



FITTING INSTRUCTIONS

5

Part Number: 3940010 **F/KIT:** 6172286 **BOLT PACK** 6172287

Product Description: COMBINATION SAHARA BAR

Suited to vehicle/s: FORD RANGER 2006 ON

Buffer Kit: 5100020 (Sahara Bar), or 5100030 (Sahara Bumper)

Centre

Frame: 5140010 (Polished Centre Frame)

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:

- ◆ ***For approach angle improvement, it is preferable that sheet metal is trimmed from vehicle at step 13, as this step is not reversible, please advise customer (owner of vehicle) prior to commencing bull bar fitment.***
- ◆ 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

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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.
- Please contact local Authorised ARB Stockist if you would like to have this service carried out on your behalf.

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

BASIC TOOL KIT

JIG SAW OR KEY HOLE SAW

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	4lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12	77Nm	57lbft

Up to IPF 900 SERIES FOG OR DRIVING LIGHT SETS

USE	PART No	QTY	DESCRIPTION
IMPACT ABSORBER PLUS	3756996L	1	BRKT IMPACT ABSORBER LHS
	3756996R	1	BRKT IMPACT ABSORBER RHS
	4681233L	1	BRACE ASSEMBLY LHS
	4681233R	1	BRACE ASSEMBLY RHS
	4681234	2	BRACE TENSION STRAP
	6151021	4	BOLT M8 X 20
	4581044	4	WASHER FLAT M8
	6151132	4	NUT M8 FLANGE
	6151304	10	NUT M10 CAGED
BULL BAR TO IMPACT ABSORBERS	6151357	12	BOLT M10 x 30mm SEMS ASSY
	6151321	2	NUT M10 FLANGE
	6151148	4	BOLT M12 X 50
	4581049	4	WASHER FLAT M12
	4581050	4	WASHER SPRING M12
	6151021	12	BOLT M8 X 20
	4581044	12	WASHER FLAT M8
	6151132	12	NUT M8 FLANGE
	4681270	L/R	BRACE WING SAHARA
NUMBER PLATE BRACKET	6151180	4	BOLT M6 x 20mm (BRACKET TO BAR)
	6151046	4	WASHER FLAT M6 x 13mm
	3751313	1	NUMBER PLATE BRACKET
	6151128	4	NUT FLANGE M6
	6151384	2	SCREW PAN HD (NON WINCH BAR)
	6821189	2	GROMMET RND FL 1500 080 090
BUFFERS TO BAR	6151128	12	NUT FLANGE M6
AIR DEFLECTOR	6522672	1	AIR DEFLECTOR
	6151213	6	BOLT M6 X 20MM BLACK
	4581082	6	WASHER FLAT M6 BLACK
	4581287	6	WASHER SPRING M6 BLACK
	6151300	10	NUT CAGED M6
WING COVER PANELS	6522689L	1	LEFT HAND WING PANEL
	6522689R	1	RIGHT HAND WING PANEL
	6151300	6	M6 CAGED NUTM6
	6151228	4	BOLT M6 X 30MM BLACK
	6151213	6	BOLT M6 X 20MM BLACK
	4581287	10	WASHER SPRING M6 BLACK
	4581082	10	WASHER FLAT M6 BLACK
MISCELLANEOUS	6191015	1	TRIM FLARE 450MM
	6522680	1	PANEL WINCH COVER
	6151256	2	SCREW M6 X 16MM BUTTON HEAD S/S
	6151128	2	NUT FLANGE M6
	6191006	1	EXTRUSION CHANNEL WINCH COVER
	3162152	2	PLUG PLASTIC 16MM DIA
WINCH FITMENT	180302	8	CABLE TIES
	6151073	2	BOLT 3/8" X 1 1/2"
	6151074	2	BOLT 3/8" X 1 3/4"
	4581040	4	WASHER FLAT M10
	EG50	2	GROMMET RUBBER
	BLB 600	1	BATTERY LEAD 600MM BLACK
	6151021	2	BOLT M8 x 20mm
	4581044	2	WASHER FLAT M8
	3751564	1	CONTROL BOX BRACKET
	6151132	2	NUT FLANGE M8
FOG LIGHT PARTS	3163015	1	LIGHT INSERT KIT
	6821151L	1	OS LIGHT INDICATOR LHS
	6821151R	1	OS LIGHT INDICATOR RHS
	6821152	2	TURN SIGNAL / CLEARANCE LIGHT LOOM
	180701	6	SCOTCH LOCK
CENTRE FRAME TO BAR	6151255	2	BOLT M12 X 1.75 X 40
	4581049	2	WASHER FLAT M12
	4581050	2	WASHER SPRING M12
BUFFER KIT Sahara Bar (5100020)	3162469R/L	1	BUFFERS 260 X 230 UPRIGHT B/BAR
BUFFER KIT Sahara Bumper (5100030)	3162466R/L	1	BUFFERS 260 X 230 BUMPER BAR
CENTER FRAME (5140010)	6131530A	1	FRAME CENTER ASSEMBLY

SHADED AREAS INDICATE ADDITIONAL KITS REQUIRED DEPENDENT ON SAHARA BAR/BUMPER SELECTION TO FIT OPTIONAL FOG LIGHTS TO BAR, USE KIT PART NO. 6821201 AND WIRING HARNESS PART NO. MD02

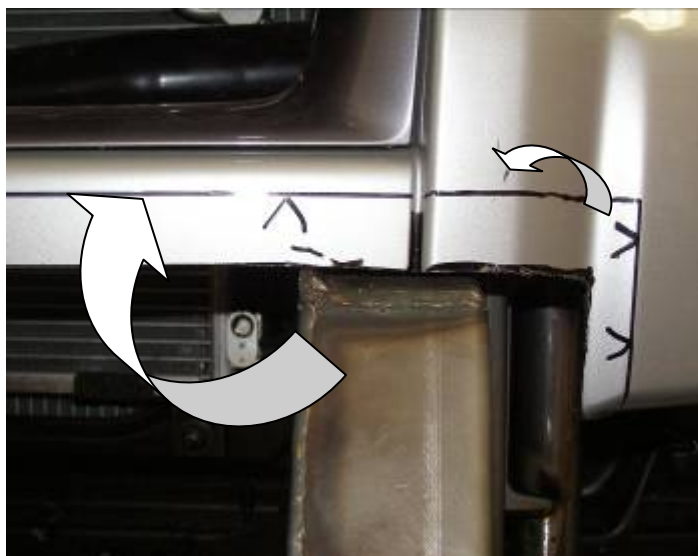
**ASSEMBLY SEQUENCE FOR BULL BAR INSTALLATION.
PLEASE READ AND UNDERSTAND FITTING INSTRUCTIONS BEFORE
ATTEMPTING TO FIT BAR TO VEHICLE**



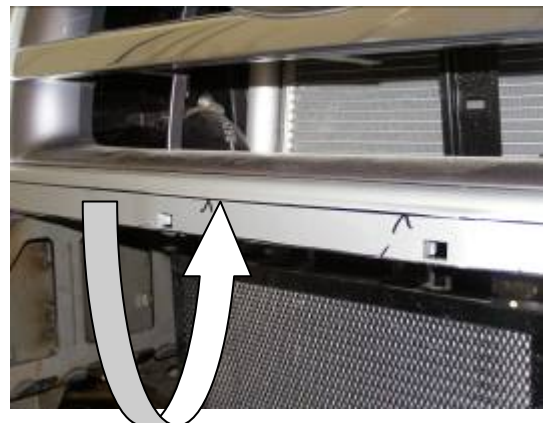
- 1. To fit a bar to vehicle, the plastic bumper, grill panel has to be cut. Remove tie downs and tow hook from under vehicle.**



- 2. Remove grill and plastic bumper panel from front of vehicle.**
- 3. Disassembly bumper/grille assembly.**
- 4. With the bumper removed, you must remove lower section and fog lights if fitted.**



- 5. Mark out front section to be cut as per photo. (cut on ridge line.)**



Remove from vehicle and cut off .



- 6. Refit top section of grill / bumper back to vehicle and mark out section to be cut. (20mm down from ridge line)**

**SEE PHOTO FOR MEASUREMENTS
ARROW INDICATES RIDGE LINE.**



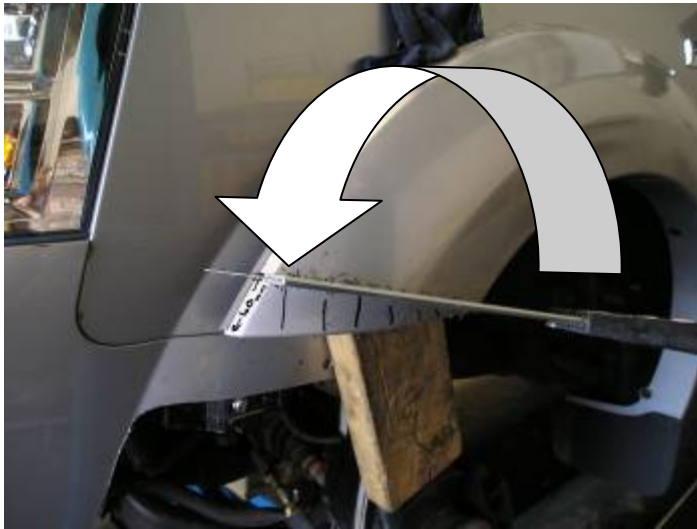
- 7. The next step is to cut a section off the flare.**
- 8. Firstly the front of the inner guard must be temporarily unclipped so the flare clips can be pressed together using pliers, to be able to removed the front of the flares off the side of the vehicle. Do not try to pull the flares off the vehicle without firstly pressing the clips together from under vehicle.**



- 9. When the flare is free to move, pack a piece of cloth in between vehicle and flare. This is to give clearance so the flare cut be cut.**



10. Mark out flare 40mm up to zero as per photo.



11. Using a small panel saw, cut off lower section of flare and dress up with a file. Refit flare and plastic inner guard back into position.

Place a block of wood between body and flare to protect body of vehicle.

12. This point is just under flare mounting clip, so the 40mm measurement is **critical**.



13. The next step is to cut lower panel in photo. This is to give ground clearance and aesthetics to the vehicle with mounted bull bar.

(This step is up to the owner of the vehicle)



14. Use tin snips to remove this section of metal.



PHOTO IS OF RHS OF VEHICLE



15. This is how cut out looks after removing the metal. Dress up cut edges with a file



16. Paint cut edges to protect metal from rust

(This step is up to the owner of the vehicle)

PHOTO IS OF LHS OF VEHICLE



17. Trim inner guard liner as shown both sides, cut in line with corner arrowed.



18. Using Dia 7.0 drill, drill second hole in sheet metal, approximately 125mm inboard of the first one as shown



CAUTION: *Drilling operations can cause flying debris, safety glasses should be worn.*



19. Using Dia 7.0 drill, drill second hole in sheet metal, approximately 125mm inboard of the first one as shown



CAUTION: *Drilling operations can cause flying debris, safety glasses should be worn.*



- 20. Drill corresponding holes in the guard liner to those drilled in the sheet metal so it can be cable tied up.**



CAUTION: *Drilling operations can cause flying debris, safety glasses should be worn.*



- 21. Use a black spray pack to paint cut edges to protect metal from rust. If required, mask up to prevent overspray on critical areas.**

PHOTO IS OF LHS OF VEHICLE



- 22. Cable tie inner plastic guards up as shown.**

PHOTO IS FROM LHS OF VEHICLE



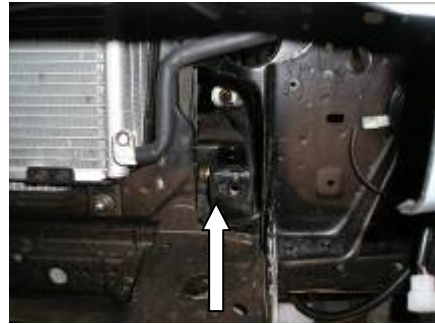
23. The next step is to fit impact absorbers to vehicle.

24. Firstly, fit M10 caged nuts into impact absorbers. (5 in total per side)

PHOTO IS OF LHS IMPACT ABSORBER



25. Secure impact absorbers to vehicle chassis using the same original 12mm bolts used to secure bumper to vehicle



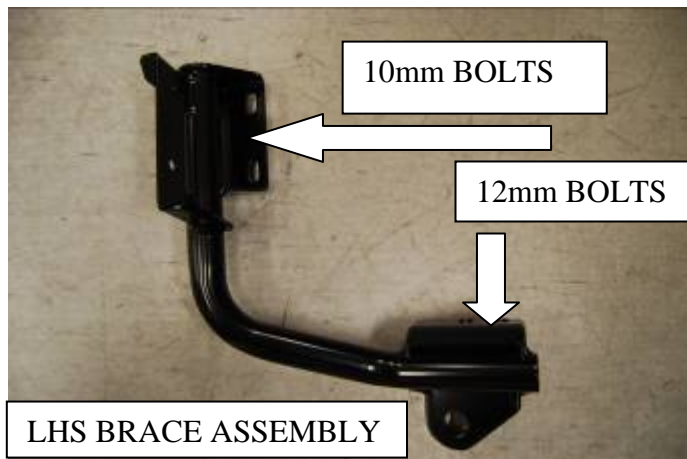
FRONT MOUNTING HOLES

LHS OF VEHICLE

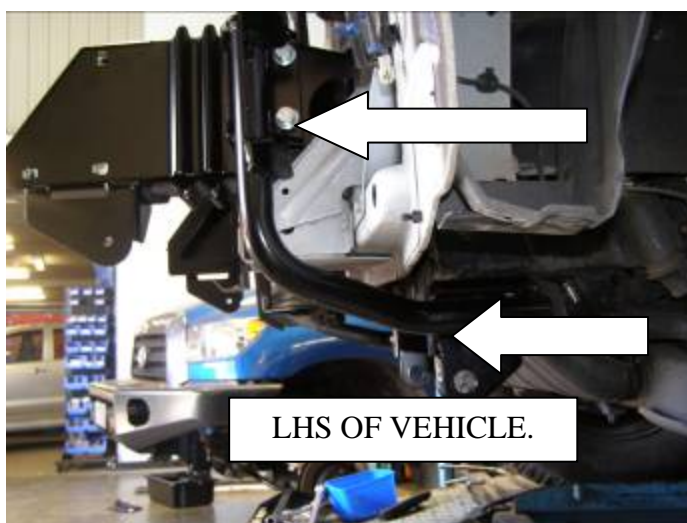


26. With both impact absorbers fitted to vehicle, adjust width so the outside measurement is 815mm, then tighten all four bolts securely.

REFER TO TORQUE SETTINGS.

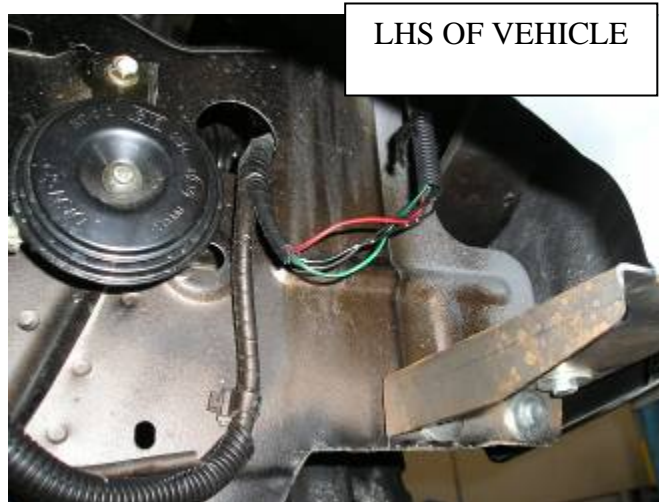


27. After fitting impact absorbers to vehicle, the brace assembly is next to be fitted.



28. Fit lower mounting bracket to tow hook bolt holes using 12mm hardware. Fit upper mounting bracket to impact absorber using 10mm hardware.

NB. Fit all bolts loosely first, then tighten all bolts.



29. To modify vehicle indicator/clearance loom, remove insulation tape from loom and scotch loks indicator/clearance loom from bar bolt kit to vehicle loom.



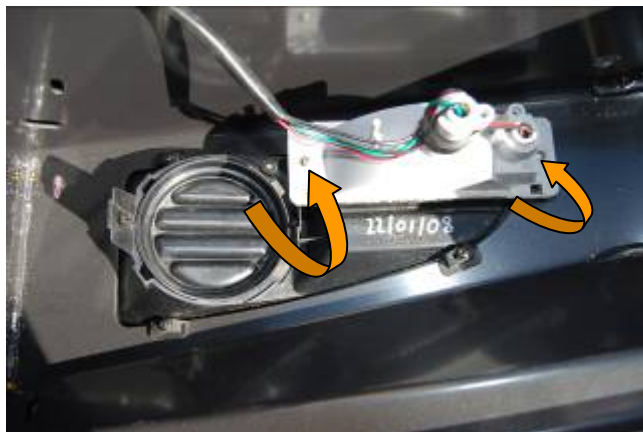
Summary of Wire Connections

FUNCTION	TURN SIGNAL HARNESS	VEHICLE PARK LAMP	
		RIGHT	LEFT
PARK LAMP	RED	RED	RED
VEHICLE INDICATOR			
		RIGHT	LEFT
EARTH INDICATOR	BLACK GREEN	BLACK GREEN	BLACK GREEN

30. Cover all wiring with insulation tape



31. Fit light insert into rear of bar using 4 screws, rubber washers and retainer clips. (Do not over tighten)



32. Install the turn signal into the rear of light insert using 2 self tapping screws (6 x 25mm pan head) supplied with the light insert fitting kit.

NOTE :- The indicators should be installed with the drain holes at the bottom and are marked LH & RH . (Clearance lights outboard)

ARROWS INDICATES POSITION OF SCREWS



33. If optional fog lights are going to be fitted to bar , follow fitting instructions from fog light kit part no. 6821201 and wiring harness part.no.MD02

PHOTO IS FOG LIGHTS FITTED TO BAR



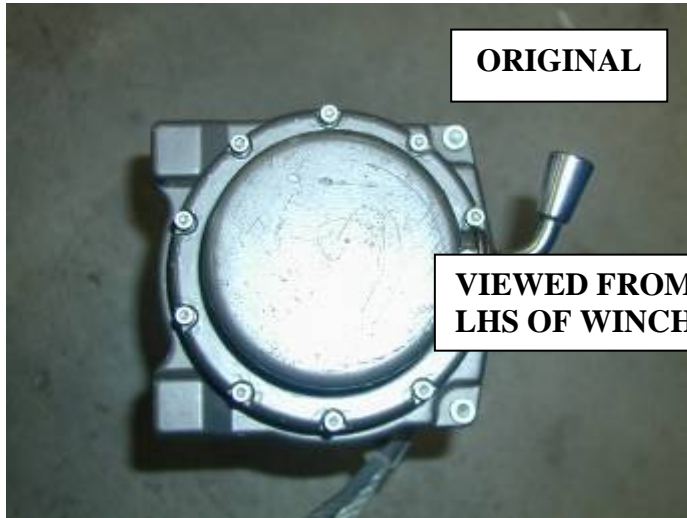
34. Fit buffers to bar using 6mm flange nuts. Six per side. (Do not over tighten, as this will distraught the buffers.)



35. If you are not going to fit a winch to the bar, disregard winch fitting instructions.

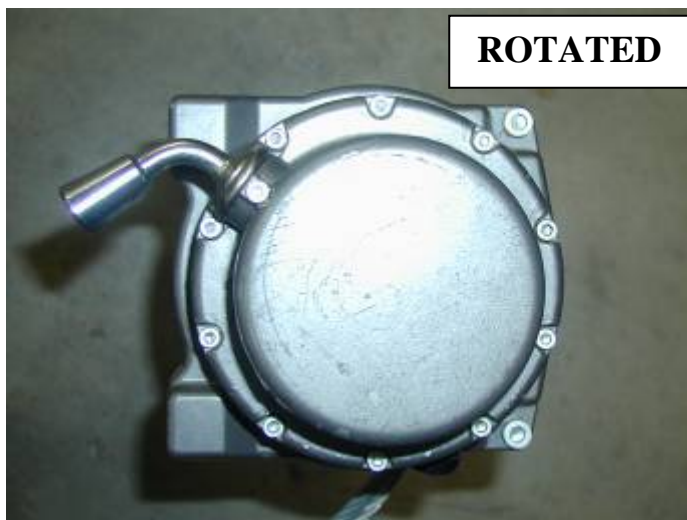
36. Firstly if a winch is going to be fitted to the bar, fit control box bracket to bar using 8mm hardware. Next fit number plate bracket to bar using 6mm hardware.

IN BOTH CASES USE BRIGHT ZINC PLATED HARDWARE.



TO FIT A WINCH BAR
37. To fit an 8/9/9.5/000lb winch, rotate gearbox 144° counterclockwise.
Stand winch upright and undo the capped head screws and by lifting the gearbox only a couple of millimeters, rotate the gearbox. Once in position, refit all screws and tighten firmly.

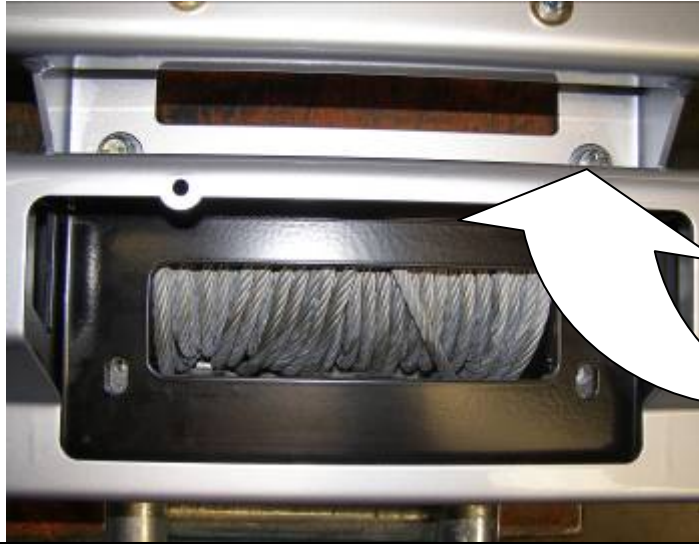
WARNING: Do not lift gearbox more than a couple of millimeters.



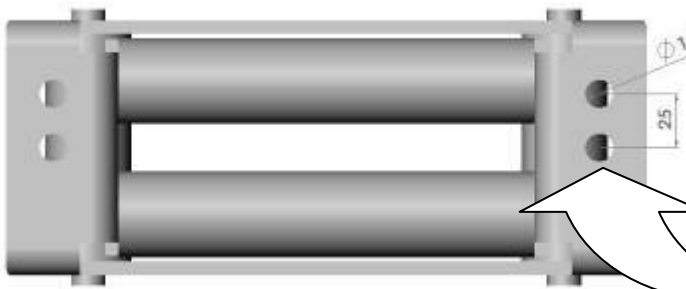
38. . This is how the winch looks after rotation of handle.



39. To fit winch into bar you must pack winch up on a bench to enable you to lower bar down on winch, then fit four 3/8" square nuts into winch lugs .



40. Lower bar down over winch, line up top holes first and secure using 3/8" hardware (1 1/2" x 3/8" bolts) flat and spring washers. (finger tighten only)



41. Drill two new 13mm holes 25mm down in the roller fairlead, as shown on the adjacent picture.

Use new drill holes to bolt to bar.

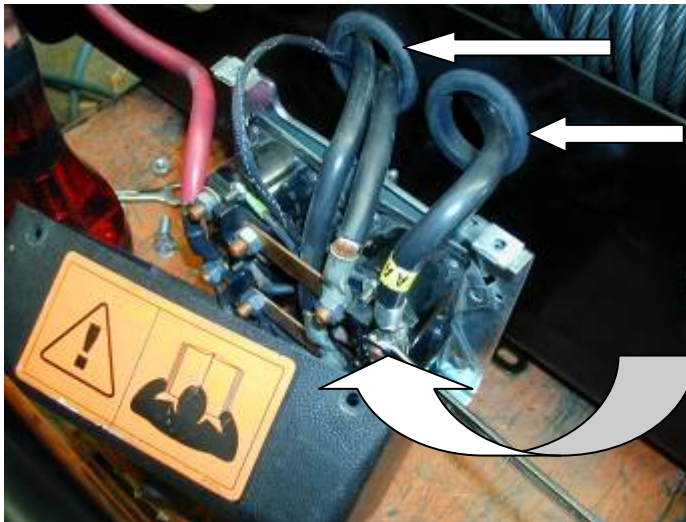


42. Place roller fairlead over lower holes and again secure using 3/8" hardware (1 3/4" x 3/8" bolts) flat and spring washers.

43. Using circlip pliers, remove lower circlips and push shaft upwards to be able to move rollers sideways.



- 44. Using screwdriver move vertical rollers sideways and tighten all bolts using socket and extension.**
45. Refit rollers and circlips.



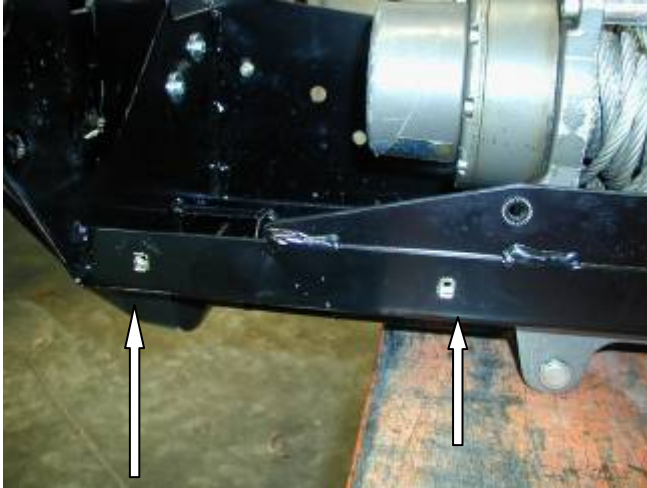
- 46. Fit black rubber grommets into round holes in top of bar.**
54. Fit winch control box to control box bracket on bar and remove plastic cover. The black ARMATURE lead must be removed from control box and replaced with a longer lead supplied in bar bolt kit. When fitted, refit plastic cover back to control box.

ARROW INDICATES RUBBER GROMMETS.

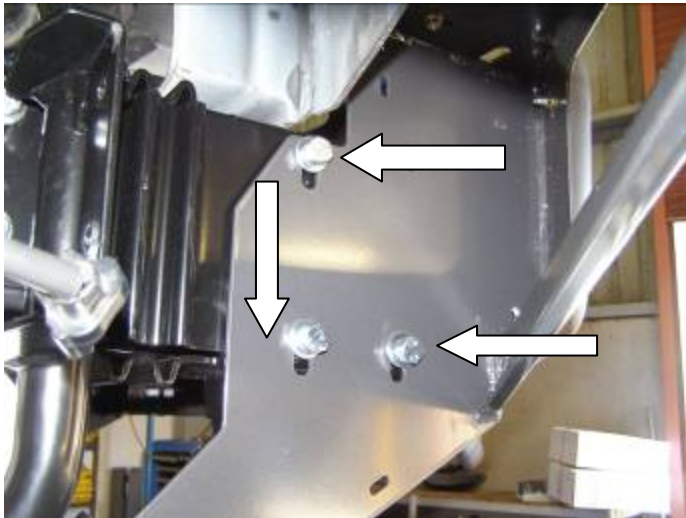


- 47. Pass cables through rubber grommets and connect as per warn installation instructions. Fit plastic boots over terminals. Cable tie cables to bar as per photo to clear all moving parts.**
48. Fit ground wire under tie rod.

ARROW INDICATES GROUND WIRE



49. Fit M6 caged nuts into lower section of bar. (4 in total) These are to fit air deflector to bar at a later time.



ARROWS INDICATE 3 BOLTS PER SIDE

50. With the help of a friend, lift bar in between impact mounting bracket and align slots on bar to caged nuts on impact absorbers Secure using M10 SEMS bolts.(finger tighten only)



PHOTO VIEWED FROM UNDER



51. Adjust bar to vehicle so there is a 20mm gap around the periphery of vehicle. When bar is in correct position, tighten all six bolts firmly.

NOTE :- If the bull bar is not central to the vehicle it may be necessary to tighten the LH or RH bolts first to centralize the bull bar



52. Using 10mm holes in pinning brackets as a template, drill through bar as per photo using a 10mm drill bit.

53. Secure using a M10 SEMS bolt.

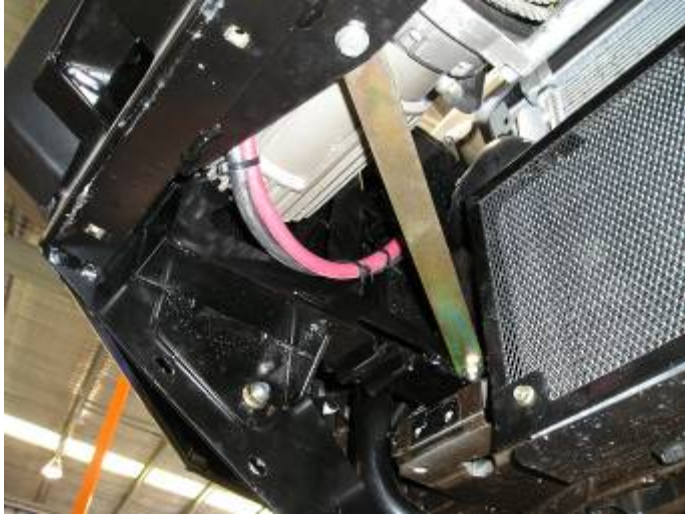


54. Using body moulding strip, fix to lower section of cut flare and trim to fit.



55. When bar is secured to mounting bracket, connect winch cables to battery and cable tie cables together clear of all moving parts, sharp edges and hot parts.

VIEWED FROM INSIDE RHS OF VEHICLE



VIEWED FROM INSIDE RHS OF VEHICLE

- 56. Fit diagonal braces from impact absorbers to lower brace on bar, securing using 8mm hardware.
- 57. Diagonal braces must be fitted to winch and non winch bars.



- 58. The next step to fit wing braces to both sides of the bar using 8mm hardware.
- 59. Photo is of RHS of bar where brace fits to the mounting assembly.



- 60. Photo shows brace looking through lighting assembly aperture in front of bar

LIGHT ASSEMBLY REMOVED FOR CLARITY



- 61. Photo shows brace bolted to outer section from inside of bar.**
62. When all brace bolts are fitted. (Tighten firmly.)



- 63. Once bar is secured to vehicle, it is time to fit centre tube to bar.**
64. Press fit centre tube into round holes in top of buffers and secure using 12mm hardware, tighten firmly.

LIGHT ASSEMBLY REMOVED FOR CLARITY



- 65. Follow instructions supplied in loom kit and cable tie the loom to the bull bar to ensure it is clear of all moving parts.**
66. Plug previously modified indicator/clearance loom to bar light loom.



67. Remove plastic clips from vehicle grill, and replace using 6mm hardware including large body washers.



68. Fit M6 caged nuts to air deflector and fit in between lower section of bar and secure using M6 black hardware. Leave outer bolts out until wing pans are fitted.

These bolts fit to caged nuts which were fitted earlier.

(All M6 hardware is black in colour)



69. Fit M6 caged nuts to top surface of wing pans. Place the wing pans on top of the bottom lip of bulbar wing and secure using 6 M6 X 20mm black bolts, spring washers and flat washers. Leave finger tight.



70. Secure wing pan to centre air deflector using 4 M6 X 30mm black bolts, spring washers and flat washers. When everything is in place tighten all bolts.



71. Fit number plate to number plate bracket using M6 hardware.



72. If the bar is going to be a non winch bar fitment, the number plate is fitted to bar as per photo using press in plastic plugs and 2 screws. This is to cover over roller fairlead cutout.



72. Fit rubber extrusion around the outer edge of cover panel if a winch is not going to be fitted to bar.

73. Secure cover panel to bar using 6mm hardware.



74. If bar is not going to be fitted with a aerial, fit push in black plastic plugs.



PHOTO OF BAR IS A NON WINCH, NON FOG LIGHT BAR