



FITTING INSTRUCTIONS

Part Number: **3423200 (F/Kit 6177950)**
Product **SUMMIT MKII BULL BAR | SUIT TACOMA 160N**
Description:
Suited to **TOYOTA TACOMA 2016ON**
vehicle/s:
Optional **3500520 – DRIVING LIGHT WIRING LOOM (REQUIRED FOR VEHICLES WITHOUT FACTORY FOG LIGHTS)**
Fitting Kits: **3523030 – WINCH FITTING KIT | SUMMIT MKII**
3523040 – CAMERA RELOCATION KIT | TACOMA SUMMIT MKII

WARNING

ALSO, NOTE THE FOLLOWING:

- ◆ This product must be installed exactly as per these instructions using only the hardware supplied.
- ◆ In the event of damage to any bull bar component, contact your nearest authorised ARB stockist. Repairs or modifications to the impact absorption system must not be attempted.
- ◆ Do not use this product for any vehicle make or model, other than those specified by ARB.
- ◆ Do not remove labels from this bull bar.
- ◆ This product or its fixing must not be modified in any way.
- ◆ The installation of this product may require the use of specialized tools and/or techniques
- ◆ It is recommended that this product is only installed by trained personnel.
- ◆ These instructions are correct as at the publication date. ARB Corporation Ltd. cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer.
- ◆ During installation, it is the duty of the installer to check correct operation/clearances of all components.
- ◆ Work safely at all times.
- ◆ Unless otherwise instructed, tighten fasteners to specified torque.

ARB 4x4 ACCESSORIES

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GENERAL CARE AND MAINTENANCE

By choosing an ARB Bar, you have bought a product that is one of the most sought after 4WD products in the world. Your bar is a properly engineered, reliable, quality accessory that represents excellent value. To keep your bar in original condition it is important to care and maintain it following these recommendations:

- As part of any Pre-Trip Preparation, or on an annual basis, it is recommended that a thorough visual inspection of the bar is carried out, making sure that all bolts and other components are torqued to the correct specification. Also check that all wiring sheaths, connectors, and fittings are free of damage. Replace any components as necessary. This service can be performed by your local authorized ARB Stockist.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

Basic Tool Kit	Power Drill 13mm capacity
1/2" and 1/4" socket set	Non-permanent marker
ø10mm and ø13mm drill bits	Low Tack Masking Tape
Tape measure - metric	Torque Wrench 9 – 77 Nm
Oscillating multi-tool with blade to suit plastic cutting	Touch-up Paint Anti-Corrosion
File	Black Spray Paint
Hacksaw	Pliers

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

Protective eyewear		Hearing protection	
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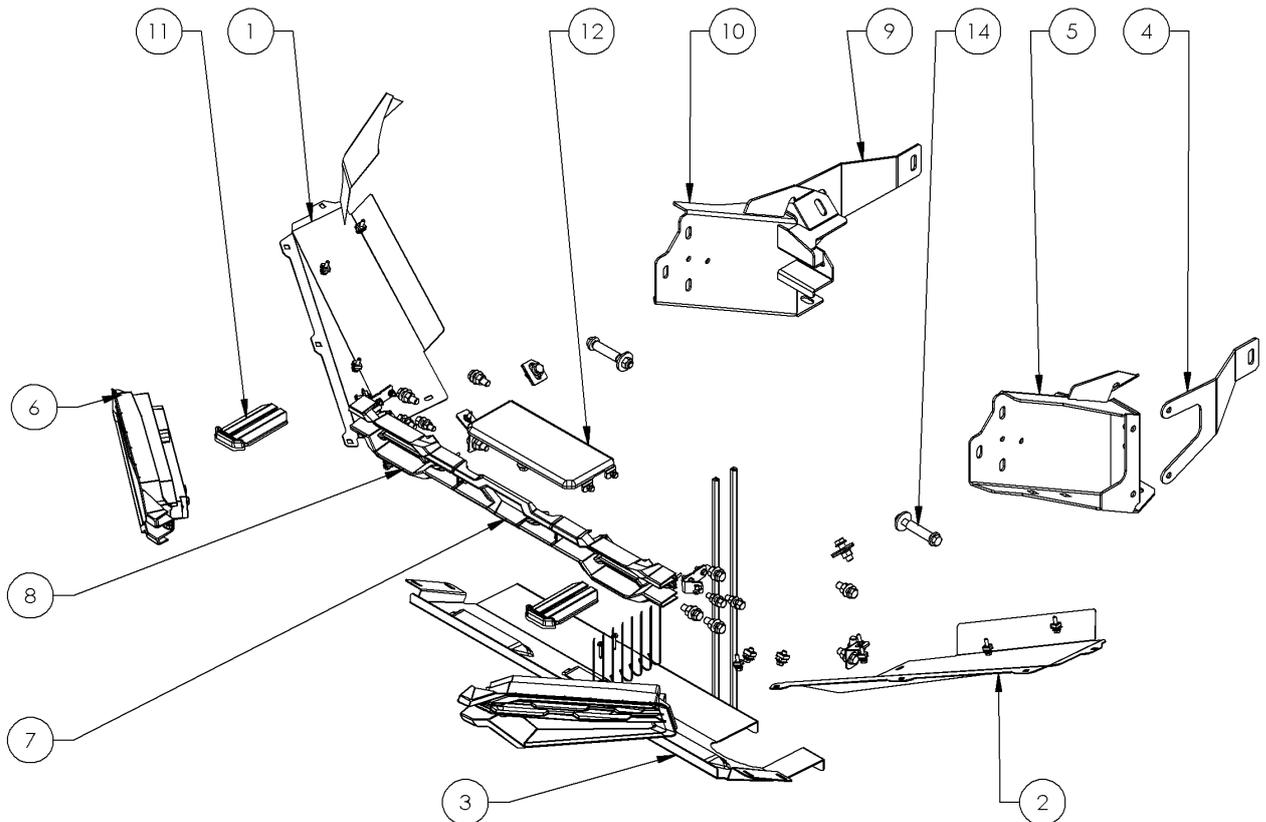
NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where to avoid a potentially hazardous situation it is suggested that protective safety gear be worn, or a safe work procedure be employed. If these notes and warnings are not heeded, injury may result.

FASTENER TORQUE SETTINGS:

SIZE	Torque Nm	Torque lbft
M6	9Nm	6.6lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12	77Nm	57lbft

PARTS LISTING			
APPLICATION.	PART NO.	QTY	DESCRIPTION
FIT MOUNTS TO CHASSIS	4655286R	1	CHASSIS MOUNT RH SUIT TACOMA
	4655286L	1	CHASSIS MOUNT LH SUIT TACOMA
	3756794	1	BRACKET TENSION TACOMA 05
	3756794L	1	BRACKET TENSION LH TACOMA 05
	4721817	2	TUBE CRUSH 12.6 X 17 X 60MM
	6151511	2	BOLT HXHD M12X1.75X100 PC8.8 TZP
	4584363	2	WASHER FLAT M12X26X4 HV300 TZP480
	4581007	2	WASHER FLAT 1/2x1 1/2x4mm TZP SILVER T
	6151574	2	NUT HEX NYLOC M12x1.75 TZP480
	6151700	8	BOLT HXHD FL M12x1.25x35 PC8.8 TZP480
	6151480	8	NUT FLANGE M12x1.25 PC8.8 TZP480 SERRATED
	3194380	4	PACKER TACOMA 2012ON
FIT BAR TO MOUNTS	6151700	6	BOLT HXHD FL M12x1.25x35 PC8.8 TZP480
	6151480	6	NUT FLANGE M12x1.25 PC8.8 TZP480 SERRATED
	6151897	4	BOLT HXHD FL M10x1.5x30 PC8.8 ZNN480
	6151321	4	NUT FLANGE M10x1.5 PC8.8 TZP480 SERRATED
FIT STONE GUARDS	6523588	1	PANEL STONE SHIELD SUIT TACOMA
	6151301	4	NUT CAGED M8 3.3-4.7 1238-C
	6151730	4	BOLT HXHD FL M8x1.25x20 FT PC8.8 BZP480 ENS14-001
	6152008	10	BOLT HXHD FL M6x1.0x25 PC8.8 ZNB480
	6151315	8	NUT CAGED M6 0.7-1.6 956-A
	6151173	2	NUT FLANGE M6 ZNB480 SERRATED
	3755102	2	BRKT WING UNDER PANEL SUIT TACOMA
	6523589L	1	WING UNDER PANEL LH SUIT TACOMA
6523589R	1	WING UNDER PANEL RH SUIT TACOMA	
FIT LIGHTS AND MOULDINGS	3755103	2	BRKT FOG LIGHT MOUNT SUIT TACOMA
	6151300	2	NUT CAGED M6 2.6-3.5 956-C
	6151213	4	BOLT HXHD M6x1.0x20 PC8.8 ZNB480
	6151173	4	NUT FLANGE M6 ZNB480 SERRATED
	4584329	4	WASHER FLAT M6x12.2x1.2 BTZP480
	3500991	1	LAMP CLUSTER, ARB SUMMIT RH&LS LAMP
	6151711	2	SCREW BHD M6x25 TX BTZP480
	3163294	1	KIT, CVR STRAP SUIT SUMMIT
	3163295	1	KIT, GRILLE OUTER SUIT SUMMIT
	3163289	1	GRILLE CENTRE, SUIT SUMMIT

FIT WINCH COVER PANEL	6151213	4	BOLT HXHD M6x1.0x20 PC8.8 ZNB480
	4584329	4	WASHER FLAT M6x12.2x1.2 BTZP480
	6151173	4	NUT FLANGE M6 ZNB480 SERRATED
	6523170	1	PANEL WINCH COVER COLORADO US
FIT LICENSE PLATE	6151459	2	SCREW BHD M6x16 BTZP480
	4584329	2	WASHER FLAT M6x12.2x1.2 BTZP480
	6151173	2	NUT FLANGE M6 ZNB480 SERRATED
MISCELLANEOUS	3789455	1	TEMPLATE BUMPER CUT TACOMA 16ON
	6191024	2	PINCH WELD 480mm NARROW LONG
	180302	8	CABLE TIE 4.8 X 180 MM BLACK
	6151319	2	SCREW 8G x 18, 32mm Self Drilling Screw, Blk



ITEM	PART NUMBER	DESCRIPTION
1	6523589R	WING UNDER PANEL RH SUIT TACOMA
2	6523589L	WING UNDER PANEL LH SUIT TACOMA
3	6523588	PANEL STONE SHIELD SUIT TACOMA
4	3756794L	BRACKET TENSION LH TACOMA 05
5	4655286L	CHASSIS MOUNT LH SUIT TACOMA
6	3500991	LAMP CLUSTER, ARB SUMMIT RH&LS LAMP SET
7	3163289	GRILLE CENTRE, SUIT SUMMIT
8	3163295	KIT, GRILLE OUTER SUIT SUMMIT
9	3756794	BRACKET TENSION TACOMA 05
10	4655286R	CHASSIS MNT RH SUIT TACOMA
11	3163294	KIT, CVR STRAP SUIT SUMMIT
12	6523170	PANEL WINCH COVER COLORADO US
13	6821471	BULLBAR LIGHTING HARNESS SUITS TACOMA SUMMIT MKII
14	6177951	FITTING KIT BAG 3423200

*13 NOT PICTURED

FITTING PROCEDURE



1. Disconnect the battery's main ground from the battery and push the cable to the side. A rag or other cover can be used to ensure the wire does not touch the battery terminal.



2. If fitted, remove licence plate from bumper. Remove the two top screws on the grille.



3. Remove grille from vehicle by removing the clip shown near the head light on both sides and then release lower grille tabs by pushing up as shown below.



4. Remove the bumper, by releasing the clips along the top return and below the head light. If there are fog lights fitted be sure to unclip the harness.





5. Remove the clips and screws along the bottom edge of the bumper.



6. Remove the two front wheel arch bolts. Pull bumper ends out and away from vehicle to release them from clips. You will also need to unclip the wheel arch flare. Remove bumper and place on work stand front face up.



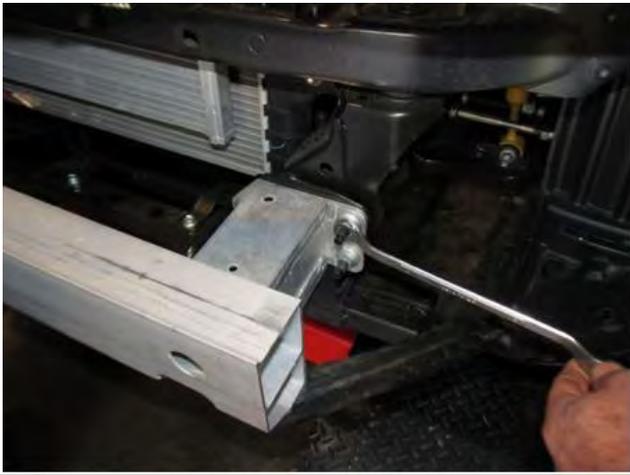
7. Remove the plastic bumper retainer.

Note the top fastener is a bolt and the lower is a plastic clip.



8. Remove the plastic from the crash beam and unclip the side brackets (from underneath).

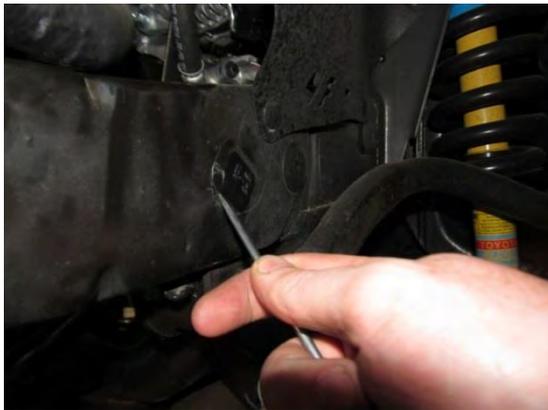




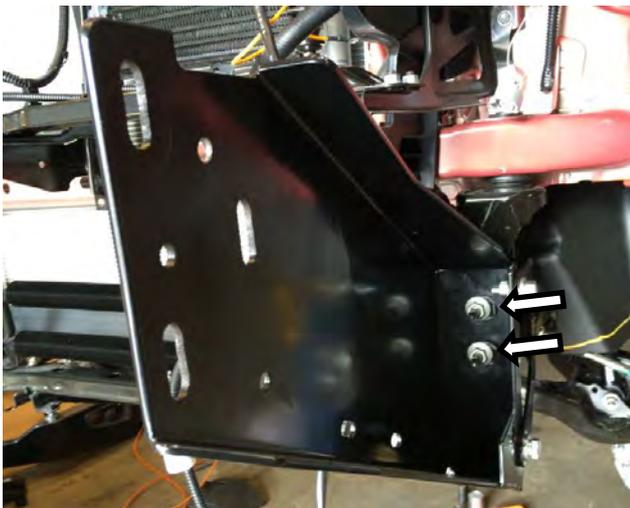
9. Remove and discard crash beam, retain nuts for re-fitment later.



10. Remove lower bolts on cross member and remove cross member extensions both sides as shown and discard.



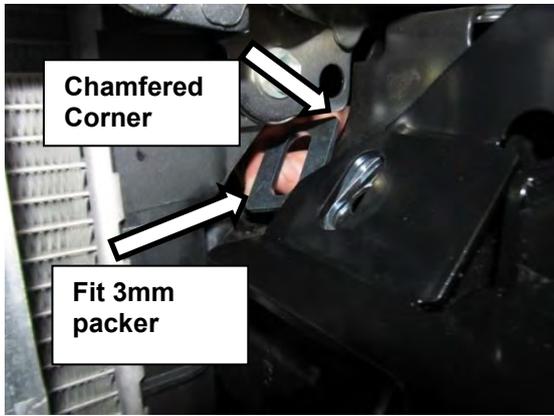
11. Remove plastic plugs in chassis holes in 4 places, inside and outside chassis in the area shown.



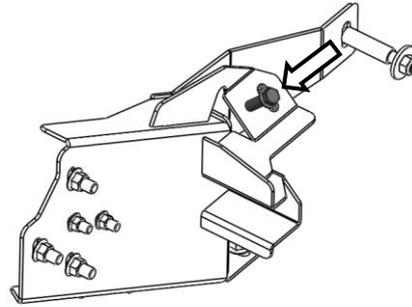
12. Fit the chassis mount bracket assembly to the front of the vehicle using the six M10 studs to locate on.

Fit the original M10 nuts to the fixing points. Leave finger tight.

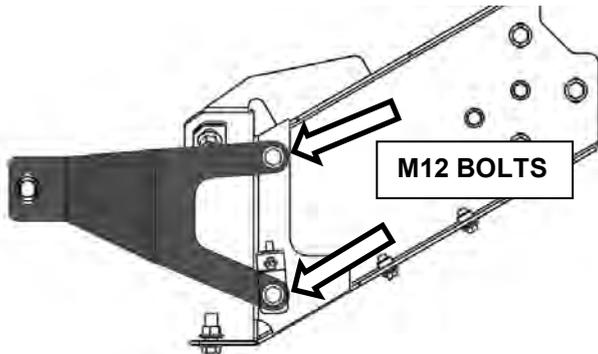




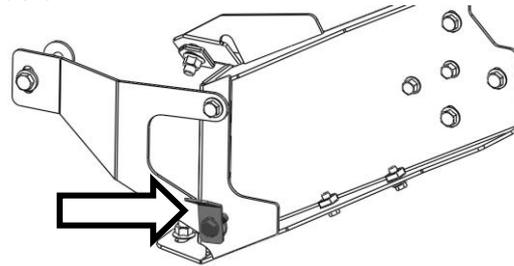
13. Fit two 3mm packers as shown into the upper mount reinforcement. Fit flanged M12x1.25x35 bolts and flanged M12x1.25 nut. Leave finger tight.



NOTE: Right side shown

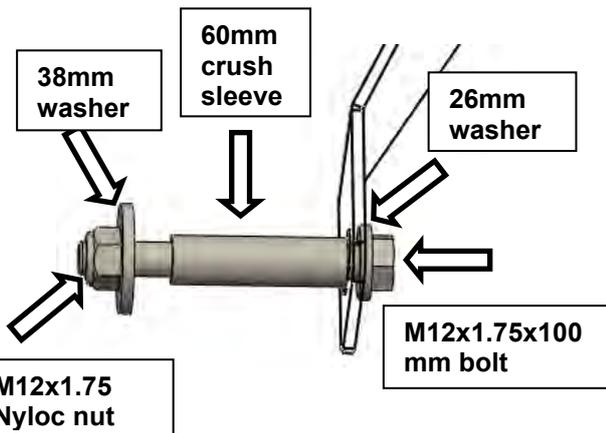


14. Fit tension brackets to each side of vehicle. Affix using two flanged M12x1.25x35mm bolts and flanged M12x1.25 nuts. Place the wing panel bracket under the lower flanged bolt as shown below.



 M12 - 77 Nm (57 ft*lb).

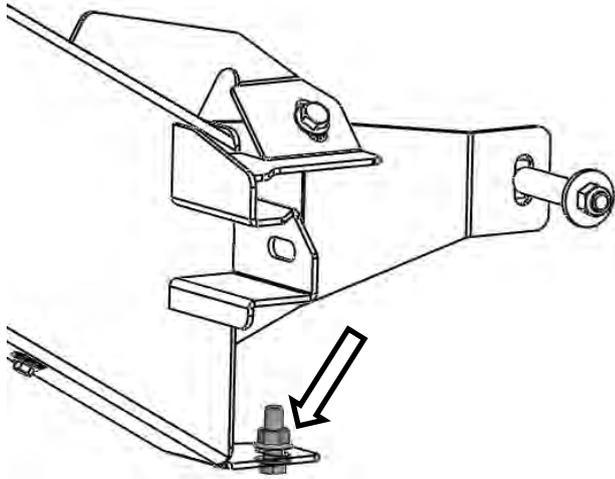
NOTE: Right side shown



15. Use M12x1.75x100mm bolt, 26mm washer, 38mm (1.5") washer, 60mm crush tube, and Nyloc nut to fasten the rear of the tensioning bracket.

The larger washer and Nyloc nut go on the inboard side of the frame and the head of the bolt and smaller washer go on the outboard side of the frame. The sleeve goes inside the frame.

 M12 - 77 Nm (57 ft*lb).



Leave bottom M12 bolt from step 14 loose enough to rotate the wing panel bracket if needed.

- Fit the flanged M12x1.25x35mm bolt, and flanged M12x1.25 nut to the bottom of the bracket.

When all bolts are fitted, tighten front nuts to specification.

 M10 - 44 Nm (32 ft*lb).

 M12 - 77 Nm (57 ft*lb).

NOTE: These bolts may need to be loosened if bar adjustment is required later.

NOTE: Right side shown.



- If fog lamps are fitted to the bumper remove harness and set aside. This will be reused later.



- Mark out the centre grill section. Place marking tape along the bottom edge and with non-permanent marker, mark a line 18mm from the bottom lip.

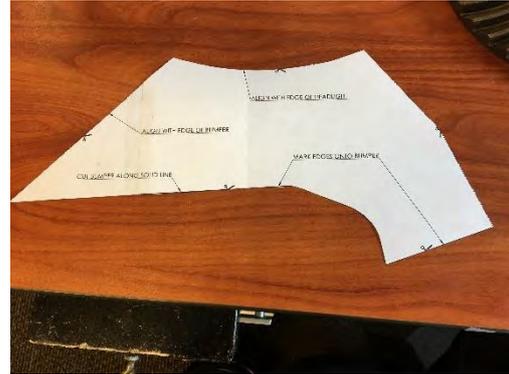


- To make the bumper cut easier remove the fog lamp (if fitted) and the plastic grill insert in the bumper by depressing these tabs around the edge.



20. Cut out the template along the cut lines as shown below.
21. Match the template to the bumper as shown to the left.

Note: Bumper shown after cut



22. Cut the corners off as indicated in the picture using an oscillating multi-tool.

Mask up the end and using the template provided and trace a cut line.



Cutting operations may result in flying debris, please wear protective goggles



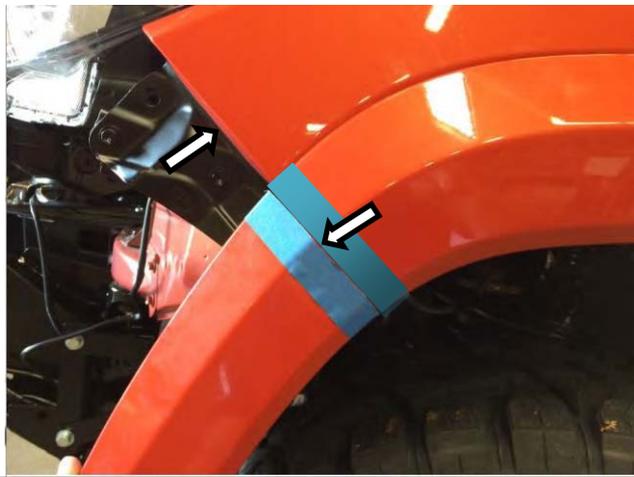
Cutting line



23. Using an oscillating multi-tool carefully cut the bumper ends (LH & RH) and the grille along marked lines.



Cutting operations may result in flying debris, please wear protective goggles



24. Mark the fender flare as shown. Use masking tape to protect the fender flare and using the fender edge as a guide, mark the fender flare. Repeat for other side.

Using an oscillating multi-tool, carefully cut the fender flare ends (LH & RH) along marked lines.



Cutting operations may result in flying debris, please wear protective goggles



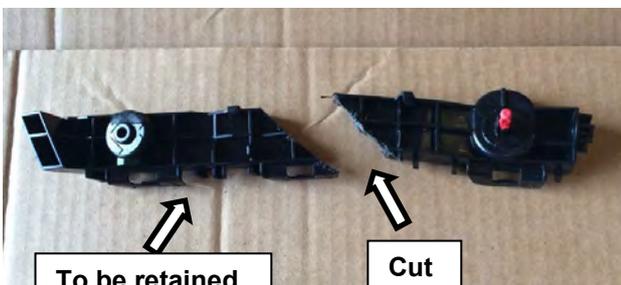
25. Using masking tape, mask up the bumper end and retaining bracket across the centre of the part.

(Bumper end fitted without retaining bracket shown in Picture).



26. Using the refitted cut bumper end as a guide mark the bumper retaining bracket.

(Post-cut retaining bracket without bumper end shown in Picture)



27. Using an oscillating multi-tool carefully cut the bumper retaining brackets along marked lines.

Remove masking tape and deburr all edges with file or sandpaper.

Retain the top section and dispose of the lower cut off section. Repeat for other side.



Cutting operations may result in flying debris, please wear protective goggles



28. After removing the cut bumper end, remove masking tape and deburr all edges with file or sandpaper.

Fit the pinch weld to the bumper ends as shown.



29. Carefully mask up the area around the bumper plastic trim mounting.



30. Using a black spray can paint the panel. Allow to dry before removing tape. Repeat for other side.



31. Refit the cut bumper retainer. Only use the top bolt to hold the bracket in place.

Use the tek-screw provided in the kit to secure the bracket in place. Repeat for other side.

NOTE: Picture shows plastic retainer fitted prior to painting for clarity only.

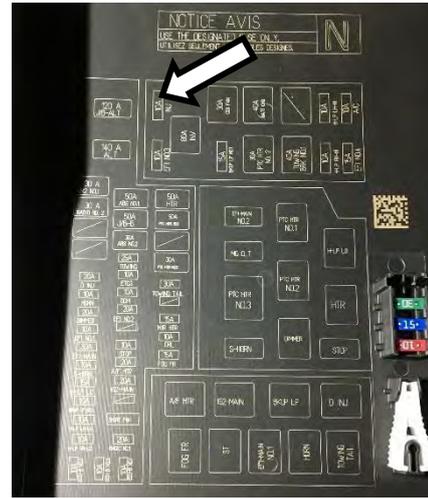


32. Re-fit the grille and bumper ends to the vehicle.

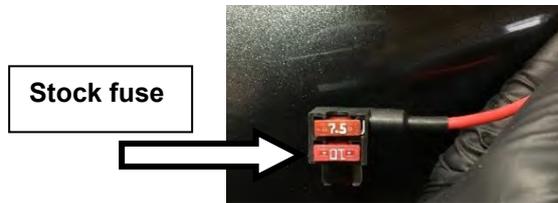
NOTE: Use plastic protective film or a cover/blanket to ensure no damage to panels during bar fitment.



33. Remove the fuse panel cover located on the left side of the vehicle's engine bay.
Remove the fuse in the shown location.



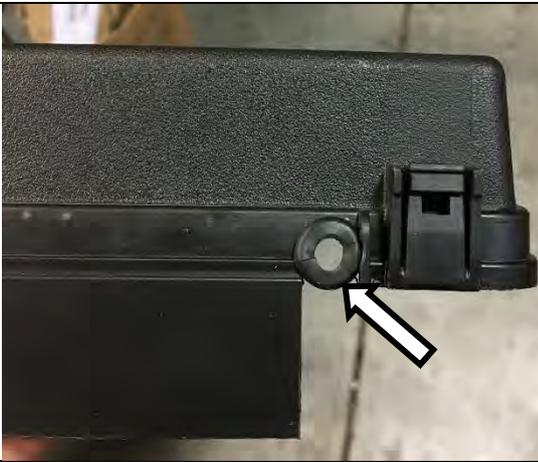
34. Find the fuse tap included in the harness bag and plug the removed fuse into the lower slot of the tap.
Plug the fuse tap into the empty spot where the fuse was taken from.



35. Drill a $\varnothing 10\text{mm}$ hole in the right side of the fuse box cover right next to the edge as shown. Trim parallel to the edge, straight down.



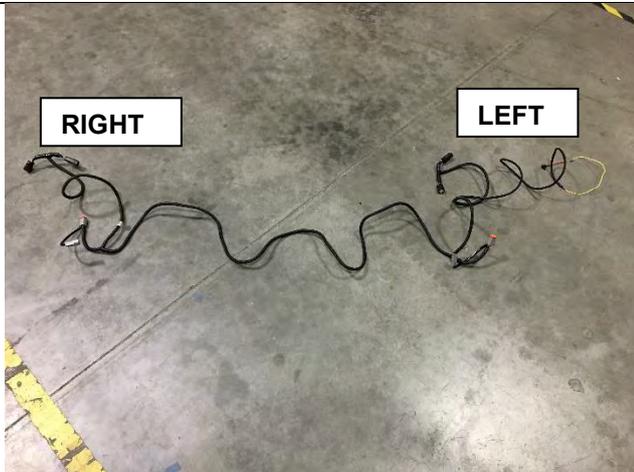
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36. Insert grommet into slot.

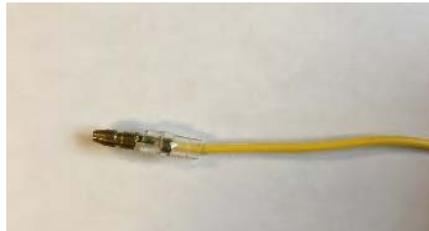


37. Cut a matching slot into the fuse box directly next to the latch on the right side.

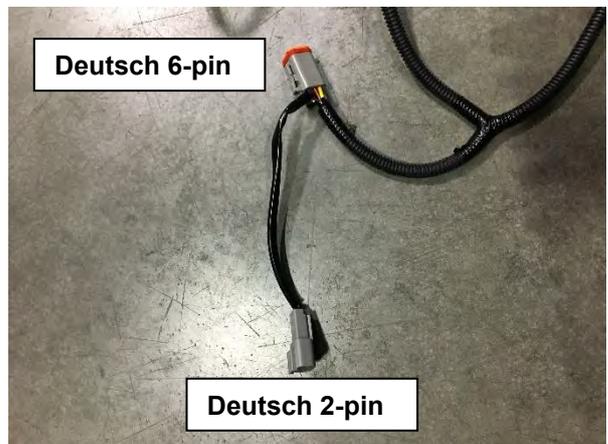


38. Identify the left and right side of harness 6821471. The left side of the vehicle will have the yellow wire with the bullet connector which will go to the fuse box.

Bullet connector shown below.



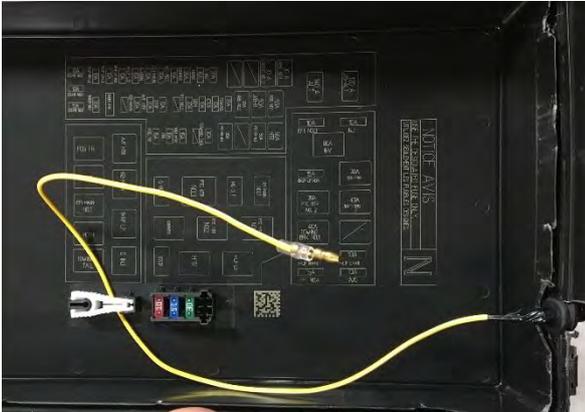
39. Identify 6-pin headlight connectors, Deutsch 6-pin, and Deutsch 2-pin connectors.



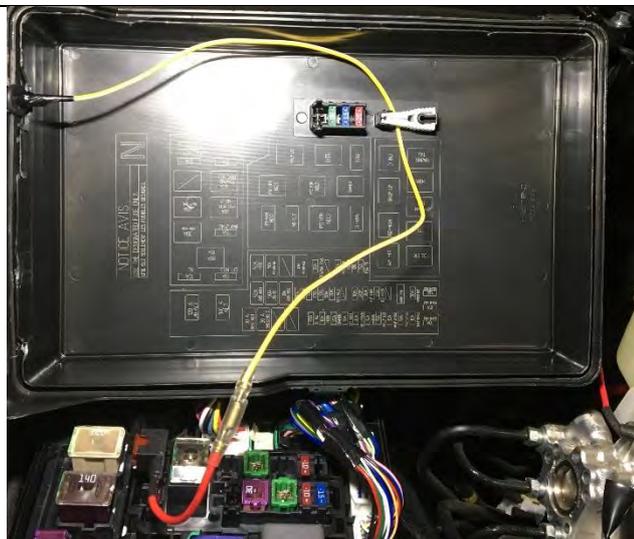


40. Route the bullet connector and headlight connectors on the left side of the vehicle through the hole shown.

Note: The Deutsch connectors will not be routed through this hole.



41. Insert bullet connector through grommet in fuse box lid until the sheathing is inside the grommet. Wire can be routed underneath the fuse puller.



42. Connect the harness side of the bullet connector to the fused side and reinstall the fuse box lid.

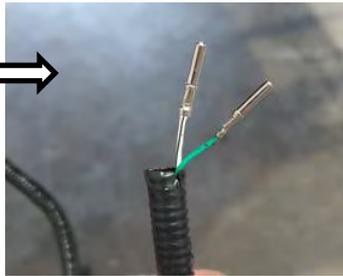


43. Disconnect the 6-pin connector from the back of the headlight on the left side of the vehicle. Plug this connector into the corresponding side of the harness headlight connectors.



44. Insert other side of the 6-pin connector into the back of the headlight.

Repeat for the right side of the vehicle.



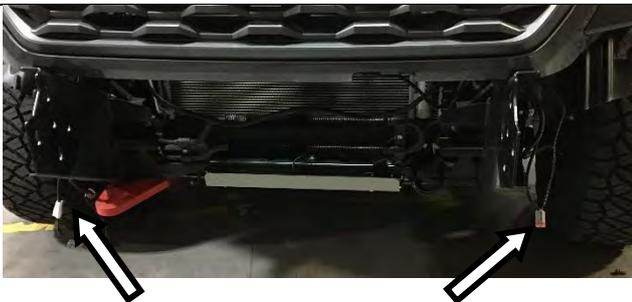
45. If the vehicle comes with OE fog lights, cut the OE connector off the loom and fit the Deutsch connectors as shown. If there were no OE fog lights on the vehicle, use ARB harness 3500520.



Pin 1: Green
Pin 2: White/Black



46. Connect the fog harness using the 2-pin Deutsch connectors.

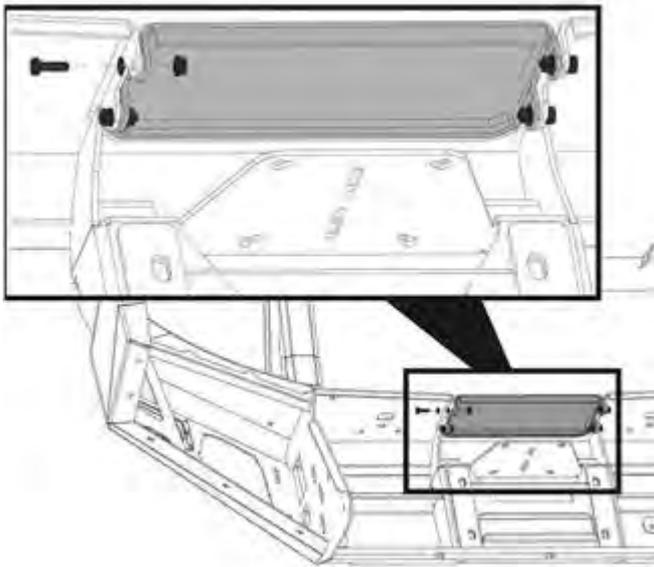


47. Feed the loom down behind the vehicle grille and route across the chassis mount brackets as shown.

Note: Light connectors sit on the outside of the chassis mount brackets.

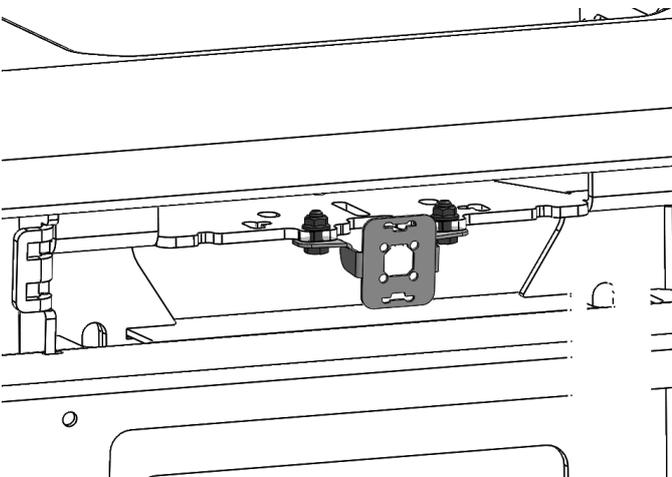
FITTING PROCEDURE

Note: If fitting a winch proceed from here using fitting instructions 37801255 supplied with 3523030 winch install kit. Once the winch is fitted, please continue to step 49. If no winch is being fitted continue from here.



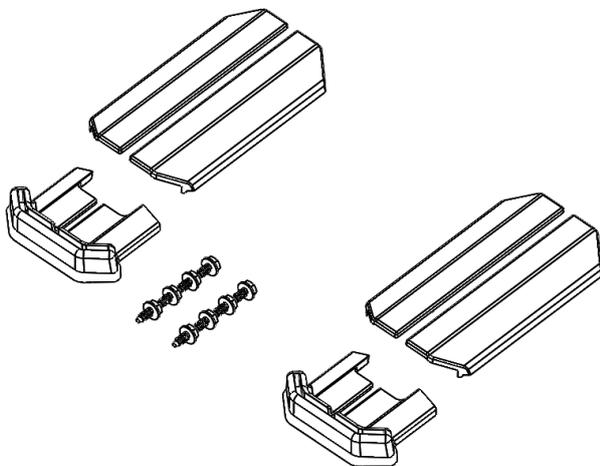
48. If not fitting a winch, assemble the winch cover panel to the bar using four M6x1.0x20mm hex bolts, 12mm flat washers, and flanged M6 nuts.

 M6 - 9 Nm (6.6ft*lb).

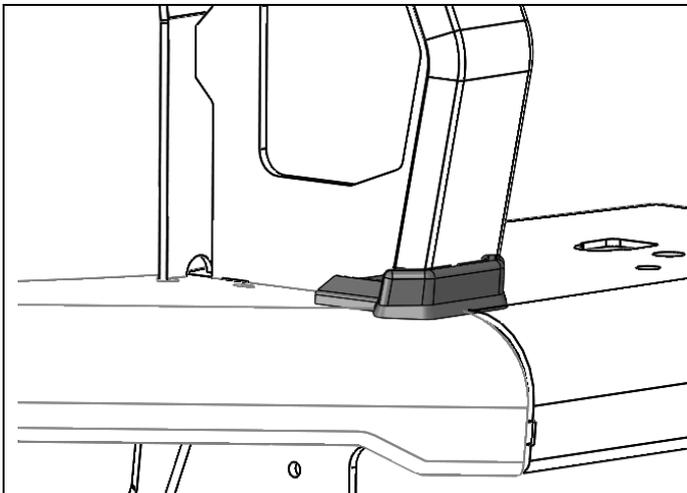


49. If the vehicle is equipped with a forward-facing camera, use camera install kit **3523040** and use instructions **37801256** to install.

If the vehicle is not equipped with a forward-facing camera, proceed to step 50.

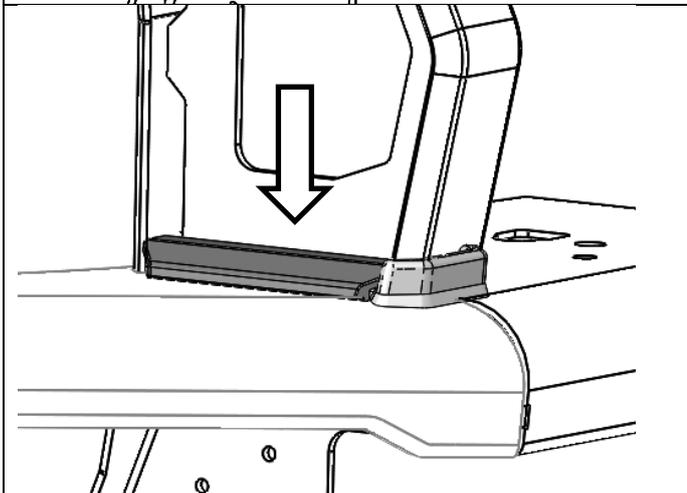


50. Identify the cover strap plastics kit.

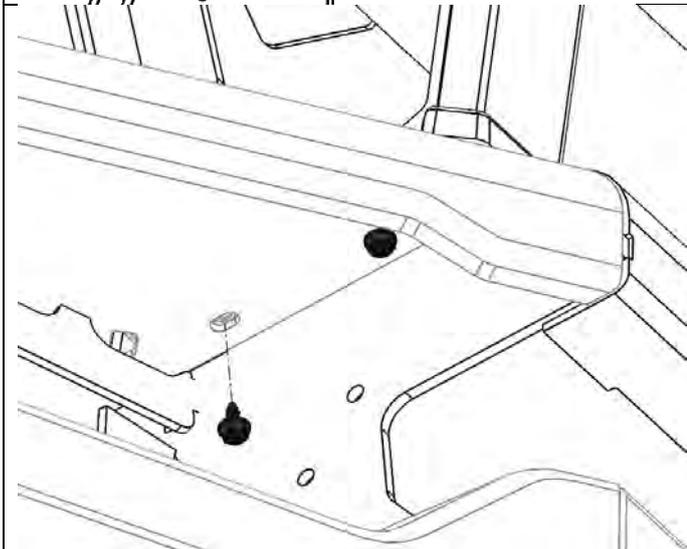


51. Fit the rubber intersection mouldings to the base of each upright cover strap.

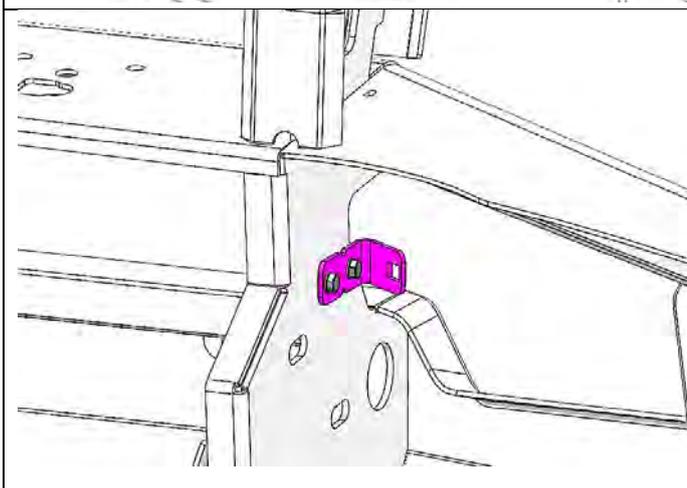
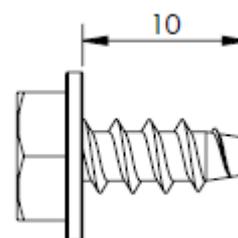
Ensure that the skirt of the rubber moulding is not folded back on itself and is sitting flat against the bull bar.



52. Place the plastic cover down onto the rubber moulding, repeat on both sides of the cover straps.



53. From underneath, fit two screws into each plastic cover. Tighten until the covers are secure and have firmly clamped the rubber moulding.

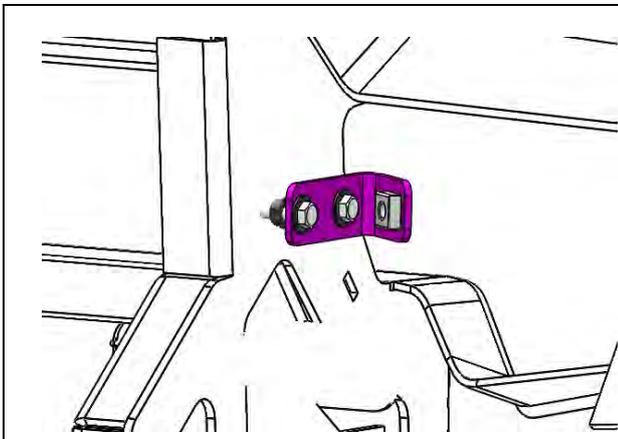


54. Assemble both fog cluster mounting brackets onto the outside of the uprights with two M6x1.0x20mm flange bolts, washers and flange nuts.

Torque to specification.

NOTE: Right side shown

 **M6 - 9 Nm (6.6 ft*lb).**



55. Assemble two M6 (2.6-3.5mm) caged nuts into both fog cluster mounting brackets.

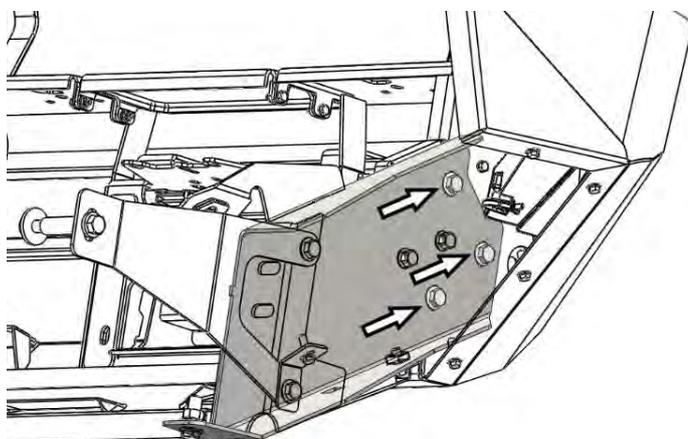


56. If fitting driving lights, install to bull bar now.



FITTING OF BULL BAR TO VEHICLE

57. With the aid of a lifting trolley, fit bull bar on to chassis mount bracket and align slots in mount.



58. Loosely fasten bar to chassis mount brackets using six flanged M12x1.25x35mm bolts and six M12 flange nuts.

NOTE: Right side shown.

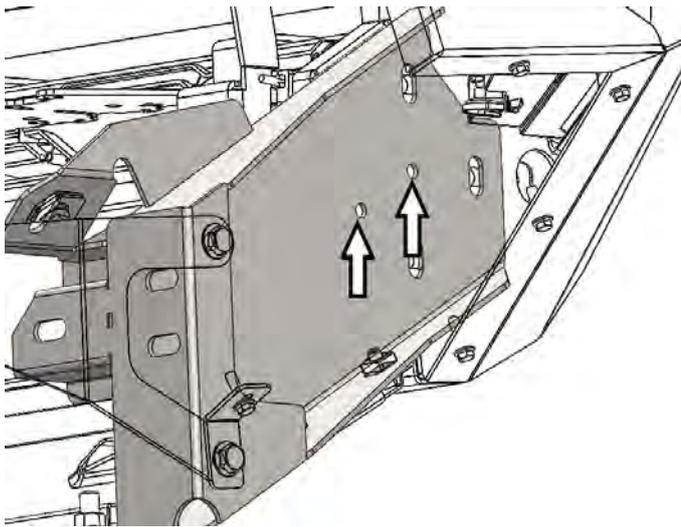


59. Align bull bar so there is a 15-18mm gap from top of wings to underside of flares and an even 10mm minimum gap to vehicle including periphery under headlights, and then tighten all bolts.

If the bull bar is not central on the vehicle loosen the mount bolts to the chassis (step 12 and step 16), remove the 3mm packers and adjust bull bar position, add packers as appropriate and retighten all fasteners as specified.

 M12 = 77 Nm (57 ft*lb).

 M10 = 44 Nm (32 ft*lb).



60. Once happy with the position of the bar and all fasteners are correctly torqued, using the existing 2 holes in the mount as a guide, drill through using a 10mm drill bit and secure using two flanged M10x1.5x30mm bolts and M10x1.5 flange nuts, tighten to specification.

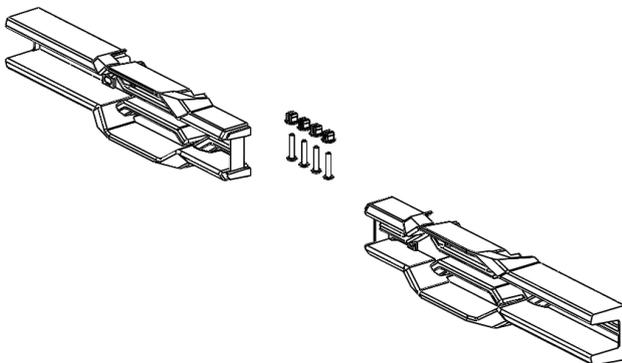
 M10 = 44 Nm (32 ft*lb).

NOTE: These bolts are to lock the bull bar to the chassis mounting bracket.

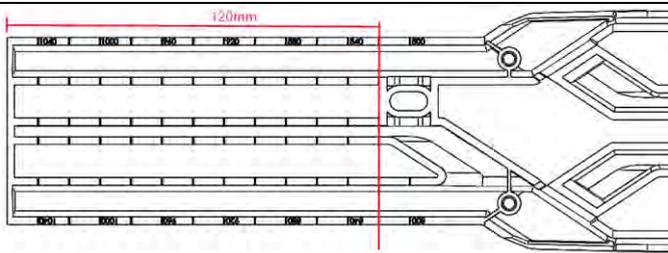
NOTE: Right side shown.



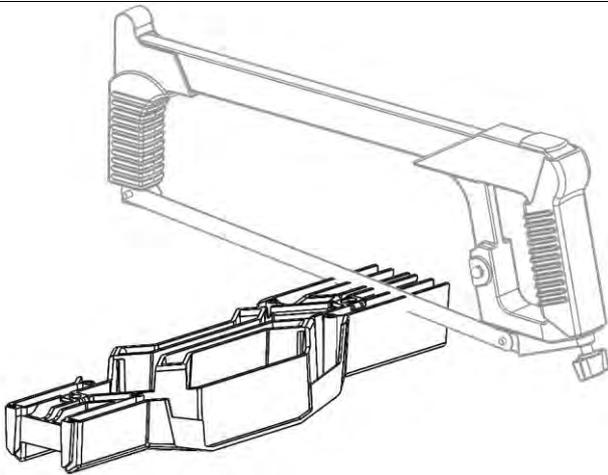
Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.



61. Identify the outer grille section kit.



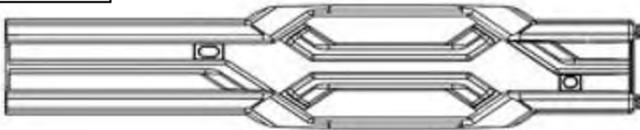
62. Mark both grille panels to be cut at the 820mm markings on the back face. (120mm from the outer edge, line between 840 and 800).



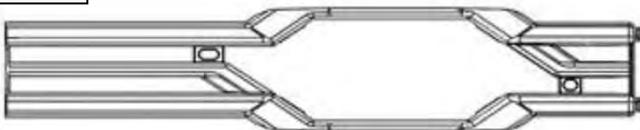
63. Use a hacksaw or similar cutting tool to carefully cut the grille panel at the positions marked in the step above.

Discard the off cuts and clean up the cut edges using a file or sandpaper.

Before



After

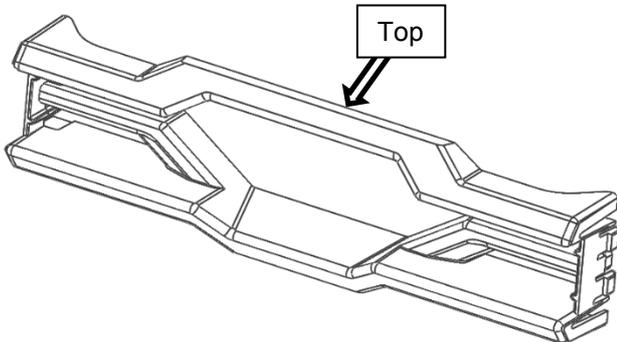


64. If fitting a winch, remove grille sections shown for access to clutch lever.

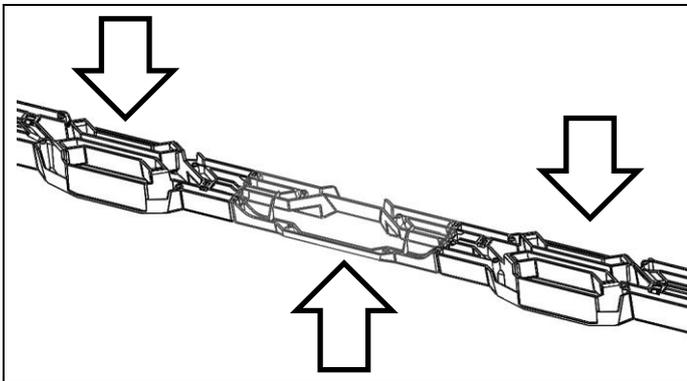
Cut from rear with oscillating multi-tool.



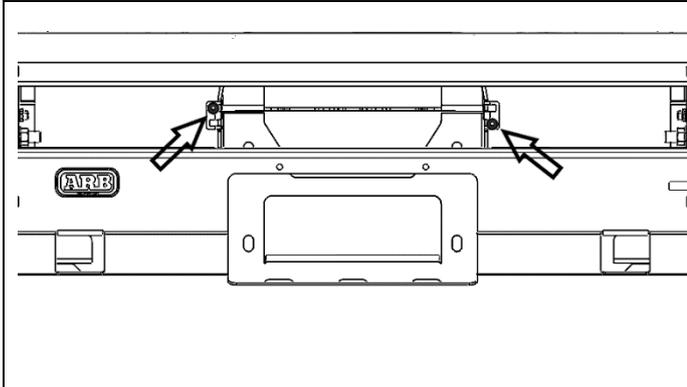
Warning: Cutting operations can result in flying metal debris, safety glasses should be worn.



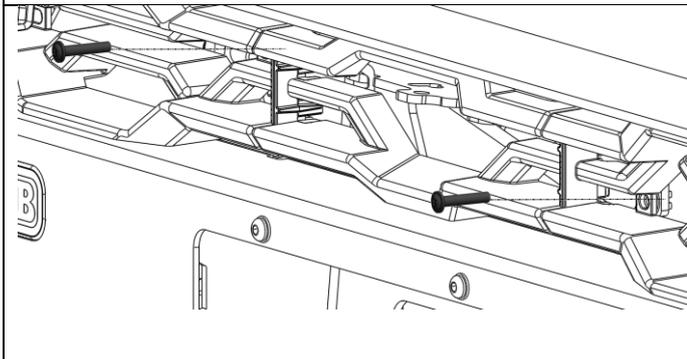
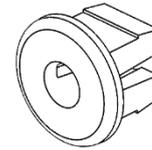
65. Identify the inner grille section kit.
Note the orientation of the grille centre.



66. Assemble centre section into both outer sections, make sure clips are fully engaged.



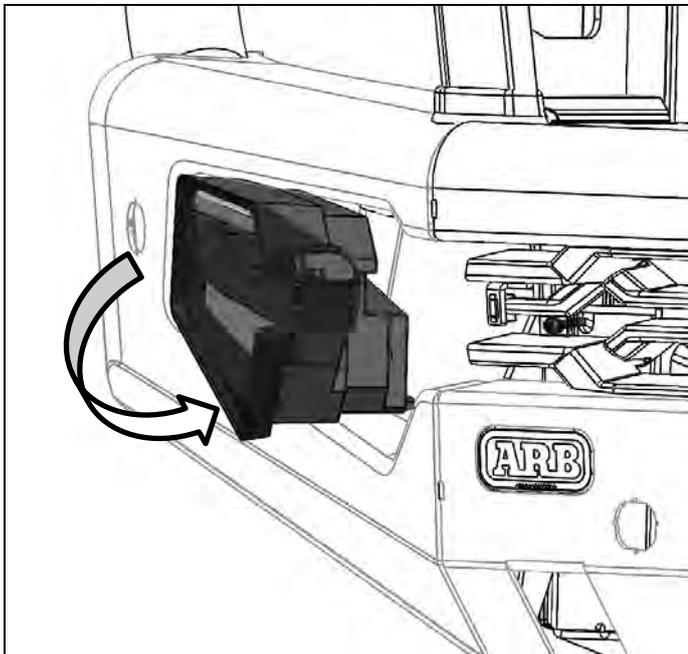
67. Press two round plastic grommets from grille kit into the square cut-outs seen from the front of the bull bar.



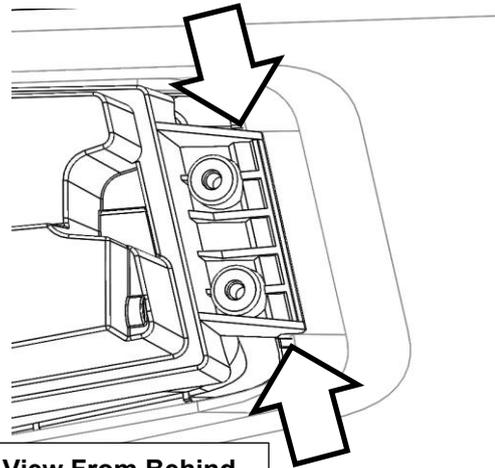
68. Attach grille assembly to bull bar using two button head Torx head screws supplied in grille kit.



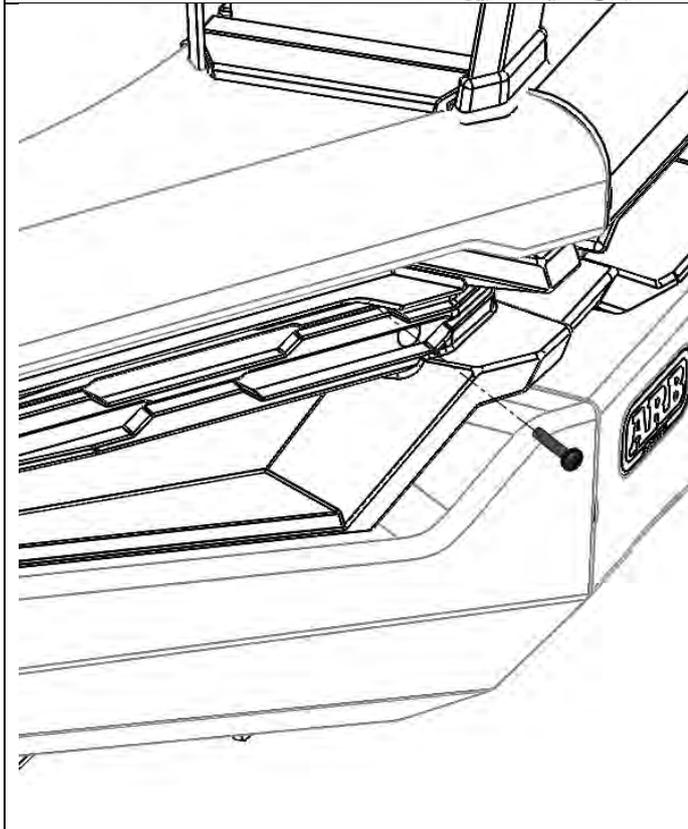
69. Camera (if fitted) should sit in the grille as shown.



70. Index the outside groove of the lamp cluster over the edge of the aperture in the bull bar wing. Then rotate the lamp cluster into place.

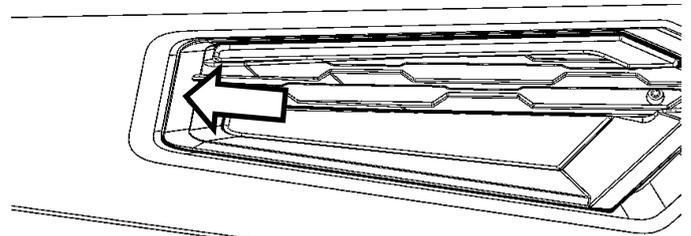


View From Behind



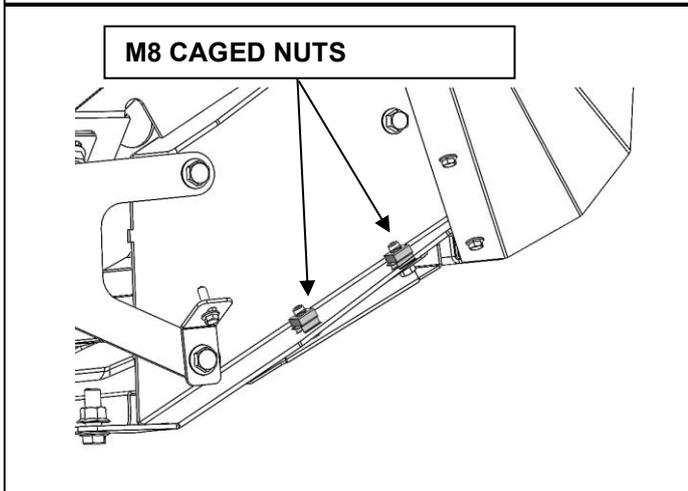
71. Secure lamp cluster with M6 Torx head screw.

Note: push lamp cluster hard against the aperture in the bull bar wing when fastening.



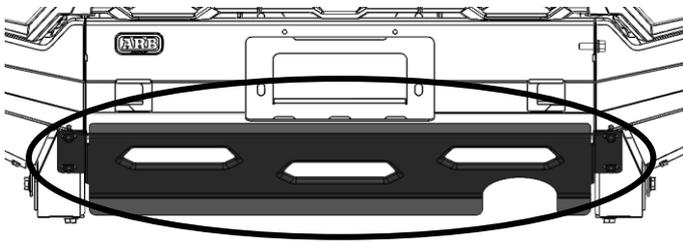
Connect lighting harness into the back of each fog cluster.

 M6 - 9 Nm (6.6 ft*lb).

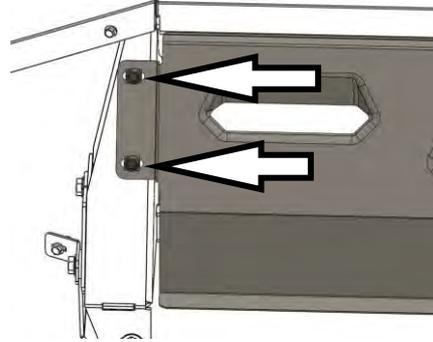


72. Fit two M8 (3.3-4.7mm) caged nuts to the inside of each chassis mount bracket.

NOTE: Right side shown.



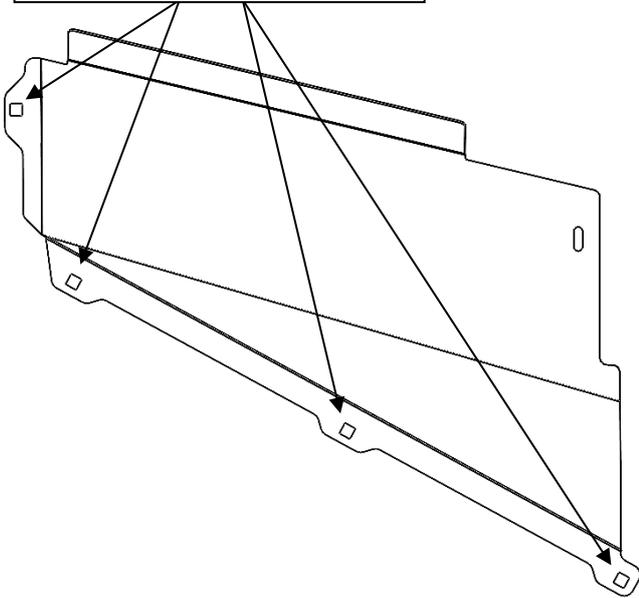
73. Assemble stone shield with four flanged M8x1.25x25mm bolts (two per side). Torque to specification.



M8 = 22 Nm (16 ft*lb).

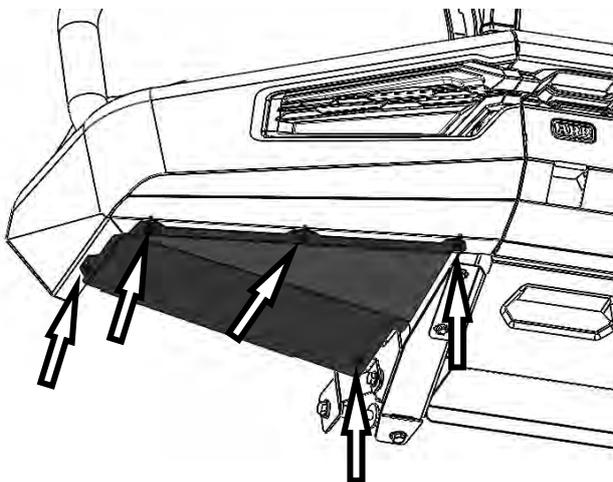
ARROWS INDICATE M8 BOLT POSITIONS

M6 CAGED NUTS



74. Fit four M6 (0.7-1.6mm) caged nuts to the inside of the flanges on the wing under panel, RH & LH.

NOTE: Right side shown.



75. Assemble wing under panel using ten flanged M6x1.0x25mm bolts (5 per side). Torque to specification.



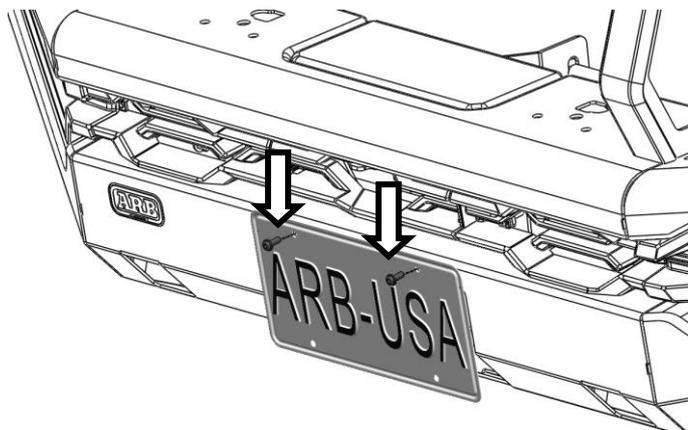
M6 = 9 Nm (6.6 ft*lb).



76. Once under wing panel is fitted, mark a line approximately 5-10mm above the wing panel. Cut the wheel well liner using an oscillating multi-tool and tuck behind the rear lip of the wing under panel. Repeat for other side.



Warning: Cutting operations can result in flying debris, safety glasses should be worn.



77. If fitting a licence plate, use two M6x1.0x16mm button heads, 12mm M6 washers, and M6 flange nuts to attach the plate.

Caution: Licence plate is not compatible when fitting a winch. If fitting a winch, purchase the winch install kit.

ONCE BAR IS FITTED:

- ◆ Reconnect earth terminal.
- ◆ Ensure all bolts are tensioned correctly.
- ◆ All wiring is clear of sharp edges or moving surfaces and secured properly.
- ◆ Piping is secured well away from sharp or moving components
- ◆ Check operation of winch if fitted.
- ◆ Check all wiring and connections to turn signal lamps, radar, camera (if fitted) etc. are functioning correctly.

FITTED PRODUCT

