FITTING GUIDE



VEHICLE: FORD RANGER NEXT GEN

PART NUMBER: BU19-5568 AND BU19-5745

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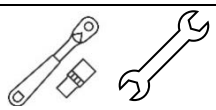
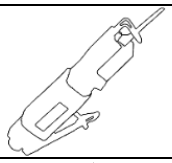
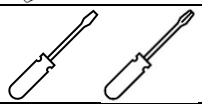
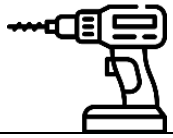
IMPORTANT SAFETY INFORMATION

- Dobinsons BULLBARS should be installed by a qualified installer and it is the installer responsibility to ensure correct fitment.
- Fully Read and understand the instructions before beginning installation
- Always wear appropriate personal protective equipment such as suitable clothing, footwear, ear and eye protection as required
- All lighting and other wiring should be completed by a suitable qualified person to relevant standards.
- All wiring should be tested before and after to ensure correct function
- If towing from tow-points on this bulbar (where supplied) always use an equalizing strap

IMPORTANT FITTING INFORMATION

- This bulbar will take approximately 5 hours to install
- This bullbar has been designed and tested for airbag compatibility and should not be modified in any way
- Do not remove any labels from the bulbar
- This bullbar requires the OEM bumper to be cut. There is a template supplied at the end of this manual. IT is critical to ensure that page scaling is turned off when printing this instruction to prevent the template from downscaling to the incorrect size
- ALWAYS check the scale line on the template before marking and cutting to ensure it has been printed at full size and not downscaled
- Do not turn the vehicle on during installation without having all sensors and radars connected as this may throw an ECU fault requiring this to be cleared at a dealership
- It is recommended not to leave the vehicle keys in the car or nearby whilst installing the bulbar as this may also cause the vehicle to throw an ECU fault code

TOOLS REQUIRED

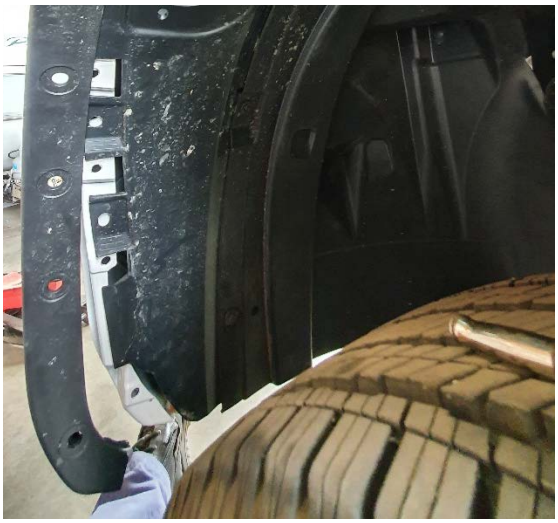
Spanners and socket set		Pliers and side cutters	
Pneumatic hacksaw/Body Saw.		Soldering Iron and Wiring tools	
Screwdrivers		Masking Tape	
Drill with drill bits		Cable Ties	

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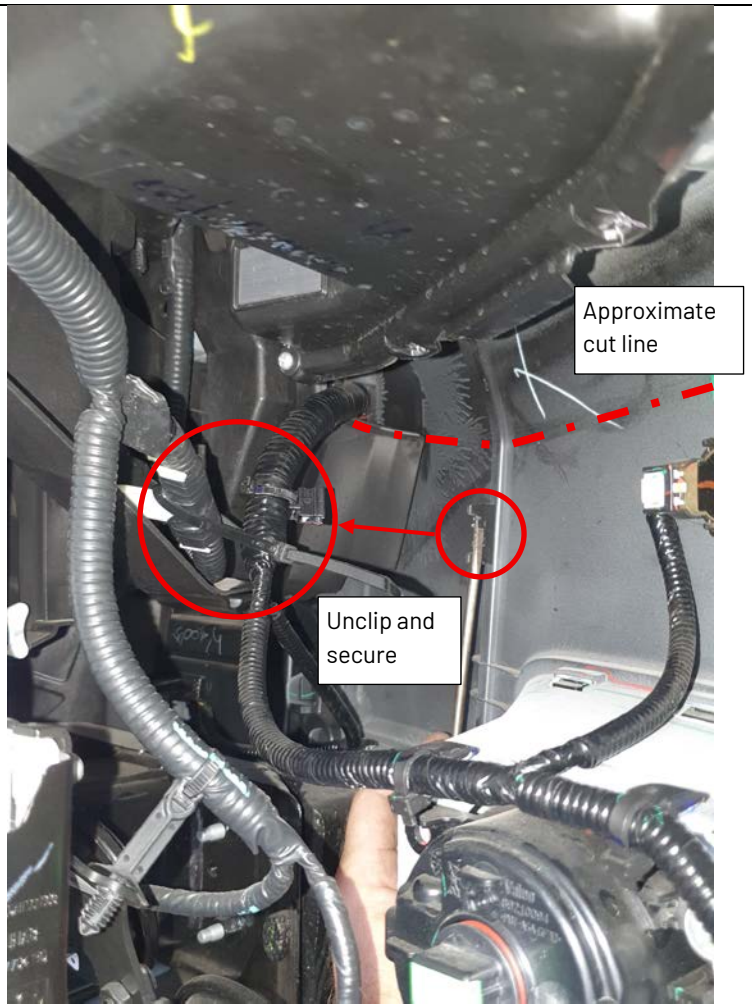
Fitting Guide

Before starting the installation, open all packages and inspect the bulbar for any damage and ensure you have all required parts and fittings. Take EXTREME care when opening the bulbar especially if using a knife. Pull the packaging away from the bulbar and very carefully cut with sharp snips. Take particular care on the loops as even when cutting the outer packaging it can be very easily to go right through and cut the bar.

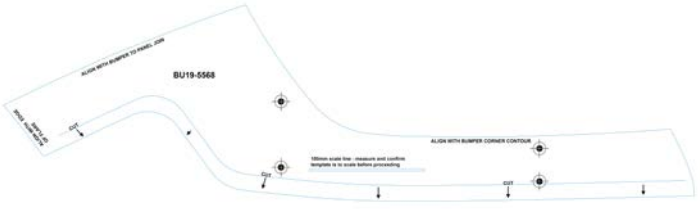
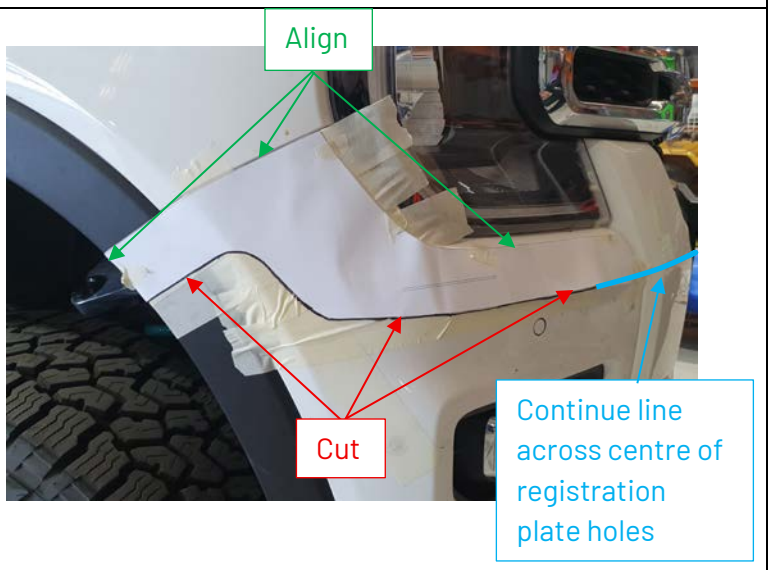
1. Remove all the fasters along the wheel arch/flare edge of the bumper and the bottom of the bumper that attach the bumper to the vehicle.



2. Reach in behind the bumper and use a screwdriver to disconnect the wire retaining clips on the fog light and sensor harness.
3. Disconnect the fog lights and parking sensor plugs.
4. Zip tip the wiring upward and backward out of the way so that you can cut the bumper without damaging the wiring. The bumper is cut just above the parking sensor



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5. Remove the OE bash plate and tow points and keep aside for refitment later	
6. Find the bumper template ***(3 page - attached at the end of this manual).*** Measure the scale line to ensure the template is printed to scale. Cut the template and join together aligning the alignment cross hairs directly on top of each other *(hold these 2 upto the vehicle window or building glass window to allow you to see through both for alignment)*	
7. Masking tape the bumper and flare – tape the flare and bumper separately as you will need to separate the flare from the bumper shortly . 8. Tape the template to the bump aligning the upper edge against the flare wheel arch edge, the bumper edge where it meets the quarter panel and the corner contour (not the headlight) just below the headlight **(GREEN)** 9. Mark the cut edge of the template . 10. Flip the template upside down and repeat the process on the other side. 11. Mask a line from the inner edges of the template cut across the centre of the registration plate mounting holes on the bumper **(BLUE)**	

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12. Using a body saw/small reciprocating saw with short blade or similar very carefully cut along the marked lines. Cut each side first where the template was marked then cut the centre section. **Release any remaining wiring harness clips as you go**
NOTE:
A). Take care as you cut to avoid cutting any wires. Start from the outer edges and check behind the guard periodically as you go to ensure you do not cut into anything
B). Avoid putting to much pressure on the bodsay cutting edge back stop/back rest above the cut line to prevent marking the upper section of the bumper that is retained. You can add some more masking tape above the cut line to help



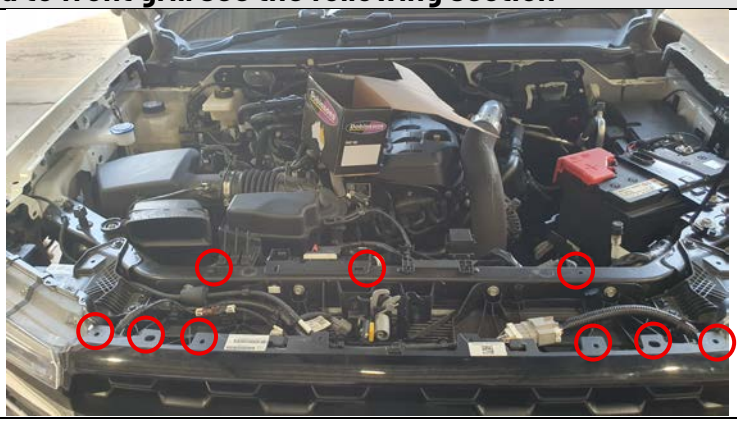


13. Remove the foam bumper support
14. Disconnect the radar wiring and carefully remove radar DO NOT DROP, Remove the bolts holding the steel bumper support and remove. Retain the OE bolts for use in the bulbar bracket later.
15. Remove the outer bumper support brackets.



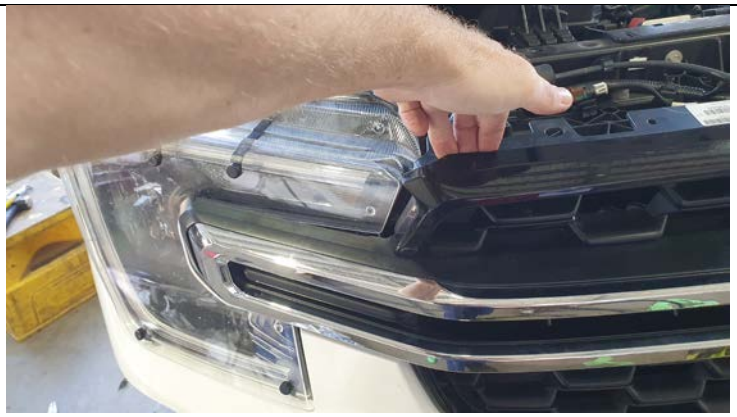
For Models with Camera Fitted to front grill see the following section

16. Remove the clips from the top of the grill cover



17. Gently wriggle and pull away the grill form near the headlights, popping out the section near the headlights

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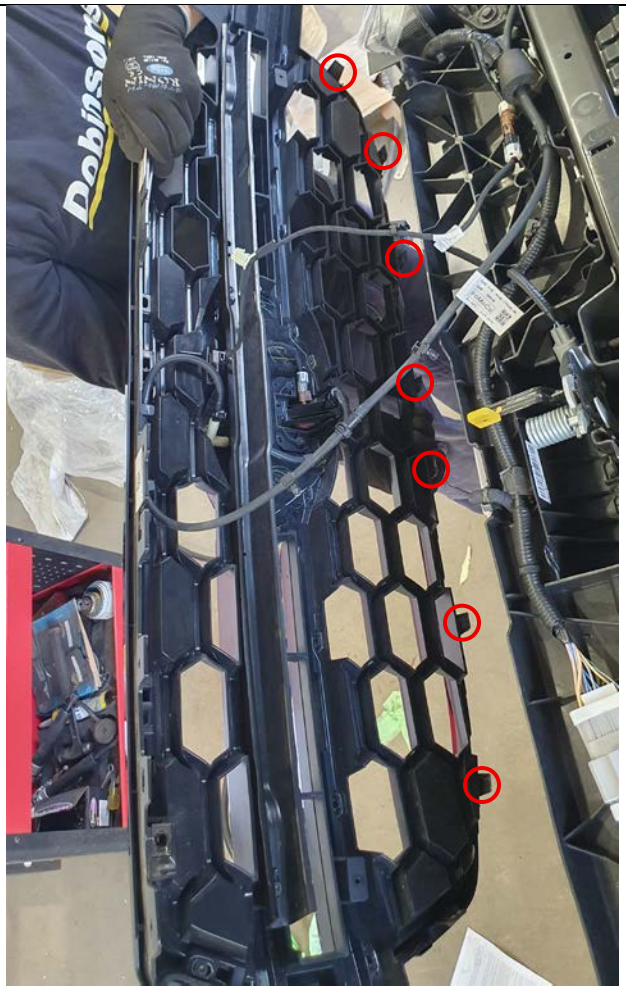




18. From underneath the grill you will see black retaining tabs – there is 6 along the bottom edge and 2 on the diagonal faces, use a flat blade screw driver to release these and gently pull the grill forward.



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19. With the grill removed disconnect all the wiring retainers for the camera wiring harness and the washer tubes **(RED)**

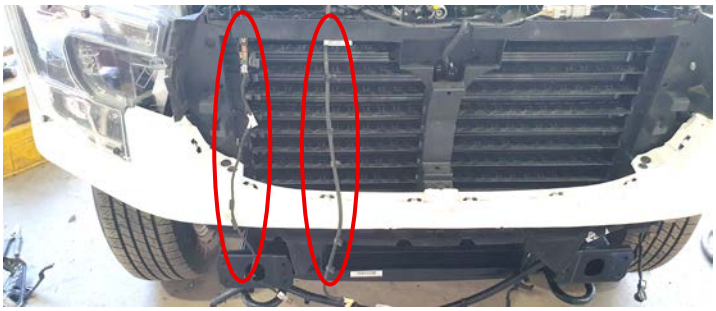
⚠ **WARNING: Take extreme care when unclipping the brown camera plug as the small brown retaining clip can snap easily.**

20. Remove the camera mounting screws and remove the camera and wiring. **(GREEN)**



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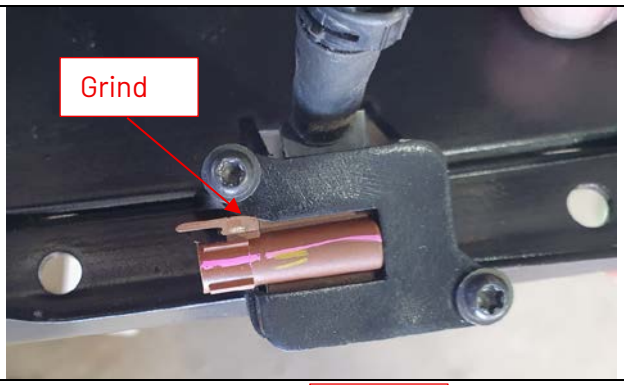
21. Pull the camera wiring and washer tube back through the grill and back along the top of the grill area, disconnecting the top clips along so the wiring harness and washer tube can be tucked down behind the right side of the grill to allow more length to reach the bulbar.



22. Remove the camera from the retaining housing by releasing the plastic clip.
23. Refit the camera house to the grill.
24. Install the camera to the plastic radar cover supplied using the small plastic backing cover and screws supplied.
    A). This may require the edge of the camera plug clip to be removed on SOME models only. See diagram at end of instructions for clarity.



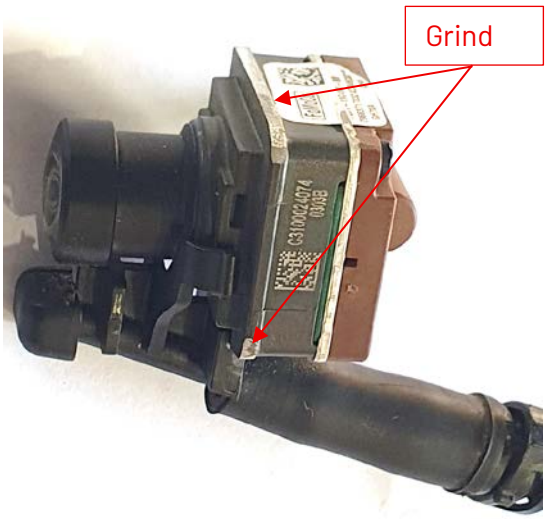
25. This may also require the inner edge of the back cover near the lower screw to be ground down to allow the camera plug to be refitted.



This may also require the edge of the camera to be ground back a little – grind the top edge flange and lower corners just slightly to allow it to fit and paint with black paint.



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26. Test fit the camera plug and install to he radar cover supplied with the small screws.
27. Place a small cable tie around the washer nozzle to keep it in place – this does not need to be overly tight



28. Install the radar sensor cover to vehicle, drill the holes out a little if required for fitment. Take care to ensure it is not dropped.
29. Install the radar sensor to the vehicle – **NOTE the lower bolt is inserted from the rear to maintain clearance to the winch if fitting a winch**



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All models continued . . .

30. If mounting a winch trim the plastic shroud for clearance as shown

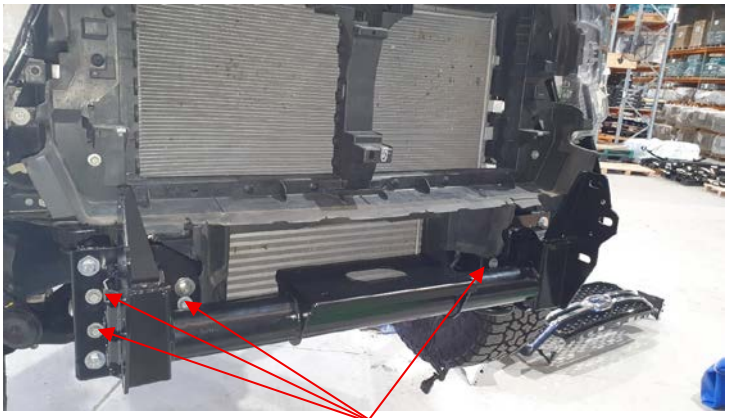


31. On one side at a time, remove the intercooler/bashplate/towpoint mount and install the inner chassis support brackets between the mount and chassis. Refit the mounts loosely
32. Repeat on the other side
33. Install the outer chassis support brackets with the long bolts supplied through the outer, chassis and inner. Tighten these until they just start to touch the chassis but can be moved freely

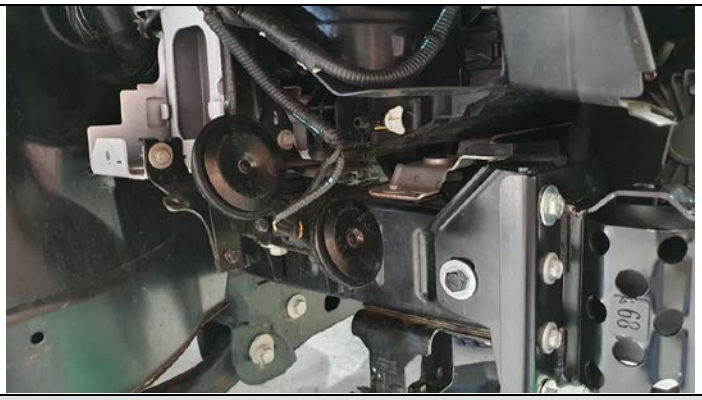
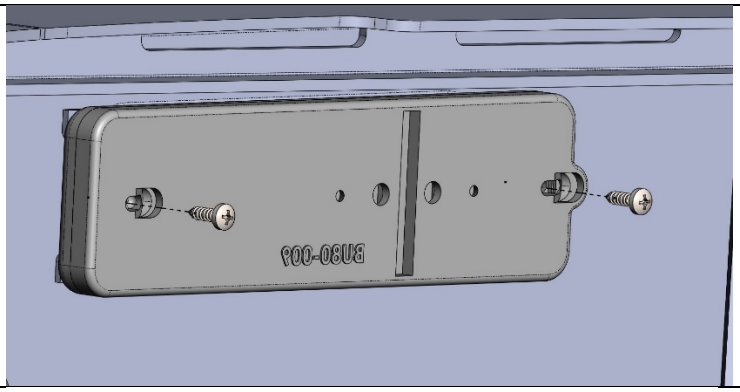
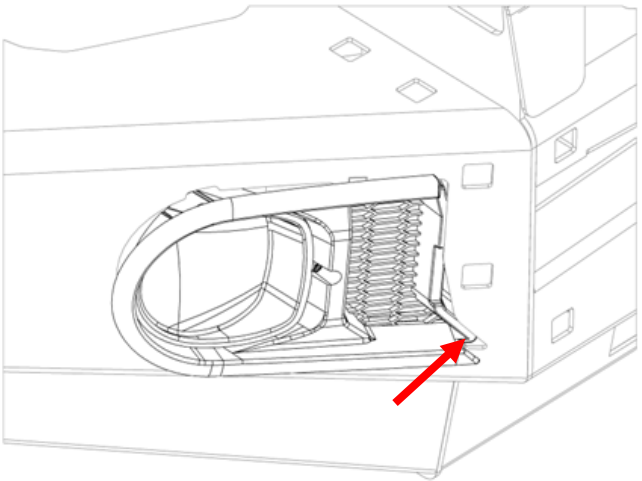




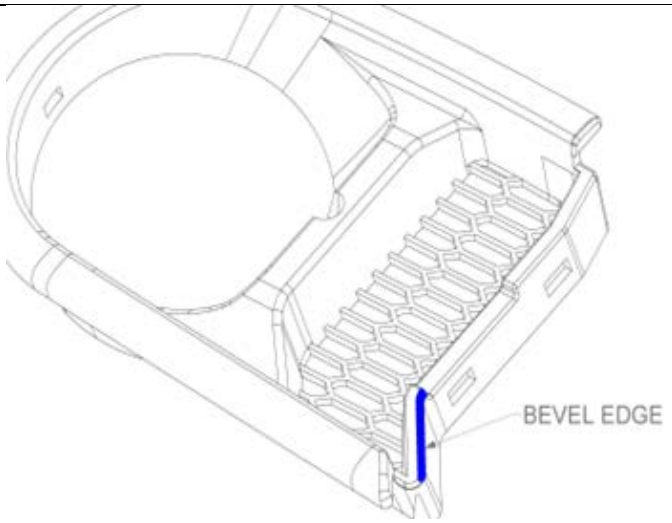
34. Install the main bulbar bracket with the OEM bolts through the 6 threaded chassis holes. Leave loose for now.
35. Install the remaining shorter bolts nyloc nuts and washers through the main bracket into the support brackets.
36. Centralise the bracket to the vehicle and tighten the OEM bolts.
37. Tighten the intercooler/bashplate/towpoint mount bolts so they are snug but can still slide.



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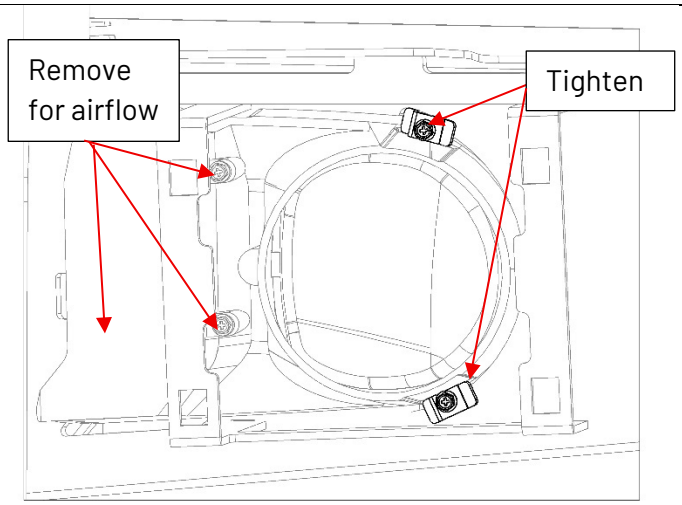
38. Tighten, the main chassis shorter bolts snug 39. Now go back and tighten all bolts fully. **This is to ensure the brackets are all pulled snug against the chassis before tightening fully so they are not tightened away from the chassis then bent in.**	
40. For models fitted with a dual horn configuration, this needs to be flipped 180 degrees	
Light Wiring & Installation	
41. It is best to complete the light wiring now with the bumper still removed.	
42. Install the Indicator/parker lights with the screws supplied.	
43. Install the fog light surrounds to the bulbar *(if not already installed)* Insert the inside edge of the fog light bezel in behind the cut out in the bullbar and slide the bezel inwards towards the center of the bar so that the outside edge can slide in. The bezel is a " tension-fit" and is quite tight so this will require you to push inward/backward on the corner shown below to allow the edge to go beneath the bar. (Polyurethane over-rider not shown below for illustration purposes). If required, you can bevel the inner corner as shown to help make it easier to fit	

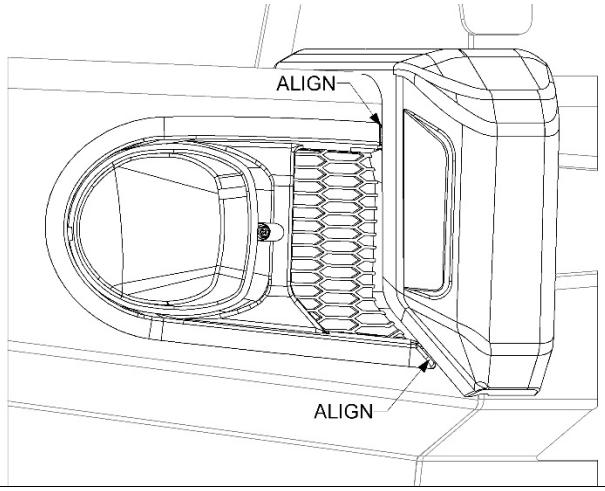
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44. Loosely fit the mounting tabs on the back side of the fog light bezel with the M4 plastic screw provided. Align the fog light bezel with the edge of the overrider. Once aligned tighten the rear mounting tabs to secure the bezel in place.

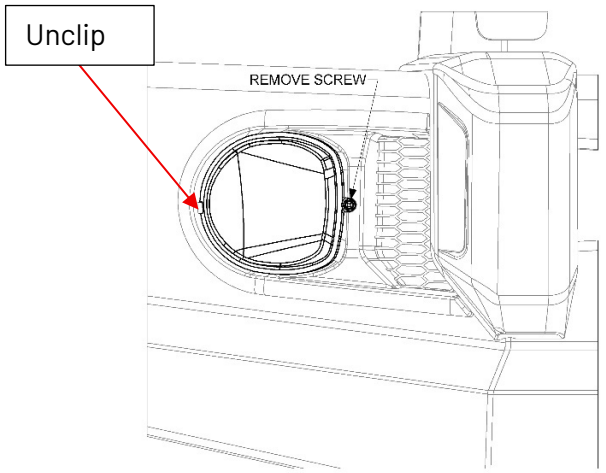
NOTE For Landcruiser 300 series and other vehicles that require airflow to intercoolers and other vehicle coolers remove the cover air flow cover to allow airflow



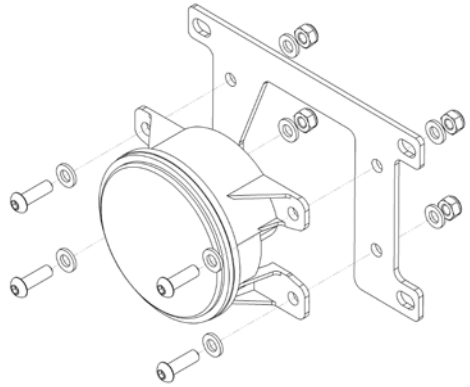


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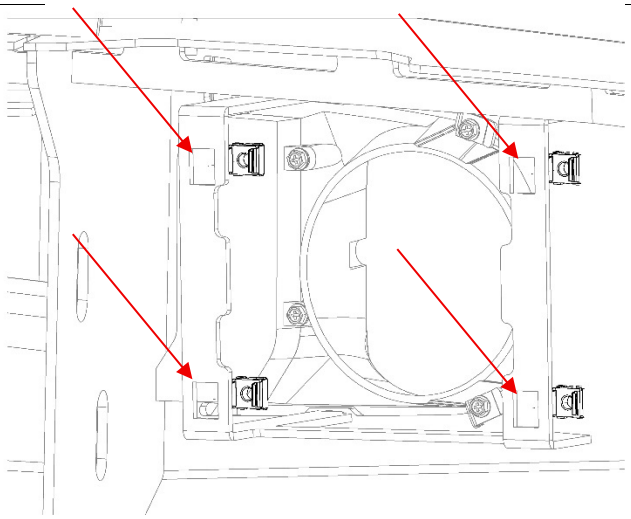
45. If installing fog lights – L.E.D Fog Light kit BU80-029k these can be installed now. Remove the front screw and unclip the cover panel



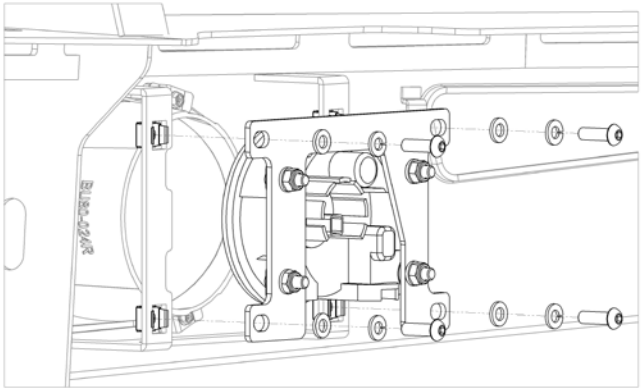
46. Bolt the fog light BU80-025 to the provided bracket using the M6x20 button head bolts, nyloc nuts and washers



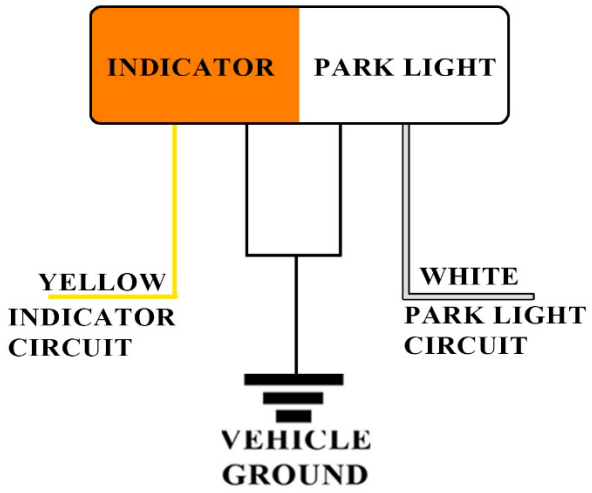
47. Install the M6 cage nuts into the fog light bracket on the back of the bulbar



48. Install the fog light assembly from step 6 on to the bullbar using the M6x20 button head bolts, spring washers and washers.



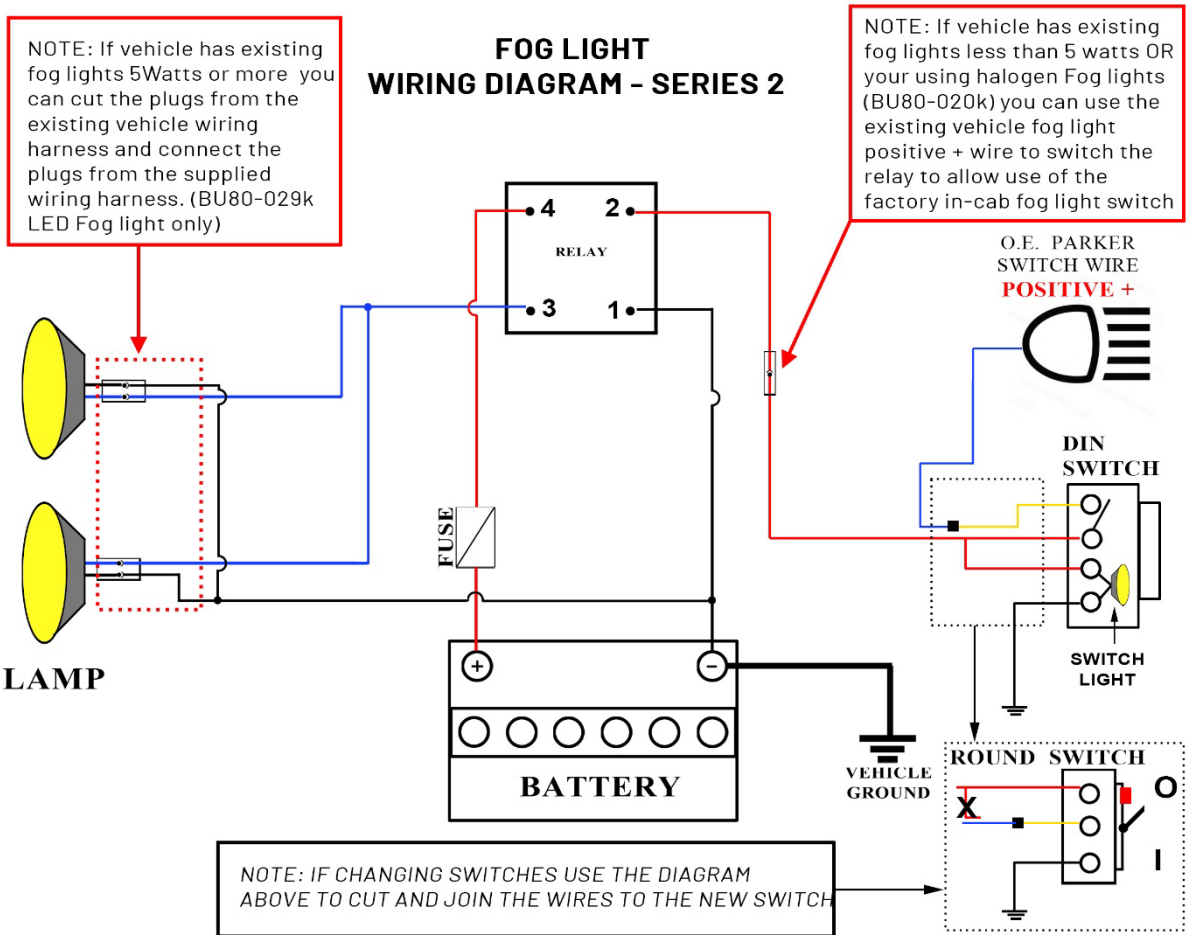
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49. Using a Test light Locate the earth, parker (use DRL if no parker light available) and indicator wires from the wire plugs at the rear of the factory lights.	
50. Remove the factory wire insulation carefully solder the new indicator / parker light wiring plug to the existing vehicle wiring circuit using the diagram below. Tape connections. **NOTE:** *For some later model Toyota 150 prado vehicles the Parker lights must be wired using a relayed wiring loom (a modified spotlight/foglight loom or similar) as the vehicle headlight wiring will not work – see the specific instructions with the bulbar for more information on these.*	

51. Wire the fog lights – Please check below and select the suitable option
    A). Dobinsons BU80-029k LED Type fog lights are 5 watt. If the vehicle is fitted with OEM fog lights of 5 watts or more you may use the existing fog light wiring by cutting the existing fog light wiring plugs and attaching the plugs from the supplied wiring loom.
    B). Where no OEM fog lights are fitted, Wire the fog lights as per the diagram on the following page. There are 2 switches provided – a prewired universal single large din switch and a small universal switch. Dobinsons have some other plug and play switches available that are vehicle specific. Ashdown Ingram and similar electric wholesalers also have these switches – *Check the wiring diagrams on the packet of the switch first to ensure they will plug in and work correctly or need wiring altered.*

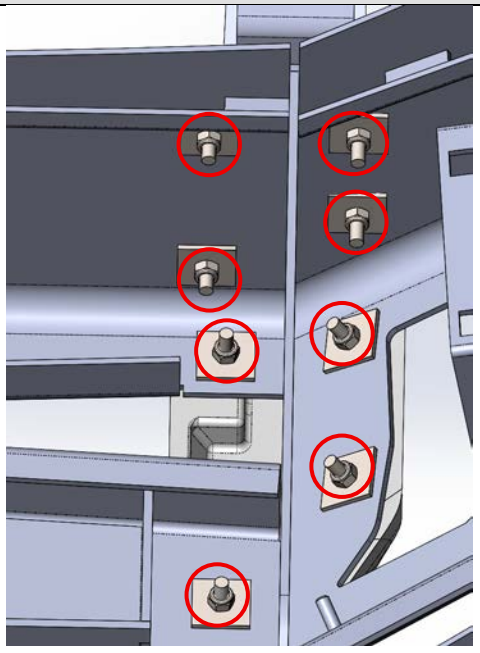
A round universal switch is also supplied – install the switch by drilling a 20mm hole and altering the wiring as shown.

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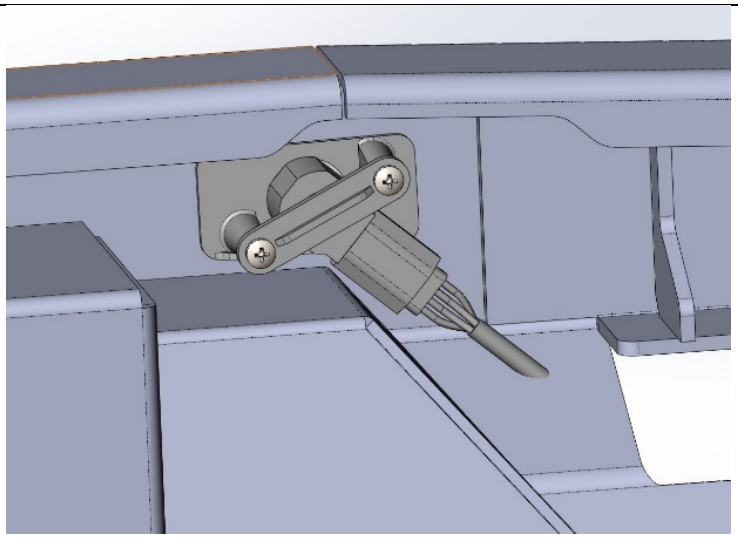
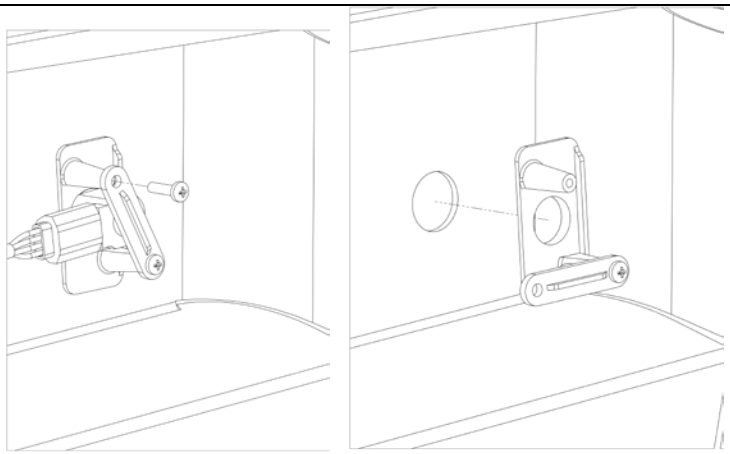


Bullbar Installation Continued

52. Check the poly bumper over riders are snug- these should not be overly tight as they will pull the studs from the polyurethane.



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53. Install the parking sensors **(if fitted to OEM Vehicle**) to the bulbar – ensure they are installed in the same location as original. Note the orientation of the sensors.	
54. Clean the area around the sensor hole on the back side of the bulbar and sensor bracket mounting surface with brake-clean/contact cleaner/white spirits or similar. 55. Attach the sensor to the bracket with the screws supplied. This does not need to be overly tight or it will pull the front second out of shape – tighten gently ensuring the front face stays flat	
56. Disconnect the radar wiring harness retaining clips to allow it to be pulled up snug above the plastic shroud to allow more length to reach the bullbar	

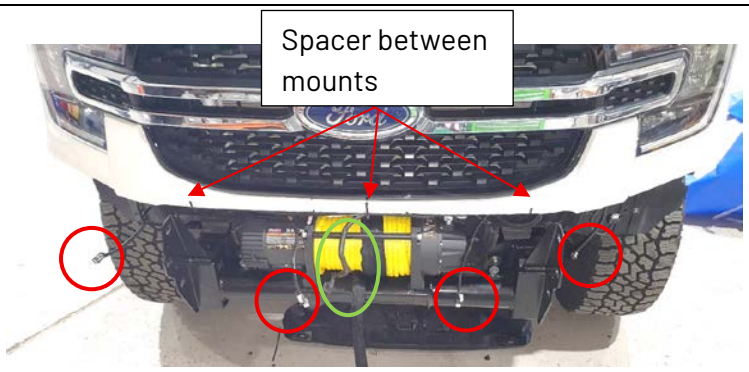
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57. Each sensor will likely require the conduit and wires to be un-taped, separated out and re-taped to allow more length to reach the sensor locations

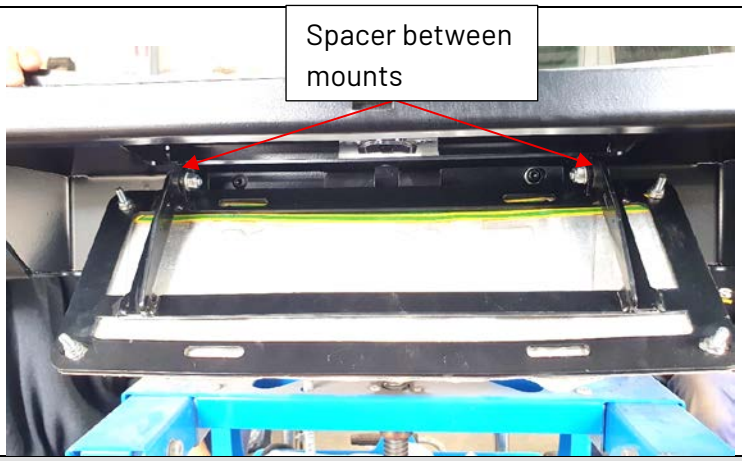


58. Drill some small holes in the bottom of the centre of the bumper and cable tip the wires just to the rear side of the bumper.
Parking Sensors

Radar and Camera



59. Mount the vehicle registration plate to the mounting bracket supplied and install to bulbar in the recessed section just above the fairlead hole. The supplied spacers fit between the number plate mount and the bulbar mount sections of the bracket. Ensure you have it the correct orientation so that you can install the locking pins to position it in the flat forward position



Winch Installation *(skip this section if not fitting)*

60. See the Installation section of your Dobinsons 4x4 Winch manual for specific detailed fitting

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instructions. For a brief overview see the following steps.	
61. Test fit your winch to the mounting bracket and do up loosely with the clutch handle on the left hand side of the vehicle. Ensure the plastic shroud above the winch has been trimmed earlier 62. This may require the clutch handle and gear-box housing to be rotated forward a few bolt holes to allow easy access through the bulbar holes. See instructions in winch user manual.	
63. Determine where the winch control box will be located and mount the control box. See instructions in winch user manual for control box mounting options. If mounting to the top of the bullbar using the supplied bracket, check clearance of control box to grill and also check where the wires will route as if the wires are passing through the holes in the top of the bullbar the control box may not be able to be wired until the bullbar has been fitted as below.	
64. Wire the winch up as per the winch instruction manual and bolt the winch to the mounting bracket, ensure the mounting bolts are not too long and tighten correctly. Route the wires and connect to battery and also route the breather hose.	
65. Mount the fairlead to the bulbar. Unwind some cable from the winch, and pass the cable through the fairlead hole in the bullbar and through the fairlead. For roller type fairleads, this may require removing a circlip from the fairlead and re installing once the cable is passed through.	

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Bullbar Installation Continued	
Driving Light installation special notes	
66. If mounting driving lights install driving lights to the bulbar now and run wiring as per the driving lights manual. **NOTE: the high beam trigger wire for the relay is different between the 3 types of headlights as shown below**	
67. **Type 1 - Halogen Headlights (fitted to most base models)** : take the high beam trigger wire from the rear of the headlight	
68. Type 2 – LED headlights (fitted to most models) : There is a wire in the passenger (left) side kick panel in the footwell labelled HIGH BEAM	 

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69. **Type 3 – LED Matrix square projectors – optional upgrade and on high end models :** Take high beam trigger wire from rear of headlight.



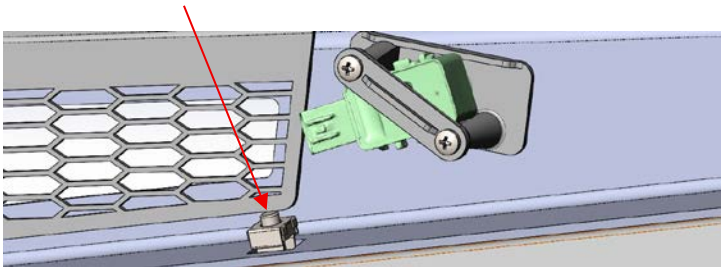
Bullbar Installation Continued

70. Re-fit the grill to the vehicle.
71. Depending on how neat the cut is you may or may not install the pinch weld rubber edge supplied. The cut can be tidied up using a very blunt flapdisk on a grinder but extreme caution must be taken when doing this not to grind to far and you only want to just touch the cut edge with almost no pressure on the disc, it will bite and grab easily – **this is done only at the installers risk**





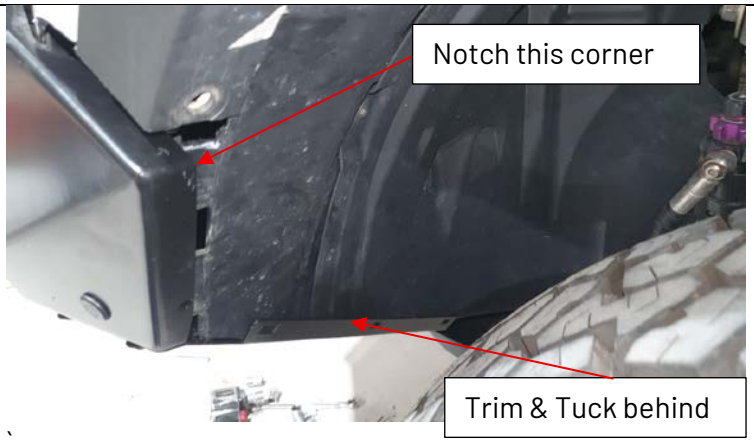
72. Install the captive nuts for the under protection kit into position on the inside of the bulbar – this is easiest to do before fitting
73. With help, fit the bulbar onto the mounting bracket and loosely fit the mounting hardware supplied – NOTE: it can be easier to connect and secure the parking sensors, radar and camera now as you install the bullbar
74. Align the bulbar to the vehicle and tighten the mounting bolts. Leave a



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gap of around 13-20mm on the wing tips to the bumper	
75. Once happy with the alignment of the bullbar drill pinning holes on each side of the bullbar drilling through both the pinning holes predrilled in the bulbar bracket into the bulbar mounting plates. Fit bolts and nyloc nuts to keep the bullbar in its position.	
76. Connect all lights, parking sensors and camera wiring connectors. Route wiring and secure with cable ties ensure its clear from winch cable and will not rub or pinch. **Check and confirm all lights are working as they should be**	
77. Install the under protection plates on the sides and centre with the hardware supplied and tighten. The centre under protection plate will meet with the original oem bashplate	

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78. Apply some masking tape to the front side of the wheel arch splash guards liners. Push them forward against the bottom of the outer under protection plates and mark a line level with the bottom of the under protection plates and the outer edge of the bulbar	
79. Use a body saw to cut along the marked line.	
80. Carefully notch around the bulbar wing tip and vehicle gap and then tuck the splash guards neatly up behind the outer under protection plates.	

After Installation

IMPORTANT NOTES:

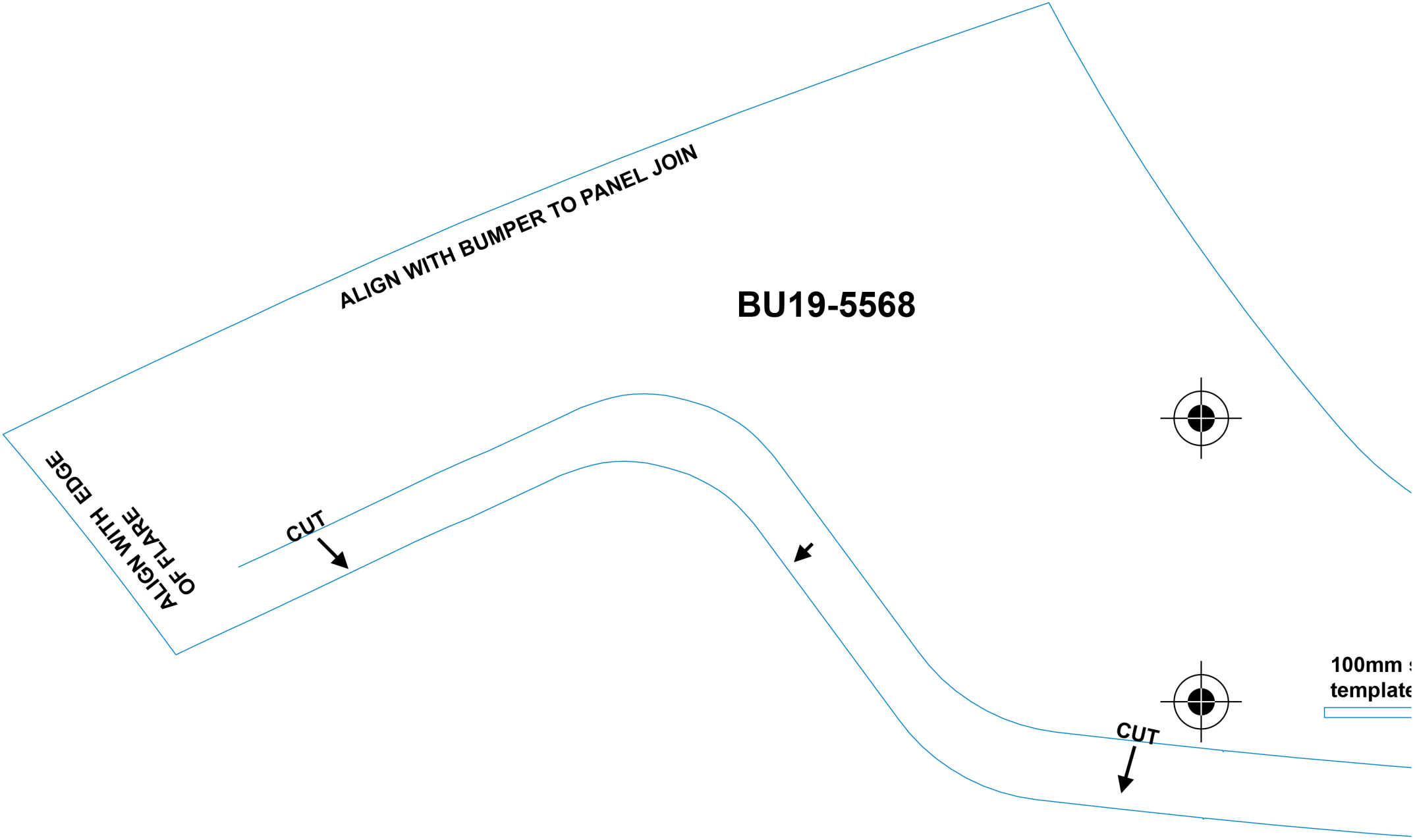
Check operation of parking sensors and radar

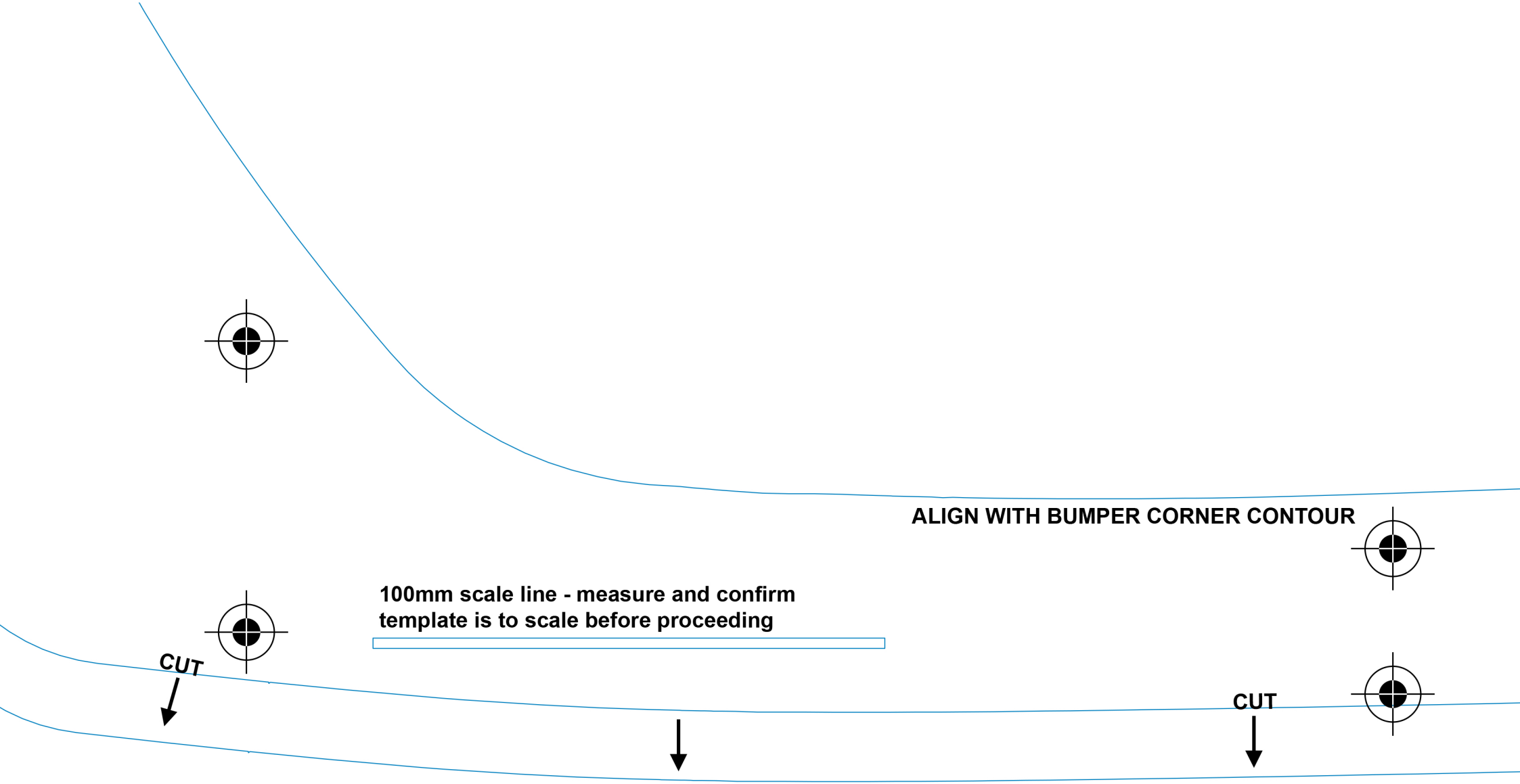
It is important to inform the customer that headlight adjustment may also be required due to the change in ride height.

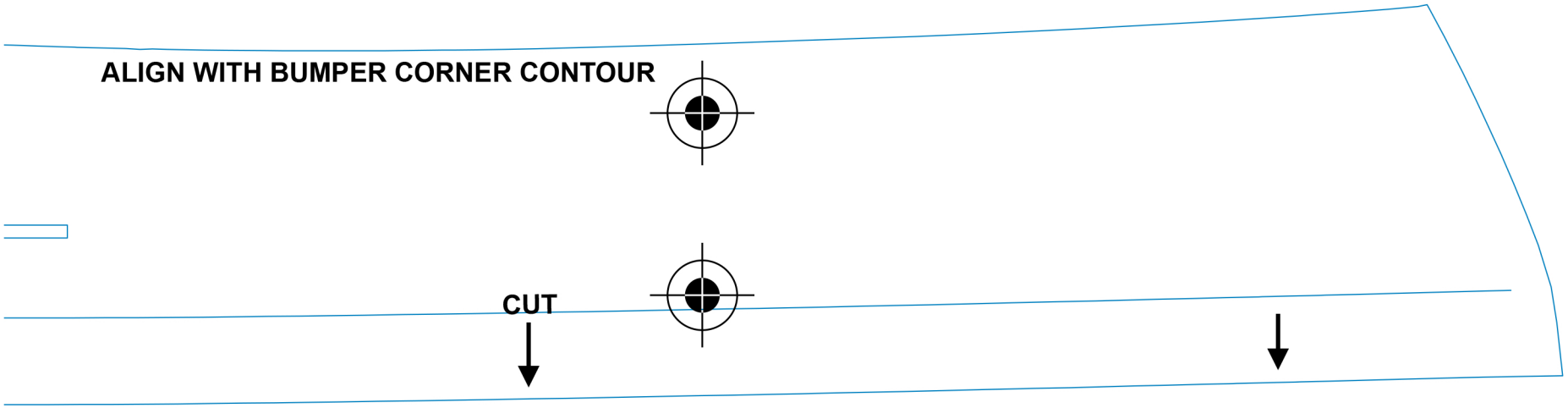
It is also important to inform the customer that there will be a change in vehicle handling characteristics

Inform customer that all fasteners should be checked after 5,000 klms and periodically at services

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ALIGN WITH BUMPER TO PANEL JOIN
BU19-5568
ALIGN WITH EDGE OF FLARE
CUT
CUT
100mm
template


ALIGN WITH BUMPER CORNER CONTOUR
100mm scale line - measure and confirm
template is to scale before proceeding
CUT
CUT


ALIGN WITH BUMPER CORNER CONTOUR
CUT