



TOYOTA LANDCRUISER 80 SERIES

1990-1997

SCOUT ROOF RACK

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

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.

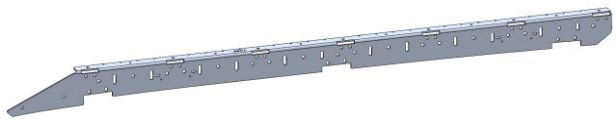
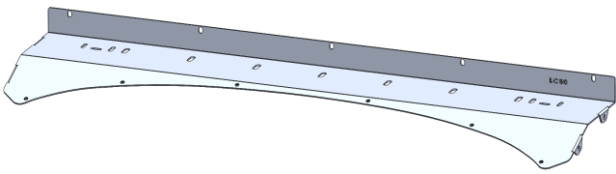
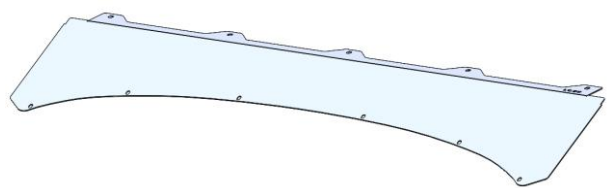
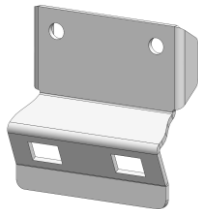
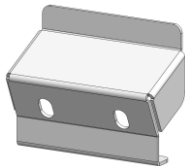
FRONT BAR MOUNTS AND TOW POINTS + REAR TOWBAR	
Size	Torque Nm
M10	57 Nm
M12	100 Nm
M14	164 Nm
M16	248 Nm

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.

Parts – In the Box

Qty	Part Number	Description	Image
1	B-1357R	LC80 Scout Rack Side Rail RH	
1	B-1357L	LC80 Scout Rack Side Rail LH	
1	B-1358	LC80 Scout Rack Front Panel	
1	B-1359	LC80 Scout Rack Wind Deflector	
6	B-1360	LC80 Scout Rack Foot	
6	B-1361	LC80 Scout Rack Clamp	
6	PW-P-14X9-90	Pinch Weld - Plain 14X9MM, Rubber, 90mm Length	N/A
6	UC-14-3-90MM	U CHANNEL RUBBER 90MM LONG	N/A

2	OFA-LOGO	Offroad Animal Metal Logo	
----------	----------	---------------------------	---

Cross Bar Kit

Qty	Part Number	Description	Image
7	E-0006-1300	Scout Roof Rack - Cross Bar Extrusion 1300mm	

Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
6	M6x12 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M6x20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X20X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
10	M6 FLAT WASHER BLACK ZINC	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK PASSIVATED FINISH
4	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
10	M8 X 12 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X12X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
14	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH
40	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
12	M8 X 35 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X35X1.25 BLACK ZP
76	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH
12	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
24	M8 NUT	Hex Nut, M8x1.25 G8.8 ZP
12	M8 Cage nut	NUT, CAGE, M8X1.25 ZINC PLATE

TOOLS REQUIRED

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Hex (Allen) Key Set 4-5mm		Soft Blanket
Hex (Allen) Key Socket 5mm		Torque wrench (suitable for 6Nm, low value range)
Flat Blade Screwdriver		

WORKSHOP SAFETY

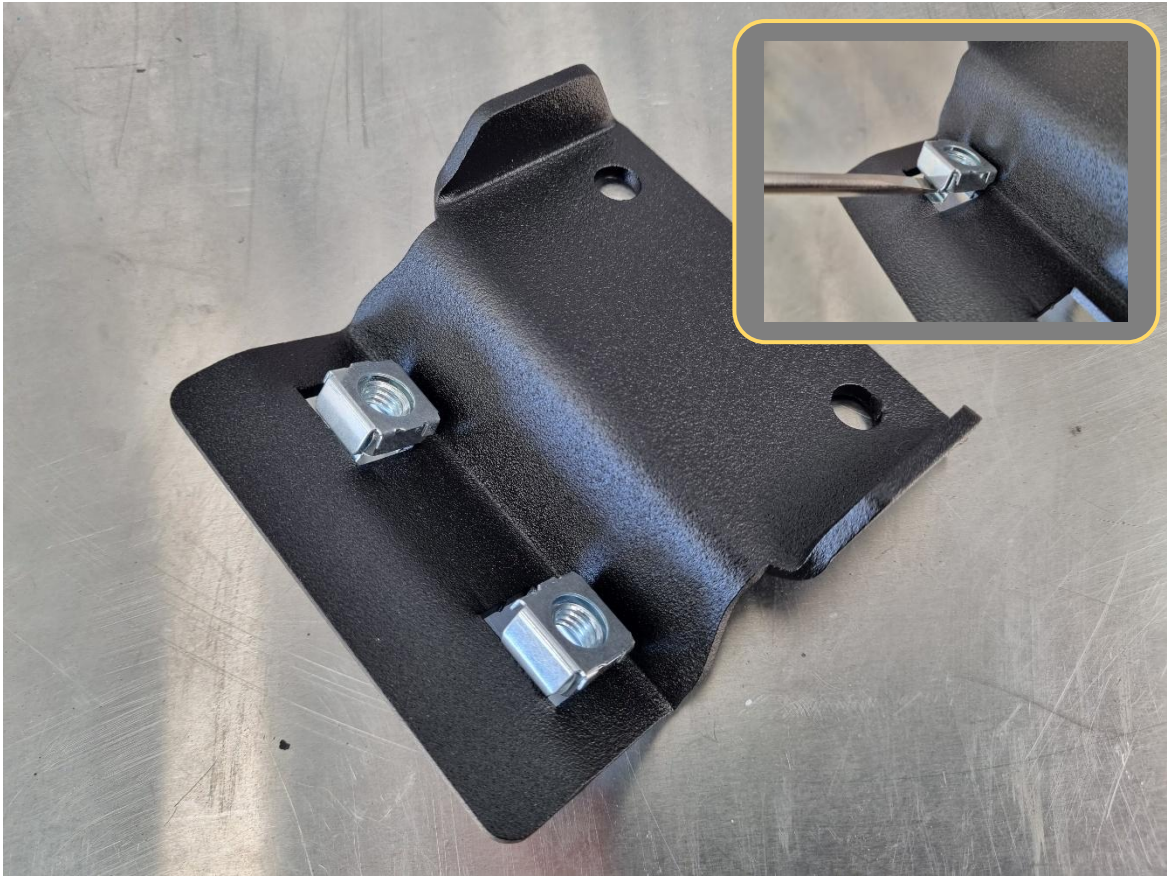
It is the responsibility of the installer to always complete works in a safe manner. Make sure the following safety equipment is available and precautions are observed whilst fitting this product.

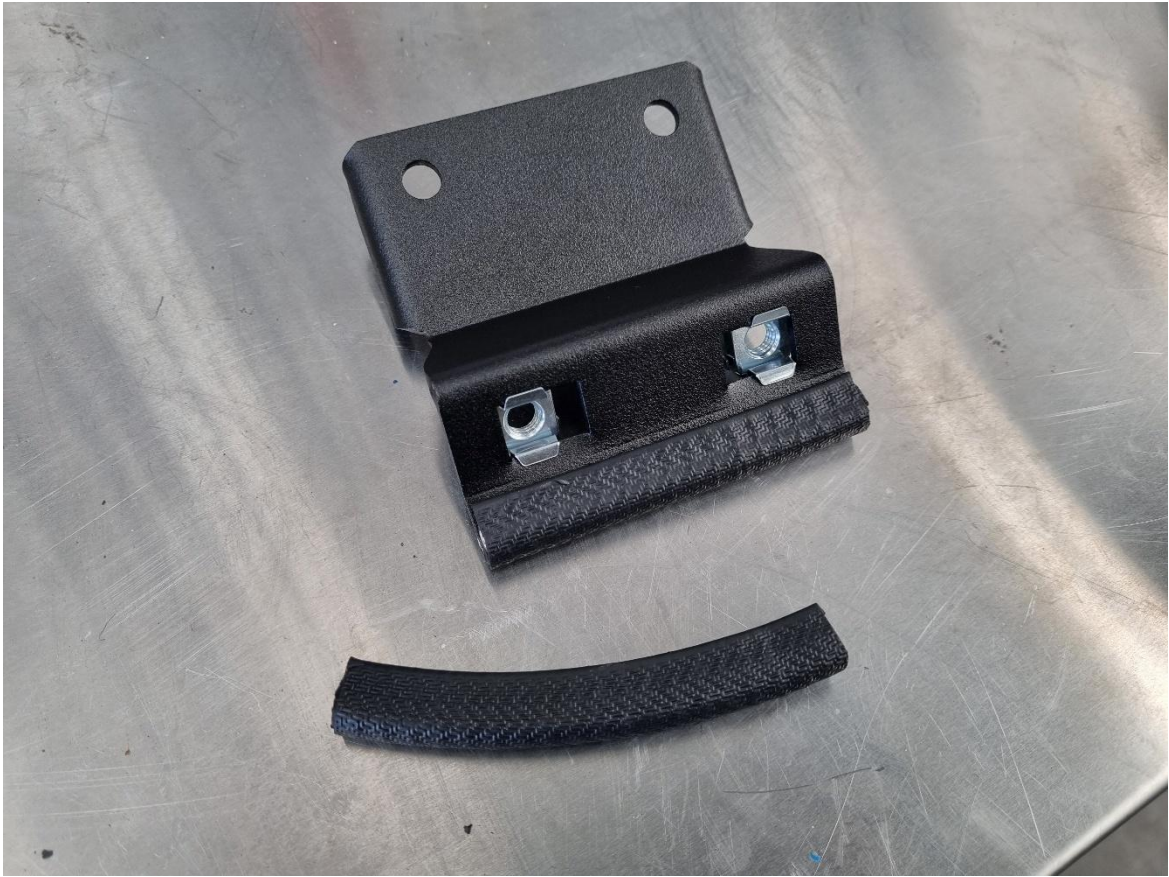
Hearing Protection 	Always wear ear protection when using power tools.
Eye Protection 	Ensure eye protection is always worn when cutting or drilling.
Manual Handling 	Do not attempt to lift bar assemblies or rock sliders on your own. Always use two people to lift or use mechanical lifting aid such as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

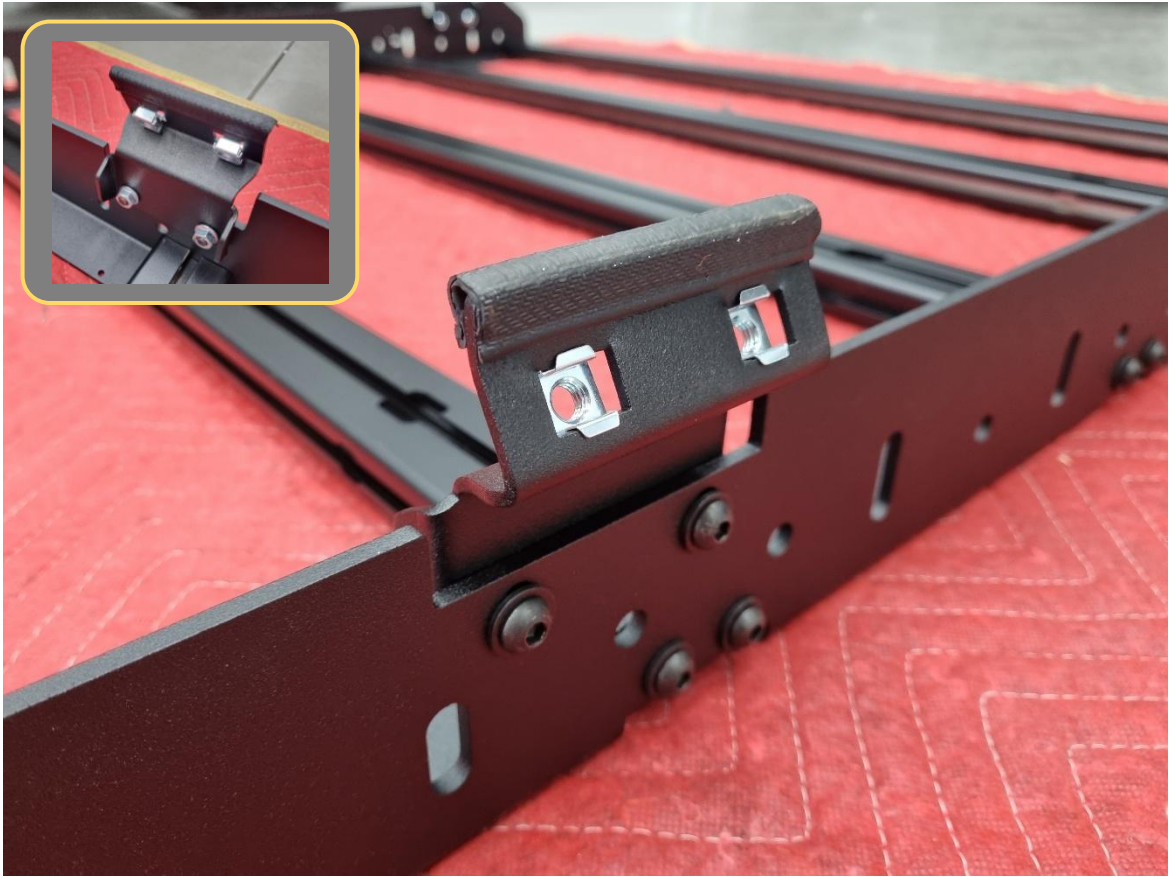


1. Find a large table or floor space and lay out all 7x extrusion cross bars and roof rack sides.	TOOLS REQUIRED
	FASTENERS

	
2. Have the roof rack sides upside down, and bring them in line with the end of the extrusion cross bars. 3. Fit 2x M8x20 black button head bolts and black washers through the side of the roof rack and into the end of each extrusion cross bar. Keep bolts loose at this stage.	TOOLS REQUIRED 5mm hex/Allen key
	FASTENERS 28x M8x20 black button head 28x M8 black flat washer

	
4. Insert 2x M8 cage nuts into the rectangular cutouts in all 6x B-1360 scout rack foot brackets, as shown. Use a flat blade screwdriver to assist with inserting the cage nuts.	TOOLS REQUIRED Flat blade screwdriver
	FASTENERS 12x M8 cage nut

	
5. Fit the supplied lengths of plain pinch weld rubber to the base of every B-1360 scout rack foot bracket.	TOOLS REQUIRED
	FASTENERS

	
6. Fit the B-1360 scout rack foot brackets to the roof rack sides (3x per side) as shown. 7. Loosely secure each bracket with 2x M8x20 black button head bolts, black washers and flange nuts. Keep bolts loose at this stage.	TOOLS REQUIRED 5mm hex/Allen key
	FASTENERS 12x M8x20 black button head 12x M8 black flat washer 12x M8 flange nut



8. Flip the assembled roof rack over so that it is upright.	TOOLS REQUIRED
	FASTENERS



9. Insert 1x M8 hex nut through the rectangular opening in the top T-slot of the extrusion cross bar, then slide it into position below the bolt hole on the roof rack side.
10. Loosely secure the top of the roof rack side to the hex nut in the extrusion with 1x M8x16 black button head bolt and black washer.
11. Repeat for all 13x other locations on both sides of the roof rack. Leave bolts loose at this stage.

TOOLS REQUIRED

5mm hex/Allen key

FASTENERS

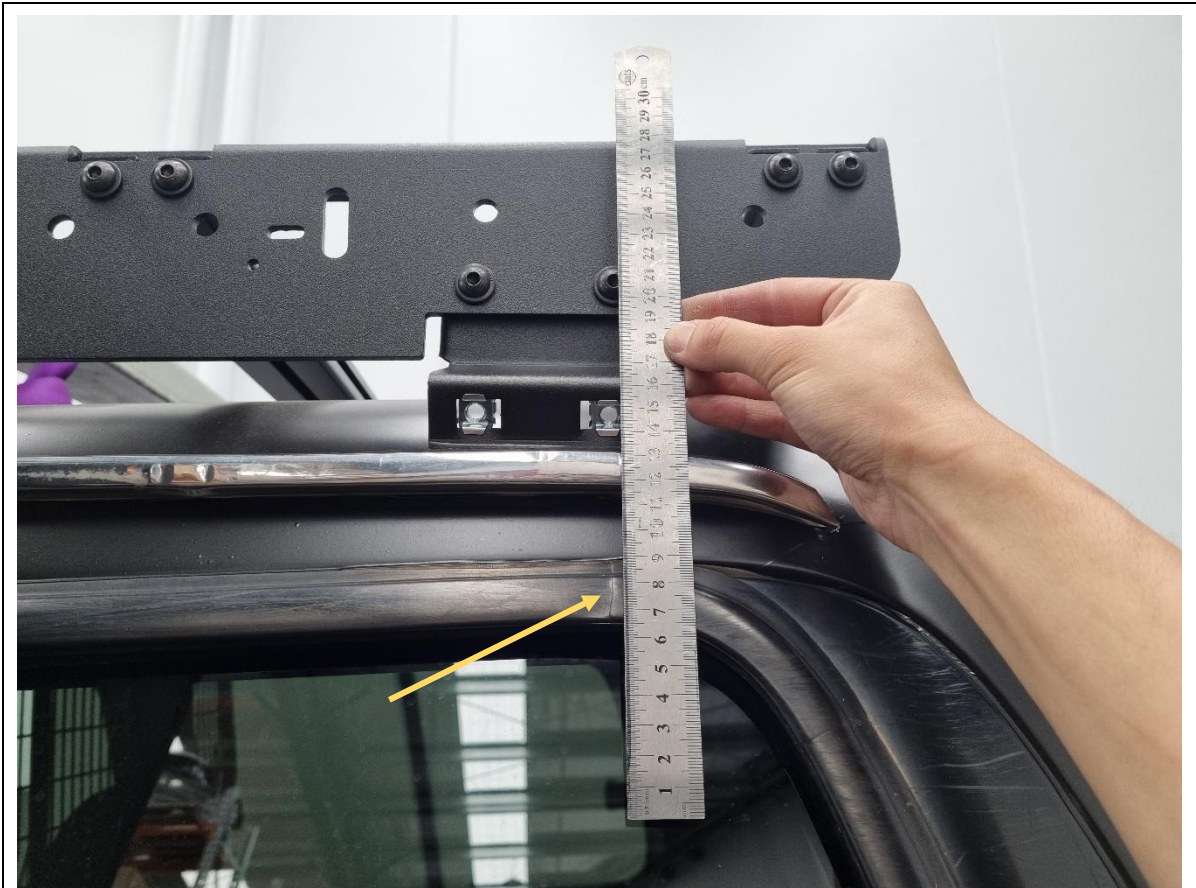
14x M8x16 black button head
14x M8 black flat washer
14x M8 hex nut

	
12. Insert 5x M8 hex nuts through the rectangular opening in the front T-slot of the front-most extrusion cross bar. 13. Slide the hex nuts along the extrusion cross bar and position them so that they line up with the holes in the B-1358 scout rack front panel.	TOOLS REQUIRED
	FASTENERS 5x M8 hex nut

	
14. Fit the front panel to the roof rack, in between the roof rack sides. 15. Secure the front panel to the hex nuts in the front-most extrusion cross bar using 5x M8x12 black button head bolts and black washers. Tighten these bolts. 16. Loosely secure the front panel to each roof rack side with 2x M6x20 black button head bolts, black washers and flange nuts. See inset photo. Leave these bolts finger tight at this stage.	TOOLS REQUIRED 4mm hex/Allen key 5mm hex/Allen key
	FASTENERS 5x M8x12 black button head bolt 5x M8 black flat washer 4x M6x20 black button head bolt 4x M6 black flat washer 4x M6 flange nut

To suit Offroad Animal 42" Single Row Light Bar (mounting feet facing OUT) To suit STEDI 3303 Series 39" light bar (mounting feet facing IN) General purpose 10mm slots, suits round lights or sliding mount light bars To suit STEDI ST3K, ST4K and 3301 Series 41-42" light bars (mounting feet facing IN)	
17. If fitting a light bar or other lights to the front of the roof rack, do so now. Refer to above image to identify appropriate slots to use.	TOOLS REQUIRED Refer to accessory instructions
	FASTENERS Refer to accessory instructions

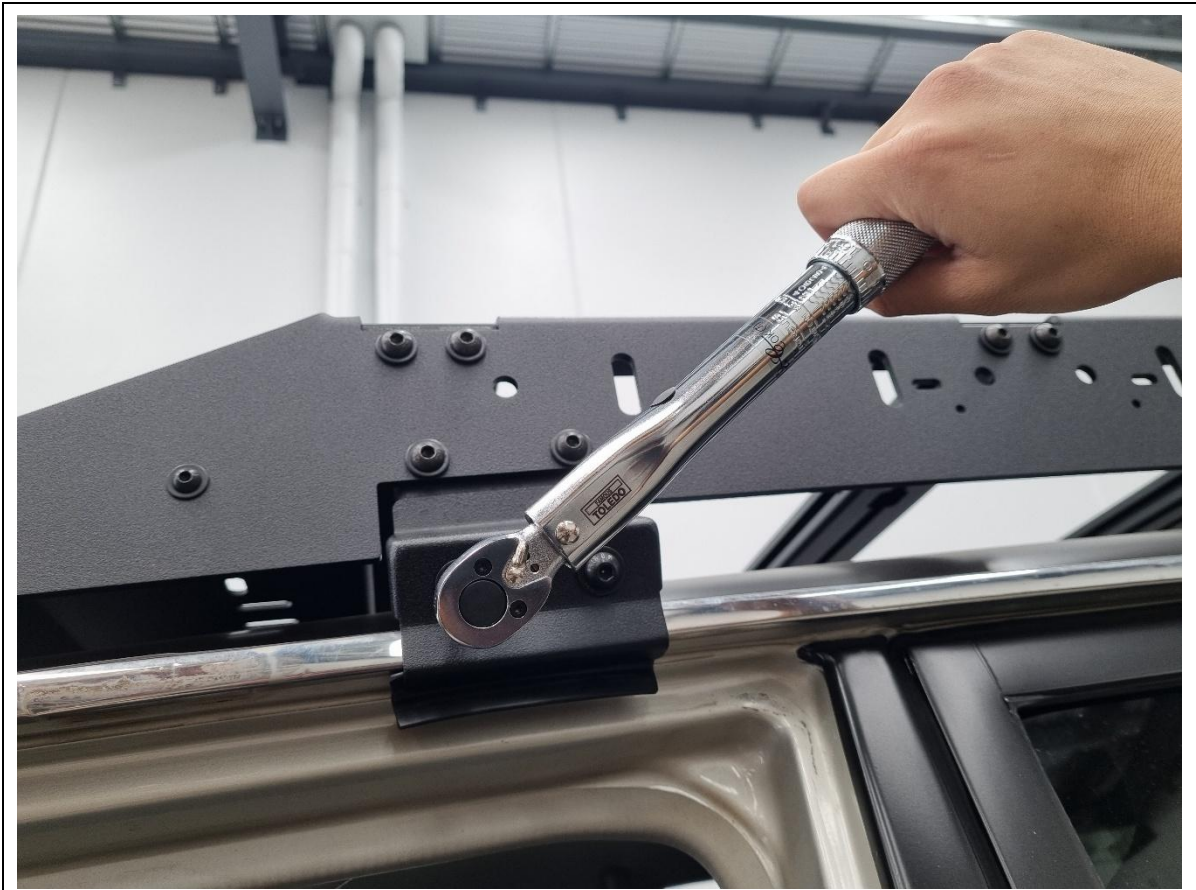
	
18. With assistance from another person (or other lifting device), lower the roof rack onto the vehicle. 19. Position the rack such that all mounting foot brackets are sitting in the roof gutter.	TOOLS REQUIRED
	FASTENERS



20. Adjust the roof rack forwards/backwards until the rearmost mounting foot bolt is in line with the crease in the rear window seal. See the image above.	TOOLS REQUIRED
	FASTENERS

	
21. Fit the supplied lengths of U-channel rubber to the bottom edge of the B-1361 scout rack clamp brackets. See inset photo. 22. Fit all 6x clamp brackets to the outside of the mounting feet, ensuring the bottom lip of the clamp bracket is on the underside of the roof gutter. 23. Loosely secure each clamp bracket to the cage nuts in the mounting feet using 2x M8x35 black button head bolts and black washers. Keep bolts finger tight at this stage.	TOOLS REQUIRED 5mm hex/Allen key
	FASTENERS 12x M8x35 black button head 12x M8 black flat washer

	
24. Adjust the roof rack so that there is even clearance to the roof in side view and in front view. Ensure there is at least 5mm clearance between the front edge of the front panel and roof. 25. Once happy with alignment, tighten the 12x bolts holding the roof rack to the mounting feet (see circled bolts in inset photo).	TOOLS REQUIRED 5mm hex/Allen key
	FASTENERS



26. Carefully and progressively tighten the clamp bracket bolts. The two bolts on each clamp need to be tightened together. Complete 1-2 turns then swap on each fastener. 27. Progressively work around the rack when tightening, partially tightening each clamp then swapping to the next one. 28. Continue tightening in this sequence using a torque wrench until 6Nm torque is achieved on all bolts. <u>Over tightening may damage the roof gutter and trim.</u> 29. Re-check rack clearance to roof after tightening and re-adjust if needed.	TOOLS REQUIRED Torque wrench 5mm hex/Allen key socket
	FASTENERS

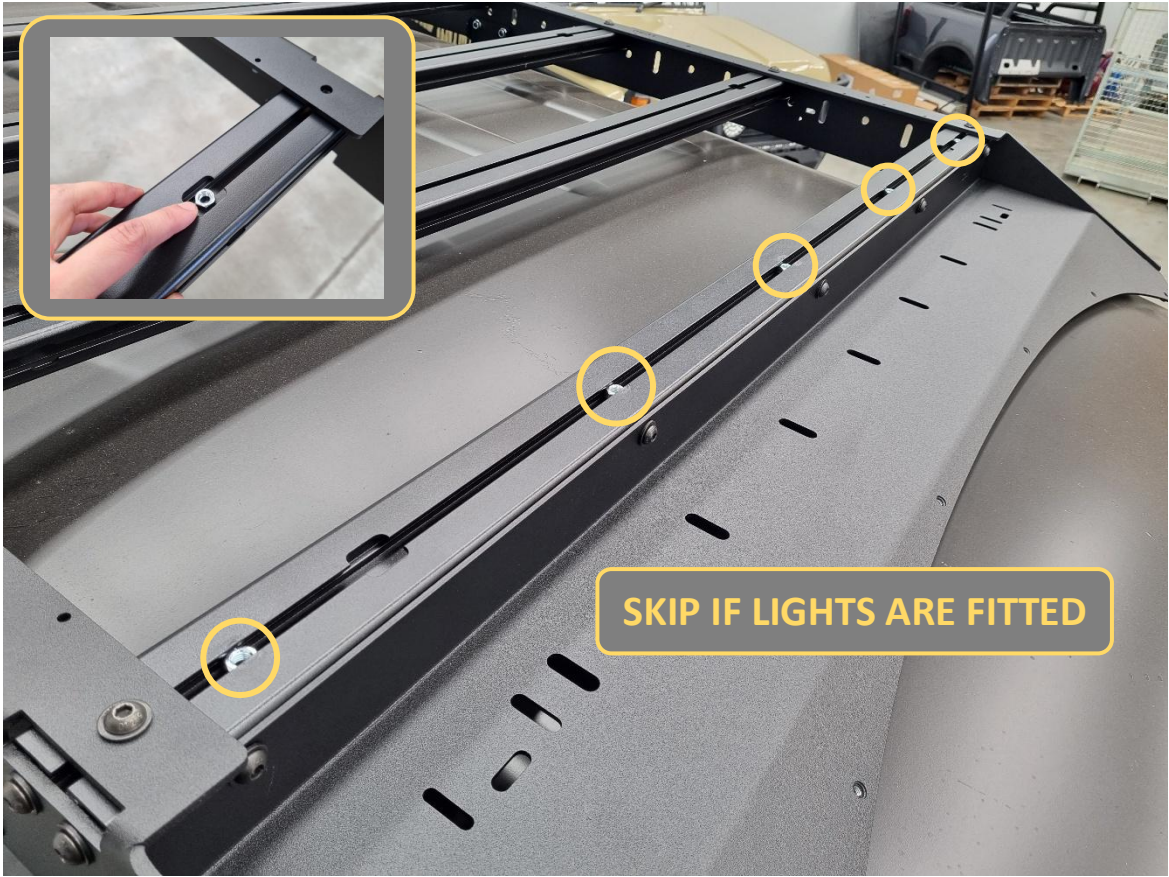


30. Tighten **ALL** bolts securing the roof rack sides to the extrusion cross bars.
- First tighten the 28x bolts going into the ends of the extrusion.
- Then tighten the 14x bolts going into the top of the extrusion (see inset photo).

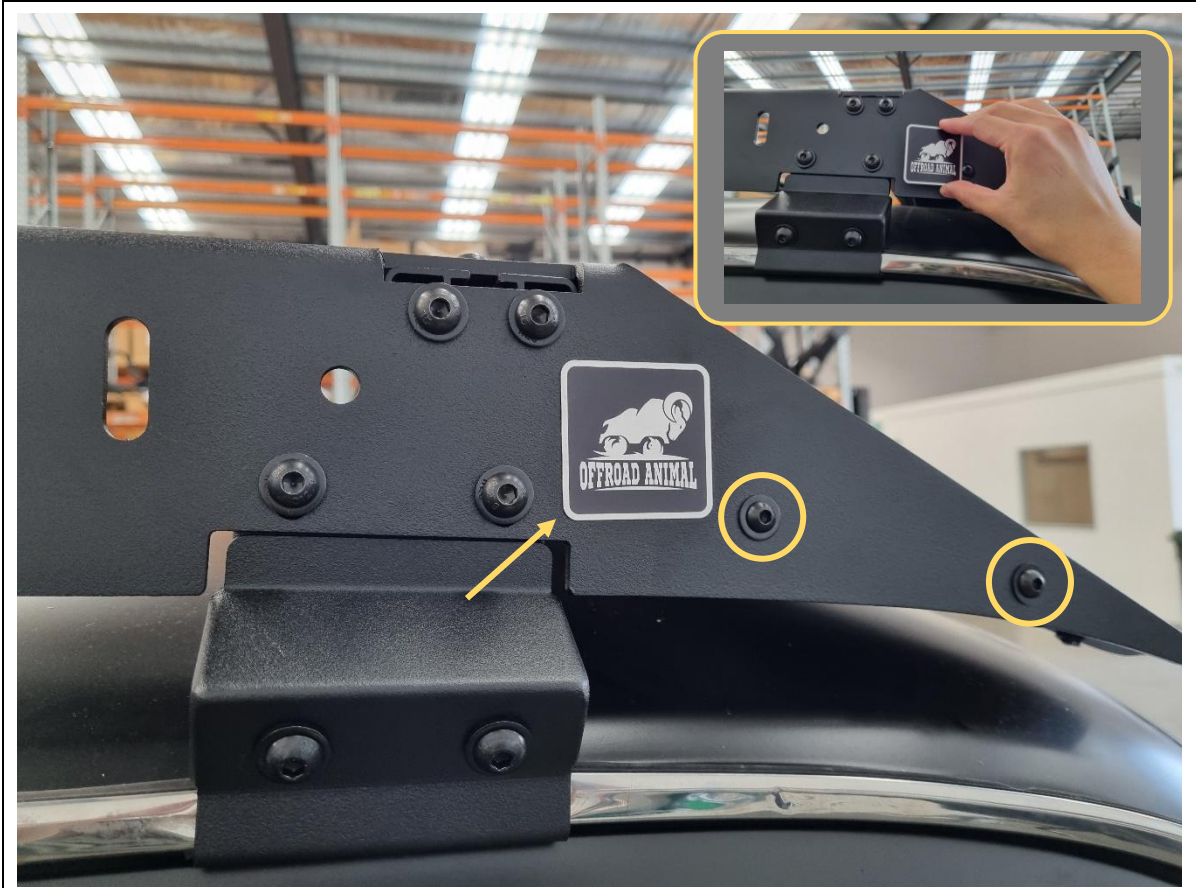
TOOLS REQUIRED

5mm hex/Allen key

FASTENERS

	
31. If no lights have been fitted, insert 5x M8 hex nuts through the rectangular opening in the top T-slot of the front-most extrusion cross bar. 32. Slide the hex nuts along the extrusion cross bar and position them so that they line up with the holes in the B-1359 wind deflector panel.	TOOLS REQUIRED
	FASTENERS 5x M8 hex nut

	
33. Fit the wind deflector to the roof rack. 34. Secure the wind deflector to the hex nuts in the front-most extrusion cross bar with 5x M8x12 black button head bolts and black washers. 35. Secure the wind deflector to the embedded nuts in the front panel with 6x M6x12 black button head bolts and black washers. 36. Fully tighten all wind deflector bolts.	TOOLS REQUIRED 4mm hex/Allen key 5mm hex/Allen key
	FASTENERS 5x M8x12 black button head bolt 5x M8 black flat washer 6x M6x12 black button head bolt 6x M6 black flat washer



- 37. Tighten the 2x M6 bolts on each side securing the front panel to the roof rack sides.
- 38. Make sure you put on the logo plates on each side in the location shown or else bad luck will befall you for the next year.
- 39. The fitment is now complete. Double check all fasteners are done up.

TOOLS REQUIRED

4mm hex/Allen key

FASTENERS



Congratulations! You're done! Go out bush and enjoy carrying all your gear on our light weight, low profile and quiet Scout Roof Rack.