

### Mitsubishi Triton MV 2024+

# Predator & Toro Front Bar Fitting Instruction

### **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.

## **PARTS LISTING**

# **IMPORTANT:** Check all parts are present before beginning work! Contact OFFROAD ANIMAL if something is missing.

### Parts List

Qty	Part Number	Description	Image	
PREDATOR ONLY				
1	FB-MTR-MV-24- PR-ASM1	MV Triton 24+ Predator Bar Welded Assembly		
	1	TORC	ONLY	
1 FB-MTR-MV-24- TOR-ASM1 MV Triton 24+ Toro Bar Welded Assembly				
1	FB-MTR-MV-24- PR-ASM2R	MV Triton 24+ Impact Assembly RH		
1	FB-MTR-MV-24- PR-ASM2L	MV Triton 24+ Impact Assembly LH		

1	FB-MTR-MV-24- PR-ASM3R	MV Triton 24+ Tow Point Welded Assembly RH	
1	FB-MTR-MV-24- PR-ASM3L	MV Triton 24+ Tow Point Welded Assembly LH	
1	FB-MTR-MV-24- PR-ASM4	MV Triton 24+ Mesh Fairlead Welded Assembly	
1	B-1242	MV Triton 24+ Pan Brace	
1	B-1243R	MV Triton 24+ LED Fog Light Bracket RH	
1	B-1243L	MV Triton 24+ LED Fog Light Bracket LH	
1	B-1250R	MV Triton 24+ Side Radar Bracket RH	

1	B-1250L	MV Triton 24+ Side Radar Bracket LH	
1	B-1253	MV Triton 24+ Camera Cover	
1	B-1254	MV Triton 24+ Number Plate Flip Bracket	
2	B-1255	MV Triton 24+ Lower Side Underpanel Mount	
1	B-1256	MV Triton 24+ GLS/GSR Grille Support Bracket	
1	B-1257	MV Triton 24+ Grille Brace	
1	B-1301	MV Triton 24+ GLX/GLX+ Grille Support Bracket	
1	B-1302R	MV Triton 24+ Halogen Fog Light Bracket RH	
1	B-1302L	MV Triton 24+ Halogen Fog Light Bracket LH	

2	P-0380	MV Triton 24+ Side Radar Cover Mount Plate	
1	P-0381	MV Triton 24+ Centre Radar Mount Plate	
1	P-0382	MV Triton 24+ Camera Mount Plate	
1	U-0082	MV Triton Lower Bash Plate	na na
1	U-0083	MV Triton 24+ Centre Bash Plate	
1	U-0084R	MV Triton 24+ Side Underpanel RH	
1	U-0084L	MV Triton 24+ Side Underpanel LH	

1	U-0085R	MV Triton 24+ Lower Side Underpanel RH	
1	U-0085L	MV Triton 24+ Lower Side Underpanel LH	
1	PWS-TOP-2600	Pinch Weld PWS51T - Top Bulb Seal 2600mm	
1	FB-MTR-MV-24- PR-ADRCP	ADR Compliance Plate Mitsubishi Triton MV 2024+	OFFROAD ANNUAL. UT BAYPORT COUNT MORRINGTON, VIC. 3731, ALS PART NO.: PRART MORT NO.: 4787, ALSO MARTINGEN TRANSPORT ON THE FITTED TO MISSINGHI TRANSPORT MERICONCIDENCE FITTED TO MERICONCIDENCE FITTED TO MERICONCIDENCE FITTED TO MERICONCIDENCE FITTED TO NO.COSSOFT OFFICIAL DO AND MISSION OF THE PRODUCT FORWARD FITTED TO AND THE FITTED TO NO.COSSOFT OFFICIAL DO AND THE FITTED TO MERICONCIDENCE FITTED TO AND MERICIPACITY OFFICIAL DO AND THE FITTED TO NO.COSSOFT OFFICIAL DO AND THE FITTED TO MERICIPACITY OFFICIAL DO AND THE FITTED TO NO.COSSOFT OFFICIAL DO AND THE FI
4	F-0010	Ford Ranger Next Gen Sensor Holder - Straight	1.0010 1.0010 1.0010
1	N-0012R	MV Triton 24+ Side Radar Cover Panel RH	
1	N-0012L	MV Triton 24+ Side Radar Cover Panel LH	
1	N-0013	MV Triton 24+ Centre Radar Cover Panel	
1	TK-COM-PSEN-4	Tape Kit - 4 Sensor Universal	N/A

1	OFA-LOGO	Offroad Animal Metal Logo		
1	FI Note	Fitting Instruction Note	N/A	
		TORO	ONLY	
2	B-1244	Toro Antenna Bracket - Tall 8deg		
1	B-1246R	MV Triton 24+ Toro Indicator Repeater Bracket RH		
1	B-1246L	MV Triton 24+ Toro Indicator Repeater Bracket LH		
1	11CAT1M-2	LED Autolamps 11CAT1M-2 Front Indicator - Twin Blister Pack		

### **PREDATOR Fasteners – Contained in Small Parts Kit Bag**

Qty	Part Number	Description	
<b>C</b> A		SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9,	
64	M6x16 BHCS BLACK ZINC	ISO4042 ZnNi BLACK PASSIVATED FINISH	
3	M6x45 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X45X1 GR12.9,	
5	100000 DICS DLACK ZINC	ISO4042 ZnNi BLACK PASSIVATED FINISH	
67	M6 FLAT WASHER	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK	
07	BLACK ZINC	PASSIVATED FINISH	
46	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP	
16	M6CN3MM	CAGE NUT M6x2.6-3.5	
2	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP	
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9,	
		ISO4042 ZnNi BLACK PASSIVATED FINISH	
6	M8 X 25 BHCS BLACK	SCREW, BUTTON HEAD CAP, M8X25X1.25, ISO4042	
	ZINC	ZnNi BLACK PASSIVATED FINISH	
8	M8 FLAT WASHER-	M8 FLAT WASHER, 16.5x8.4x1.2, ISO4042 ZnNi BLACK	
	BLACK ZINC	PASSIVATED FINISH	
2	M8 FLAT WASHER	M8 FLAT WAHER	
2	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm	
2	M8 NYW	Washer, M8, Nylon	
2	M8 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO	
4	M10X20X1.25	Bolt Hex, M10X20x1.25, GR8.8 ZP	
8	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP	
4	M10 Flat Washer	M10 Flat Washer	
8	M10 FW LHD	WASHER, FLAT M10X28.5X2.5	
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP	
12	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP	
2	M12X90	Bolt Hex, M12X90x1.75, GR8.8 ZP	
16	M12 FW LHD	M12 FW Large Heavy Duty	
10	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP	
2	M12 Nyloc nut	M12 NYLOC NUT	
2	NP-COM-M10-190-SLIM	Nut Plate M10 Slim - Suit DMAX Predator	
2	NP-COM-M12-300-	M12 NUT PLATE 300MM STEM	
۲	ASM0		
2	P-0311	LC300 Rear Bar Wing Brace Chassis Backing Plate	
3	T-0108	MV Triton 24+ Radar Spacer Tube - 23mm	
2	T-0109	MV Triton 24+ Crush Tube 59mm	

### **TORO Fasteners – Contained in Small Parts Kit Bag**

Qty	Part Number	Description	
4	M3X12 PAN	SCREW, PAN HEAD PHILLIPS, M3X12X0.5 GR4.6 ZP	
4	M3 FLAT WASHER	Flat Washer M3, 7mmODx0.5mm T	
4	M3 NUT	Hex Nut, M3x0.5 G48.8 ZP	
<u> </u>		SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9,	
68	M6x16 BHCS BLACK ZINC	ISO4042 ZnNi BLACK PASSIVATED FINISH	
2		SCREW, BUTTON HEAD CAP, M6X45X1 GR12.9,	
3	M6x45 BHCS BLACK ZINC	ISO4042 ZnNi BLACK PASSIVATED FINISH	
71	M6 FLAT WASHER	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK	
/1	BLACK ZINC	PASSIVATED FINISH	
50	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP	
16	M6CN3MM	CAGE NUT M6x2.6-3.5	
2	M8 X 20 HEX	Bolt Hex, M8X20x1.25, GR8.8 ZP	
2	M8 X 16 BHCS BZP	SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9,	
2		ISO4042 ZnNi BLACK PASSIVATED FINISH	
4	M8 X 20 BHCS BLACK	SCREW, BUTTON HEAD CAP, M8X20X1.25, ISO4042	
4	ZINC	ZnNi BLACK PASSIVATED FINISH	
6	M8 X 25 BHCS BLACK	SCREW, BUTTON HEAD CAP, M8X25X1.25, ISO4042	
0	ZINC	ZnNi BLACK PASSIVATED FINISH	
12	M8 FLAT WASHER-	M8 FLAT WASHER, 16.5x8.4x1.2, ISO4042 ZnNi BLACK	
12	BLACK ZINC	PASSIVATED FINISH	
2	M8 FLAT WASHER	M8 FLAT WAHER	
2	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm	
2	M8 NYW	Washer, M8, Nylon	
2	M8 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO	
4	M10X20X1.25	Bolt Hex, M10X20x1.25, GR8.8 ZP	
8	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP	
4	M10 Flat Washer	M10 Flat Washer	
8	M10 FW LHD	WASHER, FLAT M10X28.5X2.5	
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP	
12	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP	
2	M12X90	Bolt Hex, M12X90x1.75, GR8.8 ZP	
16	M12 FW LHD	M12 FW Large Heavy Duty	
10	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP	
2	M12 Nyloc nut	M12 NYLOC NUT	
2	NP-COM-M10-190-SLIM	Nut Plate M10 Slim - Suit DMAX Predator	
2	NP-COM-M12-300-	M12 NUT PLATE 300MM STEM	
-	ASMO		
2	P-0311	LC300 Rear Bar Wing Brace Chassis Backing Plate	
3	T-0108	MV Triton 24+ Radar Spacer Tube - 23mm	
2	T-0109	MV Triton 24+ Crush Tube 59mm	

## **TOOLS REQUIRED**

The following tools will be required to install the product.

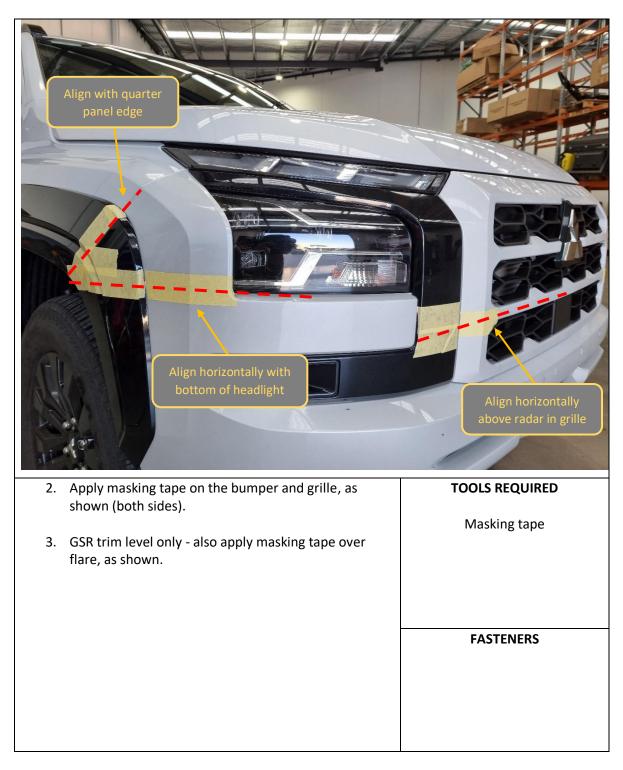
Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 10-19mm	Electric/Air Impact	Isopropyl Alcohol
	Driver (Optional)	
Socket Extension Bar		Rag
Matria Spanner Sat 10, 10mm	Soldering Iron	Cable Ties
Metric Spanner Set 10-19mm	Air hacksaw	Capie ries
Hex (Allen) Key Set 4-6mm	or	Marker pen
	Jigsaw	
Trim Removal Tool	or	Ruler
	Multi-tool	
Plastic Auto Trim Tool Set	or	Measuring tape
	Angle grinder	
Flat Blade Screwdriver Set	Electric drill	Masking tape
Phillips Head Screwdriver Set		Electrical tape
Utility Knife		Heat shrink
Side Cutters		
Side Cutters		
Pliers		
Wire Strippers		
Precision (jewellery) screwdriver set		
7mm drill bit		

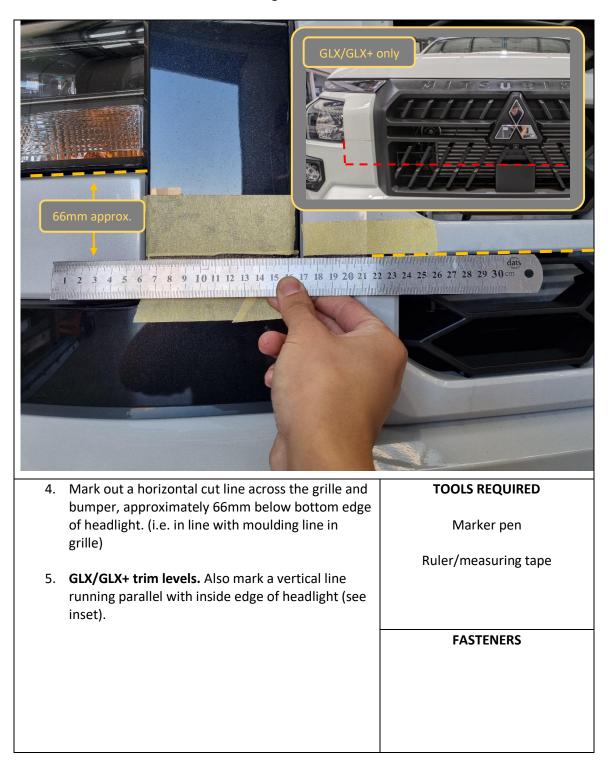
## WORKSHOP SAFTEY

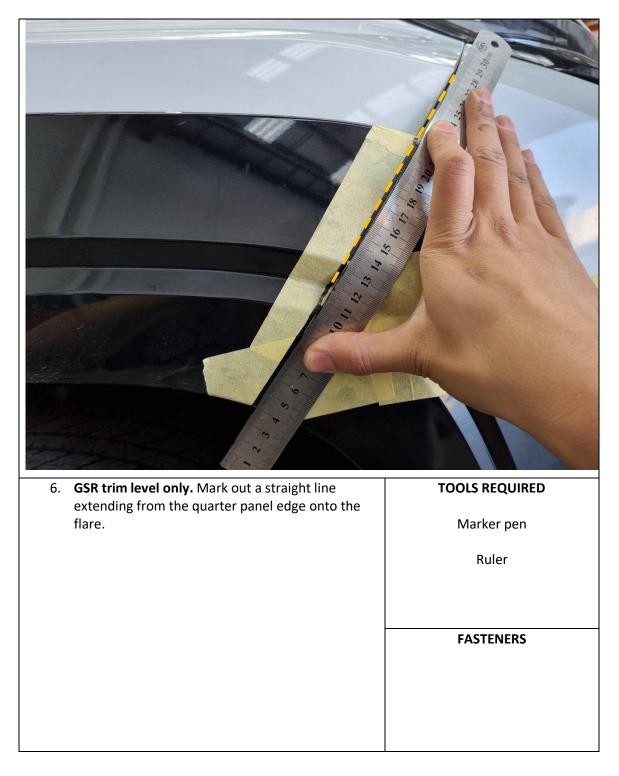
It is the responsibility of the installer to always complete works in a safe manner. Make sure the following safety equipment is available and precautions are observed whilst fitting this product.

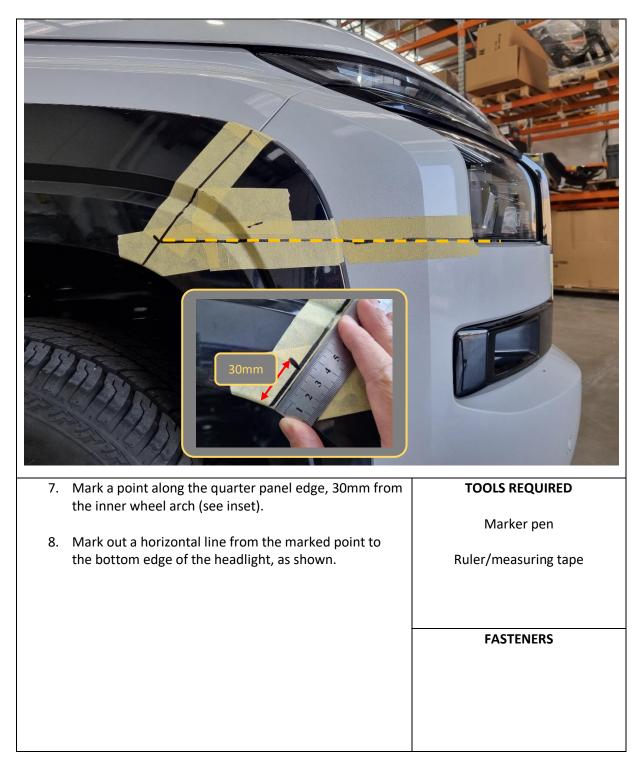
Hearing Protection	Always wear ear protection when using power tools.
Eye Protection	Ensure eye protection is always worn when cutting or drilling.
Manual Handling	Do not attempt to lift bar assemblies or rock sliders on your own. Always use two people to lift or use mechanical Lifting aid such as hydraulic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

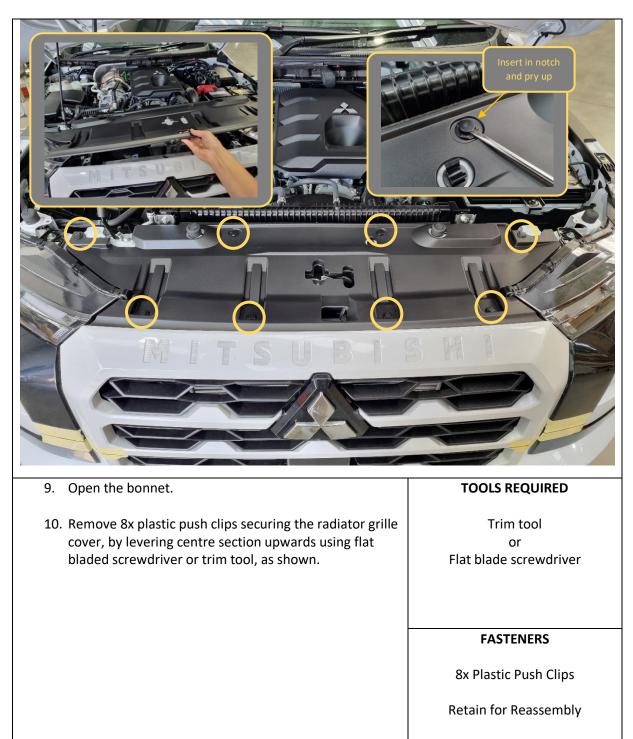




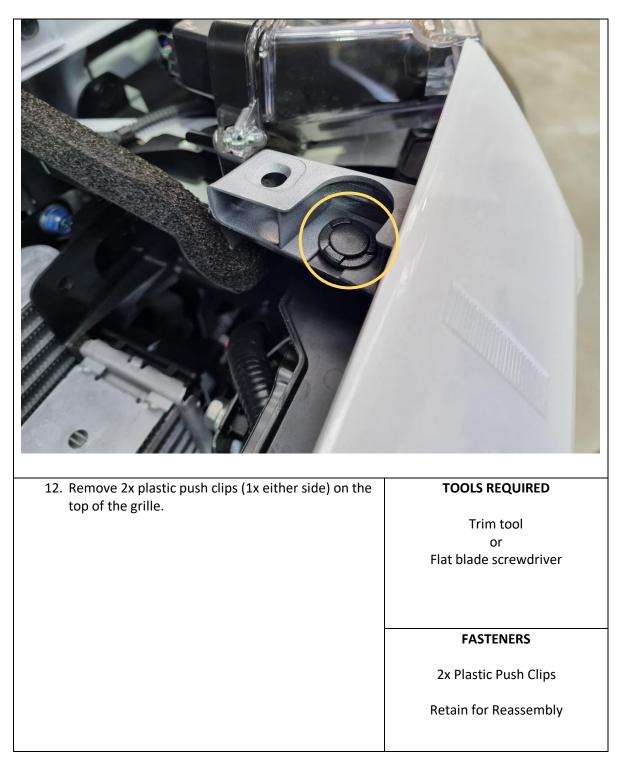


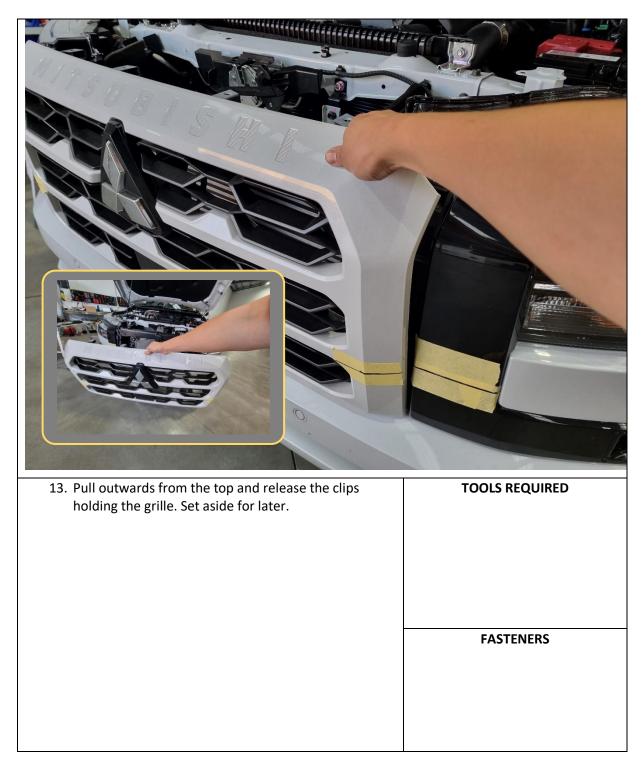


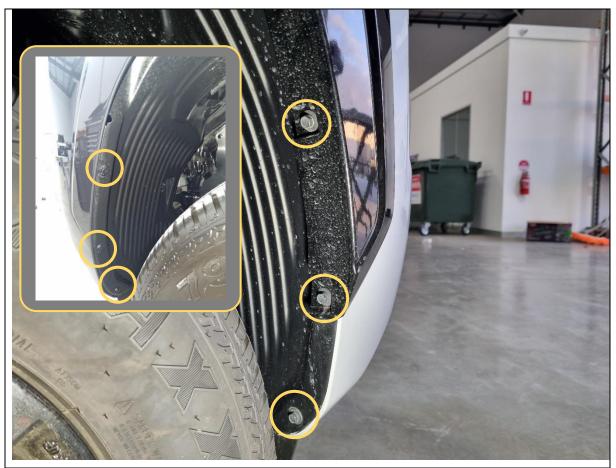




11. Disconnect the camera plug on the inside of the grille. TOOLS REQUIRED	<image/>	
	11. Disconnect the camera plug on the inside of the grille.	TOOLS REQUIRED







- 14. Non-GSR trim levels. Remove 3x plastic push clips securing bumper to wheel arch liner (see inset). Do this for both sides.
- 15. The following steps are for GSR flare removal only all other trim levels skip to **Step 22**.
- 16. Remove 3x 10mm hex bolts holding the front of the flare to the inner wheel arch liner.

#### **TOOLS REQUIRED**

Trim tool or Flat blade screwdriver

OR

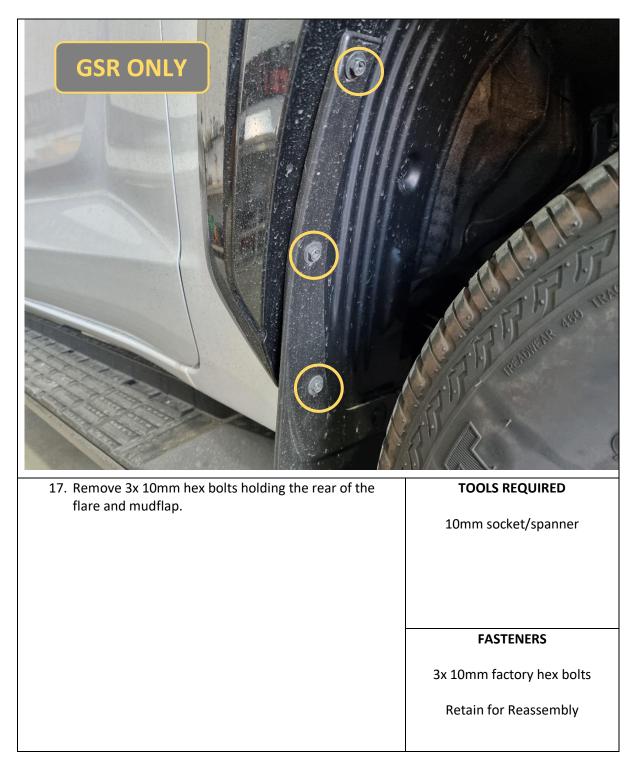
10mm socket/spanner

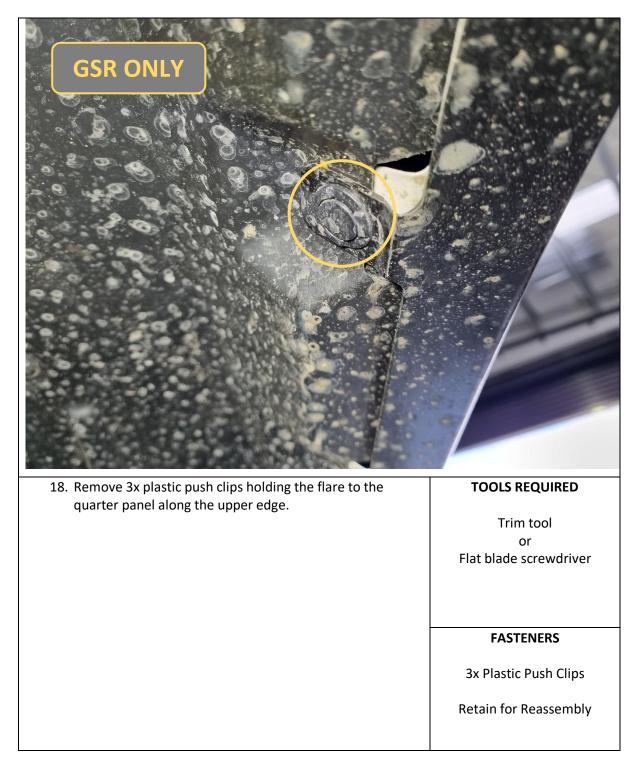
#### FASTENERS

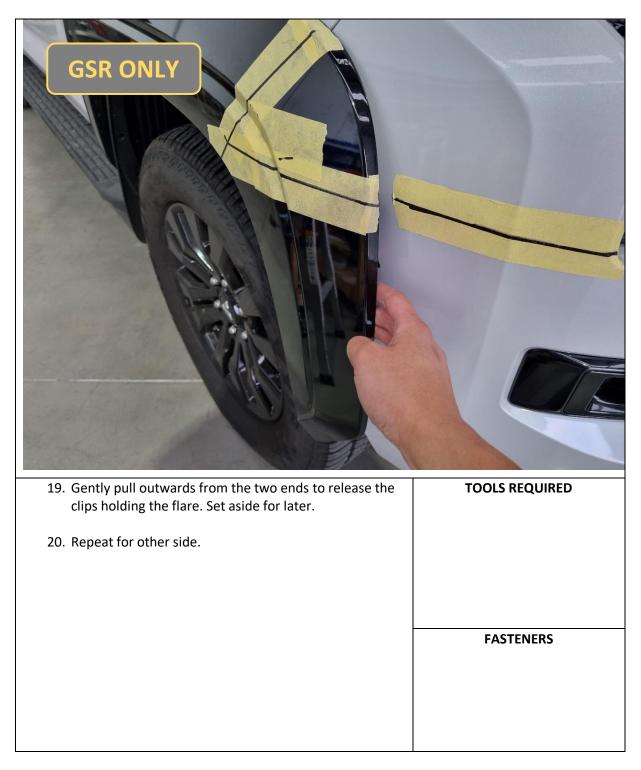
6x Plastic Push Clips

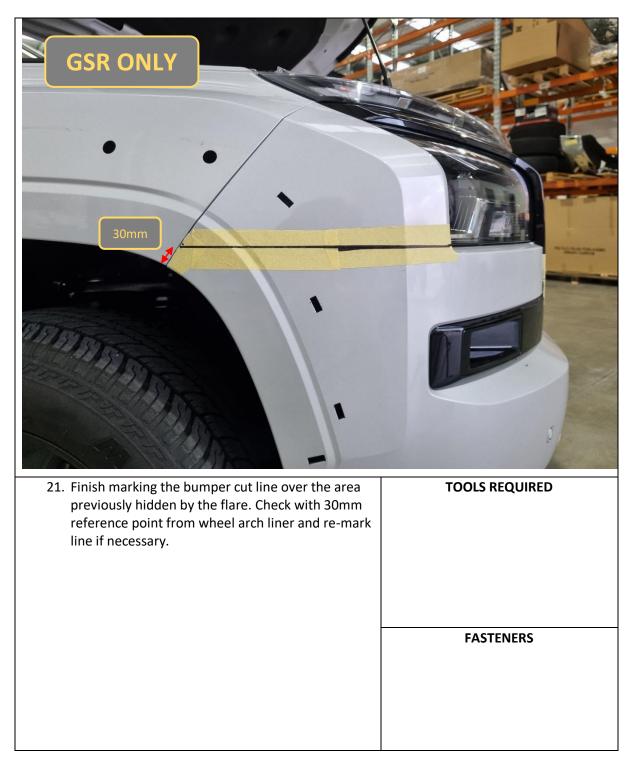
OR

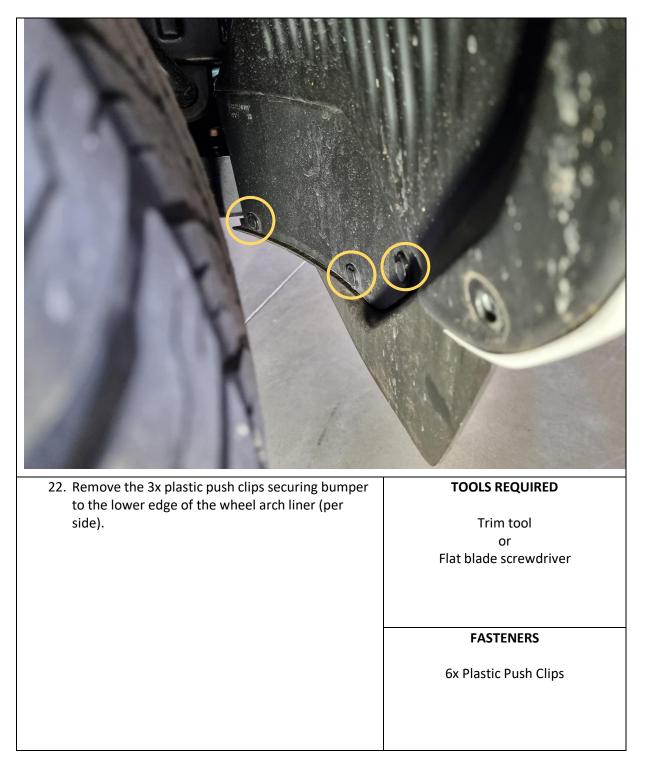
3x 10mm factory hex bolts

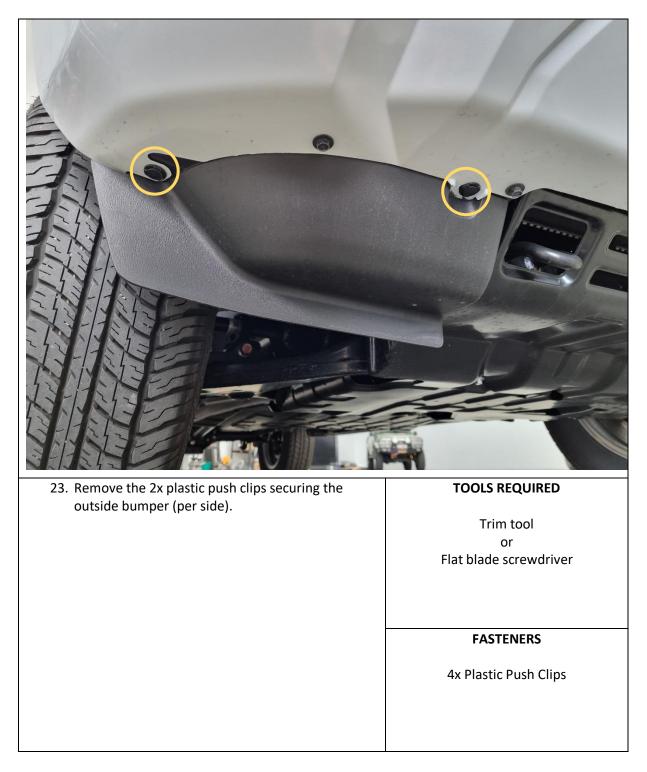


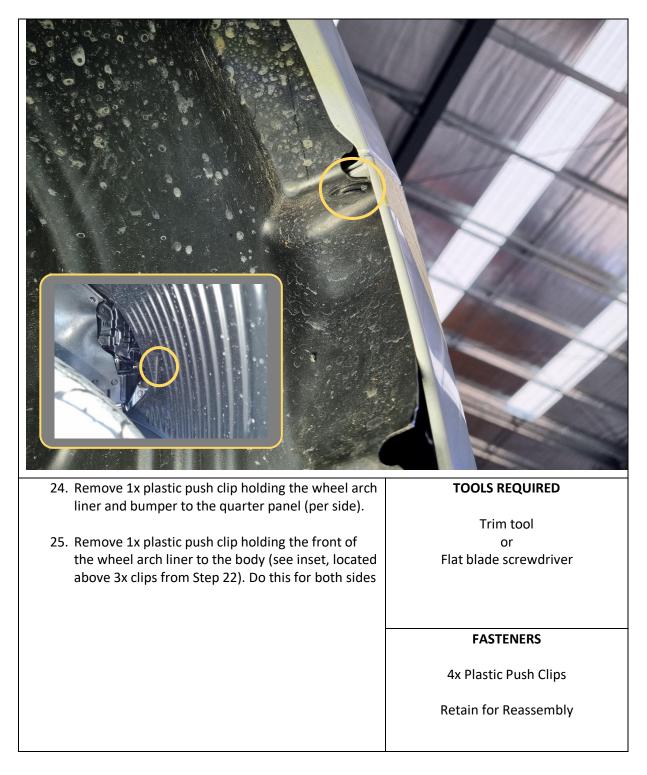


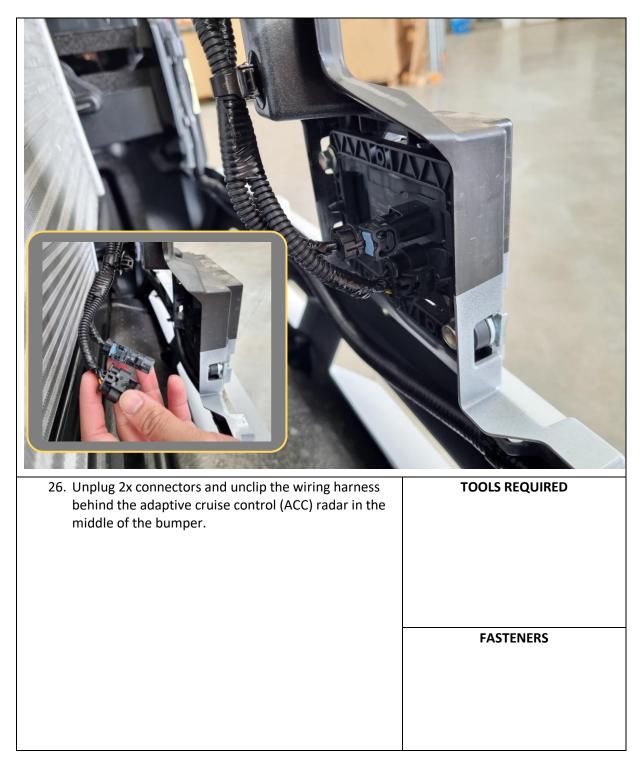


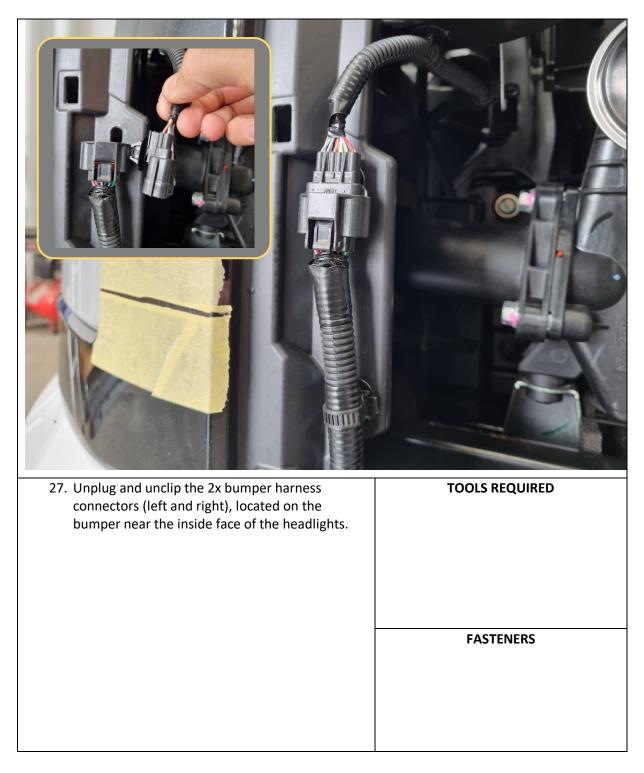






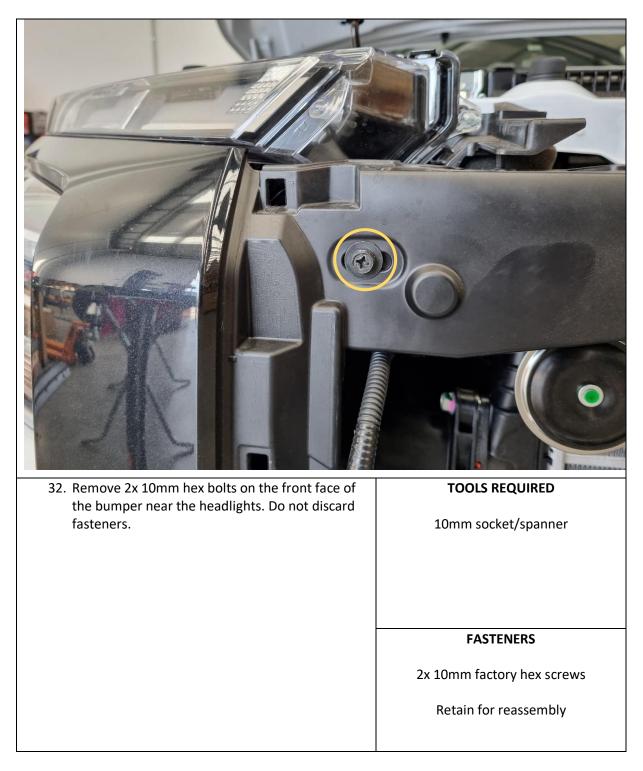




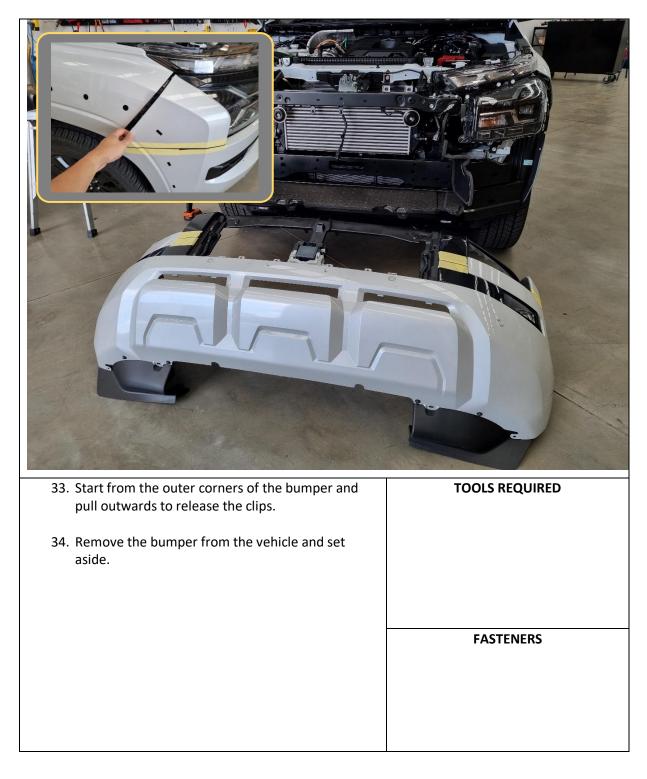


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28. Use a plastic trim tool or flat blade screwdriver/rag combo to unclip fog light bezel.	TOOLS REQUIRED
29. Start from the top edge, then work around to the outside edge and pull left/right away from the centre of the car.	
30. GLS/GSR trim levels have 4x tabs/clips. GLX/GLX+ trim levels have 8x tabs/clips (see top inset).	FASTENERS

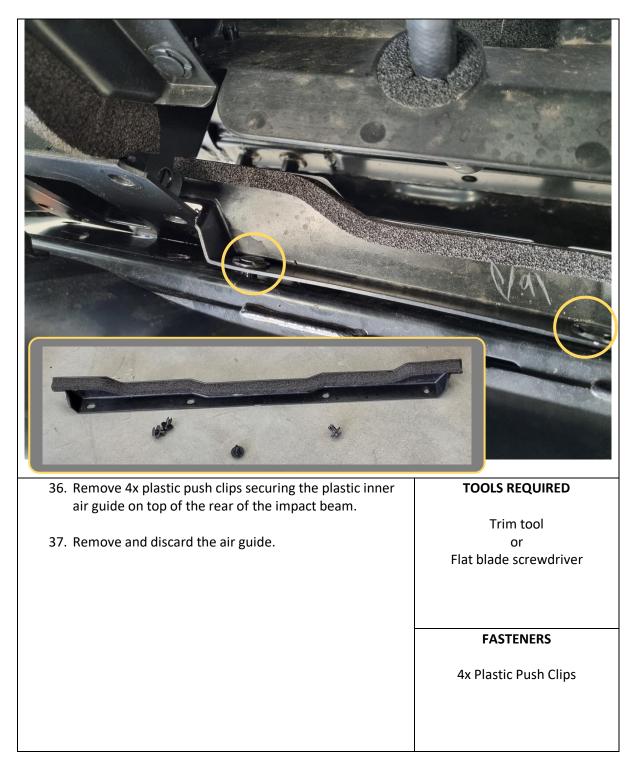
31. Remove 1x 10mm hex bolt securing the bumper to the body, next to the fog light. Do this on both sides.	TOOLS REQUIRED 10mm socket/spanner
	FASTENERS

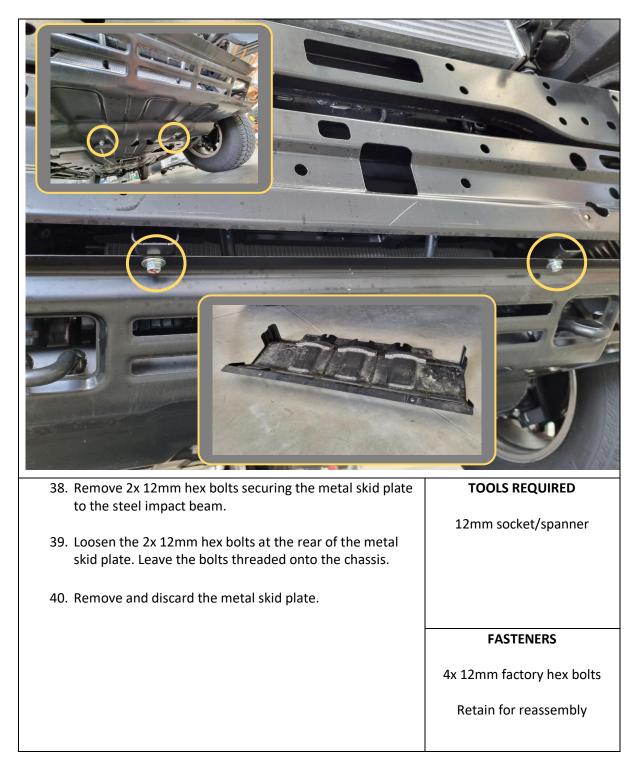


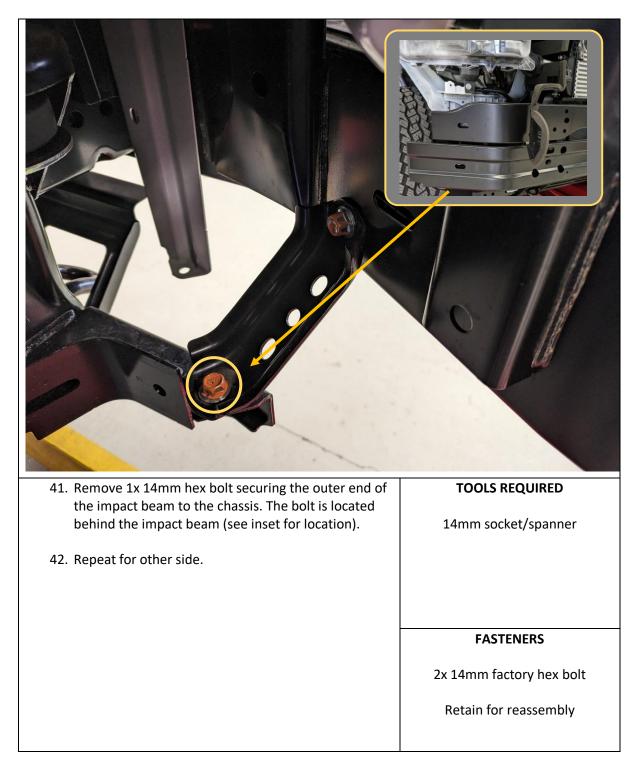
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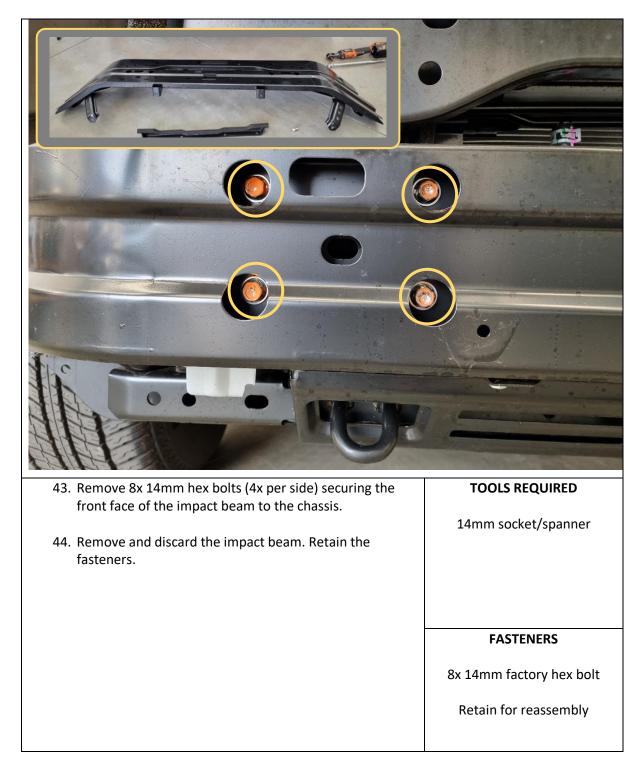


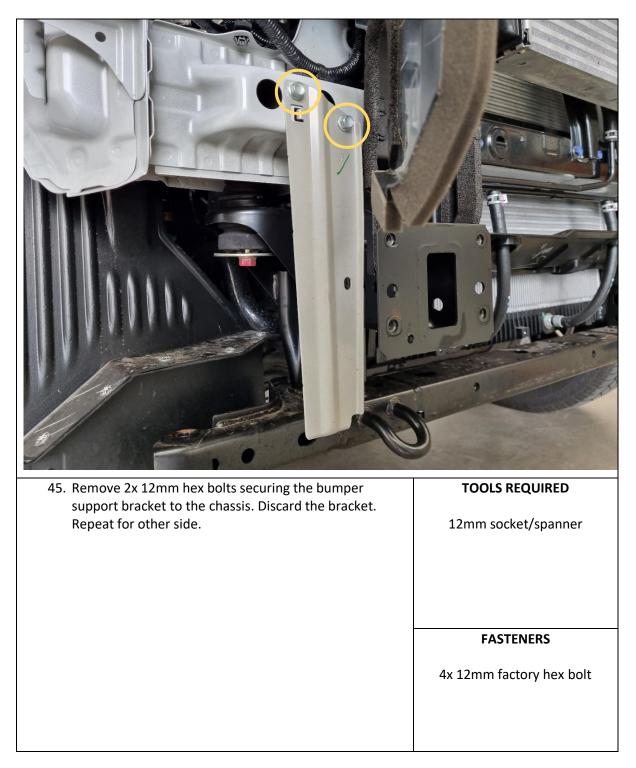


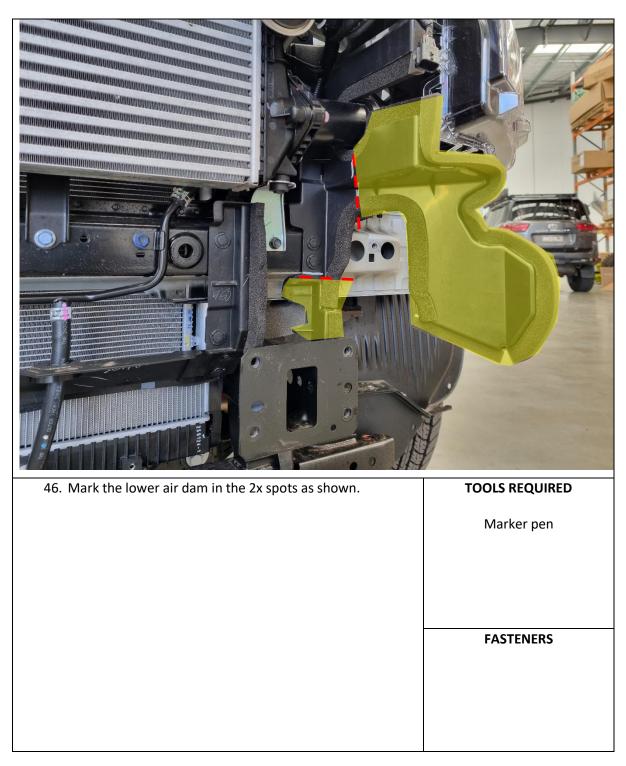


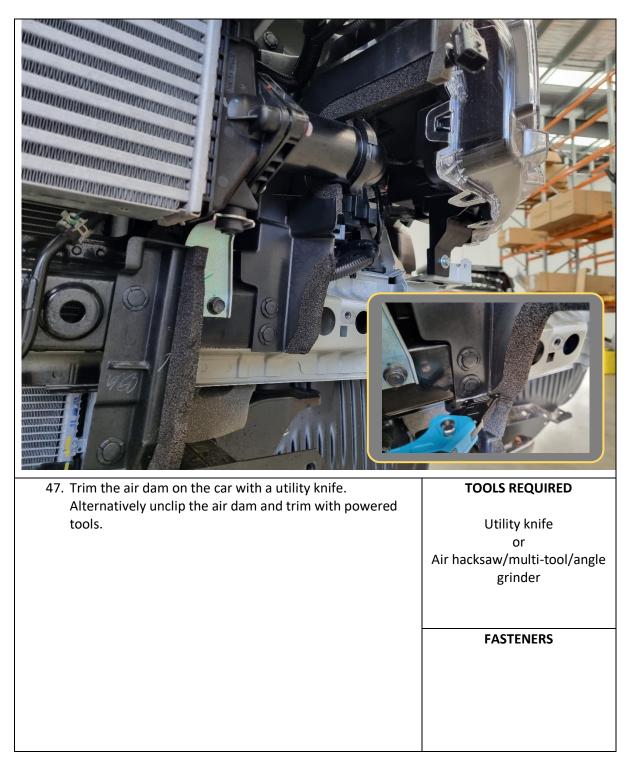


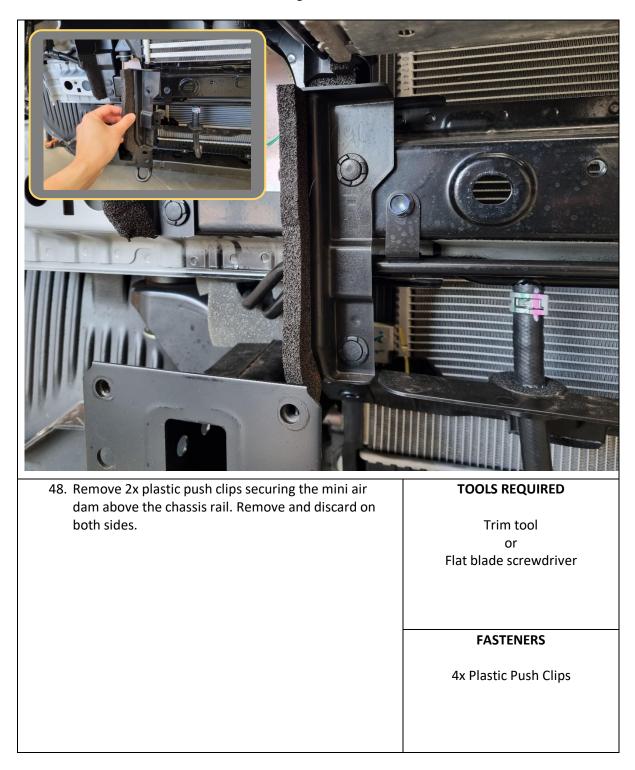


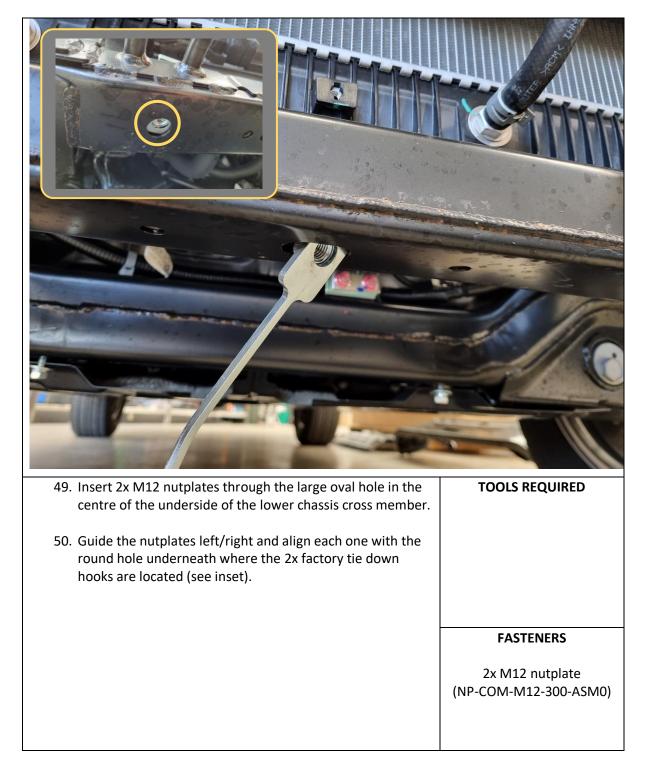


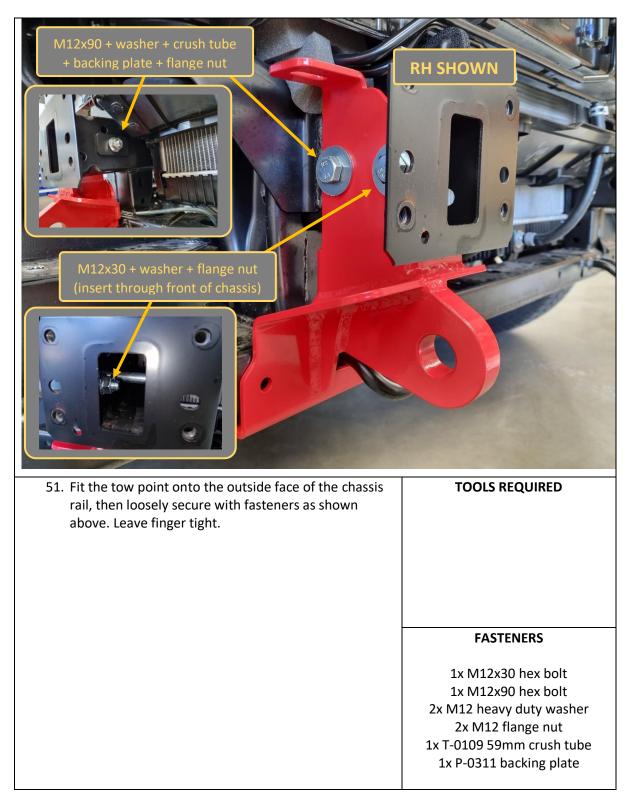


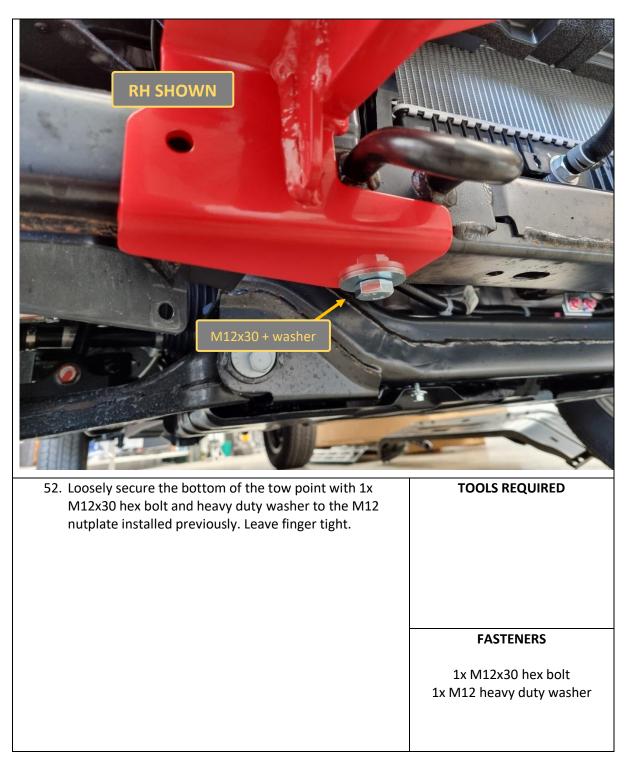


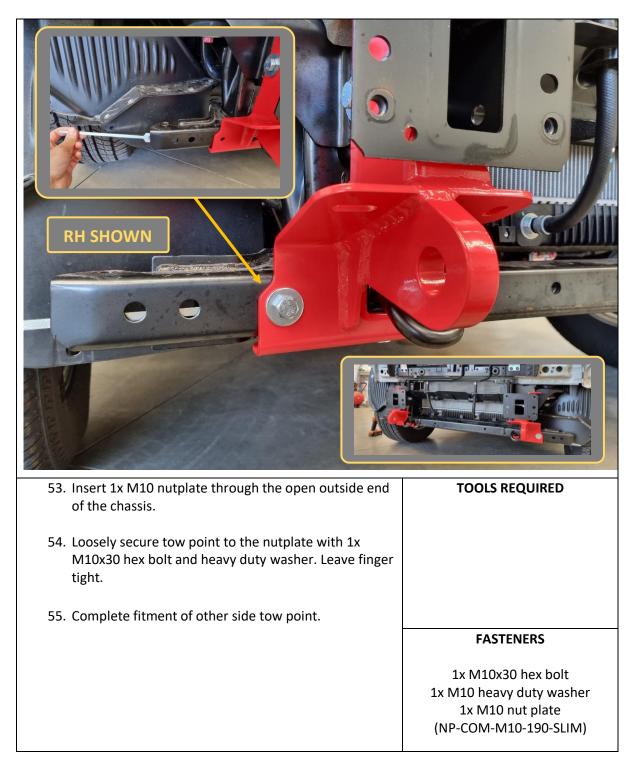


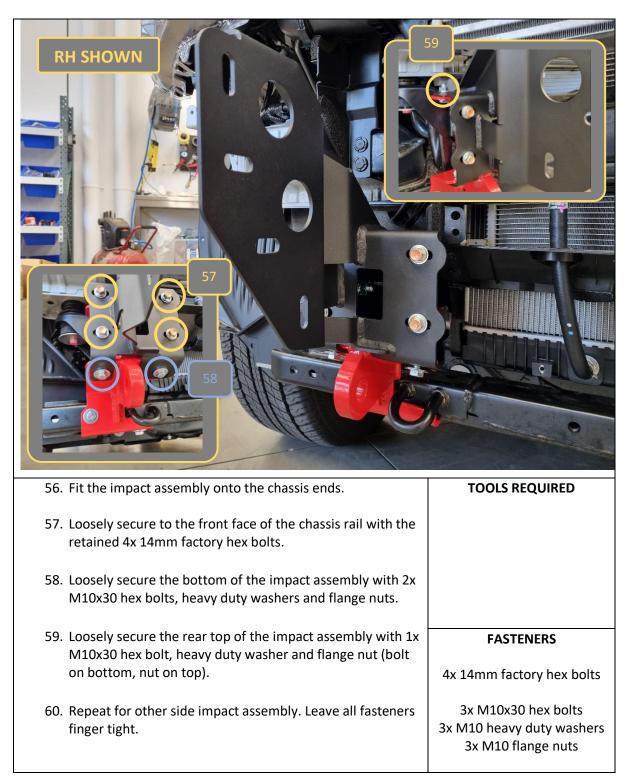


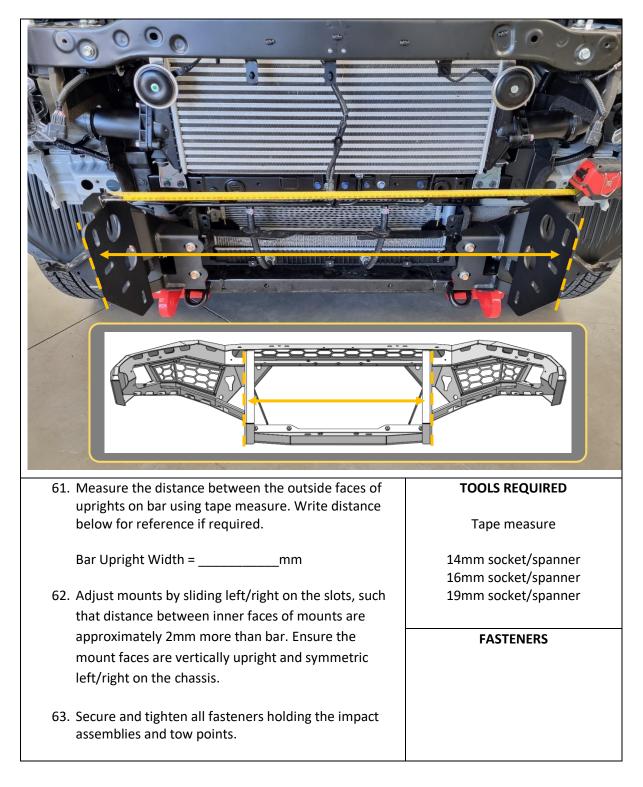














- 64. Fit the lower bash plate to the vehicle.
- 65. Secure the rear of the bash plate with the 2x 12mm factory head bolts left on the vehicle previously.
- 66. Secure the front of the bash plate to the chassis with 4x M10x20x1.25P (fine pitch) bolts and standard washers.

#### **TOOLS REQUIRED**

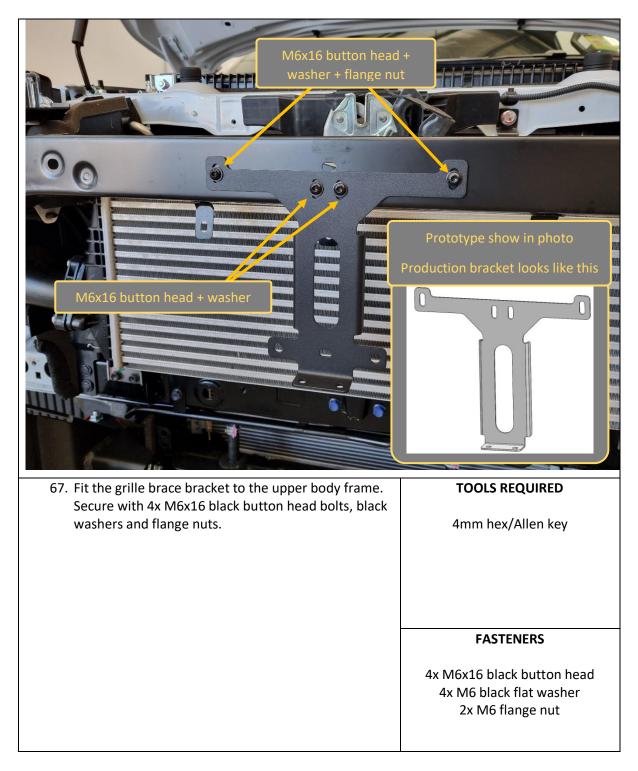
12mm socket/spanner

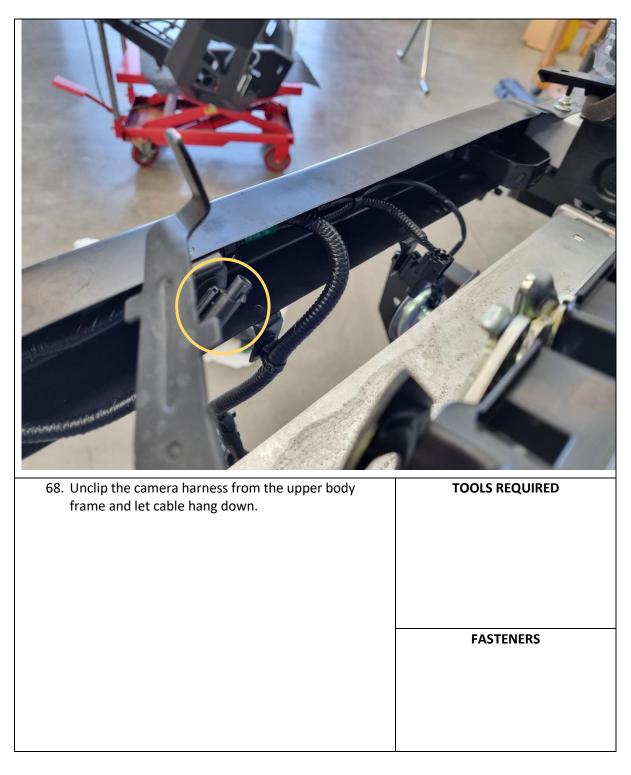
16/17mm socket/spanner

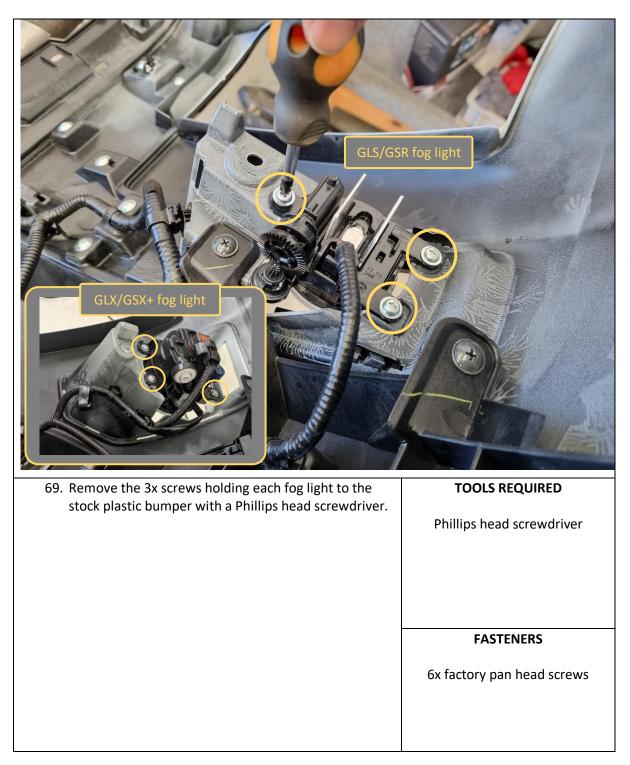
#### FASTENERS

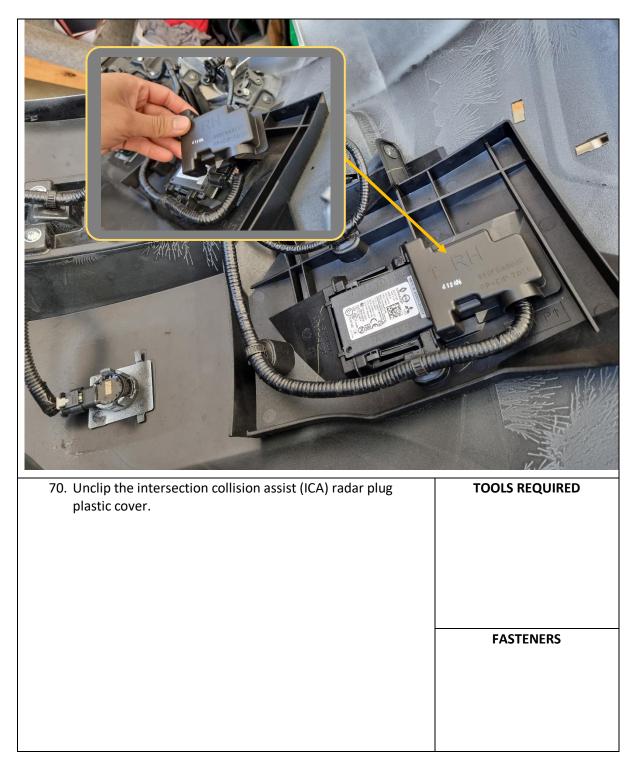
2x 12mm factory hex bolts

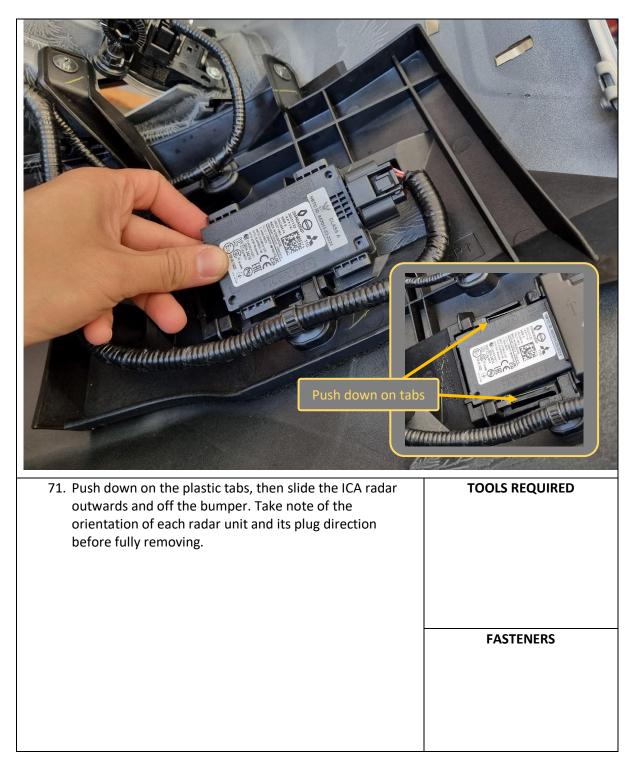
4x M10x20x1.25P 4x M10 flat washer

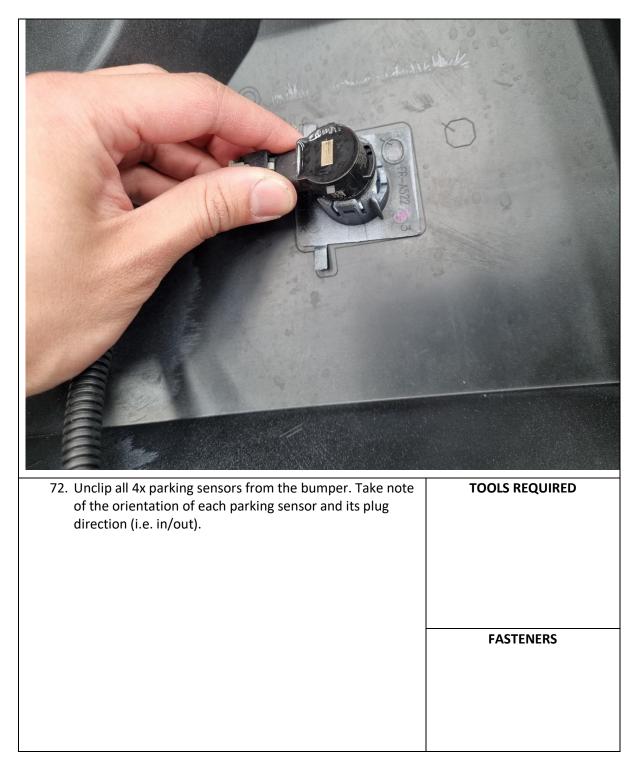


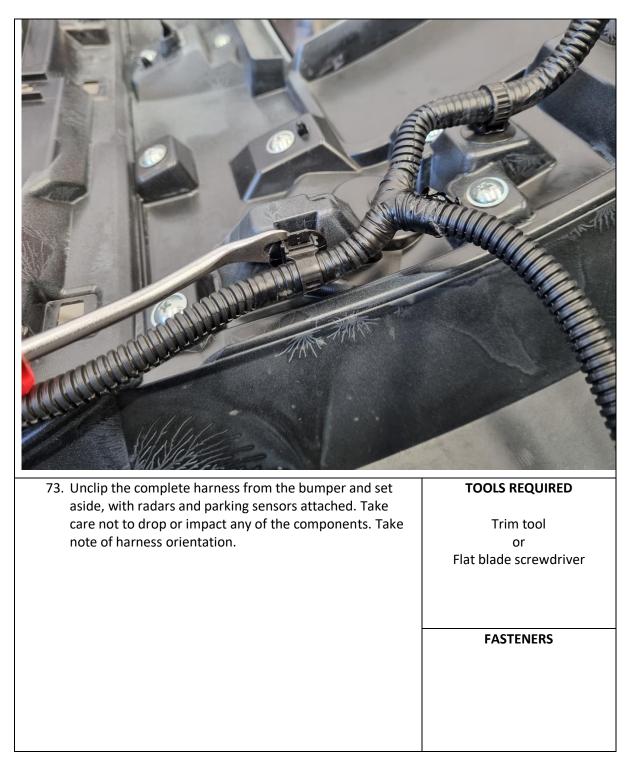


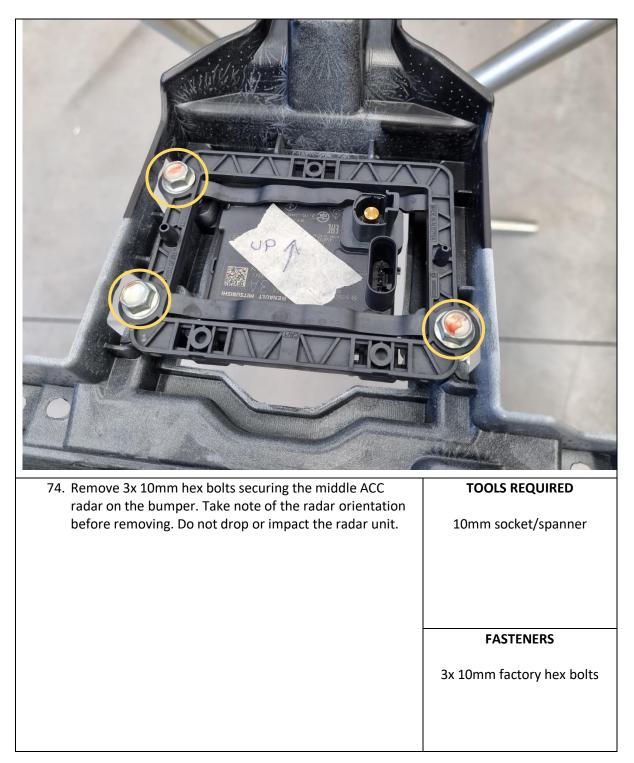


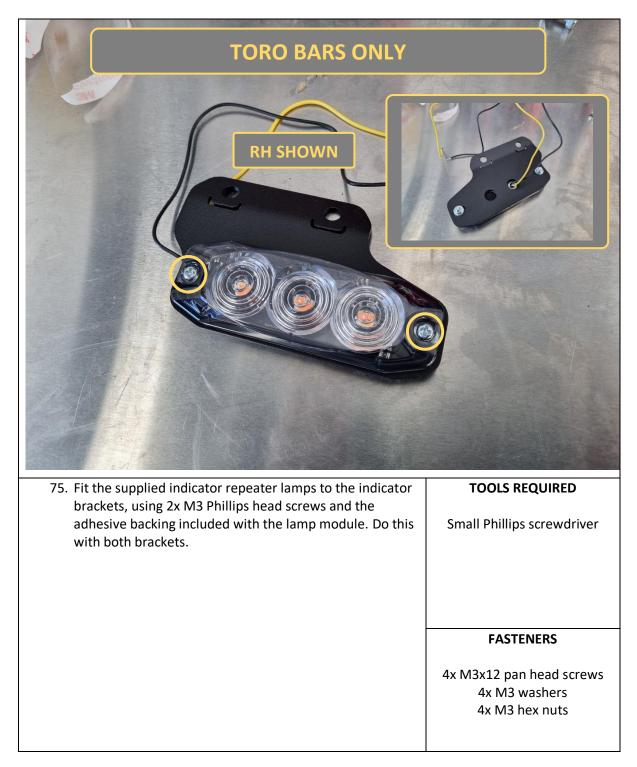


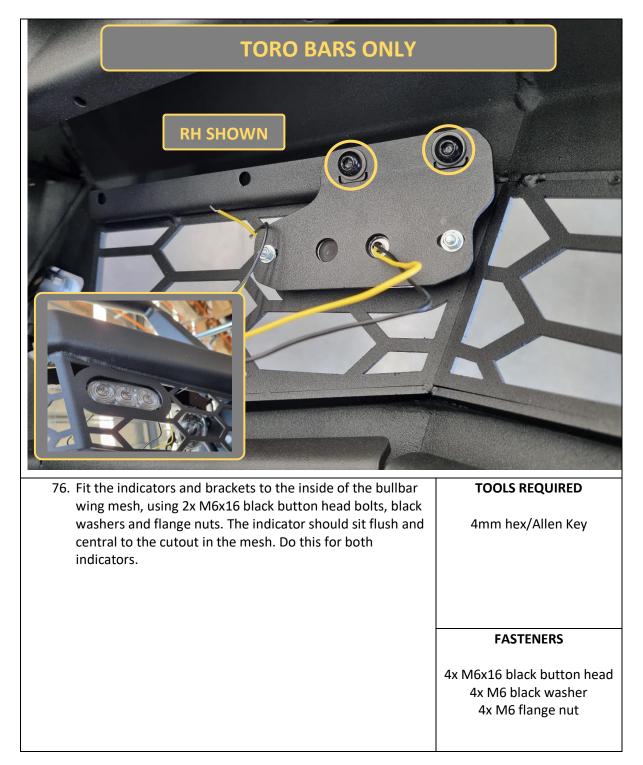


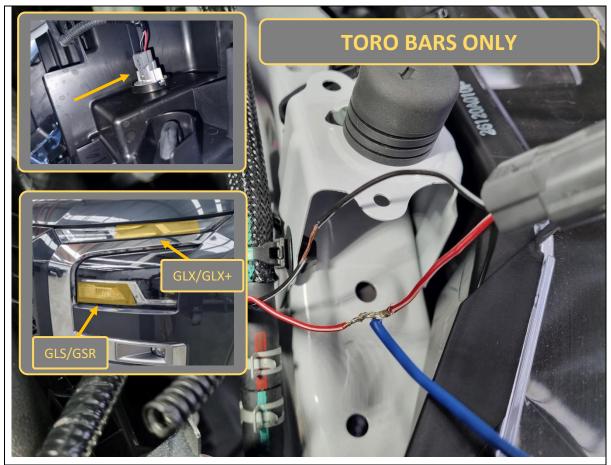












- 77. Disconnect the plug behind the indicator bulb in the front headlight. Unclip the indicator harness from the back of the headlight for better access. (see inset photo for indicator location)
- 78. Probe with a test light to confirm indicator signal and ground. On GLS/GSR trim levels, the wiring pinout is as follows:

RH driver side: red w/ white trace = indicator signal black w/ white trace = ground

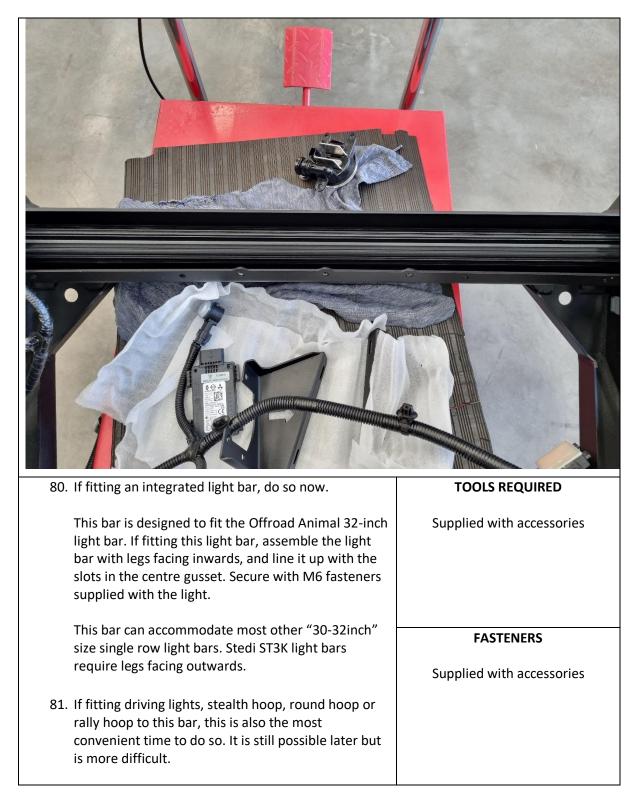
LH passenger side: yellow w/white trace = indicator signal black w/ white trace = ground

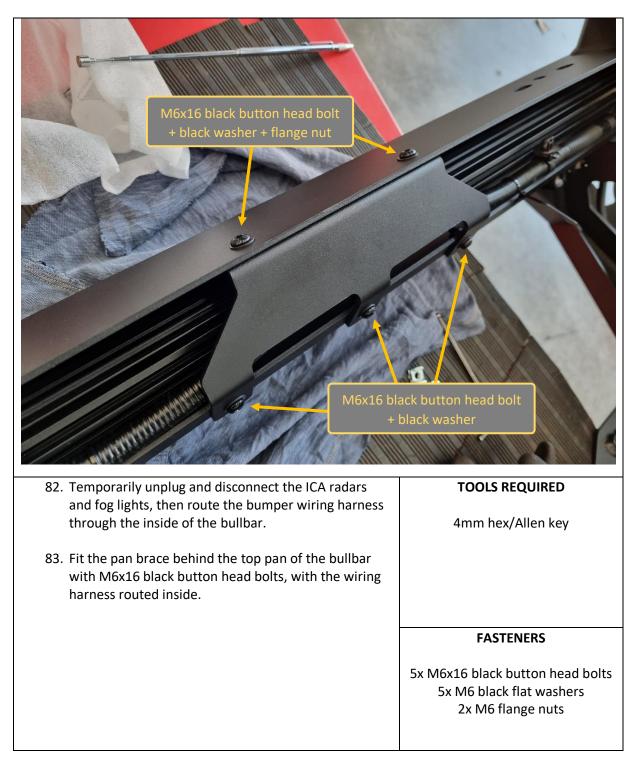
79. Splice and solder automotive electrical wires into the harness for indicator signal and ground. Use heat shrink or electrical tape to insulate solder connections. Do this for both LH and RH indicators.

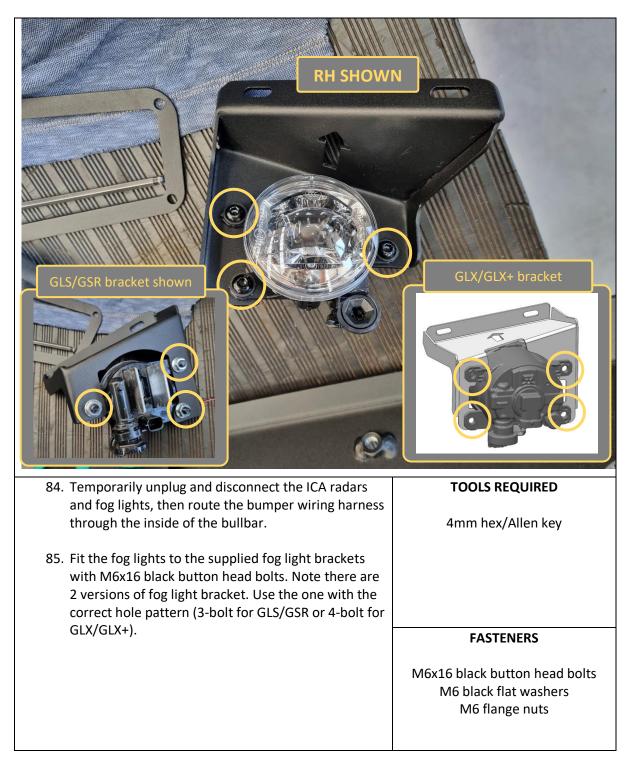
#### **TOOLS REQUIRED**

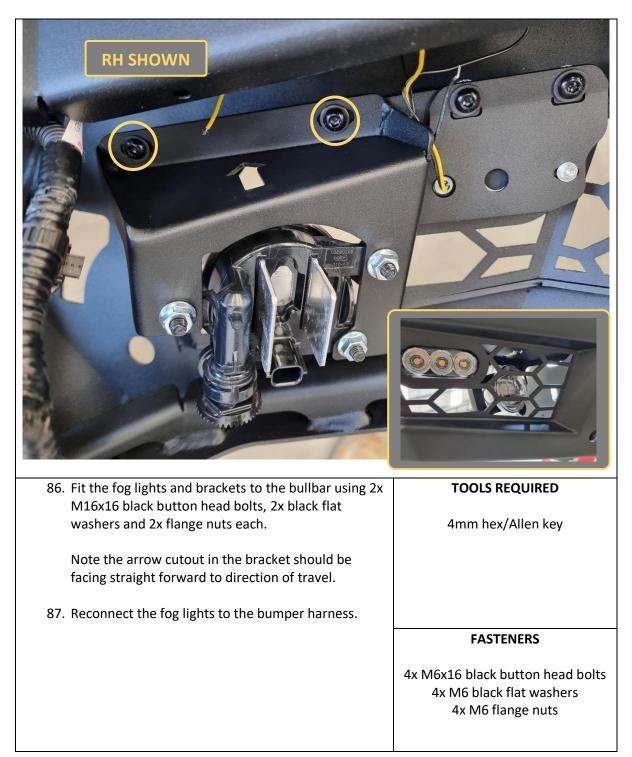
Cutting pliers Wire strippers Soldering iron Solder Automotive electrical wire Heat shrink Heat gun Electrical tape

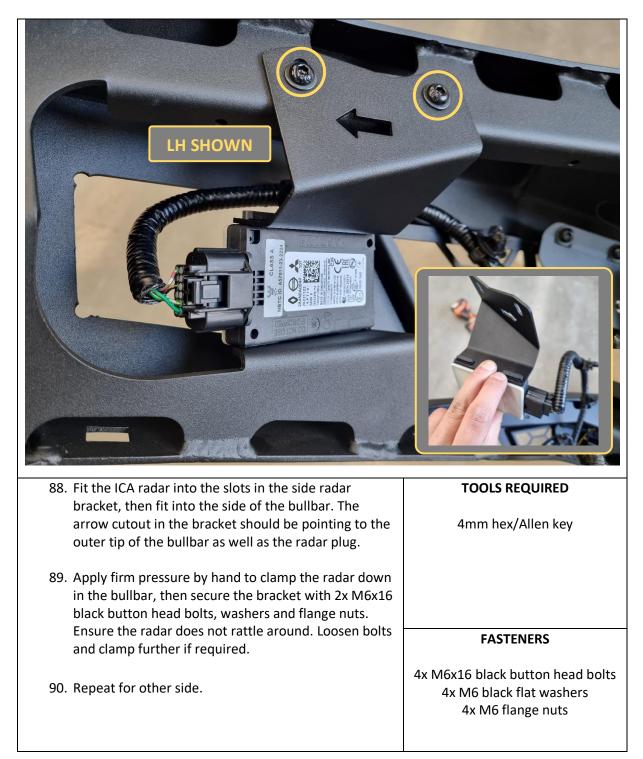
#### FASTENERS

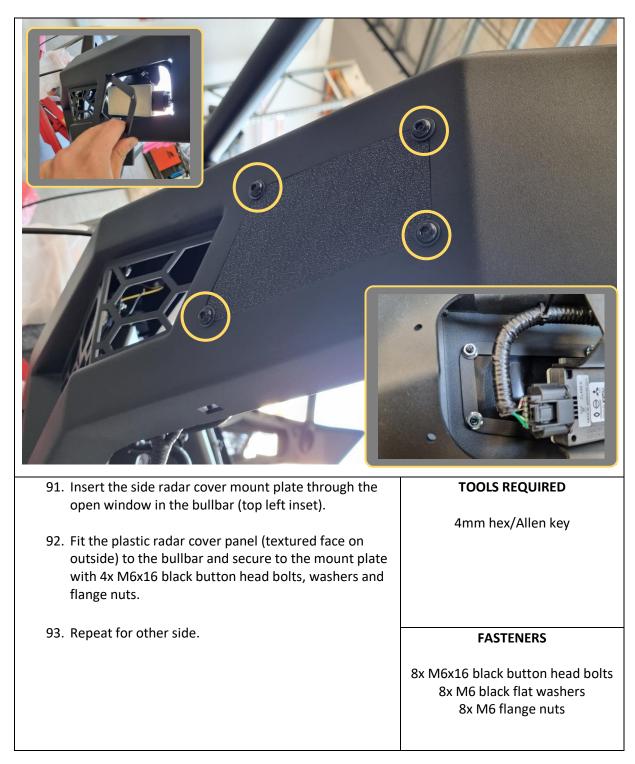


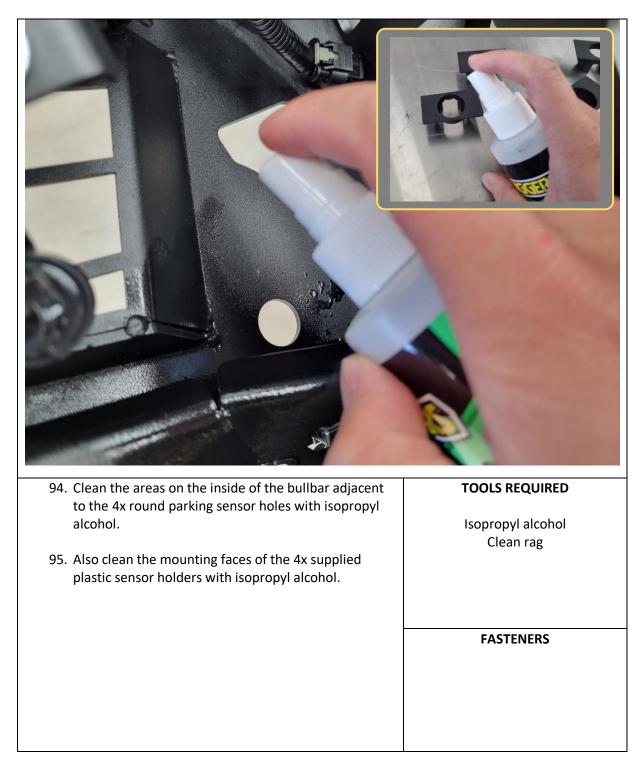


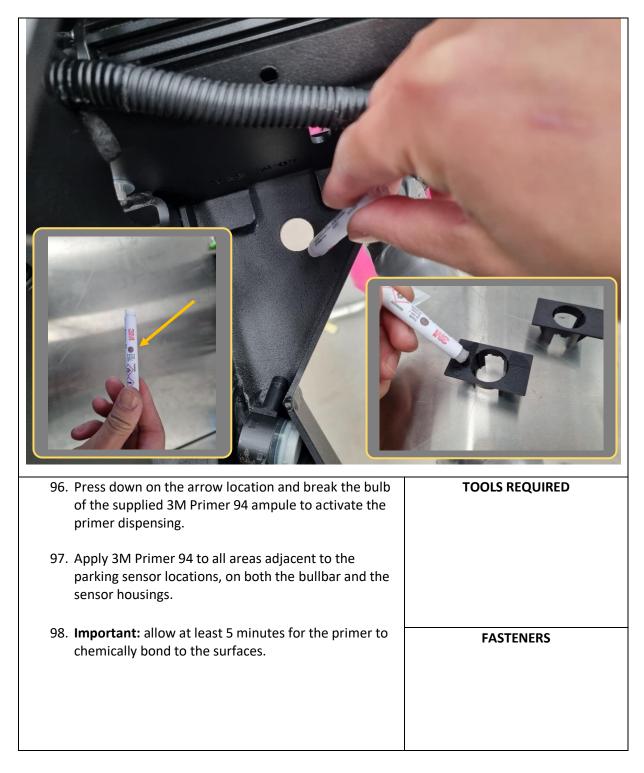




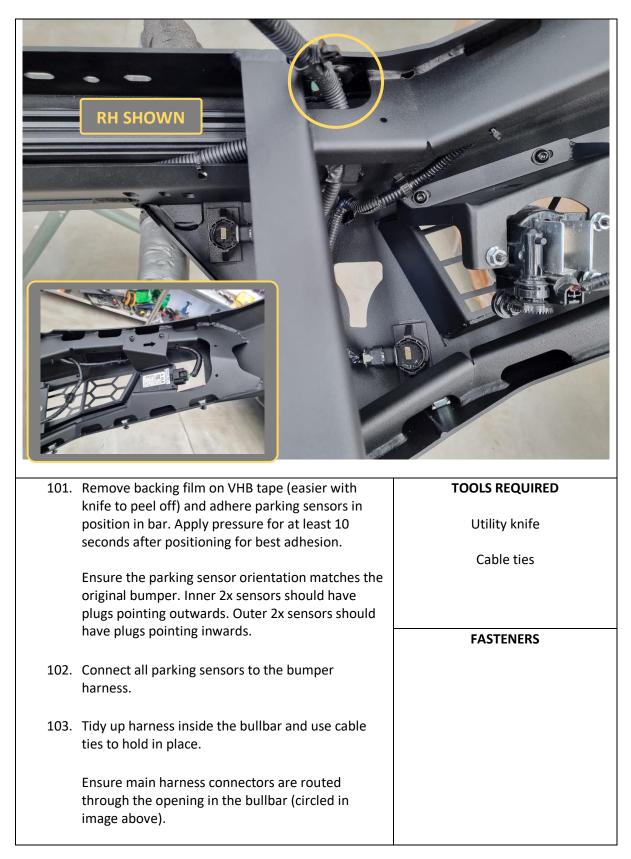


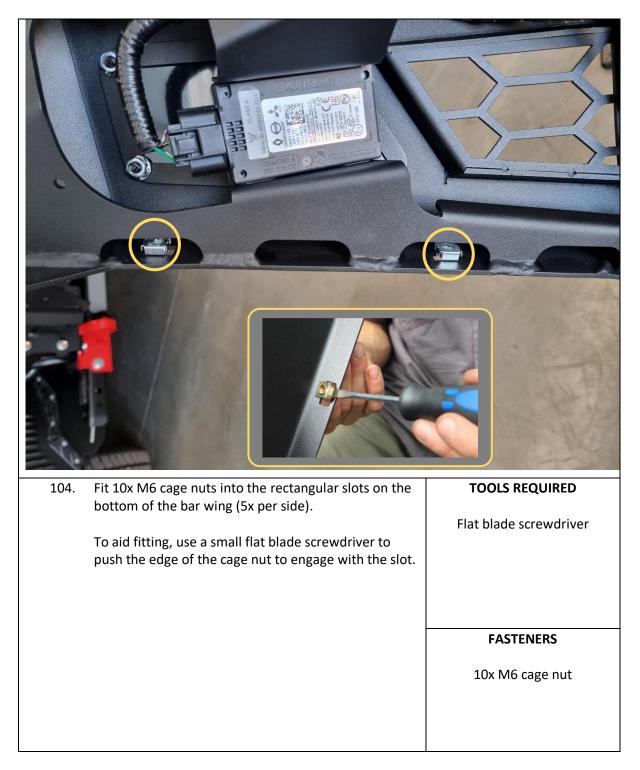




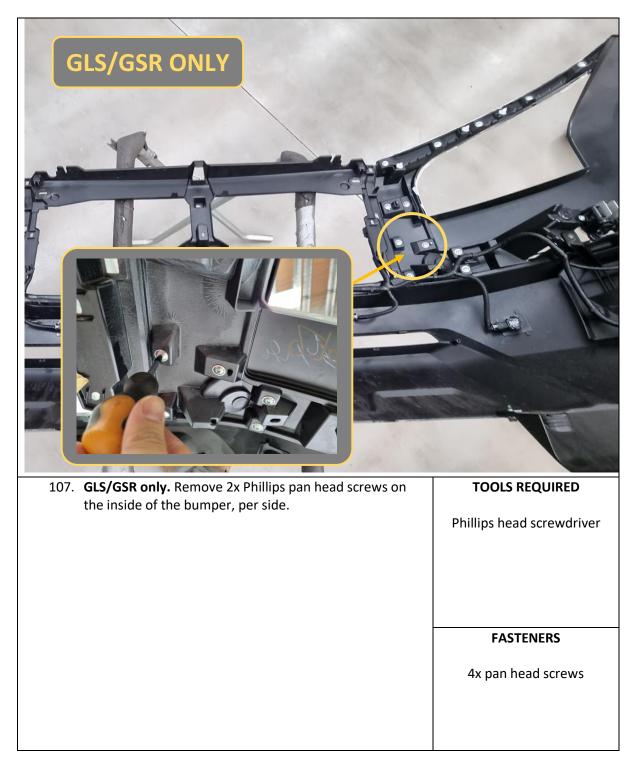


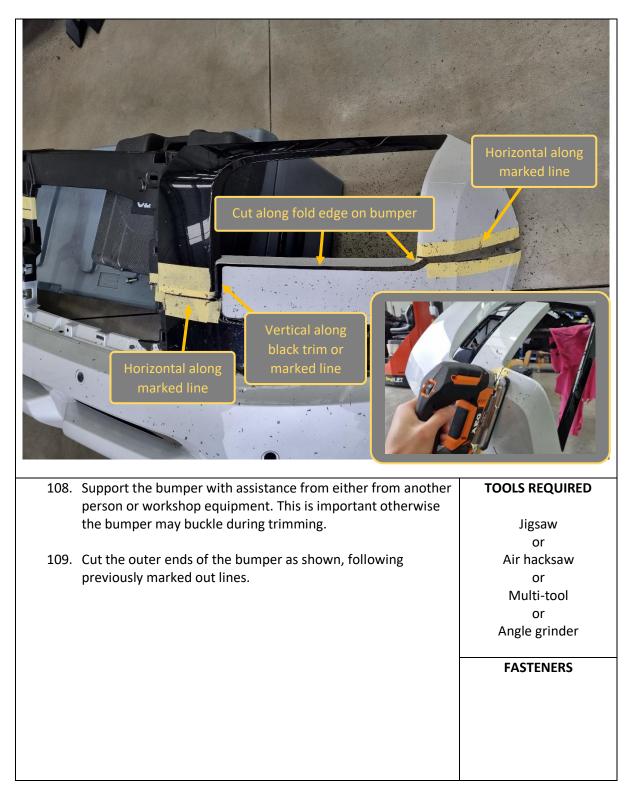
99. Fit parking sensors into plastic sensor housings.	TOOLS REQUIRED
100. Apply supplied VHB tape pads to all sensor housings as shown.	
	FASTENERS



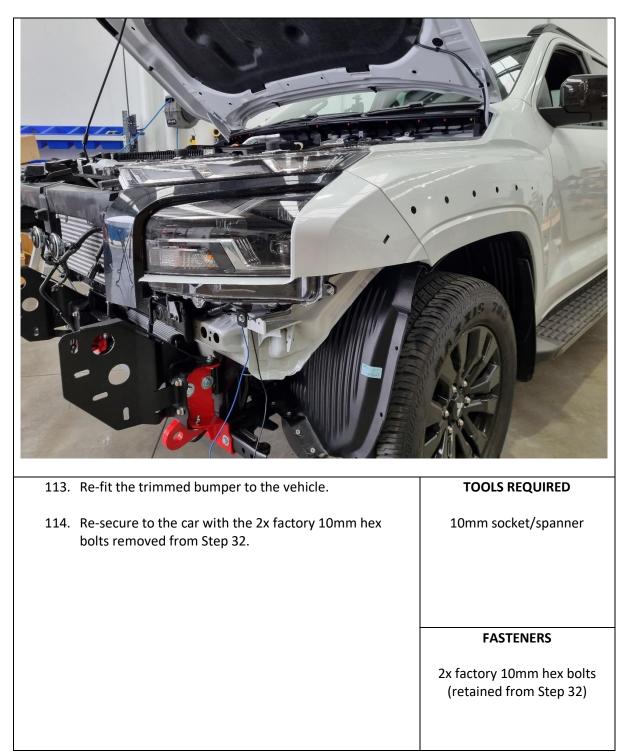


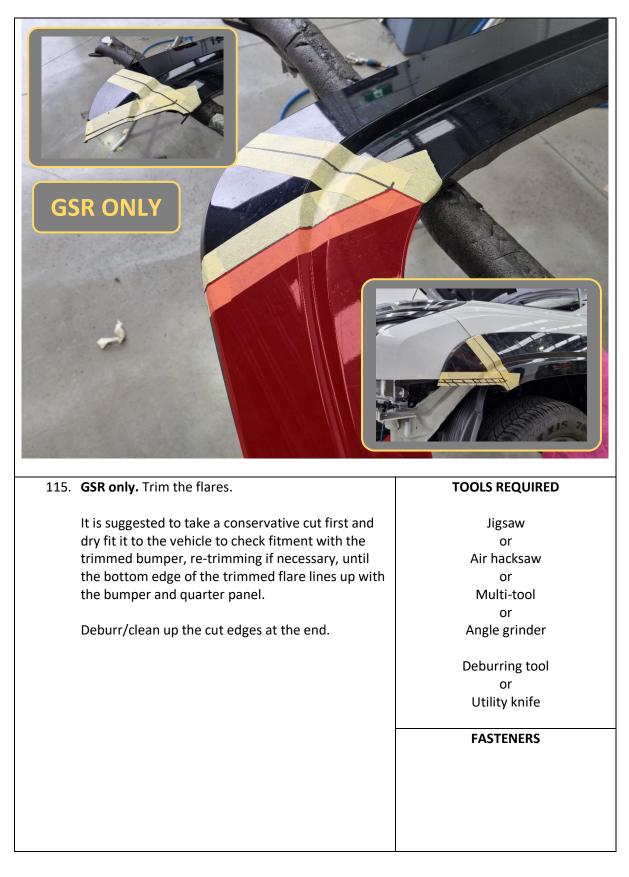




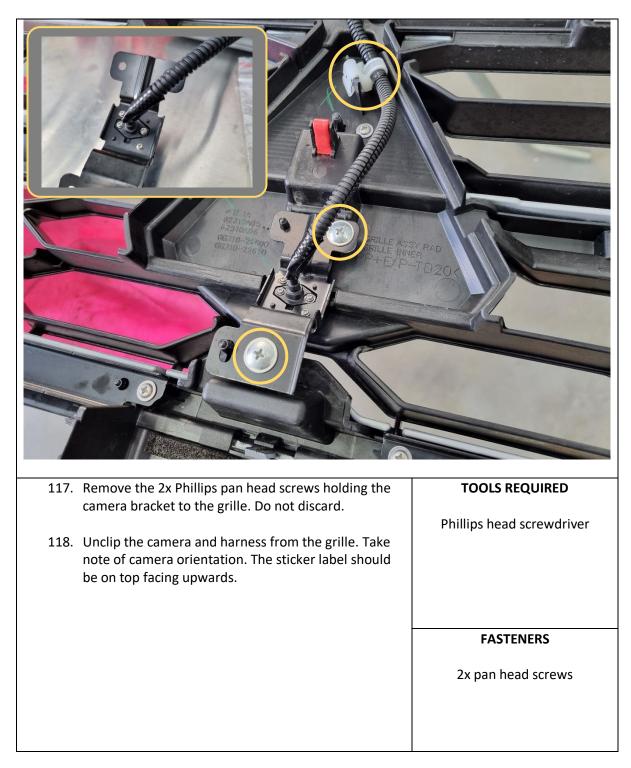




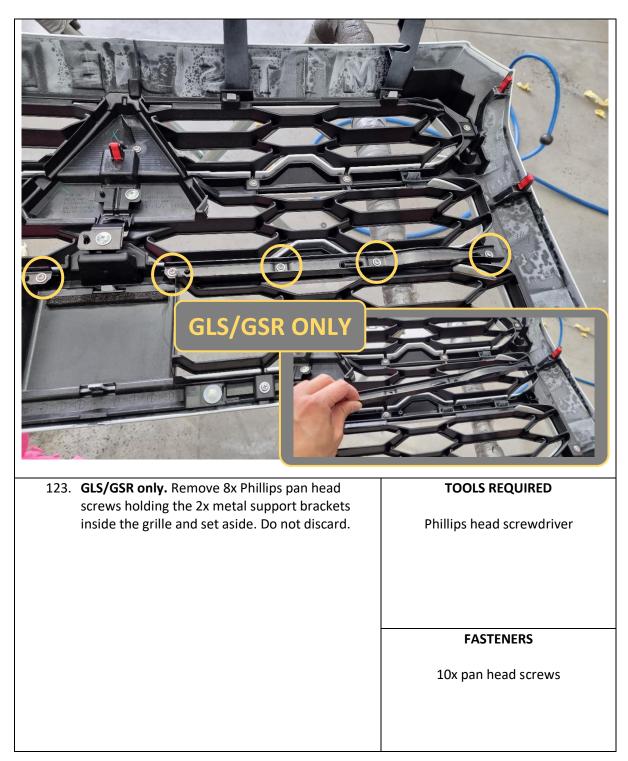














- 124. **GLS/GSR only.** Trim the grille as shown, along the previously marked cut line, and below the horizontal plastic beam above the radar cover trim and mesh.
- 125. GLS/GSR only. Deburr/clean up trimmed edges.

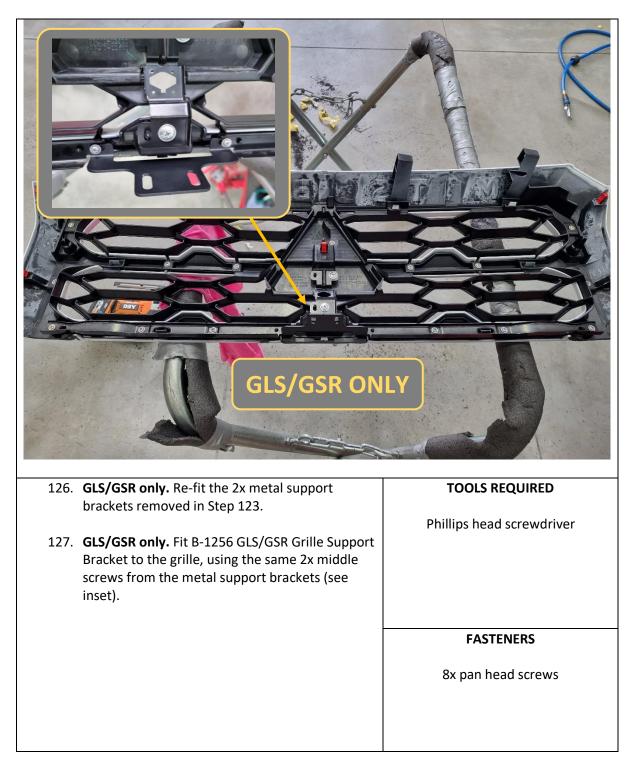
**TOOLS REQUIRED** 

Jigsaw or Air hacksaw or Multi-tool or

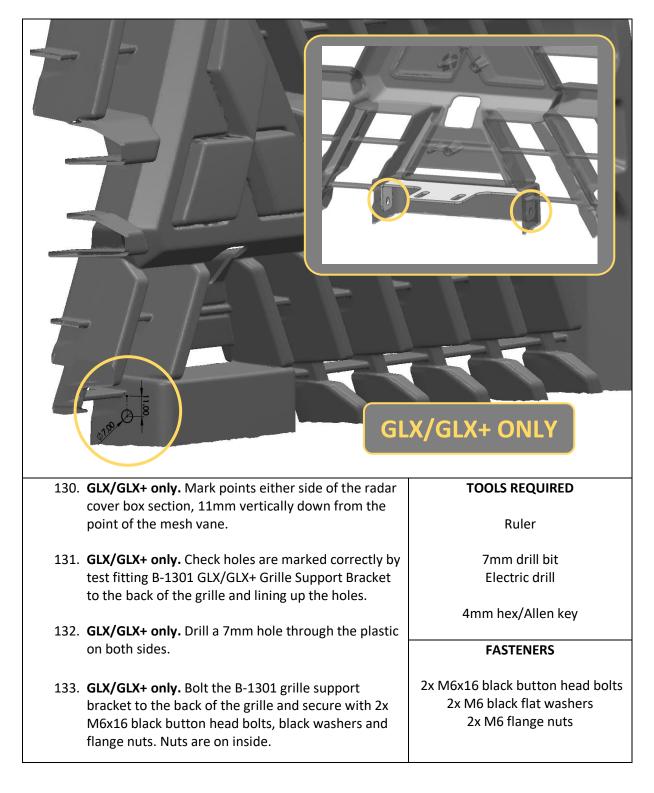
Angle grinder

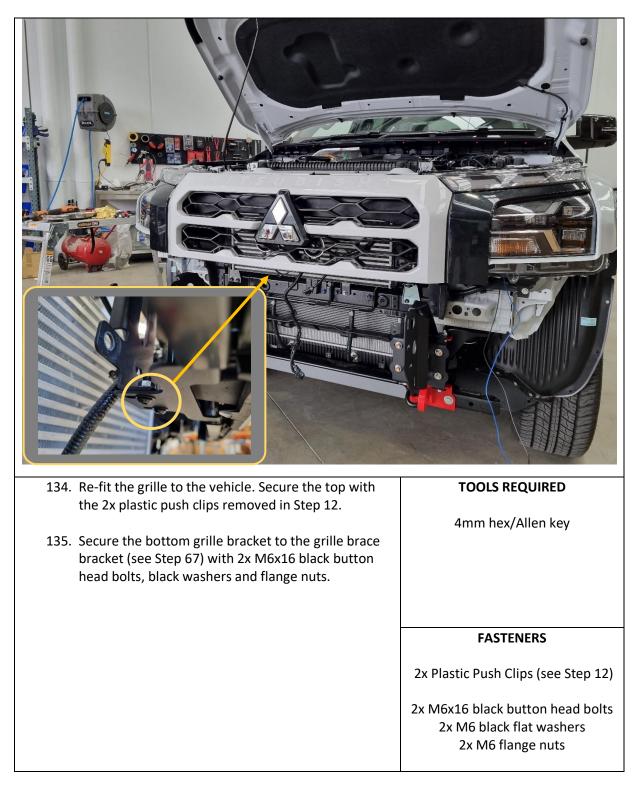
Deburring tool or Utility knife

FASTENERS











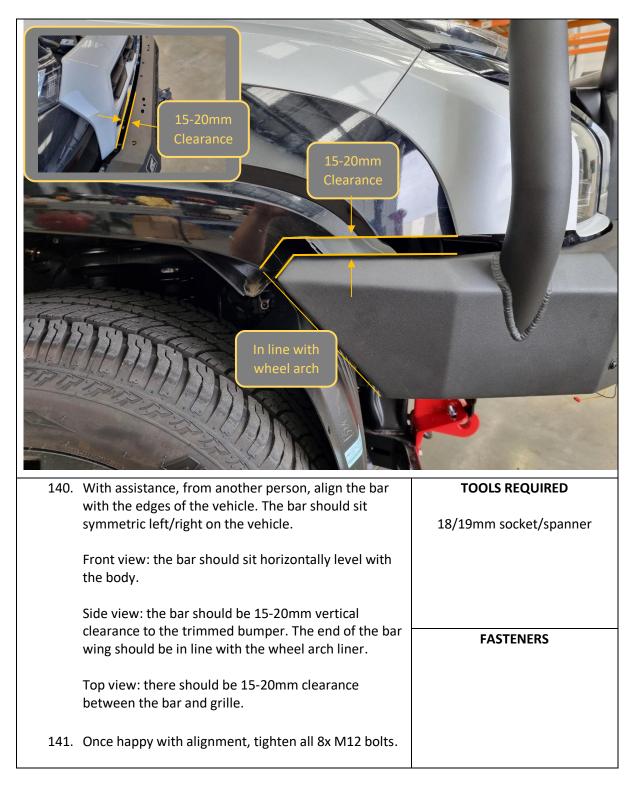
- 136. With assistance, either from another person, or a lifting trolley, lift the bar onto the mounts on the vehicle.
- 137. Reconnect the 2x bumper harness connectors to the vehicle, behind the grille.
- 138. **Toro only.** Connect the indicator repeater lamps (solder/crimp together, ensure well insulated).
- Secure the bar to the mounts with 8x M12x30 Bolts, heavy duty washers and M12 Nyloc + flange nuts. Leave finger tight at this stage.

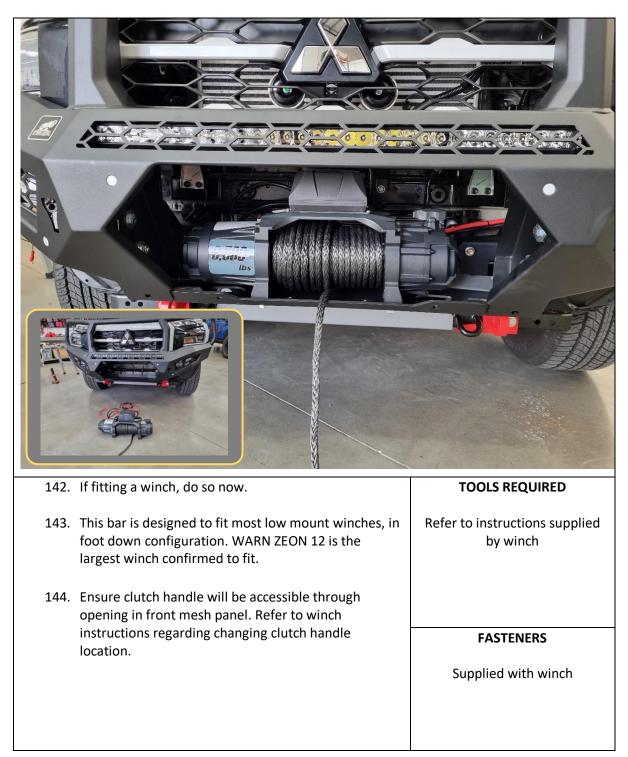
Note: Use a washer on both bolt and nut side for the Nyloc nut. 1x washer on the bolt side is all that is required with flange nuts. **TOOLS REQUIRED** 

Lifting trolley

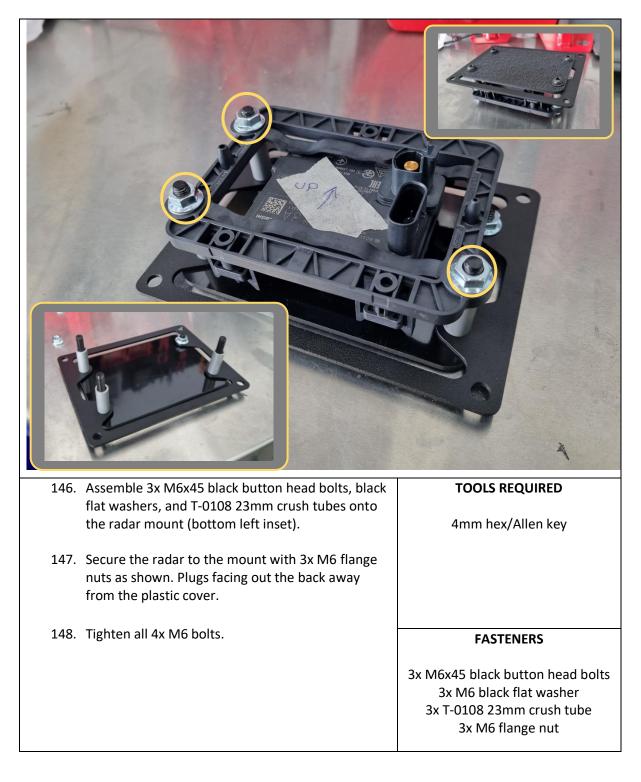
# FASTENERS

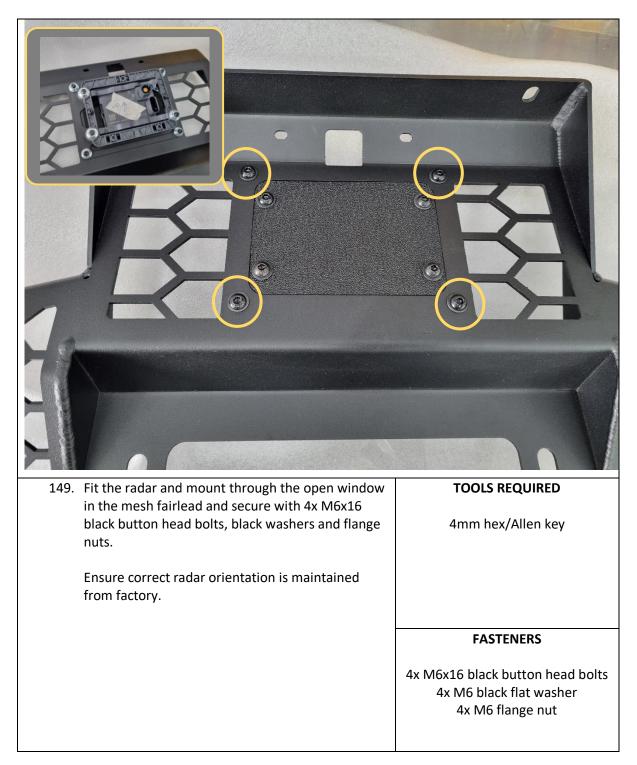
8x M12x30 hex bolt 10x M12 heavy duty washer 2x M12 Nyloc nut 6x M12 flange nut



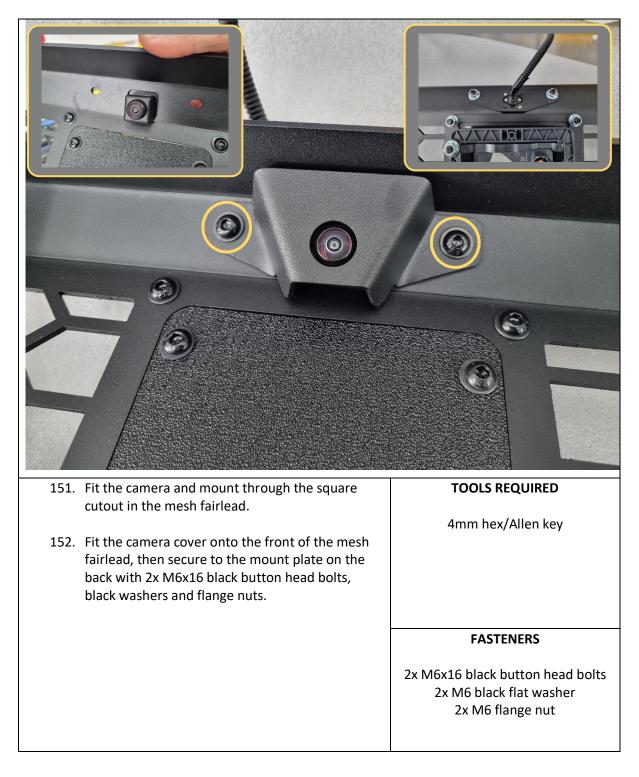


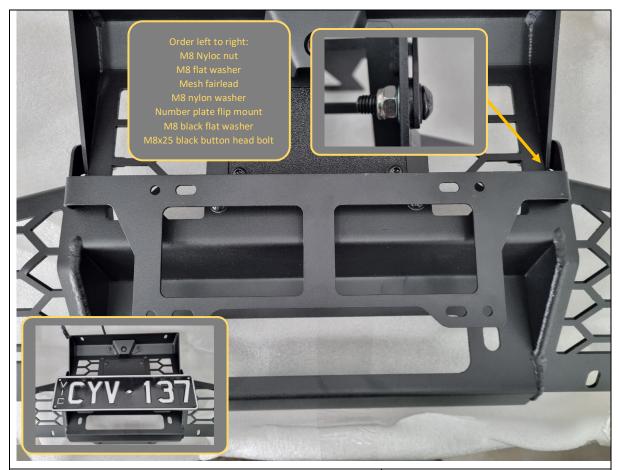












- 153. Fit number plate flip mount to mesh panel as shown above. Tighten bolts so that flip mount and can be moved by hand with some friction resistance.
- 154. Attach number plate to mount using 2x M6x16 black button head bolts, black washers and flange nuts.

**TOOLS REQUIRED** 

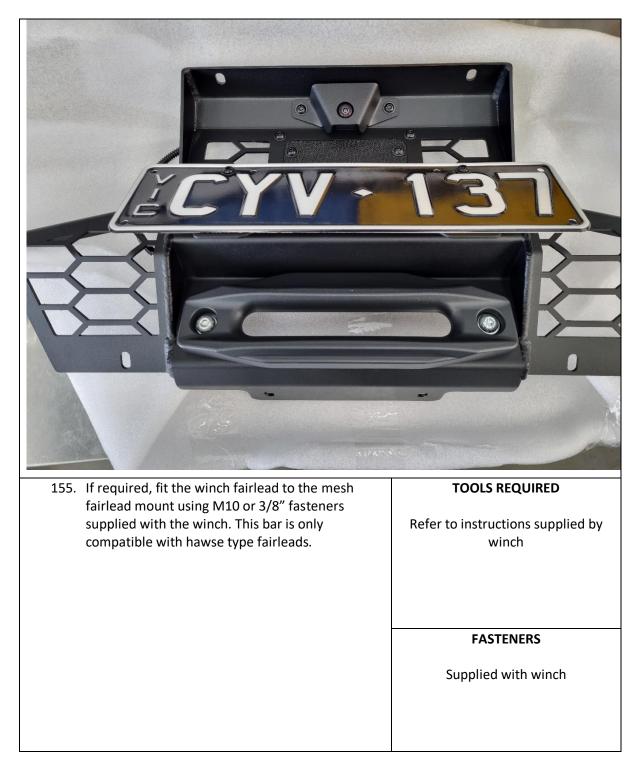
5mm hex/Allen key 13mm socket/spanner

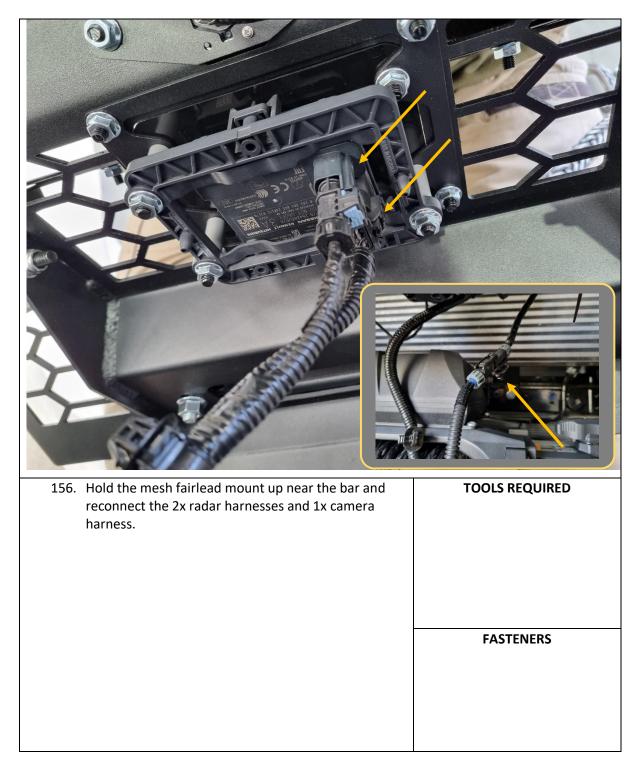
4mm hex/Allen key

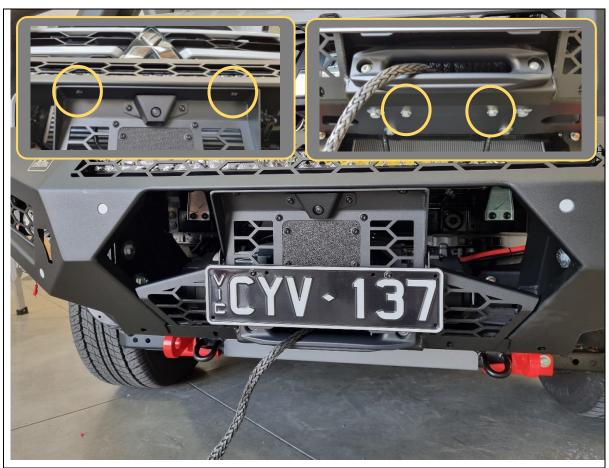
# FASTENERS

2x M8x25 black button head 2x M8 black flat washer 2x M8 nylon washer 2x M8 flat washer 2x M8 flatge nut

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







- 157. Fit the mesh fairlead mount to the centre of the bar, using 2x M8x16 black button head bolts + black washers (top), 2x M8x20 hex head bolts + heavy duty washers (bottom).
- 158. Tighten fasteners using 13mm socket/spanner and 5mm hex/Allen key.
- 159. Feed winch cable through the hawse fairlead if applicable.

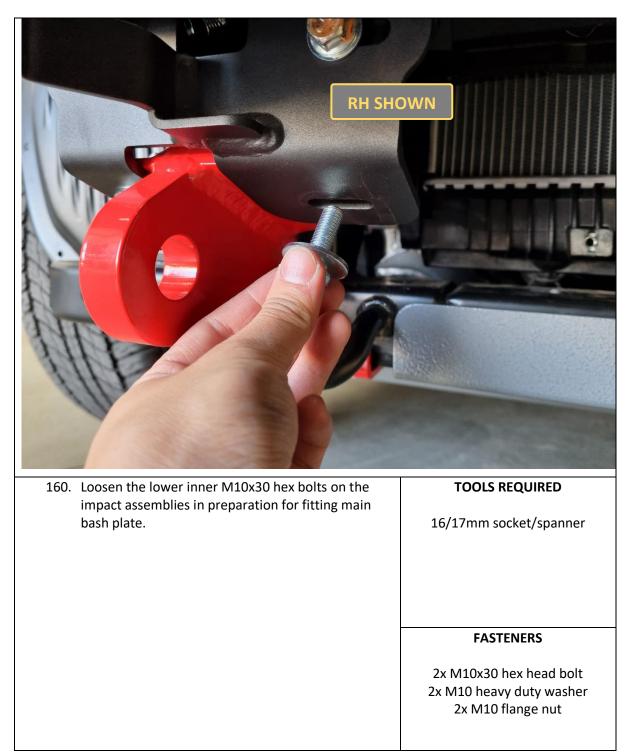
## **TOOLS REQUIRED**

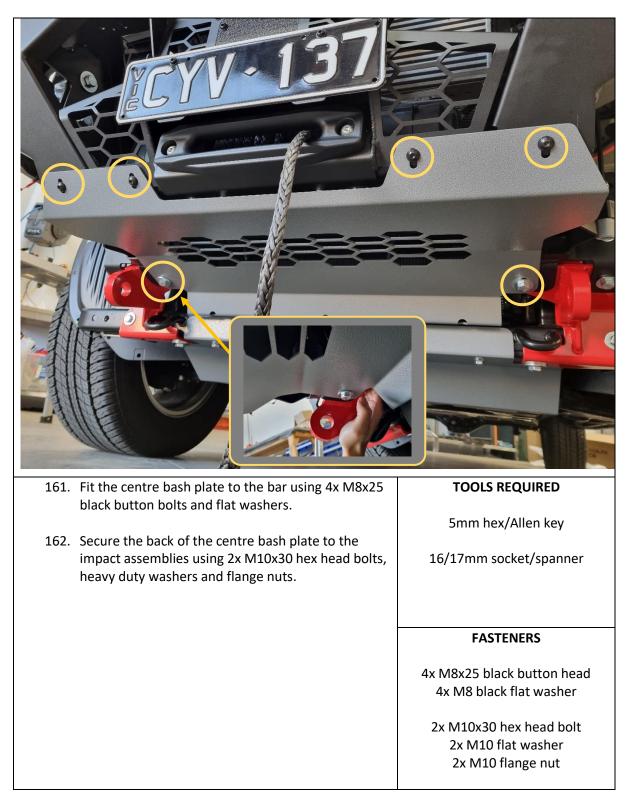
13mm socket/spanner 5mm hex/Allen key

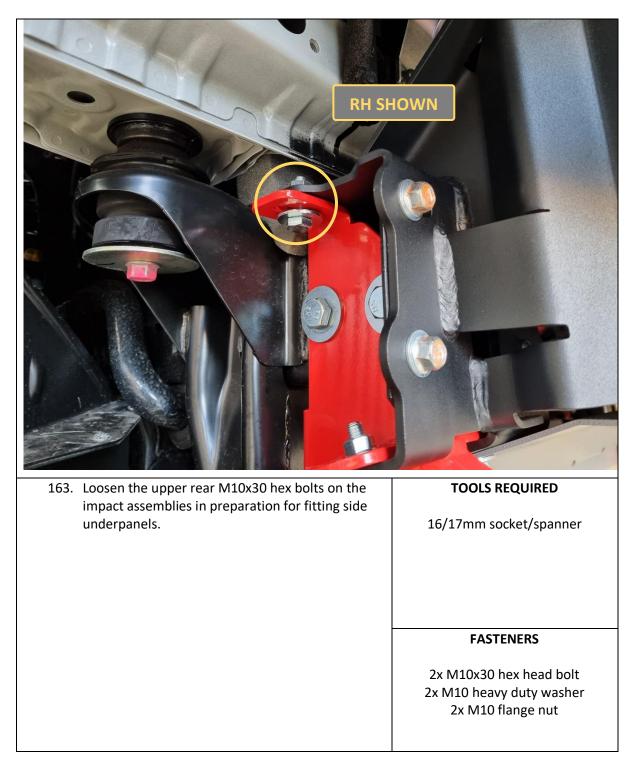
#### FASTENERS

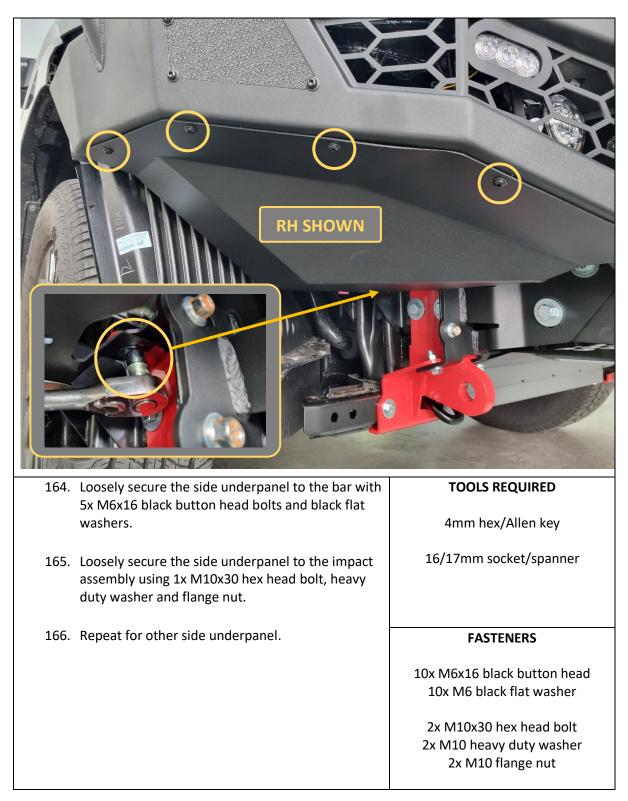
2x M8x16 black button head 2x M8 black flat washer

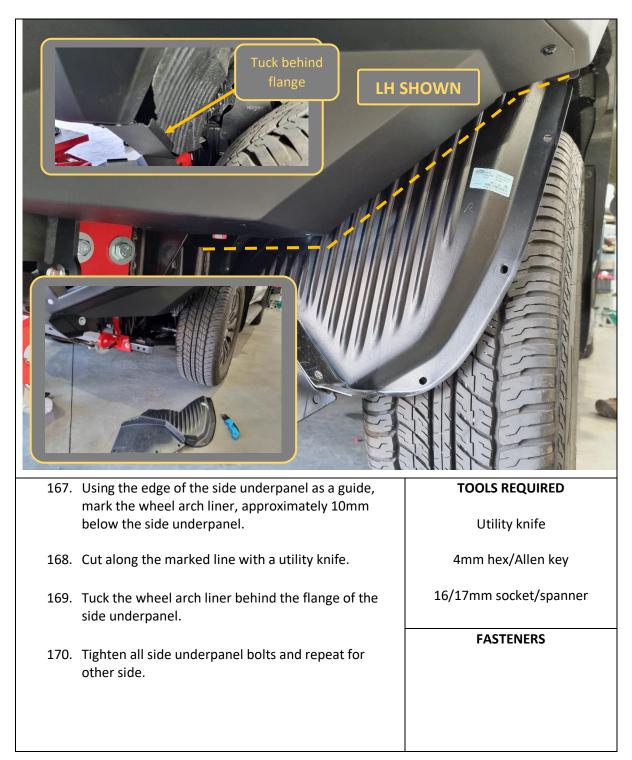
2x M8x20 hex head 2x M8 heavy duty washer

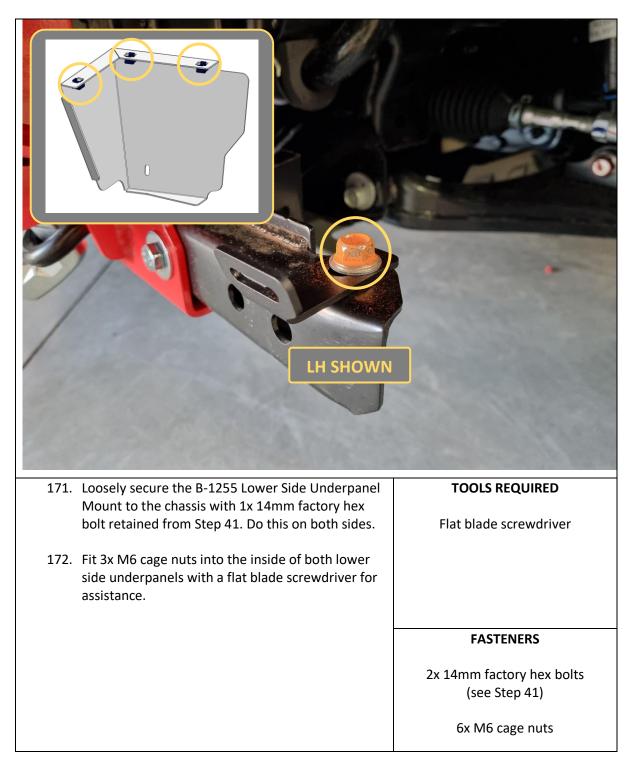


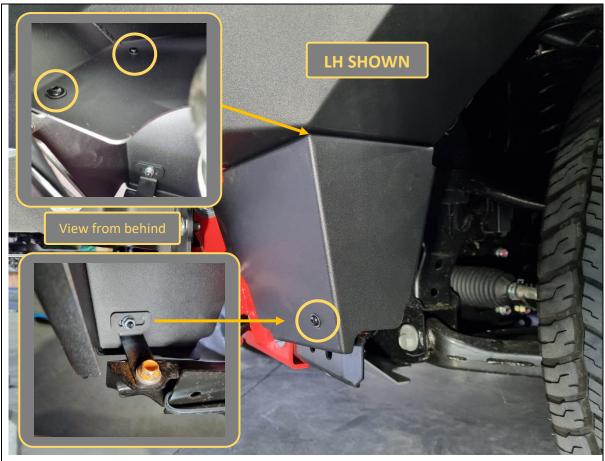












- 173. Fit the lower side underpanel to the car.
- 174. Secure the top to the main side underpanel with 3x M6x16 black button head bolts and black washers. It is easiest to access through the rear with the inner wheel arch liner pulled out of the way.
- 175. Re-fit all plastic push clips (see Step 25) holding the wheel arch liner to the car.
- 176. Secure the bottom of the lower side underpanel to the mount with 1x M6x16 black button head bolt, black washer and flange nut. Secure the 14mm hex bolt.
- 177. Repeat for other side.

# **TOOLS REQUIRED**

4mm hex/Allen key

14mm socket/spanner

# FASTENERS

8x M6x16 black button head bolts 8x M6 black flat washers 2x M6 flange nuts

> Plastic push clips (see Step 25)

