



FORD RANGER PX + MAZDA BT-50

PX MY2011 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 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
2	E-0002-1800	Slider extrusion - 1800MM	
2	B-0207	Slider Step PX Ranger	
1	RS-FRA-PX-11-ASM2L	Ranger Slider Front Mount Assy	
1	RS-FRA-PX-11-ASM2R	Ranger Slider Front Mount Assy	
4	RS-FRA-PX-11-ASM3	PX Ranger Slider - Mid / Rear Mount	
4	P-0066	PX Ranger Slider Backing Plate	

2	COM-RS-EC	Slider End Cap	
2	COM-RS-ECM	Slider End Cap	
2	P-0119	Front Mount Brace Plate	

Small Parts – Contained in Small Parts Kit Bag

Qty	Part Number	Description
14	M12 FLAT WASHER	M12 FW
7	M12X125 GR10.9	Bolt Hex, M12X125x1.75, GR10.9 ZP
32	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
32	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
30	M8 NUT	Hex Nut, M8x1.25 G8.8 ZP
20	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP
34	M8 FLAT WASHER- BLACK ZINC	M8 FW- BLACK ZINC
4	NP-COM-M12-300-ASM0	M12 NUT PLATE 300MM STEM
2	NP-COM-M12-300LP-ASM1	M12 NUT PLATE 300MM STEM LOW PROFILE HEAD
1	M12X110 GR10.9	Bolt Hex, M12X110x1.75, GR10.9 ZP
8	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
6	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
14	M8X20 CAP SCREW	CAP SCREW, M8X20X1.25 GR10.9 ZP
2	OFA-LOGO	OFFROAD ANIMAL METAL LOGO



TOOLS REQUIRED

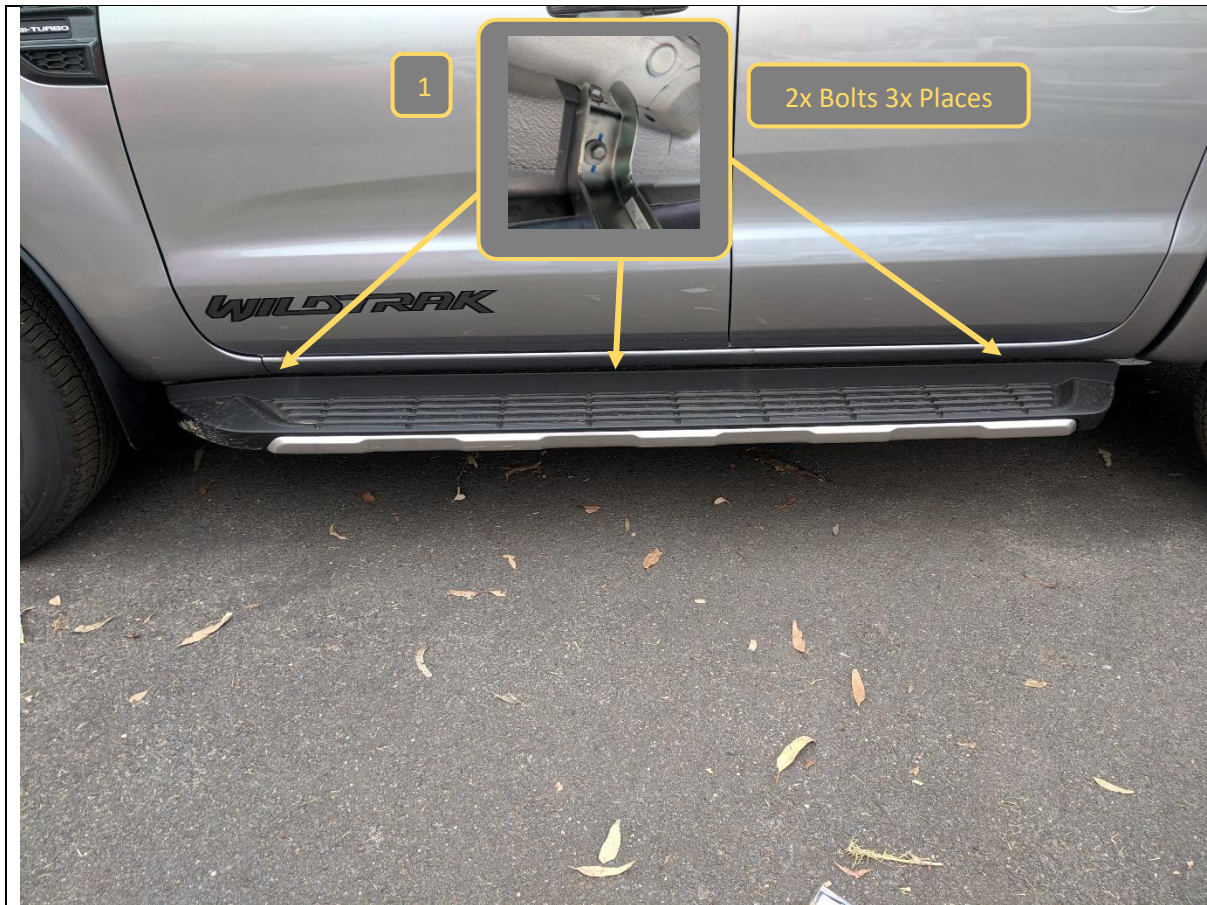
The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 8-19mm Socket Extension Bar Metric Spanner Set 10-19mm Torx Drivers T25-T30 Hex (Allen) Key Set 4-6mm Trim Puller Tool Flat Blade Screwdriver set Phillips Head Screwdriver set Utility Knife Side Cutters Pliers	Electric/Air Impact Driver (Optional)	Hydraulic Floor Jack

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.

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



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. Discard Factory steps and bolts.

TOOLS REQUIRED

12mm socket

FASTENERS6x Factory Flange head Bolts
(per side)




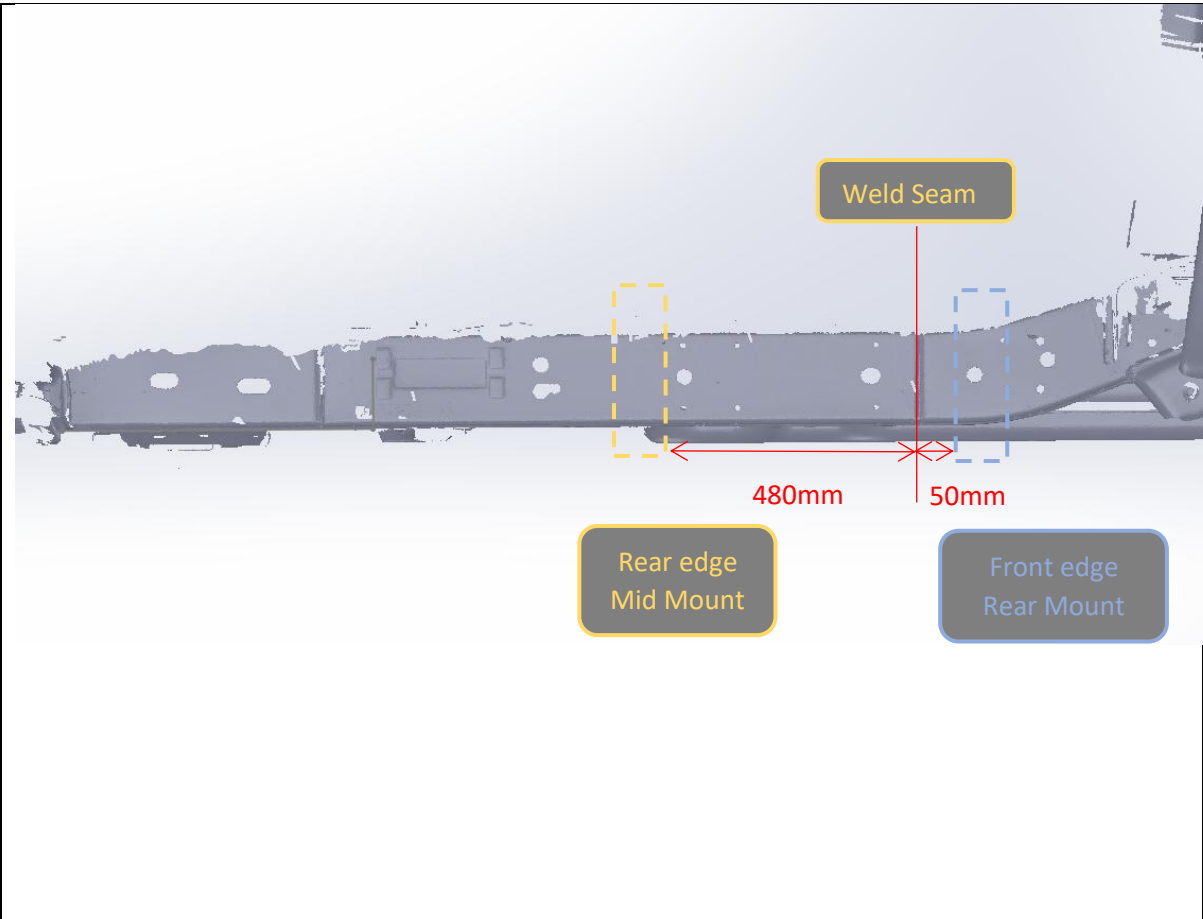
3. Locate features that front mount mounts to. The easiest way to do so is locate the rectangular slot on forward part of chassis closest to the seam weld.
4. Lift front mount up to chassis rail and position against chassis rail using Jack.

TOOLS REQUIRED

Jack

FASTENERS

	
<p>5. Check to ensure that slots on mount are aligned with holes in chassis rail. Adjust position of mount if required.</p> <p>6. Feed in nut plates, behind chassis using slot in front of mount for access, position nut behind the hole in mount using stem, then secure with M12x30 Bolt and Flat washer from front.</p> <p>7. First secure front face bolt (Blue). Then remove jack and secure the two bottom mounts using standard nut plate closest to front of car (Green) and short nut plate closest to rear of car (Orange)</p>	TOOLS REQUIRED Jack
	FASTENERS 3xM12x30 Bolt 2x Standard M12 Nut Plate 1x Short M12 Nut Plate Per Side

	
8. Locate and mark the mid and rear mount positions on chassis, as shown in above image	TOOLS REQUIRED Marker
	FASTENERS



9. Prepare mid and rear mounts by pre-inserting the M12x125 Bolt, with flat washer, part way through the top mounting hole.
10. Lift mid / rear mount up to chassis rail and position against chassis in position marked. Ensure that the bolt, inserted earlier goes over the top of the chassis rail.

TOOLS REQUIRED**FASTENERS**

M12x125 Bolt
M12 Flat Washer



11. Install the mid / rear mount backing plate, by sliding up against back side of chassis and secure through top bolt from mount.
12. This may require manipulation of the top bolt.
13. Ensure that the plate is beneath any fuel / brake lines and sitting directly against the chassis. Secure with M12 Flange Nut, finger tight only at this stage.

TOOLS REQUIRED**FASTENERS**

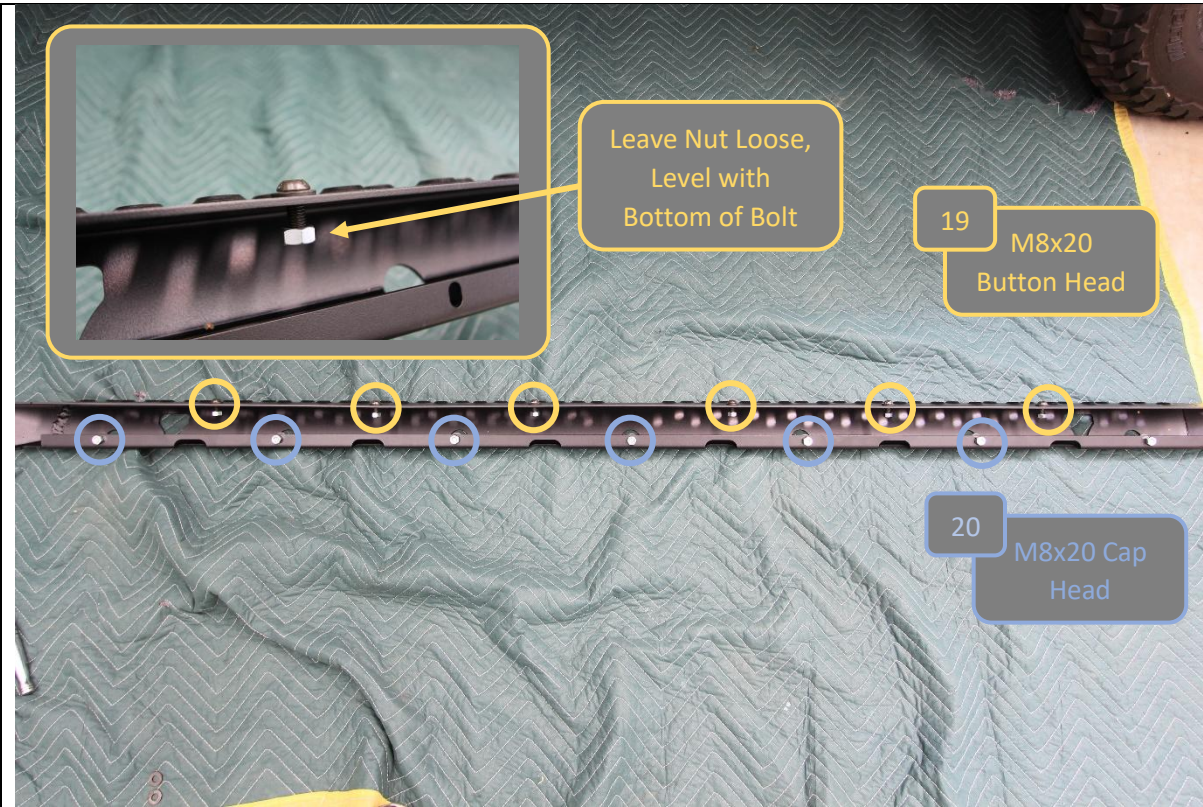
M12 Flange Nut



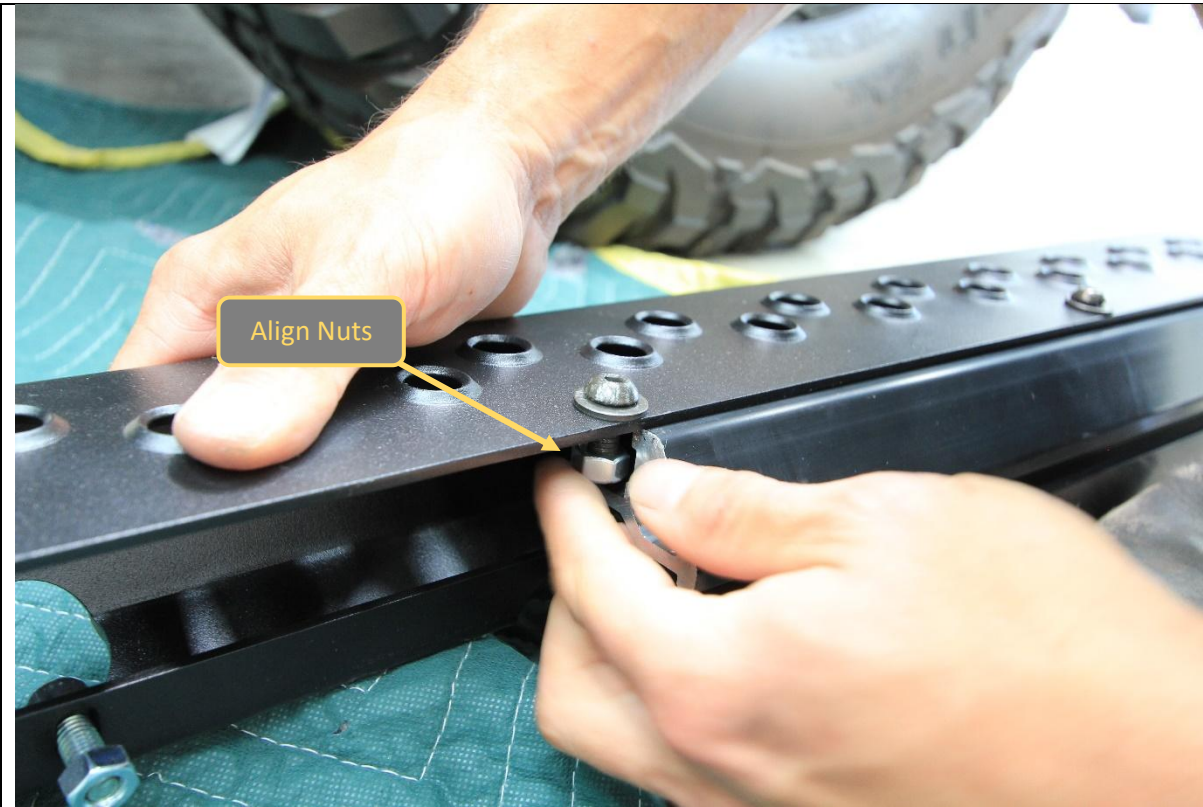
14. Insert the lower M12x125 Bolt and M12 flat washer through both the mount and backing plate
15. Secure with M12 Flange nut, Finger tight only at this stage
16. **Important Note:** For bottom bolt on Rear LHS mount (Adjacent Fuel Tank) Use M12x110 instead of M12x125 to prevent contact with fuel tank.
17. Repeat steps 9-15 for both mid / rear mounts on each side.

TOOLS REQUIRED**FASTENERS**

M12x125 or M12x110 Bolt
M12 flat washer
M12 Flange Nut



<div>18. Prepare step plate by loosely pre fitting the fasteners to the step.</div> <div>19. Use M8x20 black button head screws, black M8 washers and M8 Nuts on 6x locations on top of step as shown.</div> <div>20. Use M8x20 cap head screws M8 washers and M8 nuts on 7x locations on bottom side of step.</div> <div>NOTE THERE ARE 2 WAYS TO FIT THE STEP ON THE EXTRUSION, IF YOU FIND THIS WAY DIFFICULT SKIP STEP 18-22 AND GO TO STEP 23-28</div>	TOOLS REQUIRED
	FASTENERS <div>6x M8x20 Black Button Head</div> <div>7xM8x20 Cap Head</div> <div>13x M8 Black Washer</div> <div>13x M8 Nut</div>



<div>21. Slide the step plate onto the main slider structural extrusion. Align the nuts as they enter the T Slots on the extrusion.</div> <div>22. Center the Step on the extrusion, by measuring distance from extrusion to tip of step, and adjusting until both sides are equal.</div>	TOOLS REQUIRED
	FASTENERS



23. Lie extrusion down and place step on top.

24. Feed nut into slot with something long and skinny (like a dowel or piece of all thread). Do centre ones first the move outwards

TOOLS REQUIRED

Long dowel or skinny stick

FASTENERS



25. Thread cap screws into each hole.

TOOLS REQUIRED

6mm Allen key

FASTENERS

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



26. Flip entire slider up as shown.

27. Clamp step hard to extrusion.

TOOLS REQUIRED

Clamps

FASTENERS



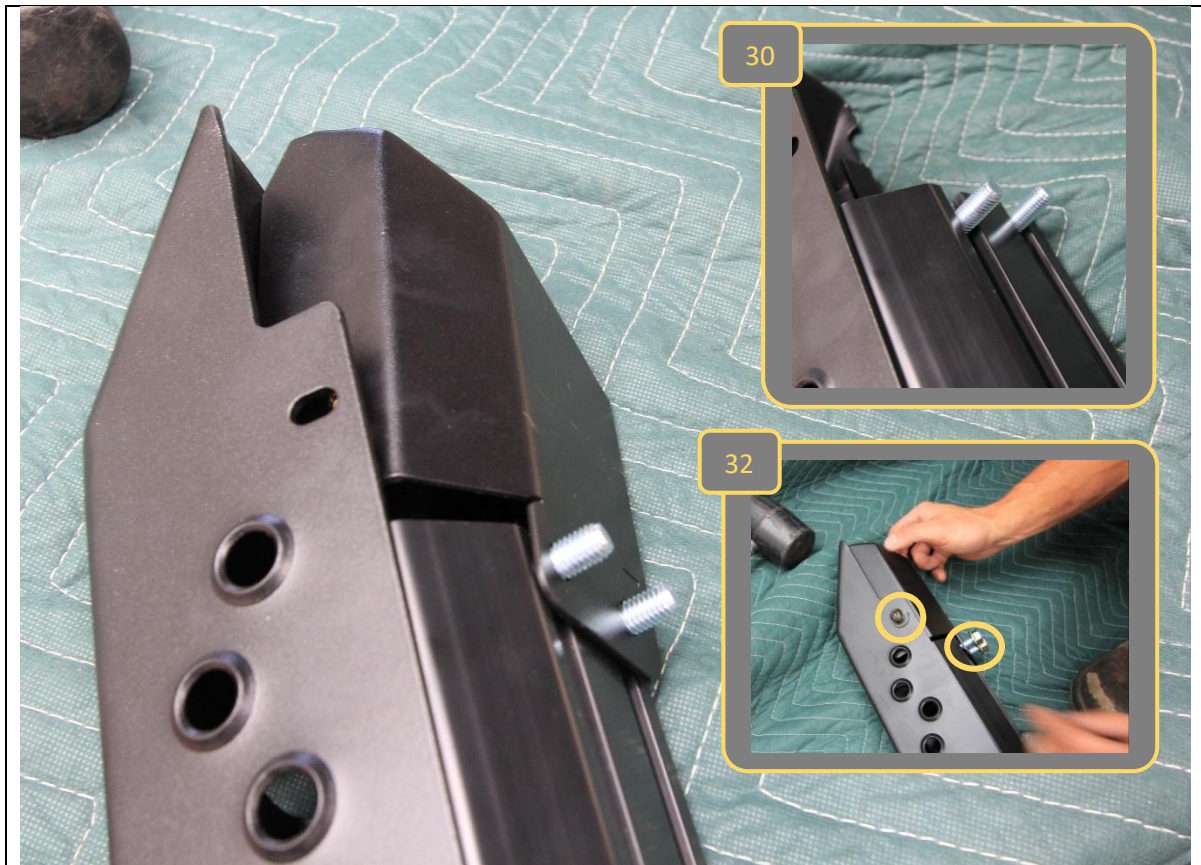
28. Using long tool feed nuts in to centre first and thread in with black M8 button head cap screws and washers.

TOOLS REQUIRED

5mm Allen key

FASTENERS

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



29. Fit end cap to one end of the extrusion

30. First slide 2x M10x25 Hex bolts into the T slots on back side of extrusion.

31. Fit end cap over these bolts.

32. Secure with M10 flange nuts on T slot bolts and M8x20 bolt in top, through tread plate. End cap should align with end of tread plate if tread plate is centered correctly.


TOOLS REQUIRED

FASTENERS

2x M10x25 Bolts
1x M8x20 Button Head bolt
1xM8 Flat Washer
2x M10 Flange Nut



<p>33. Slide the 12x M10x25 Hex bolts into the T slots on back side of extrusion. 6 bolts per slot.</p> <p>34. Loosely arrange the bolts in 3x groups of 4, in approximate location of mounts, as shown.</p>	TOOLS REQUIRED
	FASTENERS

	
<div>35. Fit mirrored end cap to remaining end of slider, using 2x M10x25 hex bolts and M8x20 Button head bolt with flat washer as per previous steps 23-26.</div> <div>36. 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.</div> <div>37. Once happy with alignment tighten all bolts on slider extrusion, using 5/6mm hex key and 15mm spanner.</div>	TOOLS REQUIRED 5mm Hex key 6mm Hex key 15mm spanner
	FASTENERS 2x M10x25 Bolts 1x M8x20 Button Head bolt 1xM8 Flat Washer 2x M10 Flange Nut



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

TOOLS REQUIRED

5mm Hex key
6mm Hex key
15mm spanner

FASTENERS

12x M10 Flange Nut



40. Adjust fore / aft position of sliders on mounts to achieve even appearance if required.

41. Take care to ensure adequate clearance where panel curves toward wheel at front end, near end cap.

TOOLS REQUIRED**FASTENERS**

12x M10 Flange Nut



42. Once satisfied with alignment, tighten all bolts, starting with chassis mounts.
43. Double check mount positions against initial marks made at beginning. Adjust position as required.
44. Tighten front mount M12 bolts using 18mm Socket.
45. Tighten Mid and Rear mount bolts using 18mm Socket / Spanner. Ensure that mid / rear mounts are tightened evenly, by alternating a few turns on top then bottom bolt when tightening.

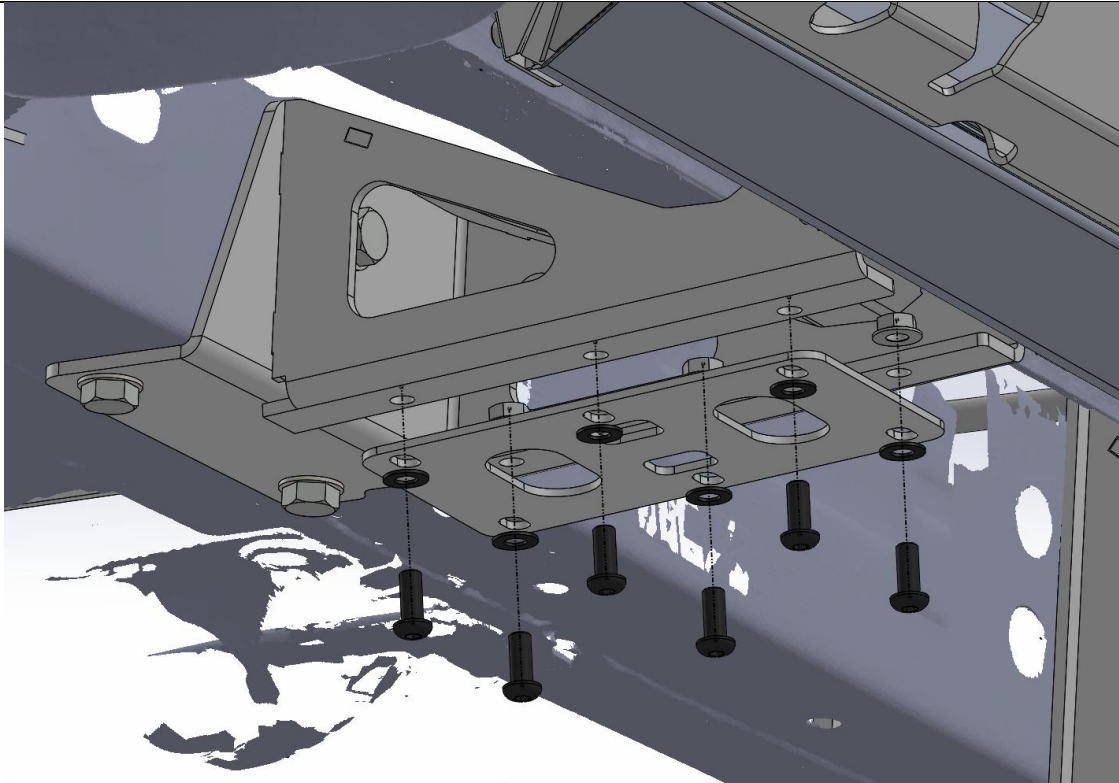
TOOLS REQUIRED

18mm Socket / Spanner

FASTENERS



46. Tighten all mount to slider M10 flange nuts using 15mm spanner. A ratcheting spanner makes this process easier.	TOOLS REQUIRED 15mm Socket / Spanner
	FASTENERS



47. Once front mount bolts are tightened, fit the brace plate using 6x M8x20 Button Head, M8 Flat washers and M8 Flange Nuts.

TOOLS REQUIRED

15mm Socket / Spanner

FASTENERS

6x M8x20 Button Head
Screw
6xM8 Flange Nut
6xM8 Flat Washer

Per Side



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

49. Repeat the entire process for the other side of the vehicle. Process is identical, except on LHS use M12x110mm bolt on rear bottom mount instead of M12x125 to avoid bolt from contacting fuel tank.

50. After that you are done!

TOOLS REQUIRED

15mm Socket / Spanner

FASTENERS



Congratulations!
Head for the tracks and enjoy your newly protected Ford Ranger!