



TOYOTA LANDCRUISER 105 SERIES

1998-2007

PREDATOR & 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 vehicle's 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.

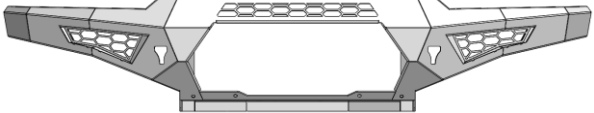
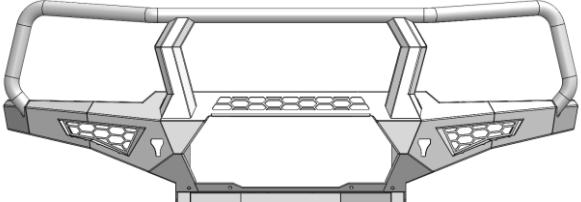
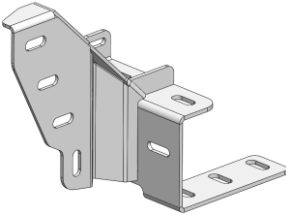
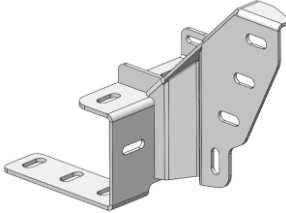
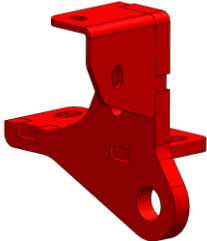
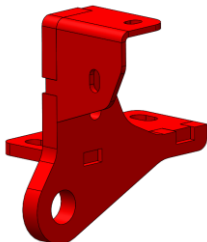
FRONT BAR MOUNTS AND TOW POINTS + REAR TOWBAR	
Size	Torque Nm
M10	57 Nm
M12	100 Nm
M14	164 Nm
M16	248 Nm

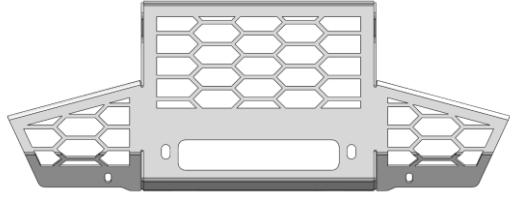
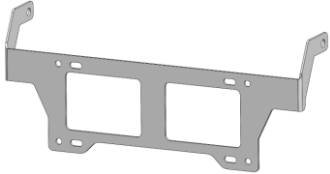
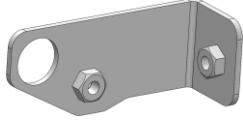
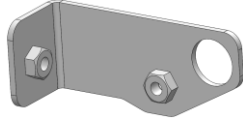
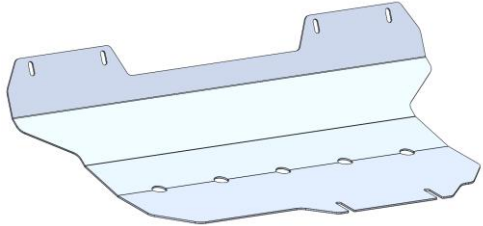
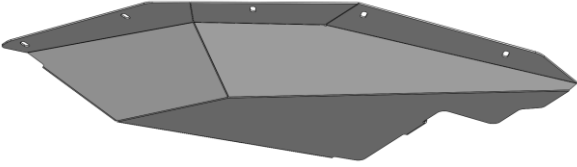
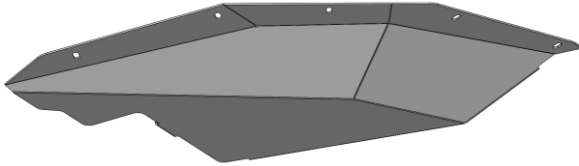
Always use a torque wrench to set correct torque settings. Ensure torque wrench is set to Nm unit of measurement. Otherwise perform conversion to lb-ft.

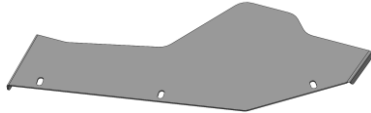
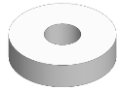
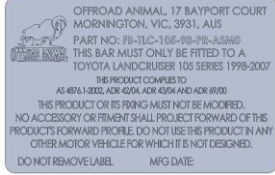
PARTS LISTING

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	LC100/105 Predator Bar Weldment	
OR			
1	FB-TLC-100-98-TOR-ASM1	LC100/105 Toro Bar Weldment	
1	FB-TLC-105-98-PR-ASM2R	LC105 Impact Assembly RH	
1	FB-TLC-105-98-PR-ASM2L	LC105 Impact Assembly LH	
1	FB-TLC-105-98-PR-ASM3R	LC105 Tow Point Welded Assembly RH	
1	FB-TLC-105-98-PR-ASM3L	LC105 Tow Point Welded Assembly LH	

1	FB-TLC-100-98-PR-ASM4	LC100/105 Mesh Fairlead Welded Assembly	
2	B-0822	WL Predator Number Plate Bracket	
1	B-1401R	LC105 Inner Chassis Brace RH	
1	B-1401L	LC105 Inner Chassis Brace LH	
2	B-1406	LC100/105 Pan Brace	
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	
1	U-0092	LC105 Bash Plate - Suit RHD	
1	U-0093R	LC100/105 Side Underpanel RH	
1	U-0093L	LC100/105 Side Underpanel LH	

1	U-0103	LC100/105 Wheel Arch Guard RH	
1	U-0104	LC100/105 Wheel Arch Guard LH	
2	P-0394	8MM Circular Spacer Suit M12 Bolt	
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 Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
4	M6 X 12 HEX	M6X12 HEX BOLT, ZP, 8.8
34	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M6 FLAT WASHER	M6 FLAT WASHER
34	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
18	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
16	M6CN3MM	CAGE NUT M6x2.6-3.5
4	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
2	M8 X 30 HEX	Bolt Hex, M8X30X1.25, GR8.8 ZP
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
2	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
2	M8 FLAT WASHER	M8 FLAT WASHER
6	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
8	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
2	M8 NYW	Washer, M8, Nylon
2	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
2	M8 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
8	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
4	M10X50X1.25	Bolt Hex, M10X50X1.25, GR8.8 ZP
12	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
4	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
2	M12X30X1.25	Bolt Hex, M12X30x1.25, GR8.8 ZP
6	M12X40x1.25	Bolt Hex, M12X40x1.25, GR8.8 ZP
18	M12 FW LHD	M12 FW Large Heavy Duty
6	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
2	M12 Nyloc nut	M12 NYLOC NUT

TORO Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
4	M6 X 12 HEX	M6X12 HEX BOLT, ZP, 8.8
34	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M6 FLAT WASHER	M6 FLAT WASHER
34	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
18	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
16	M6CN3MM	CAGE NUT M6x2.6-3.5
4	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP
2	M8 X 30 HEX	Bolt Hex, M8X30x1.25, GR8.8 ZP
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
6	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
2	M8 FLAT WASHER	M8 FLAT WASHER
6	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm
12	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
2	M8 NYW	Washer, M8, Nylon
2	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
2	M8 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
8	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
4	M10X50X1.25	Bolt Hex, M10X50X1.25, GR8.8 ZP
12	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
4	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
2	M12X30X1.25	Bolt Hex, M12X30x1.25, GR8.8 ZP
6	M12X40x1.25	Bolt Hex, M12X40x1.25, GR8.8 ZP
18	M12 FW LHD	M12 FW Large Heavy Duty
6	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
2	M12 Nyloc nut	M12 NYLOC NUT

TOOLS REQUIRED

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 10-19mm	Electric/Air Impact Driver (Optional)	Panel stand or Soft Blanket
Socket Extension Bar	Angle grinder	Lifting Trolley
Metric Spanner Set 10-19mm	Soldering Iron	Measuring tape
Hex (Allen) Key Set 4-6mm		Lubricant (eg. WD-40)
Flat Blade Screwdriver Set		Rust Inhibiting Paint
Phillips Head Screwdriver Set		Cleaning Solvent
Utility Knife		Black Spray Paint
Side Cutters		Heat shrink
M10x1.25 metric tap		Electrical tape
M12x1.25 metric tap		
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.

Hearing Protection 	Always wear ear protection when using power tools.
Eye Protection 	Ensure eye protection is always worn when cutting or drilling.
Manual Handling 	Do not attempt to lift bar assemblies or rock sliders on your own. Always use two people to lift or use mechanical lifting aid such as hydraulic lifting trolley.
Vehicle Support 	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.



Note: This bar is designed to suit RHD vehicles only. Please contact Offroad Animal if fitting to a LHD vehicle and we can supply LHD specific parts.

The photos in this instruction are mainly of a 1998-2002 pre-facelift model. 2003-2007 post-facelift grille and headlight trim will look slightly different.

1. Remove the number plate and set aside.
2. Remove the stock bumper or aftermarket bullbar (including all mounting hardware) from the vehicle. Refer to YouTube guides or aftermarket instructions for removal process.

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

Disconnect any fog lights and/or supplementary indicator/parker lights.

3. Remove tow hooks (factory or aftermarket).

TOOLS REQUIRED

Lubricant or penetrating oil
(eg. WD-40)

FASTENERS



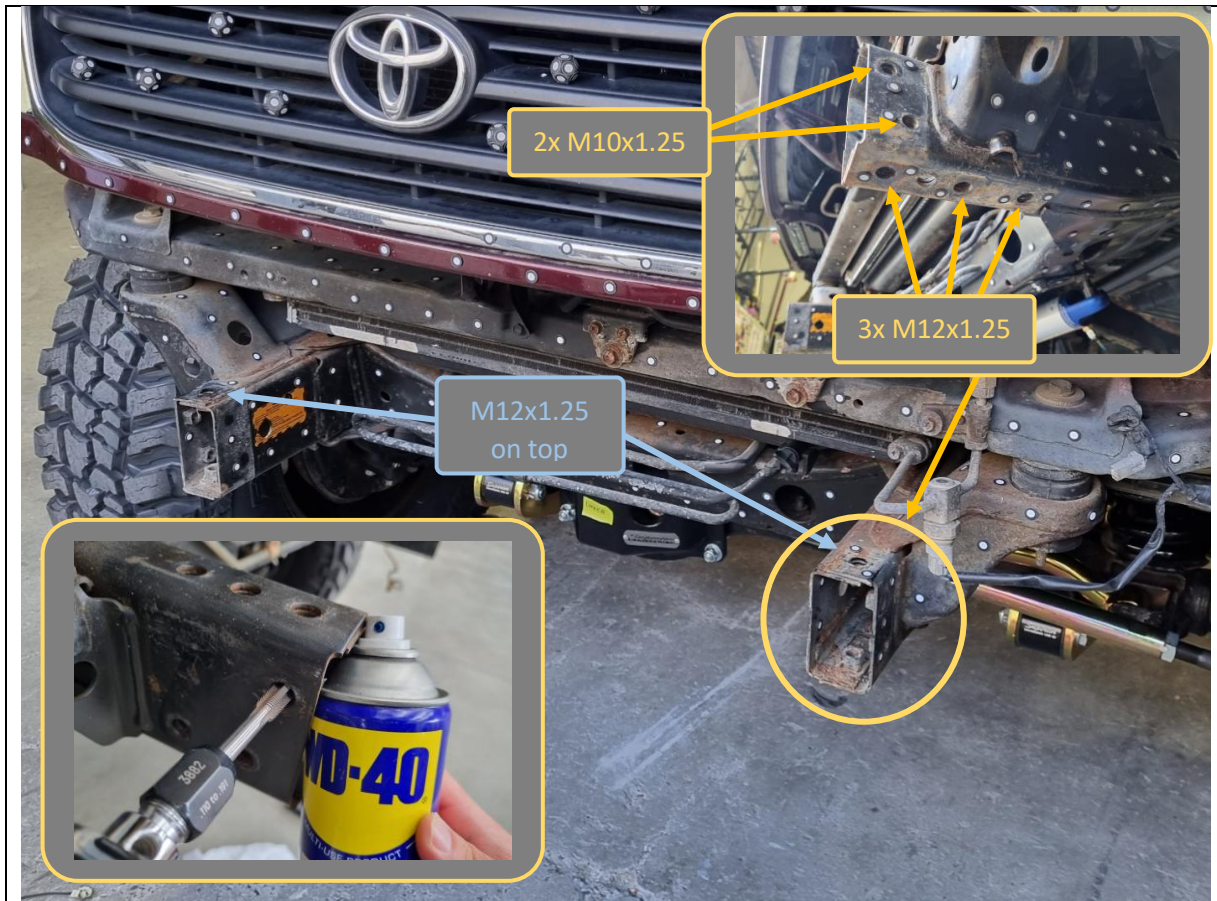
4. For light coloured vehicles, it is recommended to paint the guard under the headlight black.

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

TOOLS REQUIRED

Cleaning solvent
Black spray paint

FASTENERS

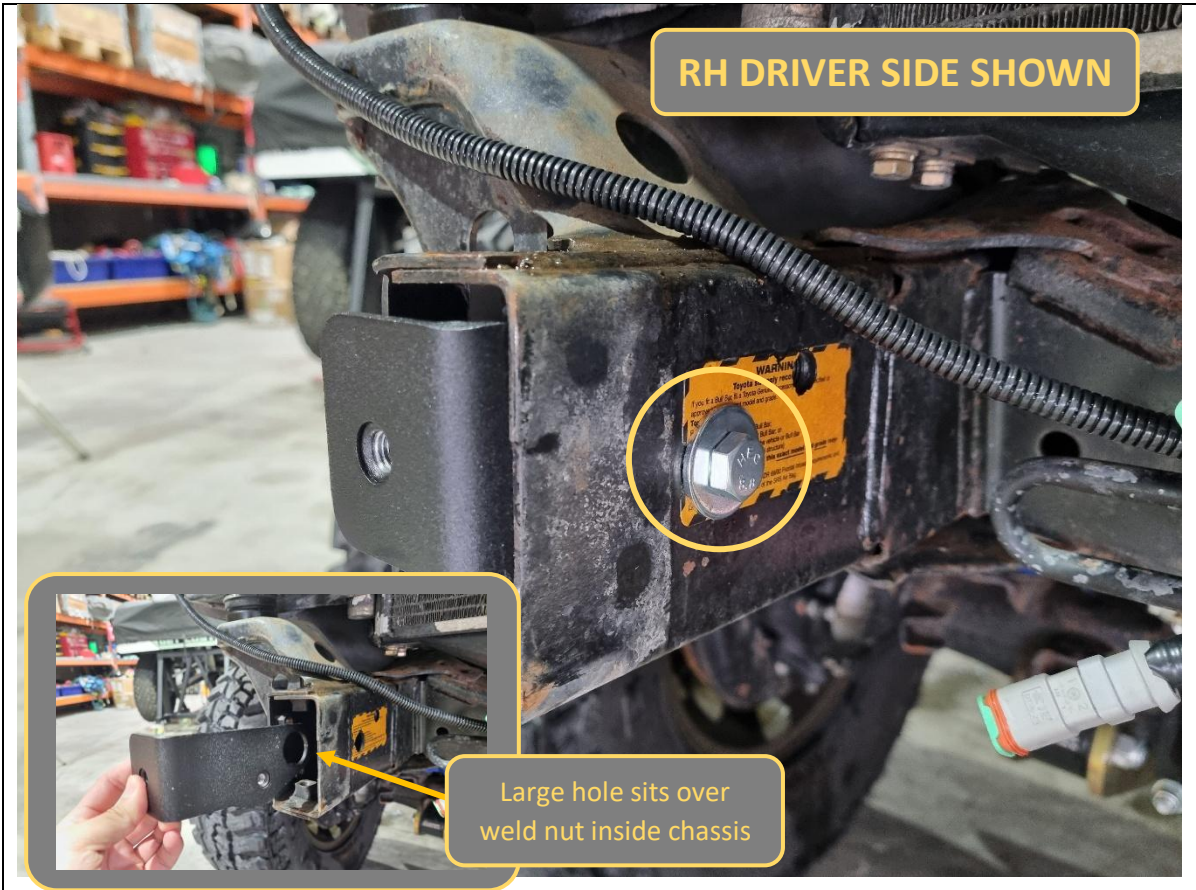


5. Prepare the chassis rail for fitment by cleaning out existing threads. With the use of cutting fluid, run M10x1.25 and M12x1.25 taps through the indicated holes on each chassis rail.

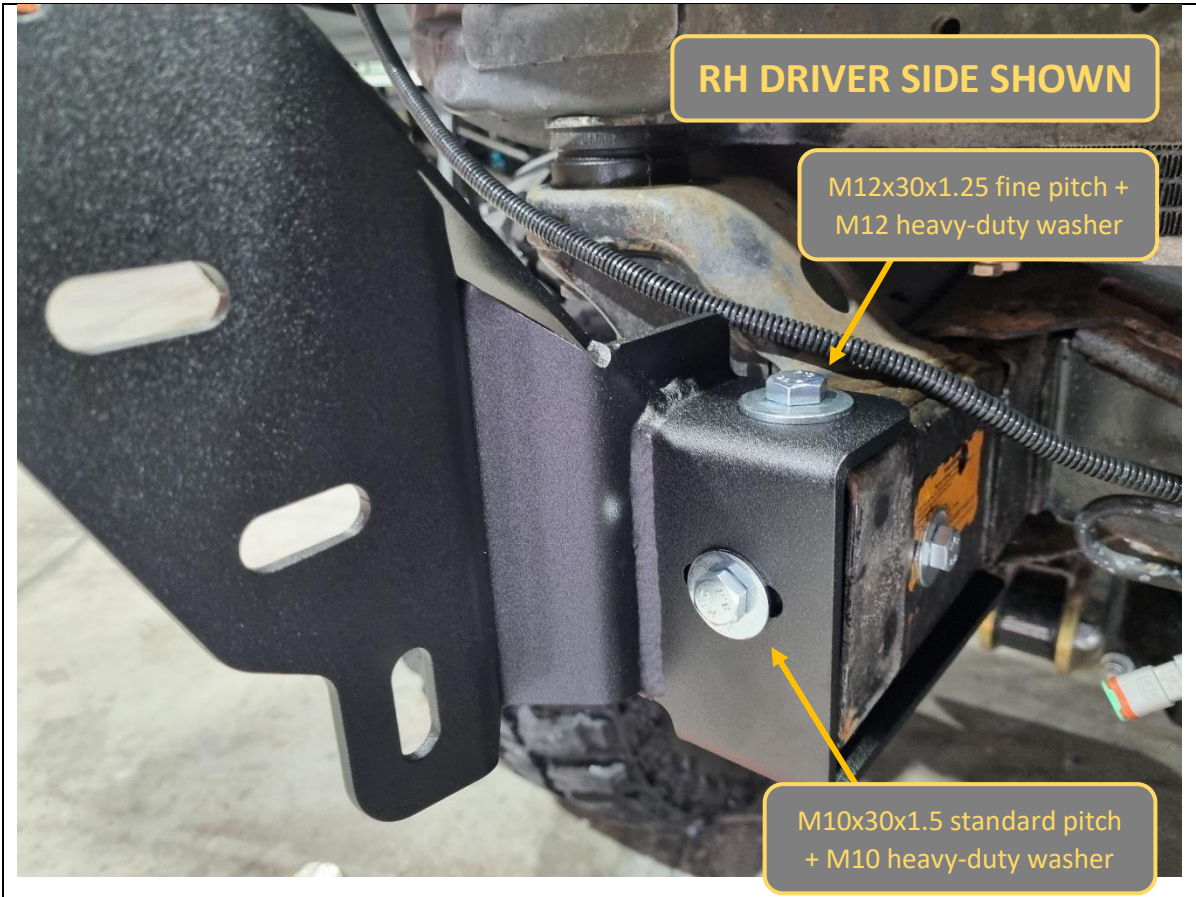
TOOLS REQUIRED

M10x1.25 metric tap
M12x1.25 metric tap
Lubricant or cutting fluid

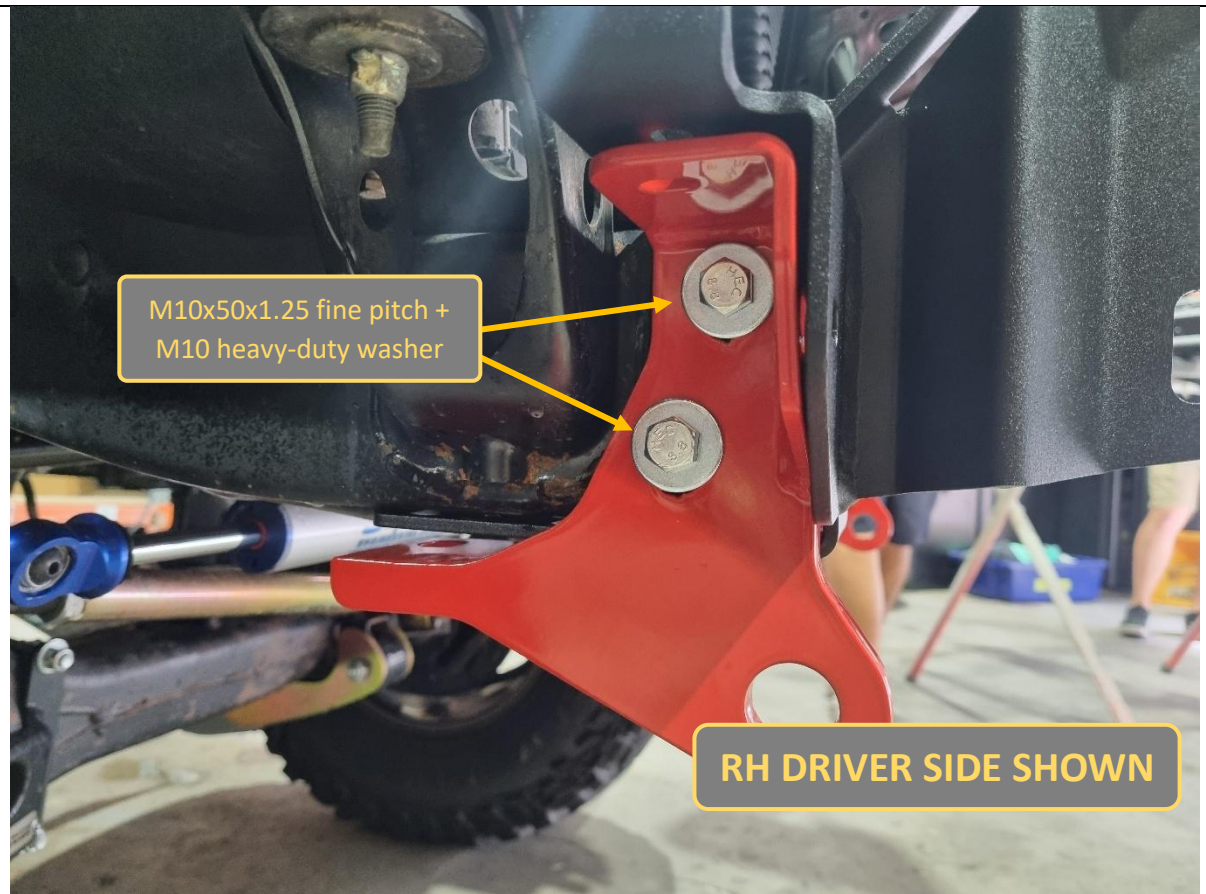
FASTENERS



6. Fit the B-1401 inner chassis brace through the front opening of the chassis rail. 7. Loosely secure with 1x M10x30 hex bolt and 1x M10 heavy-duty flat washer through the inside of the chassis. 8. Repeat for other side.	TOOLS REQUIRED
	FASTENERS 2x M10x30 hex bolt 2x M10 heavy-duty washer



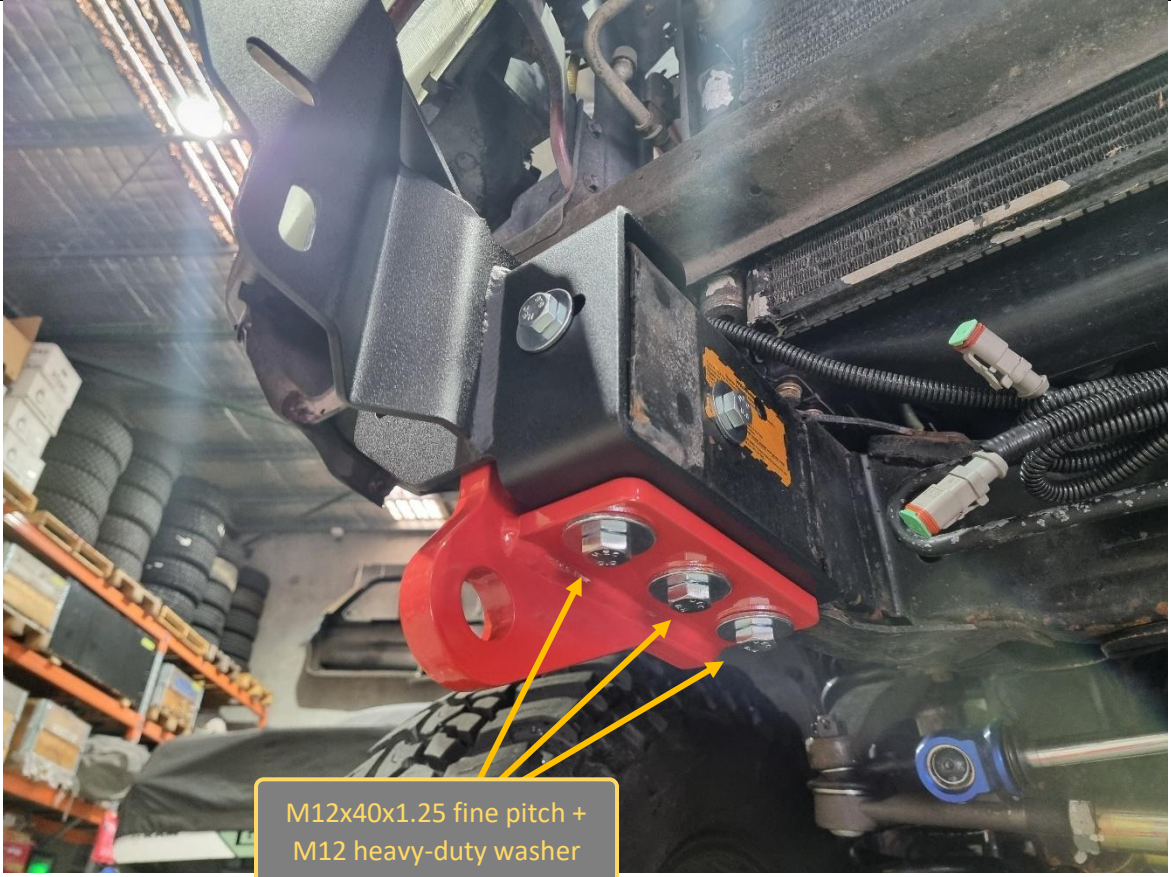
9. Fit the impact assembly onto the end of the chassis. 10. Loosely secure the top to the chassis rail with 1x M12x30x1.25 fine pitch hex bolt and heavy-duty washer. 11. Loosely secure the front to the inner chassis brace with 1x M10x30 hex bolt and heavy-duty washer. 12. Repeat for other side.	TOOLS REQUIRED
	FASTENERS 2x M10x30 hex bolt 2x M10 heavy-duty washer 2x M12x30x1.25 hex bolt 2x M12 heavy-duty washer

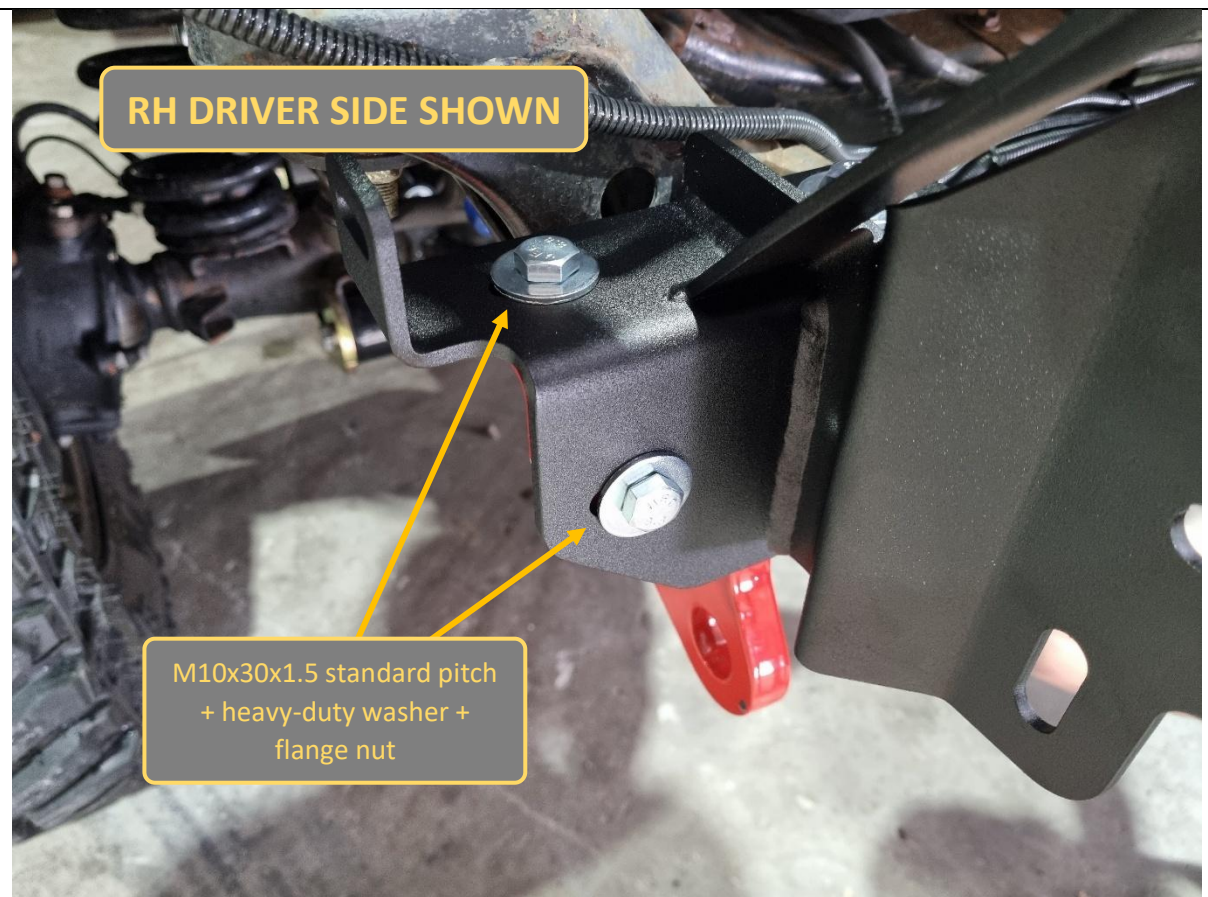


13. Fit the tow point to the outside of the chassis rail.
14. Loosely secure to the side of the chassis rail with 2x M10x50x1.25 fine pitch hex bolts and heavy-duty washers.
15. Repeat for other side.

TOOLS REQUIRED**FASTENERS**

4x M10x50x1.25 hex bolt
4x M10 heavy-duty washer

 M12x40x1.25 fine pitch + M12 heavy-duty washer	
16. Loosely secure the tow point to the underside of the chassis rail with 3x M12x40x1.25 fine pitch hex bolts and heavy-duty washers. 17. Repeat for other side.	TOOLS REQUIRED
	FASTENERS 6x M12x40x1.25 hex bolt 6x M12 heavy-duty washer



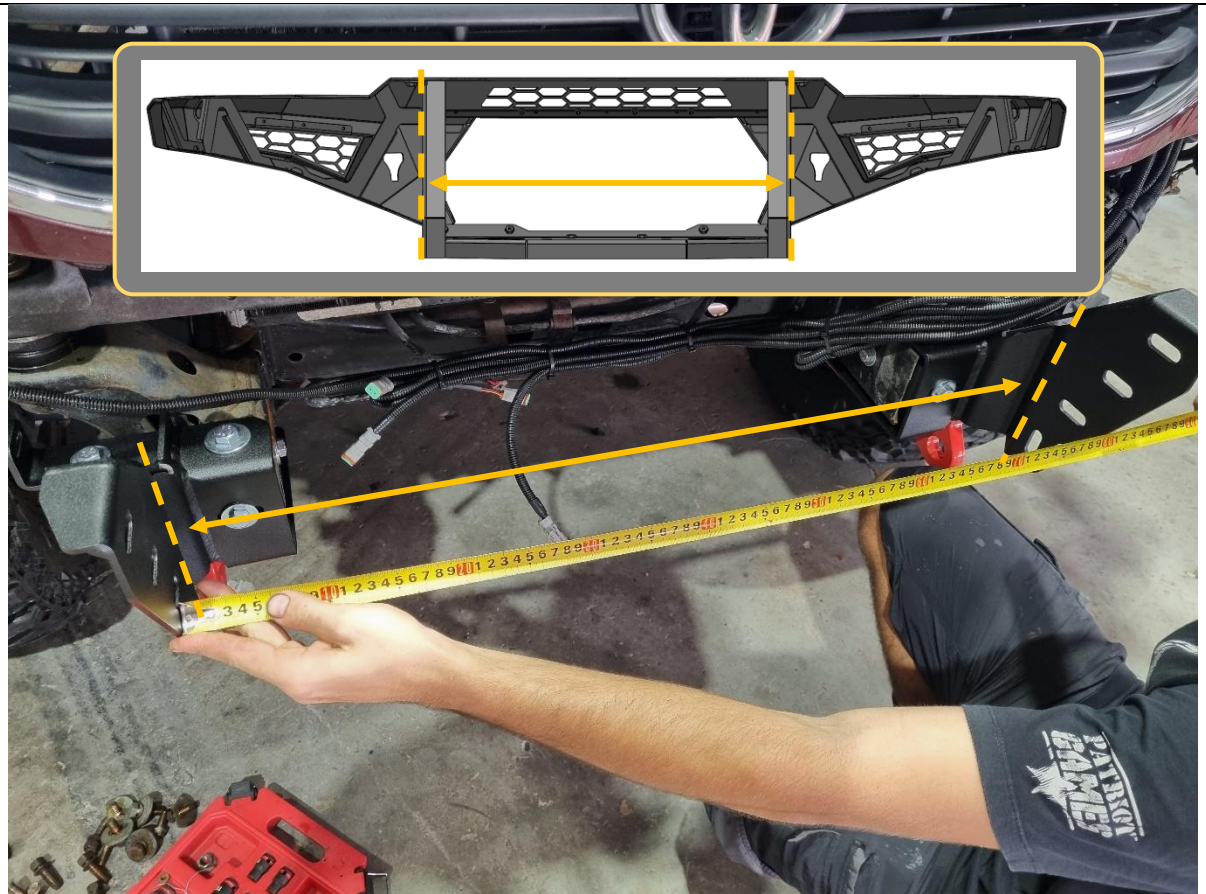
18. Loosely secure the impact assembly to the tow point using
2x M10x30 hex bolts, heavy-duty washers and flange nuts.

19. Repeat for other side.

TOOLS REQUIRED

FASTENERS

4x M10x30 hex bolt
4x M10 heavy-duty washer
4x M10 flange nut



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

Bar Upright Width = _____ mm

21. Adjust mounts by sliding left/right on the slots, such that distance between inner faces of mounts are approximately 2mm more than bar. Ensure the mount faces are vertically upright and symmetric left/right on the chassis.
22. Also measure from the mount to somewhere on the outer guard/headlight to make sure they mounts are central to the vehicle body.
23. Tighten all bolts securing impact assemblies, tow points and inner chassis braces.
24. Re-check the distance and re-adjust as required.

TOOLS REQUIRED

Tape measure

17mm socket/spanner
19mm socket/spanner

FASTENERS



25. 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.

26. If fitting driving lights, stealth hoop, round hoop or rally hoop to this bar, this is also the most convenient time to do so. It is still possible later but is more difficult.

TOOLS REQUIRED

Supplied with accessories

FASTENERS

Supplied with accessories



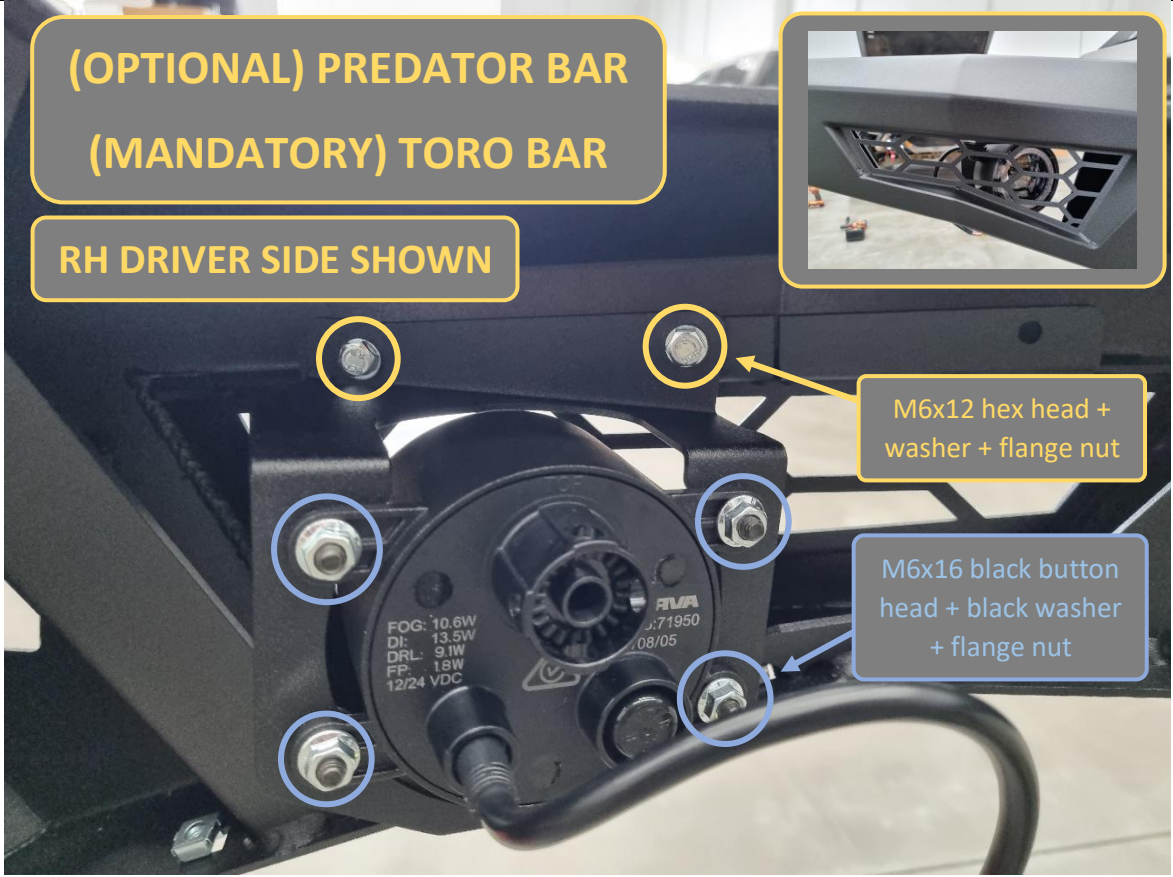
27. Fit the 2x pan braces to the back of the top centre section of the bullbar.
28. Secure the bottom of each pan brace to the back of the bar with 2x M6x16 black button head bolts and black washers.
29. Secure the top of each pan brace to the top face of the bar with 2x M6x16 black button head bolts, black washers and flange nuts.

TOOLS REQUIRED

4mm hex/Allen key

FASTENERS

10x M6x16 black button head bolt
10x M6 black flat washer
4x M6 flange nut

(OPTIONAL) PREDATOR BAR (MANDATORY) TORO BAR RH DRIVER SIDE SHOWN 	
30. 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. 31. Fit light to the bracket using 4x M6x16 black button head bolts, black washers and flange nuts. 32. 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

(OPTIONAL) PREDATOR BARS ONLY  RH DRIVER SIDE SHOWN 33. 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. 34. 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	
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35. Fit 10x M6 cage nuts into the rectangular slots in bottom of wing (5x per side).

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

TOOLS REQUIRED

Flat blade screwdriver

FASTENERS

10x M6 cage nuts



36. Fit the provided 2x lengths of side bulb pinch weld rubber to the top edge of each bull bar wing.

TOOLS REQUIRED**FASTENERS**

2x side bulb pinch weld rubber

TORO BARS ONLY 	
37. 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. 38. 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 hex/Allen key
	FASTENERS 4x M8x20 black button head 4x M8 black flat washer



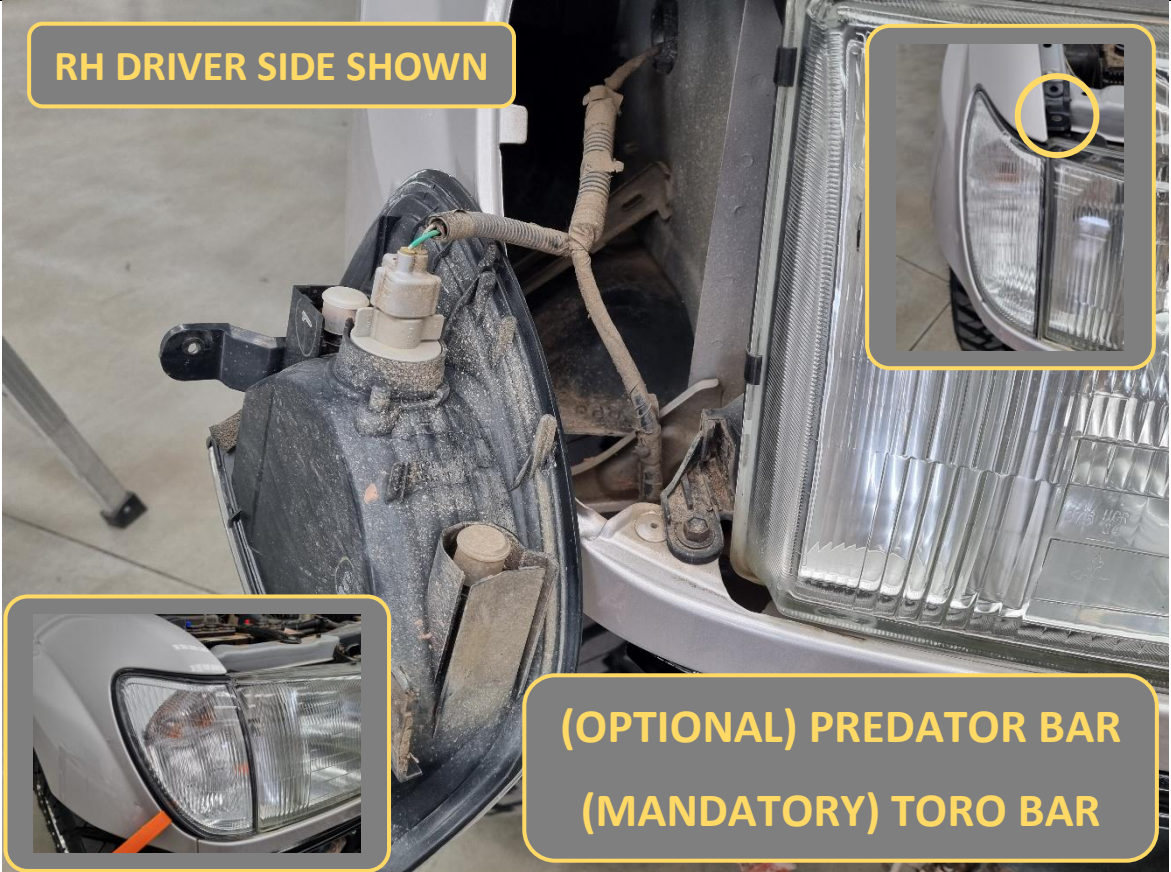
39. If fitting a winch with a central top mount control box (eg. Warn ZEON Winch), the bottom of the grill mount needs to be cut off with an angle grinder.

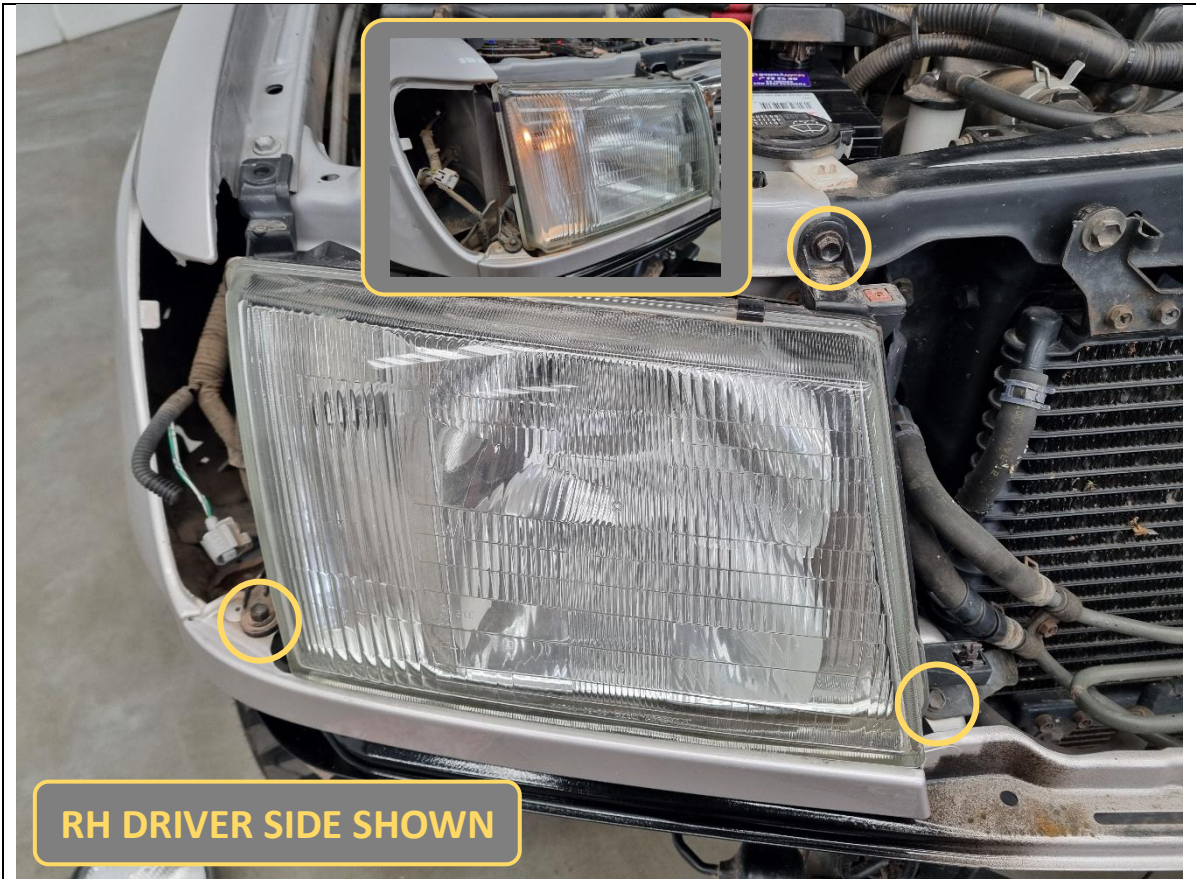
40. Paint the cut edge to prevent rust forming.

TOOLS REQUIRED

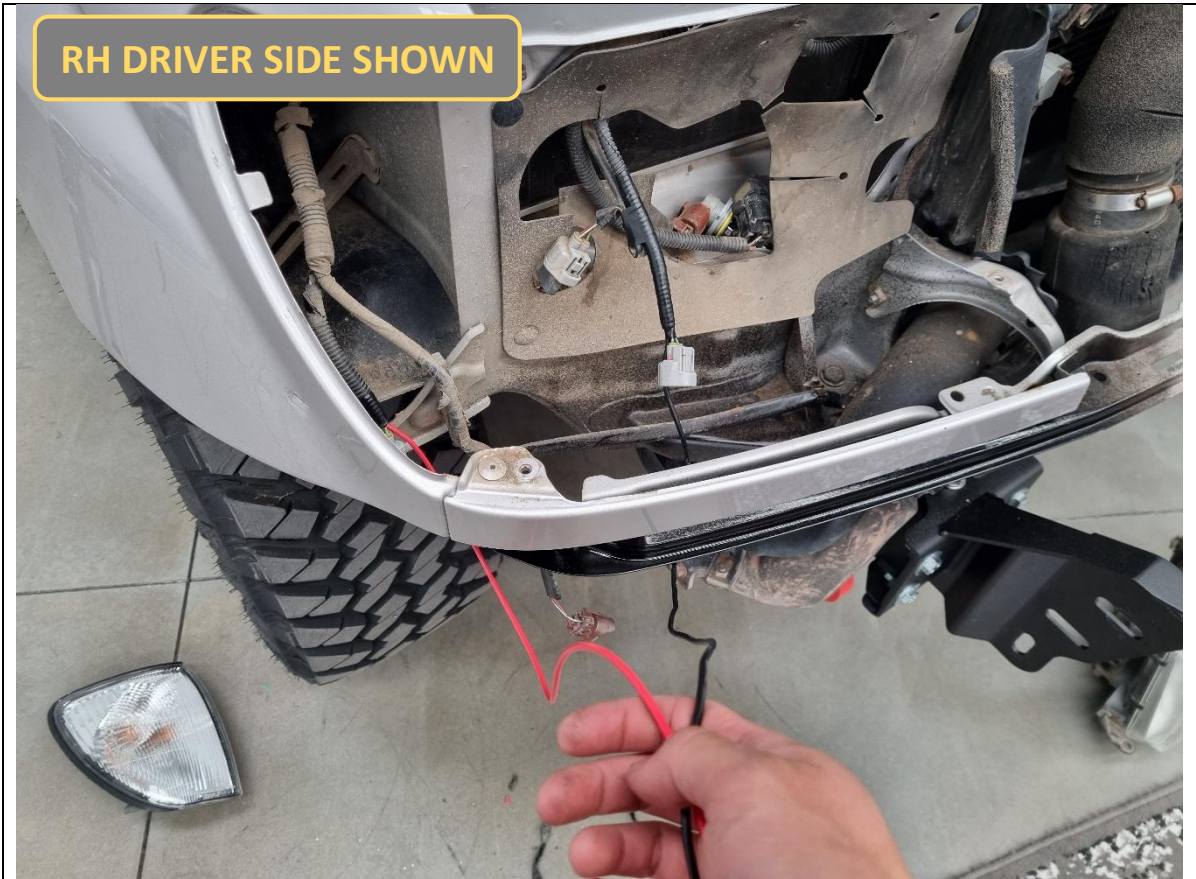
Angle grinder
Rust inhibiting paint

FASTENERS

RH DRIVER SIDE SHOWN  (OPTIONAL) PREDATOR BAR (MANDATORY) TORO BAR	
Follow these steps for wiring indicators and parker lights when using the 4-in-1 fog light. 41. Remove 1x Phillips head screw holding the top of the indicator light cluster. 42. 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



Some vehicles will have the parker light in the main headlight cluster, otherwise it may also be found on the indicator light cluster. 43. If the parker light is in the main headlight cluster, first remove the grille. 44. Then 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



- 45. 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.
- 46. Use heat shrink or electrical tape to insulate solder connections. Ensure new wires will need get caught on any sharp edges, protect with conduit tubing if required.
- 47. Re-fit the light clusters and grille afterwards 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



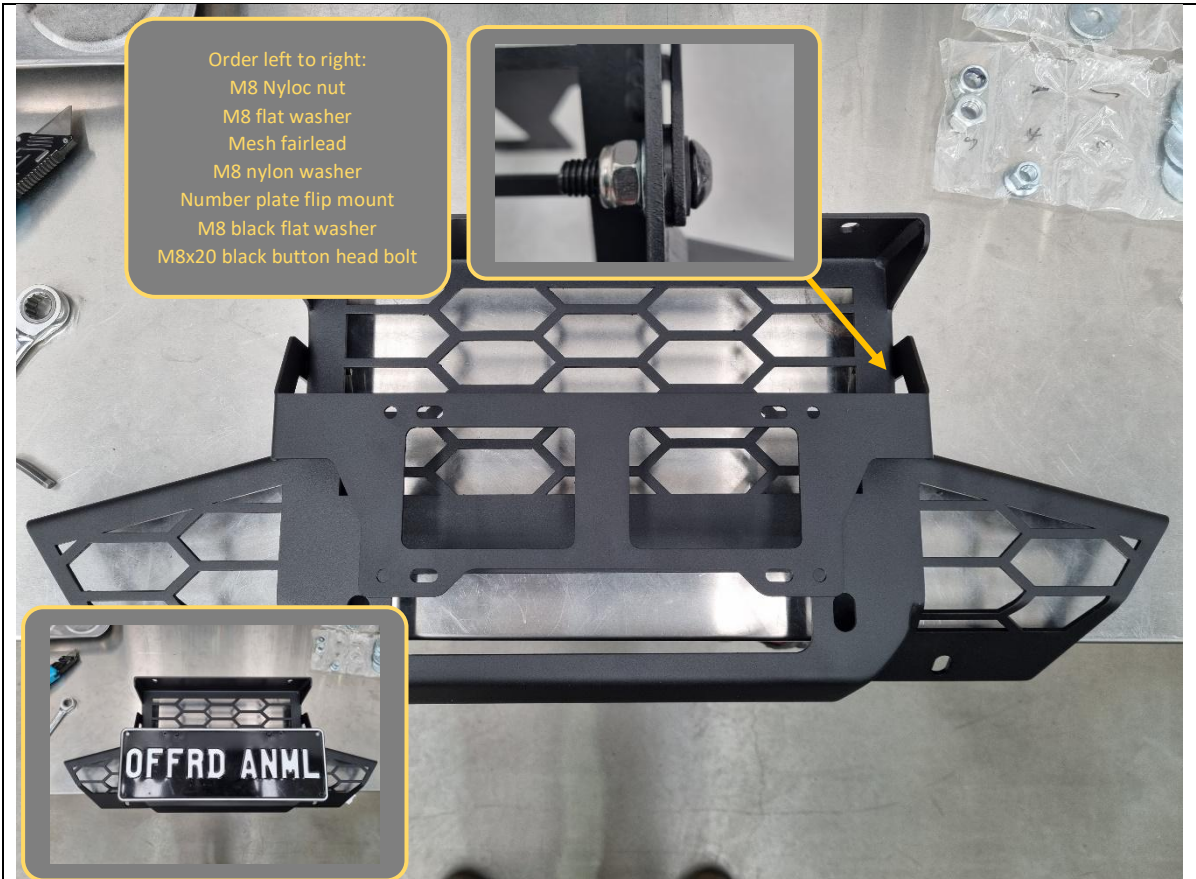
48. With assistance, either from another person or a lifting trolley, lift the bar onto the mounts on the vehicle. 49. Secure the bar to the mounts with 8x M12x30 bolts, heavy-duty washers and Nyloc + flange nuts. Leave finger tight at this stage. Note: Use a washer on both bolt and nut side for the 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
	FASTENERS 8x M12x30 hex bolt 10x M12 heavy duty washer 2x M12 Nyloc nut 6x M12 flange nut



50. 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. Acceptable range of clearances are outlined below. Front view: the bar should sit horizontally level with the body. Side view: the bar should have 15-20mm vertical clearance to the quarter panel and headlight. The end of the bar wing should be in line with the wheel arch liner. Top view: there should have 15-20mm clearance between the bar and grille. 51. Once happy with alignment, tighten all 8x M12 bolts.	<table><tr><td data-bbox="1027 1095 1402 1397"> TOOLS REQUIRED Lifting Trolley 18/19mm socket/spanner </td><td data-bbox="1027 1397 1402 1778"> FASTENERS </td></tr></table>	TOOLS REQUIRED Lifting Trolley 18/19mm socket/spanner	FASTENERS
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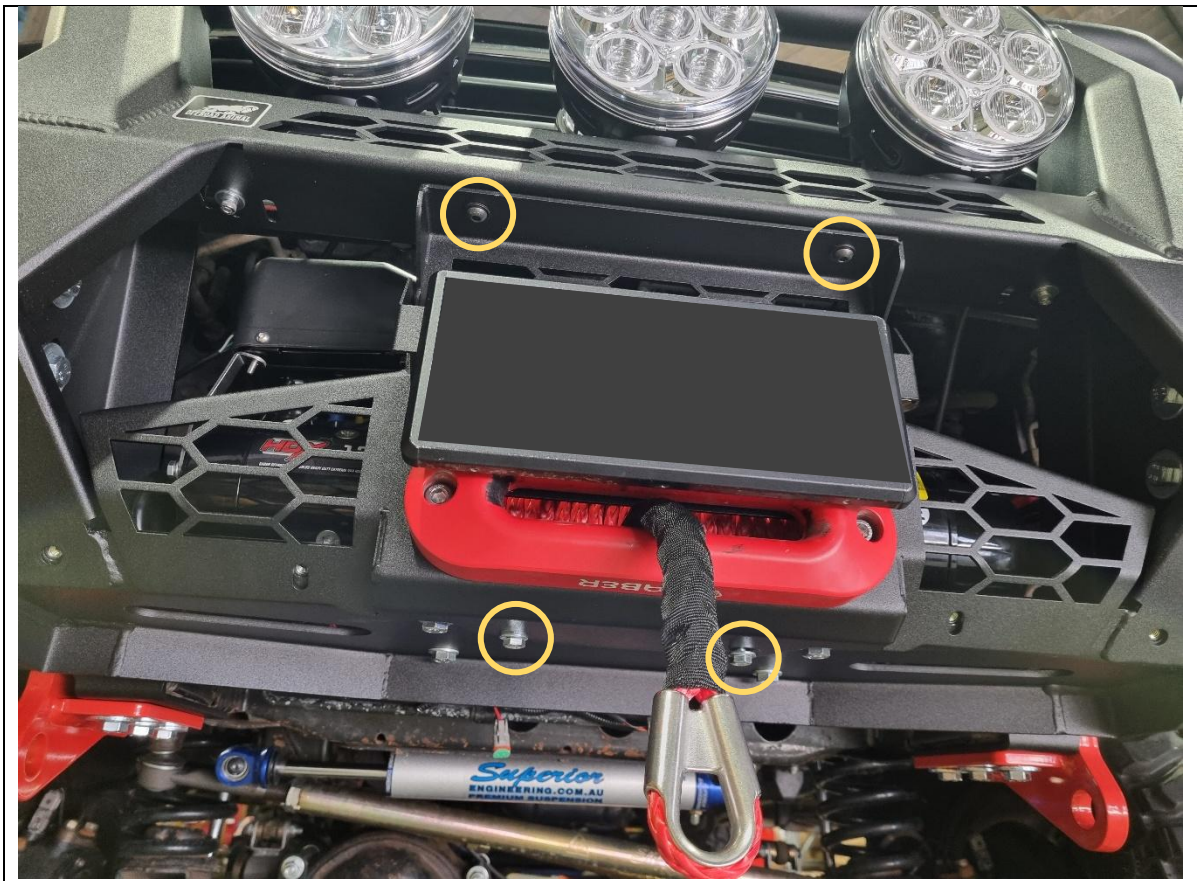
52. If fitting a winch, do so now by inserting the winch through the opening in the bar and bolting to the bottom winch cradle plate. 53. This bar is designed to fit most low mount winches, in foot down configuration. Warn ZEON 12 is the largest winch confirmed to fit. 54. Ensure clutch handle will be 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



55. Fit number plate flip mount to mesh panel as shown above. Tighten bolts so that flip mount and can be moved by hand with some friction resistance. 56. Attach number plate to mount using 2x M6x16 black button head bolts, black washers and flange nuts.	TOOLS REQUIRED 5mm hex/Allen key 13mm socket/spanner 4mm hex/Allen key
	FASTENERS 2x M8x20 black button head 2x M8 black flat washer 2x M8 nylon washer 2x M8 flat washer 2x M8 flange nut 2x M6x16 black button head bolts 2x M6 black flat washer 2x M6 flange nut



57. 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 Refer to instructions supplied by winch
	FASTENERS Supplied with winch



58. 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). 59. Tighten fasteners using 13mm socket/spanner and 5mm hex/Allen key. 60. 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



61. Connect up fog lights and indicator/parker lights (if equipped). Turn the car on and confirm functionality.	TOOLS REQUIRED
	FASTENERS



- 62. Remove the front 2x factory skid plate bolts on the underside of the vehicle.
- 63. Very loosely fit 2x M8x30 hex bolts, heavy-duty washers and P-0394 spacer blocks through the skid plate bolt holes.

TOOLS REQUIRED
12mm socket/spanner
FASTENERS
2x M8x30 hex bolt 2x M8 heavy-duty washer 2x P-0394 spacer block

	
64. Affix the supplied ADR compliance plate to the inner face of the centre bash plate (see top inset photo). 65. Slide the rear of the centre bash plate onto the 2x M8x30 hex bolts, in between the washers and spacer blocks. 66. Fit the centre bash plate to the bar using 4x M8x30 black button bolts and black heavy-duty washers. 67. Tighten all bolts.	TOOLS REQUIRED 5mm hex/Allen key 13mm socket/spanner
	FASTENERS 4x M8x30 black button head 4x M8 black heavy-duty flat washer



68. Fit the side underpanels to the underside of the bull bar wings and secure each one to the cage nuts in the bar with 5x M6x16 black button head bolts and black washers. 69. Also secure each side underpanel to the impact assembly using 1x M8x20 hex bolt, heavy-duty washer and flange nut. Reach in from behind to access with tools.	TOOLS REQUIRED 4mm hex/Allen key 13mm socket/spanner
	FASTENERS 10x M6x16 black button head bolt 10x M6 black flat washer 2x M8x20 hex bolt 2x M8-heavy duty washer 2x M8 flange nut

 RH DRIVER SIDE SHOWN	
70. Optional. There are U-0103 and U-0104 wheel arch guard panels supplied to cover the gap inside the wheel well. 71. If choosing to install them, fit 3x M6 cage nuts to the rectangular slots on the rear lip of the side underpanel 72. Then secure the wheel arch guard to the side underpanel with 3x M6x16 black button head bolts and black washers.	TOOLS REQUIRED Flat blade screwdriver 4mm hex/Allen key
	FASTENERS 6x M6x16 black button head 6x M6 black washer 6x M6 cage nut



73. Review fitment and double check all bolts are tightened correctly.	TOOLS REQUIRED
	FASTENERS



Congratulations! You're done!
Head for the tracks in your revamped and refreshed 105 Cruiser!