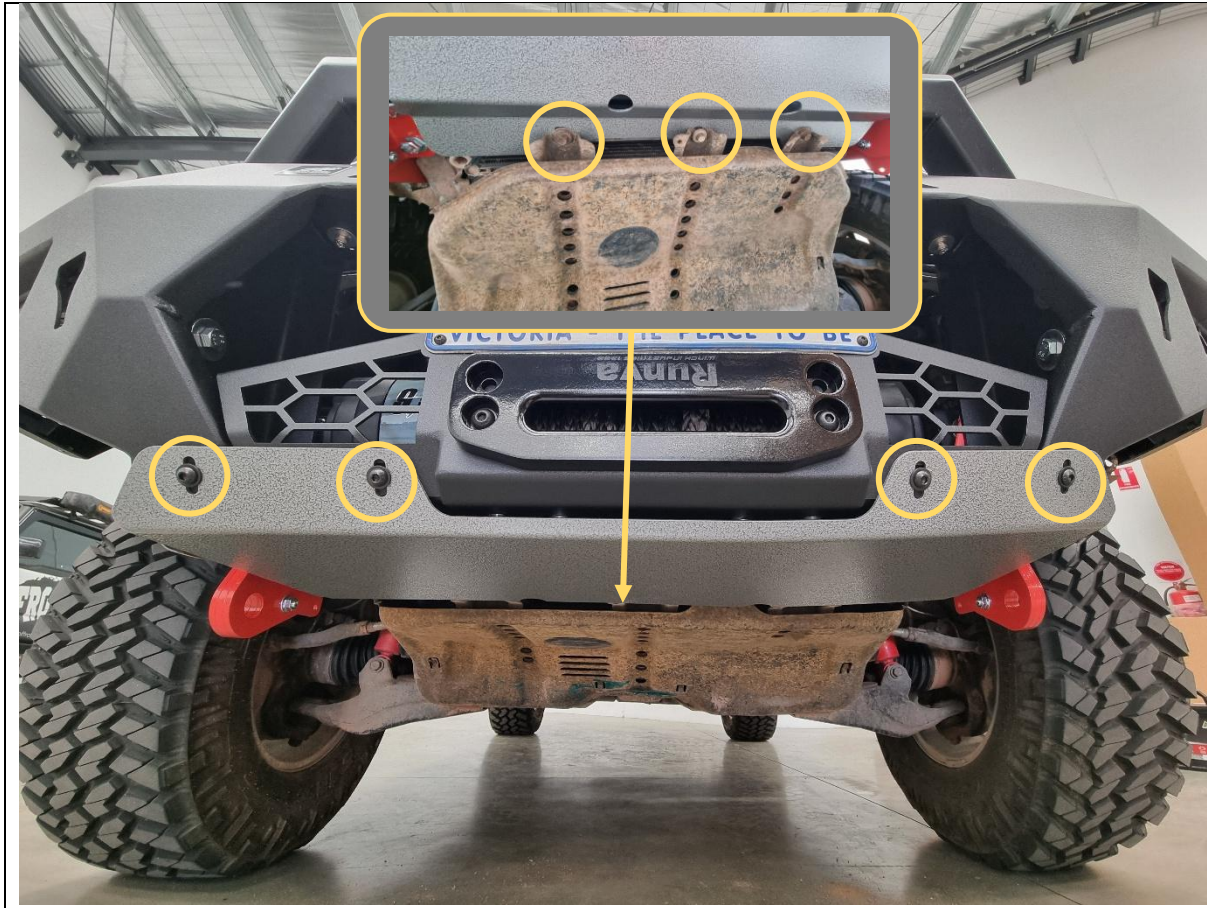
TOOLS REQUIRED

12mm socket/spanner

FASTENERS

3x 12mm hex bolt

Retain



- 76. Slide the rear of the bash plate in between the chassis and stone shield.
- 77. Secure the bash plate to the bar at the front with 4x M8x30 black button head bolts and black washers.
- 78. Re-secure the 3x 12mm hex bolts at the rear.
- 79. Also don't forget to re-tighten the 12mm hex bolts on each side of the stone shield.

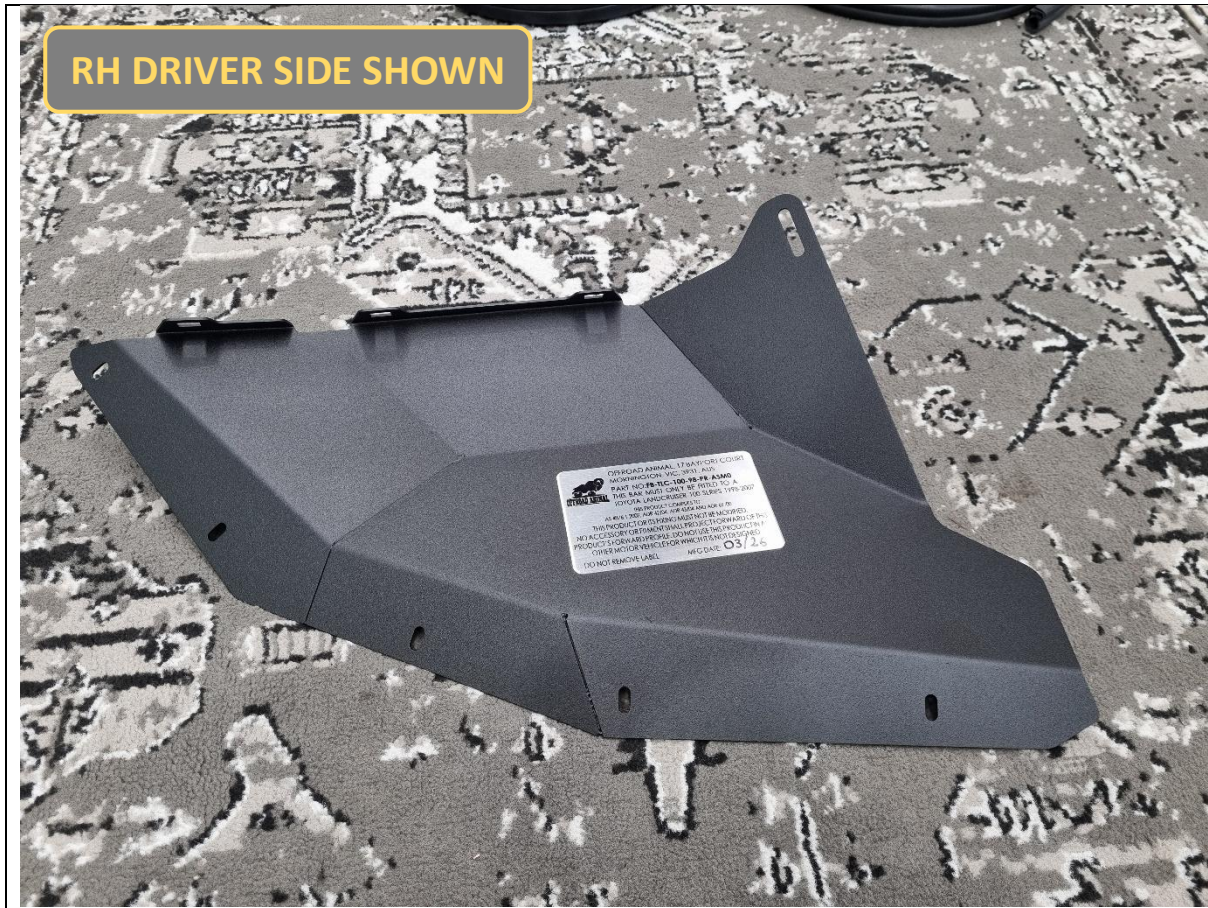
TOOLS REQUIRED

- 5mm hex/Allen key
- 12mm socket spanner

FASTENERS

- 4x M8x30 black button head
- 4x M8 black flat washer

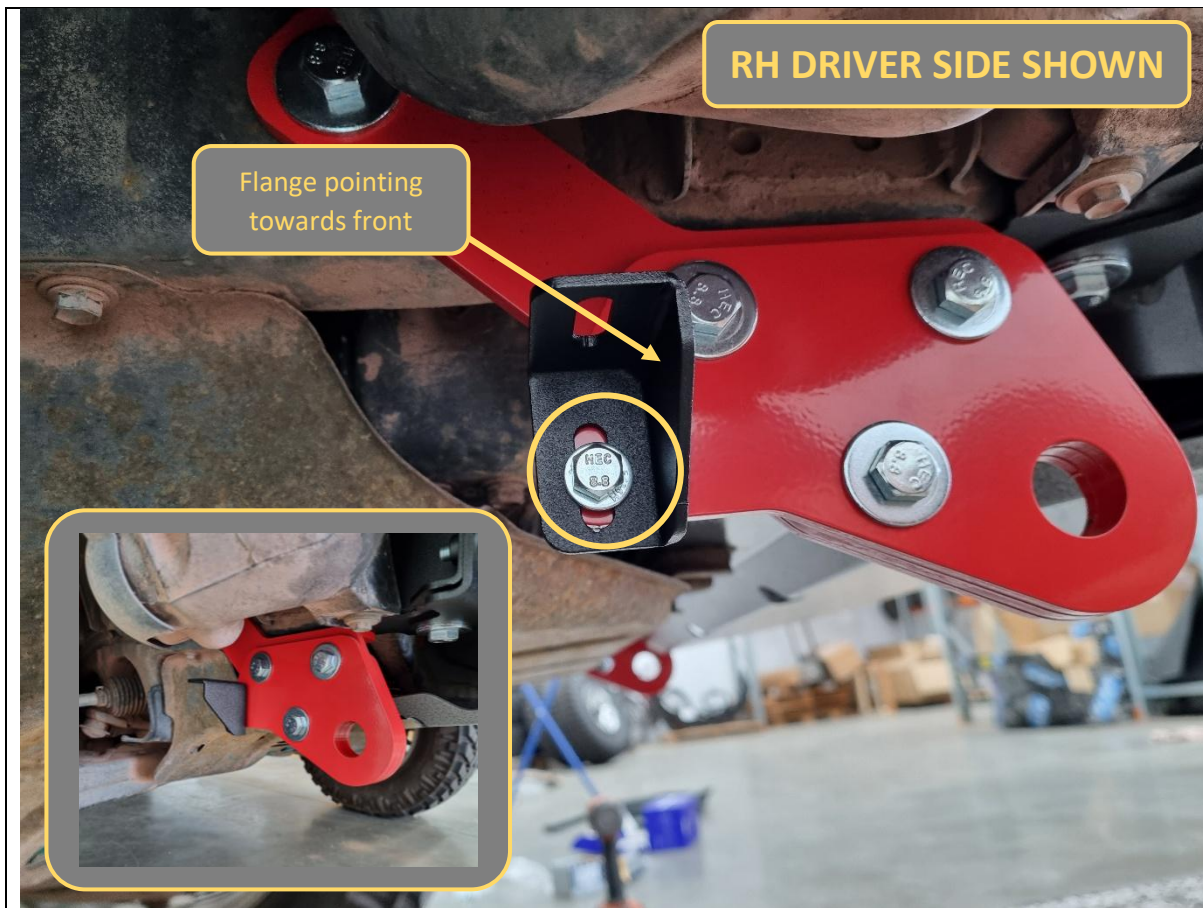
- 3x 12mm hex bolt
- Retained



80. Peel off the backing film and affix the ADR compliance plate to the inside of the RH side underpanel.

TOOLS REQUIRED

FASTENERS



81. Fit the B-1753 side underpanel mount bracket to the tow point and loosely secure with 1x M8x20 hex bolt, washer and flange nut.

Keep finger tight at this stage.

Ensure the flange on the bracket is facing towards the front of the car.

TOOLS REQUIRED

FASTENERS

- 2x M8x20 hex bolt
- 2x M8 washer
- 2x M8 flange nut



- 82. Fit the side underpanels to the underside of the bull bar wings.
- 83. Secure each one to the cage nuts in the bar with 5x M6x16 black button head bolts and black washers.
- 84. Secure the bottom to the underpanel mount bracket with 1x M8x20 hex bolt, washer and flange nut.
- 85. Adjust the underpanel mount bracket to lower/raise the side underpanel to ensure at least 10mm clearance to the intercooler piping on 1HD-FTE models.
- 86. Fully tighten all side underpanel bolts, including the mount bracket.

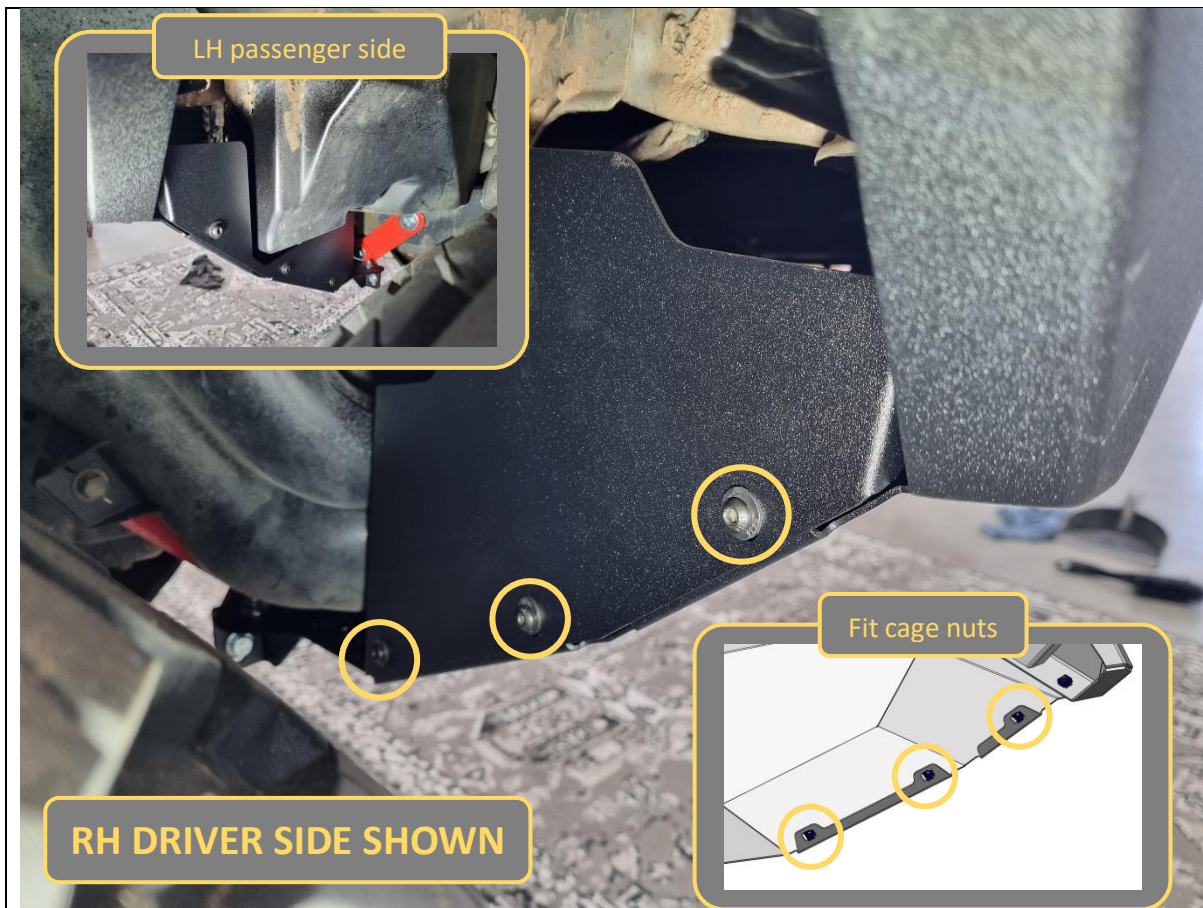
TOOLS REQUIRED

4mm hex/Allen key
13mm socket/spanner

FASTENERS

10x M6x16 black button head
10x M6 black flat washer

2x M8x20 hex bolt
2x M8 flat washer
2x M8 flange nut



- 87. **Optional.** There are U-0128 and U-0129 wheel arch guard panels supplied to cover the gap inside the wheel well.
- 88. If choosing to install them, fit 3x M6 cage nuts to the rectangular slots on the rear lip of the side underpanel.
- 89. Then secure the wheel arch guard to the side underpanel with 3x M6x16 black button head bolts and black washers.
- 90. Fitment is now complete. Review and double check all bolts are tightened correctly.

TOOLS REQUIRED

Flat blade screwdriver
4mm hex/Allen key

FASTENERS

6x M6x16 black button head
6x M6 black washer
6x M6 cage nut



Congratulations! You're done!
Head for the tracks in your revamped and refreshed 100 series Cruiser!