

# Toyota Landcruiser 76 Wagon MY2007 on 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.

Roof Rack Tested Roof Capacity = **150KG**Roof Rack Rated Cargo Capacity = **115.5KG** 

Confirm Maximum Vehicle Roof Rating with Vehicle Manufacturer.



## 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
7	E-0005-1300	Scout Roof Rack - Cross Bar Extrusion 1300MM	
1	B-1721L	LC76 Scout Rack Side Rail	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1	B-1721R	LC76 Scout Rack Side Rail	The Control of the Co
1	B-1179	LC76/79 Scout Rack Front Panel	
1	B-1180	LC76/79 Scout Rack Wind Deflector	
8	B-1186	LC76/79 Scout Rack Foot	
8	B-1187	LC76/79 Scout Rack Clamp	
8	UC-14-3- 90MM	U CHANNEL RUBBER 90MM LONG	
8	PW-P-14X9- 90	Pinch Weld - Plain 14X9MM, Rubber, 90mm Length	



### **Small Parts – Contained in Small Parts Kit Bag**

QTY.	PART NO.	DESCRIPTION	
16	M8 Cage nut	NUT, CAGE, M8X1.25 ZINC PLATE	
5	M8 NUT	Hex Nut, M8x1.25 G8.8 ZP	
84	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile	
	- BZP	19x8x2mm, ISO4042 ZnNi BLACK	
		PASSIVATED FINISH	
10	M8 X 12 BHCS BZP	SCREW, BUTTON HEAD CAP,	
		M8X12X1.25 GR12.9, ISO4042 ZnNi	
		BLACK PASSIVATED FINIS	
14	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP,	
		M8X16X1.25 GR12.9, ISO4042 ZnNi	
		BLACK PASSIVATED FINIS	
44	M8 X 20 BHCS BLACK	SCREW, BUTTON HEAD CAP,	
	ZINC	M8X20X1.25, ISO4042 ZnNi BLACK	
		PASSIVATED FINISH	
16	M8 X 35 BHCS BZP	SCREW, BUTTON HEAD CAP,	
		M8X35X1.25 ISO4042 ZnNi BLACK	
		PASSIVATED FINISH	
35	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP	
16	M6 FLAT WASHER	M6 Flat Washer, 12x6.1x1, ISO4042	
	BLACK ZINC	ZnNi BLACK PASSIVATED FINISH	
6	M6x12 BHCS BLACK	SCREW, BUTTON HEAD CAP, M6X12X1	
	ZINC	GR12.9, ISO4042 ZnNi BLACK	
		PASSIVATED FINISH	
10	M6x16 BHCS BLACK	SCREW, BUTTON HEAD CAP, M6X16X1	
	ZINC	GR12.9, ISO4042 ZnNi BLACK	
		PASSIVATED FINISH	
6	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP	



The following tools will be required to install the product. Note Extra Tools will be required for fitment of track kit. Refer to track kit

Hand Tools	Power Tools	Workshop Supplies
Metric Socket Set 8-		Soft Blanket
19mm		Forklift or Lifting
Socket Extension Bar		assistance
Metric Spanner Set 10-		
19mm		
Hex (Allen) Key Set 4-		
6mm		
Torque Wrench capable		
of Low Torque Settings		



## **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. Assemble the roof rack. Start by setting out the 7 extrusions on a table or panel stand. Position them so they sit approximately 300mm apart.
- 2. IMPORTANT ASSEMBLY NOTE: For **ALL FASTENERS** during the assembly process leave finger tight until tightening step.



3. Fit the side rails to the extrusion,

This is easiest to do when the ends of the extrusions are hanging over the edge of a table / workbench.

We find panel stands work well for this application.

- 4. Secure using M8x20 Button Head bolts & M8 Washers through the side face into the Tapped holes on the side face of the extrusion.
- 5. Complete steps for both side rails.

#### **TOOLS REQUIRED**

5mm Hex Key

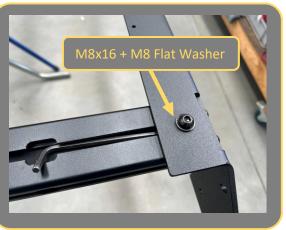
#### **FASTENERS**

14x M8x20 Button head bolt. 14x M8 Flat Washer









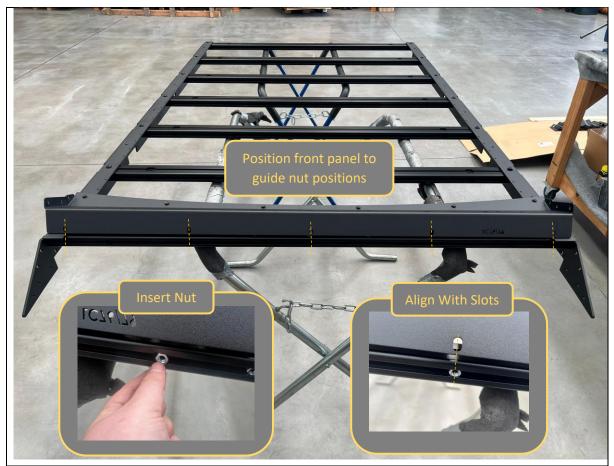
- 6. Insert M8 Flange Nut into the top T Slot cutout on each extrusion for securing top face of side rail.
- 7. Drop nut into slot in extrusion, then slide nut sideways in slot and align with hole in the side rail.
- 8. Secure with M8x16 Bolt + Flat Washer.
- 9. Complete top bolt fitment for other side of rail.

5mm Allen Key

#### **FASTENERS**

7x M8 Flange Nuts
7x M8x16 Button head bolt
7x M8 Flat Washer

Per Side



- 10. Insert 5x M8 nuts into the front slot of the front extrusion.
- 11. Using the hole positions in the vertical face of the front panel as a guide, use a screwdriver to move nuts into correct positions. Gravity should hold the nut in position.
- 12. Position 5x M8x12 Button head and M8 Flat washers on the rack within easy reach for the next step.

Screwdriver

#### **FASTENERS**

5x M8 Nuts 5xM8x12 Button Head 5xM8 Flat Washer



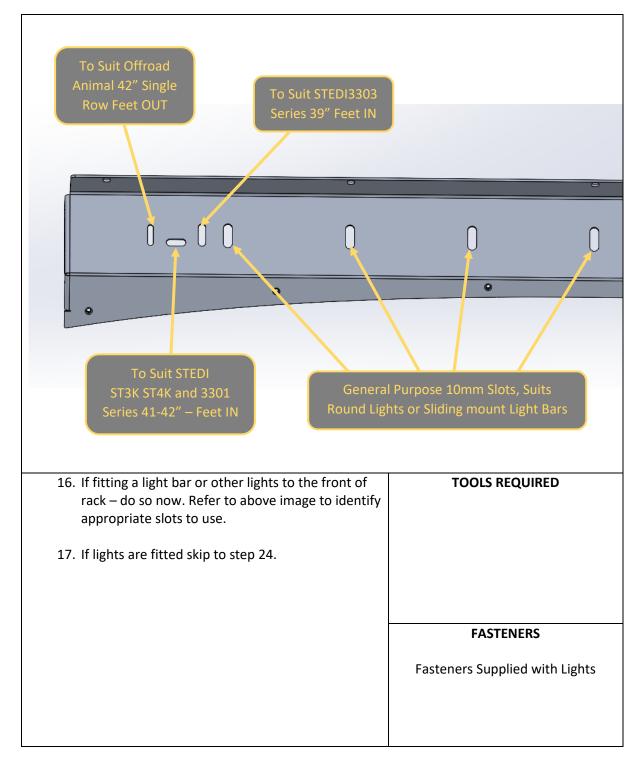
- 13. Fit the Front panel to the rack assembly. Secure to the pre-placed nuts in the front extrusion using the M8x12 Button head bolts and flat washers.
- 14. Next, Secure the Front panel to the side arm using 3x M6x16 Button head bolts, flat washers, and Flange nuts per side
- 15. **Tighten** the 5x M8x12 Button head screws securing front panel to the extrusion. Leave other bolts finger tight.

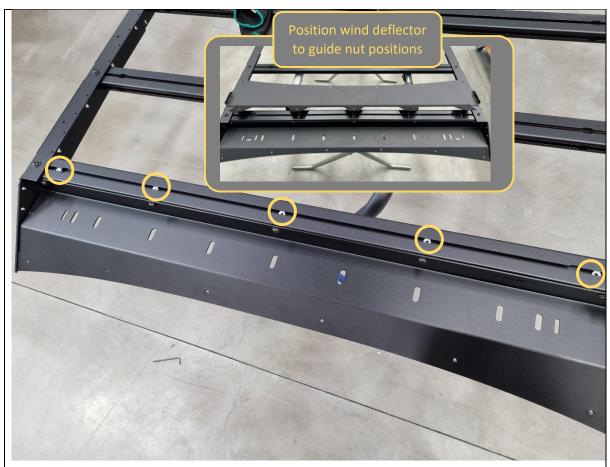
5mm Hex Key

#### **FASTENERS**

5x M8X12 Button Head Bolt 5x M8 Flat Washer 6x M6X16 Button Head Bolt 6x M6 Flat Washer 6x M6 Flange Nut Washer



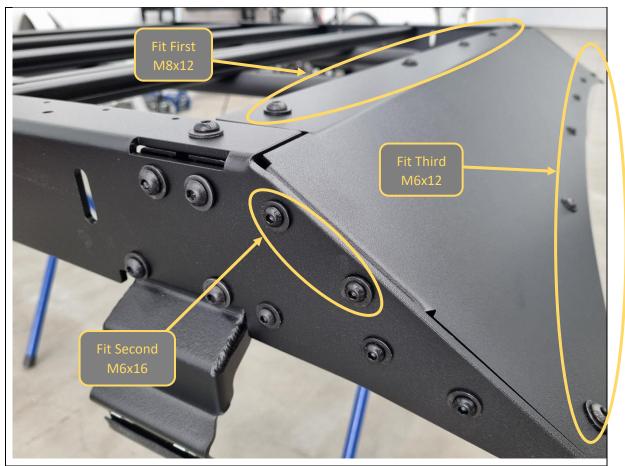




- 18. If not fitting lights, prepare for fitment of wind deflector by positioning 5x M8 Flange nuts into the top slot of the front extrusion.
- 19. Using the hole positions in the top face of the wind deflector as a guide, use a screwdriver to move nuts into correct positions. Gravity should hold the nut in position.
- 20. Position 5x M8x12 Button head and M8 Flat washers on the rack within easy reach for the next step.

#### **FASTENERS**

5x M8 Flange Nuts



- 21. Fit the wind deflector to the rack. Secure to the pre-placed nuts in the front extrusion using the M8x12 Button head bolts and flat washers.
- 22. Next, Secure the Wind deflector to the side arm using 2x M6x16 Button head bolts, flat washers, into captive nuts on the wind deflector.
- 23. Finally, Secure the Wind deflector to the Front Panel using 6x M6x12 Button head bolts, flat washers, into captive nuts on the Front Panel.

#### **FASTENERS**

5x M8X12 Button Head Bolt 5x M8 Flat Washer 4x M6X16 Button Head Bolt 6x M6X12 Button Head Bolt 10x M6 Flat Washer



- 24. Fit M8 Cage nuts to the Rack feet. The nuts should sit as per the image shown above. A flat blade screwdriver can assist with installation.
- 25. Fit the pinch weld rubber to the bottom of the feet. Ensure to apply sufficient pressure to properly seat the pinch weld on the part. This will help prevent excessive settling during clamp tightening.
- 26. Complete these steps for all 8 rack feet.

Flat Blade Screwdriver

#### **FASTENERS**

2x M8 Cage Nut 1x Pinch weld Rubber 90mm

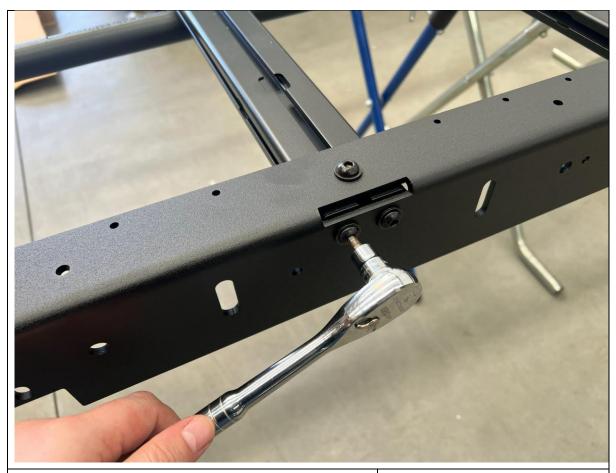
Per foot



- 27. Fit the roof rack feet to the rack using M8x20
  Button head bolts, M8 Flat washers, and M8
  Flange Nuts. Feet should sit on the back side of the side rail.
- 28. Complete foot fitting for all 8x foot locations. Leave bolts finger tight at this stage.

#### **FASTENERS**

16x M8x20 Button head bolts 16x M8 Flat washers 16x M8 Flange Nuts



- 29. Now is time to **TIGHTEN ALL** bolts securing the components of the rack assembly together.
- 30. First **Tighten** all horizontal bolts securing the side arms to the Extrusions and front panel / wind deflectors. Complete on both sides
- 31. For bolts on the wind deflector / front panels, tighten from the center out.
- 32. Next **Tighten** all vertical bolts.
- 33. Work methodically from front to back to ensure no bolts are missed.
- 34. Leave the foot bolts finger tight.

4mm Hex Key 5mm Hex Key





- 35. With assistance from at least 4 people or mechanical assistance such as a forklift, lift the rack onto the vehicle.
- 36. Ensure that all rack feet sit square to the rack in the roof gutters.

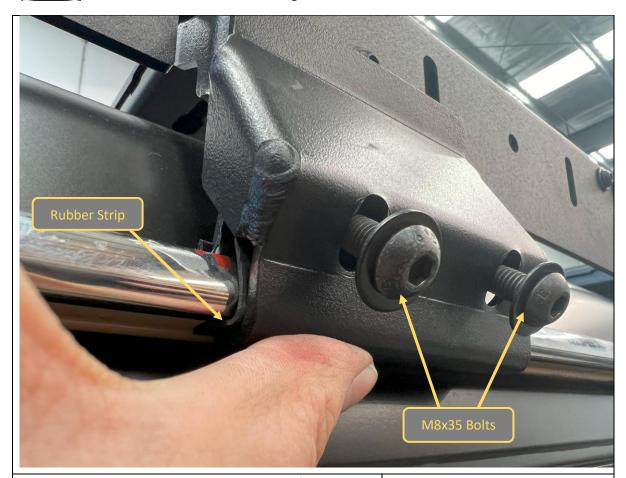
Lifting Aid or additional helpers





- 37. Position rack forward to back such that the rearmost point of the rack sits approximately 65mm in front the rear roof gutter. This can be measured with a ruler and level as shown in the image.
- 38. Adjust the height such that front of the rack sits with approximately 10mm clearance to roof from the center of wind deflector.
- 39. Adjust the height such that back of the rack sits with approximately 40mm clearance to roof from the center bottom of the rear most cross bar.
- 40. **Tighten** the foot to side arm bolts.

5mm Hex Key



- 41. Fit the clamps to M8 Cage nuts in the feet, using M8x35 Button head bolts and M8 Flat Washers.
- 42. Ensure that the small rubber strip is positioned in between the strap and the underside of the roof gutter.

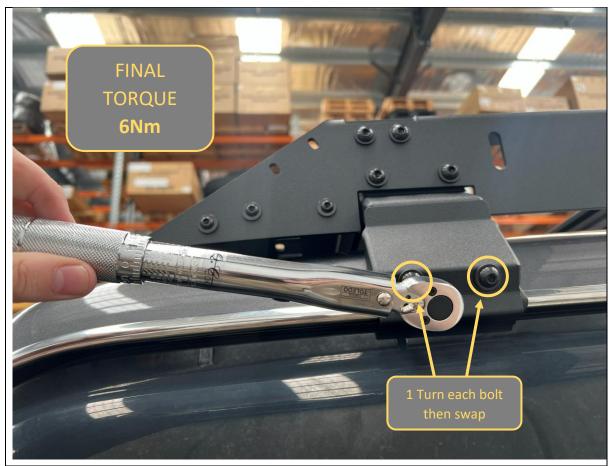
We found it is easiest to hold the strip against outside of the gutter as the strap is fitted from below.

- 43. Run bolts in finger tight.
- 44. Complete strap fitting for all 8x Feet

#### **TOOLS REQUIRED**

#### **FASTENERS**

16xM8x35 Button Head Bolt 16xM8 Flat washer 8x Rubber Strip



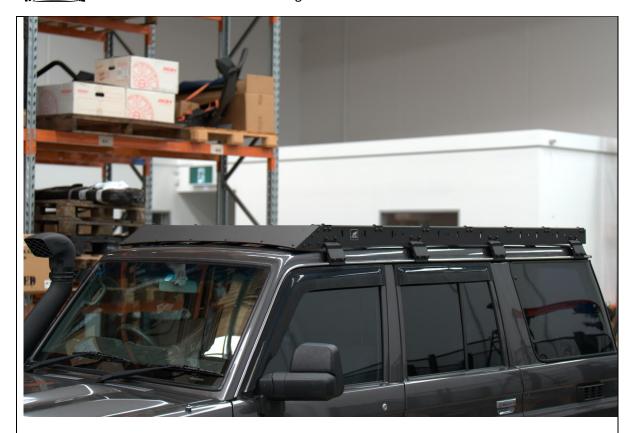
- 45. Carefully and progressively tighten the clamp bolts. The two bolts on each clamp need to be tightened together. Complete 1 turn then swap on each fastener.
- 46. Progressively work around the rack when tightening, partially tightening each foot then swapping to the next ones.
- 47. Continue tightening in this sequence using Torque Wrench until <u>6Nm torque</u> is achieved on all bolts.

Torque Wrench 5mm Hex Key Socket



- 48. Clamp tightening will pull the rack towards the roof as the rack settles on the rubber mounts. Re check clearances set in step 37 39.
- 49. If clearance to roof is now too close, loosen Foot to side arm bolts and re-align front of rack to re set clearance. Re tighten once adjusted.
- 50. If the position is adjusted re-check strap bolt torque afterwards.

Torque Wrench 5mm Hex Key Socket



- 51. Double Check all Fasteners are tight.
- 52. With That you are done! Head Bush and Enjoy your new rack!

For contact details see www.offroadanimal.com