

# CHEVROLET SILVERADO HD (2500/3500)

4th Gen 2024+ Facelift

**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 - In the Main Box

Qty	Part Number	Description	Image
1	FB-S25-T1-24- PR-ASM1	Silverado 2500 24+ Predator Bar Welded Assembly	
		0	R
1	FB-S25-T1-24- TOR-ASM1	Silverado 2500 24+ Toro Bar Welded Assembly	
2	PW-P-14X9-300	Pinch Weld - Plain 14X9MM, Rubber, 300mm Length	N/A
2	PWS-TOP-500	Pinch Weld PWS51T - Top Bulb Seal 500mm	N/A
4	F-0015	Chevrolet/Jeep Sensor Holder – Straight	
1	FB-S25-T1-20- PR-ADRCP	ADR Compliance Plate Silverado 2500	OFFROAD ANNALL 17 BAYFORT COURT  MORNINGTON, VIC., 3781, AUS  STOPP FOR ANY ON, PRILEST TABEP PARABHO  THE STAR MUST CHALT SEE FITTED TO A  CHEVROCETS VICENO 2500 (2500 2200)  HERROCOCCOMPUSIO  AS GRADIA OR ARE AND AND AND AND AND AND  THE PRODUCT OR IS TRING MUST NOT BE MOD'FED.  NO ACCESSOR FOR THEM IS YAUL ROBOR FORWARD OF THE  PRODUCT SORWAD PROFILE CO NOT USES THE PRODUCT NAY  OTHER MOTION PRILEST CONTINUES THE WOOD CONTINUES.  DO NOTERMO'DE WHILE CON WHICH IS NOT DESCRIPTION.
1	OFA-LOGO	Offroad Animal Metal Logo	

# Parts – In the Fitting Kit Box

Qty	Part Number	Description	Image
1	FB-S25-T1-24-PR- ASM2R	Silverado 2500 24+ Impact Assembly RH	
1	FB-S25-T1-24-PR- ASM2L	Silverado 2500 24+ Impact Assembly LH	
1	FB-S25-T1-24-PR- ASM3R	Silverado 2500 24+ Tow Point Welded Assembly RH	
1	FB-S25-T1-24-PR- ASM3L	Silverado 2500 24+ Tow Point Welded Assembly LH	
1	FB-S25-T1-24-PR- ASM4R	Silverado 2500 24+ Chassis Brace Welded Assy RH	
1	FB-S25-T1-24-PR- ASM4L	Silverado 2500 24+ Chassis Brace Welded Assy LH	

1	FB-S25-T1-24-PR- ASM5	Silverado 2500 24+ Mesh Fairlead Welded Assy	
1	B-0822	WL Predator Number Plate Bracket	
2	B-1167	LC70 24+ Pan Brace	
1	B-1185R	Silverado 2500 24+ Halo Fog Light Bracket (Universal) RH	
1	B-1185L	Silverado 2500 24+ Halo Fog Light Bracket (Universal) LH	
1	B-1192R	Silverado 2500 24+ Grille Infill RH	
1	B-1192L	Silverado 2500 24+ Grille Infill LH	
2	B-1193	Silverado 2500 24+ Winch Strap	
1	B-1194	Silverado 2500 24+ Intercooler Air Guide	

1	P-0370	Silverado 2500 24+ Mesh Camera Blanking Plate	
2	P-0371	Silverado 2500 24+ Tow Point Washer Plate	
1	U-0080	Silverado 2500 24+ Bash Plate	
1	U-0081R	Silverado 2500 24+ Side Underpanel RH	
1	U-0081L	Silverado 2500 24+ Side Underpanel LH	
TORO BAR ONLY			
2	B-0649	Toro Antenna Bracket – 90 Degree Tall	

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

Qty	Part Number	Description	
8	M4X12 PAN	SCREW, PAN HEAD PHILLIPS, M4X12X0.7 GR4.6 ZP	
8	M4 FLAT WASHER	Flat Washer M4, 8mmODx0.8mm T	
8	M4 FLANGE NUT	Flange Nut, M4	
2	M5X20 BHCS BZP	SCREW, BUTTON HEAD CAP, M5X20X0.8 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH	
2	M5 Flat washer BZP	M5 Flat Washer, 10x5.3x1, ISO4042 ZnNi BLACK PASSIVATED FINISH	
2	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP	
31	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH	
21	M6 FLAT WASHER	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK	
31	BLACK ZINC	PASSIVATED FINISH	
21	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP	
10	M6CN3MM	CAGE NUT M6x2.6-3.5	
4	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 ZINC	CK SCREW, BUTTON HEAD CAP, M8X25X1.25, ISO4042 ZnNi BLACK PASSIVATED FINISH	
2	M8 FLAT WASHER	M8 FLAT WASHER	
4	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm	
8	M8 FLAT WASHER- BLACK ZINC	M8 FLAT WASHER, 16.5x8.4x1.2, ISO4042 ZnNi BLACK PASSIVATED FINISH	
2	M8 NYW	Washer, M8, Nylon	
2	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP	
2	M8 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO	
10	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP	
2	M10X25 BHCS	SCREW, BUTTON HEAD CAP, M10X25X1.5 GR12.9 ZP	
2	M10 Flat Washer	M10 Flat Washer	
10	M10 FW LHD	WASHER, FLAT M10X28.5X2.5	
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP	
10	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP	
12	M12 FW LHD	M12 FW Large Heavy Duty	
6	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP	
2	M12 Nyloc nut	M12 NYLOC NUT	

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

Qty	Part Number	Description	
8	M4X12 PAN	SCREW, PAN HEAD PHILLIPS, M4X12X0.7 GR4.6 ZP	
8	M4 FLAT WASHER	Flat Washer M4, 8mmODx0.8mm T	
8	M4 FLANGE NUT	Flange Nut, M4	
2	M5X20 BHCS BZP	SCREW, BUTTON HEAD CAP, M5X20X0.8 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH	
2	M5 Flat washer BZP	M5 Flat Washer, 10x5.3x1, ISO4042 ZnNi BLACK PASSIVATED FINISH	
2	M5 FLANGE NUT	Flange Nut, M5x0.8 G8.8 ZP	
31	M6x16 BHCS BLACK ZINC	SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9, ISO4042 ZnNi BLACK PASSIVATED FINISH	
31	M6 FLAT WASHER	M6 Flat Washer, 12x6.1x1, ISO4042 ZnNi BLACK	
21	BLACK ZINC	PASSIVATED FINISH	
21	M6 FLANGE NUT	Flange Nut, M6x1 G8.8 ZP	
10	M6CN3MM	CAGE NUT M6x2.6-3.5	
4	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,	
	IVIO X TO DITES DEI	ISO4042 ZnNi BLACK PASSIVATED FINISH	
10	M8 X 25 BHCS BLACK	SCREW, BUTTON HEAD CAP, M8X25X1.25, ISO4042	
	ZINC	ZnNi BLACK PASSIVATED FINISH	
2	M8 FLAT WASHER	M8 FLAT WASHER	
4	M8 HD FLAT WASHER	M8 FLAT WASHER - High Tensile 19x8x1.9mm	
12	M8 FLAT WASHER-	M8 FLAT WASHER, 16.5x8.4x1.2, ISO4042 ZnNi BLACK	
	BLACK ZINC	PASSIVATED FINISH	
2	M8 NYW	Washer, M8, Nylon	
2	M8 FLANGE NUT	Flange Nut, M8x1.25 G8.8 ZP	
2	M8 NYLOC	NYLOC SELF LOCKING NUT, ST STL A2 ISO	
10	M10 x 30	Bolt Hex, M10X30x[1.5], GR8.8 ZP	
2	M10X25 BHCS	SCREW, BUTTON HEAD CAP, M10X25X1.5 GR12.9 ZP	
2	M10 Flat Washer	M10 Flat Washer	
10	M10 FW LHD	WASHER, FLAT M10X28.5X2.5	
6	M10 FLANGE NUT	Flange Nut, M10x1.5 G8.8 ZP	
10	M12X30	Bolt Hex, M12X30x1.75, GR8.8 ZP	
12	M12 FW LHD	M12 FW Large Heavy Duty	
6	M12 FLANGE NUT	Flange Nut, M12x1.75 G8.8 ZP	
2	M12 Nyloc nut	M12 NYLOC NUT	

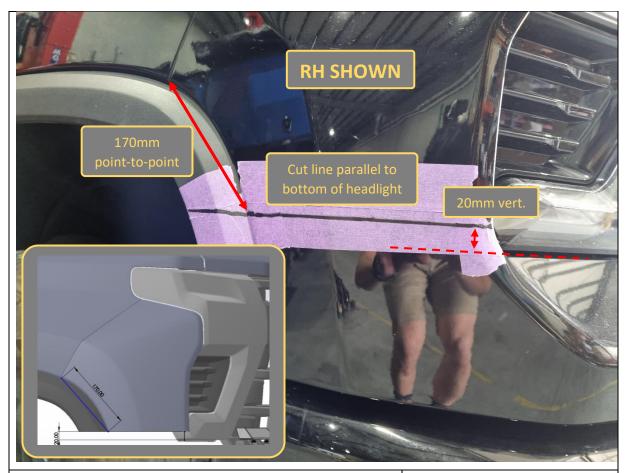
The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Equipment
Metric Socket Set 7-19mm	Electric/Air Impact	Isopropyl Alcohol
	Driver (Optional)	
Socket Extension Bar		Rag
	Air Hacksaw	
Metric Spanner Set 7-19mm	or	Cable Ties
Hex (Allen) Key Set 4-6mm	Oscillating Multi Tool	Solder
Tiex (Allell) key Set 4-011111	or	Joidei
Torx Key Set	Angle Grinder	Heatshrink
, , , , , ,	or	
Trim Removal Tool	Jigsaw	Electrical Tape
Plastic Auto Trim Tool Set		Marker Pen
Flat Blade Screwdriver Set		Masking Tape
Phillips Head Screwdriver Set		Crimp Terminals
rillips flead Screwariver Set		(Optional)
Utility Knife		(Optional)
,		Electrical Conduit
Side Cutters		(Optional)
Pliers		Automotive Electrical
		Wire (Optional)
Line Clamp Set		
Mina Chaireanana		Lifting Trolley
Wire Strippers		(Optional)
Crimping Tool (Optional)		Sandpaper
Crimping 1001 (Optional)		Janapapei
M10x1.5 metric tap		Automotive adhesive
·		sealant (eg. Sikaflex)

# **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.



**Warning:** This product only suits LTZ, Trail Boss, ZR2 and High Country trims. This will not fit on Work Truck, Custom or LT models with different shape headlights.

- 1. Apply masking tape to the plastic bumper and fender flare next to the front headlights on both sides.
- 2. Using a ruler and marker pen, mark out a cut line on both ends of the bumper as shown above.

On the outer end, the cut line should begin at a point 145mm from the bottom corner of the bumper/flare.

The cut line should be <u>straight and parallel</u> to the bottom edge of the headlight, and finish at a point <u>20mm</u> vertically above the bottom edge of the headlight.

### **TOOLS REQUIRED**

Masking tape Marker pen Ruler

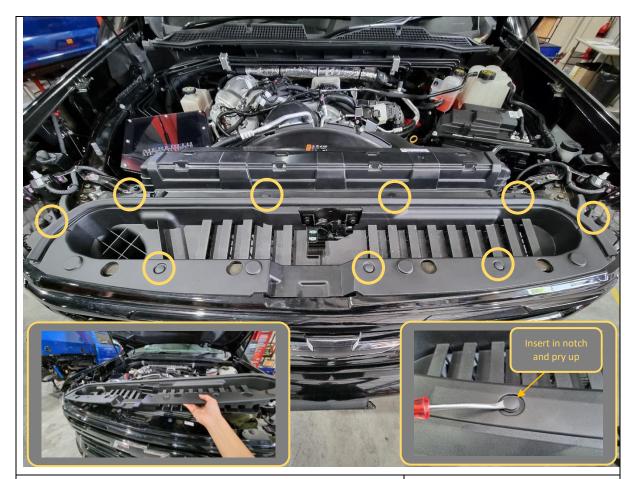


- 3. Open the bonnet.
- 4. Remove the bonnet release handle by unscrewing the 2x T15 Torx screws. Set everything aside for reassembly.

T15 Torx driver

# **FASTENERS**

2x T15 Torx screw



5. Remove the radiator grille cover by removing 9x plastic push rivets. To remove each push rivet, lever the centre section upwards using a flat blade screwdriver or trim tool, as shown.

# **TOOLS REQUIRED**

Flat blade screwdriver or Trim tool

### **FASTENERS**

9x Plastic push rivet



6. Remove multiple plastic push rivets and T15 Torx screws to remove and pull away the front half of the inner wheel arch liner. Do this for both sides.

# **TOOLS REQUIRED**

Flat blade screwdriver or Trim tool

T15 Torx driver

### **FASTENERS**

Plastic push rivets T15 Torx screws



7. Starting from the front bottom corner, pull outwards and release the clips holding the front half of the fender flare. Let it hang off the side of the vehicle. Do this for both sides.

**Hint:** Use an 8mm socket/spanner and press on the clips from the inside of the wheel arch to help release them.

# **TOOLS REQUIRED**

8mm socket/spanner (optional)



8. Remove 1x 7mm hex bolt hiding under the flare which is securing the plastic bumper to the metal fender guard. Do this for both sides.

# **TOOLS REQUIRED**

7mm socket/spanner

### **FASTENERS**

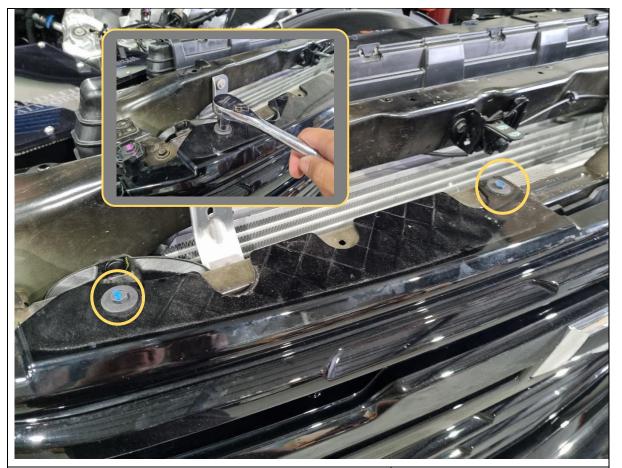
2x factory 7mm hex bolt



9. Starting from the outer tips, pull outwards and release the clips holding the plastic bumper to the vehicle.

It is suggested to have another person to help hold the bumper as it is removed, due to its size.

**TOOLS REQUIRED** 



10. Remove 4x 10mm hex bolts on the top edge of the grille.

10mm socket/spanner

# **FASTENERS**

4x factory 10mm hex bolt

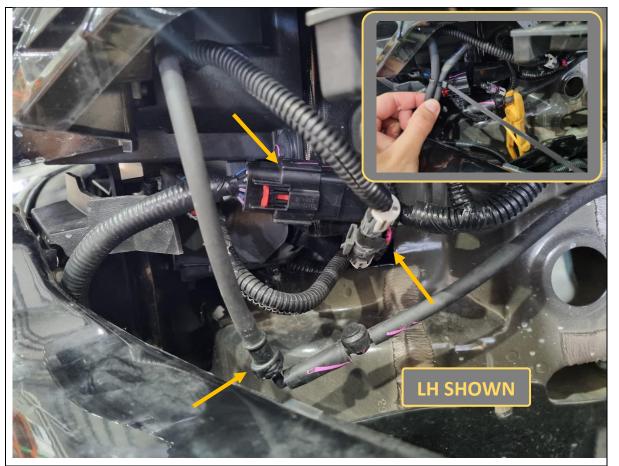


11. Remove 2x 10mm hex bolts (1x per corner) securing the bottom of the grille.

10mm socket/spanner

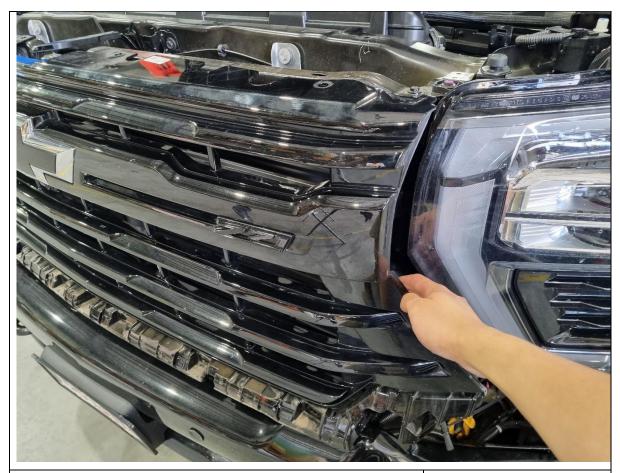
# **FASTENERS**

2x factory 10mm hex bolt



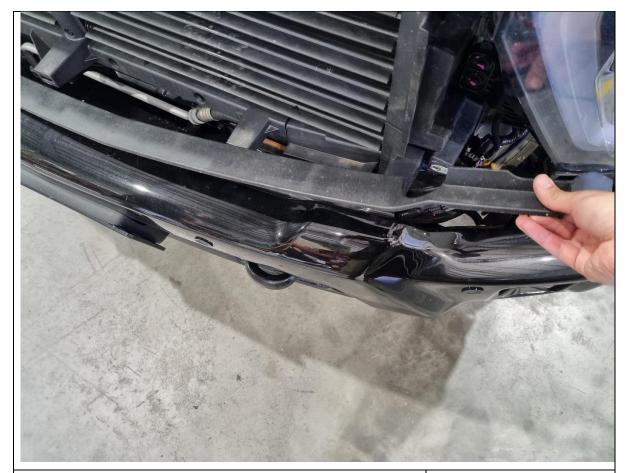
- 12. Unplug the coaxial camera harness and main bumper harness on the LH side of the vehicle, below the headlight. (USA vehicles may have an extra harness on RH side)
- 13. Clamp the camera washer hose on both sides of the connector with line clamps or cable ties to prevent fluid spillage, the disconnect the camera washer hose.

Cable tie (optional)



14. Pull outwards and release the clips securing the grille to the vehicle. Set aside in a safe place for later.

TOOLS REQUIRED



15. Unclip the plastic spoiler running along the top lip of the steel bumper.

TOOLS REQUIRED



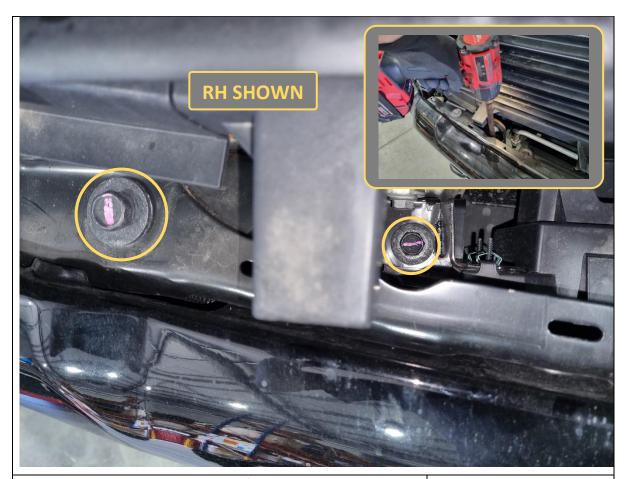
- 16. From underneath the vehicle, remove the 2x 15mm hex bolts securing the lower bumper support bracket. Retain bolts for re-use later.
- 17. Repeat for the other side.

15mm socket/spanner

### **FASTENERS**

4x factory 15mm hex bolts

Retain for re-use



18. Looking down on the top lip of the bumper, remove 4x 18mm hex bolts securing the top bumper support brackets.

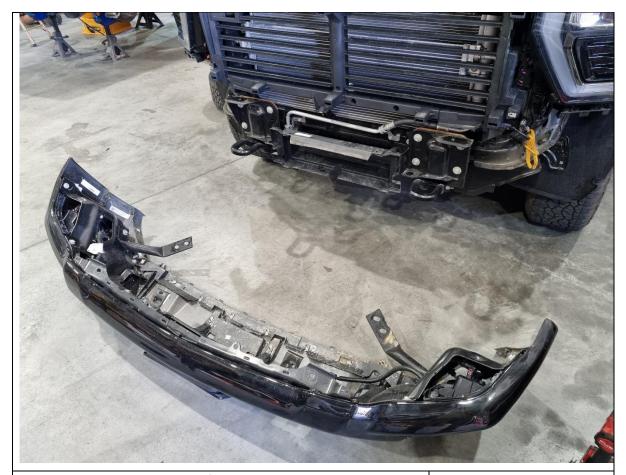
**Note:** A socket extension is required for the 2x recessed bolts.

# **TOOLS REQUIRED**

18mm socket Socket extension

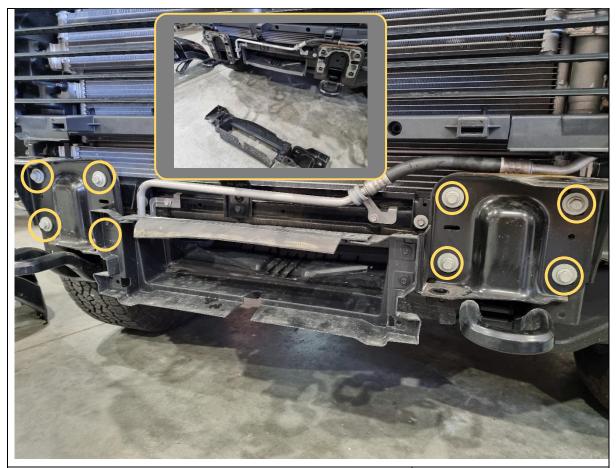
### **FASTENERS**

4x factory 18mm hex bolts



19. With assistance, either from another person or mechanical lifting device, remove the steel bumper and set aside in a safe place.

**TOOLS REQUIRED** 



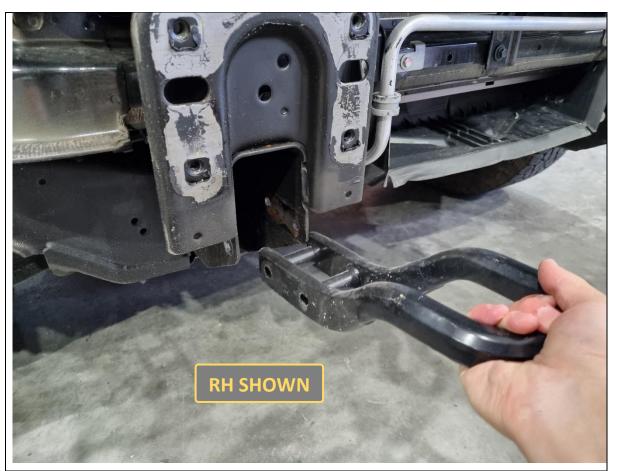
20. Remove 8x 15mm hex bolts (4x per side) securing the bumper brackets and intercooler shroud to the chassis. Retain fasteners for re-use.

# TOOLS REQUIRED

15mm socket/spanner

### **FASTENERS**

8x factory 15mm hex bolts



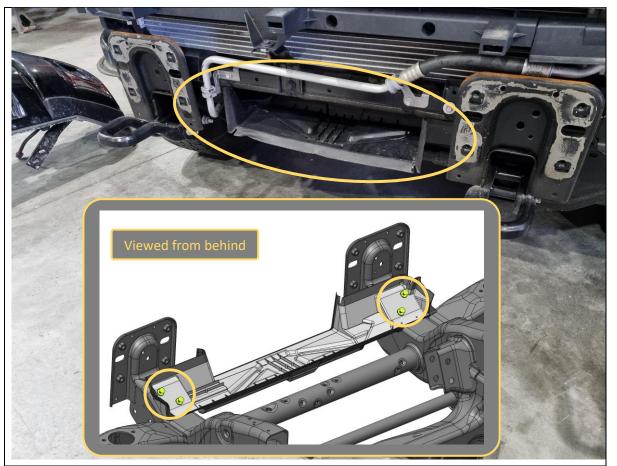
- 21. Remove the 2x 18mm hex bolts and flange nuts securing the tow hook to the chassis. Retain bolts for re-use.
- 22. Repeat for the other tow hook.

18mm socket/spanner

### **FASTENERS**

4x factory 18mm hex bolts 4x factory 18mm flange nuts

Retain for re-use



23. Remove the 4x plastic push rivets (2x per side) securing the air dam to the chassis.

# TOOLS REQUIRED

Flat blade screwdriver or Trim tool

# **FASTENERS**

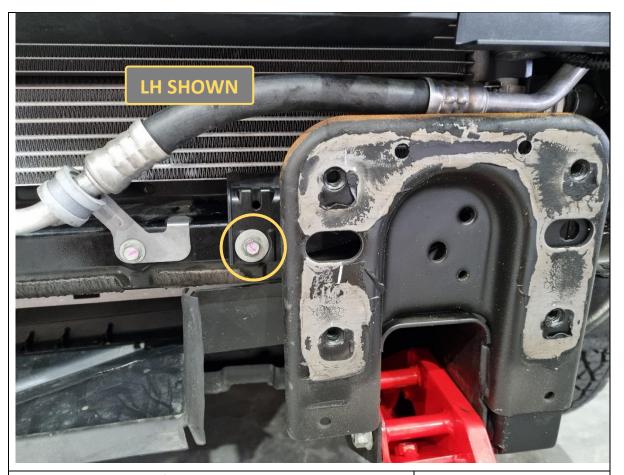
4x Plastic push rivet



24. Firmly insert the supplied red tow points into the chassis rail ends. Align the 2x bolt holes on the side with the holes in the chassis rail.

**Note:** There is a LH and RH specific tow point. Refer to image of RH tow point above for reference.

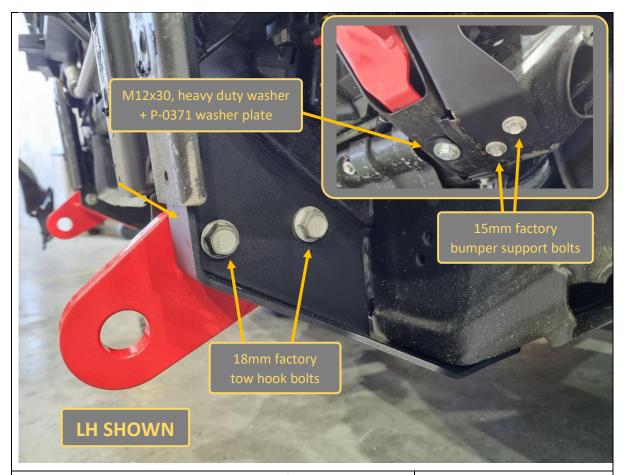
**TOOLS REQUIRED** 



25. On the LH side of the chassis, loosen 1x 10mm hex bolt securing the plastic bracket. Manipulate it out of the way in preparation for fitting the chassis brace in the next step.

TOOLS REQUIRED

10mm socket/spanner



- 26. Fit the chassis brace to the outside of the chassis rail.
- 27. On the LH side, re-secure the 10mm hex bolt securing the plastic bracket outlined in on the previous page.
- 28. Re-fit the 4x factory tow hook bolts and flange nuts (2x per tow point, see Step 21) through the sides of the chassis rail.
- 29. On the bottom on each side (see inset), fit 1x M12x30 hex bolt, heavy-duty washer and P-0371 washer plate (align cut-out with weld) through the chassis rail and into the tow point.
- 30. On the bottom on each side (see inset), re-fit 2x factory 15mm hex bolts (from Step 16) through the chassis brace and into the chassis.
- 31. Once all fasteners have been fitted and brace is in position, securely tighten and torque all fasteners.

10mm socket/spanner 15mm socket/spanner 18mm socket/spanner 19mm socket/spanner

#### **FASTENERS**

4x factory 15mm hex bolts

4x factory 18mm hex bolts 4x factory 18mm flange nuts

2x M12x30 hex bolt 2x M12 heavy-duty washer 2x P-0371 washer plate



- 32. Fit the 2x impact assembly mounts onto the chassis rail
- 33. Loosely secure the front face of each mount to the chassis rail with 4x factory 15mm hex bolts (from Step 20).
- 34. Loosely secure each mount to their respective chassis brace with 2x M10x30 hex bolts, heavy duty washers, and flange nuts (see green circles above).
- 35. Loosely secure each mount to their respective tow point with 1x M10x30 hex bolt and heavy-duty washer (see blue circle above).
- 36. Do not tighten bolts yet.

### **FASTENERS**

8x factory 15mm hex bolts

6x M10x30 hex bolts 6x M10 heavy-duty washers 4x M10 flange nuts



37. Measure the horizontal distance between the outside faces of uprights on bar using tape measure. Write distance below for reference if required.

Bar Upright Width = \_\_\_\_\_mm

38. Adjust mounts by sliding left/right on the slots, such that distance between inner faces of mounts are approximately 3mm more than bar.

Ensure the mount faces are vertically upright and symmetric left/right on the chassis.

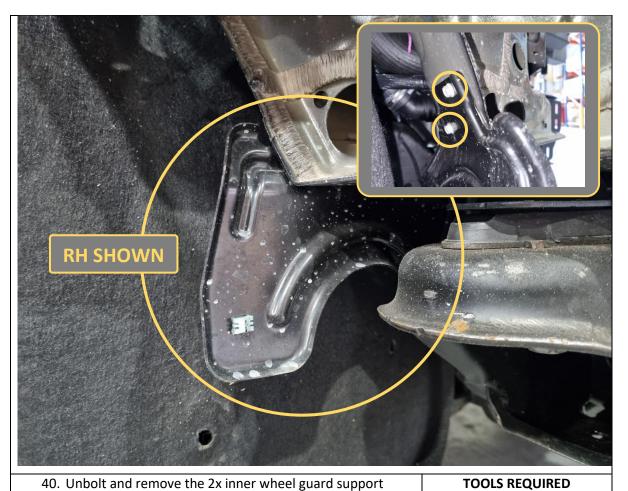
39. Once happy with alignment, secure and tighten all fasteners in the mounts as described on the previous page.

# **TOOLS REQUIRED**

Front Bar

Tape measure

15mm socket/spanner 16/17mm socket spanner



40. Unbolt and remove the 2x inner wheel guard support brackets using a 10mm socket/spanner.

10mm socket/spanner

### **FASTENERS**

4x factory 10mm hex bolts

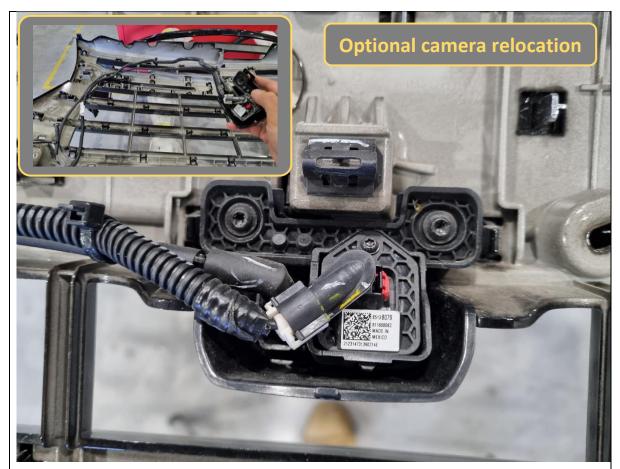


41. Unbolt and remove the plastic bumper clip under each headlight using a **T20** Torx driver.

T20 Torx driver

# FASTENERS

6x factory **T20** Torx screws

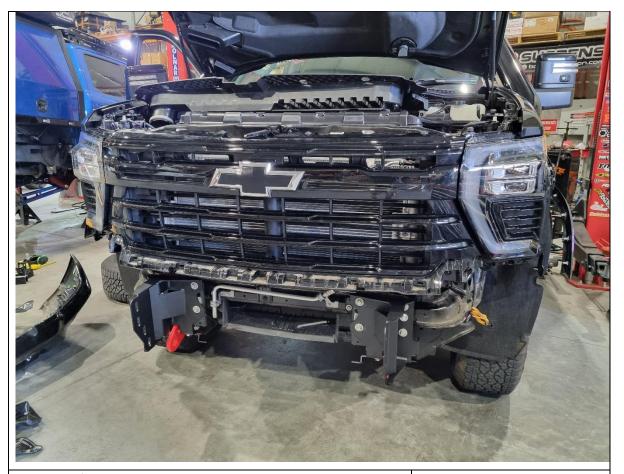


- 42. The front camera can be optionally relocated for a clearer unobstructed view. This is especially recommended if running optional driving lights or top tubes.
- 43. If choosing to relocate the camera, remove 2x T25 Torx screws securing the camera and it's plastic housing to the back of the grille.
- 44. Unclip the camera harness and washer hose from the back of the grille, then set aside the entire camera housing for later.

T25 Torx bit

### **FASTENERS**

2x factory T25 Torx screws



45. Refit the grille, radiator grille cover, and bonnet release handle to the vehicle in reverse order. Also re-connect the camera harness if the camera is remaining in the grille.

# **TOOLS REQUIRED**

10mm socket/spanner T15 Torx driver

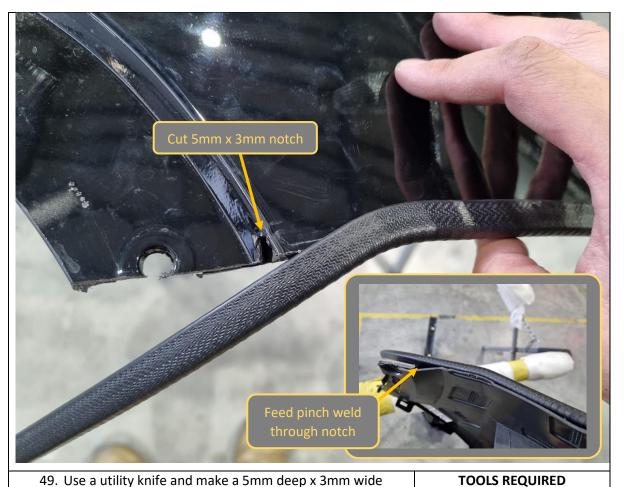
### **FASTENERS**

6x factory 10mm hex bolts 2x T15 Torx screw 9x Plastic push rivets



- 46. Use a jigsaw or other cutting tool and perform the plastic bumper cut along the previously marked cut line.
- 47. Keep the 2x outer sections and discard the centre section.
- 48. Also cut the flares on the vehicle, along the marked cut lines.

Air Hacksaw or Oscillating Multi Tool or Angle Grinder or Jigsaw

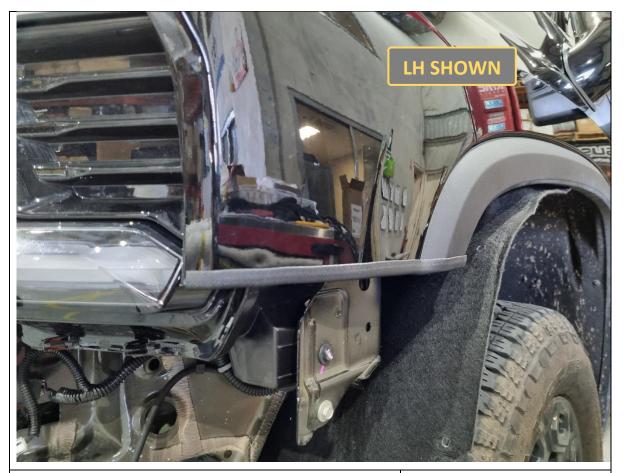


49. Use a utility knife and make a 5mm deep x 3mm wide notch in the trimmed bumper, where the fold for the flare is located.

Utility knife

50. Fit supplied 300mm length of plain pinch weld to the trimmed bumper and feed through the notch to the outside, to join up with the flare on the vehicle.

**Note:** Pinch weld only needs to be fitted to the outer skin of the bumper (see inset for visual reference).

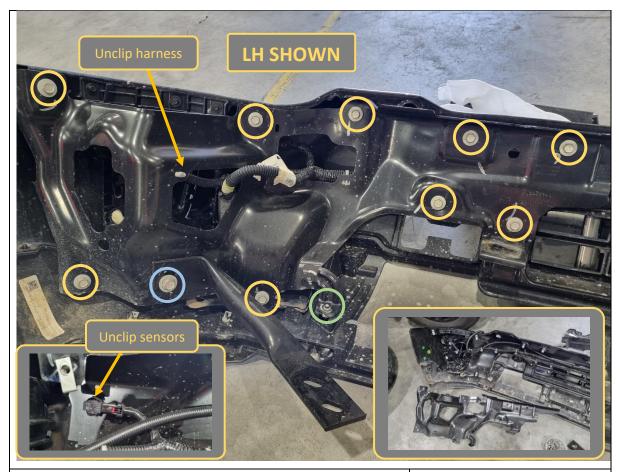


- 51. Re-fit the 2x trimmed bumper sections to the vehicle and re-secure on the side with the 7mm hex bolt from Step 8.
- 52. Re-clip the flares back onto the fender guards and trimmed bumper sections.
- 53. Finish fitting the plain pinch weld over onto the trimmed flare section as shown.

7mm socket/spanner

### **FASTENERS**

2x factory 7mm hex bolts



- 54. Begin stripping the steel bumper. Remove the number plate (2x Philips head screws) and set aside.
- 55. Remove 1x 15mm hex bolt securing the bumper support bracket (blue circle).
- 56. Remove 1x 7mm hex bolt securing the small tab bracket (green circle).
- 57. Remove 9x 13mm hex bolts securing the inner steel reinforcement bracket (yellow circles).
- 58. Cut any cable ties and pry off any loom clips to free the steel reinforcement.
- 59. Disconnect fog lights and unclip parking sensors from plastic holders in the bumper. Note down the orientation of the parking sensors before fully removing.
- 60. Fully remove the steel reinforcement once the loom is out of the way.
- 61. Repeat for other steel reinforcement.

Phillips head screwdriver 7mm socket/spanner 13mm socket/spanner 15mm socket/spanner Side cutters

#### **FASTENERS**

2x factory Phillips head screws 2x factory 7mm hex bolts 18x factory 13mm hex bolts 2x factory 15mm hex bolts



- 62. Strip and remove the harness (complete with parking sensors) from the steel bumper. Set aside in a safe place.
- 63. If the option has been selected, fit the Offroad Animal Halo fog lights to the supplied fog light brackets using 4x M4x12 pan head screws, flat washers and flange nuts (each).

Phillips head screwdriver

### **FASTENERS**

8x M4x12 pan head 8x M4 flat washer 8x M4 flange nut

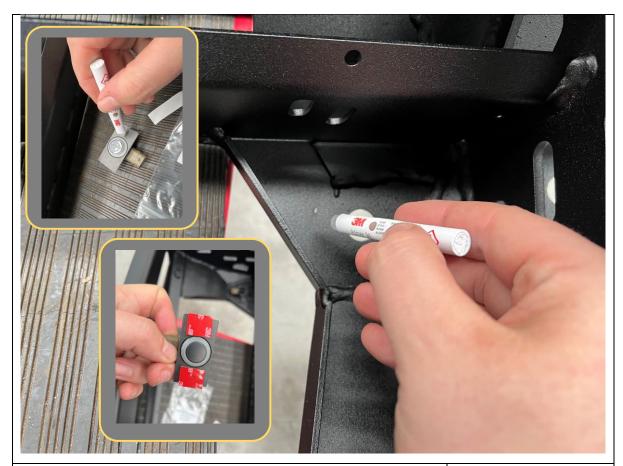


- 64. Fit the fog lights with brackets to the inside of the bullbar, in the position shown.
- 65. Secure each fog light bracket with 2x M6x16 black button head bolts, black washers and flange nuts.

4mm hex/Allen key

### **FASTENERS**

4x M6x16 black button head 4x M6 black washer 4x M6 flange nut

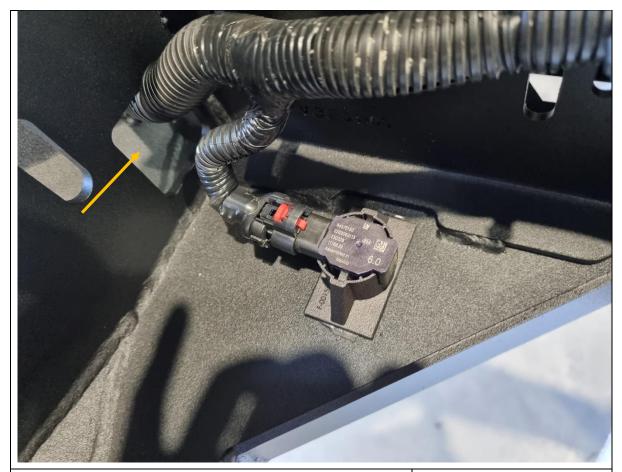


- 66. Clean area surrounding the 4x round parking sensor holes in the bar with isopropyl alcohol or similar cleaning solvent and let it dry.
- 67. Lightly scuff the bonding surfaces of the 4x supplied plastic sensor housings with sandpaper. Then clean with isopropyl alcohol or similar.
- 68. Apply the 3M Primer 94 adhesion promotor from the tape kit to the parking sensor locations, on both the bar and the sensor housings. Allow at least 5 minutes for the primer to fully set before applying tape.
- 69. Apply supplied VHB tape pads to all sensor housings as shown in the inset photo.
- 70. Disconnect the parking sensors from the bumper wiring harness and clip them into the sensor housings. Keep track of which sensor goes where in the bullbar (e.g. outer left, inner left, inner right, outer right).
- 71. Remove backing on tape and adhere sensors in correct position in bar. Apply pressure for 20-30sec after positioning for best adhesion.
- 72. Add a pea-sized blob of automotive adhesive sealant over the sensor holder and inside face of bar to hold to ensure the tape holds position.

Isopropyl alcohol Rag Sandpaper Automotive adhesive sealant (eg. Sikaflex)

#### **FASTENERS**

VHB Tape pads Primer 94



- 73. Route the bumper wiring harness through the inside of the bar, using the provided cutouts in the bar.
- 74. Re-connect all 4x parking sensors.
- 75. Determine fog light and ground wires in the harness. This may need to be done with a test light after the bullbar is fitted back onto the vehicle.
- 76. Solder the bumper harness wires to the supplied wire tails with the Halo fog light. Use heatshrink or electrical tape to insulate them.

Cutting pliers Wire strippers Solder Soldering iron Heatshrink Heat gun Electrical tape



77. If fitting an integrated light bar, do so now.

This bar is designed to fit the Offroad Animal 32-inch light bar. If fitting this light bar, assemble the light bar with legs facing inwards, and line it up with the slots in the centre gusset. Secure with M6 fasteners supplied with the light.

This bar can also accommodate most other "30-32inch" size light bars (eg. Stedi ST3K 31.5" with legs facing outwards), as well as 20-22" light bars.

- 78. Fit 2x pan braces to the back of the bar (see inset) using 8x M6x16 black button head bolts, flat washers and flange nuts.
- 79. Tidy up the wiring harness and other looms with cable ties on the inside of the bar.

## **TOOLS REQUIRED**

4mm hex/Allen key Cable ties

Supplied with light bar

#### **FASTENERS**

8x M6x16 black button head 8x M6 black flat washer 4x M6 flange nut

Supplied with light bar



80. If fitting driving lights or top hoop to this bar, this is also the most convenient time to do so. It is still possible later but is more difficult.

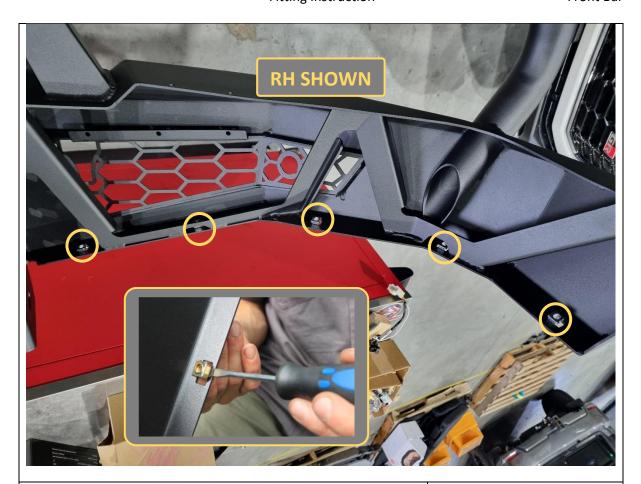
The following options are compatible with Predator bars:

- a) Stealth Hoop (22" standard and 32" wide)
- b) Rally Hoop (2x 9" ORA Asskicker, 2x 8.5" Stedi Type X Evo, 2x 8.5" Stedi Type X Pro, ORA Quad)
- c) Up to 4x 9" driving lights

The following options are compatible with Toro bars:

a) Up to 2x 9" driving lights

### **TOOLS REQUIRED**



81. Fit 5x M6 cage nuts into the rectangular slots on the bottom of the bar wing.

To aid fitting, use a small flat blade screwdriver to push the edge of the cage nut to engage with the slot.

82. Repeat for other side of the bar.

## **TOOLS REQUIRED**

Flat blade screwdriver

### **FASTENERS**

10x M6 cage nut



83. Fit the B-1192 grille infills to the top of the bullbar.

84. Loosely secure each infill with 2x M6x16 black button head bolts, black washers and flange nuts.

Have the bolt heads on the bottom.

These will be tightened after final adjustment once fitted on to the vehicle.

**TOOLS REQUIRED** 

4mm hex/Allen key

### **FASTENERS**

4x M6x16 black button head 4x M6 black washer 4x M6 flange nut



85. Fit the 2x supplied 500mm lengths of top bulb pinch weld to the top edge of each bullbar wing.

**TOOLS REQUIRED** 



- 86. **Toro only.** If required, fit the supplied antenna mounting brackets to the back of the bar, and secure with 2x M8x25 black button head bolts and black washers, each.
- 87. **Toro only.** Else fit the 2x M8x25 black button head bolts and black washers to the back of each bullbar upright, to protect nut threads in bar for future use.

5mm hex/Allen key

### **FASTENERS**

4x M8x25 black button head bolt 4x M8 black flat washer

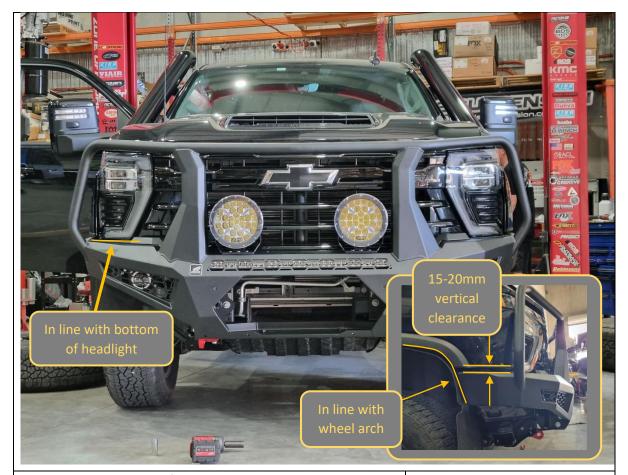


- 88. With assistance, either from another person or a lifting trolley, lift the bar onto the mounts on the vehicle.
- 89. Secure the bar to the mounts with 8x M12x30 bolts, heavy-duty washers and Nyloc + flange nuts. Leave finger tight at this stage. Note: Use a washer on both bolt and nut side for the Nyloc nut. 1x Nyloc required per side of the bar. 1x washer on the bolt side is all that is required with flange nuts.
- 90. Re-connect the bumper harness connector back to the vehicle.

Lifting trolley

### **FASTENERS**

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



91. With assistance, from another person, align the bar with the edges of the vehicle. Adjust such that the clearances are neat, and the bar is symmetric left/right on the vehicle.

Front view: the bar should sit horizontally level with the body. The top edge of the bullbar wing should be level with the bottom edge of the headlight.

Side view: the bar should have 15-20mm vertical clearance to the trimmed plastic bumper. The end of the bar wing should be in line with the wheel arch liner.

Top view: the bar should have 15-20mm clearance to the headlights and grille.

92. Once happy with alignment, tighten all 8x M12 bolts.

## **TOOLS REQUIRED**

Lifting trolley

18/19mm socket/spanner



- 93. If fitting a winch, do so now.
- 94. This bar is designed to fit most low mount winches, in foot down configuration. WARN ZEON 12 is the largest winch confirmed to fit.
- 95. The control box can be mounted on top of the winch as shown, or off to the side. Winches usually come with a bracket to allow this. Refer to winch manufacturer.
  - In some rare cases, the winch control box may need to be relocated elsewhere using custom bracketry.
- 96. Ensure clutch handle will be accessible through opening in front mesh panel. Refer to winch instructions regarding changing clutch handle location.

Refer to instructions supplied by winch

#### **FASTENERS**

Supplied with winch



- 95. If required, fit the winch fairlead to the mesh fairlead mount using M10 or 3/8" fasteners supplied with the winch. This bar is only compatible with hawse type fairleads.
- 96. 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.

5mm hex/Allen key 13mm socket/spanner

### **FASTENERS**

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



97. If not relocating the front camera, bolt the blanking plate onto the front of the mesh fairlead, and secure with 2x M5x20 black button head bolts, flat washers and flange nuts.

# **TOOLS REQUIRED**

4mm hex/Allen key

### **FASTENERS**

2x M5x20 black button head 2x M5 black flat washer 2x M5 flange nut



- 98. If relocating the front camera, fit the entire camera and it's housing onto the front of the opening in the mesh fairlead.
- 99. Secure the camera to the mesh fairlead with 2x M5x20 black button head bolts, flat washers and flange nuts.

4mm hex/Allen key

### **FASTENERS**

2x M5x20 black button head 2x M5 black flat washer 2x M5 flange nut



- 100. 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).
- 101. Tighten fasteners using 13mm socket/spanner and 5mm hex/Allen key.

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



- 102. Fit the number plate to the flip mount bracket and secure with 2x M6x16 black button head bolts, black washers and flange nuts.
- 103. If relocating the camera, route the camera harness back over to the LH side and reconnect both the coaxial cable and washer hose back to the vehicle.

4mm hex/Allen key

### **FASTENERS**

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



- 104. Remove the 2x 15mm hex bolts securing the splash shield on the underside of the vehicle (see inset photo).
- 105. Install the 2x tension straps connecting the winch cradle to the splash shield bolt holes. Position the splash shield in between the tension strap and chassis.
- 106. Use M10x30 hex bolts and heavy duty washers to connect to the winch cradle.
- 107. Either re-use the 2x factory 15mm hex bolts to connect to the chassis, or use provided M10x30 hex bolts and heavy duty washers.

**Note:** Threads in chassis are very easy to cross thread. It is recommended to run an M10x1.5 metric tap through the 2x holes to ensure threads are clean. Tighten bolts very carefully.

### **TOOLS REQUIRED**

15mm socket/spanner 16mm socket/spanner

M10x1.5 metric tap

#### **FASTENERS**

4x M10x30 hex bolt 4x M10x30 heavy duty washer

2x factory 15mm hex bolt



108. Bolt the air guide to the bash plate and secure using 3x M6x16 black button head bolts, black washers and flange nuts.

4mm hex/Allen key

# **FASTENERS**

3x M6x16 black button head 3x M6 black washer 3x M6 flange nut



- 109. Fit the bash plate to the bar using 4x M8x25 black button bolts and flat washers.
- 110. Secure the back of the bash plate to the impact assemblies using 2x M10x25 button head bolts, flat washers and flange nuts.

5mm hex/Allen key 6mm hex/Allen key

### **FASTENERS**

4x M8x25 black button head 4x M8 black flat washer

2x M10x25 button head 2x M10 flat washer 2x M10 flange nut



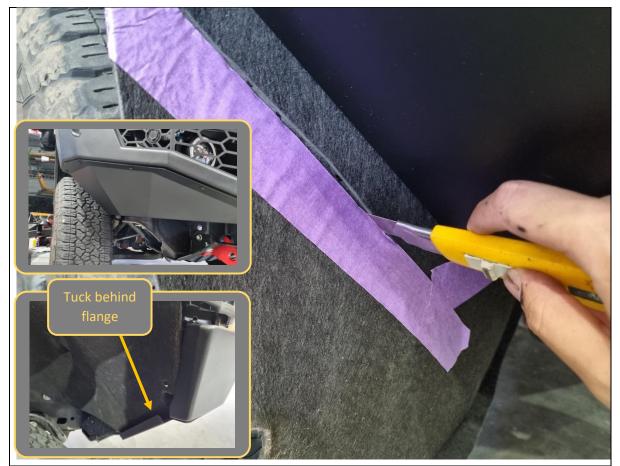
- 111. Loosely secure the side underpanel to the bar with 5x M6x16 black button head bolts and black flat washers.
- 112. Loosely secure the side underpanel to the impact assembly using 1x M8x20 hex head bolt, heavy duty washer and flange nut.
- 113. Repeat for other side underpanel.

4mm hex/Allen key 13mm socket/spanner

### **FASTENERS**

10x M6x16 black button head 10x M6 black flat washer

2x M8x20 hex head bolt 2x M8 heavy duty washer 2x M8 flange nut



- 114. Using the edge of the side underpanel as a guide, mark the wheel arch liner, approximately 15mm below the side underpanel.
- 115. Cut along the marked line with a utility knife.
- 116. Tuck the wheel arch liner behind the flange of the side underpanel.
- 117. Tighten all side underpanel bolts and repeat for other side.

Utility knife

4mm hex/Allen key 13mm socket/spanner



- 118. Fit the compliance plate in a visible location on the underside of the bar. We recommend placing it on the bottom of the centre bash plate.
- 119. Review fitment and double check all bolts are tightened correctly.
- 120. Check all wiring is connected, and that fog lights and parking sensors are all functional.



Congratulations! You're done!
Head for the tracks and enjoy your newly protected Chevrolet Silverado 2500!