



## **FORD RANGER Next Gen**

### **2022 MY ONWARDS**

### **REAR BAR**

#### **IMPORTANT! – READ BEFORE INSTALLATION**

- When installed in accordance with these instructions, the rear protection tow bar maintains the factory tow rating of your vehicle.
- 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

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.

### Main Parts – In the Box

Qty	Part Number	Description	Image
1	RB-FRA-NG-22-ASM1	Ranger Next Gen Rear Bar Weldment	
2	RB-FRA-NG-22-ASM2	Next Gen Ranger Rear Bar - Light Cover Plate Assy	
1	B-0927R	Ranger Next Gen Rear Bar Wing Brace	
1	B-0927L	Ranger Next Gen Rear Bar Wing Brace	
2	F-0012	Ford Ranger Next Gen Sensor Holder - 15 Deg Horizontal	
4	F-0016	Ford Ranger Next Gen Sensor Holder - 18 Deg Horizontal	
2	BR25B	LED NUMBER PLATE LIGHT	
2	CPHP020	Plastic Hole Insert, 28MM, Black, Tigerlink Hardware CPHP020	

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

Qty	Part Number	Description
<b>14</b>	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
<b>10</b>	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
<b>12</b>	M10 Flat Washer	M10 FW
<b>4</b>	M10X20 BHCS	SCREW, BUTTON HEAD CAP, M10X20X1.5 GR12.9 ZP
<b>2</b>	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
<b>4</b>	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP
<b>6</b>	M10 FW LHD	WASHER, FLAT M10X28.5X2.5
<b>4</b>	M5 Flat washer	M5 FW
<b>4</b>	M5X15 PAN	SCREW, PAN HEAD PHILLIPS, M5X15X0.8 GR4.6 ZP
<b>4</b>	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP



TOOLS REQUIRED

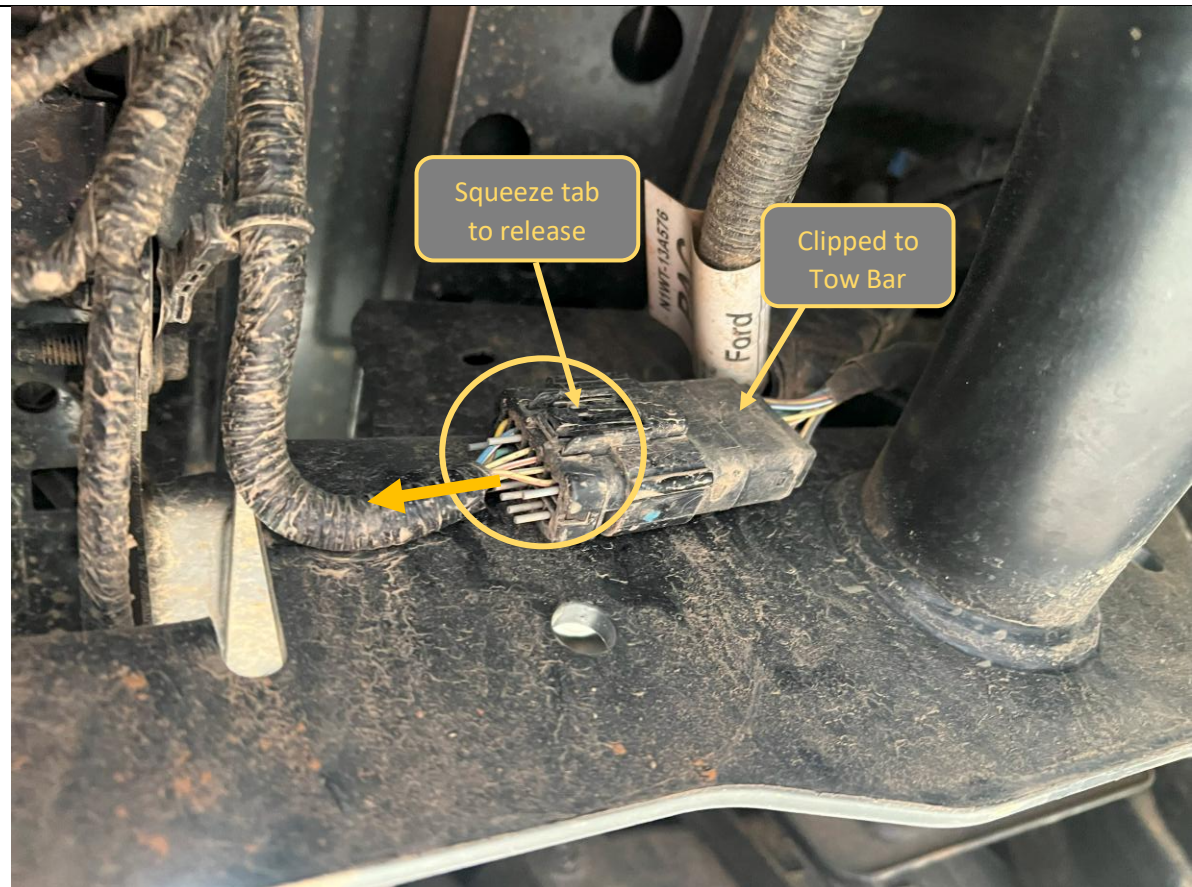
The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 8-19mm Metric Spanner Set 8-19mm Hex (Allen) Key Set 4-8mm Trim Tool Utility Knife Side Cutters Wire Strippers	Soldering Iron Heat Gun  Electric / Air Impact Driver (Optional but speeds up fitting process)	Lift Trolley Solder Heat Shrink Isopropyl Alcohol Clean Rag/Shop Towel

## 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.

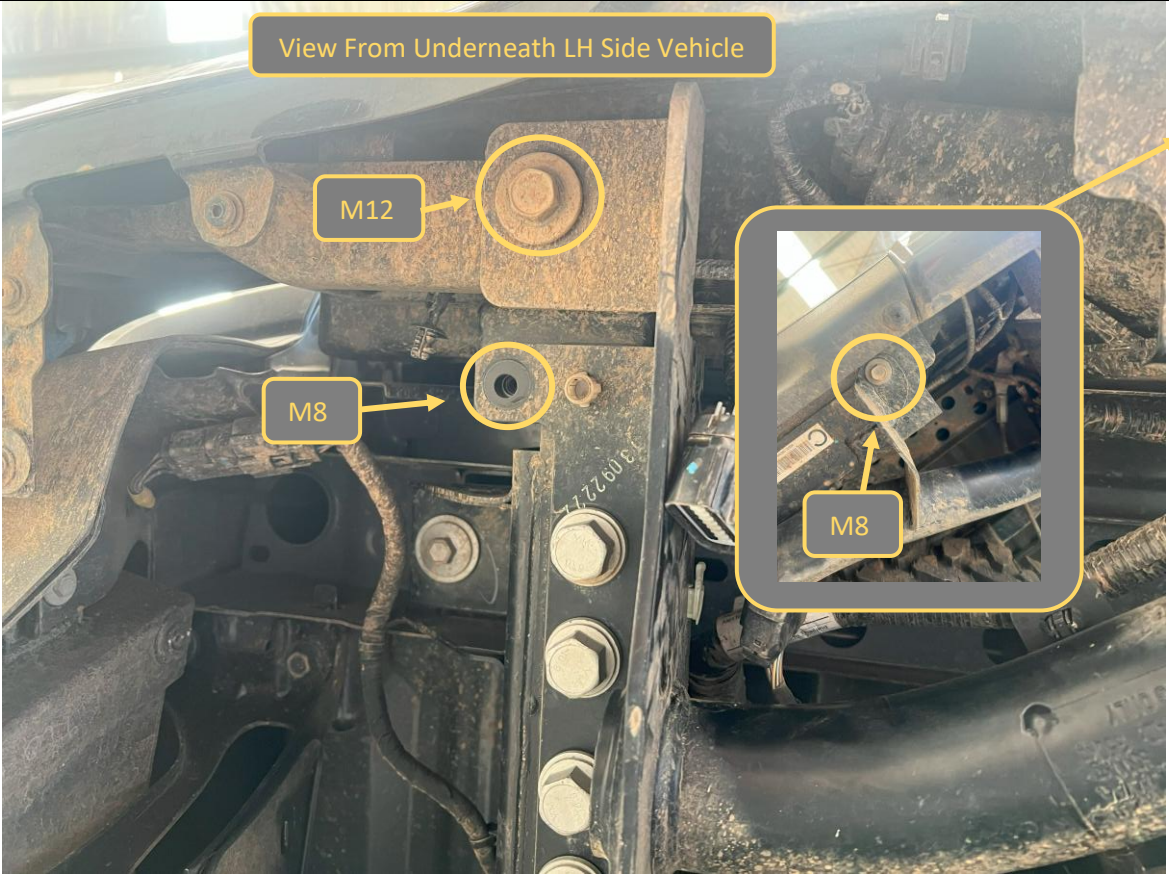
<p>Hearing Protection</p> 	<p>Always wear ear protection when using power tools.</p>
<p>Eye Protection</p> 	<p>Ensure eye protection is always worn when cutting or drilling.</p>
<p>Manual Handling</p> 	<p>Do not attempt to lift bar assemblies or rock sliders on your own.</p> <p>Always use two people 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. This bar is designed to suit vehicles fitted with the **Ford genuine tow bar only**. This is standard fitment on most model grades.
2. On the underside of the vehicle on the LH side towbar upright locate the rear bar wiring harness. Disconnect by depressing the tab on the connector and separating.

**TOOLS REQUIRED****FASTENERS**




	
<ol style="list-style-type: none"><li>3. Remove the 2x M8 and 1x M12 flange head bolt per side securing the bumper to the tow bar.</li><li>4. Remove bolts on both sides of vehicle</li><li>5. Retain the bolts for re-use.</li></ol>	<b>TOOLS REQUIRED</b>  18mm Socket, 13mm Socket Extension bar
	<b>FASTENERS</b>  1x M12 Flange head bolt 2x M8 Flange head bolts  Per Side  Retain






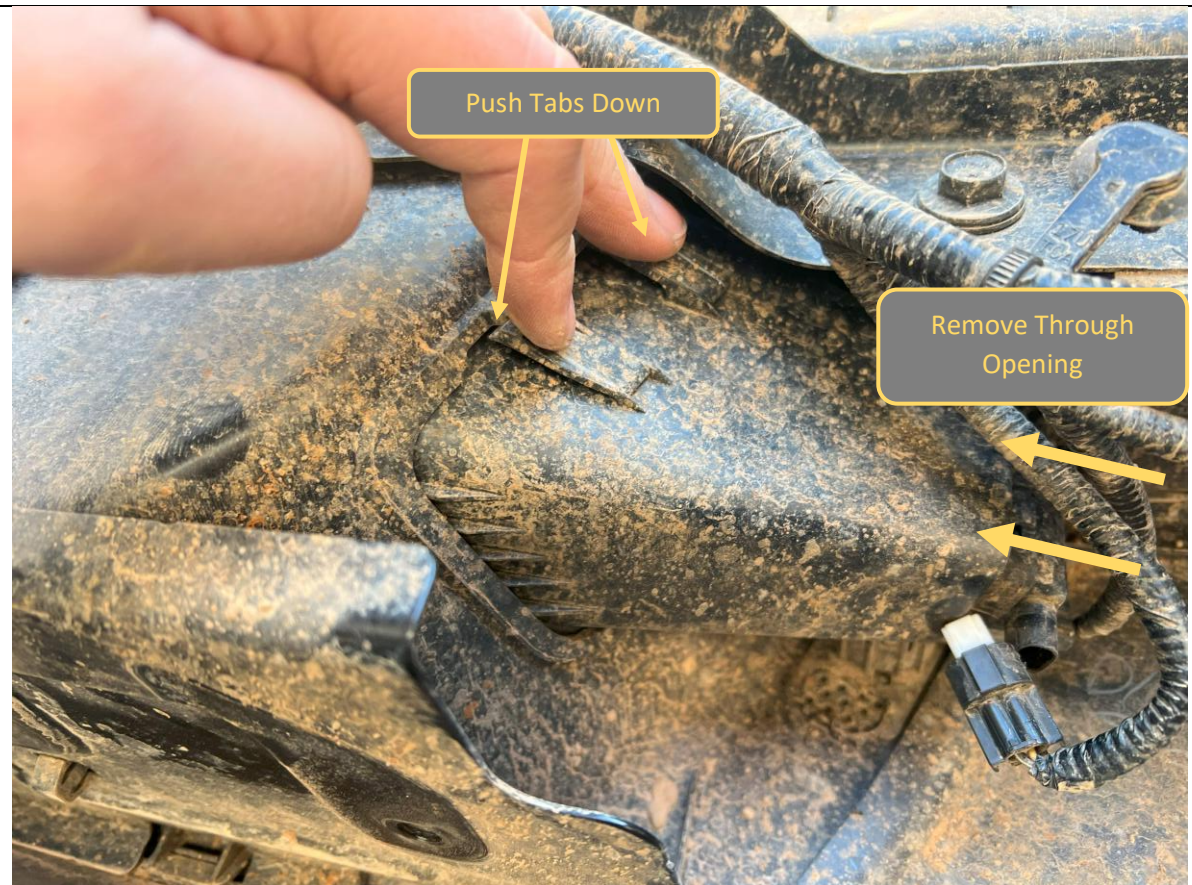
6. With all fasteners removed and the factory bumper assembly free, remove the bumper from the vehicle in a rearward direction.

**TOOLS REQUIRED****FASTENERS**

	
<div>7. Disconnect the Number plate lamp connectors.</div> <div>8. Release the Rear bar wiring harness, by releasing all the clips securing it to the factory bar with a trim tool.</div>	<div>TOOLS REQUIRED</div> <div>Trim Tool</div>
	<div>FASTENERS</div>



	
<p>9. Remove parking sensors from housings, by Prying open the retaining tabs, whilst pushing the sensor through the housing from the outside of the bumper</p> <p>10. Repeat for all sensors in the bumper. Leave looms connected at this stage.</p>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>



11. Remove the number plate lamps to gain access to remove the parking sensors and loom.
12. Push down on the two retaining tabs to release lamp then remove through the bumper opening towards the center of the bumper.
13. Remove the rear bar loom, including attached parking sensors from the rear bumper.

**TOOLS REQUIRED****FASTENERS**





14. Clean areas adjacent to parking sensor locations on inside of bar with isopropyl alcohol.	<b>TOOLS REQUIRED</b>  Isopropyl Alcohol Rag
	<b>FASTENERS</b>

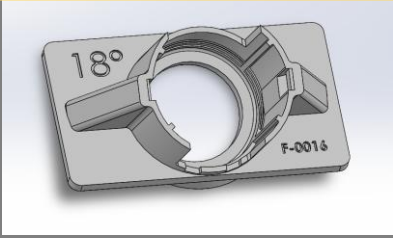
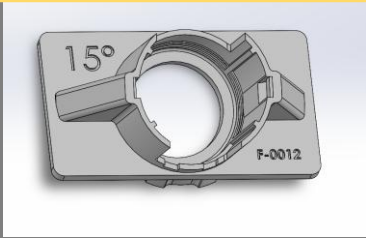



15. Activate the ampoule of adhesion promotor in the parking sensor tape kit by crushing tube in location indicated.
16. Apply adhesion promotor to sensor housing mounting faces, and bond areas of the bar adjacent to the sensor holes in the bar.

**Important:** allow at least 5 minutes for the primer to chemically bond to the surfaces before applying tape.

#### TOOLS REQUIRED

#### FASTENERS

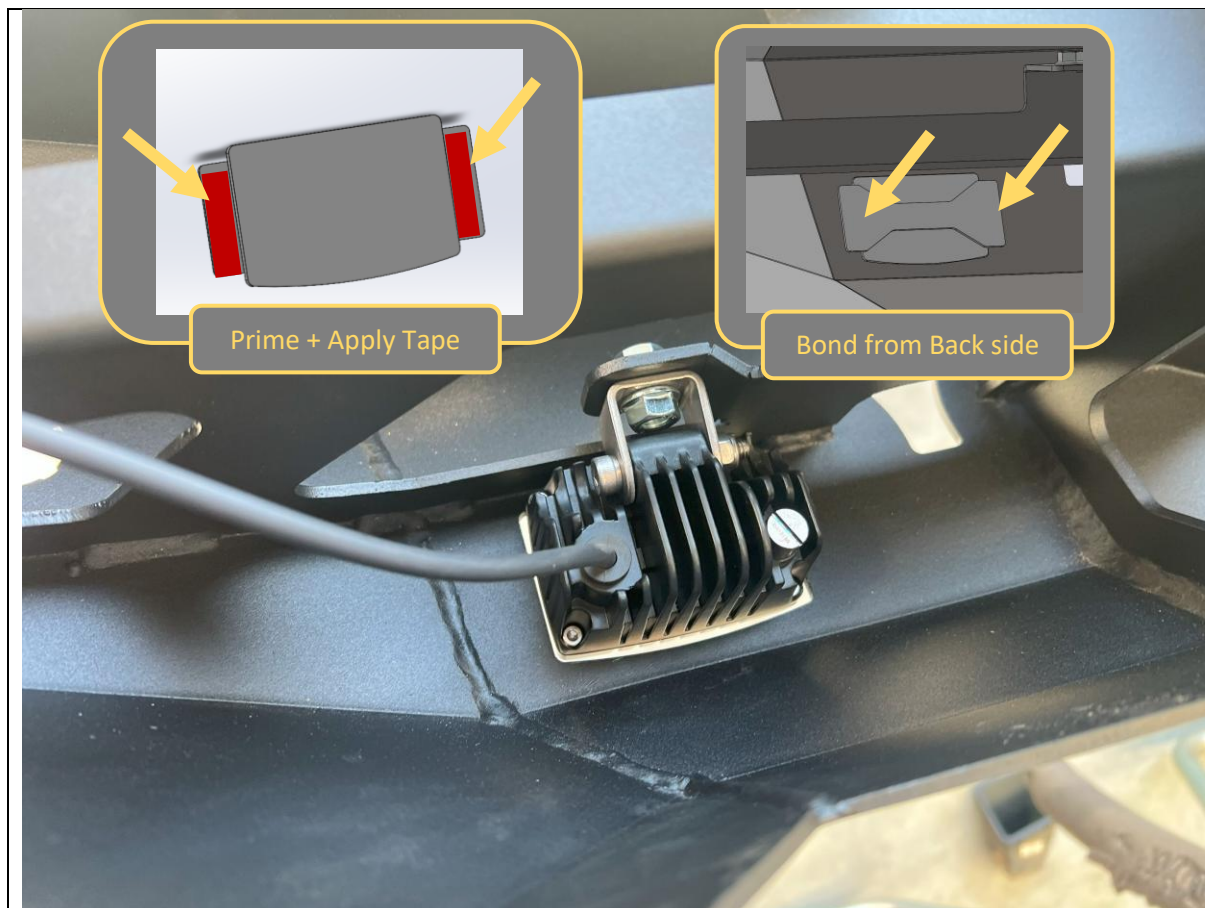
<div><div>4 Sensor Vehicles – All Positions 6 Sensor Vehicles – 4x Inside Positions</div><div><p>18° F-0016</p></div></div> <div><div>4 Sensor Vehicles – Not Used 6 Sensor Vehicles – 2x Far Outside Positions</div><div><p>15° F-0012</p></div></div> <div></div>	
<div>17. Determine correct sensor housings for each sensor location. For 4x Sensor equipped models use only 18deg housings. For 6x Sensor equipped models use 15 deg housing on far outer sensors and 18 deg housings on all others.</div> <div>18. Sensor housings are keyed to prevent fitting in wrong location</div> <div>19. Apply 3M Tape pads to all sensor mounting tabs on the sensor housings.</div> <div>20. Re-fit parking sensors into new housings, ensure sensors are inserted square and there is no distortion to the rubber isolation ring.</div>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>





21. Route the loom through the new bar. Disconnect sensors as required to pass wiring through smaller openings.
22. Ensure main plug is adjacent to the LHS side arm.
23. With sensor plugs connected, remove tape backing and adhere sensors, in housings to the bar. Apply pressure for 20-30 seconds to ensure strong adhesion of tape.
24. If car is equipped with 4x sensors fit blanking plug to far outside sensor holes.

**TOOLS REQUIRED****FASTENERS**



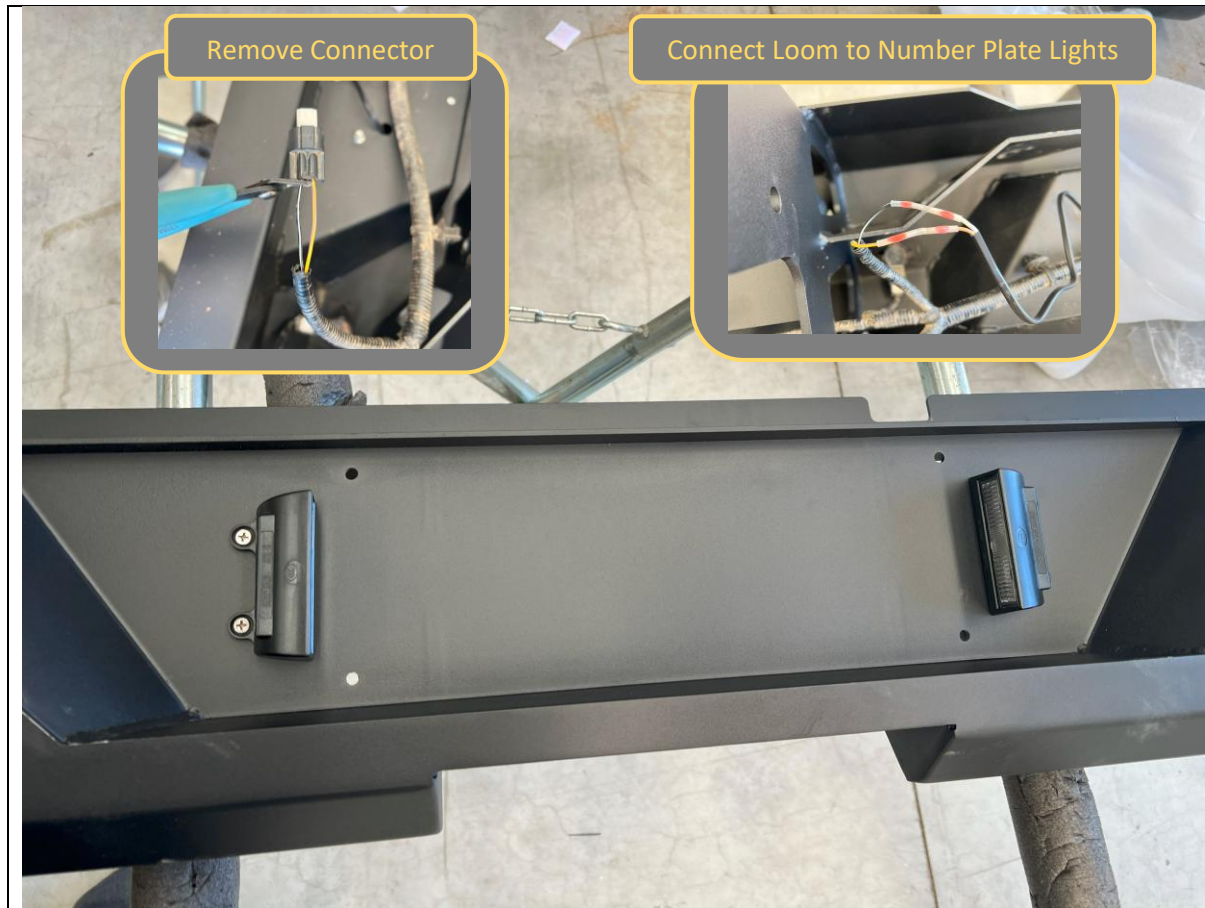
25. If optioned, install rear auxiliary lights to the rear light mounting tabs. Use the fasteners supplied with the auxiliary rear light kit.
26. If not fitting auxiliary lights fit the cover plates using 3M tape, using same clean -> prime -> bond process as parking sensors.

**TOOLS REQUIRED**

13mm Spanner  
Or  
Isopropyl Alcohol  
Rag

**FASTENERS**

M8 Supplied with Lights



27. Fit the number plate lights to the bar using the supplied Phillips head screws and nuts.
28. Strip back the corrugated tubing on the number plate lamp connectors on the loom to expose wiring.
29. Cut off factory number plate light connector.
30. Strip wiring and connect lights to factory Loom:  
White -> Black = GND  
Yellow -> Brown = +12V Number Plate Lamp.
31. We like to use self-soldering heat shrink for this; however, any insulated auto electrical joint type is suitable (crimps, soldering etc.)
32. Complete for both number plate lamps.

**TOOLS REQUIRED**

Side Cutters  
Wire Strippers  
Heat Gun  
Or  
Soldering Iron  
Or  
Crimping Tool  
Phillips Head Screwdriver

**FASTENERS**

Electrical Connectors  
Phillips head screws supplied  
with lights





33. Re-Fit number plate to the bar, using supplied M5 Fasteners.

**TOOLS REQUIRED**

Phillips Head Screwdriver

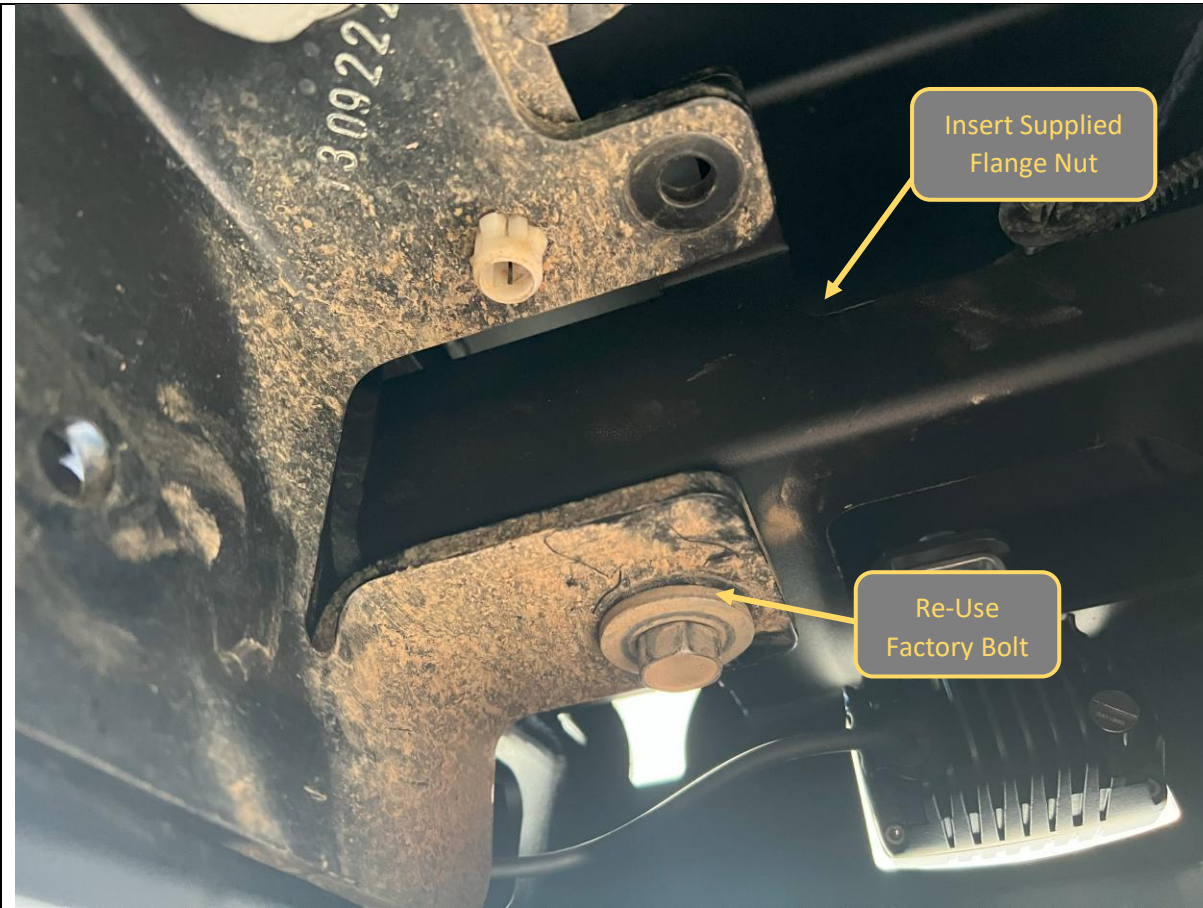
**FASTENERS**

4x M5 Pan Head Screws  
4x M5 Flat Washer  
4x M5 Flange Nut



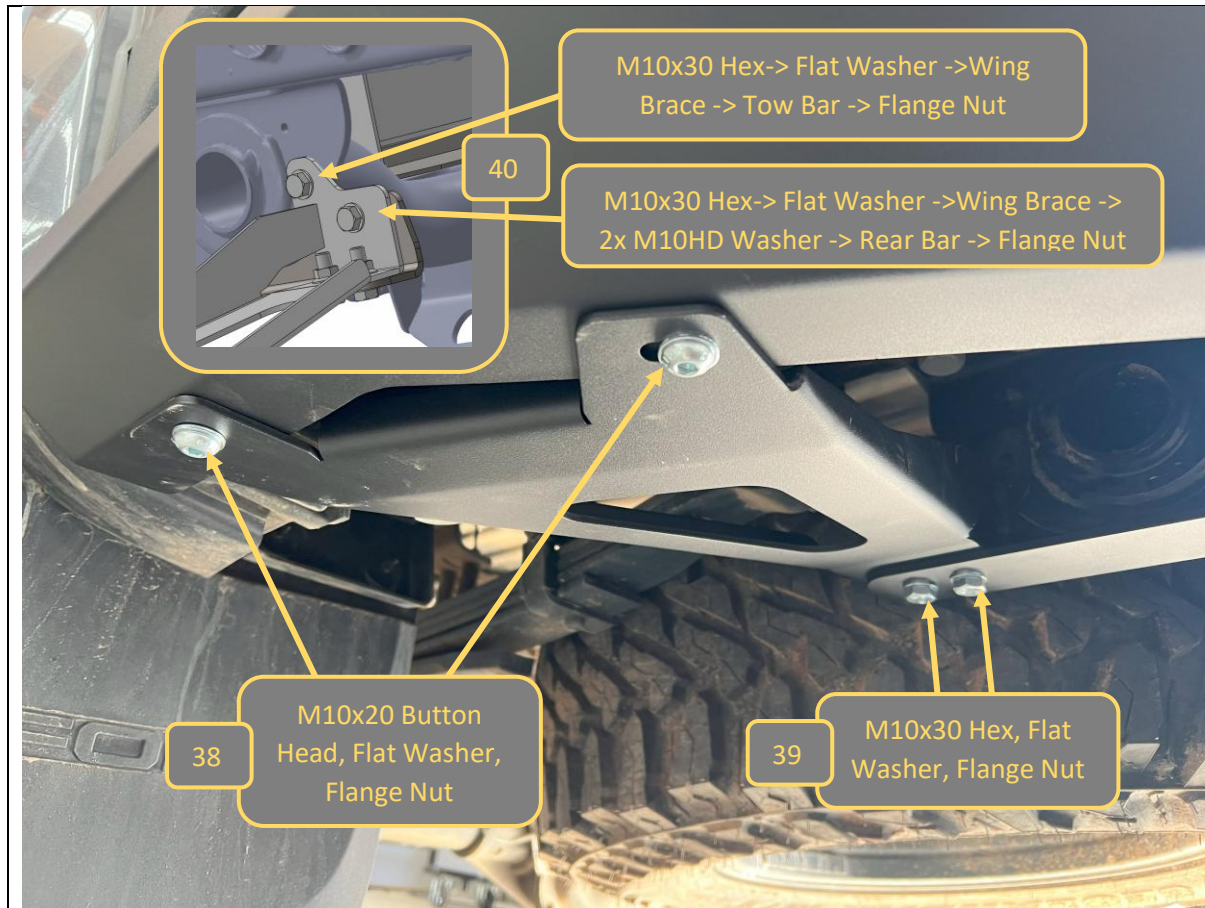
34. With assistance, from a lift trolley or another person, lift the rear bar onto the car. The rear bar needs to sit **ON TOP** of the mounting flanges on the Tow bar.
35. Rear bar side arms need to sit **INSIDE** of the towbar side arms.

**TOOLS REQUIRED****FASTENERS**



<p>36. Secure bar to tow bar mounting flanges using OE M12 and M8 Flange bolts removed earlier, into supplied M8 and M12 Flange Nuts.</p> <p>37. Once all fasteners are in place and the bar is square on vehicle, tighten all fasteners.</p>	<p><b>TOOLS REQUIRED</b></p> <p>18mm Socket 13mm Socket</p>
	<p><b>FASTENERS</b></p> <p>1x M12 Flange Nut 2x M8 Flange Nut</p> <p>Re-Use Factory Bolts</p> <p>Per side</p>





38. Fit the wing brace, first to the wing, using 2x M10x20 Button Head, Flat washer, and Flange nuts.

39. Fit the wing brace to the side arm of bar using 2x M10x30 Hex Bolts, Flat washer, and Flange nuts.

40. Connect the horizontal facing M10x30 Hex bolts through the side arm, tow bar and wing brace in the order shown in the inset caption above, from outside to inside.

41. Complete for other side of vehicle. Once all complete tighten all fasteners.

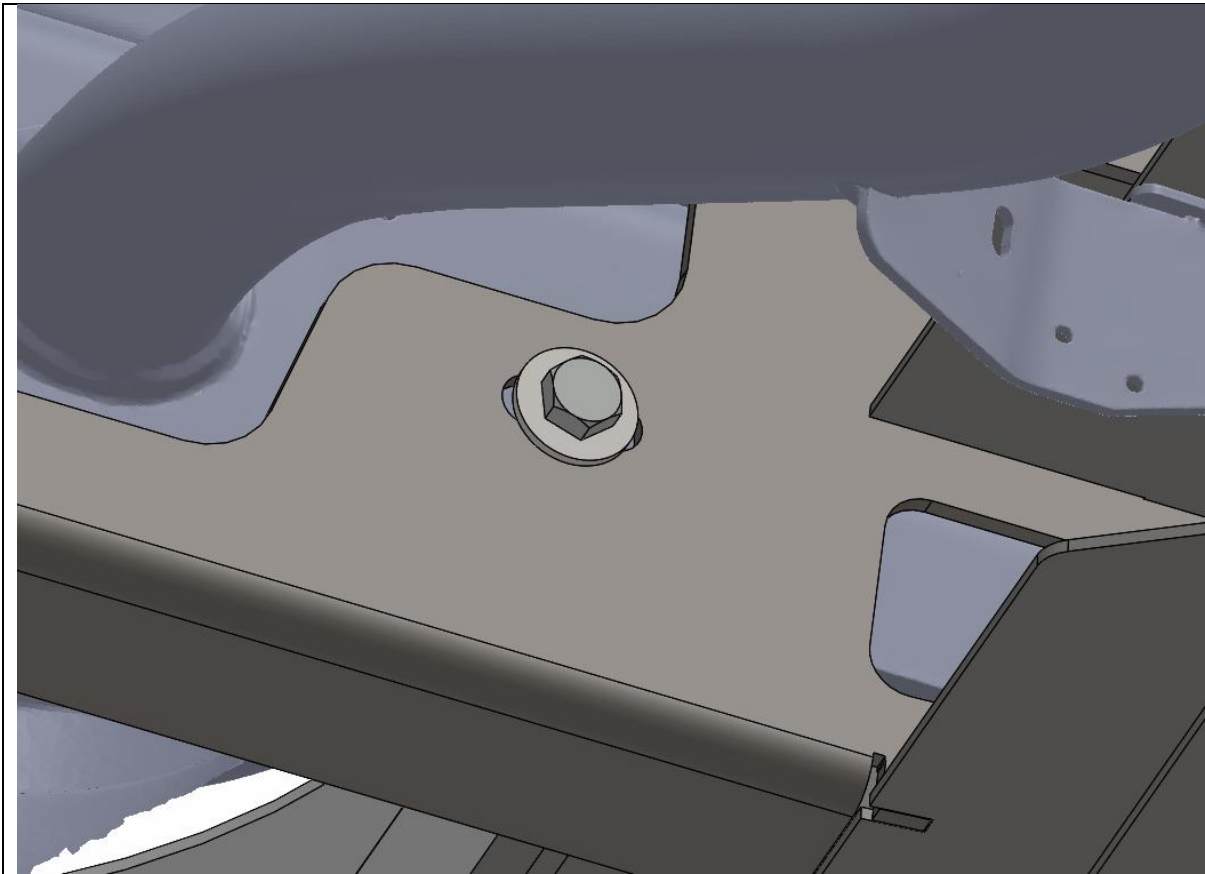
#### TOOLS REQUIRED

16mm Socket  
6mm Hex Key

#### FASTENERS

Ref Image Notes  
Per side






42. Fit the forward side arm mount bolt. Complete on both sides
43. Complete any wiring for the auxiliary lights (if equipped) These can be wired in several configurations depending on customer requirements.
44. Reconnect the main electrical harness connector on LH side arm.

**TOOLS REQUIRED**

16mm Socket / Spanner

**FASTENERS**

1x M10X30 Hex  
1x M10 Large HD Washer  
1x M10 Flange Nut

		
<div>45. Attach Offroad Animal Logo plate to chamfered face, using attached adhesive backing.</div> <div>46. Double check all fasteners are tight.</div> <div>47. With that you are done!</div>	TOOLS REQUIRED	
	FASTENERS	



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