

ARB FITTING INSTRUCTIONS

Part Number: 3450130 **F/KIT:** 6172092

Product Description: COMBINATION BULL BAR

Suited to vehicle/s: WH/WK JEEP GRAND CHEROKEE 2005 ON

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

Corporate Head Office

42-44 Garden St
Kilsyth, Victoria
AUSTRALIA 3137

Tel: +61 (3) 9761 6622
Fax: +61 (3) 9761 6807

Australian enquiries
North & South American enquiries
Other international enquiries

sales@arb.com.au
sales@arbusa.com
exports@arb.com.au

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.

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

BASIC TOOL KIT

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

NOTE: IF YOUR VEHICLE IS NOT FITTED WITH FOG LIGHTS YOU CAN PURCHASE A FOG LIGHT KIT FROM JEEP PART NO. 82209301

USE	PART No	QTY	DESCRIPTION
IMPACT ABSORBER MOUNTING SYSTEM	6151357	8	BOLT M10 x 1.5 x 30mm SEMS ASSY
	6151090	2	BOLT M10 X 1.25 X 50mm
	6151133	2	NUT M10 X 1.25
	4581040	4	WASHER FLAT M10
	4581048	4	WASHER SPRING M10
	6151304	8	NUT CAGED M10
	3756904	1	MOUNT ASSEMBLY
	5848328	2	PACKER MOUNT ASSY
	4601172 L/R	2	CHANNEL CAPTIVE NUT (INSIDE CHASSIS RAILS)
	3199854	2	PLATE CAPTIVE NUT (CROSSMEMBER TO CHASSIS)
	6151291	2	BOLT M12 X 1.25 X 30mm (WITH EXTENSION PLATE)
	6151133	2	NUT M10 X 1.25
	4581049	4	WASHER FLAT M12
	4581050	2	WASHER SPRING M12
	6151135	2	NUT M12 X1.25
	6151180	2	BOLT M6 x 20
	4581082	2	M6 FLAT WASHER
4581036	2	M6 SPRING WASHER	
BULL BAR TO IMPACT ABSORBERS	6151357	8	BOLT M10 x 30mm SEMS ASSY
	6151304	6	NUT CAGED M10
	4581040	2	WASHER FLAT M10
	6151026	2	NUT M10 X 1.5
CONTROL BOX BRACKET	6151021	2	BOLT M8 x 20mm
	4581046	2	WASHER FLAT M8
	3751564	1	CONTROL BOX BRACKET
	6151132	2	NUT FLANGE M8
NUMBER PLATE BRACKET	6151180	2	BOLT M6 x 20mm (BRACKET TO BAR)
	6151046	4	WASHER FLAT M6 x 13mm
	6151128	4	NUT FLANGE M6
	6151180	2	BOLT M6 x 20mm (NUMBER PLATE TO BRACKET)
	3751370	1	NUMBER PLATE BRACKET
TO BOLT INDICATORS TO BAR	6821151L	1	INDICATOR
	6821151R	1	INDICATOR
	6821152	2	LOOM INDICATOR
	6151308	4	SCREW SELF TAPPING 25
	6821116	4	GROMMET NYLON SNAP IN TYPE
	180701	6	SCOTCH LOCKS
BUFFERS	3162466 L/R	2	BUFFERS 260 X 230 UPRIGHT B/BAR
	6151128	12	NUT FLANGE M6
AIR DEFLECTOR	6522662	1	AIR DEFLECTOR
	6151262	3	BOLT M8 X 20mm BLACK
	6151303	3	NUT CAGED M8 BLACK
	4581045	3	WASHER FLAT M8 x 20mm
	4581047	3	WASHER SPRING M8 BLACK
UNDER WING PANEL	6522663 L/R	2	PANELS
	6151213	10	BOLT M6 x 20mm BLACK
	4581082	10	WASHER FLAT M6 BLACK
	4581287	10	WASHER SPRING M6 BLACK
	6151128	2	NUT FLANGE M6
	6151300	8	NUT CAGED M6
FOG LIGHT HOUSING AND FITMENT	3162457	1	PLASTIC HOUSING RHS
	3162456	1	PLASTIC HOUSING LHS
	6821184	1	LOOM (CABLE RED) (CUT INTO 4 EQUAL LENGTHS)
	180701	8	SCOTCH LOCKS
INNER GUARD TO BAR	6151213	4	BOLT M6 x 20mm BLACK
	4581082	4	WASHER FLAT M6 x 20mm BLACK
	6151128	4	NUT FLANGE M6
	4581287	4	WASHER SPRING M6
	180302	2	CABLE TIES
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	RUBBER GROMMET

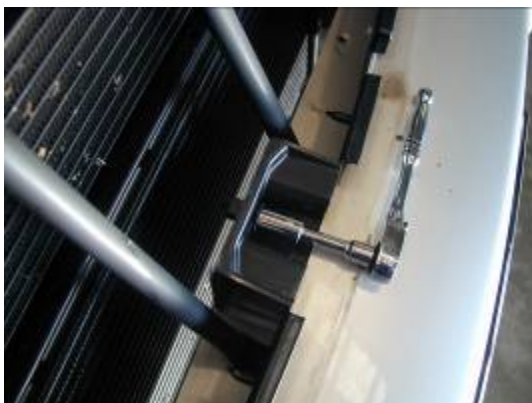
**ASSEMBLY SEQUENCE FOR BULL BAR INSTALLATION.
PLEASE READ AND UNDERSTAND FITTING INSTRUCTIONS BEFORE
ATTEMPTING TO FIT BAR TO VEHICLE**

1. Remove grille from vehicle by removing all plastic clips
Be careful when removing plastic clips from grille as the plastic clips are awkward to undo and will be re used when refitting grille.
Slide flat blade screw driver under pin of plastic clip and remove pin, then lift out the plastic clip.
When all clips are removed, pull grill upward toward you.

GRILLE RETAINER PANEL



2. Remove lower plastic grille retainer panel from vehicle and put aside, as this panel will have to be modified later.
Remove tow hook and crush cans from vehicle





3. To remove bumper bar where the inner guard is attached, push plastic pin inward, then pull out plastic retainer clip. Remove fog lights and fog light adjuster and the black plastic grommets from bumper.



4. To remove headlights from vehicle for ease of joining indicator looms and extending fog light looms, firstly lift plastic cover from above headlight and undo one plastic retaining clip and three 6mm bolts, then remove headlights.



5. After removing headlights from vehicle, remove some of the blue insulating tape from vehicle indicator and parking looms to expose wiring to be able to fit connectors.



6. Use scotch locks to connect wiring.

Summary of Wire Connections

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



7. Test all lighting at this stage.



8 . To refit fog lights to bar, the loom must be extended.

9. Cut the fog light loom in half and then cut the 1.3 metre red wire, (supplied in bar fitting kit) into four equal lengths (i.e. 325mm each)



10. Scotch lock the red wire in between the fog light loom making sure the colour code matches.
11. When all wiring is completed. Refit headlights back into vehicle.



**REFER TO PARAGRAPH 2 FOR
PANEL IDENTIFICATION**

**PHOTO OF REFITTED PANEL OF
LEFT CORNER OF VEHICLE**

12. Next step is to cut grille retainer panel so bar can be fitted.
13. From the photo below mark out a parallel line of 45mm and cut off panel not required using a jig saw or a key hole saw, then refit back to vehicle.



14. Fit M10 caged nuts into channel (channels are L/RHS) then fit channels inside of chassis rails

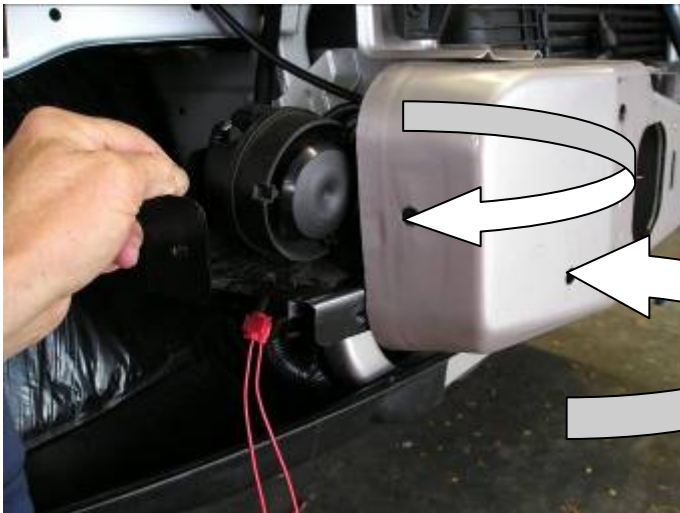
Notch in channel must face inward



PHOTO IS OF RHS OF VEHICLE

15. Using a 6mm drill bit, drill two holes approximately 50mm apart through the plastic inner guard and the outer edge of the plastic splash panel.

16. Cable tie these two panels together



17. Remove alarm device from RHS of crossmember by unscrewing two 6mm bolts

18. Replace this part when chassis mount assembly is fitted.

ARROWS INDICATE BOLTS TO BE REMOVED



19. Lift chassis mount assembly onto vehicle crossmember.

20. Using black M6mm x 20 bolt , spring / flat washer, secure to vehicle as per photo.

21. Make sure mount assembly is lifted up hard against bottom of chassis rails, then tighten 6mm bolts. (These bolts are only to position mount assembly to vehicle.



22. As viewed from underneath on LHS of vehicle, align rear hole of mount assembly to previously fitted captive nut channel, secure using M10 bolt x 30mm SEMS (Bolt, Spring and Flat Washer ASSY.)

23. Finger tighten only.

24. Carry out fixing to both sides of vehicle.



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.



25. Using a 10mm drill bit, drill hole through chassis rail, using hole in mount as a template. Be careful not to drill into the nut in captive nut channel.

26. Secure using bolts same as above, when all four bolts are fitted, tighten securely.



27. Using holes in chassis mount assembly as a template, drill through crossmember on both sides using 10mm drill bit.



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



28. Also drill through top of mount into vehicle crossmember, making sure that you are drilling perpendicular.



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



29. Fit packer in between mount assembly and vehicle crossmember and align with the two holes.

Viewed from above on LHS of vehicle

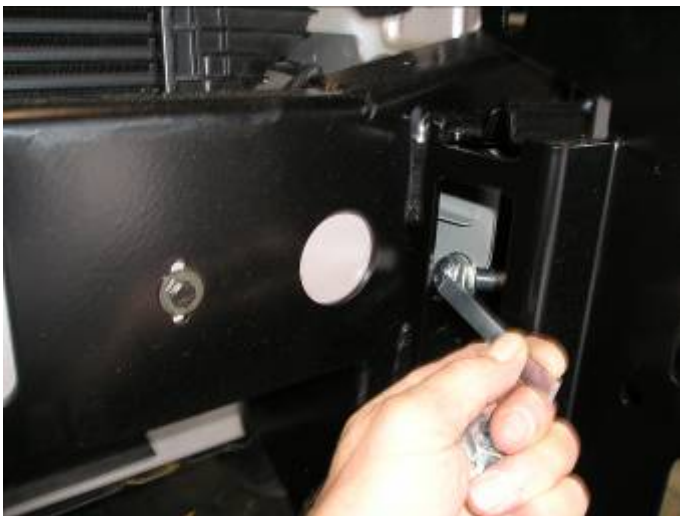


LHS OF VEHICLE

- 30. Fit M10 caged nuts into captive nut plate, then align with previously drilled front holes.
- 31. Secure using M10 bolts (SEMS) finger tighten only.



VIEWED FROM LHS



- 32. Insert M12 Tagged bolt / flat washer into the chassis rail and pass through 12mm hole in chassis rail.
- 33. Fit through hole in captive nut plate and secure with flat , spring washer and 12mm nut.
- 34. Finger tighten only



11



- 35. Fit a M10 bolt x 50mm (fine thread) and a flat washer up from inside chassis rails, through packer and chassis mount assy and secure with a flat, spring washer and 10mm nut.
- 36. At this stage all bolts are fitted to vehicle. Know they can all be tightened.



37. Tighten this 12mm bolt each side using universal joint and 1/2" drive extension.



38. Refit alarm device at this stage.



39. Fit nylon grommets into square holes to mount indicator / parker lamps



40. Remove the fastening screws and nuts supplied with the turn signal/clearance lamps and replace these with the four screws provided in the kit. Fasten the lamps to the bar as shown.

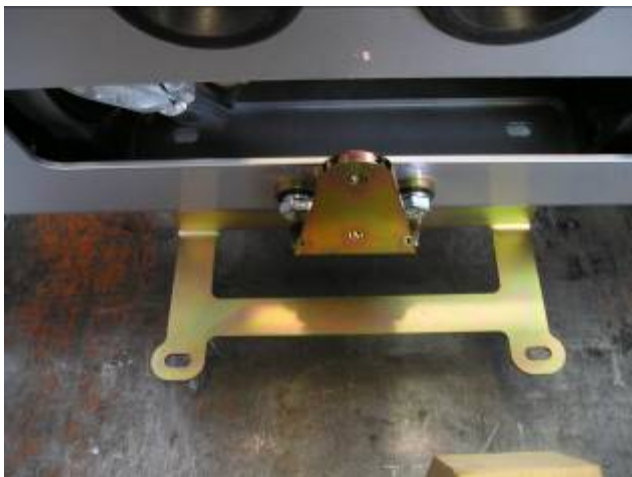
IMPORTANT

The turn signal is to the inside of the bar.



41. Fit M10 caged nuts to inside of mounting face of bar.

Viewed from the RHS of the inside of bar



42. If bar is to have a winch fitted, follow the next steps.

43. Fit number plate bracket using 6mm hardware (20mm x 6mm bolts)

44. Fit control box bracket to bar using 8mm hardware. (20 x 8mm)

45. Fit rubber grommets to top of bar.

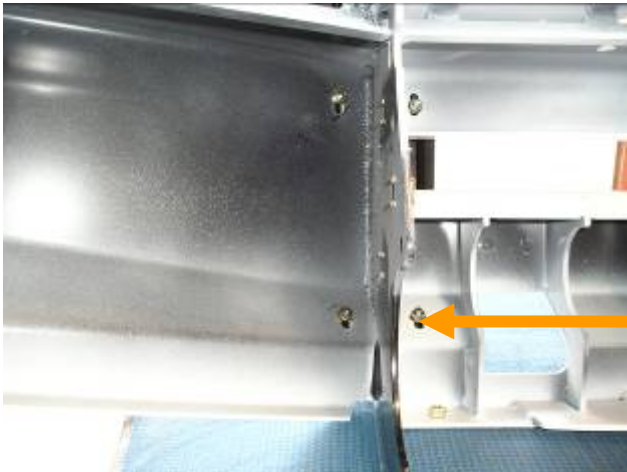


46. Drill 12mm holes under existing holes 25mm lower down the same pitch as existing holes, these will be the holes used to bolt roller fairlead to bar.

NEW HOLES

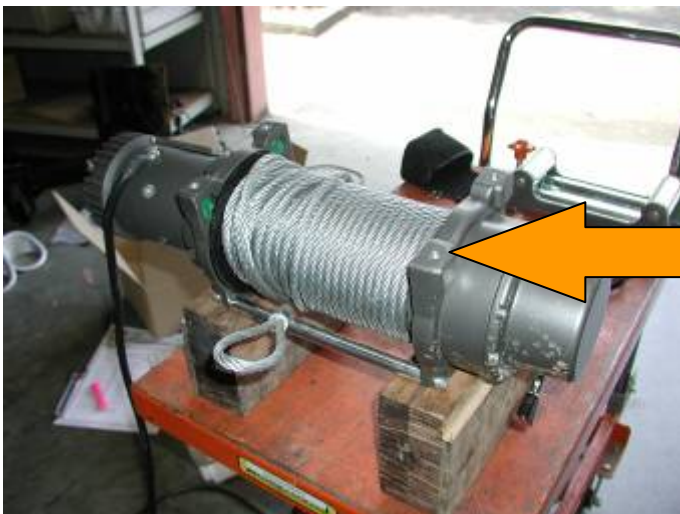


Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.



47. Fit buffers to bar using 6mm flange nuts.

VIEWED FROM BEHIND BAR LHS



48. 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.



49. 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.

50. Place roller fairlead over lower holes and again secure using 3/8" hardware (1 3/4" x 3/8" bolts) flat and spring washers. When all bolts are fitted tighten firmly.



51. Fit control box to control box bracket using original 1/4" nuts from control box and connect power cables to winch as per winch instructions.



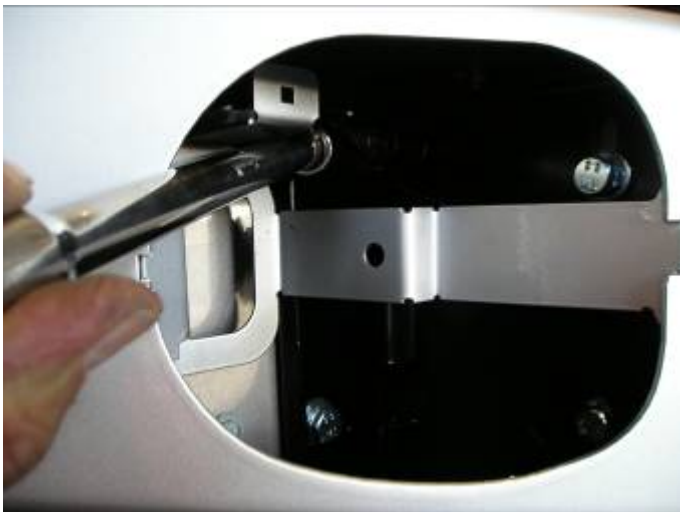
52. Cable tie power cables clear of sharp edges and all moving parts.

53. Fit control box earth to winch tie rods.



54. Fit M8 caged nuts (3 OF) into lower section of bar.

(These nuts are to attached air deflector pan to bar later on.)



55. Fit bar in between chassis mounting assembly, align slots in bar to caged nuts in mounting assembly and secure using M10 bolts (sems) assy.

56. Adjust bar to vehicle and tighten all bolts using socket, extension and uni joint through fog light aperture in bar.



57. Bar should have a 10-15mm gap between bar surround and guard line.



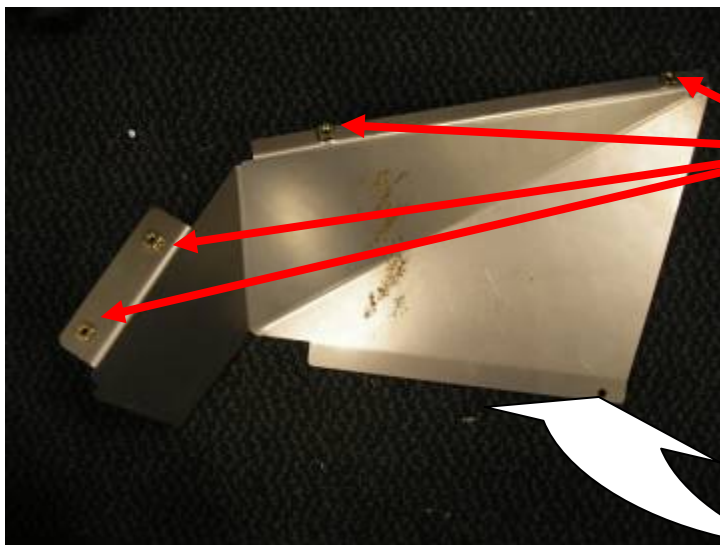
**58. Once the bar is secured to vehicle, using holes in lower section of bar as a template, drill 10mm holes through mounting assembly and fix using 10mm hardware.
(This bolt locks the bar to mounting assembly.)**



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



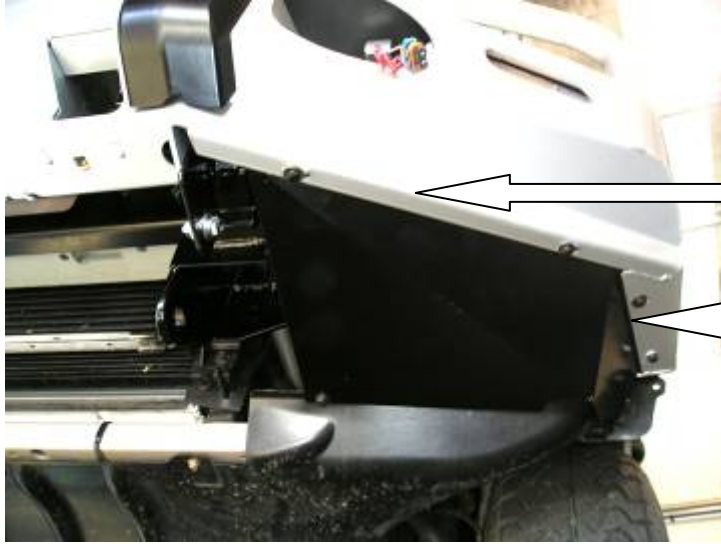
**59. Using 6mm hardware, secure plastic inner guard to top hole in bar.
60. To secure lower hole, drill a 6mm hole through inner guard aligning with hole in bar.**



61. Next is to fit wing panels, firstly fit M6 caged nuts to outer edges of panel.

PHOTO IS OF LHS OF VEHICLE

**ARROW INDICATES
TEMPLATE DRILLING HOLE.**



62. Fit panel on top of wing returns and secure using 6mm hardware.

USE BLACK 6MM HARDWARE



63. Drill a 6mm hole into plastic vehicle splash pan using hole in wing panel as a template.

64. Secure using 6mm hardware.



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

SEE PARAGRAPH 61 FOR HOLE LOCATION



65. After under wing panels are all bolted up, using a key hole saw etc, cut off the plastic under guard which protrudes past the panels.

66. Dress up with a file.



67. Undo the three 6mm bolts as per photo so air deflector pan can fit in between.



- 67. Fit front of air deflector to underside of bar using black 8mm hardware.**
- 68. Fit rear of air deflector using original 6mm bolts. (refer to paragraph 67.)**



- 69. If no fog lights are not going to be fitted, fit light surround to bar as is. If fog lights are going to be fitted, cut out rear of surround using a key hole saw and remove rough edges with a file.**



70. Light surround is held to bar using silicon.

71. Apply a bead of silicon around light cutout on bar and hold fog light housing to bar using masking tape until silicon dries, then remove tape.



72. If fitting fog lights back into vehicle, pull extended loom through fog light mounting bracket and refit black plastic grommets back into square hole.



73. Reconnect fog light plug back into light.

74 .Smear grease onto the light mounting pivots to help when sliding fog light back into mounting bracket.

75. NB. When fitting light into bracket, you must rotate light so plug fits in between rear of bracket and vehicle crossmember, then push light rearward until light click into bracket mounting holes.



76. When light is fitted to bracket refit adjuster screw then reset light alignment.

IF YOUR VEHICLE IS NOT FITTED WITH FOG LIGHTS, YOU CAN PURCHASE A FOG LIGHT KIT FROM JEEP.

Part no. 82209301.



OPTIONAL COLOUR CODE HOUSING

77. Follow steps to fit light housing to bar same as paragraph 71. NB. Photo shows silicon applied around fog light cutout.



78. Position for Hi lift jacking point.





79. The Warn roller fairlead cover must be fitted to roller fairlead when winch is not in use due to protruding sharp edges legislation.

Warn Part no. W25580

80. The cover requires the lower side profile to be cut to fit the bar centre section profile.

PHOTO SHOWS COLOUR CODED BAR

