Bullbar Installation Guide

Part Number: BU59-5549 & BU59-5722

ENSURE PAGE SCALING IS TURNED OFF WHEN PRINTING. CHECK SCALE LINE ON TEMPLATE BEFORE CUTTING

Fits:

Toyota Prado 150 Series 3rd Generation 10/2017 on



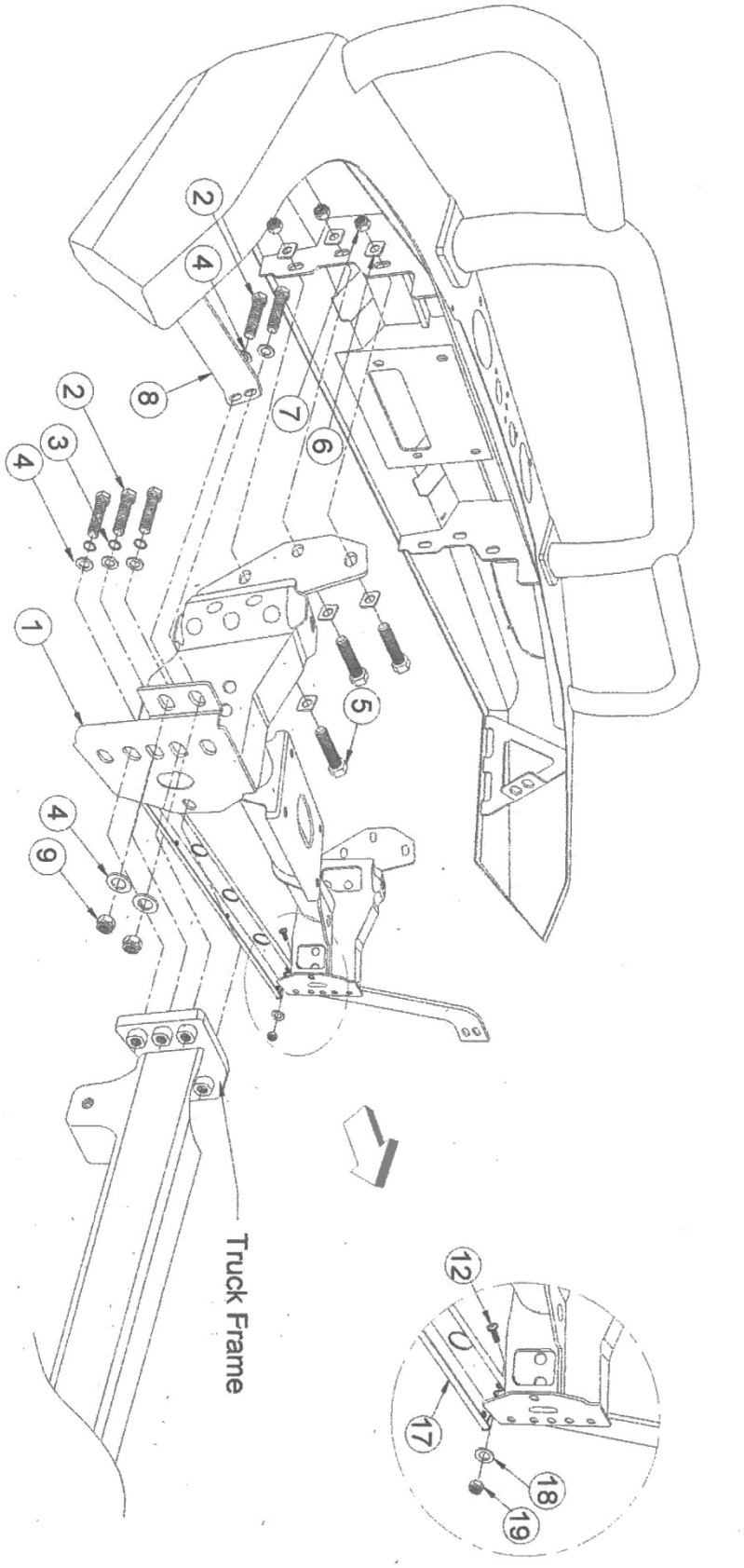
This Bullbar will take approximately 4 hours to install

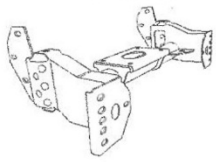
Tools required are

- Spanners and socket set.
- Pneumatic hacksaw.
- Screwdrivers
- Pliers and side cutters

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 the installation


2
4
8
7
6
2
3
4
1
5
4
9
Truck Frame
12
17
18
19

① 
Chassis bracket, 1 Set.

② 
Bolt M10 x 1.25 x 35, 16 Pcs.

③ 
Spring washer M10, 8 Pcs.

④ 
Washer M10, 24 Pcs.

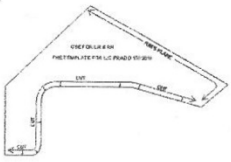
⑤ 
Bolt M12 x 1.5 x 35, 6 Pcs.

⑥ 
Square washer M12, 12 Pcs.

⑦ 
Nut M12 x 1.5, 6 Pcs.

⑧ 
Support , 2 Pcs. L/R

⑨ 
Nut M10 x 1.25, 8 Pcs.

⑩ 
Template, 1 Pc.

⑪ 
Support , 1 Pc.

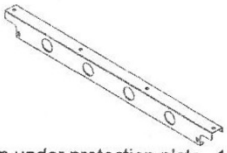
⑫ 
Bolt M6 x 1 x 15 , 4 Pcs.

⑬ 
Bolt M5 x 1 x 15 , 2 Pcs.

⑭ 
Nut M6 x 1 , 2 Pcs.

⑮ 
Nut M5 x 1 , 2 Pcs.

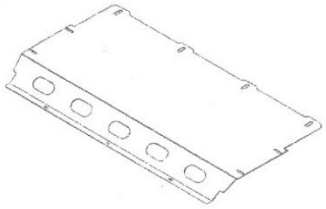
⑯ 
Washer M5 , 4 Pcs.

⑰ 
Beam under protection plate , 1 Pc.

⑱ 
Washer M6, 2 Pcs.

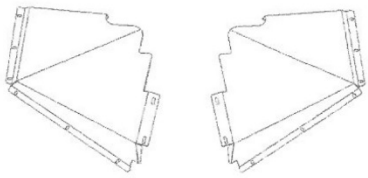
⑲ 
Nut M6 x 1, 2 Pcs.

①



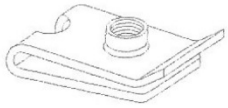
Middle under protection plate , 1 Pc.

②



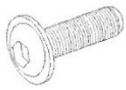
Under protection plate , 1 Set. L,R

③



Fix nut M6 x 1 , 29 Pcs.

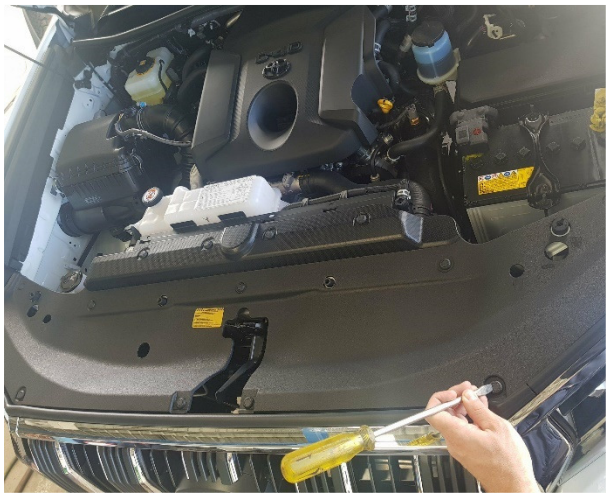
④



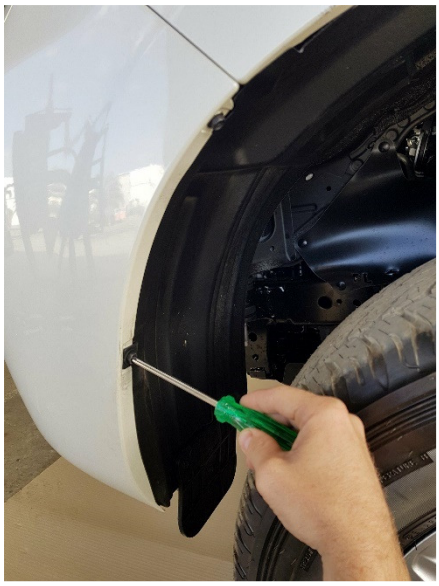
Bolt M6 x 1 x 15, 29 Pcs.

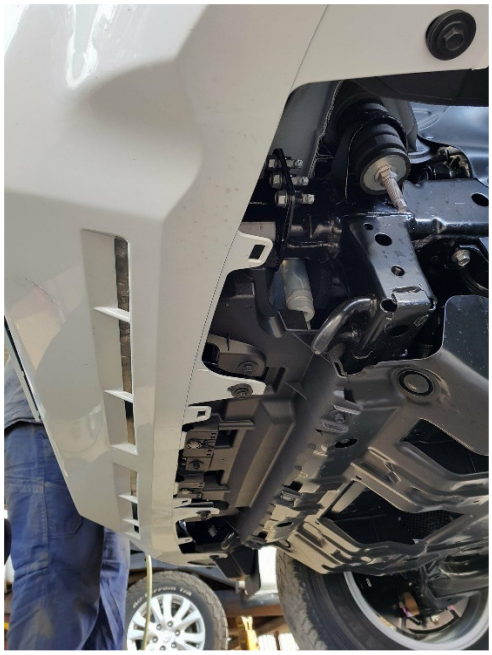
Fitting Guide

1. Remove the number plate.
2. Remove the radiator top cover panel by pushing in the clips and removing

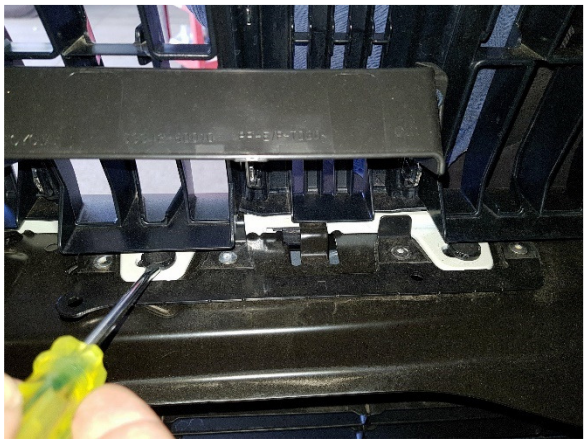


3. Remove the bolts along the edge of the wheel arch and lower section of the bumper attaching the lower section of the bumper to the vehicle.





4. Unplug the fog lights wiring plug (if fitted) and headlight washers – catch the fluid to reuse or kink the hose and zip tie.
5. Remove the top grill brackets, reach in behind the grill and remove the clips under the grill and disconnect the camera if fitted



6. Pop out the wheel arch splash guards from the bumper. The bumper should now be ready to come off.
7. Extremely carefully, use a flat-blade screw driver rapped in a soft cloth and using your hand slowly pull away the bumper from each top corner at the wheel arch and carefully use the screw driver to release the locking tabs.

Take extreme care not to damage the bumper or guard.





8. Carefully release from under the headlights and remove the bumper.



9. Remove the aluminium bumper support, foam bumper support, chassis crush cans, plastic lower bash plate (keep this).

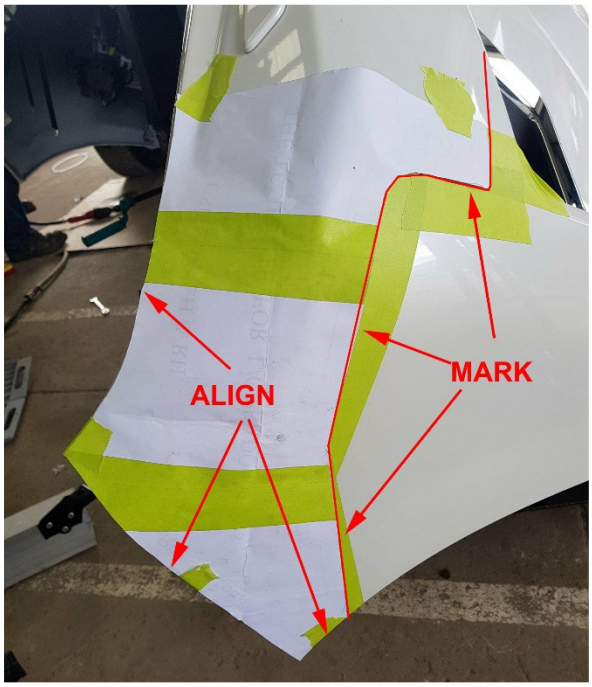


10. Remove the fog light wiring and the headlight washer hoses from behind the bumper.



11. With the template printed **<u>double check first that the scale line is correct</u>** to ensure it has been printed at full size. Align the 3 pages using the cross hairs, tape together and cut out the template.
12. Apply some masking tape to the bumper in the approximate position of the template cut line – this is important so you can mark the position of the template cut and also to prevent the good side of the bumper from being scratched when cutting.

13. Using the template provided align it with the each side of the OE bumper as seen on the template and mark out each side. The straight line on the bottom of the template can then be marked across the centre of the bumper to join parallel with the top edge of the grill section. You can then flip the template upside down to mark the other side.





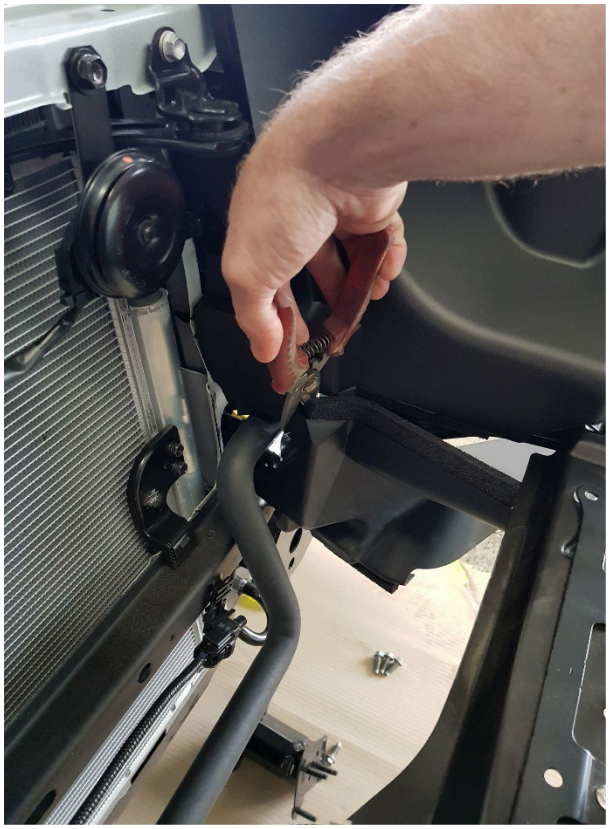
14. Mask a line across the bumper from the bottom of each side template across the centre, across the top of the registration plate recess holes as seen below.



15. Apply some more masking tape around the top/visible edge of the marked line on the bumper to protect the visible paint surface when cutting.
16. Using an air operated hacksaw or equivalent carefully cut away the lower section of the O.E. **TAKE EXTREME CARE NOT TO CUT THE HEADLIGHT WASHERS – CHECK UNDER THE BUMPER AS YOU GET CLOSE.** Bumper following the template marked lines and the masked lines. Remove the plastic burrs to neaten up where the cut was made.

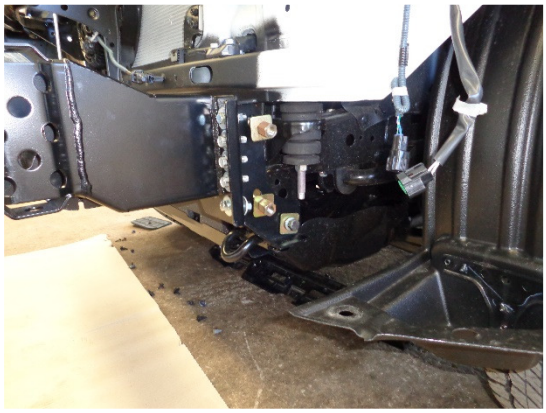


17. Trim the bottom section of the plastic radiator panels to allow the bullbar bracket to fit to the chassis without hitting these.





18. Install the side of chassis re-enforcement plates on each side with the u bolts, nuts washers and bolts supplied and tighten until they are just touching

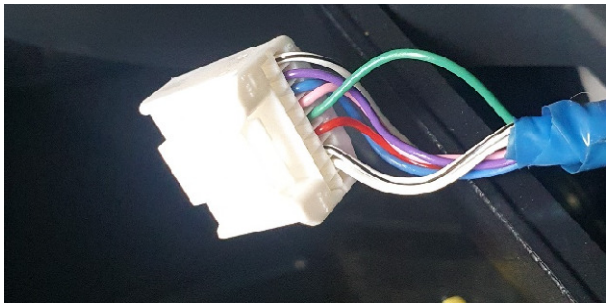


19. Install the bulbar mounting bracket Item 2, by installing the front face bolts loosely and tighten until they are just touching.
20. Ensure the bracket is central to the vehicle and tighten all nuts and bolts installed.
21. With the bumper still removed, now is a good time to wire up the lights. The fog lights can use the harness supplied or if factory fog lights are fitted the original plugs may be used or the plugs can be cut from the harness supplied and joined to the existing wiring loom.
    The LED Parker Lights in the bullbar must be wired using an additional relayed wiring harness. They cannot be taken directly from the existing feed due to the canbus setup.
    An existing spot light loom (such as DL80-3765) can be used and modified to suit. See the wiring diagram at the end of this manual for more details.

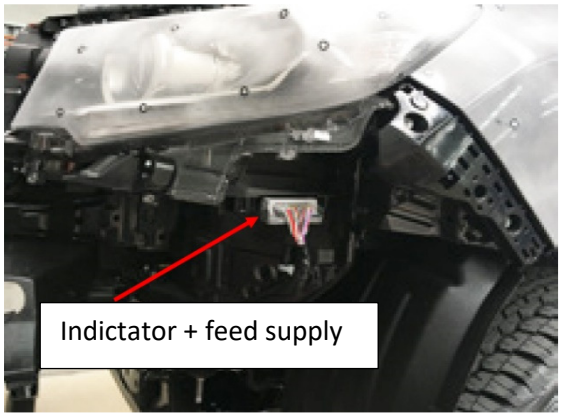
    Remove the dash light adjustment knob to the right of the steering wheel and gently pull on this to pop it out.



Connect the switching wire from the relay (in the case of DL80-3765 use the white wire that runs to the switch. The remaining 2 wires are not required – **wiring diagram at end of manual**) to the green wire on the back of this plug shown below.



The LED indicator lights can be joined directly to the existing wiring to the plug located under the headlight



NOTE: *If installing auxiliary driving lights or spot lights to vehicles with Bi-Xenon head lamps the factory Toyota wiring harness (Australian Part number PZQ50-60142) must be used as there is no high beam switching wire at the back of the headlights.*

22. Fit the pinch weld rubber edging to the edge of the OE bumper where it was cut away, starting from the wheel arch edge. Ensure it is tight and the bottom of the pinch weld is up against the edge of the bumper neatly.
23. Re-install the bumper to the vehicle and re-install the fog light wiring and headlight washers. Install the grill and all fixings and grill top cover.





24. Carefully un-wrap the bulbar taking care not to scratch it especially on the top loops. Reinstall the number plate. If installing driving lights to the bullbar it is easiest to install now.
25. If not installing a winch skip to step 32.
26. See the Installation section of your Dobinsons 4x4 Winch manual for specific detailed fitting instructions. For a brief overview see the following steps.
27. Test fit your winch to the mounting bracket and do up loosely with the clutch handle on the left hand side of the vehicle.

28. This may require the clutch handle and gear-box housing to be rotated forward one or 2 bolt holes to allow easy access through the bulbar holes. See instructions in winch user manual.
29. 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.
30. Now 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. Depending on the winch being fitted a small amount of material may have to be trimmed from the centre of the bumper to allow fitment.
31. Unwind some cable from the winch, and pass the cable through the fairlead hole in the bullbar and through the roller fairlead. This may require removing a circlip from the fairlead and re installing once the cable is passed through.
32. Install the roller fairlead into the bulbar.
33. Check the poly bulbar over riders are tight and fit the lights and surrounds. Do not over tighten the poly bullbar over riders as they will pull the over riders out of shape).
34. Install the light surrounds to the bulbar using the bolts and clamping plates supplied. Install the Indicator/parker lights with the screws supplied.
35. If installing fog lights install now using instructions at the end of this manual.
36. If the vehicle is equipped with parking sensors install to the bulbar now using the instructions at the end of this manual.
37. With help, fit the bulbar onto the mounting bracket and loosely fit the mounting hardware supplied.
38. Check for access to the clutch handle on the winch.

39. Align the bulbar to the vehicle and tighten the mounting bolts, leaving a gap between the bullbar and the bumper of at least 10mm – 20mm.



40. Once happy with the alignment of the bullbar drill 2 x 8mm pinning holes on each side of the bullbar drilling through both the mounting bracket mounting plate and bullbar mounting plate. Fix with 8mm bolts and nyloc nuts to keep the bullbar in its position.



41. Install the outer wing support brackets



42. Check over all bolts to ensure they are tight.
43. Install the lower under protection support beam (item 17) as seen on page 2,3.



44. Using the fastening hardware supplied fit the under bar protection kit. Loosely install the centre and outer plates.
45. Trim the original plastic lower bash plate as seen on the page 12 diagram.
46. With the plastic lower bash plate trimmed re-install it, pushing the tabs towards the front between the new centre under protection plate and the under-protection support beam to sandwich it.



47. Tighten all under protection and bash plate bolts.
48. Trim the left hand mud guard liner level with the bottom of the under protection kit and tuck in behind the under protection.



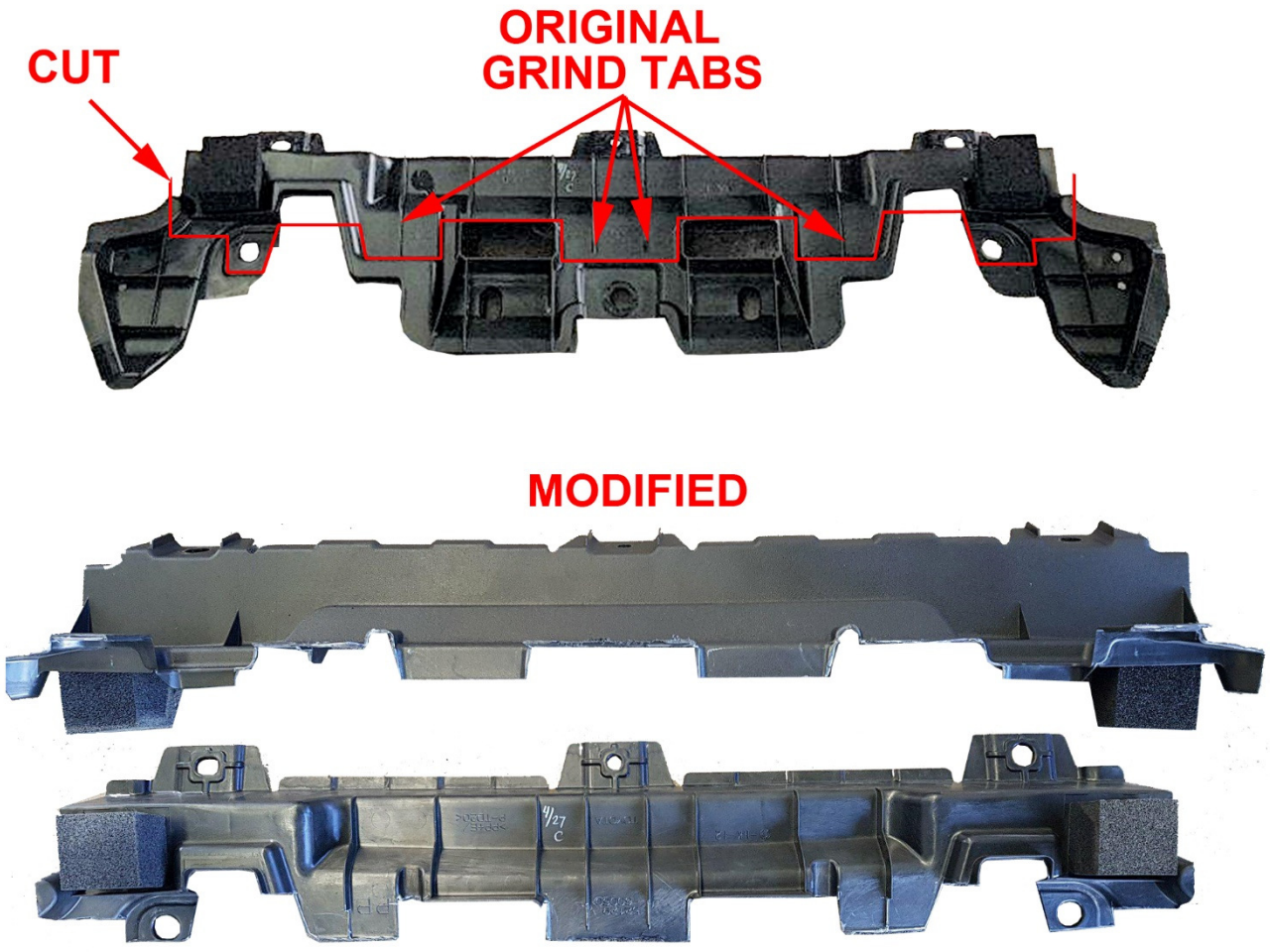
49. Trim the right hand mudguard liner level with the bottom of the under protection kit until you reach the washer bottle and tuck in behind . Trim the guard parallel with the bottom of the washer bottle, drill a small hole in the guar and secure around the washer bottle with a cable tie.





50. IMPORTANT NOTES: 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. It is also important to note that due to their nature fog lights are required to provide a yellow light to allow clear fog vision. For this reason Dobinsons bullbars utilise a Halogen bulb. Halogen bulbs generate a considerable amount of heat to achieve the yellow colour and this causes the air inside the fog light lens to expand and contract. For this reason the fog light assembly cannot be sealed and has a small breather on the back. In some cases this may cause condensation to form inside the fog light. The customer may choose to seal the lens of the fog light but must not seal the rear breather.

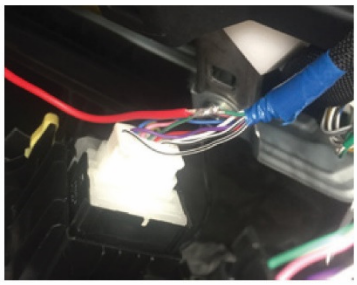
Diagram for trimming original bash plate.



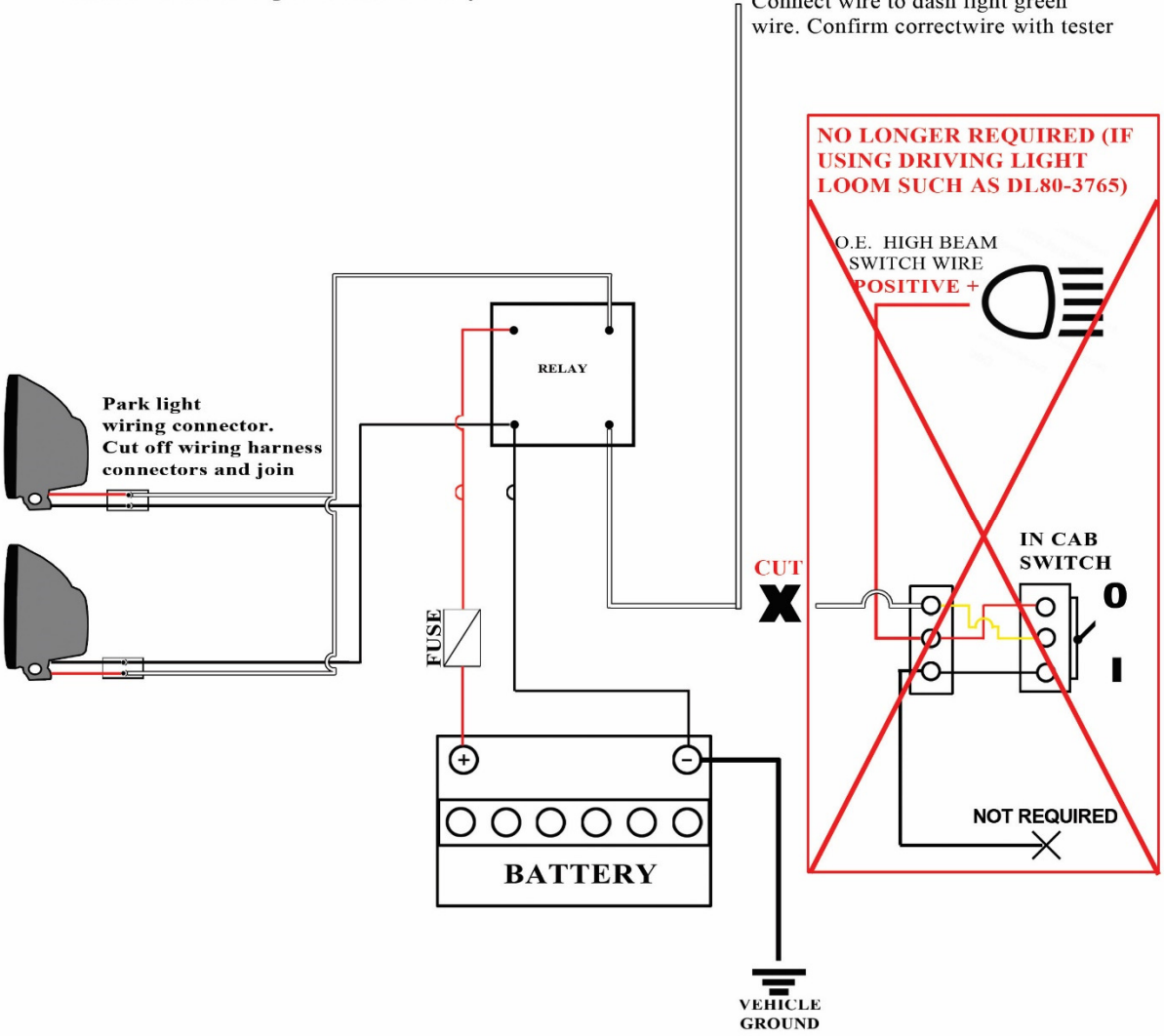
150 PRADO PARKER LIGHT WIRING DIAGRAM



Location of switching wire feed for relay



Cut Relay positive switching from existing loom and route into cab. Connect wire to dash light green wire. Confirm correctwire with tester

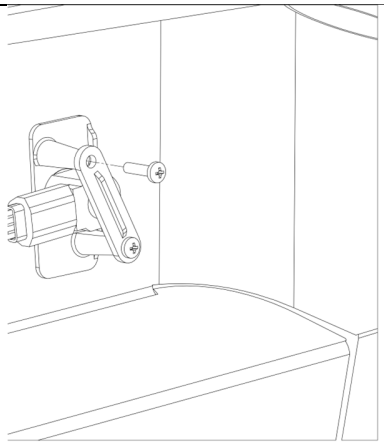


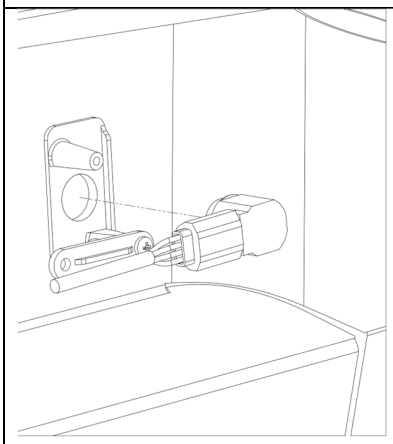
Parking Sensor Installation

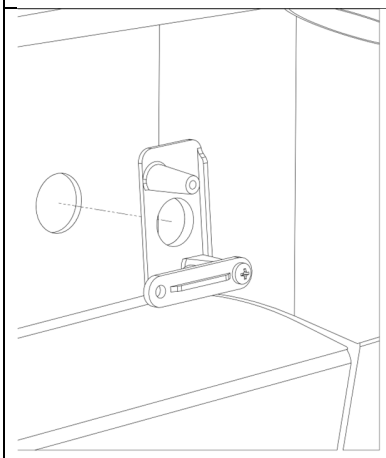
2 types of sensor brackets are used. Follow corresponding instructions

Sensor Type 1

1. Clean the area around the sensor hole on the back side of the bulbar with white spirits or similar.
2. 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
3. Fix the adhesive tape supplied, and stick to the back of the bullbar.

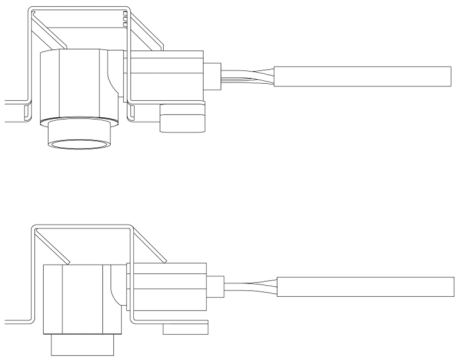


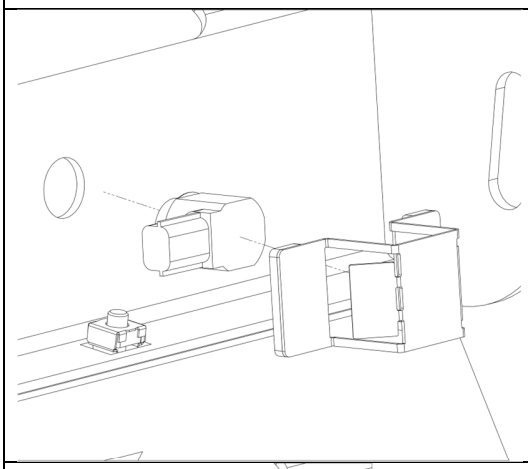


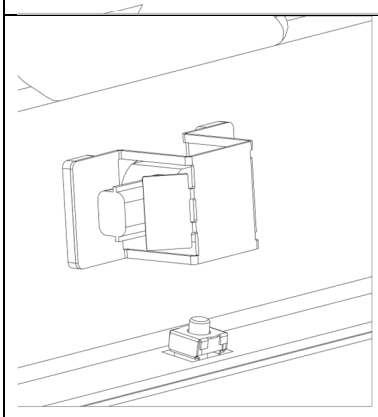


Sensor Type 2

1. Clean the area around the sensor hole on the back side of the bulbar with white spirits or similar.
2. One tab is bent under and one tab is bent outward as per the diagrams
3. The tabs should be bent so that when the sensor is fitted the tabs keep a small amount of pressure on the sensor
4. Fix the adhesive tape supplied, and stick to the back of the bullbar.







Wiring Guidelines – Next-Gen Bullbars

Dobinsons Next gen Bullbars are supplied with LED indicator/Parker lights. Available extra are DRL's (on initial release bars only) and Fog Lights.

Indicator/Parker Lights

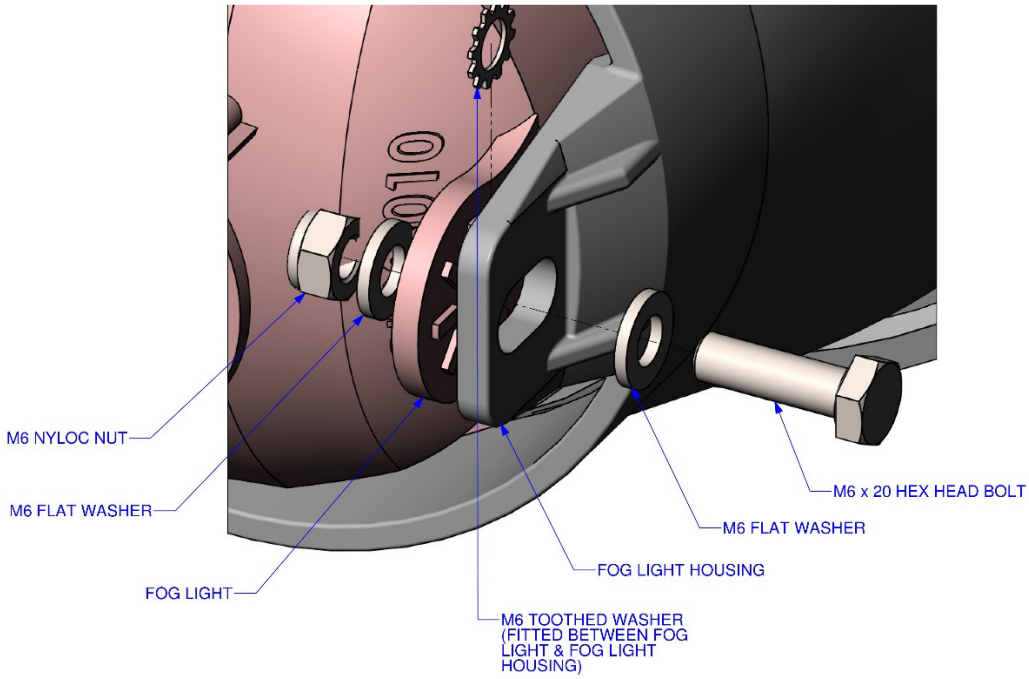
Use a multimeter to locate the existing positive and negative lights for the existing vehicle headlights park light circuit and indicator circuit and using the scotch-locks or soldering, connecting directly to the existing vehicle wiring circuit using the diagram on the following page. **NOTE:** For 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.

Fog lights (optional extra) Please find the correct instruction type 1 or 2

TYPE 1 – BU80-020k (BU80-010+BU80-011) - Halogen Fog light + indicator/parker combined surround

Install the fog lights into the bulbar before installing the bulbar. Use a sharp knife and from the back side of the bar carefully cut the retaining tabs on the plastic cover insert and remove.

Install the fog light with the breather at the top. Use the 6mm bolt and washer, then place the tooth washer between the light insert mount and light, then the flat washer and nyloc nut as seen on the diagram below.



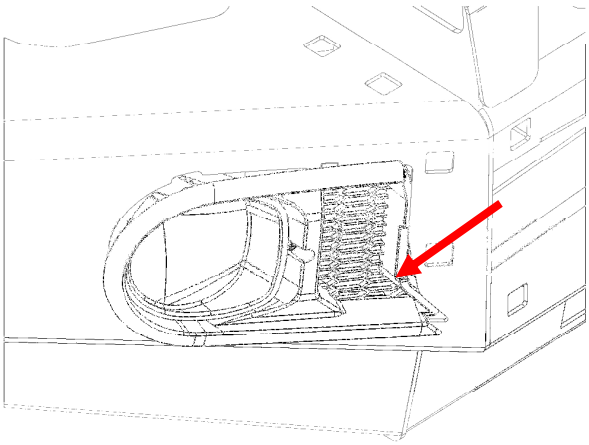
Wire the fog lights as per the diagram on the following page. There are 2 switches provided – a prewired universal single large din switch and a small universal switch. Dobinsons have some other plug and play switches available that are vehicle specific. Ashdown Ingram and similar electric wholesalers 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.*

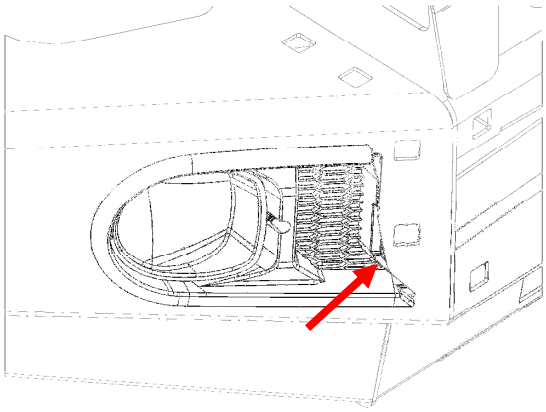
A round universal switch is also supplied – install the switch by drilling a hole and altering the wiring as shown.

TYPE 2 – BU80-029k (BU80-24+BU80-025) – L.E.D. Fog light + indicator/parker seperate surround

Part number: BU80-029k (BU80-024 & BU80-025)

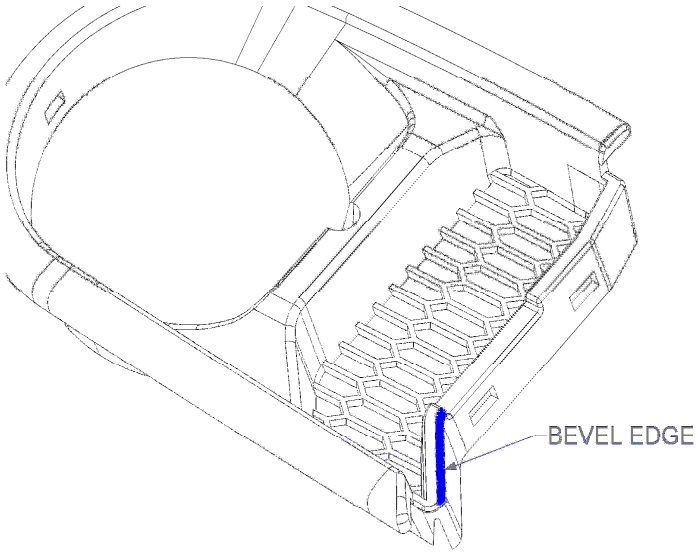
1. For landcruiser 300 series remove the cover behind the bezel grill to allow airflow to the intercoolers
2. Insert the inside edge of the fog light bezel in behind the cut out in the bullbar and slide the bezel inwards towards the center of the bar so that the outside edge can slide in. The bezel is 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)



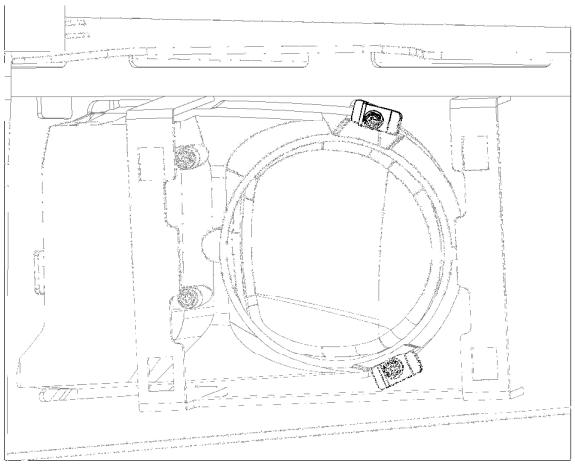


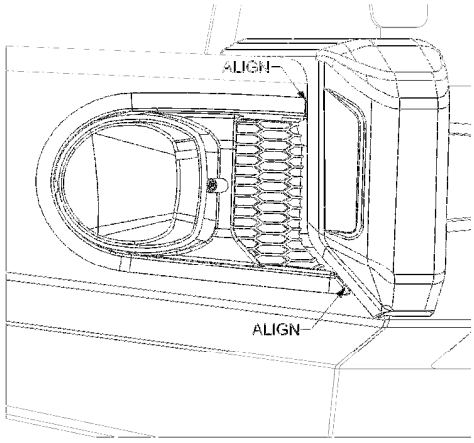
3. The fog light bezel is a tension fit and a small bevel may need to be filed on to the lower inside edge to allow for easier fitment.



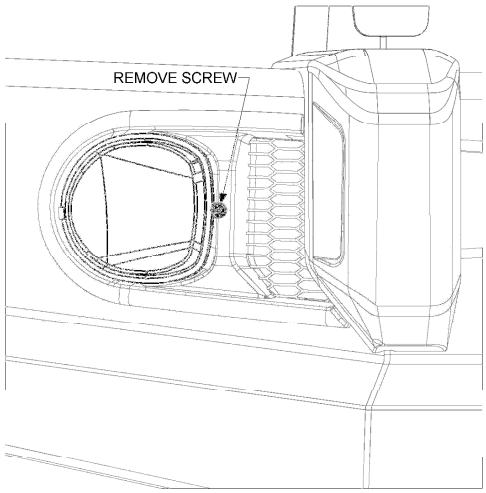


4. Loosely fit the mounting tabs on the back side of the fog light bezel with the M4 plastic screw provided. Align the fog light bezel with the edge of the overrider. Once aligned tighten the rear mounting tabs to secure the bezel in place.

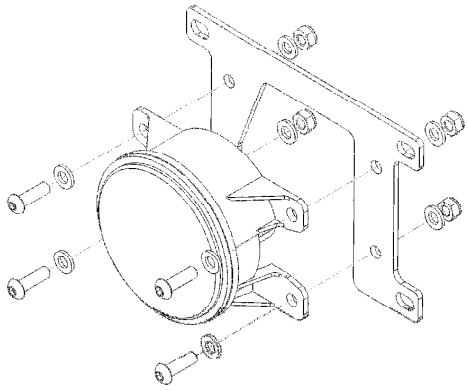


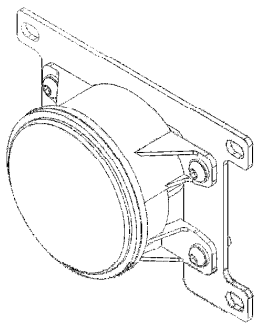


5. If installing fog lights remove the infill panel by removing the M4 plastic screw on the front of the bezel.

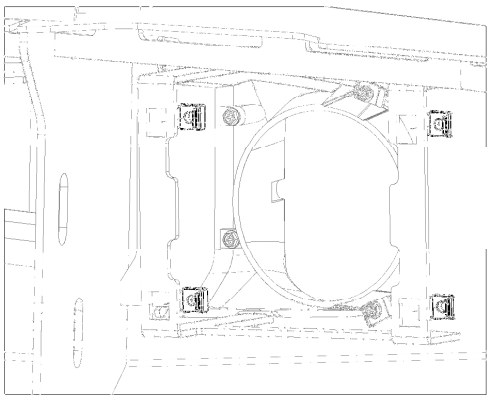


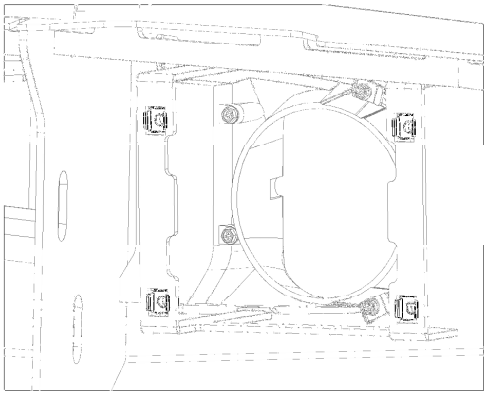
6. Bolt the fog light BU80-025 to the provided bracket using the M6x20 button head bolts, nyloc nuts and washers.



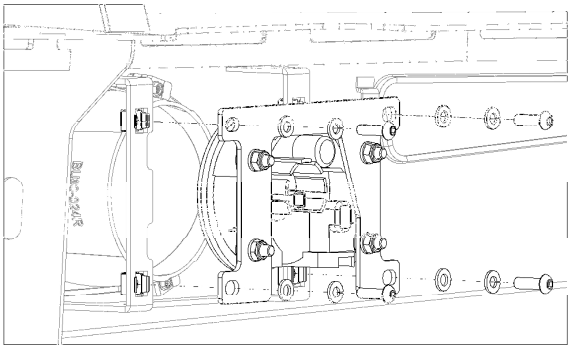


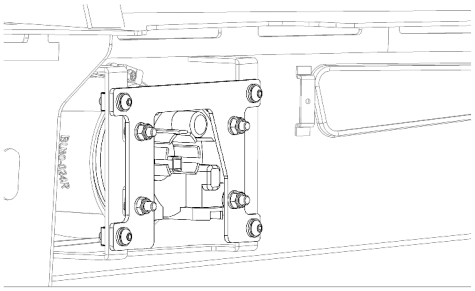
7. Install the M6 cage nuts into the fog light bracket on the back of the bullbar.





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





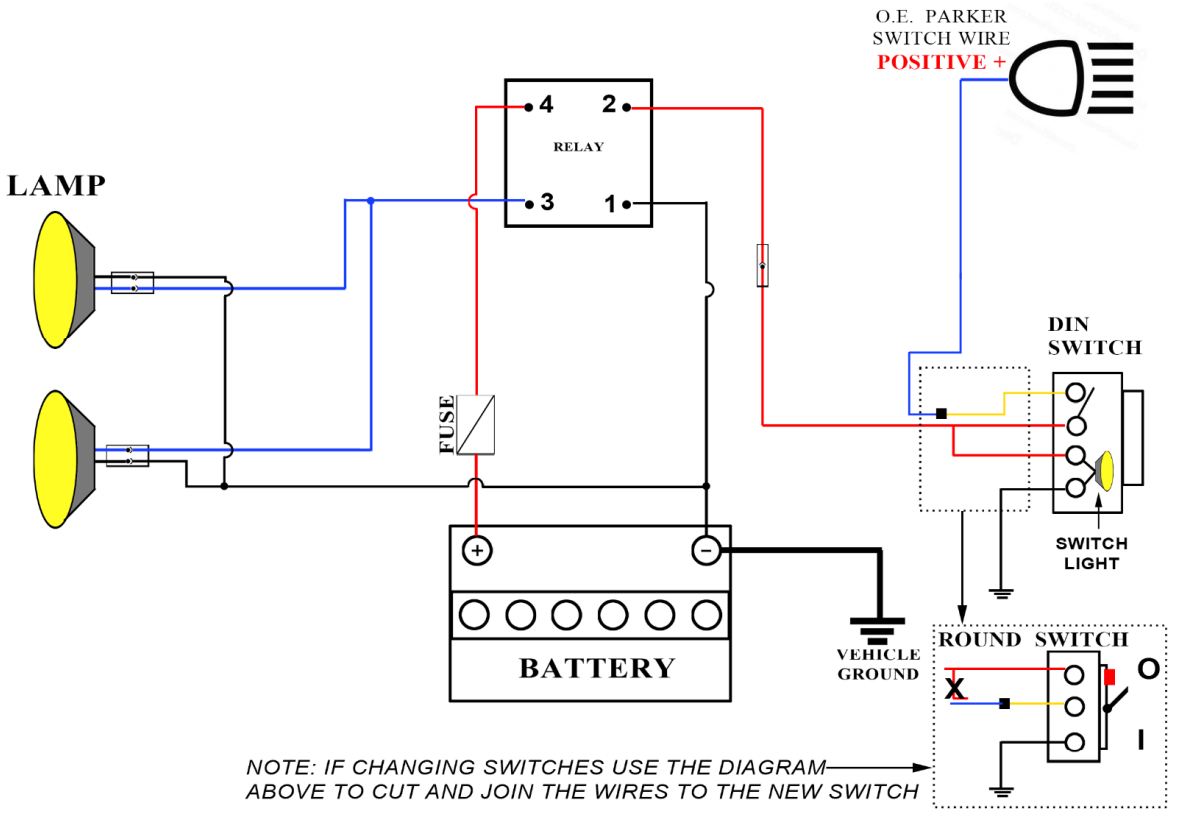
9. Wire the fog lights as per the diagram on the following page. There are 2 switches provided – a prewired universal single large din switch and a small universal switch. Dobinsons have some other plug and play switches available that are vehicle specific. Ashdown Ingram and similar electric wholesalers 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 xxmm hole and altering the wiring as shown.

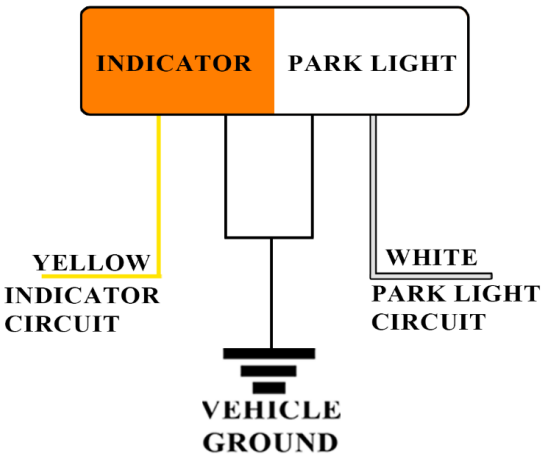
DRL Lights (optional extra on initial release bars only)

Install the DRL lights into the bulbar before installing the bulbar. Use a sharp knife and from the back side of the bar carefully cut the retaining tabs on the plastic cover insert and remove. Attach with 2 x screws supplied (there are left and right sides). Wire the lights as per the diagram on the following Page – the switching wires can be wired to ignition for lights to operate when vehicle is running, or to parker / low beam for operation when the lights are turned on only. Use screws or good quality double sided tape (such as 3m brand) to fix the control box to the vehicle body.

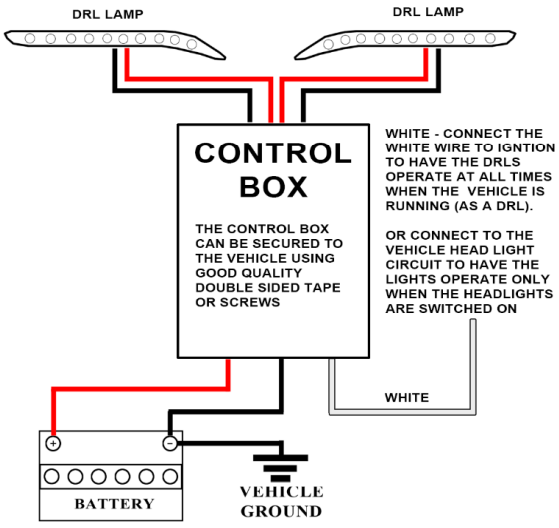
FOG LIGHT
WIRING DIAGRAM - SERIES 2

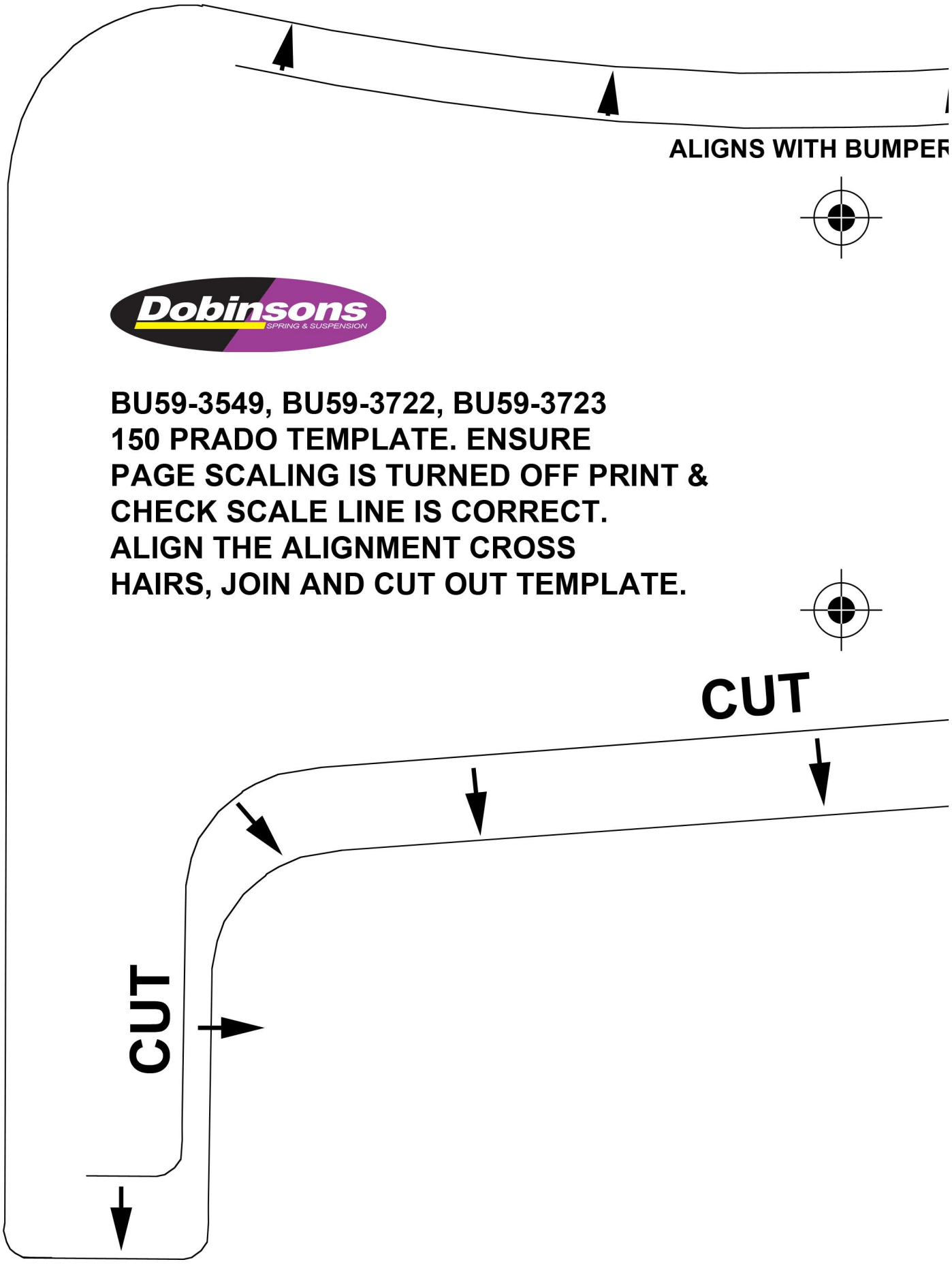


INDICATOR / PARKER
WIRING DIAGRAM - SERIES 2

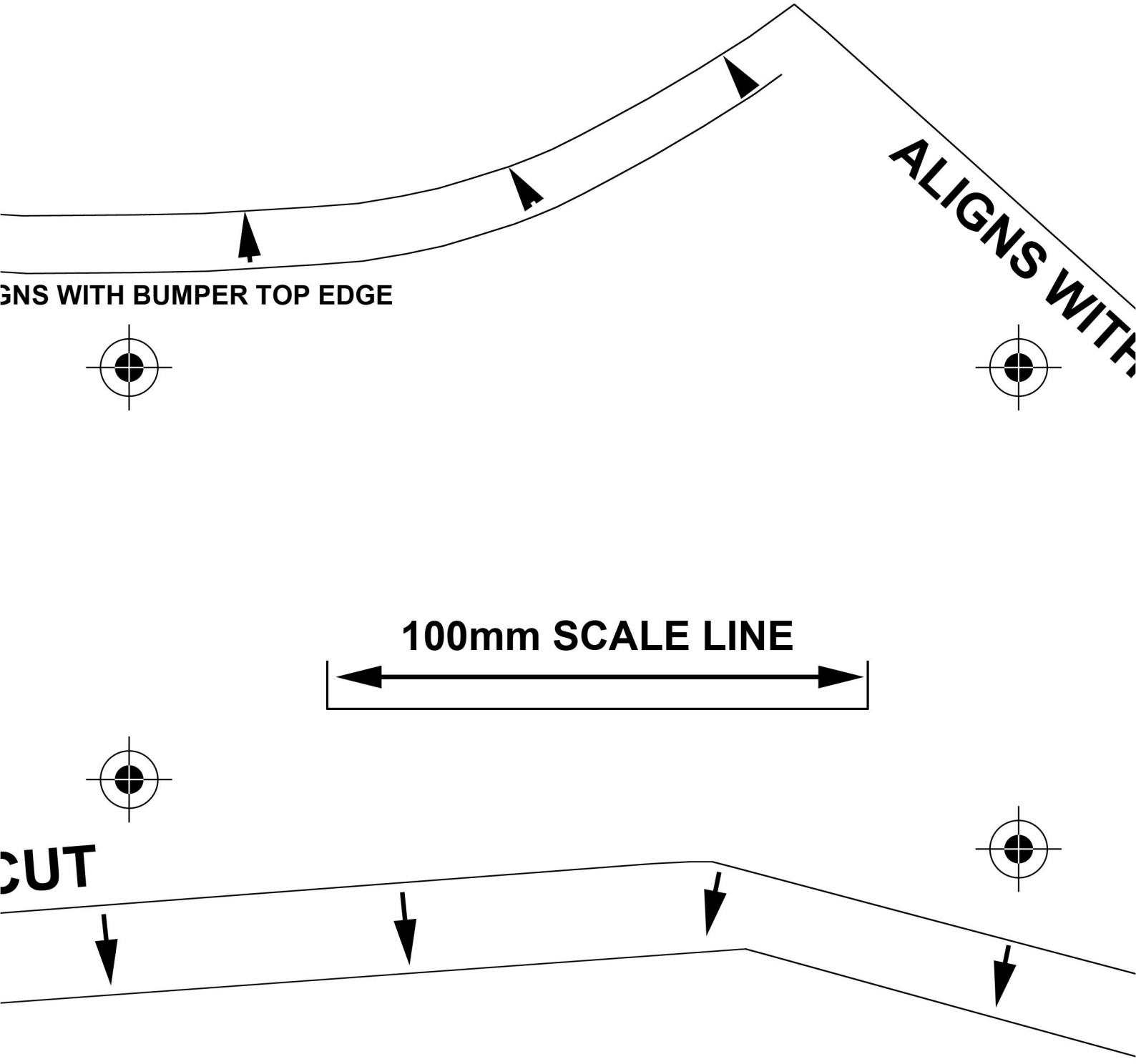


DAYTIME RUN LIGHT / DRL
WIRING DIAGRAM - SERIES 2





BU59-3549, BU59-3722, BU59-3723
150 PRADO TEMPLATE. ENSURE PAGE SCALING IS TURNED OFF PRINT & CHECK SCALE LINE IS CORRECT.
ALIGN THE ALIGNMENT CROSS HAIRS, JOIN AND CUT OUT TEMPLATE.


GNS WITH BUMPER TOP EDGE
ALIGNS WITH
100mm SCALE LINE
CUT

ALIGNS WITH BUMPER TO GUARD JOIN EDGE
CUT
ALIGNS WITH WHEELARCH EDGE