



## TOYOTA HILUX N80 MY2015 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 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

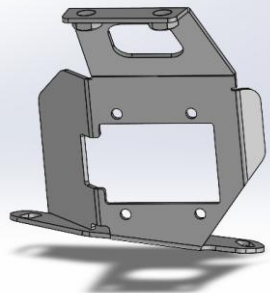
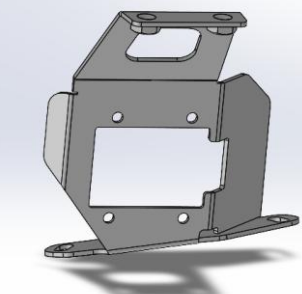
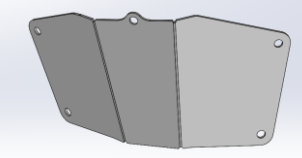
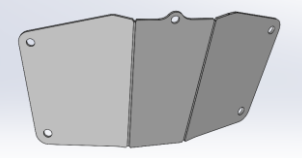

**Always use a torque wrench to set correct torque settings. Ensure torque wrench is set to Nm unit of measurement. Otherwise perform conversion to lb-ft.**

## 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	RB-THL-N80-15-ASM1	N80 Hilux rear weldment	
1	B-0115R	Under support N80 REAR	
1	B-0115L	Under support N80 REAR	
2	B-0302	Rear Bar Sensor Hole Cover	
2	B-0522	Hilux Rear Bar - Sensor Infill Bracket Straight style	
2	BR25B	LED NUMBER PLATE LIGHT	
2	PW-S-450	Pinch Weld - Plain Non Seal 450mm	

1	RB-THL-N80-15-ASM2R	Hilux Cross traffic Radar Support / Brace Assy	
1	RB-THL-N80-15-ASM2L	Hilux Cross traffic Radar Support / Brace Assy	
1	N-0005L	Rear Bar Radar Cover - Hilux	
1	N-0005R	Rear Bar Radar Cover - Hilux	
1	RB-THL-N80-15-ADRCP	HILUX REAR BAR ADR COMPLIANCE PLATE	<p>MANUFACTURED BY OFFROAD ANIMAL TOYOTA HILUX N80 2015 ON PART NO: RB-THL-N80-15-ASM0 TONGUE PART NO: RB-TBM-01 RATED TOW CAPACITY 3500KG MAX TOWBALL DOWN LOAD 350KG FOR TOWING PURPOSES ONLY</p> <p>MFG DATE: </p>

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

Qty	Part Number	Description
<b>22</b>	M6 FLAT WASHER BLACK ZINC	M6 FW BLACK ZP
<b>22</b>	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP
<b>4</b>	M10 x 25	Bolt Hex, M10X25x[1.5], GR8.8 ZP
<b>8</b>	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP
<b>8</b>	M10 Flat Washer	M10 FW
<b>8</b>	M12X50x1.25	Bolt Hex, M12X50x1.25, GR8.8 ZP
<b>12</b>	M12 FLAT WASHER	M12 FW
<b>4</b>	M10X25 BHCS	SCREW, BUTTON HEAD CAP, M10X25X1.5 GR12.9 ZP
<b>24</b>	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP
<b>4</b>	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP
<b>4</b>	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP
<b>2</b>	M5 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
<b>2</b>	M5X20 PAN	SCREW, PAN HEAD PHILLIPS, M5X20X0.8 GR4.6 ZP
<b>2</b>	M6 FLAT WASHER	M6 FW
<b>2</b>	M6 X 20 HEX	M6X20 HEX BOLT, ZP, 8.8
<b>8</b>	M8 X 20 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH
<b>4</b>	M8 FLANGE NUT	M6X20 HEX BOLT, ZP, 8.8
<b>8</b>	M8 HD FLAT WASHER - BZP	M8 FLAT WASHER - High Tensile 19x8x2mm, ISO4042 ZnNi BLACK PASSIVATED FINISH

## 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

## 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. Before beginning work, support the factory rear bar / tow bar using lift trolley or jack.
2. Disconnect the tow wiring harness if fitted from the bumper.

**TOOLS REQUIRED**

Lift Trolley

**FASTENERS**



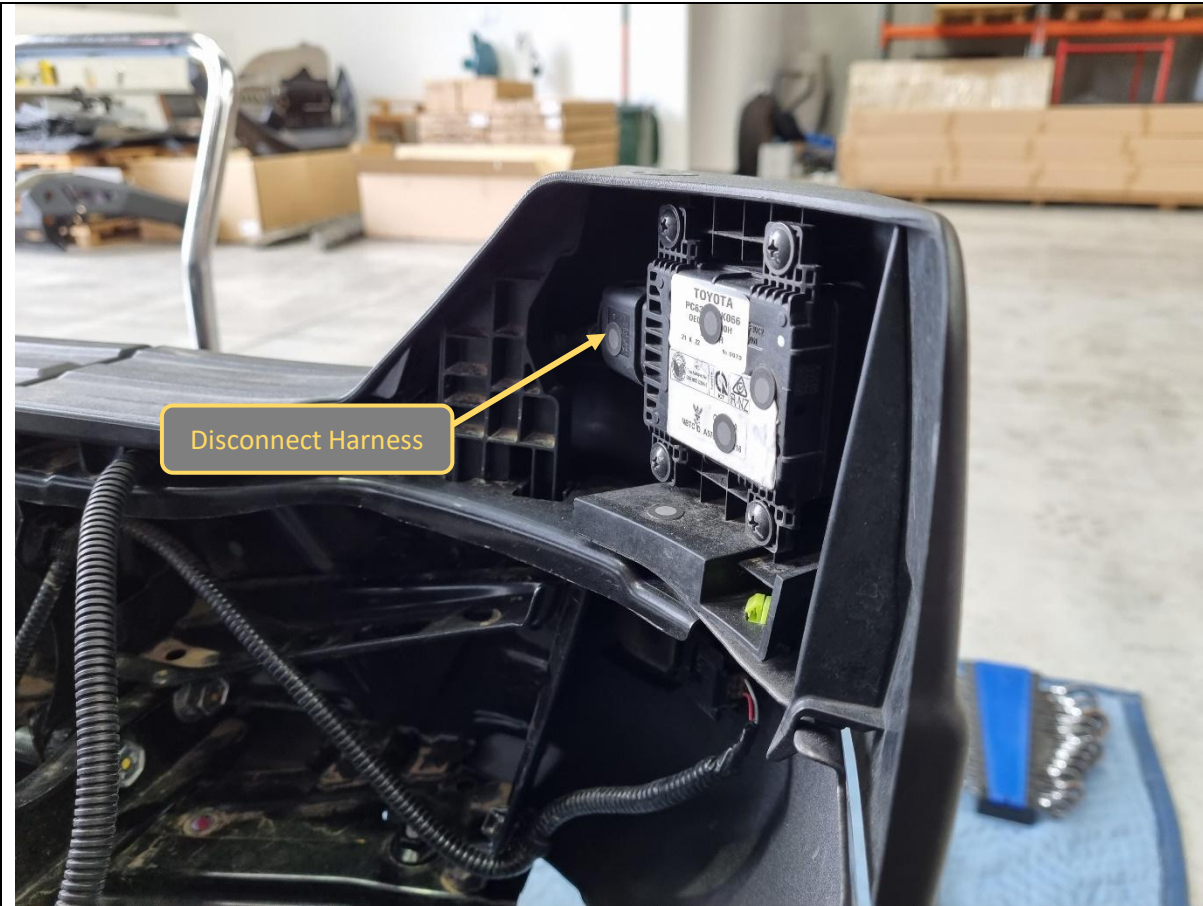


3. Disconnect the trailer wiring harness from the bar by unscrewing it from the plug bracket.
4. Disconnect the parking sensor and number plate lamp harness, by disconnecting the wiring harness connector.
5. Remove the 4x Bolts securing the Rear Bar / Tow bar to the chassis rail.
6. With all fasteners removed and the factory bar/ bumper assembly free, carefully lower, then remove slightly from vehicle towards the back once clear of the lower tub panels.
7. If vehicle equipped with rear cross traffic alert, DO NOT attempt to completely remove the rear bar as there are wiring harnesses for the radar sensors that still need to be disconnected.

**TOOLS REQUIRED**

Socket / Spanner

**FASTENERS**



<div>8. Steps 9-10 are only for vehicles equipped with rear cross traffic radar. If not equipped go to step 11.</div> <div>9. With the bar free and sitting slightly away from the vehicle, unplug and remove the radar sensor wiring harnesses. Unclip the plastic radar housing from the top of the bumper with a trim tool for best access.</div> <div>10. Repeat for both sides.</div> <div>11. Once clear, remove the bar completely from the vehicle.</div>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>



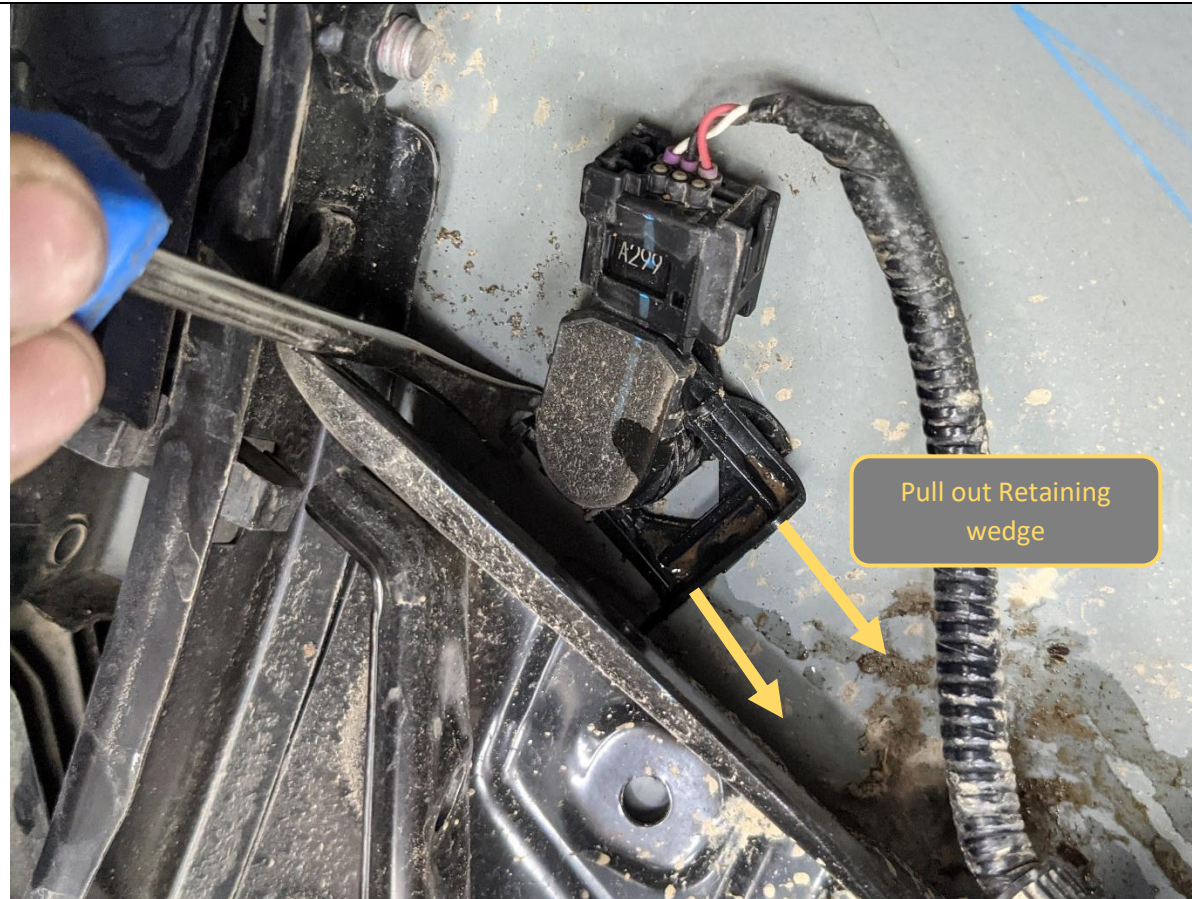


12. Steps 13-14 are only for vehicles equipped with rear cross traffic radar. If not equipped go to step 15.
13. Remove the radar sensor from the plastic housing, discard the factory Phillips head screws.
14. Retain radar sensors in safe place for re-fitment to new rear bar.

**TOOLS REQUIRED**

Phillips Head Screwdriver

**FASTENERS**



15. Remove parking sensors from housings, by prying open the retaining wedges, whilst pushing the sensor through the housing from the outside of the bumper.
16. Repeat for all sensors in the bumper.
17. Remove Bulbs from Number plate lamps. Bulbs are secured with spring loaded bayonet type attachment, Push and turn to release.
18. Unclip and remove number plate light loom.
19. Remove the number plate from original rear bar.

**TOOLS REQUIRED****FASTENERS**

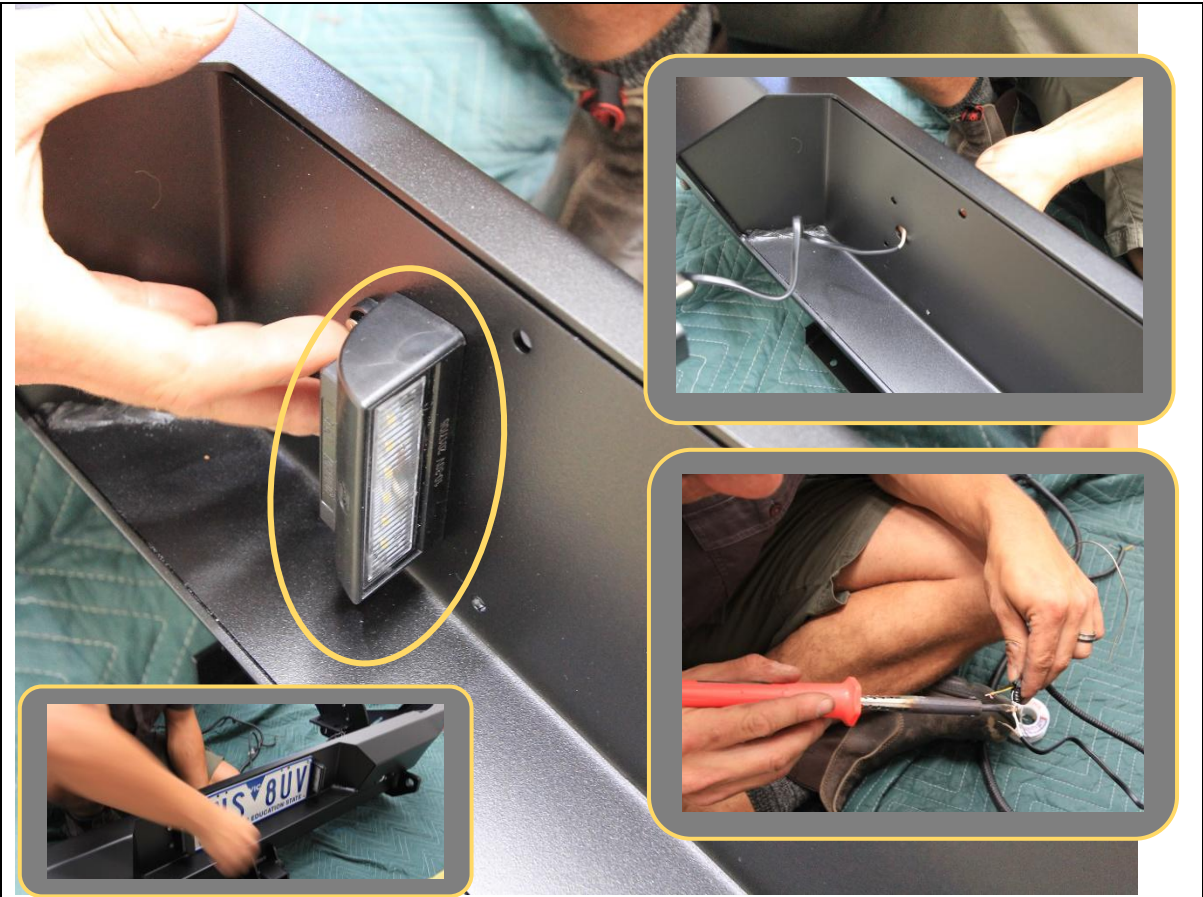




20. Fit the center housings into the sensor brackets. Insert outer housing from outside then secure from back side using fixing wedge. Note that the correct wedge for the housing must be used (White inside, Black Outside)
21. Complete the same process to install the outer sensor brackets directly in the wing of the rear bar.
22. Install sensor brackets in rear bar using M6x16 Button head bolt, Flat washer, and M6 Flange Nut.

**TOOLS REQUIRED****FASTENERS**

4x M6 Button Head Bolt  
4x M6 Flat Washer  
4x M6 Flange Nut



<div>23. Fit the number plate lamps to the rear bar, by first feeding the cable to the bar, then securing with screws and nuts supplied in the lamp box.</div> <div>24. Cut off lamp holders from the factory loom. Strip ends and solder to new LED number plate lamp cables. Use heat shrink or electrical tape to insulate solder connections.</div> <div>25. Complete for both sides of vehicle.</div> <div>26. Fit number plate to rear bar using M5x15 pan head screws and flange nuts.</div>	<div>TOOLS REQUIRED</div> <div>Soldering Iron Solder Heat Shrink / Gun Electrical Tape Side cutters Wire strippers</div> <div>Phillips head screwdriver</div>
	<div>FASTENERS</div> <div>Screws supplied with Lights</div> <div>2x M5x15 pan head screw 2x M5 flange nut</div>



<div>27. Install sensors in housings by inserting them into housing from rear of bar and pushing until audible “Click” is heard.</div> <div>28. Run the loom neatly around the bar, Secure with cable ties if required.</div> <div>29. Complete for both sides of vehicle.</div>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>



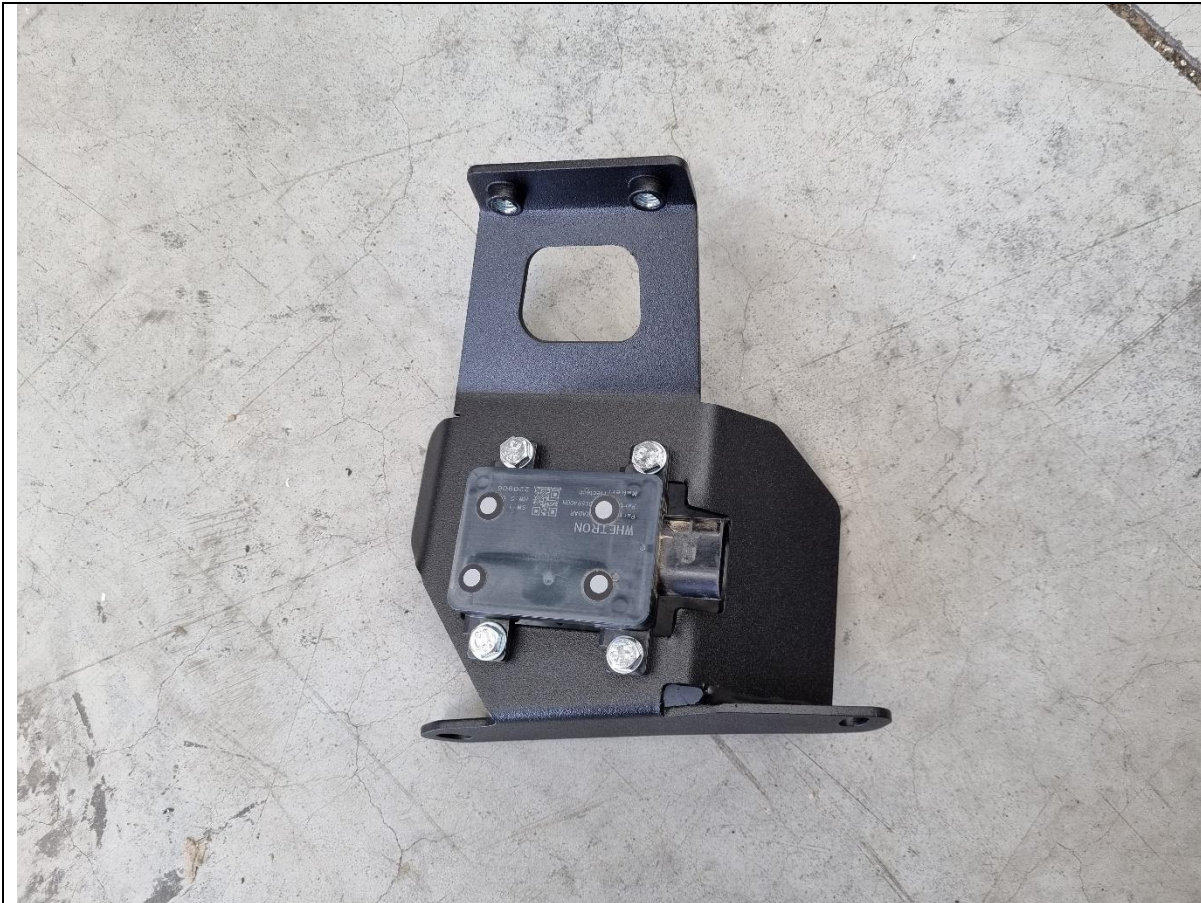


<p>30. Fit Plastic radar cover panels to the inside of the wings of the bar, using the supplied M6 Button Head fasteners.</p> <p>The textured face goes on the outside, smooth on the inside.</p> <p>31. Complete for both sides of vehicle.</p>	<p><b>TOOLS REQUIRED</b></p> <p>4mm Hex Key</p>
	<p><b>FASTENERS</b></p> <p>5x M6x16 Black Button Head 5x M6 Black Flat Washer 5x M6 Flange Nut</p> <p>Per side</p>





<p>32. Fit rubber pinch weld to lower edges of wing, in the location shown by pushing rubber over the edge.</p> <p>33. Complete for both sides of vehicle.</p>	<b>TOOLS REQUIRED</b>
	<b>FASTENERS</b>



34. Fit the radar modules to the front side of the support bracket using supplied M6 Fasteners.
35. Ensure the correct side brackets are fitted to the correct side modules.
36. If your vehicle is not equipped with radars do not discard brackets.

It is also there to brace the rear corner and will still need to be fitted to the bar.

For non-radar equipped vehicles it is best to do this now, before the bar is fitted to the car. Refer to Step 39 for bolts to be used.

**TOOLS REQUIRED**

4mm Hex Key  
10mm Spanner

**FASTENERS**

4x M6x16 Black Button Head  
4x M6 Black Washer  
4x M6 Flange Nut



37. Steps 36-39 are only for vehicles equipped with rear cross traffic radar. If not equipped go to step 40
38. With assistance, from a lift trolley or another person, lift the rear bar into position close to the car.
39. Plug in the radar modules to the vehicle mounted harnesses, ensure modules are connected to the correct sides.
40. Secure radar support brackets to the car from the back side of the wing, using 4x M8x20 Black Button head screws, into threaded inserts in bracket on the top, and with M8 Flange nuts on the bottom.

**TOOLS REQUIRED**

Socket / Spanner

**FASTENERS**

4x M8x20 Black Button  
4x M8 Black Washers  
2x M8 Flange Nut

per side





41. With assistance, from a lift trolley or another person, fully lift the rear bar onto the car.
42. Secure to side chassis nuts using original factory M12 flange bolts.
43. Secure to bottom of chassis using 2xM12x30 Bolts, M12 Flange Nuts and M12 Flat Washers

**TOOLS REQUIRED**

Socket / Spanner

**FASTENERS**

4x M12 Flange head bolts  
2xM12x30 Bolts  
2x M12 Flange Nut  
2x M12 Flat Washer

per side



44. Fit tub protection brace to the upright using 2x M10x30 Hex Bolts, flat washers, and M10 Flange nuts.
45. Secure to wing using 2x M10x25 Button head bolts.
46. Repeat for other side of vehicle.


**TOOLS REQUIRED**

16mm Socket / 15mm  
Spanner  
6mm Hex wrench

**FASTENERS**

2x M10x30 hex bolt  
2x M10x25 button head  
4x M10 flat washer  
4x M10 flange nut

per side

	
<p>47. Secure the trailer plug to bracket on vehicle using M5 Screw and Nyloc Nut provided.</p> <p>48. Secure the loom using cable ties as required.</p> <p>49. Re connect the sensor and number plate lamp harness connectors.</p>	<b>TOOLS REQUIRED</b>  8mm socket / spanner Phillips head screwdriver Cable Ties
	<b>FASTENERS</b>  2x M5 Phillips head screw 2xM5 Nyloc nut.





50. Fit M10x30 Hex bolt and M10 Nut to anti rattle location on bottom of Hitch Box
51. Replace tow ball mount and secure with new Pull Pin and R Clip.
52. Attach Offroad Animal Logo plate to chamfered face, using attached adhesive backing.
53. Fit towbar Compliance plate to underside of towbar, using attached adhesive backing.
54. With that you are done!

**TOOLS REQUIRED****FASTENERS**

Pull Pin  
R-Clip  
M10x30 Bolt  
M10 Nut



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