

# TOYOTA PRADO 150 SERIES 2009 ON ROCK SLIDERS

### **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.
- Fitting time estimated 1-2 hours

## **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 fasteners, unless otherwise specified.

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.

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

# **PARTS LISTING**

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

## **Bracket Kit Parts - In the Box**

Qty	Part Number	Description	Image
1	RS-TPR-150-09- ASM2L	Toyota Prado 150 Slider Front Mount Assy	
1	RS-TPR-150-09- ASM2R	Toyota Prado 150 Slider Front Mount Assy	
1	RS-TPR-150-09- ASM3L	Toyota Prado 150 Slider Rear Mount Assy	
1	RS-TPR-150-09- ASM3R	Toyota Prado 150 Slider Rear Mount Assy	
1	B-0442L	Prado 150 Slider Front Mount Bolt on Brace	

1	B-0442R	Prado 150 Slider Front Mount Bolt on Brace	
1	B-0446L	Prado 150 Slider Rear Mount Bolt on Brace	
1	B-0446R	Prado 150 Slider Rear Mount Bolt on Brace	

## Step Kit Parts – In the Box

Qty	Part Number	Description	Image
2	B-0307	Slider Step - 1450 Extrusion (76 Series)	
2	B-0306L	Slider End Cap - Stub Nose	
2	B-0306R	Slider End Cap - Stub Nose	

## **Step Kit Parts – In the Box**

Qty	Part Number	Description	Image
2	E-0002-1450	Slider extrusion -1450MM	

## **Bracket Kit Small Parts - Contained in Small Parts Kit Bag**

Qty	Part Number	Description		
5	NP-COM-M8-210-ASM0	M8 Nut Plate 210mm		
2	NP-COM-M12-300-ASM0	M12 NUT PLATE 300MM STEM		
30	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP		
36	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile		
		19x8x1.9mm		
2	M12X40	Bolt Hex, M12X40X1.75, GR8.8 ZP		
2	M12 FW LHD	M12 FW Large Heavy Duty		
6	M8 X 30 HEX	Bolt Hex, M8X30X1.25, GR8.8 ZP		
16	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP		
16	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP		

## Step Kit Small Parts - Contained in Small Parts Kit Bag

Qty	Part Number	Description
24	M8 FLAT WASHER-	M8 FW- BLACK ZINC
	BLACK ZINC	
24	M8 NUT	Hex Nut, M8x1.25 G8.8 ZP
12	M8 X 20 BHCS BLACK	SCREW, BUTTON HEAD CAP,
	ZINC	M8X20X1.25 BLACK ZP
12	M8X20 CAP SCREW	CAP SCREW, M8X20X1.25 GR10.9 ZP
4	M6 FLAT WASHER	M6 FW BLACK ZP
	BLACK ZINC	
4	M6CN3MM	CAGE NUT M6x2.6-3.5
4	M6x16 BHCS BLACK	SCREW, BUTTON HEAD CAP,
	ZINC	M6X16X1 GR12.9 BLACK ZP
8	M10X15 BHCS	SCREW, BUTTON HEAD CAP,
		M10X16X1.5 GR12.9 ZP
8	M10 NUT	Hex Nut, M10x1.5 G8.8 ZP
8	M10 Flat Washer	M10 FW

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 8-	Electric/Air Impact	Hydraulic Floor Jack
19mm	Driver (Optional)	
Socket Extension Bar		
Metric Spanner Set 10-		
19mm		
Hex (Allen) Key Set 4-		
6mm		
Flat Blade Screwdriver		
set		
Phillips Head		
Screwdriver set		
Utility Knife		
Side Cutters		
Pliers		

# **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.

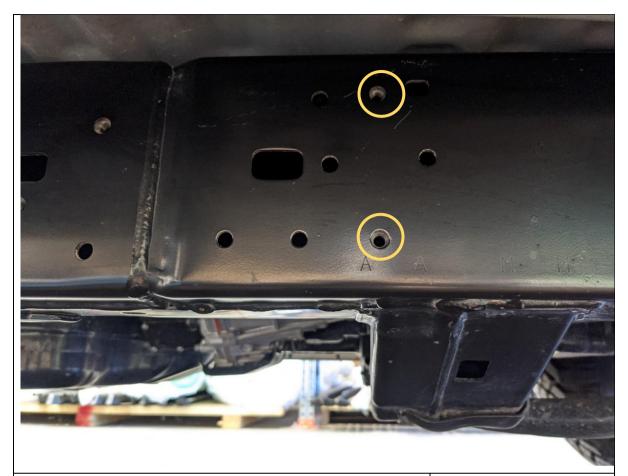


- 1. Remove Factory side steps if fitted by removing the 6x Bolts (2 Per mount) securing them to the body using a 12mm socket.
- 2. Release the clip that secures the wiring harness to the center mount. On VX models disconnect this harness too.
- 3. Discard Factory steps and bolts.

12mm socket

#### **FASTENERS**

6x Factory Flange head Bolts (per side)



- 4. Locate the factory M8 threaded points in the chassis that will be used for the front mounts, as shown in photo above
- 5. Run an M8 bolt through the threaded points completely to ensure bolt runs freely. These points can be full of mud / dirt or tight from factory.

13mm Socket / Spanner

#### **FASTENERS**

M8x20 Bolt



6. Fit the front mount, to the chassis using M8x20 bolts, HD flat washers, Secure finger tight only at this stage

**TOOLS REQUIRED** 

#### **FASTENERS**

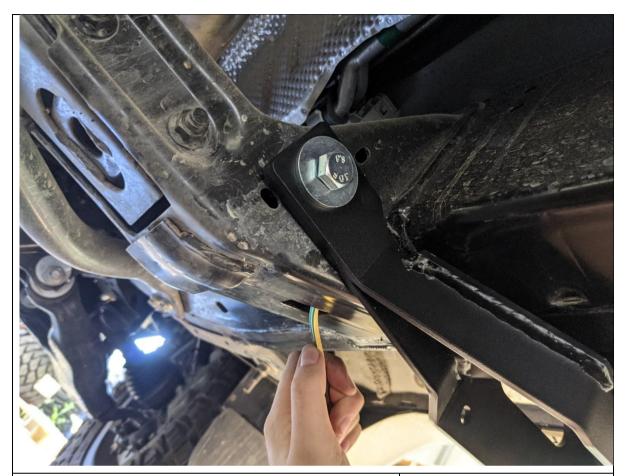
M8x20 Bolt M8 HD Flat Washer



- 7. Fit the other two M8 bolts, using M8x30 Bolts, M8 HD flat washers and M8 Lollipop nut plates.
- 8. Insert the nut plates through the slotted hole in the chassis.
- 9. Tighten only finger tight at this stage.

#### **FASTENERS**

M8x30 Bolt M8 HD Flat Washer M8 Lollypop Nut Plates

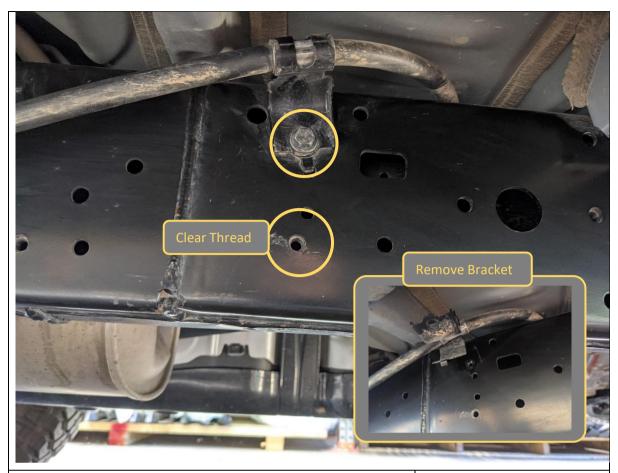


- 10. Secure the front mount to the chassis crossmember using M12x40 Bolt M12 Large washer and M12 Lollipop Nut plate.
- 11. Tighten all bolts on front mount.
- 12. Repeat front mount fitment on other side of the vehicle.

13mm Socket / Spanner 18mm Socket / Spanner

#### **FASTENERS**

M12x40 Bolt M12 flat washer M12 Nut Plate



- 13. Remove factory M8 bolt securing handbrake cable bracket at rear of chassis above spring hanger. Discard Factory Bolt.
- 14. Remove and discard the bracket on the handbrake cable by levering it off.
- 15. Run an M8 Bolt through the threads in the chassis like for points in front mount to clear threads.

12mm Spanner / Socket 13mm Spanner / Socket

#### **FASTENERS**

M8x30 Bolt

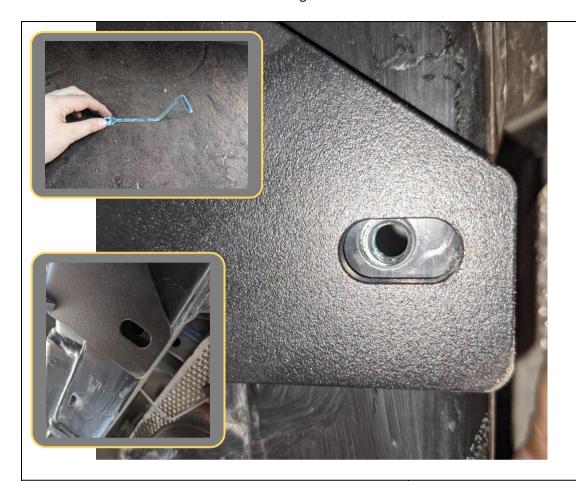


- 16. Fit the rear mount to the chassis threaded points Using M8x20 bolts for top and bottom flange, and M8x30 for middle.
- 17. On LHS of car bottom point has a threaded insert in the chassis.

13mm Spanner / Socket

#### **FASTENERS**

M8x20 Bolt M8x30 Bolt M8 HD Flat Washers

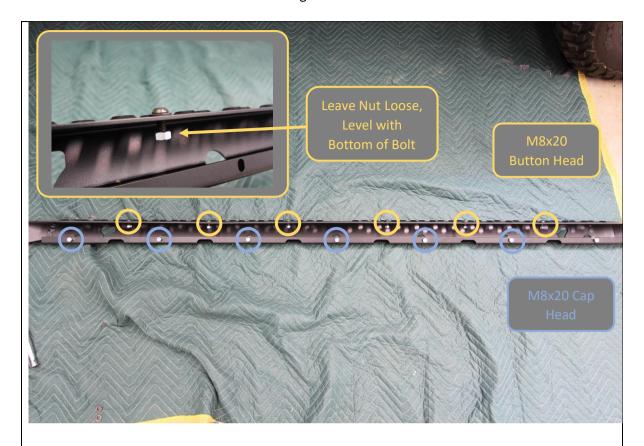


- 18. For RHS of car there is no threaded insert, insert
- 19. Use M8 Lollipop nut plate, inserted through slot on inside of chassis rail to pickup this point.
- 20. Use image to guide bending of nut plate to assist.
- 21. Tighten All bolts on bottom mounts.

13mm Spanner / Socket

#### **FASTENERS**

M8x30 Bolt M8 HD Flat Washer M8 Lollypop Nut Plates



- 22. Prepare step plate by loosely pre fitting the fasteners to the step.
- 23. Use M8x20 black button head screws, black M8 washers and M8 Nuts on 6x locations on top of step as shown.
- 24. Use M8x20 cap head screws M8 washers and M8 nuts on 7x locations on bottom side of step.

NOTE THERE ARE 2 WAYS TO FIT THE STEP ON THE EXTRUSION, IF YOU FIND THIS WAY DIFFICULT SKIP STEP 22-26 AND GO TO STEP 27-32

#### **TOOLS REQUIRED**

#### **FASTENERS**

6x M8x20 Black Button Head 7xM8x20 Cap Head 13x M8 Black Washer 13x M8 Nut



- 25. Slide the step plate onto the main slider structural extrusion. Align the nuts as they enter the T Slots on the extrusion.
- 26. Center the Step on the extrusion, by measuring distance from extrusion to tip of step, and adjusting until both sides are equal.



- 27. Lie extrusion down and place step on top.
- 28. Feed nut into slot with something long and skinny (like a dowl or piece of all thread). Do centre ones first the move outwards.

Long dowel or skinny stick



29. Thread cap screws into each hole.

6mm Allen Key

#### FASTENERS

M8 x 20 Cap screws (7) M8 hex nuts (7) M8 flat washers (7)



30. Flip entire slider up as shown	30.	Flip	entire	slider	up	as s	hown
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#### 31. Clamp step hard to extrusion

## TOOLS REQUIRED

Clamps

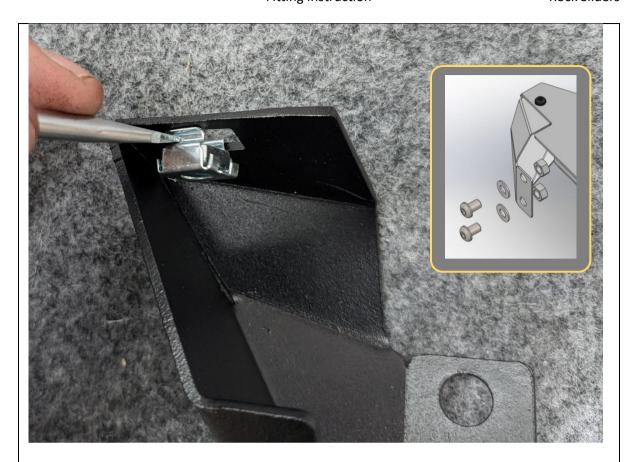


32. Using long tool feed nuts in to centre first and thread in with black M8 button head cap screws and washers.

5mm Allen key

#### **FASTENERS**

M8 x 20 BHCS black (8) M8 hex nuts (8) M8 flat washer black (8)



- 33. Fit Cage nut to square hole in top of end cap. Use a flat blade screwdriver to assist if required.
- 34. First slide 2x M10 Nuts into the T slots on back side of extrusion.
- 35. Fit end cap over these nuts.
- 36. Secure with M10x16 Button Head Screws into Nuts and M6x20 bolt in top, through tread plate. End cap should align with end of tread plate if tread plate is centered correctly.

Flat blade Screwdriver

#### **FASTENERS**

2x M10x16 Button Head 1x M6x20 Button Head bolt 1xM6Flat Washer 2x M10 Nut 1x M6 Cage Nut



- 37. Slide the 8x M10x25 Hex bolts into the T slots on back side of extrusion. 4 bolts per slot.
- 38. Loosely arrange the bolts in 2x groups of 4, in approximate location of mounts, as shown.

#### **FASTENERS**

8x M10x25 Hex bolts



- 39. Fit mirrored end cap to remaining end of slider, using 2x M10x16 Button bolts and M6x20 Button head bolt with flat washer as per previous steps 34-36.
- 40. Check alignment of end caps, End cap should align with edge of tread plate if properly centered. Adjust end cap / tread plate position as required.
- 41. Once happy with alignment tighten all bolts on slider extrusion, using 5/6MM hex key.

5mm Hex key 6mm Hex key

#### **FASTENERS**

2x M10x16 Button Head 1x M6x20 Button Head bolt 1xM6 Flat Washer 2x M10 Nut

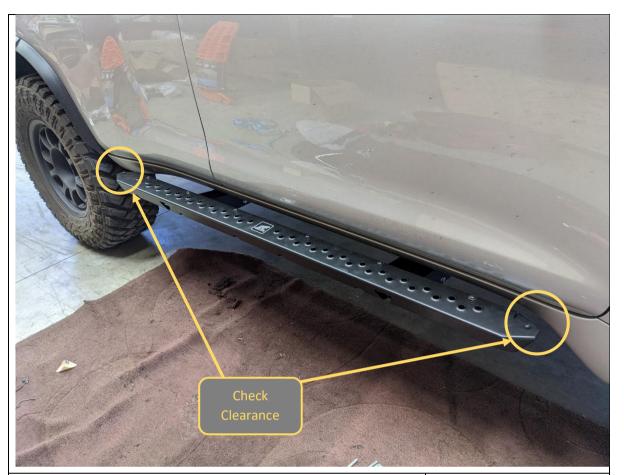


- 42. With Assistance from another person, or mechanical lifting aid such as a lift trolley, Lift the slider onto the mounts.
- 43. Manipulation of position of bolts in T slot to align with mounts will be required to get slider on. Secure with M10 Flange Nuts

5mm Hex key 6mm Hex key 15mm spanner

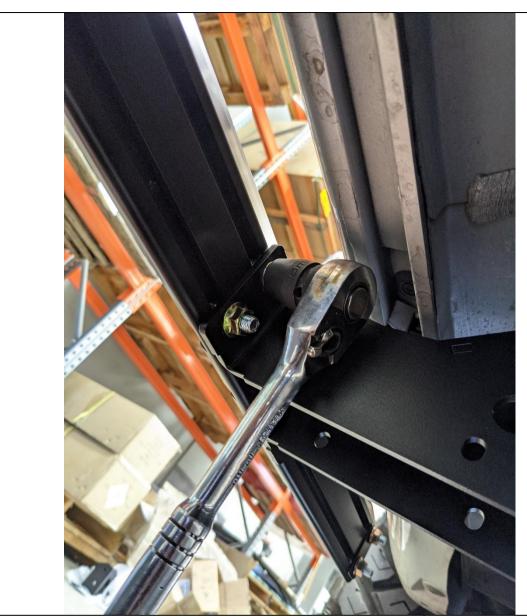
#### **FASTENERS**

8x M10 Flange Nut



- 44. Adjust fore / aft position of sliders on mounts to achieve even appearance if required.
- 45. Take care to ensure adequate clearance where panel curves toward wheel at front end, near end cap.

18mm Socket / Spanner 13mm Socket / Spanner



46. Tighten all mount to slider M10 flange nuts using 15mm spanner. A ratcheting spanner or socket makes this process easier

TOOLS REQUIRED

15mm Socket / Spanner



47. Secure Hand Brake cable and under step wiring harness with cable ties as shown in images.

TOOLS REQUIRED

15mm Socket / Spanner



- 48. Check all fasteners Securing the mounts to the chassis rail are tight.
- 49. Fit the bottom Braces to the mounts using M8x20 Bolts and Flat washers

13mm Socket / Spanner

#### **FASTENERS**

12xM8x20 Bolt 12xM8x20 Flat washer

Per Side



50. Fit the Offroad Animal logo plate to the small gap between pierced features on tread plate, using the pre applied double sided adhesive.

51. After that you are done!

**TOOLS REQUIRED** 



Congratulations!
Head for the tracks and enjoy your newly protected Prado!