FITTING INSTRUCTIONS

Part Number:	**3426040 F/Kit 6172686**
Product Description:	**Deluxe Combination Winch and Non Winch Bull Bar**
Suited to vehicle/s:	**SUZUKI GRAND VITARA 06 TO AUG 08** ***** DOES NOT SUIT HEADLAMP WASHERS ON PRESTIGE MODELS**

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.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

METRIC SOCKET SET	**METRIC RING AND OPEN ENDED SPANNER SET**
ELECTRIC DRILL	**3 & 10mm DRILL BITS**
SHARP KNIFE	**PHILLIPS AND FLAT SCREW DRIVER SET**
FELT TIP PEN	**HACKSAW BLADE OR SMALL HAND SAW**
FINE FILE OR SAND PAPER	**ELECTRIC JIG SAW**
METRIC TAPE MEASURE	**ROLLS OF 12 mm & 50 mm WIDE MASKING TAPE**
TOUCH UP PAINT	**DIE GRINDER AND CUTTING BIT**
Loktite© 24240 Thread Locker	**SCISSORS**

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

Protective eyewear		**Hearing protection**	

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

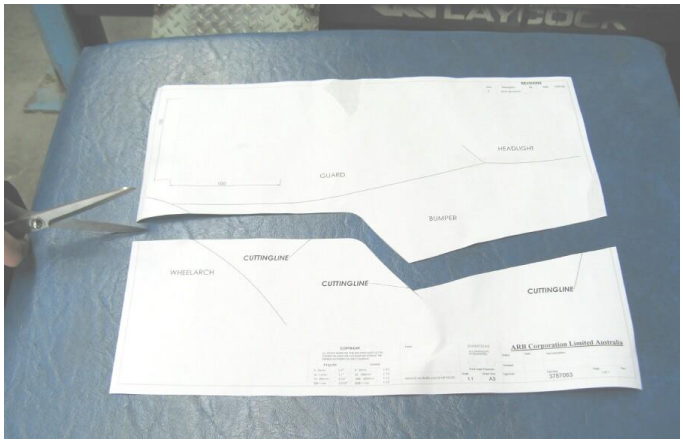
NOTE:

- **OPTIONAL FOG LAMPS TO SUIT THIS PRODUCT ARE P#6821201. IF LOOM AND SWITCH REQUIRED USE P#MD02 LOOM KIT, P#180209 SWITCH AND P#180215 SWITCH CAP FOR FOGS**
- **UP TO 900 SERIES ROUND OR 800 RECTANGULAR DRIVING OR FOG LAMPS SUIT THIS PRODUCT**

PARTS LISTING			
APPLICATION.	**PART NO.**	**QTY**	**DESCRIPTION**
MOUNT BRACKET (IMPACT ABSORBER) TO CHASSIS	3757957R&L 6151132	1 PR 8	BRACKET ASSY IMP ABS RH & LH NUT FLANGED M8
BULL BAR TO MOUNT BRACKETS	6151360 4581007 4581050 6151428	6 6 6 6	BOLT M12 X 1.75 X 35 (COARSE PITCH) WASHER FLAT M12 X 37 X 4 WASHER SPRING M12 NUT FLANGED M12
BUFFERS TO BULL BAR	3162470R&L 6151128	1 PR 12	BUFFER SLOTTED RH & LH NUT FLANGED M6
LICENCE PLATE TO BULL BAR	6151384 6821189	2 2	SCREW PAN HD GROMMET RND HD
LIGHT INSERT AND INDICATORS	3163015 6821151R&L 6821152 180701	1 1 PR 2 6	COMBINATION LIGHT SURROUND KIT INDICATOR/CLEARANCE LAMP RH/ LH LOOM INDICATORS SCOTCH LOKS
WINCH TO BULL BAR	3756499 EG50 6151074 6151073 4581040 4581048 6151022 6151132 4581044 180302	1 2 2 2 4 4 2 2 2 6	CONTROL BOX MOUNT RUBBER GROMMET BOLT 3/8" x 1 ¾" HEX HEAD BOLT 3/8" x 1 ½" HEX HEAD WASHER FLAT M10 WASHER SPRING M10 BOLT M8 x 25mm NUT FLANGE M8 WASHER FLAT M8 CABLE TIES
WINCH COVER (NOT FITTING WINCH)	6522749 6151256 6151128 6191006 4581304	1 2 2 1 2	PANEL WINCH COVER SCREW M6 X 16MM BUTTON HEAD S/S NUT FLANGE M6 EXTRUSION WINCH COVER WASHER FLAT M6 S/S
STONE TRAY BRACE TO IMPACT ABSORBERS	3757959 6151022 4581044 4581046 6151301	1 2 2 2 2	BRACKET STONE TRAY BOLT M8 x 25 mm LONG WASHER FLAT M8 WASHER SPRING M8 CAGE NUT M8
INTERCOOLER SUPPORT BRACKETS (DIESEL ONLY)	3757958R&L 6151022 4581044 4581046 6151132	1PR 4 4 4 4	BRACKET INTERCOOLER SUPPORT BOLT M8 x 25 mm LONG WASHER FLAT M8 WASHER SPRING M8 NUT FLANGED M8
BRACE LOWER STRAP	4681328 6151022 4581044 4581046 6151132	2 4 4 4 4	STRAP BRACE LOWER BOLT M8 x 25 mm LONG WASHER FLAT M8 WASHER SPRING M8 NUT FLANGED M8
BRACE SIDE MOUNT TO CHASSIS	4681329R&L 6151022 4581044 4581046 6151132 6151301 3199943	1PR 8 8 8 6 2 2	BRACE SIDE LOWER BOLT M8 x 25 mm LONG WASHER FLAT M8 WASHER SPRING M8 NUT FLANGED M8 CAGE NUT M8 PLATE CAGE NUT EXTENSION
STONE TRAY TO BULL BAR	6522750 6151300 6151213 4581082 4581287	1 7 7 7 7	STONE TRAY CAGE NUT M6 BOLT M6 x 20 BZ WASHER FLAT M6 x 20 BZ WASHER SPRING M6 BZ

WING UNDER PANELS TO BULL BAR	**6522751L&R** **6151300** **6151213** **4581082** **4581287** **6151022** **4581044** **4581046** **6151301** **180302**	**1** **6** **6** **6** **6** **2** **2** **2** **2** **8**	**PANEL WING UNDER SIDE** **CAGE NUT M6** **BOLT M6 x 20 BZ** **WASHER FLAT M6 x 20 BZ** **WASHER SPRING M6 BZ** **BOLT M8 x 25 mm LONG** **WASHER FLAT M8** **WASHER SPRING M8** **CAGE NUT M8** **CABLE TIES**
PINNING BOLT HARDWARE	**6151357** **6151321**	**4** **4**	**BOLT SEMS M10 x 25 mm LONG** **NUT FLANGE M10**
MISCELLANEOUS	**180302** **6191020** **3787063**	**6** **2** **1**	**CABLE TIES** **PINCH WELD NARROW 400mm LONG** **TEMPLATE BUMPER CUT**

PREPARATION TO VEHICLE



1. Remove number plate and set aside
2. With scissors cut out the bumper cutting template along designated cutting line as shown

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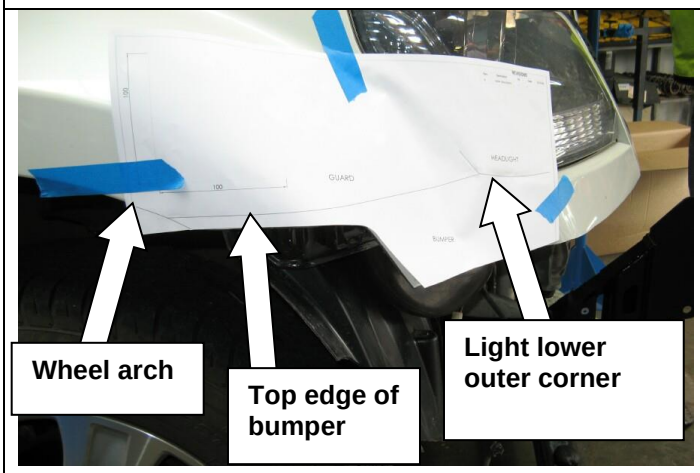

3. Fit the template to the RHS of the bumper aligning with the wheel arch, top edge of the bumper and the head lamp lower corner and tape in position

NOTE: View shows already cut bumper

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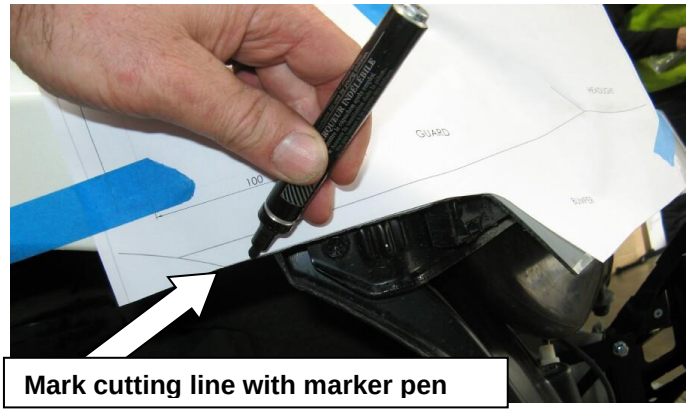

4. Mark the cutting line around to the front face of the bumper
5. Remove the cutting template from the RHS, reverse it and reposition it on the LHS, tape in position and mark cutting line.

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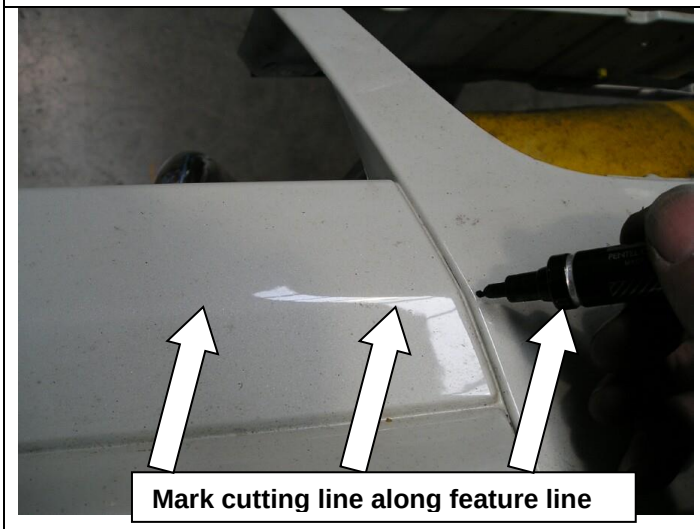
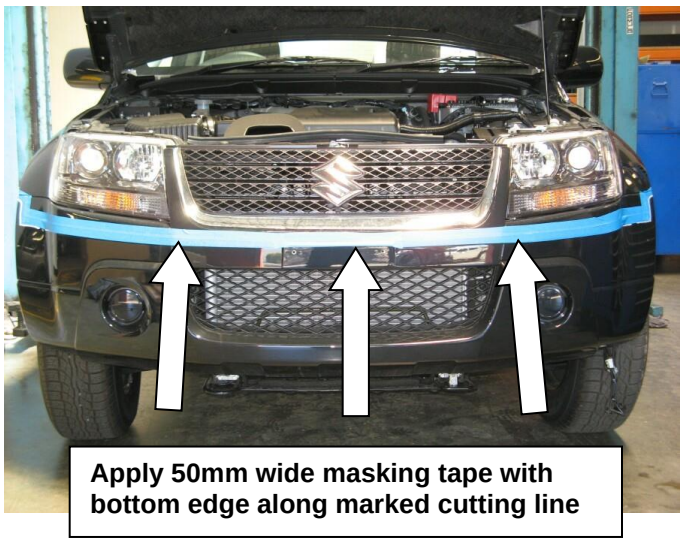
NOTE: View shows already cut bumper

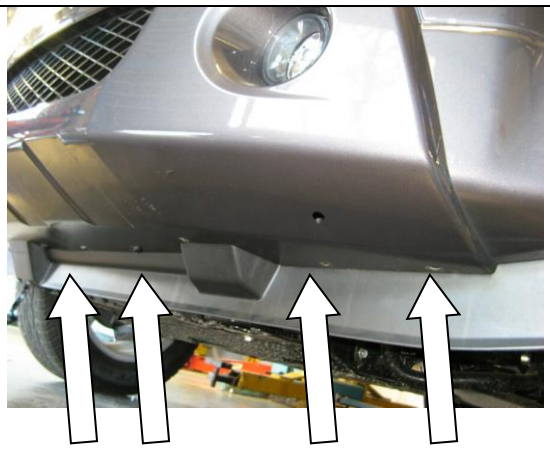
PREPARATION TO VEHICLE



6. Mark the cutting line across the front of the bumper in line with the feature line and lower edges from the template.



7. Apply masking tape with the bottom edge on the marked cutting line.



8. Remove the three plastic clips securing the bumper in the intake area behind the licence plate location

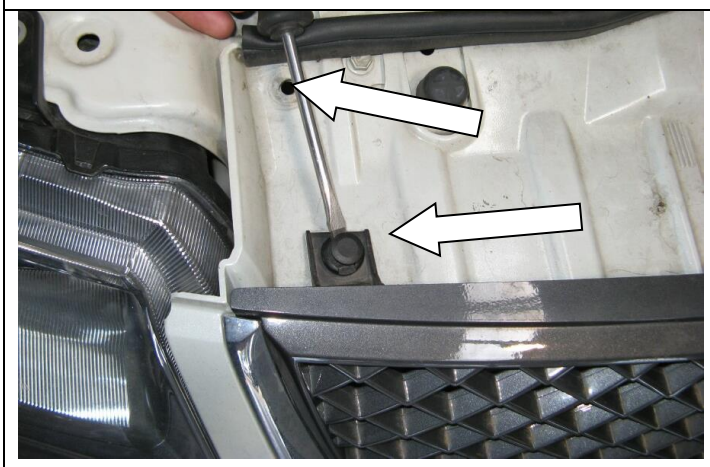
9. Remove the bolts between the lower bumper and sump guard

10. Remove the four lower bolts and plastic clips that attach the lower bumper tabs to the vehicle (refer to attached photo). There are also another two self tapping screws in each side, located in a recess in the lower bumper face – these need to be removed.

PREPARATION TO VEHICLE

11. Remove the two bolts and screw from the fender opening area each side that attaches the bumper bar to the plastic inner guard liner as shown.

12. Remove the screws securing the fender liners to bumper in the forward wheel arch areas



13. Remove the top panel and grille – for the grille prise out plastic clips along the top first, then pull outwards and upwards to release lower clip points along the lower section of grille attaching to top flange of the bumper

14. Remove bolts and plastic clips securing bumper to cross member.

PREPARATION TO VEHICLE

15. Remove bumper ***disconnecting the air temp sensor whilst removing***

16. Disconnect fog lamps if fitted

NOTE: The outer end of the bumper where it clips into the fender, is released by pulling out and forward as shown

17. Remove reinforcing beam plastic impact buffer

18. Remove reinforcing beam by undoing 4 x fastening nuts. Set beam aside, it will not be reused

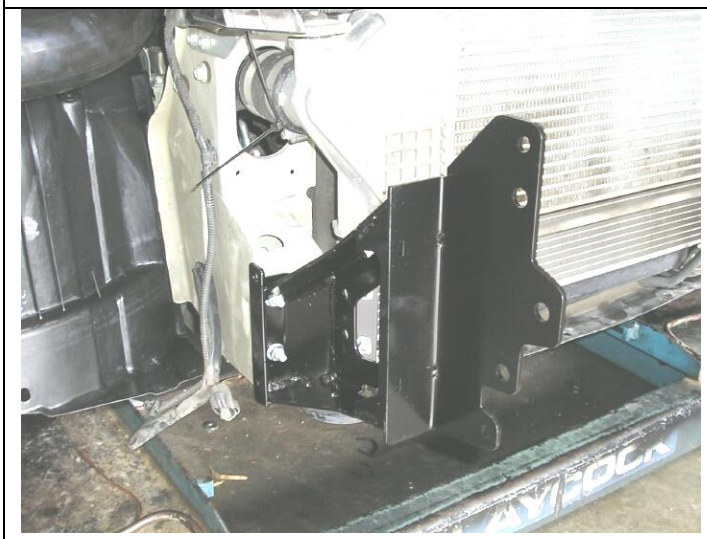
Caution: On diesel vehicles the intercooler brackets are mounted to the reinforcing beam brackets, temporarily tie intercooler pipes up to bonnet latch crossmember with cable ties to support the intercooler and stop it from dropping when brackets are removed

PREPARATION TO VEHICLE

19. Remove LHS headlamp

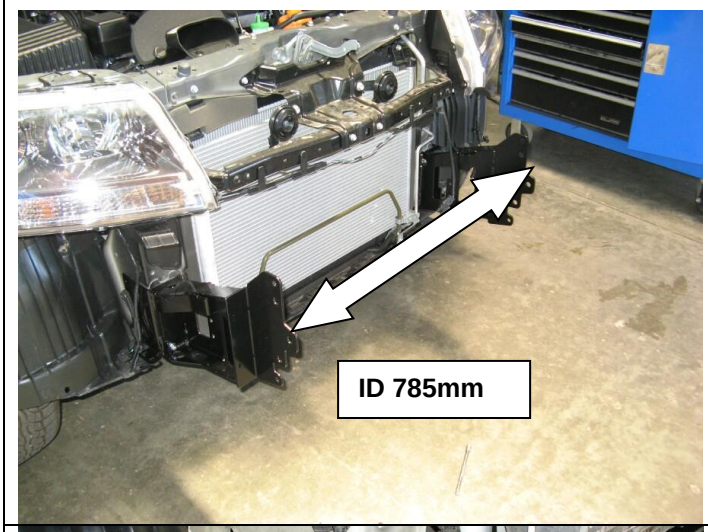
20. Undo washer bottle fasteners and remove washer bottle

21. If fitted, remove air intake on the RHS of vehicle



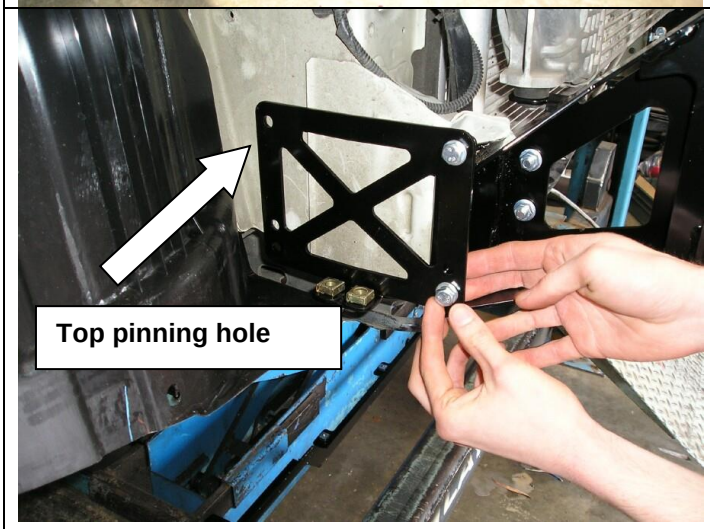
22. Fit mounting brackets using supplied brackets and nut and washer kits

PREPARATION TO VEHICLE



23. Measure inside dimension across mount flanges and adjust bracket side ways position so that there will be a slight amount of clearance to the bull bar uprights, (785mm) when bull bar is fitted later on. ***Once in position tension to specified torque***

NOTE: The mount bracket flanges fit outside the bull bar uprights



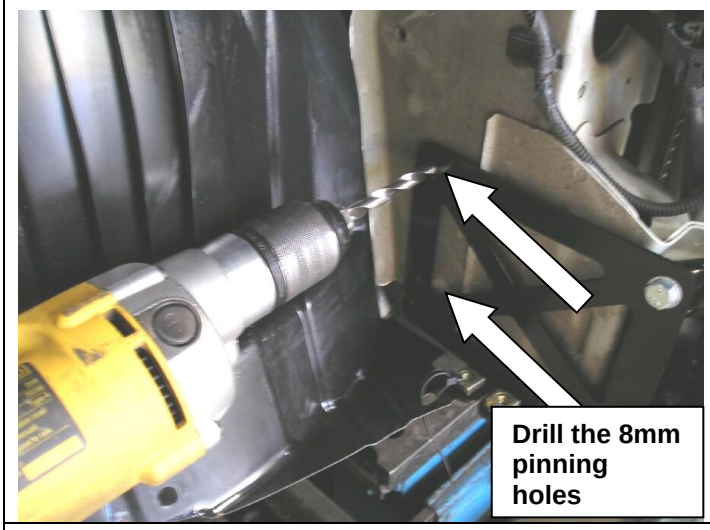
24. Fit side braces using supplied M8 hardware then fit M8 cage nuts to two lower positions as shown below

25. Grind out access hole in lower chassis as shown, both sides of vehicle, just enough so the cage nut on access plate can be inserted for top pinning hole on brace

26. Paint around the bared edges to prevent corrosion

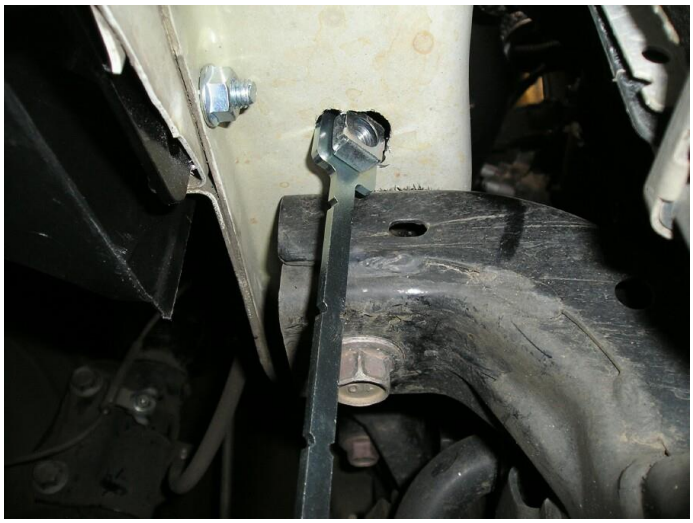
Warning: Cutting operations can result in flying metal debris, safety glasses should be worn.

PREPARATION TO VEHICLE



27. Using an 8mm drill bit, drill holes through the side of vehicle chassis using the top and lower rearmost holes in brace as a guide.

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



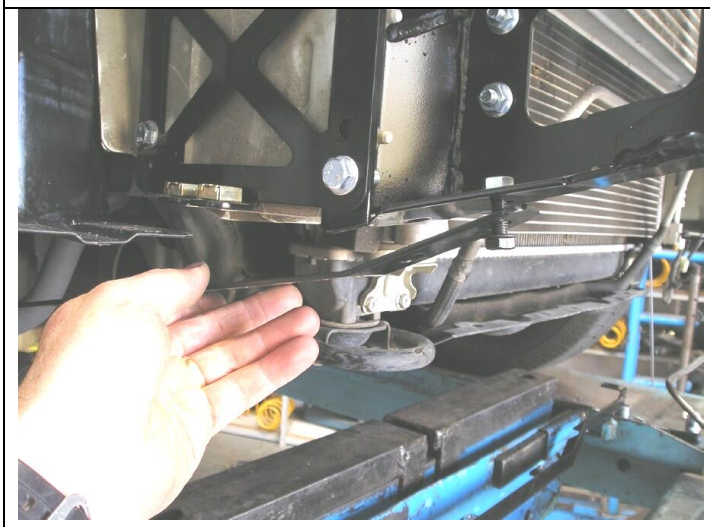
28. Fit M8 cage nut to extension plate, insert through hole in chassis and secure top pinning position with M8 bolt and washer set

29. Bend the protruding extension plate until it breaks off

30. Fit M8 fastener set to lower bolt pinning position

31. Repeat for other side of vehicle ***Tension to specified torque***

HINT: Apply a couple of bends to the plate so that once the nut plate is inserted into the access hole, the cage nut will then sit nicely against the side of the chassis wall for easy insertion of the M8 bolt thread.

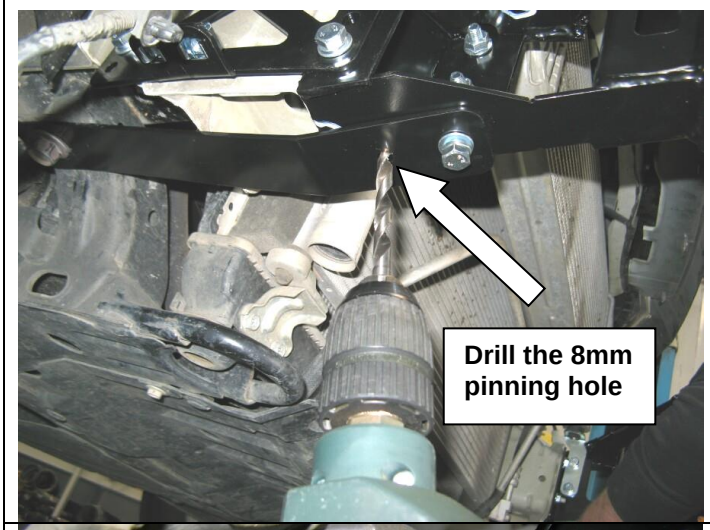


32. Undo lower crossmember bolt and fit tension strap.

33. Apply Loktite© 24240 to thread of crossmember bolt before refitting then nip up bolt only.

34. Fit M8 bolt set to front position and nip up

PREPARATION TO VEHICLE



35. Using an 8mm drill bit, drill pinning hole through the rear 8mm hole in strap.
36. Fit M8 bolt set, do all bolts in strap up to correct torque

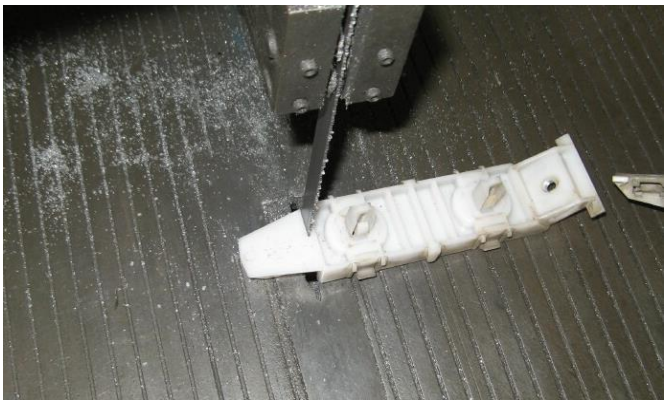
Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

37. If diesel vehicle fit new intercooler support brackets to inner faces of main mount brackets as shown and secure with M8 fastener sets

38. Reinstall washer bottle.
39. Fit indicator loom to vehicle wiring before refitting headlamp ***refer step 73***

PREPARATION TO VEHICLE

40. Remove plastic bumper clip both sides of vehicle

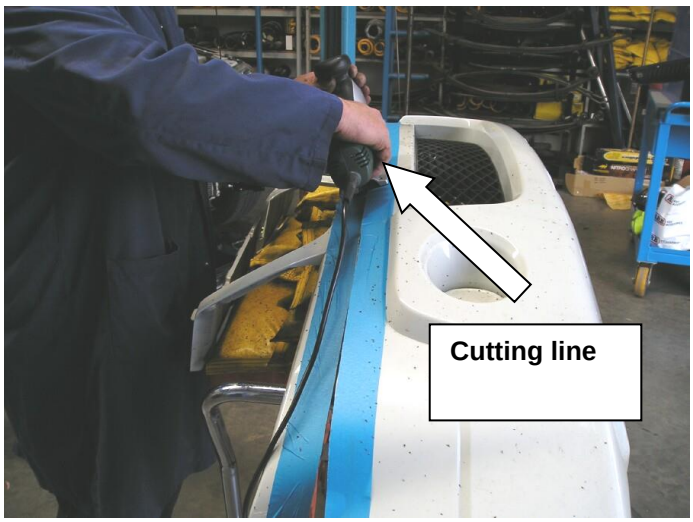


41. Trim ***tapered*** end off bumper clip as shown

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

42. Spray front exposed face only of plastic bracket as well as any lower sheet metal in the immediate area visible when bull bar is fitted with black spray paint as shown and refit plastic bumper clip to vehicle

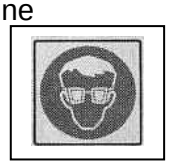
PREPARATION TO VEHICLE



43. Lay bumper face up on a table for cutting process

44. Apply 50mm wide masking tape across the bumper with lowest edge of tape on the cutting line

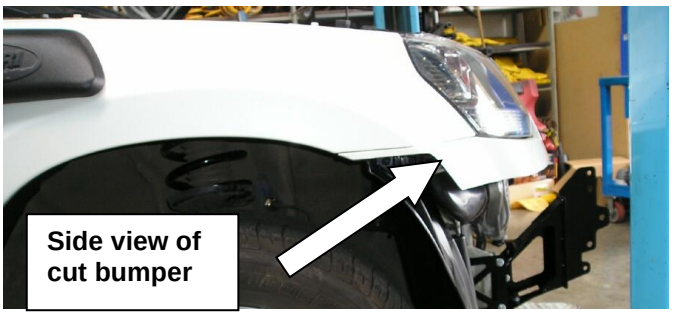
45. Using a jigsaw or pneumatic cutting saw cut along the cutting line



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

46. Remove tape, deburr cut edges with a file then apply pinch weld to side cut edges as shown and then trim off excess

47. Fit bumper back onto vehicle

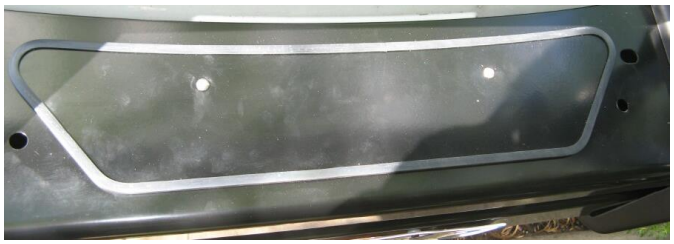


BULL BAR PREPARATION

48. Fit the buffers to either side of the bull bar using 6 x M6 flange nuts. Do not over tighten.
49. Fit M6 cage nuts to four holes in lower pan flange. The nut bodies are inside the bull bar

IF NOT FITTING A WINCH

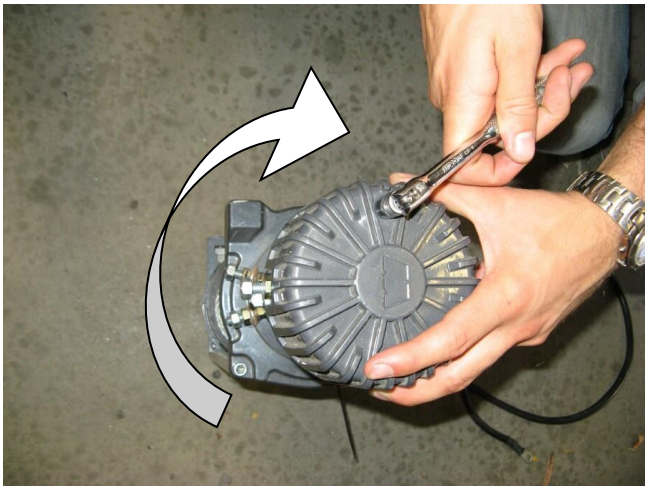
50. Apply rubber mould to edge of winch hole cover panel and trim off excess.



51. Fit panel to top face on bull bar using 2 x M6 dome head stainless steel screws, flange nuts and stainless steel flat washers.

NOTE: The stainless steel flat washers are to be sandwiched between panel and top face of bull bar to stop the panel pulling down to form depression around screw heads.

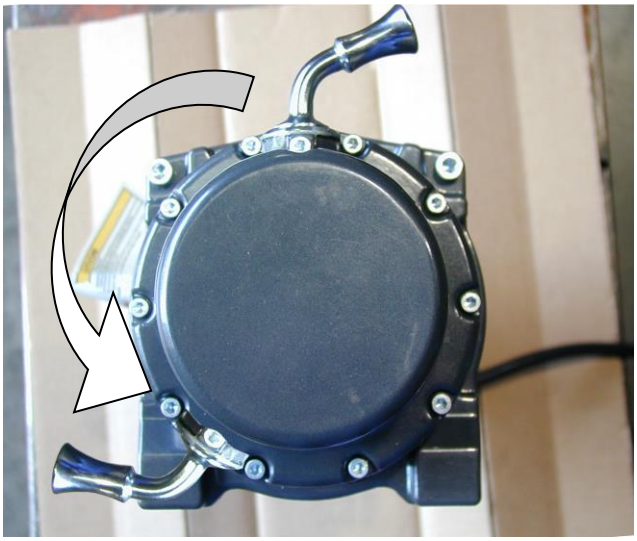
WINCH FITMENT ONLY



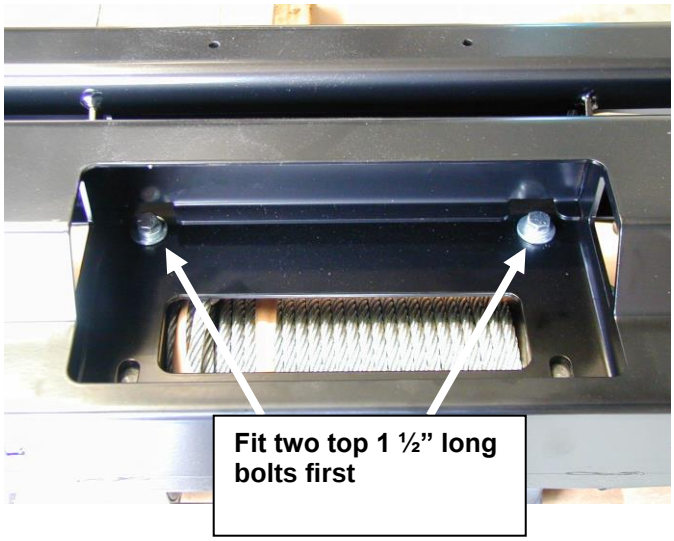
IF FITTING A WINCH

52. Rotate the winch motor 90 degrees as shown

NOTE: Follow the winch manufacturers instructions regards motor rotation and drainage requirements



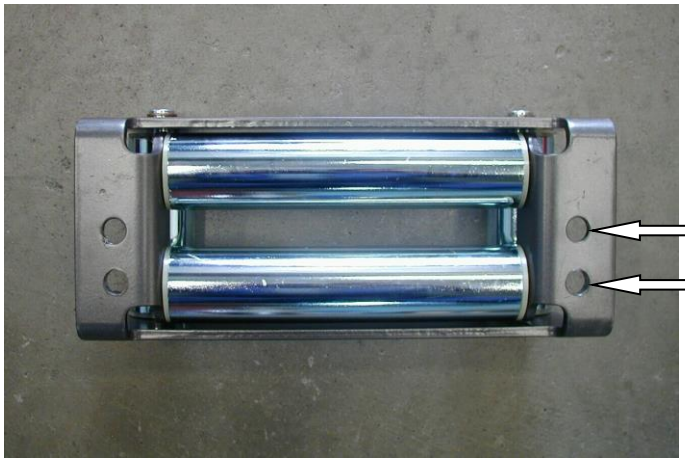
53. Remove the cap head screws retaining the gearbox to the winch drum. Carefully lift the gearbox a small amount (5 mm) and rotate144 degrees counter clockwise (four hole spacings) and re-fit the cap screws . This places the winch handle in the correct orientation.



54. Lay the winch on a suitable flat surface and place the bull bar on top so that the wire rope will feed thru from the bottom.

55. Using the two 3/8" x 1 1/2"long bolts, M10 flat and spring washers, attach the bull bar to the winch through the top two bolt holes as shown.

WINCH FITMENT ONLY

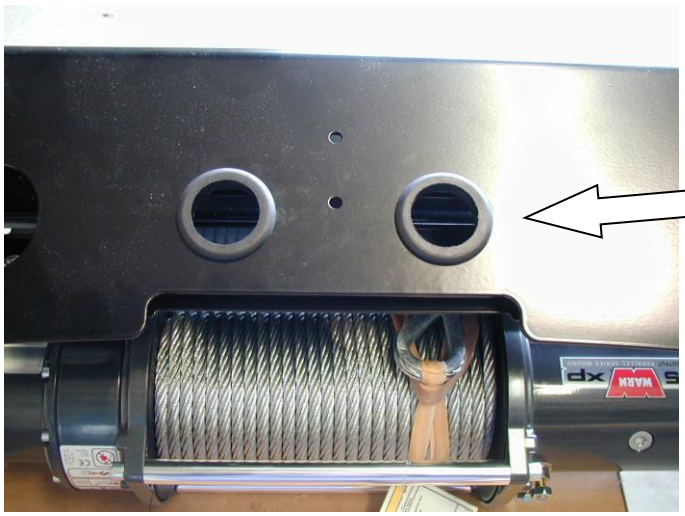


56. Using a 12mm drill bit, mark & drill two new holes in the roller fairlead 25mm below the original holes.

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

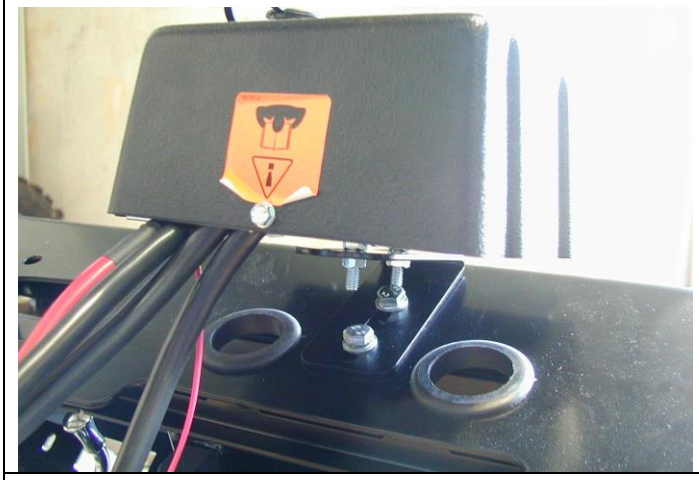
57. Remove the cir clips from the bottom of the vertical rollers of the fairlead and push the pin upwards. Push the vertical rollers inwards on the lower edges as shown and using two 3/8" x 1 ¾" bolts M10 flat and spring washers, attach the lower section of the roller fairlead to the bull bar and winch.

58. Replace the cir clips on the vertical rollers on both sides.



59. Insert the two rubber grommets into the top face of bull bar.

WINCH FITMENT ONLY



60. Attach the control box to the control box bracket as shown.

61. Fit the control box to the bull bar with two M8 x 25mm bolts, M8 flat washers and M8 flange nuts.

62. Run the cables through the rubber grommets and connect to the winch as per the wiring diagram supplied with the winch.

63. Using cable ties fix the cables securely and ensure they are well away from any moving, sharp or hot surfaces.

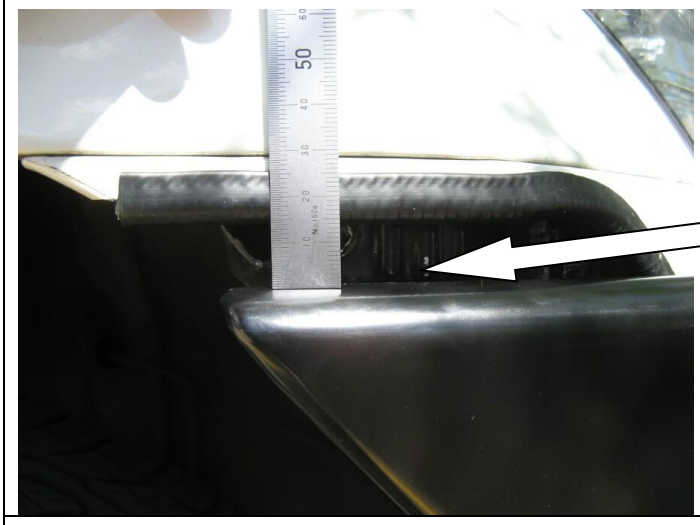
BULL BAR FITMENT TO VEHICLE

64. With assistance guide the bull bar into position on the vehicle. The uprights on the bull bar sit inside the impact absorber blades.

65. Bolt the bull bar into position using the M12 bolts, spring washer, large body washer and flange nuts 3 places each side as shown. Tighten the bolts firmly – but allow enough movement for the bull bar to be adjusted

66. If winch fitted route cables up into the engine bay and secure.

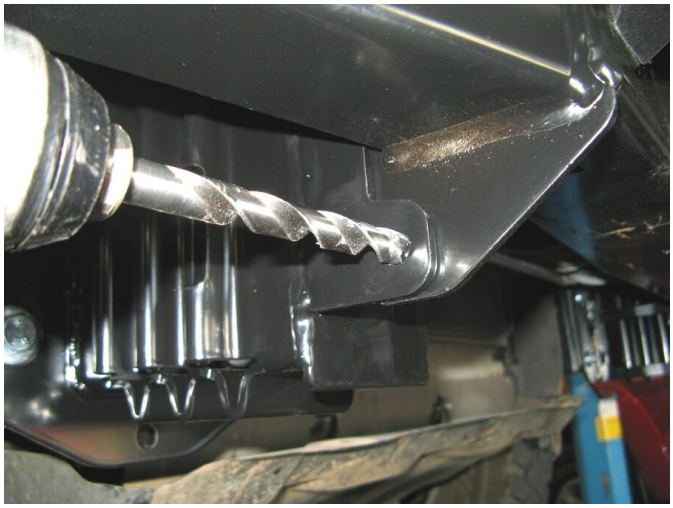
BULL BAR FITMENT TO VEHICLE



67. Ensure the bull bar is sitting on the vehicle level and the gap between the bumper bar and the bull bar wing is parallel.

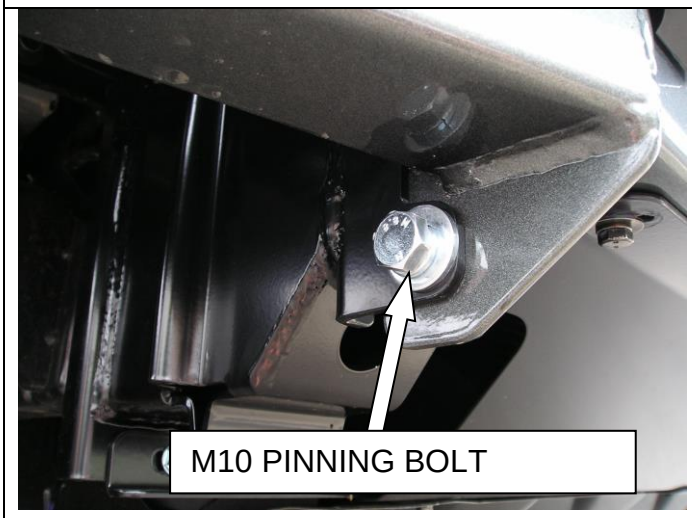
68. If the bull bar is not centred on the vehicle, tap the mount brackets sideways with a soft hammer until the bar is central

69. Once happy with the position of the bull bar and the clearance gap is 15mm, tighten all the mount bolts to specified torque



70. Using an electric drill and a 10.0 mm drill bit, drill two pinning bolt holes through the bull bar upright each side using the holes in the mount bracket flanges as a guide. One hole is located in the lower lug of the mount face and one up above the welded nuts. Use access through the light surround opening for the top hole.

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



71. Fit the pinning bolts to the bull bar in the drilled positions using 4 x M10 SEMS bolt and washer sets and M10 flange nuts.

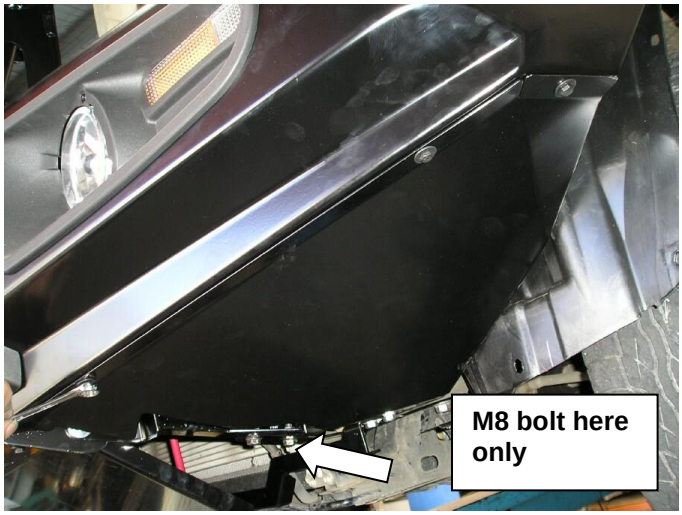
72. Refit the air temperature sensor in suitable location and cable tie in position,

BULL BAR FITMENT TO VEHICLE

73. 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.

74. Wire the combination lamp to the vehicles indicator and clearance lamp wiring.
Caution: Cable tie all cables together and keep all cables clear of sharp edges and moving parts.

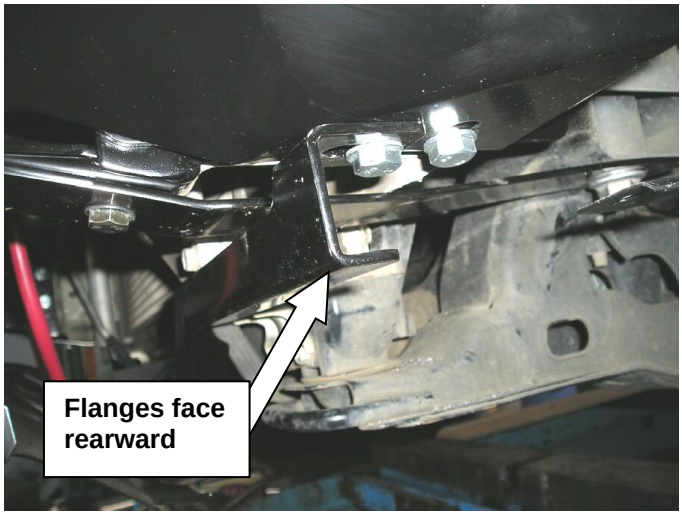
Wiring:
Green wire is Turn signal + (pos)
Red is running lamp + (pos)
Black is – (neg)



75. The wing under panels can now be fitted.

76. Fit M6 cage nuts to the inside of the wings lower flanges, 3 places per wing, also to the lower inside of the pan.

77. Fit the wing panels as shown and secure with M6 bolt and washer sets and M8 bolt and washer set to position on side brace to chassis

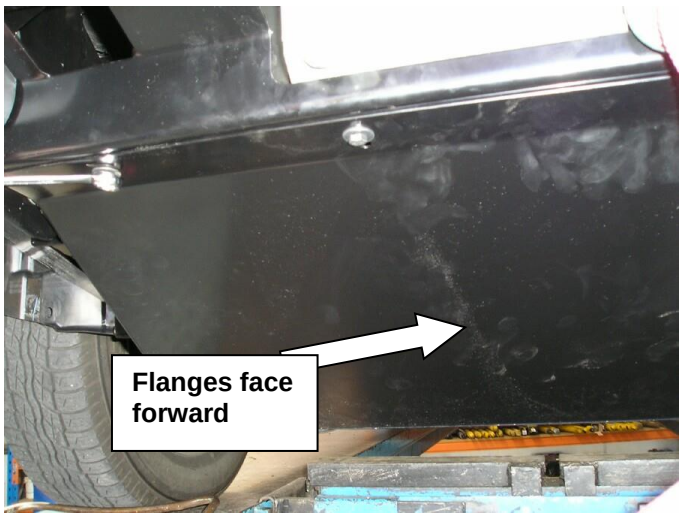


78. Fit M6 cage nuts to the top side of the rear flange on the stone shield bracket

79. The stone shield cross brace can now be fitted using an M8 bolt and washer set to the vacant position in front of the wing panel M8 fixing bolt.

80. Nip up only both sides.

BULL BAR FITMENT TO VEHICLE



81. The stone shield can now be fitted using M6 bolt and washer sets

82. Once fitted tighten all M6 and M8 fasteners on the bracket and stone shield.

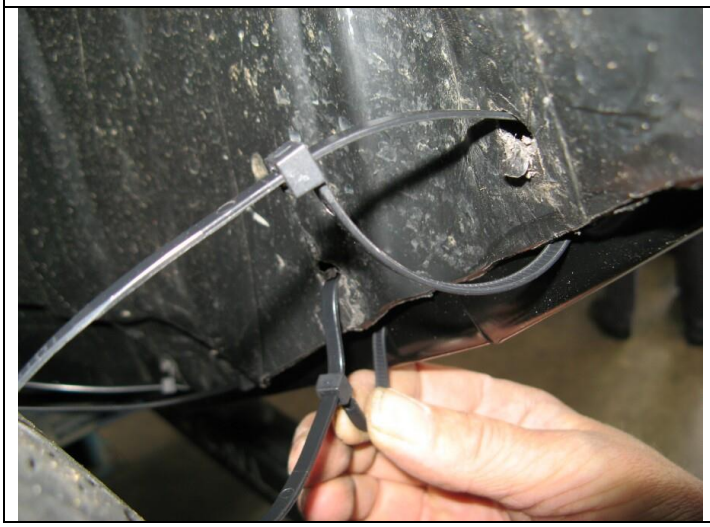
83. The licence plate can now be attached to the bull bar. Insert the two plastic square plugs supplied into the two square holes in the face of the bull bar.

84. If winch fitted, position the licence plate as shown fastening top picture using lower holes. If winch not fitted use the top row of holes, licence plate is positioned lower and covers RFL opening in front of bull bar, lower picture.

85. Using the two dome head screws supplied screw into position firmly.

86. Trim the outer edge of the fender liner as shown so that it will clip in behind the wing, then trim off the bottom of the liner flush with the lower face of the wing panel

BULL BAR FITMENT TO VEHICLE



87. Push the outer edge of the liner forward past the wing return edge so that it snaps in place

88. Drill Dia 7 holes in fender liner to fasten with cable ties to holes in flanges of wing under panes then fasten with cable ties and cut off cable tie excess.

ONCE BAR IS FITTED:

- **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 turn signal lamps are functioning correctly**

FITTED PRODUCT