



FITTING INSTRUCTIONS

Part Number: **3448480**
Product **DELUXE BULL BAR**
Description:
Suited to **ISUZU DMAX 2012 ON**
vehicle/s:
Winch Install **3540050**
Kit:

WARNING

REGARDING VEHICLES EQUIPPED WITH SRS AIRBAG:

When installed in accordance with these instructions, the front protection bar does not affect operation of the SRS airbag.

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:

- Prior to exposure to the weather your bar should be treated to a Canuba based polish on all exposed surfaces. It is recommended that this is performed on a six monthly basis or following exposure to salt, mud, sand or other contaminants.
- 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.

Important electrical system information



To prevent overloading the turn and clearance lights must be activated through relays. Relay looms are provided within this kit to wire these lights. For further reference please see the attached wiring diagram at the end of these instructions.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

BASIC TOOL KIT	ELECTRIC DRILL & Ø4, Ø10, Ø10.5 & Ø13mm BITS
JIG SAW WITH BLADE SUITABLE FOR PLASTIC	RIGHT ANGLE DRILL or 90° FITTING TO CONVERT A STANDARD DRILL
FILE OR SAND PAPER	LOW TACK MASKING TAPE
TAPE MEASURE	UTILITY KNIFE
STEEL RULER	CLAMP
HACK SAW	WHITE FELT MARKER

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	7lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12	77Nm	57lbft

PARTS LISTING

APPLICATION.	PART NO.	QTY	DESCRIPTION	
PREPARE VEHICLE	3788096	1	TEMPLATE INNER RAIL	
	3788097	1	TEMPLATE OUTER RAIL	
	3789124	1	TEMPLATE BUMPER CUT	
	6191014	2	PINCH WELD 330mm LONG	
MOUNT TO VEHICLE	3759054R	1	BRACKET ASSY RH MOUNT COLORADO	
	3759054L	1	BRACKET ASSY LH MOUNT COLORADO	
	3194385	2	PLATE TAPPED COLORADO	
	4581083	8	WASHER FLAT, M10 x 21 x 2 ZP	
	4581048	4	WASHER SPRING M10 x 1/8 x 1/8	
	6151555	4	BOLT M10 x 1.5 x 30 SEMS BLACK	
	6151381	4	BOLT M10 x 1.5 x 80 Gd 8.8 ZP	
	4721558	4	TUBE CRUSH HILUX B/BAR	
	3194384	2	PLATE RECT WASHER COLORADO	
	6151026	4	NUT M10 x 1.5	
	5848393	6	PACKER UPRIGHT COLORADO	
	6151207	4	BOLT M6 x 1.0 x 25 Gd 8.8 ZP	
	6151128	4	NUT FLANGE M6 x 1.0 ZP	
	4581082	4	WASHER FLAT M6 BZ	
	BUFFERS, INDICATORS AND FOG LIGHTS TO BAR	3162470R	1	BUFFER RH
		3162470L	1	BUFFER LH
6151128		12	FLANGE NUTS M6	
6821151R		1	INDICATOR RH	
6821151L		1	INDICATOR LH	
3163015		1	FOG LIGHT SURROUND KIT	
6821198		1	RELAY LOOM	
6821152		2	INDICATOR LOOM	
180701		2	SCOTCH LOCK	
3759084		1	BRACKET RELAY COLORADO	
6151281		2	PAN HEAD SCREW M5 x 12	
6151354		2	NUT M5 x 0.8 NYLOC	
BAR TO VEHICLE		4581011	8	WASHER FLAT, M12 x 27 x 4
		6151340	4	BOLT M12 x 1.75 x 50 Gd 8.8 ZP
	4581050	4	WASHER SPRING 1/2 x 3/16 x 3/16 ZP	
	6151189	4	NUT M12 x 1.75 ZP	
	4581083	4	WASHER FLAT, M10 x 21 x 2 ZP	
	6151456	4	BOLT M10 x 1.5 x 45 Gd 8.8 ZP	
	6151321	4	NUT FLANGE M10 x 1.5 ZP	

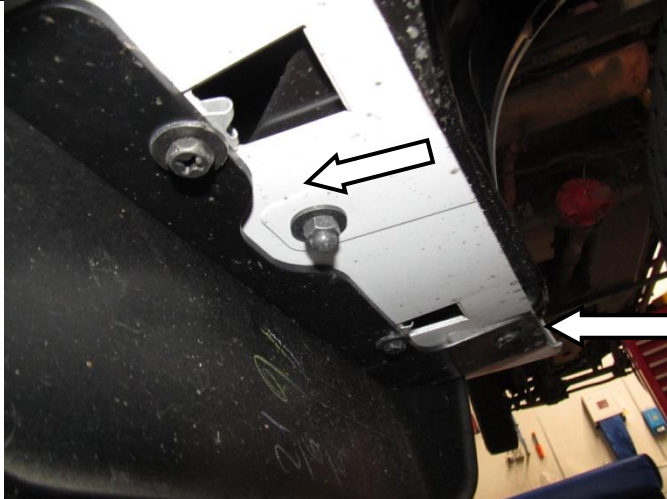
PARTS LISTING

APPLICATION.	PART NO.	QTY	DESCRIPTION
MOUNT BRACE & LOWER STONE GUARD	3759055	1	BRACKET BAR BRACE COLORADO
	4581291	4	WASHER FLAT, M10 BLK ZN
	6151320	4	BOLT M10 x 1.5 x 25 Gd 8.8 BZ
	6151321	4	NUT FLANGE M10 x 1.5 ZP
	6522900	1	PANEL LOWER PAN DMAX
	6151315	3	NUT CAGED M6 0.7-1.6
	4581082	3	WASHER FLAT, M6 x 19 x 1.6 BZ
	4581287	3	WASHER SPRING M6 x 2.5 x 1.6 BLK ZN
	6151213	3	BOLT M6 x 1.0 x 20 Gd 8.8 ZP
	6151302	5	NUT CAGED M10 1.8-3.2
	6151555	5	BOLT M10 x 1.5 x 30 SEMS BLACK
WING STONE GUARDS	6522901R	1	PANEL RH WING DMAX
	6522901L	1	PANEL LH WING DMAX
	3759106	2	BRACKET PANEL WING DMAX
	4581082	12	WASHER FLAT, M6 x 19 x 1.6 BZ
	4581287	8	WASHER SPRING M6 x 2.5 x 1.6 BLK ZN
	6151213	12	BOLT M6 x 1.0 x 20 Gd 8.8 ZP
	6151128	4	NUT FLANGE M6 x 1.0 BZ
	6151315	8	NUT CAGED M6 0.7-1.6
WINCH COVER PANEL (Non-winch bars)	6522896	1	PANEL WINCH COVER
	6151256	2	SCREW BTN HD M6 x 16 SS
	4581304	2	WASHER FLAT, M6 SS
	6151128	2	NUT FLANGE M6 x 1.0 ZP
	6191006	1	EXTRUSION COVER 1.5m
NUMBER PLATE TO BAR (NO WINCH FITTED)	6821189	2	PLASTIC PLUGS
	6151384	2	SELF TAPPING SCREWS
WINCH TO BAR	3540050	1	OPTIONAL WINCH INSTALL KIT
	EG50	2	RUBBER GROMMET

FITTING PROCEDURE



1. Read these instructions thoroughly before starting.
2. Remove 2 bumper retaining screws at the wheel liner (1 per side).



3. Remove the bumper retaining screws and scrivets from underneath the bumper.

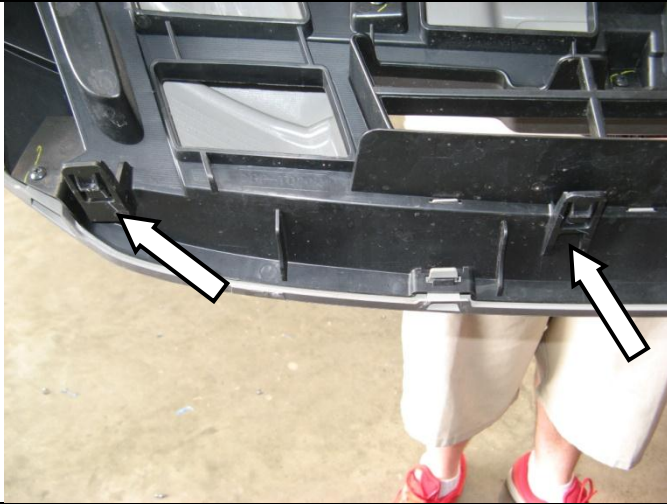


4. Remove and retain the top three scrivets holding the bumper grill.

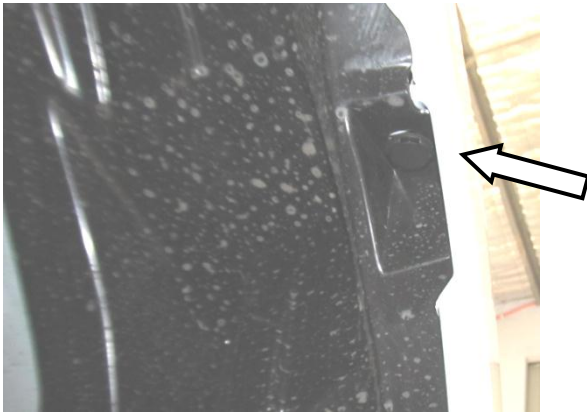


5. Remove and retain the front screw holding the bumper grill in place.

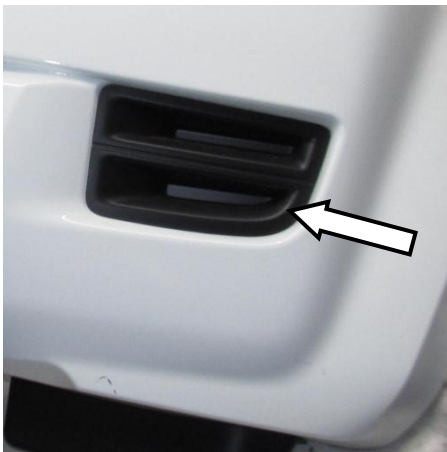
FITTING PROCEDURE



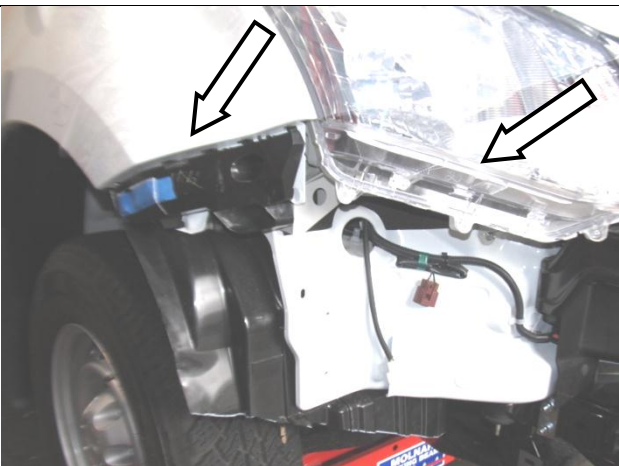
6. Use a flat head screw driver to unclip the vehicle grill from the bumper (4 places). Remove and retain the vehicle grill.



7. Remove and retain the upper rear bumper scrivets (1 per side).

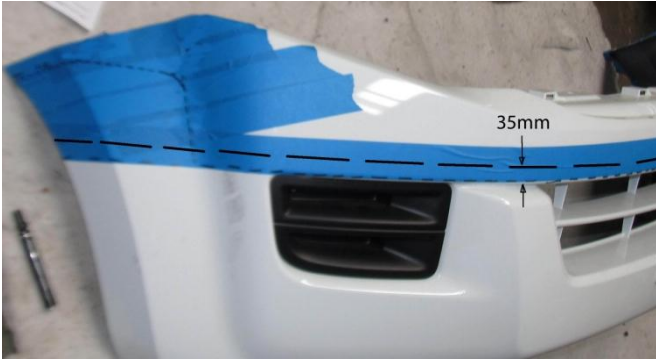


8. Remove and retain the number plate from the bumper.
9. If the vehicle has fog lights fitted disconnect the right and left hand fog light looms.



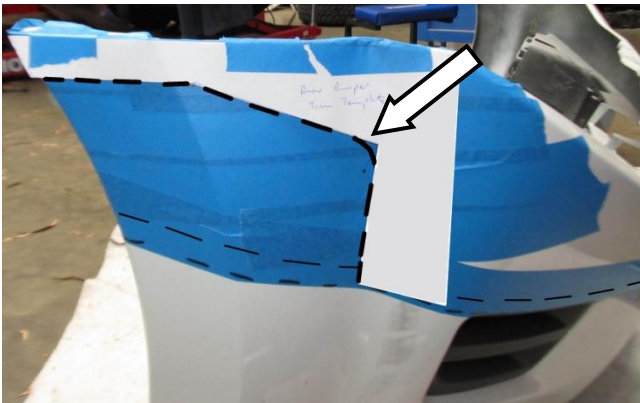
10. Carefully remove the bumper from the vehicle by pulling it away from the retaining clips located near the fenders and head lights.

FITTING PROCEDURE



11. Cover the vehicle bumper bar with protective low tack tape in the regions where it is to be trimmed.

Mark up the first cut line, all the way around the bumper, 35mm above the upper external bumper corner as shown on the adjacent image.



12. Cut the A3 paper template along identified cutting line (Part Number 3789124).

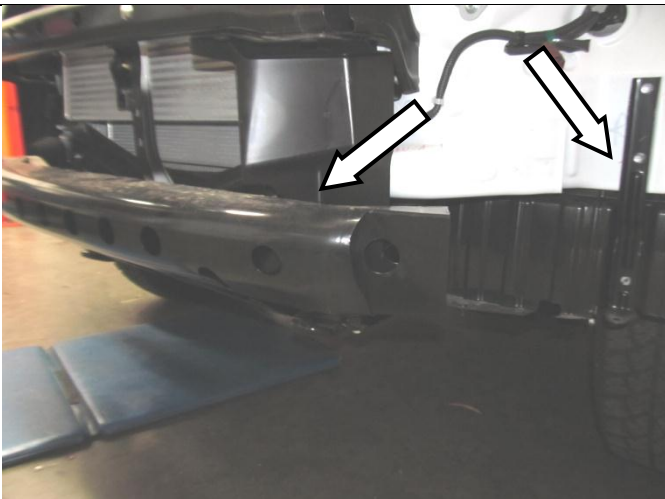
Fasten the template to the RH rear corner of the bumper with tape. Ensure the template is accurately positioned and flush with the upper rear edge of the bumper.

Use a black marker and mark up the second bumper cut line.

Use the same template and mark up the bumper cut lines on the LH rear corner of the bumper.

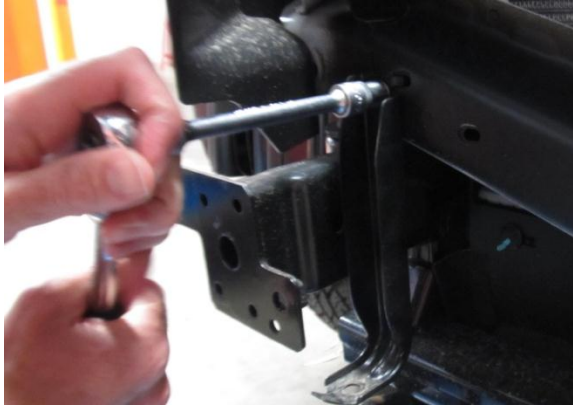


13. With the aid of an assistant, holding the bumper, trim and remove the lower portion of the bumper with an electric jigsaw.



14. Unbolt the RH & LH wheel liner retaining brackets.
15. Remove the lower bumper reinforcement beam using a 15mm socket.
 - 4 hex bolts fastening the beam to the vehicle chassis rails
 - 3 hex bolts fastening the stone guard to the lower bumper reinforcement beam

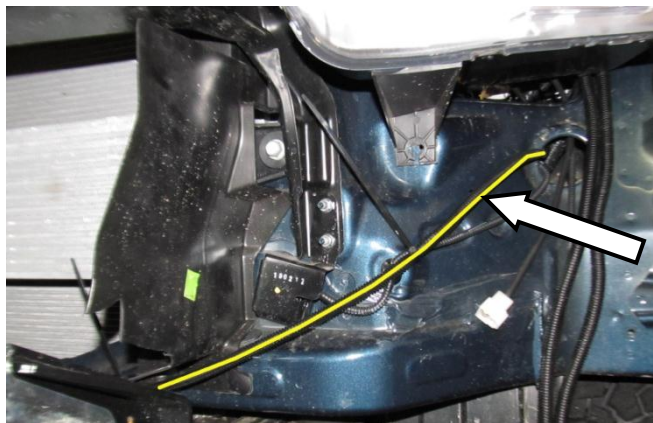
FITTING PROCEDURE



16. Unbolt the RH & LH bumper retaining brackets.



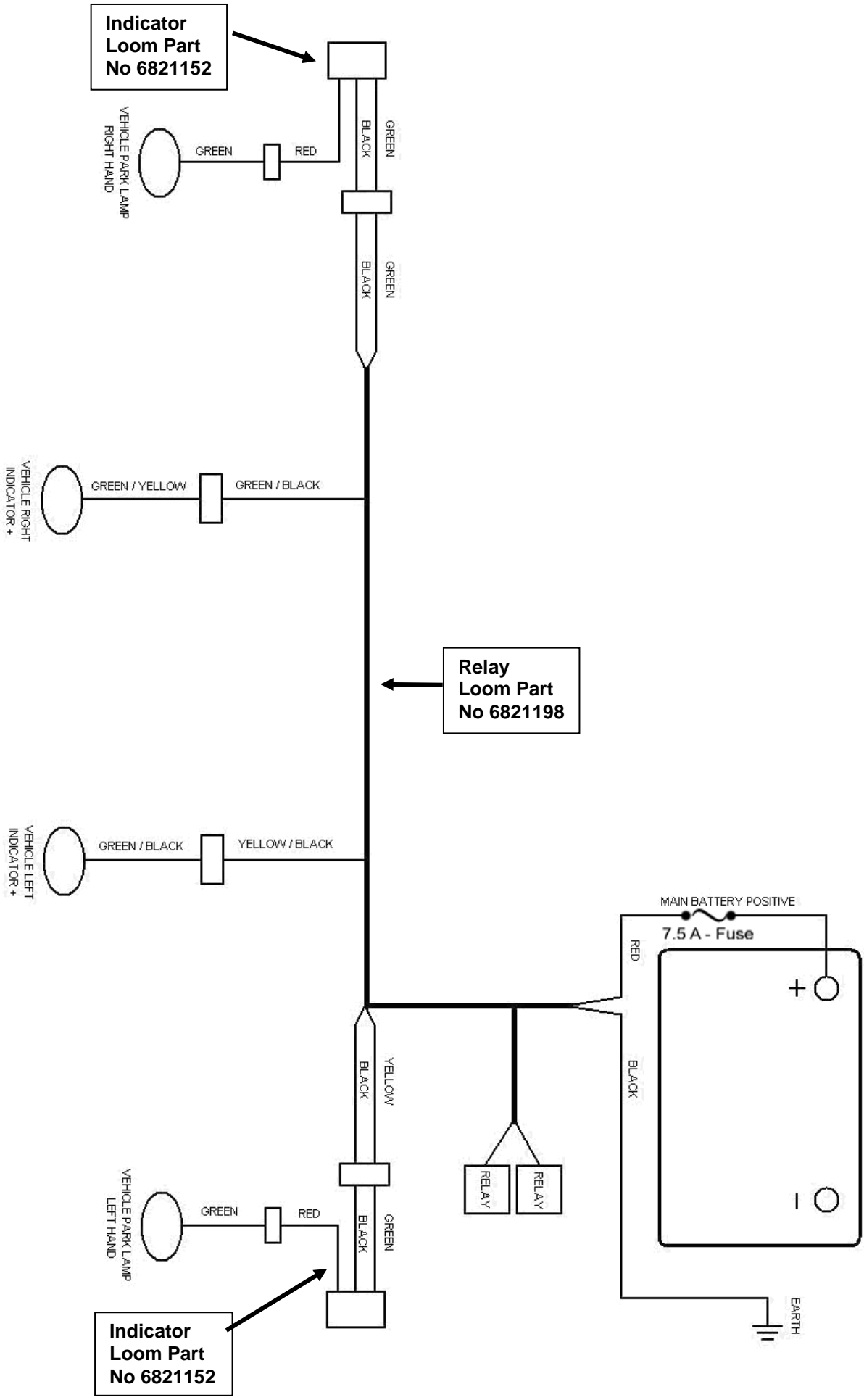
17. Mark up and trim the RH & LH air deflectors using a sharp utility knife.
 - located above the chassis rails
 - the dimensions shown on the adjacent image include: 40 & 60mm



18. Unscrew the RH and LH vehicle head lights for easy access to the rear electrical wiring.
19. Loosely position the relay loom (6821198) in front of the vehicle radiator and feed each end of the loom through to the RH and LH vehicle head lights.

NOTE: THE LOOM END WITH THE RELAYS SHOULD BE ON THE LH SIDE OF THE VEHICLE, ON THE SAME SIDE AS THE VEHICLE'S BATTERY.

WIRING DIAGRAM



FITTING PROCEDURE

LOOM INSTALLATION

Driver's Side of Vehicle (RHS)

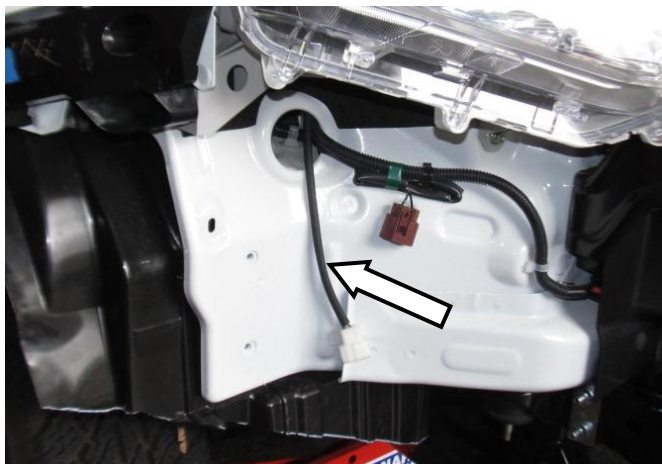
<u>FUNCTION</u>	<u>Vehicle Lamp</u>	<u>Relay Loom</u>	<u>Indicator Loom</u>
Indicator	GREEN	GREEN / BLACK	
Indicator		GREEN	GREEN
Earth		BLACK	BLACK
Clearance Lamp	BROWN / RED		RED

Passenger's Side of Vehicle (LHS)

<u>FUNCTION</u>	<u>Vehicle Lamp</u>	<u>Relay Loom</u>	<u>Indicator Loom</u>
Indicator	YELLOW	YELLOW / BLACK	
Indicator		YELLOW	GREEN
Earth		BLACK	BLACK
Clearance Lamp	BROWN / YELLOW		RED

**Wiring colours may vary with the vehicle

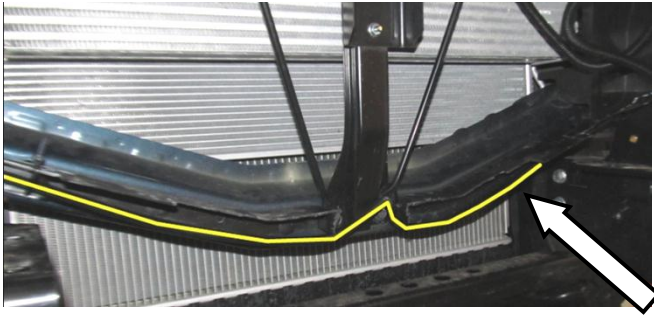
Carefully read the wiring diagram located at the previous page.



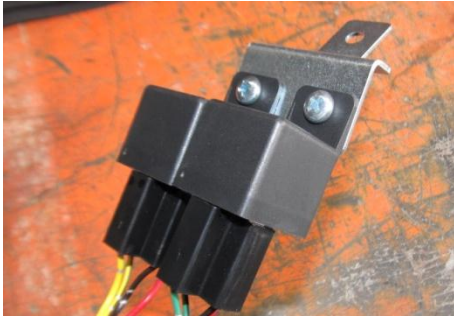
20. Starting on the RH side of the vehicle, use scotch locks to connect the relay loom (6821152) to the vehicle lamp wire. As shown on the table above, connect the Green / Black wire of the relay loom to the Green indicator wire at the rear of the right hand vehicle head light.
21. Next, connect one of the indicator looms (6821152), supplied in the bull-bar fitting kit, to the right hand vehicle clearance lamp wire and the relay loom as described in the above table.
22. Similarly to steps 20 & 21 connect the relay loom and the second indicator loom (6821152) to the left hand vehicle wiring as described in the table above.

NOTE: Two extra scotch locks have been supplied in the bull-bar fitting kit as required.
23. Re-fit the RH and LH vehicle head lights and position the indicator looms so that they dangle freely below the vehicle head lights ready for connection to the lamps in the bull-bar.

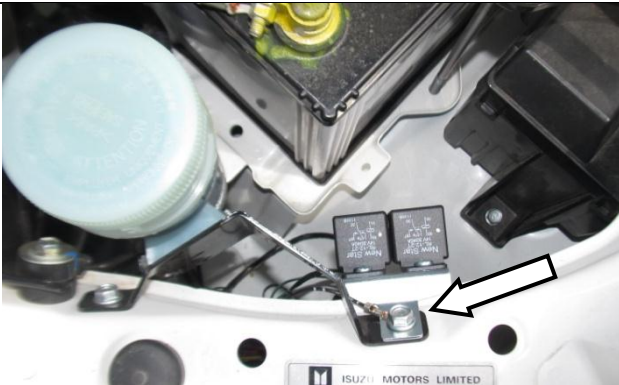
FITTING PROCEDURE



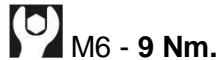
24. Fasten the relay loom to the vehicle with cable ties.
25. Connect the main relay loom power wire (red) to the positive battery terminal.
NOTE: USE THE MAIN BATTERY IF A DUAL BATTERY SYSTEM IS INSTALLED.



26. Attach the relays to the bracket supplied in the bull-bar fitting kit with two M5 x 12 pan head screws and two M5 nyloc nuts.



27. Undo the existing outer bolt holding the power steering reservoir bracket.
Re-use this bolt to fit the relay bracket to the vehicle and fit the relay loom earth under the head of this bolt.

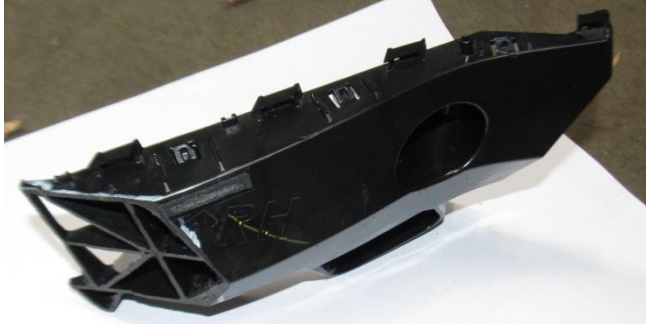


28. Carefully remove the RH and LH black plastic bumper retaining brackets. Keep the fastening screws as they will be re-used.



29. Use a white felt tipped pen to mark up the RH plastic bumper retaining bracket: the shaded region is to be cut off.

FITTING PROCEDURE



30. Use a hack saw to cut and remove the shaded portion of the bumper retaining bracket as shown in the adjacent image.
- Repeat these two steps for the LH bumper retaining bracket.



31. Loosely refit the LH and RH bumper retaining brackets. It is not necessary to screw them in place yet.

NOTE: The adjacent image displays the LH bumper retaining bracket clipped into the LH vehicle fender.



32. Loosely fit the trimmed vehicle bumper. With the bumper in place, use the trimmed edge of the vehicle bumper to mark the second trim line for the RH & LH bumper retaining brackets with a white marker.



33. Remove the RH & LH bumper retaining brackets from the vehicle. Clearly mark the second cut lines on both sides of the parts as shown.

The adjacent images show the LH bumper retaining bracket.



FITTING PROCEDURE



34. Use a hack saw to cut the RH and LH bumper retaining brackets. Once these cuts have been completed the parts should look like the adjacent images.

NOTE: The LH part is shown here.



35. Use a white marker to mark the upper wheel liner rectangular cut-outs approximately 60mm high x 20mm deep as shown. Next, use a sharp utility knife to cut out these rectangles from the RH and LH wheel liners.

FITTING PROCEDURE



36. Remove the bumper and mask the vehicle fenders and headlights. Use a spray can to paint the region immediately below that RH & LH vehicle fenders black.

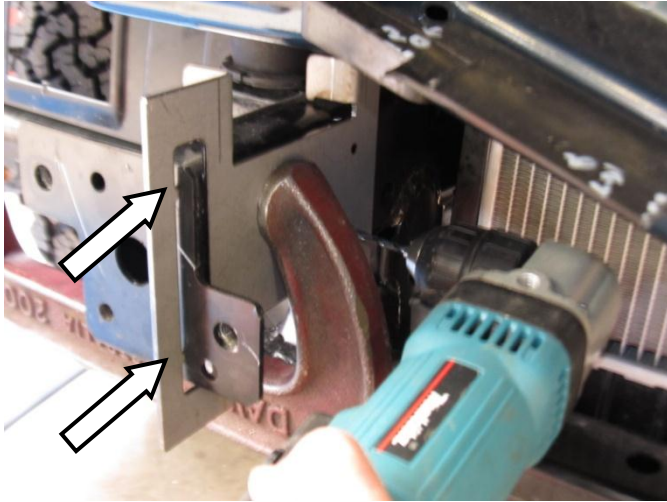


37. Refit the RH & LH bumper retaining brackets and secure them properly with the screws previously removed.
- Fix the bumper to the vehicle refitting the previously removed fasteners.
- Refit the vehicle grill and secure it using the original fasteners.



38. Fit the pinch weld, 2 off supplied with the bull-bar fitting kit, to the trimmed bumper as shown. Use side cutters to trim any excess pinch weld.

FITTING PROCEDURE



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

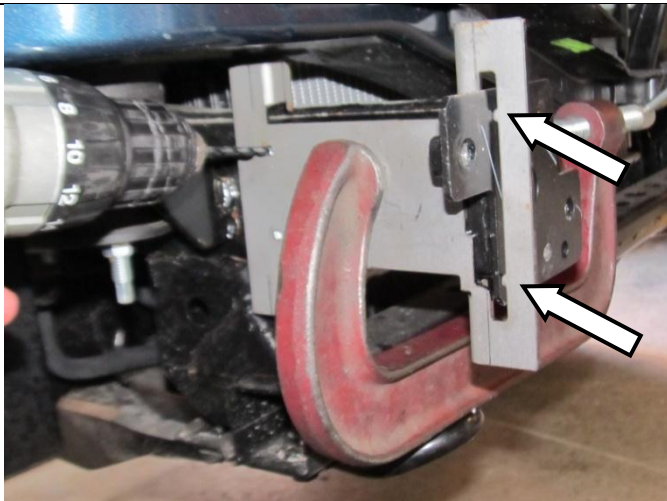
39. Clamp the inner chassis drilling template, identifiable with an "I" cut through the centre of this part, to the inside face of the RH chassis rail.

ENSURE THE LOCATING DATUMS CONTACT THE FRONT CHASSIS FLANGE. ENSURE THE TEMPLATE IS SITTING CENTRALLY ON THE CHASSIS RAIL, IN THE VERTICAL DIRECTION, BY CHECKING THE CLEARANCE BETWEEN THE UPPER AND LOWER LOCATING TABS AND THE CHASSIS RAIL.

Once the template is positioned accurately on the chassis rail use a right angle drill to drill two Ø4mm pilot holes through the inner wall of the chassis rail.

DO NOT DRILL STRAIGHT THROUGH THE OUTER WALL OF THE CHASSIS RAIL NOW.

NOTE: If you do not have a right angle drill a right angle drill attachment can be bought from a hardware store.



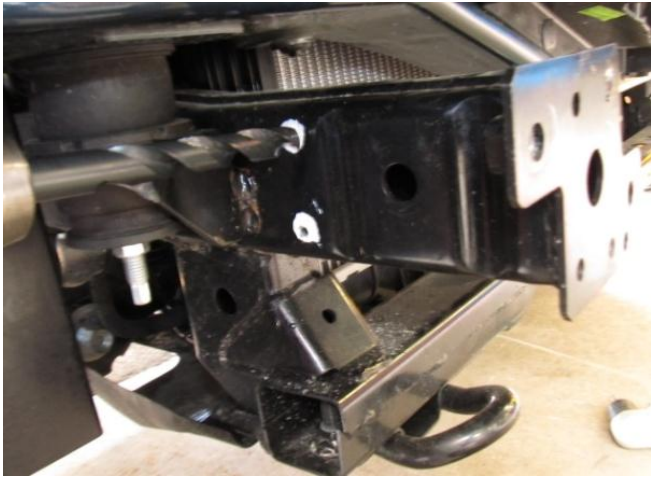
Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

40. Clamp the outer chassis drilling template, identifiable with an "O" cut through the centre of this part, to the outside face of the RH chassis rail.

ENSURE THE LOCATING DATUMS CONTACT THE FRONT CHASSIS FLANGE. ENSURE THE TEMPLATE IS SITTING CENTRALLY ON THE CHASSIS RAIL, IN THE VERTICAL DIRECTION, BY CHECKING THE CLEARANCE BETWEEN THE UPPER AND LOWER LOCATING TABS AND THE CHASSIS RAIL.

Once the template is positioned accurately on the chassis rail drill the two Ø4mm pilot holes through the outer wall of the chassis rail.

FITTING PROCEDURE



41. Drill two $\text{\O}13\text{mm}$ holes through the outer wall of the chassis rail only.

DO NOT DRILL STRAIGHT THROUGH THE INNER WALL OF THE CHASSIS RAIL NOW.



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



42. Replace the $\text{\O}13\text{mm}$ drill bit with a $\text{\O}10.5\text{mm}$ drill bit and pass the drill through the $\text{\O}13\text{mm}$ holes.

USE A SECOND PERSON TO WATCH AND ENSURE THE DRILL IS LOCATED CORRECTLY ON THE $\text{\O}4\text{mm}$ PILOT HOLES, ON THE INNER WALL OF THE CHASSIS RAIL, DRILLED AT STEP 39.

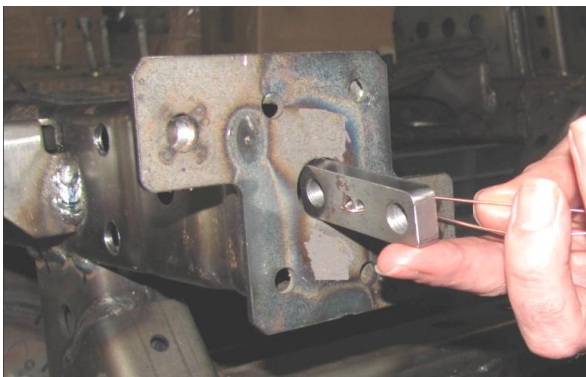
IT IS CRITICAL THAT THESE HOLES ARE ACCURATELY LOCATED.

Drill two $\text{\O}10.5\text{mm}$ holes through the inner wall of the chassis rail.



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

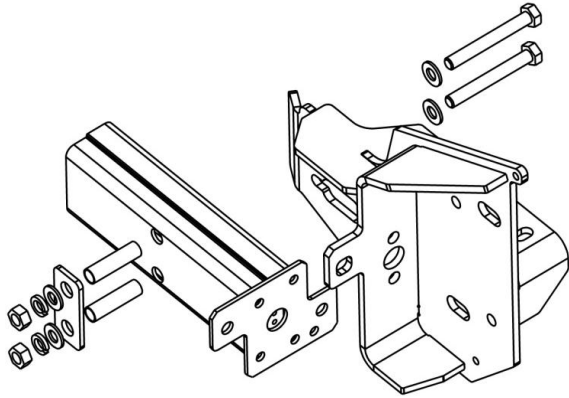
43. Paint all drilled holes with rust inhibiting paint.



44. Insert the nut plate, from the bull-bar fitting kit, through the front flange of the chassis rail with the wire attached.

ENSURE THE WIRE REMAINS ATTACHED TO THE NUT PLATE AND PROTRUDES FROM THE CHASSIS RAIL.

FITTING PROCEDURE



45. Loosely fit the right hand bull-bar mount to the chassis rail using the: M10 x 80 bolts (2 off), flat washers (4 off), crush tubes (2 off), rectangular plate (1 off), spring washers (2 off) and hex nuts (2 off) from the bull-bar fitting kit.

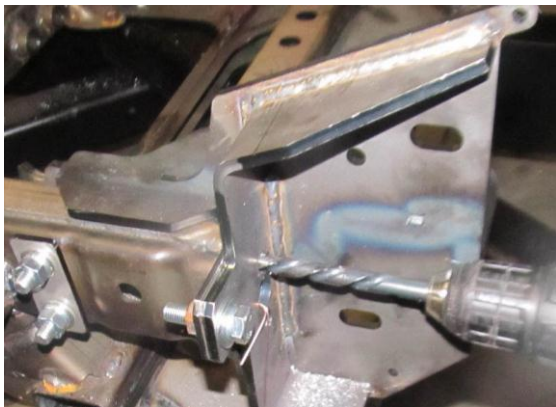
Ensure these bolts are orientated as shown in the adjacent image with the head of the bolt on the inside of the chassis rail.



46. Re-use one of the chassis bolts, removed at step 15, to firmly locate the bull-bar mount bracket to the chassis.

Ensure the mount fits well and in-line with the chassis flange.

NOTE: This bolt will be removed prior to bar fitment.



47. Use a punch to mark the two holes in the front of the chassis rail.

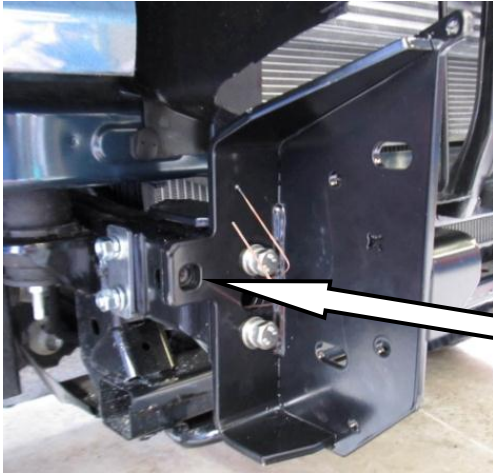
Drill two Ø4mm pilot holes. Next open these holes with a Ø10.5mm drill bit.

Paint these drilled holes with rust inhibiting paint.



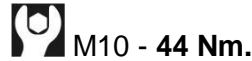
Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

FITTING PROCEDURE



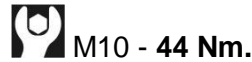
48. Fasten the two M10 x 30 SEMS bolts to the nut plate inserted in the chassis at step 44. Use the wire, shown in the adjacent image, to correctly position the nut plate.

Tighten the two M10 x 30 hex bolts.



M10 - 44 Nm.

Tighten the two M10 x 80 hex bolts (fit at step 45).



M10 - 44 Nm.

Remove the chassis bolt fit at step 46.

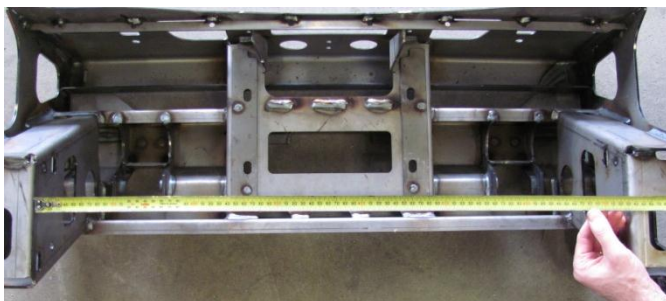
Note: DO NOT REMOVE THE WIRE USED TO POSITION THE NUT PLATE AS IT MAY BE REQUIRED IN THE FUTURE IF THESE MOUNTS ARE REMOVED.

Repeat steps 39 to 48 for the left hand chassis mount.



49. Use a tape to measure the distance between the two outer faces of the bull-bar mounts.

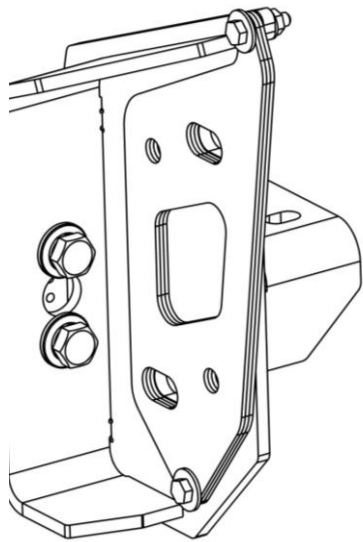
- The nominal design dimension is 722mm. This may differ, however, due to vehicle chassis variation.



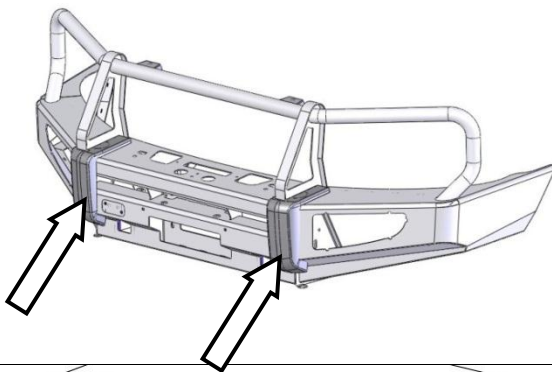
50. Measure the distance between the bull-bar mounting faces.

- The nominal design dimension is 736mm.

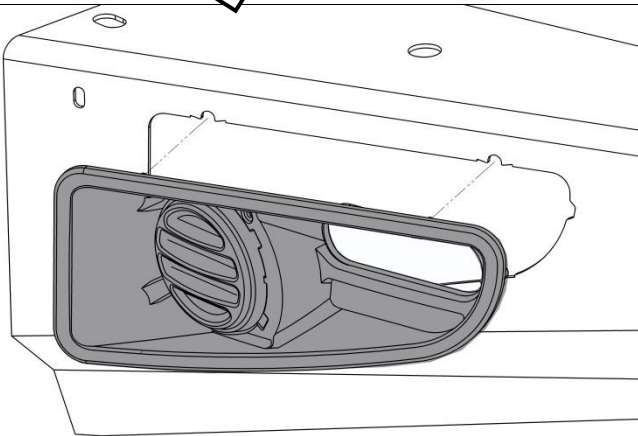
FITTING PROCEDURE



51. Fit an equal number of 2mm packers to the RH and LH mounts as required with the M6 x 25 bolts (2 per mount), flat washers and flange nuts.
- The total clearance between the bull-bar mounting faces and the mounts should be roughly 1-2mm.

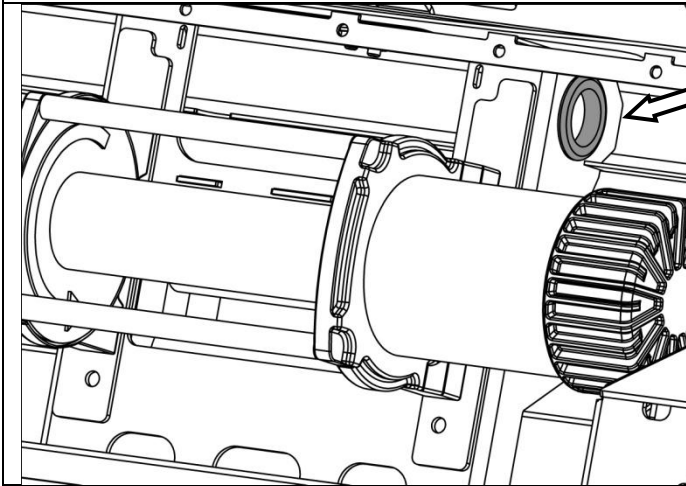


52. Attach the buffers to the bar as shown using twelve M6 flange nuts.
- Warning: Do not over tighten these nuts or you risk pulling the studs from the buffers.**



53. Assemble and install combination light surrounds (p/n 3163015) as per instructions no. 3786421 supplied with surround kit. Note: Optional fog lamps can be installed at this point as per fitting instruction no. 3783315 supplied with fog lamp kit no. 6821201.
- CAUTION: Cable-tie all cables together and keep all cables clear of sharp edges and all moving parts.**

FITTING PROCEDURE



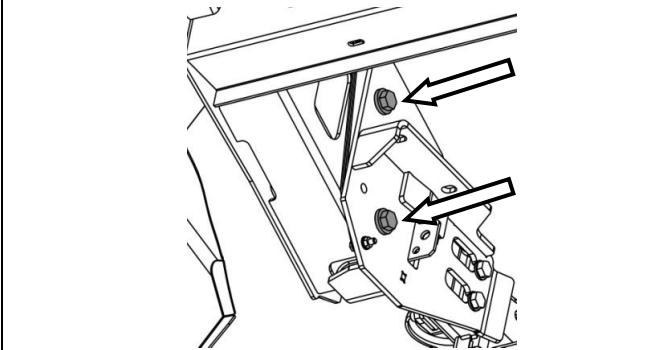
54. If fitting a winch:
- install the two rubber grommets, supplied in the bull-bar fitting kit, into the bull-bar winch cradle as shown
 - **follow the fitting instructions 3787989 supplied with 3540050 winch install kit**

If not fitting a winch proceed to step 55.



55. With the assistance of another person, place the bar on the mount brackets.

Warning: Due to the weight of the bar and winch if fitted, it is advised that you use some form of mechanical assistance when lifting the bar onto the vehicle such as an elevating trolley.



56. Use the M12 x 50 hex bolts (2 per mount), flat washers (4 per mount), spring washers (2 per mount) and hex nuts (2 per mount) to secure the bar.



57. Position the bar so that the rear of the wing is parallel with the vehicle fender and lines up with the wheel arch. The nominal distance between the vehicle fender and the bull-bar is 48mm.

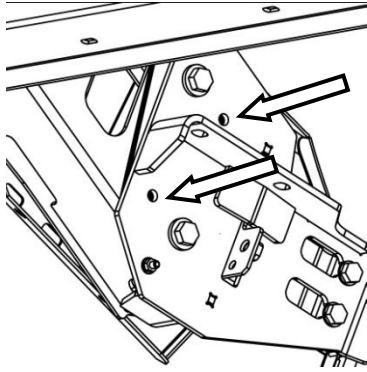
Once happy with the position of the bar tighten the M12 mounting bolts.



M12 - 77 Nm.



FITTING PROCEDURE



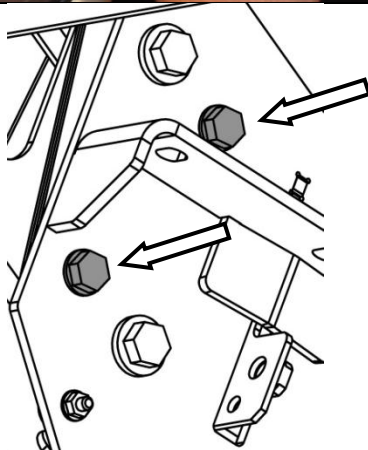
58. Once satisfied with the position of the bar on the vehicle drill the four Ø10mm pinning bolt holes (2 per mount).



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



59. Measure the distance from the RH vehicle fender to the outer face of the RH bull-bar wing. Repeat on the LH side to confirm the bar is sitting centrally on the vehicle.
60. If not, remove the bar from its mounts and shift the required number of 2mm packers installed on the bull-bar mounts, fit at step 51, from one mount to the other. Next re-fit the bar on the mounts lining up the Ø10mm holes drilled at step 58.



61. Once satisfied with the fitment of the bar to the vehicle, fit the M10 x 45 hex bolts to the RH & LH mounts (4 off - 2 per mount), flat washers (4 off) and flange nuts (4 off). Tighten the four M10 x 45 hex bolts.



M10 - 44 Nm.

Tighten the four M12 x 50 hex bolts.

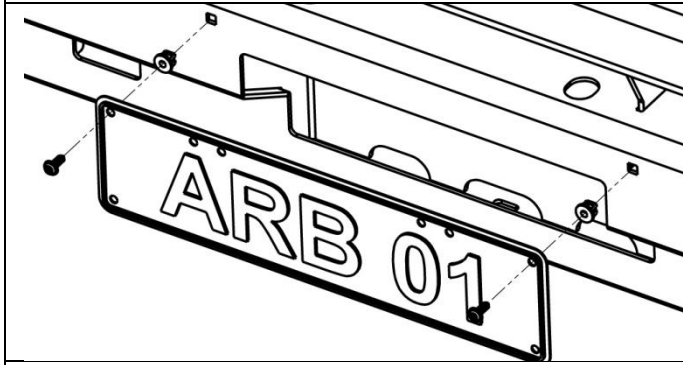


M12 - 77 Nm.



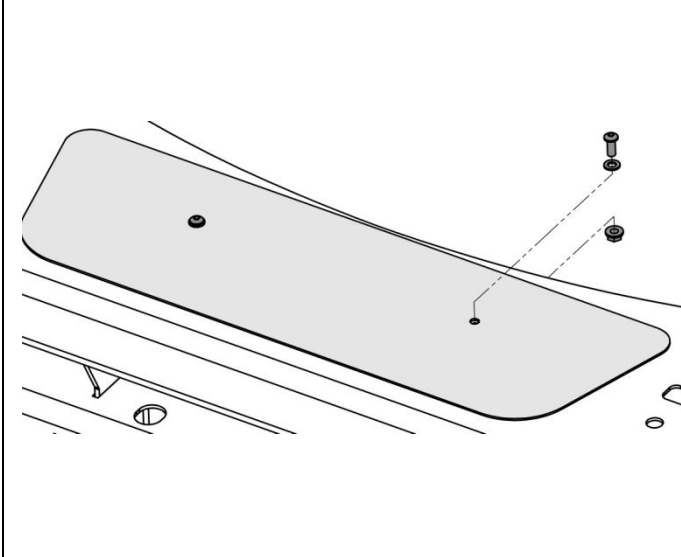
62. Connect the RH and LH indicator looms, fit at steps 18 - 23, to the bull-bar indicator / position lamps.
63. If fitting driving lights it is advisable to fit them now.

FITTING PROCEDURE



64. IF NOT FITTING A WINCH

Insert the two plastic plugs into the square holes in the front of the bar. Next, screw the number plate to these grommets.



65. IF NOT FITTING A WINCH

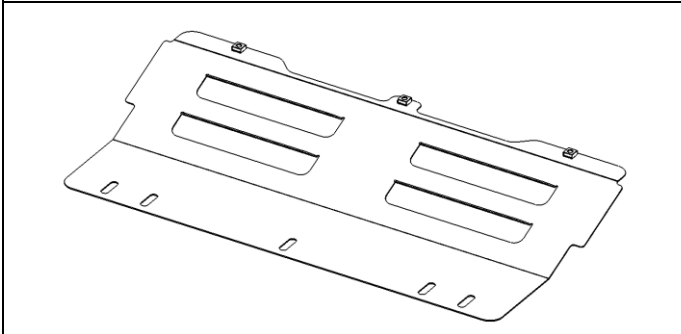
Wrap the rubber extrusion around winch cover

Place the winch cover on top of the bar and align the panel bolts holes with mating holes located on the top middle face of the bull-bar.

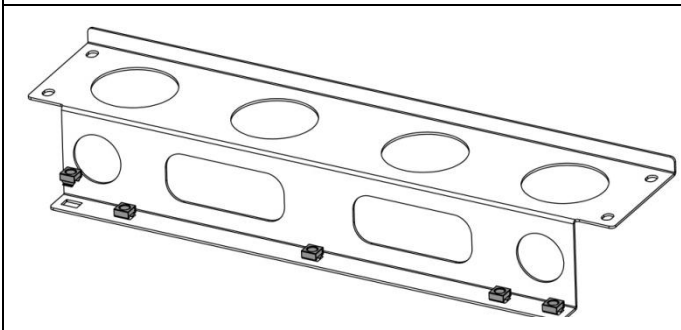
Bolt winch cover to the bull-bar using the two M6 button head stainless steel screws, stainless steel flat washers and M6 flange nuts.



M6 - 9 Nm.



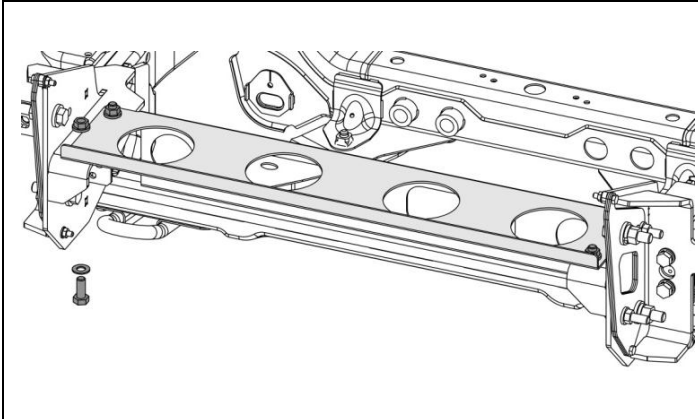
66. Fit three M6 cage nuts to the centre stone guard as shown.



67. Fit five M10 cage nuts to the centre bull-bar brace.


Ensure the cage nuts are inserted with their legs as shown, so they can slide along the rectangular slots.

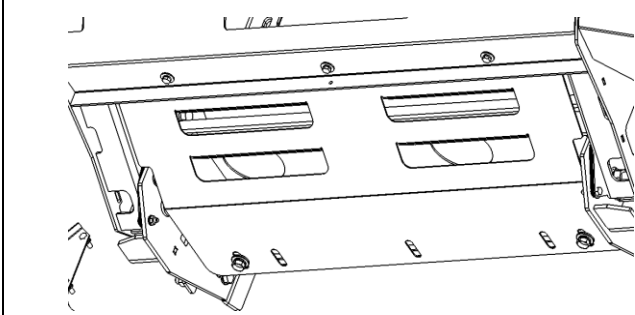
FITTING PROCEDURE




68. Loosely fit the centre bull-bar brace to the bull-bar mounts using four M10 x 25 hex bolts, four flat washers and four flange nuts as shown.


After confirming that the vehicle stone guard bolt holes will fit and line up with the M10 cage nuts in the bull-bar brace tighten the four M10 x 25 hex bolts.

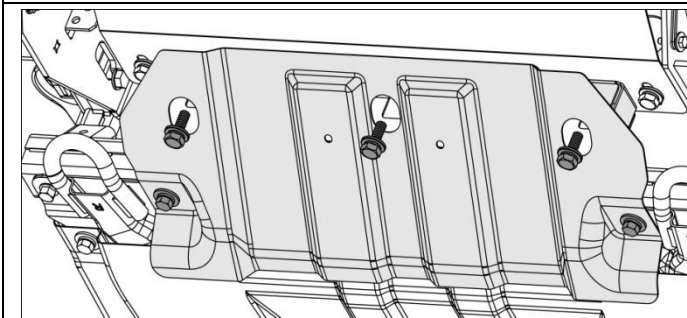
 M10 - 44 Nm.




69. Fit the centre stone guard to the bull-bar / vehicle with: three M6 x 20 black hex bolts, spring washers, flat washers and two M10 x 30 black SEMS bolts.

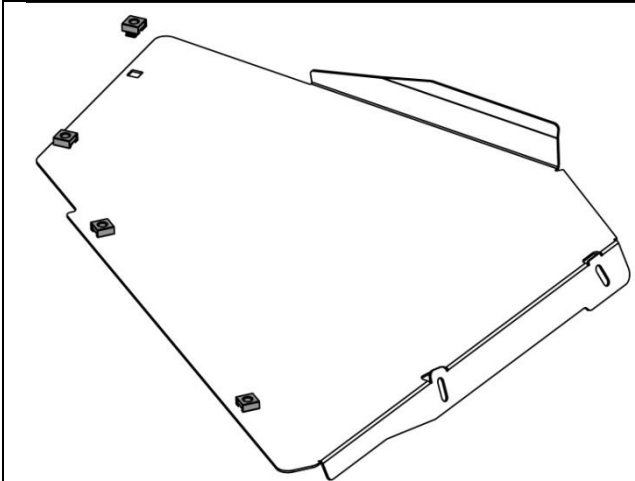
 M6 - 9 Nm.

 M10 - 44 Nm.

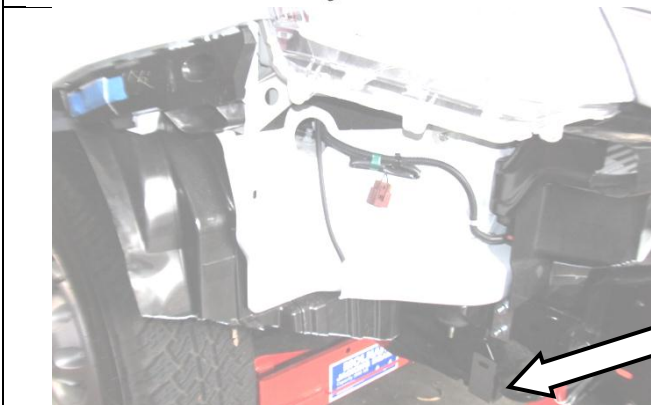


70. Refit the original vehicle stone guard using two of the original M10 bolts, at the rear of the stone guard, and three M10 x 30 black SEMS bolts at the front.

 M10 - 44 Nm.



71. Fit the M6 cage nuts to the two wing stone guards (4 per stone guard).



72. Fit the 2 wing stone retaining brackets to the vehicle chassis using the outer bolts holding the vehicle recovery points.

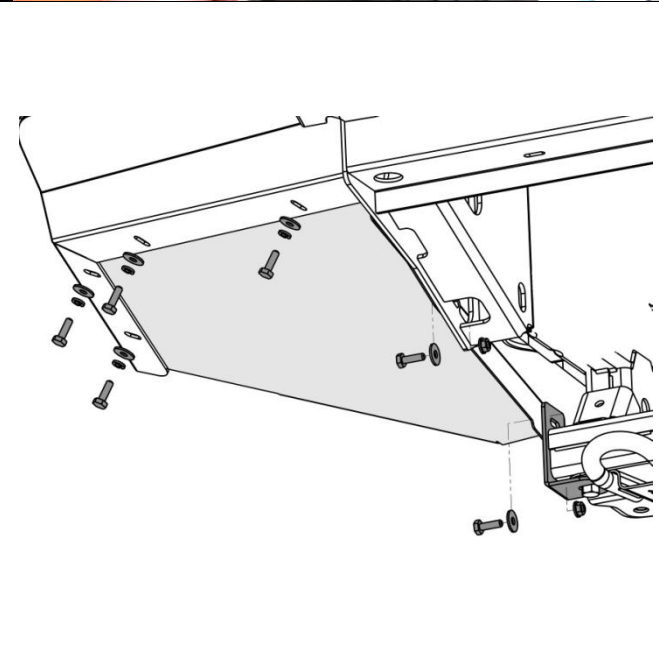
FITTING PROCEDURE




73. Loosely fit the RH and LH wing stone guards to the bull-bar. As shown on the adjacent photo, use a white marker to draw a line on the wheel liner at the lower rear edges of the stone guards.



74. Remove the two wing stone guards and mark a second line 5mm above the first line on the RH and LH wheel liners.
Cut off the lower portion of the wheel liners at the upper line with a utility knife or heavy duty scissors.



75. Fit the RH wing stone guard with:
- four M6 x 20 black hex bolts, four spring washers and four flat washers through the wing
 - two M6 x 20 black hex bolt, two flat washers and two flanges nuts at the bull-bar mount and the stone guard retaining bracket
76. Fit the RH wheel liner over the rear lip of the stone guard so it is securely held.
77. Repeat steps 75 & 76 for the LH wing stone guard.

 M6 - 9 Nm.

FINAL CHECKS:

- ◆ Check wiring connections to fitted lights and winch.
- ◆ Check operation of winch and all lights.
- ◆ **IMPORTANT:** Check that all piping and wiring is clear of sharp edges and pinch points. Adjust any piping to clear the bull bar or mounts by a minimum of 15mm.

FITTED PRODUCT

