



RAM 1500 DT

MY2019 on

REAR BAR

IMPORTANT! – READ BEFORE INSTALLATION

- When installed in accordance with these instructions, the rear protection bar maintains the factory tow rating of your vehicle and works with the factory tow bar fitted by RAM Trucks Australia. **Not compatible with USA tow bar.**
- 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.

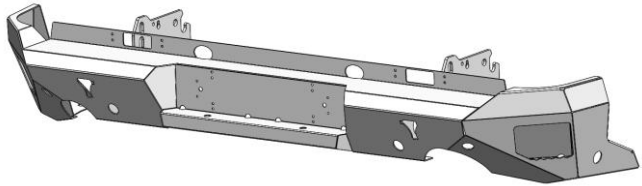
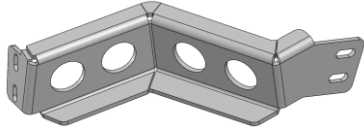
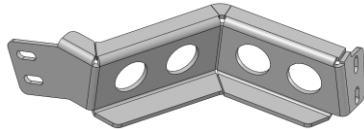


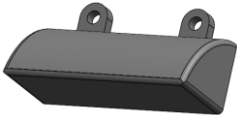
FRONT BAR MOUNTS AND TOW POINTS + REAR TOWBAR	
Size	Torque Nm
M10	57 Nm
M12	100 Nm
M14	164 Nm
M16	248 Nm

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-R15-DT-19-ASM1	DT RAM REAR BAR WELDMENT	
1	RB-R15-DT-19-ASM3L	DT RAM REAR REO ARM Welded Assy LH	
1	RB-R15-DT-19-ASM3R	DT RAM REAR REO ARM Welded Assy RH	
1	P-0255	RAM1500 DT Rear Air Suspension Spacer Plate	
1	PW-P-14X9-1600	Pinch Weld - Plain 14X9MM, Rubber, 1600mm Length	
2	BR25B	LED NUMBER PLATE LIGHT	

Fasteners – Contained in Small Parts Kit Bag

Qty	Part Number	Description
2	M5X15 PAN	SCREW, PAN HEAD PHILLIPS, M5X15X0.8 GR4.6 ZP
2	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP
4	M6x35 BHCS	SCREW, BUTTON HEAD CAP, M6X35X1 GR12.9 ZP
4	M6 FLAT WASHER	M6 Flat Washer
4	M6 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO
4	M8 X 35 HEX	Bolt Hex, M8X35X1.25, GR8.8 ZP
4	M8 FLAT WASHER	M8 Flat Washer
4	M10X30 BHCS	SCREW, BUTTON HEAD CAP, M10X30X1.5 GR12.9 ZP
4	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP
8	M10 Flat Washer	M10 Flat Washer
8	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP





TOOLS REQUIRED


The following tools will be required to install the product.

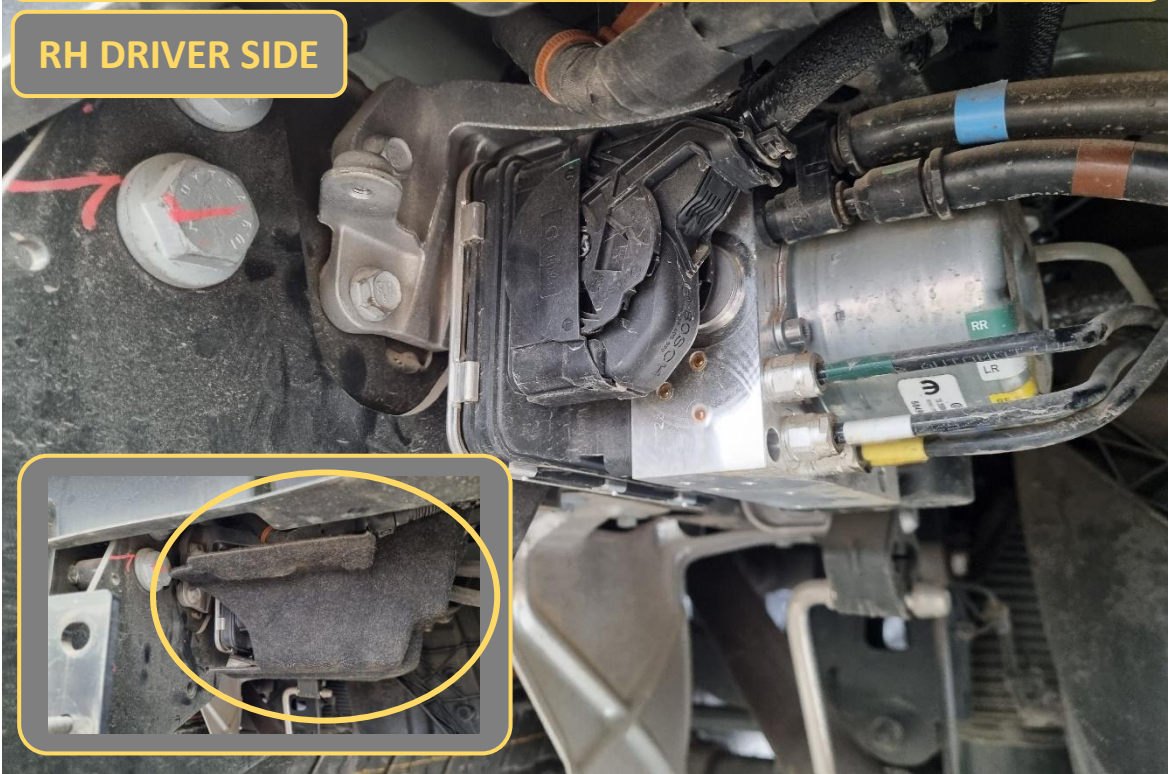
Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 7-22mm Socket Extension Bar Metric Spanner Set 7-22mm Hex (Allen) Key Set 4-8mm Side Cutters Wire Strippers Phillips Head Screwdriver Set Trim Tool Flat Head Screwdriver Set	Electric/Air Impact Driver (Optional) Soldering Iron	Panel Stand or Soft Blanket Lifting Trolley Electrical Terminals Adhesive Silicone Double Sided Tape Electrical Tape Cable Ties Solder Heat shrink

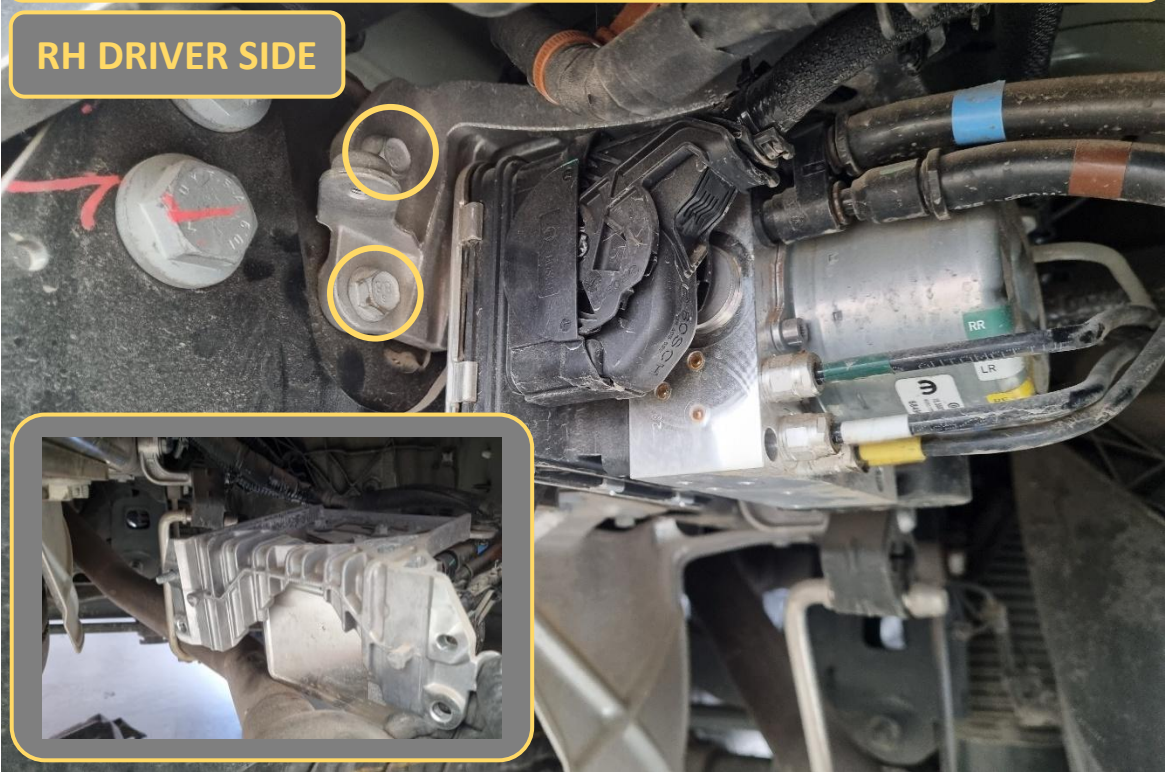

WORKSHOP SAFETY


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>

	
<div>1. Unplug and unclip all of the bumper and tow bar harnesses inside the rear bumper.</div>	TOOLS REQUIRED
	FASTENERS

AIR SUSPENSION MODELS ONLY		
<div>RH DRIVER SIDE</div> 		
<p>2. If vehicle is equipped with air suspension, remove the splash shield covering the air suspension module on the RH driver side chassis rail, next to where the tow bar attaches to the chassis.</p>	TOOLS REQUIRED Socket set Spanner set	
	FASTENERS Factory bolts Retain	

AIR SUSPENSION MODELS ONLY		
<div>RH DRIVER SIDE</div>  <div></div>		
<div>3. If vehicle is equipped with air suspension, remove the 4x M8 bolts holding the air suspension module to the chassis. Let the module hang (and rest on the exhaust if it's not hot) for now.</div>	<div>TOOLS REQUIRED</div> <div>Socket set</div> <div>Spanner set</div>	
	<div>FASTENERS</div> <div>Factory bolts</div> <div>Discard</div>	

		
<p>4. Remove RAM factory bumper, and if fitted, the pull out step. Re-fit the factory tow bar leaving the large M16 bolts on the sides out for later.</p>	<p>TOOLS REQUIRED</p> <p>Socket set Spanner set</p>	
	<p>FASTENERS</p> <p>Factory M16 bolts</p> <p>Retain</p>	

	
<div>5. Remove the factory reverse and brake lamps from the factory bumper.</div> <div>6. Remove/unclip all clips holding the wiring loom in the bumper.</div>	<div>TOOLS REQUIRED</div> <div>7mm socket/spanner</div> <div>Trim tool or Screwdriver</div>
	<div>FASTENERS</div>

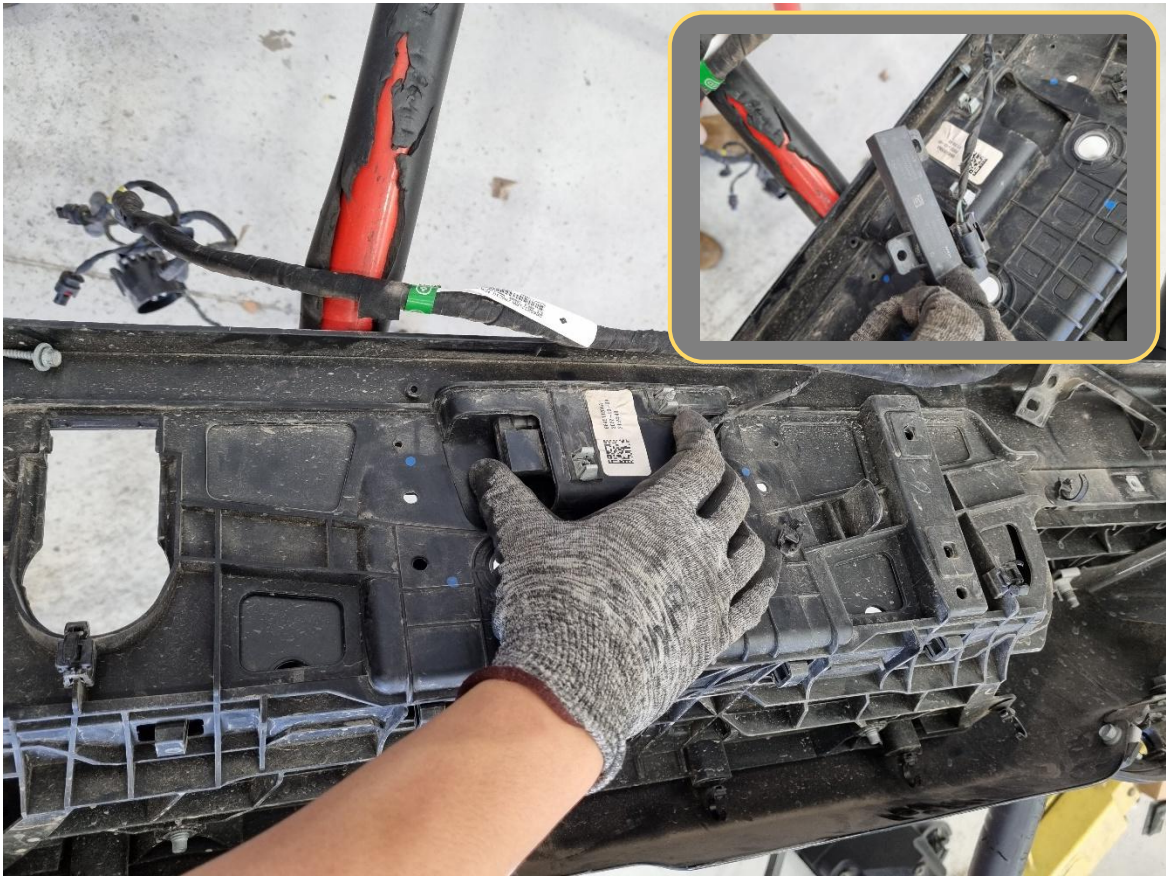


7. Unclip each parking sensor by pulling the housing tabs away from the sensor and sliding it out.
8. Using a trim tool or flat head screwdriver, pry off the factory plastic sensor housings. Retain to re-fit in the new rear bar.
9. Ensure you keep track of which sensor goes in which housing, and their orientation in the bumper. This needs to be matched in the new rear bar.

TOOLS REQUIRED

Trim tool

FASTENERS

	
<p>10. If equipped, remove the keyless entry RF module from the middle of the bumper and set aside.</p> <p>This will be glued/taped into the inside of the new rear bar.</p>	TOOLS REQUIRED
	FASTENERS



11. Re-fit the rectangular reverse and brake lamps into the new rear bar with M6x35 button head screws, flat washers and Nyloc nuts.
12. Make sure the lamps go on the same side (LH or RH) as the factory bumper.

TOOLS REQUIRED


4mm hex/Allen key
10mm socket/spanner


FASTENERS

4x M6x35 button head screw
4x M6 flat washer
4x M6 Nyloc nut



<div>13. Fit the supplied number plate lights to the bar as shown, using hardware supplied with the lights.</div> <div>14. Fit the number plate as shown with M5x15 pan head screws and flange nuts.</div>	<div>TOOLS REQUIRED</div> <div>Refer to light instructions</div> <div>Phillips head screwdriver</div>
	<div>FASTENERS</div> <div>Supplied with lights</div> <div>2x M5x15 pan head screw</div> <div>2x M5 flange nut</div>

 <div data-bbox="948 972 1362 1057">RH DRIVER SIDE</div>	
<p>15. Fit pinch weld over the edges of each bar wing as shown. This protects the vehicle tub during installation of the bar. Cut to length with side cutters.</p>	<p>TOOLS REQUIRED</p> <p>Side cutters</p>
	<p>FASTENERS</p> <p>Pinch weld</p>

	
<p>16. Use an industrial grade adhesive silicone or double sided tape to secure the sensor housings to the inside of the rear bar.</p> <p>Before gluing in, ensure you can get sensor wiring to each sensor.</p> <p>Also ensure area is clean of all dirt and grime before fitting housing to bar.</p>	<p>TOOLS REQUIRED</p> <p>Adhesive silicone or Double sided tape</p>
	<p>FASTENERS</p>



17. Allow about 1-3 hours depending on temperature (longer in cold weather) for adhesive silicone to set.

18. Once set, run wiring through the bar and push each parking sensor into the housing.

You'll need to remove some of the electrical tape on the loom to allow enough length for each sensor to reach each housing.

19. If equipped, secure the keyless entry RF module to the inside of the bar with adhesive silicone or double sided tape.

TOOLS REQUIRED

Adhesive silicone
or
Double sided tape

FASTENERS



20. Cover exposed wires with electrical tape.	TOOLS REQUIRED Electrical tape
	FASTENERS



21. Wire in the new number plate lights to existing wires. Use crimp connectors (shown above) or solder/heat shrink wires together.

TOOLS REQUIRED

Crimp tool
Wire strippers
Electrical terminals

or

Soldering iron
Solder
Heat shrink
Electrical tape

FASTENERS



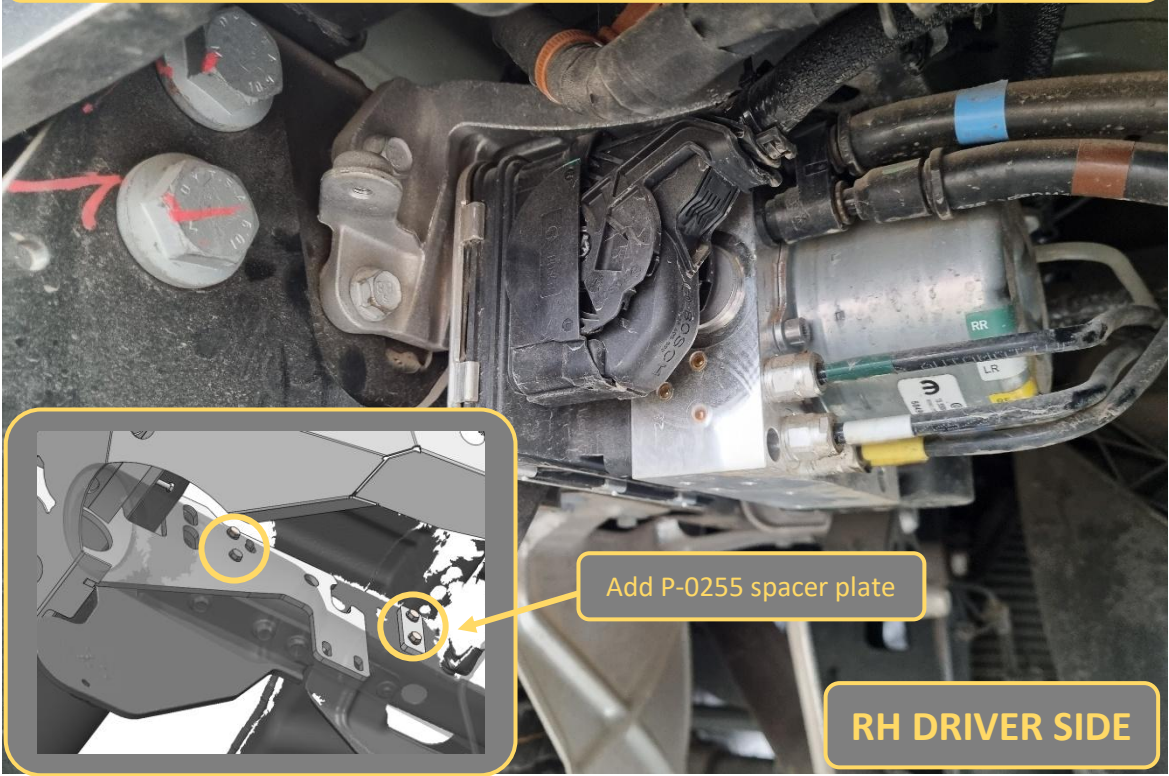
22. Using a lifting trolley or another person, lift the rear bar onto the vehicle and secure to the factory tow bar with the original large M16 bolts and nuts.
23. Adjust so that there is even gapping to the tub all around, then tighten these bolts.
24. Plug in all wiring harness that were previously unplugged during bumper removal.

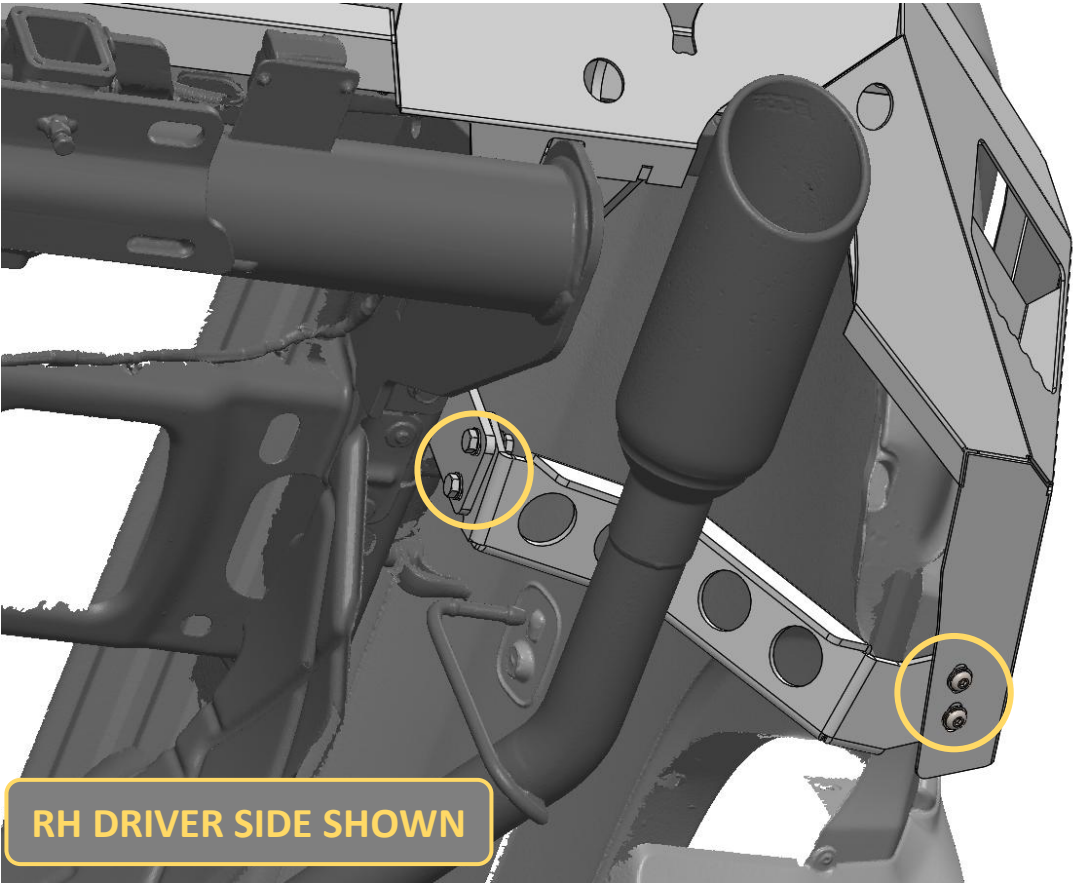
TOOLS REQUIRED

21mm spanner

FASTENERS

Factory M16 bolts (retained)

AIR SUSPENSION MODELS ONLY	
	
<p>25. If equipped, re-fit the air suspension module over the top of the rear bar mounting plate.</p> <p>26. Secure the module using supplied M8x35 hex bolts and flat washers.</p> <p>Also insert the supplied P-0255 spacer plate on the back 2x holes to take up the gap caused by the rear bar mounting plate at the front.</p>	<p>TOOLS REQUIRED</p> <p>13mm socket/spanner</p>
	<p>FASTENERS</p> <p>4x M8x35 hex bolt 4x M8 flat washer 1x P-0255 spacer plate</p>

 <div>RH DRIVER SIDE SHOWN</div>	
<div>27. Install the reinforcement side arms on the underside of the rear bar as shown.</div> <div>28. Secure to the chassis end with 2x M10x30 hex bolts, flat washers and flange nuts.</div> <div>29. Secure the bar wing with 2x M10x30 button head bolts, flat washers and flange nuts.</div> <div>30. Repeat for other side.</div>	<div>TOOLS REQUIRED</div> <div>16/17mm socket/spanner 6mm hex/Allen key</div>
	<div>FASTENERS</div> <div>4x M10x30 hex bolt 4x M10x30 button head bolt 8x M10 flat washer 8x M10 flange nut</div>



31. Place Offroad Animal logo plate on the driver side in the location shown.
32. Double check and ensure all bolts are torqued up, and all sensors/lights are functional.

TOOLS REQUIRED**FASTENERS**



Congratulations! You're done! Get out and explore in your good looking and tough RAM 1500!