



FORD RAPTOR RANGER

PX3 2018-2022

PREDATOR FRONT BAR

IMPORTANT! – READ BEFORE INSTALLATION

- When installed in accordance with these instructions, the front protection bar does not affect the operation of the vehicles SRS airbags.
- 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: 3 hours (more for winch and lights)

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.

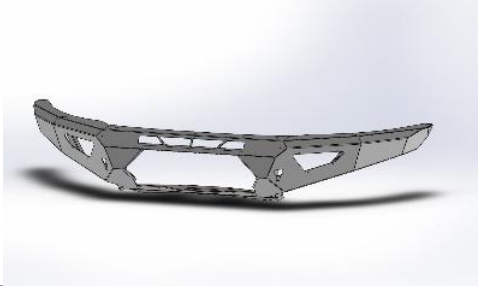
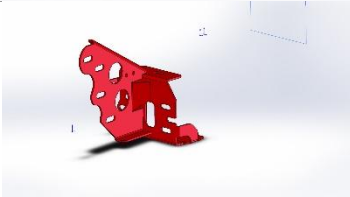
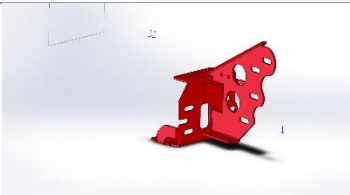
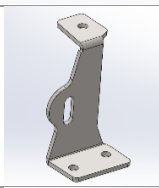
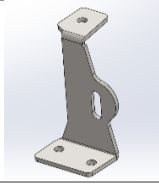
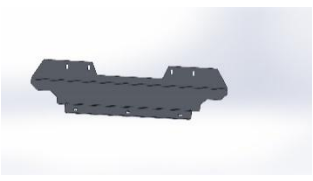
FRONT BAR MOUNTS AND TOW POINTS + REAR TOWBAR	
Size	Torque Nm
M10	57 Nm
M12	100 Nm
M14	164 Nm
M16	248 Nm

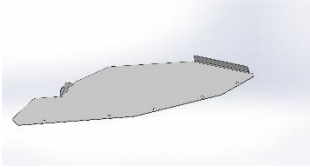
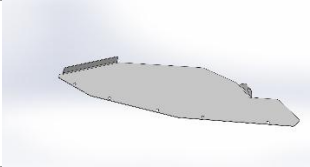
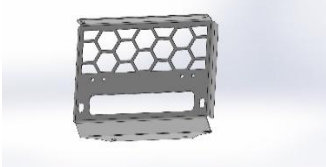
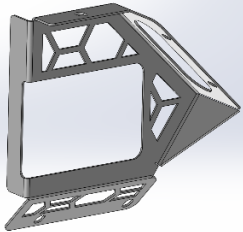
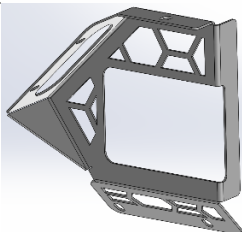
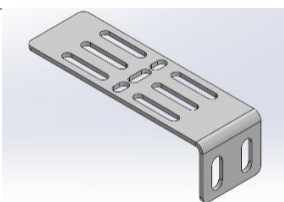
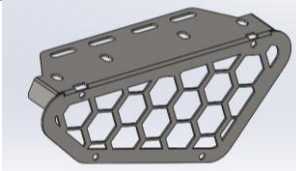
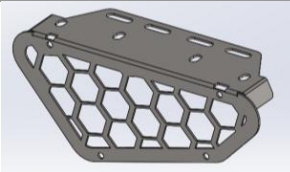
Always use a torque wrench to set correct torque settings. Ensure torque wrench is set to Nm unit of measurement. Otherwise perform conversion to lb-ft.

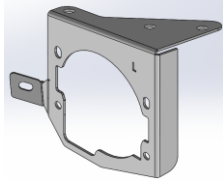
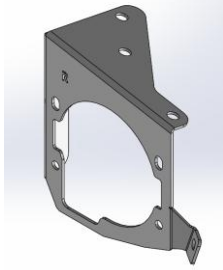
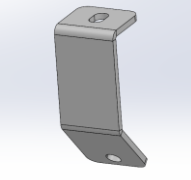
PARTS LISTING

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	FB-FRR-PX3-19-PR-ASM1	Ford Ranger Raptor Predator Bar Weldment	
1	FB-FRR-PX-11-PR-ASM2R	IMPACT ASSY PREDATOR PX RAPTOR	
1	FB-FRR-PX-11-PR-ASM2L	IMPACT ASSY PREDATOR PX RAPTOR	
1	B-0082L	PX CHASSIS BRKT GUSSET LH	
1	B-0082R	PX CHASSIS BRKT GUSSET RH	
1	U-0012	RANGER RAPTOR FRONT BASH PLATE	
1	U-0013	RANGER RAPTOR UNDERBODY BASH PLATE	

1	U-00014L	RANGER RAPTOR SIDE UNDERPANEL LH	
1	U-0014R	RANGER RAPTOR SIDE UNDERPANEL RH	
1	M-0011	PX MESH NO ACC FAIRLEAD MOUNT	
1	M-0010L	PX3 Mesh Infill Panel LHS	
1	M-0010R	PX3 Mesh Infill Panel RHS	
1	B-0216	Ranger Winch control box bracket	
1	NPF-COM- SM-ASM0	NUMBER PLATE FLIP ASM SMALL	
1	M-0002R	Light Cover Mesh RH	
1	M-0002L	Light Cover Mesh LH	

1	B-0186L	Fog Lamp Bracket - Ranger PX	
1	B-0186R	Fog Lamp Bracket - Ranger PX	
1	B-0607	PX Ranger Front Bar - Center Section Brace	
1	FB-FRR-PX3-19-PR-ADRCP	ADR Compliance Plate Ranger PX3 RAPTOR	 OFFROAD ANIMAL, 17 BAYPORT COURT MORNINGTON, VIC, 3831, AUS PART NO: FB-FRR-PX3-19-PR-ADRCP THIS BAR MUST ONLY BE FITTED TO A FORD RANGER RAPTOR PX3 MY2019+ AS 4811.1-2021 FOR ADR 4811 AND ADR 4810. THE PRODUCT COMPLES TO THE PRODUCT OR ITS RING MUST NOT BE MODIFIED. NO ACCESSORY OR FITMENT SHALL PROJECT FORWARD OF THE PRODUCTS FORWARD PROFILE. DO NOT USE THE PRODUCT IN ANY OTHER MOTOR VEHICLE FOR WHICH IT IS NOT DESIGNED. DO NOT REMOVE LABEL. MFG DATE:

Small Parts – Contained in Small Parts Kit Bag

Qty	Part Number	Description
10	M6CN3MM	CAGE NUT M6x2.6-3.5
1	M6x12 BHCS	SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9 ZP
16	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP
16	M6 FLAT WASHER BLACK ZINC	M6 FW BLACK ZP
22	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
8	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
16	M12 FW LHD	M12 FW Large Heavy Duty
8	M12 Nyloc nut	M12 NYLOC NUT
4	M8 X 30 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X30X1.25 BLACK ZP
14	M8 FLAT WASHER- BLACK ZINC	M8 FW- BLACK ZINC
20	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
10	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9 BLACK ZP
2	M8 X 25 HEX	Bolt Hex, M8X25x1.25, GR8.8 ZP
6	M8 FLAT WASHER	M8 FW
3	M10X25 BHCS	SCREW, BUTTON HEAD CAP, M10X25X1.5 GR12.9 ZP
11	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
27	M10 Flat Washer	M10 FW
2	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP
2	M8X20	Bolt Hex, M8X20X1.25, GR8.8 ZP
20	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
4	M10 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
2	P-0072	Predator Bash Plate Shim

TOOLS REQUIRED

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Supplies
Metric Socket Set 8-19mm	Electric Drill	Lifting Trolley
Socket Extension Bar	6mm Drill Bit	
Metric Spanner Set 10-19mm	Electric/Air Impact Driver (Optional)	
Torx Drivers T25		
Trim Puller Tool or Flat Blade Screwdriver		
Phillips Head Screwdriver		
Allen keys 4mm, 5mm and 6mm		

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 screws from edge of wheel arch (3x per side).	TOOLS REQUIRED T25 Torx bit	
	FASTENERS Discard	



2. Remove one screw from underside (1x per side).

TOOLS REQUIRED

T25 Torx bit

FASTENERS

Discard



3. Pull away plastic insert as shown from both sides.

TOOLS REQUIRED**FASTENERS**



4. Remove factory bash plate (4x bolts, 2x front and 2x at back). Retain the fasteners.	TOOLS REQUIRED 15mm Socket or spanner
	FASTENERS Retain

		
5. Rear bolts are shown in this step.	TOOLS REQUIRED 15mm socket or spanner	
	FASTENERS Retain	



6. Be smart and save this or sell it to some sucker on eBay/Facebook who doesn't have a cool new bull bar like you.

TOOLS REQUIRED**FASTENERS**



7. Remove 2x M6 bolts from under bumper.

TOOLS REQUIRED

10mm socket

FASTENERS

Discard



8. Using a trim tool pry off lower fascia as shown from both sides.	TOOLS REQUIRED Trim tool or Flat head screwdriver
	FASTENERS



9. Discarded piece shown. You won't need this anymore.	TOOLS REQUIRED
	FASTENERS



10. Remove 2 x M8 bolts from front as shown.	TOOLS REQUIRED 13mm socket
	FASTENERS Discard



11. Remove 2 x M8 bolts per side as shown.

TOOLS REQUIRED

13mm socket or spanner

FASTENERS

Discard



12. Pry out connector and retainers for fog light loom as shown.

TOOLS REQUIRED

Trim tool
or
Flat head screwdriver

FASTENERS



13. Remove Connector shown from under bumper.

TOOLS REQUIRED

Trim tool
or
Flat head screwdriver

FASTENERS



14. Remove 2x M10 bolts shown per side behind bumper

TOOLS REQUIRED

15mm socket

FASTENERS

Discard



15. Remove plastic clips as shown, do this by pushing male section from outside to push clip back towards car (2x clips).

TOOLS REQUIRED**FASTENERS**

Discard



16. Remove factory bumper and place on ground.	TOOLS REQUIRED
	FASTENERS



17. Remove FM antenna control box as shown

TOOLS REQUIRED

7mm socket or spanner

FASTENERS

Retain



18. Pry out all cable/loom keeper for FM control box.

TOOLS REQUIRED

Trim tool
or
Flat head screwdriver

FASTENERS



19. Remove Fog light with (3x screws per side).

TOOLS REQUIRED

T25 Torx bit

FASTENERS

Discard

		
20. Set aside wiring harness from bumper.	TOOLS REQUIRED	
	FASTENERS	



21. Be a good lad and don't forget to remove your front number plate.

TOOLS REQUIRED

Phillips head screwdriver

FASTENERS

Discard



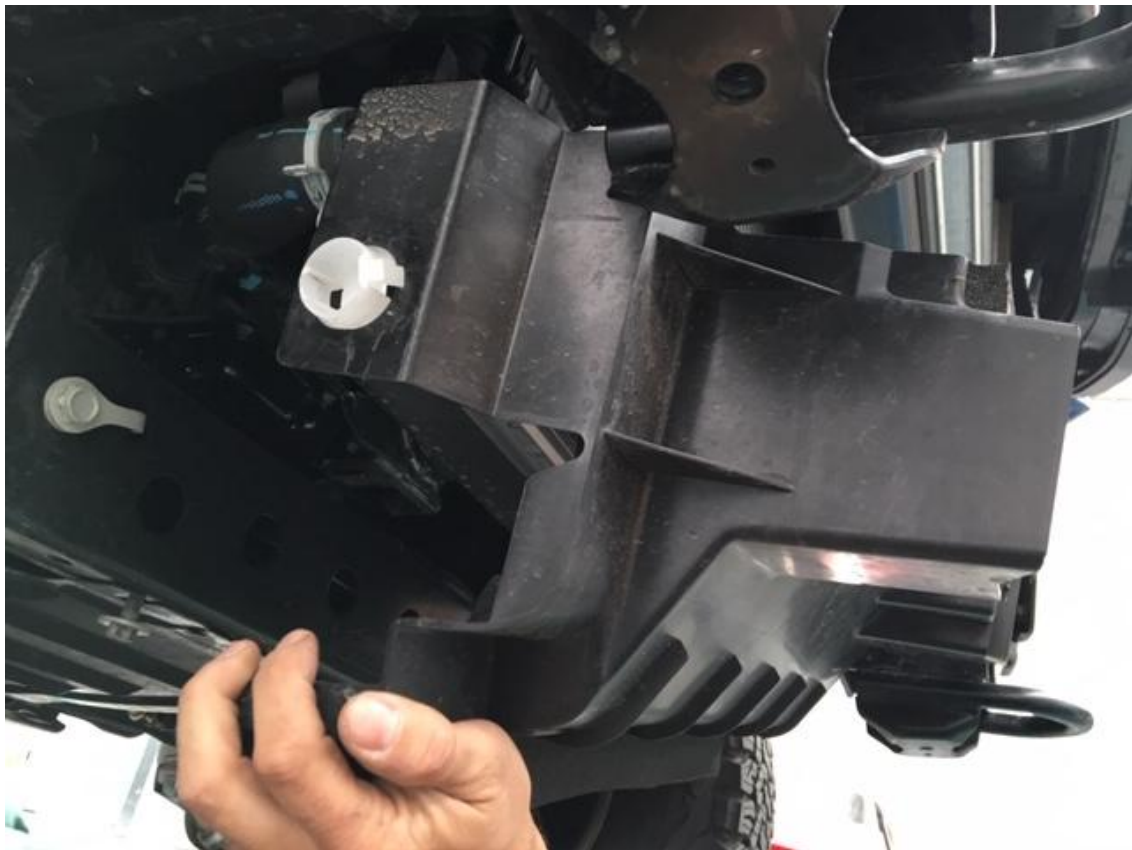
22. Shown is front bumper, bash plate and fascia panels that are no longer required.

TOOLS REQUIRED**FASTENERS**



23. Here is what your front should look like at this stage. A bit naked I know.

TOOLS REQUIRED**FASTENERS**



24. Time to remove lower air dam. See the white clip in the pic above, you need to pry this out from the inside of the chassis. One per side.

TOOLS REQUIRED

Trim tool
or
Flat head screwdriver

FASTENERS

Discard



25. Here is the lower air dam removed.

TOOLS REQUIRED**FASTENERS**



26. Relocate FM control box to tapped hole on body as shown

TOOLS REQUIRED

7mm socket

FASTENERS

Factory



27. Route/secure the wires as shown.

Where exactly it goes doesn't really matter as long as it stays up.

TOOLS REQUIRED**FASTENERS**



28. Relocate connector shown up on to plastic air dam guides as shown. Mark with paint pen then drill out with 6mm drill bit.

TOOLS REQUIRED

Paint Pen
6mm Drill bit
Power Drill

FASTENERS



29. Push connector into new drilled holes as shown.

TOOLS REQUIRED**FASTENERS**



30. Place Chassis mounts onto chassis with bolts, leave loose.

Use M10x30 hex bolts with washers directly through mount into chassis. Two bolts will need washers and Nyloc nuts on the back.

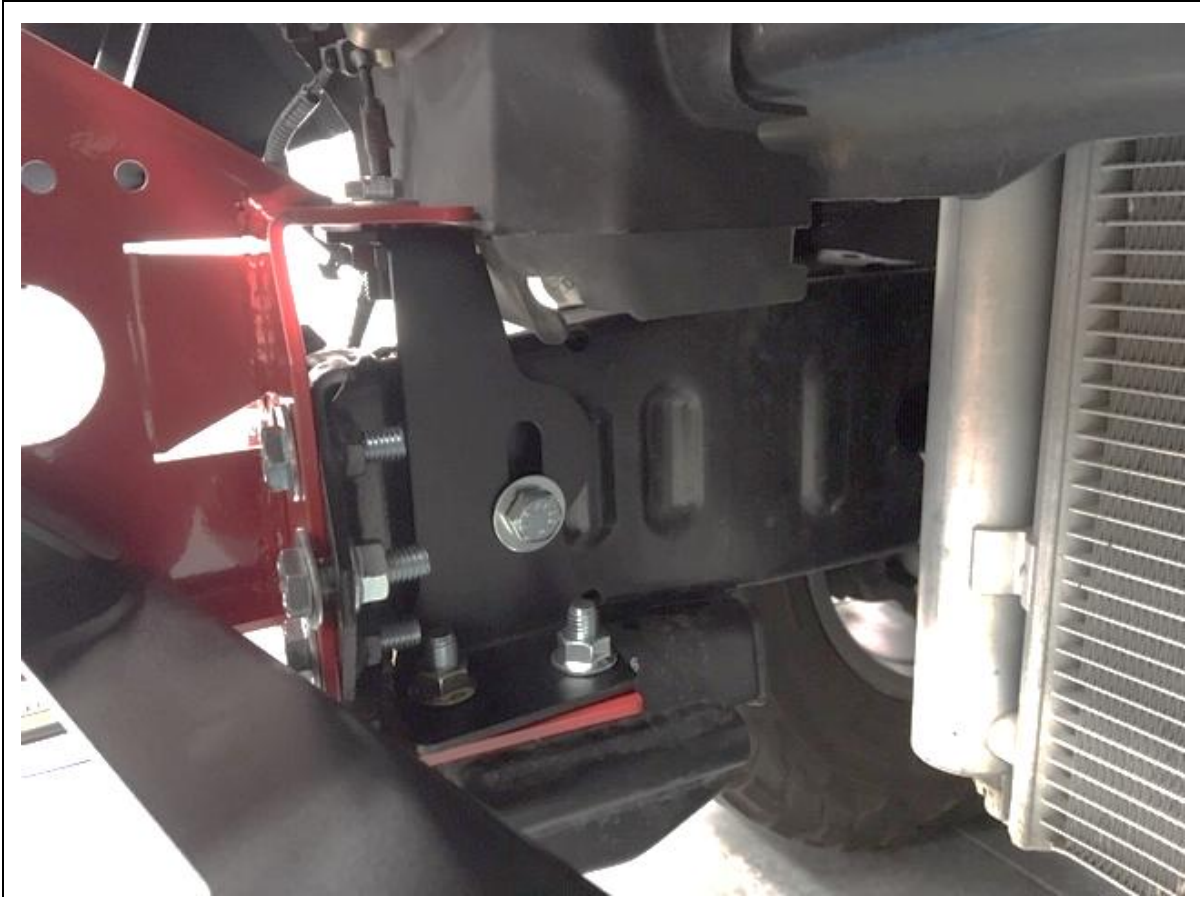
31. Repeat for other side.

TOOLS REQUIRED

16mm Socket or spanner
17mm Spanner

FASTENERS

12x M10x30 hex bolt
16x M10 flat washer
4x M10 Nyloc nut



32. Fit Chassis bracket gusset as shown.

Position a flange nut inside the chassis with your fingers, then use a M10x30 hex bolt and flat washer loosely fit bracket.

Use 3x more M10x30 hex bolts, washers and flange nuts to loosely fit top and bottom of gusset to chassis mount.

33. Repeat for other side

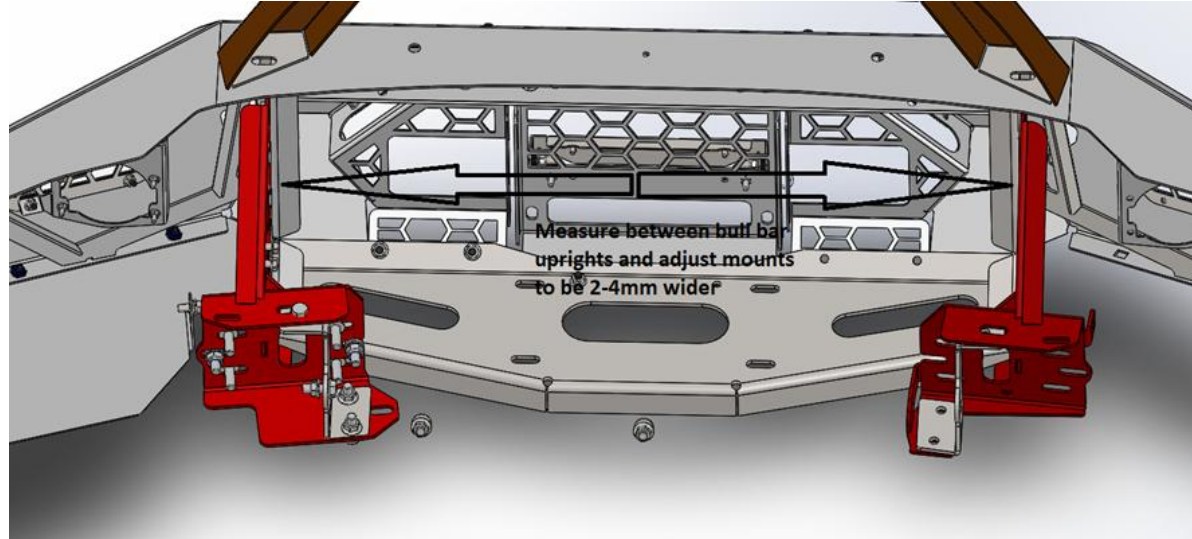
TOOLS REQUIRED

16mm socket and spanner

FASTENERS

8x M10x30 hex bolt
8x M10 flat washer
8x M10 flange nut

		
34. Use a flat head screw driver fit 10x cage nuts to bottom edge of bar, 5x per wing.	TOOLS REQUIRED Flat head screwdriver	
	FASTENERS 10x M6 cage nuts	



35. Measure bull bar between uprights and then adjust mounts to be 2mm-4mm wider.

TOOLS REQUIRED

Tape measure
16mm Spanner and socket
17mm spanner

FASTENERS



36. With the help of a friend or a lifting table raise the bar on to the mounts and place bolts through mounts and bar uprights.
37. Lowest most bolt goes in from the outside while all other bolts go in from the inside.
38. Tighten one bolt per side at this stage.

TOOLS REQUIRED

18mm socket
19mm spanner

FASTENERS

8x M12x30 hex bolt
16x M12 large flat washers
8x M12 Nyloc nuts



39. Take time to position bar on vehicle with special care to keeping bar in centre of vehicle.

40. Leave a 15mm-20mm vertical gap between bar and body. This is due to body being mounted on body rubbers so will move and flex separate to chassis and bull bar.

Make sure the bar doesn't touch the grille along the front either, allow at least 10mm gap.

41. Once happy with position, torque down all bolts for mounts and bar.

TOOLS REQUIRED

16mm spanner
16mm socket
17mm spanner
18mm socket
19mm spanner

FASTENERS



42. If fitting a winch, now is the time to feed it through centre opening in the bar.
43. You may need to rotate the clutch lever to suit mesh panels and hand access

TOOLS REQUIRED

16mm spanner or socket

FASTENERS

Supplied with winch



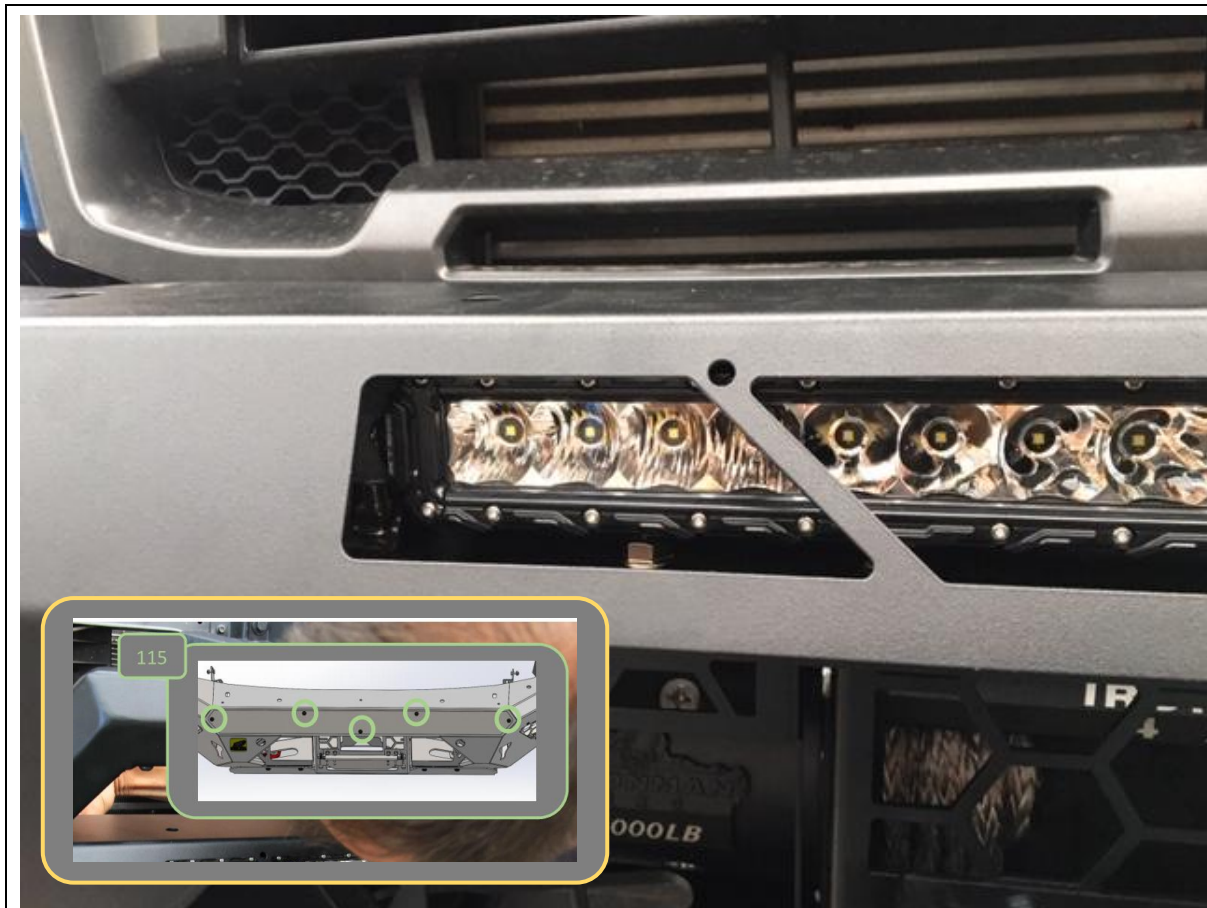
44. Depending on control box, ideal location is to mount on top of the winch, however if required fit winch control box mount as shown to one of the mounts.

TOOLS REQUIRED

13mm spanner

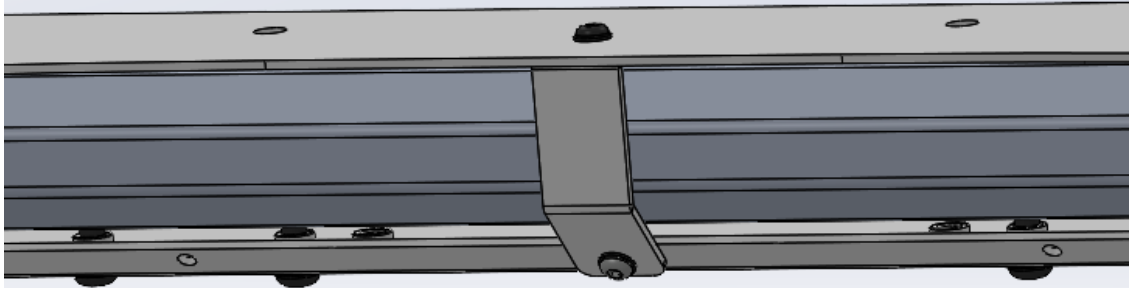
FASTENERS

2x M8x25 hex bolt
2x M8 flat washer
2x M8 flange nut



45. If fitting LED light bar to bull bar, feed it into location now but do not bolt down.
46. If not fitting a light bar, fit cover plate (supplied separately) over this area.

TOOLS REQUIRED**FASTENERS**



47. Fit the center pan support brace, using M6x12 Button Head bolts, Flat Washer and Flange nut to gusset and M6x16 Black Button head bolt to Pan.
- NOTE:** If your bar does not come with the pan support brace, please contact Offroad Animal for retrofittable version.

TOOLS REQUIRED

4mm Hex Key

FASTENERS

1x M6x12 button head
1x M6x16 black button head
2x M6 black washer
2x M6 flange nut



48. If fitting a winch, fit fairlead to centre mesh panel with winch supplied hardware

TOOLS REQUIRED

Depends on what was supplied with winch

FASTENERS



49. Fit Number plate flip bracket to centre panel with M6 hardware

TOOLS REQUIRED

10mm socket and spanner

FASTENERS

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



50. Fit centre mesh panel to bar with:
- 2x M8x16 black button head bolts and black washers into the threaded inserts at the top
 - 2x M8x20 black button head bolts, black washers and flange nuts through the bottom.

TOOLS REQUIRED

5mm Allen key
13mm spanner

FASTENERS

2x M8x16 black button head
2x M8x20 black button head
4x M8 black washer
2x M8 flange nuts



51. Fit RH mesh panels with:
- a. 1x M8x16 black button head bolt and black washer through the top
 - b. 2x M6x16 black button head bolt, black washers and flange nuts through the side (reach in through opening to install flange nuts)
- Leave bottom holes empty until fitting bash plate.

TOOLS REQUIRED

4mm Allen key
5mm Allen key

FASTENERS

1x M8x16 black button head
1x M8 black washer

2x M6x16 black button head
2x M6 black washer
2x M6 flange nut

	
52. Fit LH mesh panel same as right. 53. Tighten light bar bolts now if fitted.	TOOLS REQUIRED 4mm Allen key 5mm Allen key
	FASTENERS 1x M8x16 black button head 1x M8 black washer 2x M6x16 black button head 2x M6 black washer 2x M6 flange nut

	
54. If fitting factory LED fog lights, fit them to the fog light brackets now. 55. Do this using 4x M6x16 black button head bolts, black washers and flange nuts. 56. Next fit the fog light brackets to the mesh panels with 3x M8x16 black button head bolts, black washers and flange nuts.	TOOLS REQUIRED 4mm Allen key 5mm Allen key
	FASTENERS 8x M6x16 black button head 8x M6 black washer 8x M6 flange nut 6x M8x16 black button head 6x M8 black washer 6x M8 flange nut

		
57. If fitting cube lights, fit directly to mesh panels as shown	TOOLS REQUIRED Depending on lights	
	FASTENERS Supplied with lights	



58. Repeat for other side.

TOOLS REQUIRED**FASTENERS**



59. Feed mesh panel and lights in from under bar and position to bar.
60. Secure with 4x M6x16 black button head bolts and flange nuts (no washers.) On some bolts it's easier to hold nut in place then feed screw in
61. Repeat for other side.

TOOLS REQUIRED

4mm Allen key

FASTENERS

8x M6x16 black button head
8x M6 flange nut



62. Fit front bash plate to lower section of bar. Insert part P-0072 shim plate between bar and bash plate. Use 4x M8x30 black button head bolts, black washers and flange nuts. Leave bolts loose.	TOOLS REQUIRED 5mm Allen Key
	FASTENERS 4x M8x30 black button head 4x M8 black washer 4x M8 flange nut



63. Time to fit new lower bash plate.

With factory bolts started into threads at the back, you can use them to hold up the back of the bash plate while you lift up the front.

Feed in 3x M10x 5 button head bolts and washers.

TOOLS REQUIRED

FASTENERS

2x Factory bolts

3x M10x25 button head

3x M10 flat washer

3x M10 flange nut



64. M10 button head bolts tying in both bash plates shown.	TOOLS REQUIRED
	FASTENERS

		
65. Once all bolts are started you can torque up M8 bolts at the front.	TOOLS REQUIRED 5mm Allen Key	
	FASTENERS	



66. Don't forget to torque up bottom factory bolts.

TOOLS REQUIRED

15mm socket or spanner

FASTENERS

Factory bolts



67. Torque up the 3x M10 bolts.

TOOLS REQUIRED

6mm Allen key

FASTENERS



68. Plug in fog light loom

69. Affix ADR compliance plate inside of bar as shown.

TOOLS REQUIRED**FASTENERS**



70. If fitting top hoop (eg. Stealth Hoop, Rally Hoop or Round Hoop), do so now with supplied M10 bolts from hoop kit

TOOLS REQUIRED

16mm spanner

FASTENERS

2x M10x30 hex bolt
2x M10 flat washer
2x M10 flange nut



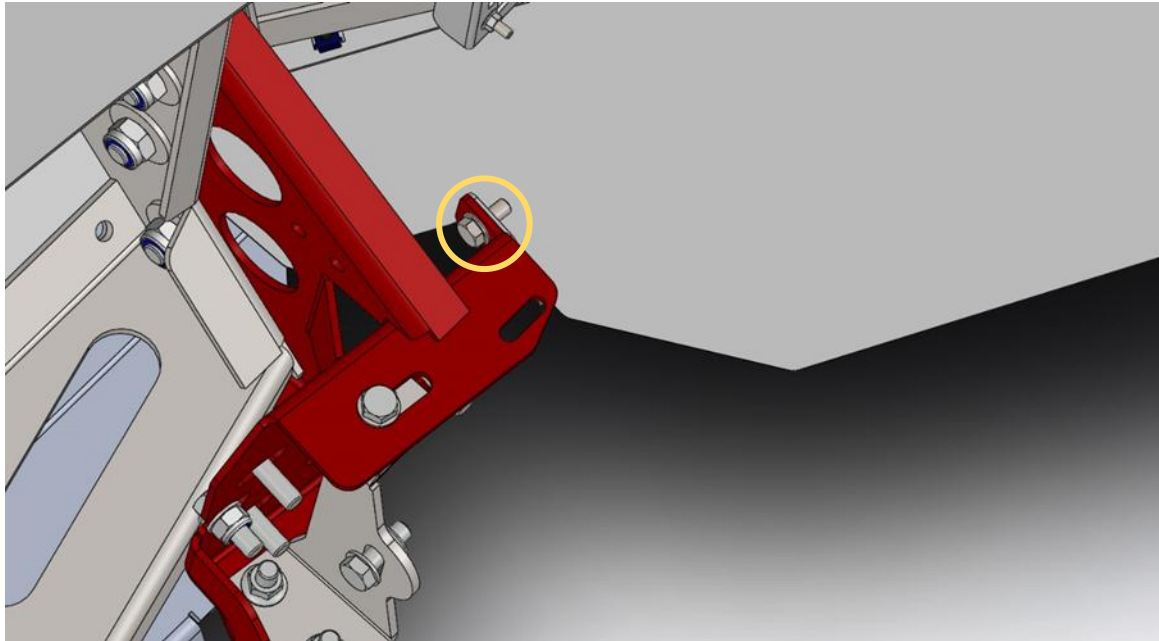
71. Position underpanel onto bottom of wing and secure with 5x M6 black button head bolts and black washers.
- Do this on both sides.

TOOLS REQUIRED

4mm Allen Key

FASTENERS

10x M6x16 black button head
10x M6 black washer



72. Secure inside edge of underpanel to mount with M8 hardware on both sides.

TOOLS REQUIRED

13mm Spanner

FASTENERS

1x M8x20 hex bolt
1x M8 flat washer
1x M8 flange nut

Per side



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