

Toyota LandCruiser 300 Series

MY2022+ GX, GXL, VX, Sahara & GR Sport

Rear Protection Bumper

IMPORTANT! – READ BEFORE INSTALLATION

- This product must be installed exactly as per these instructions using only hardware supplied.
- Take a few moments to read instructions thoroughly before beginning work.
- In the event of damage to any bar component please contact OFFROAD ANIMAL to arrange repair/replacement of components.
- Do not use this product for any vehicle make or model other than that specified on these instructions.
- Do not remove labels from this product.
- This product and its fixings must not be modified in any way unless stated in these fitting instructions.
- The installation of this product is recommended for trained personnel.
- These instructions are correct at time of publication. OFFROAD ANIMAL cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer. If you find something has changed please contact us to let us know!
- During installation it is the duty of the installer to check correct operation/clearances of all components.
- If Instructions are to be printed for reference in the workshop, it is recommended that they are printed in colour, for best legibility.

GENERAL CARE AND MAINTENANCE

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

Plastic parts may be maintained with silicone spray.

Do not use acidic or alkaline based cleaning products.

It is important to perform regular checks (pre trip or on an annual basis) on the installed product. Checks include:

- Visual inspection for damage (eg. cracks, chips, dents etc.)
- Electrical wiring is not rubbing anything or worn out
- Bolts are torqued to correct specification (see torque guide below)

For touching up small stone chips, Offroad Animal recommends the following paint products:

- Dupli-Color Trim & Bumper Paint Black (TB101)
- VHT Hood, Bumper & Trim Paint Black (SP27)

BOLT TORQUE SETTINGS

Use the following bolt torques on all general fasteners, unless otherwise specified.

GENERAL FASTENERS		
Size	Torque Nm	
M5	5 Nm	
M6	9 Nm	
M8	22 Nm	
M10	44 Nm	
M12	77 Nm	

Use the following bolt torques on all structural front bar mount and tow point fasteners, and rear towbar fasteners, unless otherwise specified.

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

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

PARTS LISTING

IMPORTANT: Check all parts are present before beginning work! Contact OFFROAD ANIMAL if something is missing.

Main Parts - In the Box

Qty	Part Number	Description	Image
1	RB-TLC-300- 22-ASM1L	LC300 Rear Bar Wing LH Welded Assy	
1	RB-TLC-300- 22-ASM1R	LC300 Rear Bar Wing RH Welded Assy	
1	RB-TLC-300- 22-ASM2L	LC300 Rear Bar Lower Mount LH Welded Assy	
1	RB-TLC-300- 22-ASM2R	LC300 Rear Bar Lower Mount RH Welded Assy	
1	RB-TLC-300- 22-ASM3L	LC300 Rear Bar Wing Brace Welded Assy	
1	RB-TLC-300- 22-ASM3R	LC300 Rear Bar Wing Brace Welded Assy	

1	B-0962	LC300 Hitch Receiver Fascia	
1	B-0972L	LC300 Rear Bar Side Underpanel Brace	
1	B-0972R	LC300 Rear Bar Side Underpanel Brace	
2	P-0306	LC300 Inner Mount Spacer Block	
2	P-0307	LC300 Outer Mount Spacer Block 4mm	
2	P-0308	LC300 Outer Mount Spacer Block 6mm	
2	P-0309	LC300 Outer Mount Spacer Block 8mm	
2	P-0311	LC300 Rear Bar Wing Brace Chassis Backing Plate	
2	T-0073	Crush Tube 69mm	
2	T-0074	Crush Tube 112mm	0
2	T-0075	Crush Tube 118mm	

1	U-0067L	LC300 Rear Bar Side Underpanel	
1	U-0067R	LC300 Rear Bar Side Underpanel	
1	11WM-2	LED Autolamps 11WM-2 Reverse Lamp - Twin Blister Pack	The state of the s
4	СРНР009	Plastic Hole Insert, 7MM, Black, Tigerlink Hardware CPHP029	
2	F-0017	LC300 Rear Bar Inner Mount Hole Plug	
1	NARVA 84037BL	NARVA 84037BL Red Retro Reflector Twin Blister Pack	RETRO REFLECTOR TO SERVE COMPANY OF THE PROPERTY OF THE PROPER
1	PWS-TOP- 365	Pinch Weld PWS51T - Top Bulb Seal 365mm	
2	PWS-TOP- 1230	Pinch Weld PWS51T - Top Bulb Seal 1230mm	

Small Parts - Contained in Small Parts Kit Bag

Qty	Part Number	Description	
4	M3X12 PAN	SCREW, PAN HEAD PHILLIPS, M3X12X0.5 GR4.6 ZP	
4	M3 FLAT WASHER	Flat Washer M3, 7mmODx0.5mm T	
4	M3 NUT	Hex Nut, M3x0.5 G48.8 ZP	
2	M4X20 PAN	SCREW, PAN HEAD PHILLIPS, M4X20X0.7 GR4.6 ZP	
2	M4 FLAT WASHER	Flat Washer M4, 8mmODx0.8mm T	
2	M4 FLANGE NUT	Flange Nut, M4	
4	M6 X 20 HEX	M6X20 HEX BOLT, ZP, 8.8	
10	M6x20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X20X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH	
2	M6x30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X30X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH	
4	M6 FLAT WASHER	M6 FW	
12	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH	
8	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP	
8	M6CN3MM	CAGE NUT M6x2.6-3.5	
8	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH	
8	M8 FLAT WASHER- BLACK ZINC	M8 FLAT WASHER, 16.5x8.4x1.2, ISO4042 ZnNi BLACK PASSIVATED FINISH	
4	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP	
2	M10 X 40	Bolt Hex, M10X40X1.5, GR8.8 ZP	
2	M10 X 140	Bolt Hex, M10X140X1.5, GR8.8 ZP	
2	M10 Flat Washer	M10 FW	
2	M10 FW LHD	WASHER, FLAT M10X28.5X2.5	
2	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP	
2	M12X100	Bolt Hex, M12X100x1.75, GR8.8 ZP	
4	M12X140	Bolt Hex, M12X140x1.75, GR8.8 ZP	
6	M12 FW LHD	M12 FW Large Heavy Duty	
6	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP	
2	NP-COM-M10-300-SLIM	Nut Plate M10 Slim - Long	

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 5.5-19mm	Electric/Air Impact	Rag
	Driver (Optional)	
Socket Extension Bar		Cutting pliers
	Electric Drill	
Metric Spanner Set 5.5-		Wire strippers
19mm	Air Hacksaw	
	or	Soldering iron
Hex (Allen) Key Set 4-6mm	Oscillating Multi Tool	
	or	Solder
Flat blade screwdriver	Angle Grinder	
	Or	Automotive electrical
Phillips head screwdriver	Jigsaw	wire
Trim tool		Heat shrink
Plastic trim removal tool		Heat gun
7mm drill bit		Electrical tape
Utility knife		Crimp terminals

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.

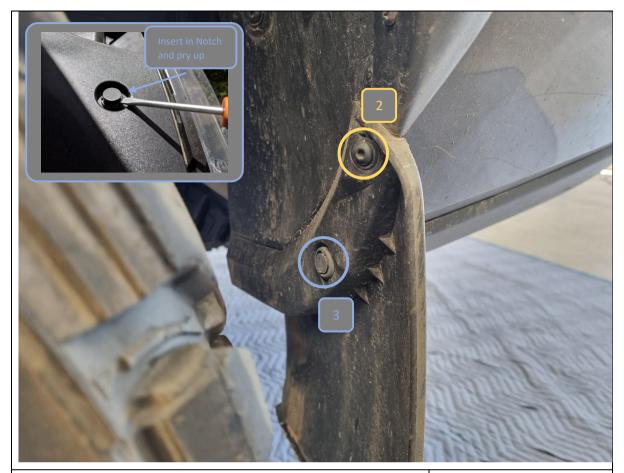
Hearing Protection	Always wear ear protection when using power tools.
Eye Protection	Ensure eye protection is always worn when cutting or drilling.
Manual Handling	Do not attempt to lift bar assemblies or rock sliders on your own. Always use two people to lift or use mechanical Lifting aid such as hydraulic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



1. Remove the 2x bolts on the underside of the rear mudflap with a 4mm hex/Allen key.

TOOLS REQUIRED

4mm hex/Allen key



- 2. Remove the bolt on the inside of the rear mudflap with a 4mm hex/Allen key.
- 3. Remove the plastic push rivet on the inside of the rear mudflap with a trim tool or flat blade screwdriver.
- 4. Remove the rear mudflap and set aside. Do this for both sides.

4mm hex/Allen key

Trim tool or Flat blade screwdriver

FASTENERS

2x 4mm hex/Allen head bolt 2x plastic push rivet

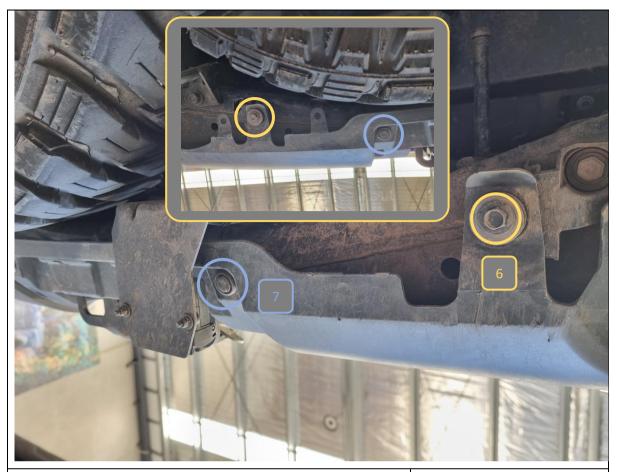
Retain for reassembly



5. Remove 3x 10mm hex head bolts from the underside of the rear bumper on each side.

TOOLS REQUIRED

10mm socket/spanner



- 6. Remove 2x 10mm hex bolts from the underside of the rear bumper middle section.
- 7. Remove 2x plastic push rivets from the underside of the rear bumper middle section.

10mm socket/spanner

Trim tool or Flat blade screwdriver



- 8. Remove the rear wheel flare. An aftermarket flare is installed in the picture above and may be attached differently.
- 9. On a stock factory flare, remove 1x large plastic push rivet, 1x small plastic push rivet and 1x 4mm hex/Allen head bolt.
- 10. Lever the flare outwards from the rear door end to release the 7x body clips.
- 11. Repeat for other flare.

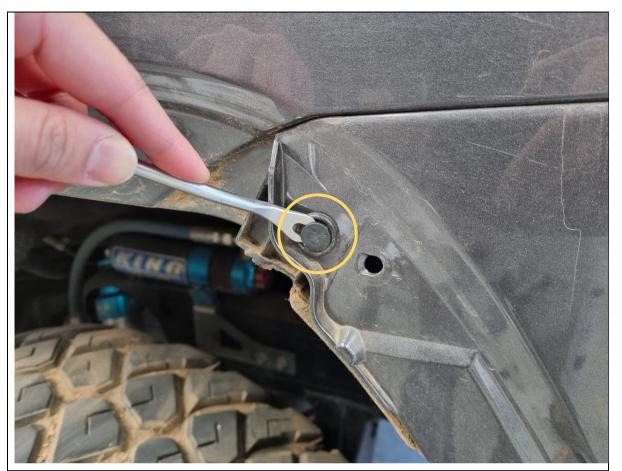
4mm hex/Allen key

Trim tool or Flat blade screwdriver

FASTENERS

2x large plastic push rivet 2x small plastic push rivet 2x 4mm hex/Allen head bolt

Retain for reassembly



12. Remove the plastic push rivet securing the top corner of the rear bumper to the body on each side.

Trim tool or Flat blade screwdriver

FASTENERS

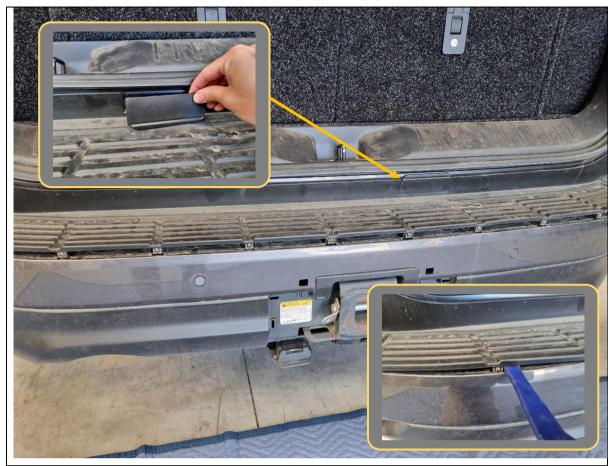
2x plastic push rivet

Retain for reassembly



- 13. Open the rear tailgate.
- 14. Use a plastic trim removal tool to lever off the plastic taillight cover panel on both sides.

Plastic trim removal tool or Rag + screwdriver



- 15. Remove the spare wheel winder plastic cover and set
- 16. Use a plastic trim removal tool to lever up and release the clips on the bottom edge of the plastic tread panel.

Plastic trim removal tool or Rag + screwdriver



17. Starting from a top corner, pull upwards and outwards to remove the plastic tread panel. Set aside for later.

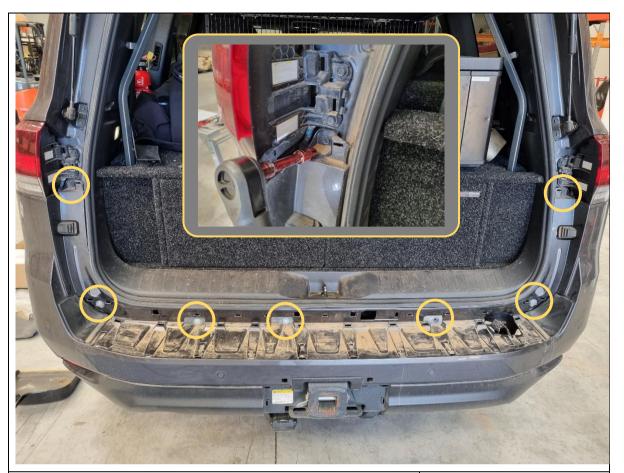
TOOLS REQUIRED

Plastic trim removal tool or Rag + screwdriver



18. Flip up the latch and unplug the rear bumper harness.

TOOLS REQUIRED



19. Using a 10mm socket/spanner, remove the 7x 10mm hex head bolts securing the top of the bumper to the rear of the vehicle.

TOOLS REQUIRED

10mm socket/spanner

FASTENERS

7x 10mm hex head bolts

Retain for reassembly



- 20. Starting from the outer corner on each side, gently pull outwards on the rear bumper to release all the clips on the top edges.
- 21. Remove and place the rear bumper somewhere safe where it won't get scratched.

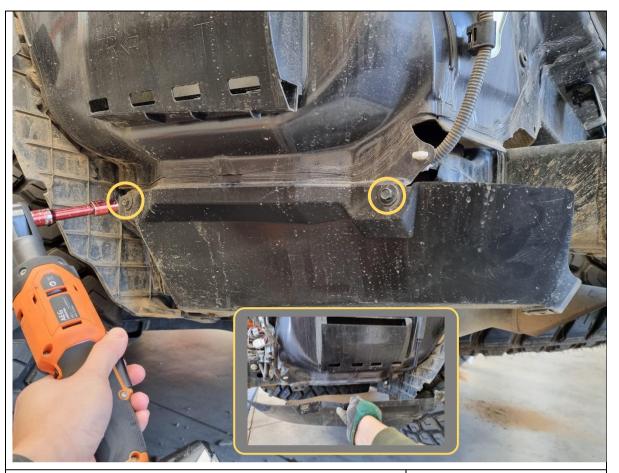


22. Remove the white foam step support and set aside.

FASTENERS

4x 16mm hex head bolts

Retain for reassembly



- 23. Remove 2x 10mm hex head bolts from the lower side plastic trim.
- 24. From the inside, squeeze the tabs on 3x plastic clips to release them from the body.
- 25. Remove the lower side plastic trim on both sides and discard.

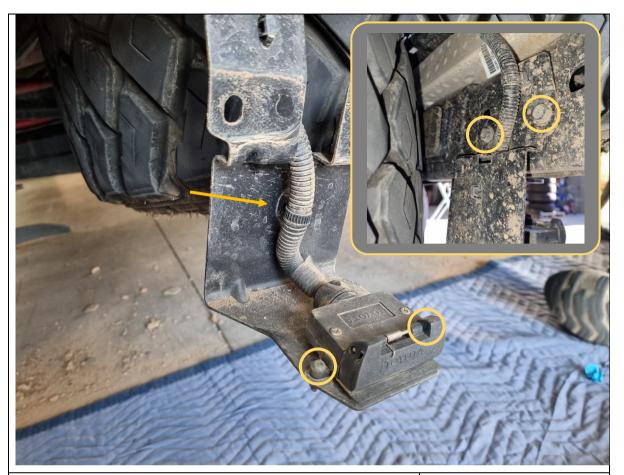
10mm socket/spanner



26. Remove and discard the 2x plastic lower bumper mounts on the underside of the chassis/towbar by removing 1x 12mm hex head bolt on each mount.

TOOLS REQUIRED

12mm socket

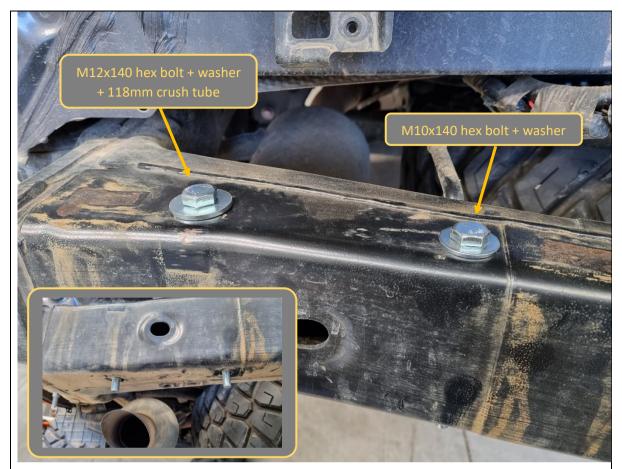


- 27. If installed, remove the trailer wiring harness bracket from the towbar/chassis by removing 2x 13mm hex bolts.
- 28. Remove the harness plug from the bracket by removing 2x M4 bolts and nuts with a Phillips head screwdriver and 7mm socket/spanner.
- 29. Unclip the harness from the bracket. Discard the bracket and tuck the harness safely out of the way.

Phillips head screwdriver

7mm socket/spanner

13mm socket/spanner



- 30. On the LH passenger side (also side with exhaust), insert 1x M12x140 hex bolt with M12 flat washer and 118mm crush tube through the hole on the top of the chassis/towbar.
- 31. On the hole to the right, insert 1x M10x140 hex bolt and M10 flat washer. The fit may be tight through the hole, gently tap/hammer through if required.
- 32. Repeat for RH driver side.

FASTENERS

2x M12x140mm hex bolt 2x M12 heavy duty washer 2x 118mm crush tube

2x M10x140mm hex bolt 2x M10 heavy duty washer

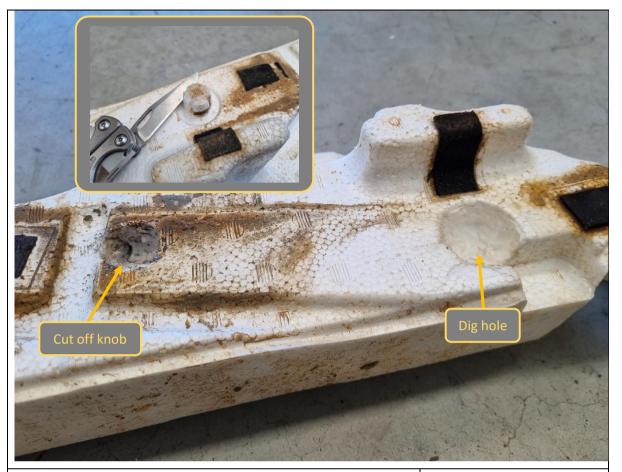


- 33. Install the lower mount to the chassis/towbar and secure to the previously fitted bolts with an M12 and M10 flange nut.
- 34. Repeat on both sides.

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

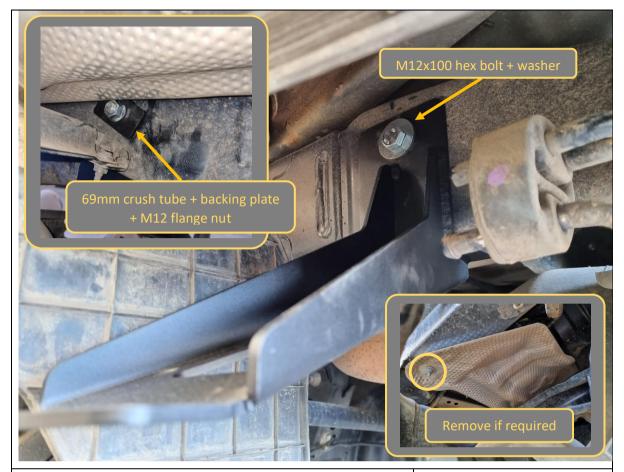
FASTENERS

2x M12 flange nut 2x M10 flange nut



- 35. Rest the foam step support on top of its original position and mark out the location of the newly installed bolts.
- 36. Using a utility knife, cut/dig out material so that the foam step support can sit flush back on the vehicle.
- 37. Re-fit the foam step support to the vehicle.

Utility knife



- 38. Fit the LH wing brace welded bracket to the chassis rail between the exhaust hangar and rear tyre.
- 39. Secure with 1x M12x100 hex bolt, washer, 69mm crush tube, rectangle backing plate and flange nut.
- 40. The exhaust heat shield may need to be removed and shifted out of the way to be able to fit the backing plate and flange nut. The heat shield is secured with 3x 10mm nuts.
- 41. Repeat on the other side with the RH wing brace.

18/19mm socket/spanner

FASTENERS

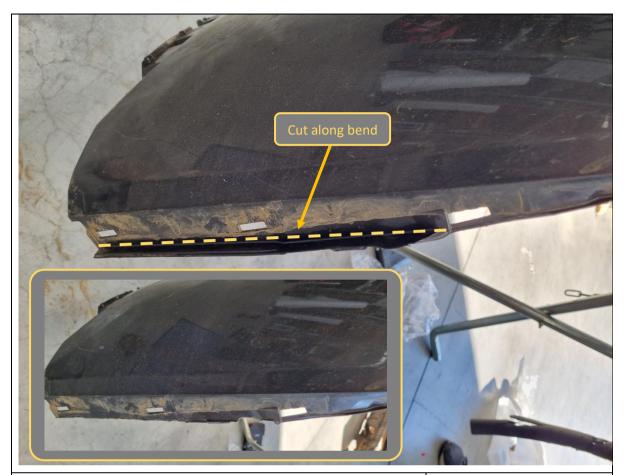
2x M12x100mm hex bolt 2x M12 heavy duty washer 2x 69mm crush tube 2x rectangle backing plate 2x M12 flange nut



- 42. The lower section of the bumper needs to be split off before reattaching to the vehicle.
- 43. Remove and discard the towbar hitch cover if fitted (not shown here).
- 44. Use a trim tool to unclip the wiring harness from the middle of the bumper in the 3x locations shown (see inset).
- 45. Use a trim tool to remove the 2x plastic push rivets on the outside middle of the bumper.
- 46. Remove and discard the small plastic trim from the middle of the bumper.



- 47. There are multiple white plastic clips securing the lower section of the bumper to the main bumper.
- 48. Squeeze down on the tab and push the clip out of its slot. There will be an arrow marked on the inside of the bumper showing the direction they are installed in. Repeat for all clips.
- 49. Pull apart and separate the lower section of the bumper.



- 50. The outer bottom flanges on the main bumper where the lower section clipped on to needs to be cut off.
- 51. Use an air hacksaw or similar cutting tool to cut off the flanges.
- 52. Clean up the edges with a utility knife or deburring tool.

Air hacksaw or similar

Utility knife or deburring tool



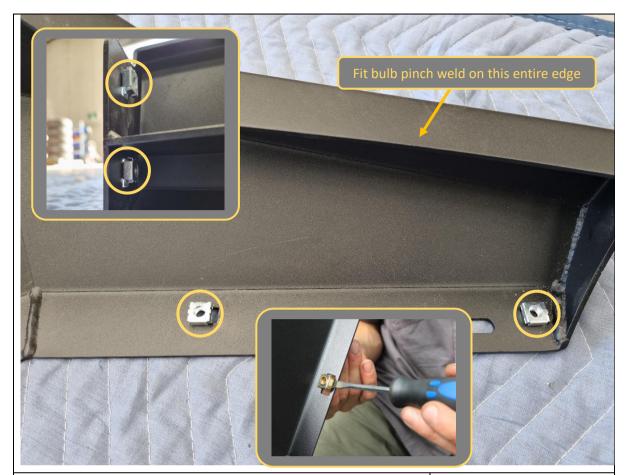
- 53. Re-fit the trimmed bumper back to the vehicle.
- 54. **IMPORTANT:** Plug the bumper wiring harness back to the main vehicle harness.
- 55. Reinstall all fasteners, clips, plastic trims and flares. Do not reinstall the mudflaps yet.

10mm socket/spanner

4mm hex/Allen key

FASTENERS

Re-use fasteners



- 56. Fit the long lengths of supplied bulb pinch weld to the indicated edge of each bumper wing.
- 57. Fit 4x M6 cage nuts to the inside of each bumper wing as highlighted.

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

TOOLS REQUIRED

Flat blade screwdriver

FASTENERS

4x M6 cage nuts



58. Remove the adhesive backing film from the supplied red retro reflectors and affix them to the opening on the outside of bumper wing. Press and hold firmly for 20 seconds. Do this for both wings.

TOOLS REQUIRED



- 59. Install the supplied white reverse lamps to the bumper wing by inserting them through the gap on the inside.
- 60. Secure the lamp to the wing using 2x M3x12 pan head screws, flat washers and hex nuts.
- 61. Repeat for both wings.

Phillips head screwdriver

5.5mm socket/spanner

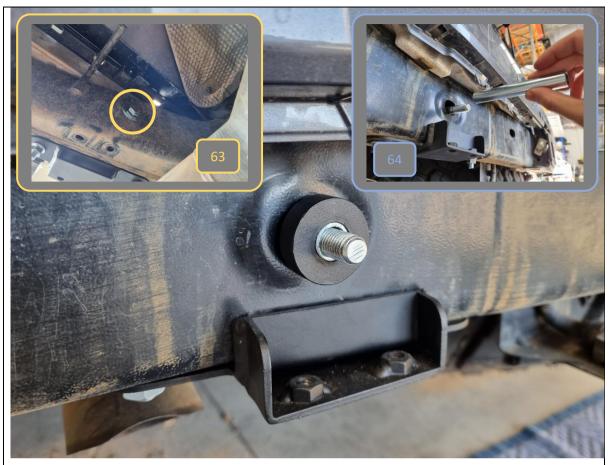
FASTENERS

4x M3x12 pan head screw 4x M3 flat washer 4x M3 hex nut



62. Plug the bolt access holes from the outside with the supplied black plastic hole plugs.

TOOLS REQUIRED



- 63. Insert 1x M12x140 hex bolt and washer through the hole above the lower mount from the inside.
- 64. Insert a 112mm crush tube, followed by the 12mm thick round spacer block from the outside.
- 65. Repeat for other side. If you have difficulty getting access to insert the bolt, you may need to lower the spare wheel. We didn't have to with our 33.5" spare.



66. With assistance of another person, lift the wing up onto the vehicle. Ensure the M12 bolt fitted in the previous step fits through the slot shown.

The bottom of the wing sits below the lower mount and wing brace mounting faces.

- 67. Loosely secure with 1x M12 flange nut. Leave finger tight.
- 68. The wing will also be secured in the locations described in Steps 69-72.

TOOLS REQUIRED

18/19mm socket spanner



69. Loosely secure the bottom of the wing to the lower mount bracket with 2x M8x20 black button head bolts and washers.

Leave finger tight.

TOOLS REQUIRED

6mm hex/Allen key

FASTENERS

2x M8x20 black button head 2x M8 black flat washer



70. Also loosely secure the side of the wing to the wing brace with 2x M8x20 black button head bolts, washers and flange nuts.

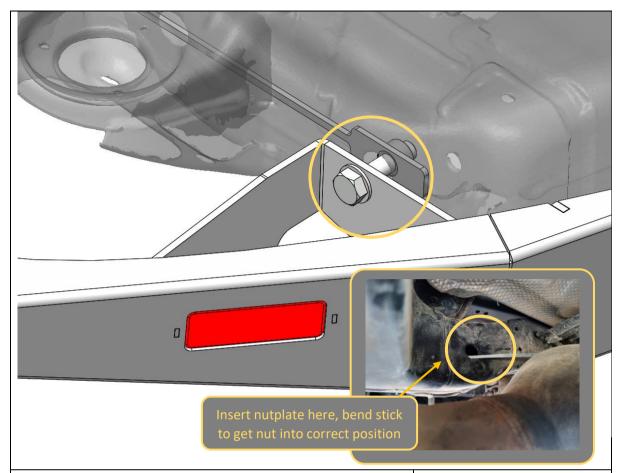
Leave finger tight.

TOOLS REQUIRED

6mm hex/Allen key

FASTENERS

2x M8x20 black button head 2x M8 black flat washer 2x M8 flange nut



- 71. Insert 1x M10 lollipop nutplate through the hole above the exhaust tip on the inside of the chassis rail (see inset).
- 72. Line up the nutplate with the hole on the wing bracket, then loosely secure with 1x M10x40 hex bolt and flat washer. Leave finger tight.

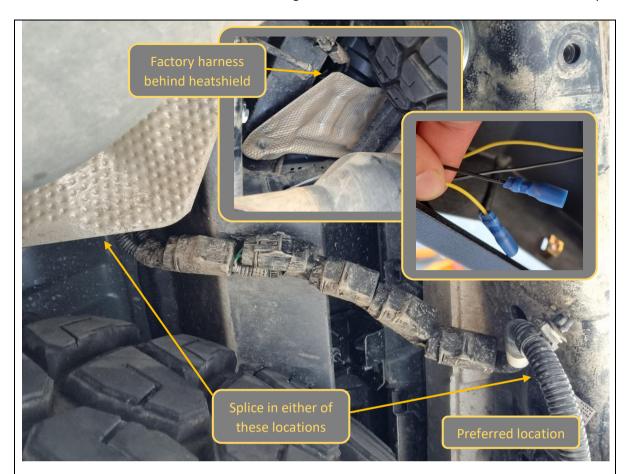
It is easiest to insert the bolt from below, and get visual access to manouvre the bolt by standing from the outside and viewing through the gap between the wing and rear bumper.

TOOLS REQUIRED

16mm socket/spanner

FASTENERS

1x M10x40 hex bolt 1x M10 flat washer 1x M10 lollipop nutplate



- 73. Patch in the reverse lamp wires to the vehicle.
- 74. There are two options, either patch in to the trailer wiring harness if equipped, or the factory installed harness behind the heatshield that is standard to all vehicles. It is preferred to patch in downstream of the fuses where possible.
- 75. Splice and solder automotive electrical wires into the vehicle side harness for reverse signal and ground. Use heat shrink or electrical tape to insulate solder connections.

Toyota wiring pinout: Black = +12V Reverse, White = Ground

Refer to Toyota trailer harness fitting instruction available online or probe with test light to confirm pinout is correct.

- 76. Fit crimp terminals to the reverse lamp wiring in the wing, and matching terminals to the ends of spliced wire.
- 77. Connect the lamp wires to the vehicle. Please note the wire colours are different on the lamp side.

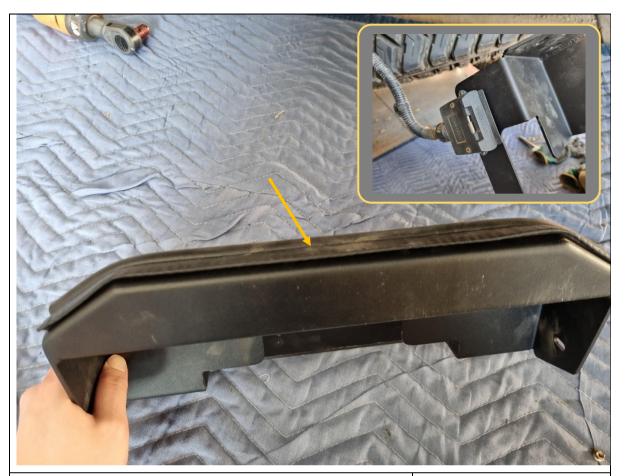
Supplied lamp pinout: White = +12V Reverse, Black = Ground

TOOLS REQUIRED

Cutting pliers
Wire strippers
Soldering iron
Solder
Automotive electrical
wire
Heat shrink
Heat gun
Electrical tape

FASTENERS

4x Crimp Terminal pairs



- 78. Repeat Steps 66-72 for the other wing. Leave all bolts finger tight at this stage.
- 79. Fit the supplied short length of bulb pinch weld to the top edge of the hitch receiver fascia plate as shown.
- 80. If equipped, reinstall the trailer wiring harness plug to the bottom of the fascia plate using 2x M4x20 pan head screws, flat washers and flange nuts. See inset photo.

Phillips head screwdriver
7mm spanner/socket

FASTENERS

2x M4x20 pan head screw 2x M4 flat washer 2x M4 flange nut



- 81. Remove the hitch pin to fit the hitch receiver fascia plate in between the two wings. Don't forget to replace the pin afterwards.
- 82. Align the plate so that it is flush level with both wings, then secure with 4x M6x20 black button head bolts and washers, 2x per side.

4mm hex/Allen key

FASTENERS

4x M6x20 black button head 4x M6 black flat washer



- 83. Align the entire rear protection bumper (2x wings + hitch receiver fascia) so that it is centered on the vehicle and even gapping to the plastic bumper all around.
- 84. Once happy with alignment, begin tightening bolts.

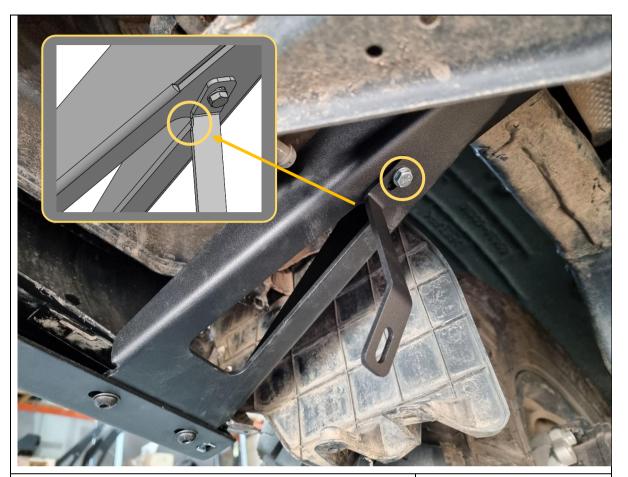
 Begin with the long M12x140 bolt installed in Step 67.
- 85. Next tighten the M10 bolt on nutplate from Step 71/72.

If there is a gap between wing bracket and chassis after alignment, insert any combination of the supplied shim plates to fill the gap before fully tightening (see inset).

86. Tighten the remaining M8 button head bolts on the underside of the wing.

TOOLS REQUIRED

6mm hex/Allen key 16mm socket/spanner 18/19mm socket/spanner



87. Loosely secure the side underpanel brace to the wing brace bracket with 1x M6x20 hex head bolt, flat washer and flange nut as shown.

The little notch in the brace should be pointing towards the rear of the vehicle. Use this to identify LH/RH parts.

88. Repeat for both sides.

TOOLS REQUIRED

10mm socket/spanner

FASTENERS

2x M6x20 hex bolt 2x M6 flat washer 2x M6 flange nut



- 89. Fit the side underpanel to the vehicle.
- 90. Secure to the wing with 2x M6x20 black button head bolts and flat washers.
- 91. Secure to the brace with 1x M6x20 hex bolt, flat washer and flange nut. Tighten the M6 bolt from Step 87 once everything is aligned.
- 92. Repeat for other side.

4mm hex/Allen key

10mm socket spanner

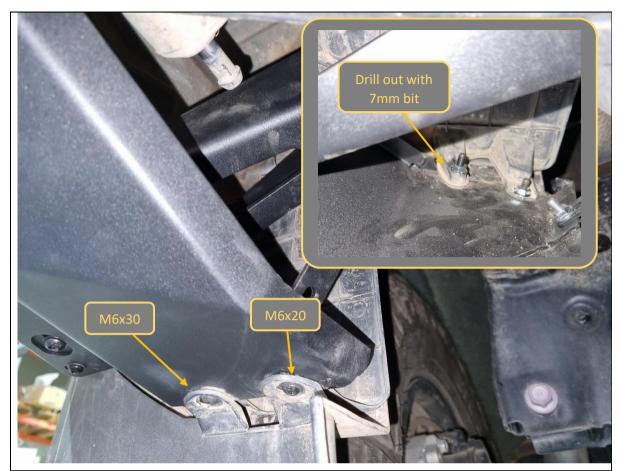


93. Refit the mudflap back to the bumper on both sides with the retained bolts and plastic push rivets.

4mm hex/Allen key

FASTENERS

2x 4mm hex/Allen head bolt 2x plastic push rivet



- 94. Fit the mudflap to the inner wheel guard with the side underpanel sandwiched in between.
- 95. You will most likely need to enlarge the outermost hole on the plastic inner wheel guard, do so with a 7mm drill bit.
- 96. Secure with 1x M6x30 black button head bolt, washer and flange nut for the outer hole, and 1x M6x20 black button head bolt, washer and flange nut for the inner hole.
- 97. Repeat on both sides.

Electric drill 7mm drill bit

4mm hex/Allen key 10mm socket/spanner

FASTENERS

2x M6x30 black button head 2x M6x20 black button head 4x M6 black flat washer 4x M6 flange nut



- 98. Fit the supplied plastic blanking cap over the rear slot on both wings.
- 99. Last but not least, fit the Offroad Animal logo plate to the RH driver side wing in the position shown.



Congratulations! You're done! Head for the tracks and enjoy knowing your rear end is safely protected!