

Part Number: 3952120

Product SAHARA BAR DODGE RAM 2006 TO 2009

Description: F/KIT 6172466

Suited to Models 1500 06 TO 08 ADD BRACKET KIT# 3552050 vehicle/s: OR Models 2500/3500 06 TO 09 ADD BRACKET KIT# 3552060

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.

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

PLEASE INFORM VEHICLE OWNER OF THE FOLLOWING:CAUTION: WHEN RECOVERING VEHICLE USING SUPPLIED
EYEBOLTS, SPREAD LOAD OVER BOTH EYEBOLTS WHERE
POSSIBLE. DO NOT EXCEED RATING OF EYEBOLTS DURING
RECOVERY. FOR ROAD SAFETY REASONS, EYEBOLTS ARE TO
BE REMOVED WHEN NOT IN USE.

NOTE:

- ♦ WHEN FITTING FRAME ASSEMBLY ONLY, LABEL FOR FRAME TILT OPERATION FOR HOOD CLEARANCE MUST BE APPLIED TO TOP FACE OF SAHARA BUMPER IN THE POSITION IDENTIFIED IN THESE FITTING INSTRUCTIONS. FAILURE TO APPLY THIS PERMANENT LABEL AT SAHARA BUMPER FITMENT INDEMNIFIES ARB CORPORATION OF ANY LIABILITY ARISING FROM THE OPERATION OR USE OF THIS PRODUCT.
- ♦ KIT CONTAINS M6 FLANGE NUTS TO SUIT FITMENT OF BUFFERS. WHEN FITTING FRAME ASSEMBLY WITH BUFFERS, REQUIRED FITTING KIT COMPONENTS COME WITH FRAME.
- ◆ FACTORY FOGS CANNOT BE REUSED WITH THIS BAR, INSTEAD FIT ARB FOG LAMP KIT 6821201 (SEE NOTE P3).

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

METRIC SPANNER and SOCKET TOOL SET	Sikaflex© Black
PHILIPS and FLAT BLADE SCREWDRIVERS	DIA 19mm HOLESAW
POWER DRILL DIA 13mm CHUCK CAPACITY	DRILL BITS, DIA 7.0 (@100mm min), 10.0mm
STEEL RULE 300mm	SCRIBER

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

OPTIONAL LIGHT SETS TO SUIT THIS PRODUCT:

- ♦ ARB FOG LAMP SET P# 6821201
- UP TO IPF 900 SERIES FOG OR DRIVING LIGHT SETS
- ♦ IPF 840 FYS FOG LIGHTS CAN BE FITTED TO LOWER PAN AREA

AVAILABLE BUFFER/FRAME SETS:

- ♦ 5100140 BUFFER SET ONLY WITH FRAME HOLE
- ♦ 5100150 BUFFER SET ONLY BLANK
- 5136010 FRAME ASSEMBLY (NOTE: FASTENERS ARE WITH THIS BAR KIT)

PARTS LISTING						
APPLICATION.	PART NO.	QTY	DESCRIPTION			
	3757695R&L	1+1	BRACKET BAR MOUNT SET			
	3757722R&L	1+1	BRACKET REINFORCING SET			
	4581049	20	M12 WASHER FLAT			
MOUNT BRACKETS TO VEHICLE	4581050	10	M12 WASHER SPRING			
1500 MODEL ONLY	6151189	10	NUT M12x1.75			
(INC. BRACKET SET 3552050)	6151255	10	BOLT M12 X 40			
,	3199893	2	PLATE CAGE NUT			
	6151304	2	NUT CAGE M10			
	6151232	2	BOLT SEMS M10 X 30mm			
MOUNT BRACKETS TO VEHICLE	3757693R&L	1+1	BRACKET BAR MOUNT SET			
2500/3500 MODELS ONLY	6151299	2	BOLT M10 X 100			
	6151321	2	NUT M10 FLANGED			
(INC. BRACKET SET 3552060)	4581040	2	WASHER M10 X 3mm			
WINCH	180302	10	CABLE TIE			
WINCH	6151074	2	BOLT 3/8 X 1 3/4			
	6151365	2	EYEBOLT M24 2.5T SWL			
	6151361	2	NUT M24 GR8 ZP			
	3757694	2	BRACKET NUT RETAINING			
TOW HOOK RELOCATION	4581300	2	WASHER M24 EYEBOLT			
	6151046	2	WASHER M6			
	6151017	2	BOLT M6 X 16mm			
	6151128	2	NUT FLANGE M6			
CONTROL BOX FITTMENT	4581045	2	WASHER M8 BZ			
	6151132	2	NUT FLANGED M8			
	3756499	1	BRACKET STD CONTROL BOX IN PAN			
	6151234	2	BOLT M8 X 25 BZ			
	EG50	4	GROMMET 50MM			
	6151017	4	BOLT M6 X 16mm			
NUMBER PLATE FITTMENT	6151128	4	NUT FLANGE M6			
NOMBERT EXTERNITION	6151046	4	WASHER M6			
	3751384	1	BRACKET NO.PLATE			
	6151128	2	NUT FLANGE M6			
	6151256	2	SCREW M6 S/STEEL BUTTON HEAD			
WINCH COVER FITTMENT	4581304	4	WASHER M6 ST STL			
	6191006	1	EXTRUSION WINCH COVER @ 1500			
	6522713	1	PANEL WINCH COVER			
BUFFER FASTENERS	6151128	12	NUT M6 FLANGED			
	6151255	6	BOLT M12 X 40mm			
	4581050	6	WASHER SPRING M12			
BAR TO MOUNT ASSEMBLY	4581049	12	WASHER FLAT M12			
	6151321	2	NUT M10 FLANGED			
	6151232	2	BOLT SEMS M10 X 30mm			
	6151189	6	NUT M12x1.75			

PARTS LISTING CONT.					
	3163015	1	LIGHT SURROUND		
INDICATOR ASSY	6821151R	1	INDICATOR ASSY RHS		
	6821151L	1	INDICATOR ASSY LHS		
	6821152	2	LOOM		
	180701	6	SCOTCH LOCKS		
	180302	4	CABLE TIE		
	3194039R	1	PLATE RETAINER FENDER LINER		
	3194039L	1	PLATE RETAINER FENDER LINER		
RETAINER FENDER LINER	6151300	4	NUT CAGED M6		
THE PARTIE OF TH	6151213	4	SCREW M6X20 BZ		
	4581082	4	WASHER M6 BZ		
MISCELLANEOUS	3162152	2	PLUG BLANKING DIA 16		
	3163016R	1	BUFFER LARGE SAHARA		
OPT: BLANK BUFFERS ONLY					
KIT P#5100150	3163016L	1	BUFFER LARGE SAHARA		
OPT: BUFFERS SUIT FRAME	3163017R	1	BUFFER LARGE WITH HOLE SAHARA		
P# 5100140	3163017L	1	BUFFER LARGE WITH HOLE SAHARA		
	6151553	1	FRAME		
	3757574R	1	BRACKET HINGE		
	3757574L	1	BRACKET HINGE		
	3757571	2	BRACKET WEDGE PAD SUPPORT		
	3757692	1	BRACKET SLAM LATCH OPERATION		
	4581308	2	WASHER NYLON 16.0 ID X 30 OD X 3		
	4581309	1	WASHER NYLON 8.0 ID		
	6151046	2	WASHER FLAT M6		
	4581072	4	WASHER FLAT M6 LARGE		
	4581045 4581040	6 4	WASHER FLAT M8 BZ WASHER FLAT M10		
	4581288	2	WASHER FLAT M10 LARGE		
	6151042	2	WASHER FLAT WITO LARGE WASHER SPRING M6		
	4581047	5	WASHER SPRING M8 BZ		
	4581048	6	WASHER SPRING M10		
	6151068	2	BOLT ¼ UNC X 1"		
OPT: FRAME ASSY	6151234	5	BOLT M8 X 25 BZ		
KIT P#5136010	6151232	2	BOLT M10 X 30		
	6151364	4	SCREW CAP M10 X 30 ZP		
	6151417	4	SCREW M4 X 16 CSK HD ZP		
	6151127	4	NUT M4 NYLOC		
	6151162	4	NUT M6 NYLOC		
	6151212	1	NUT M8 NYLOC		
	6151122	1	NUT 5/16UNC		
	6151132	4	NUT M8 FLANGED		
	6151321	2	NUT M10 FLANGED		
	4558427	1	LINK ARM SLAM LATCH		
	5670001	1	STRIKER		
	5670002	1	LATCH SLAM		
	5670003	2	CONNECTOR CLIP 4MM WIRE		
	5670004	2	WEDGE PAD URETHANE		
	5670005	1	SPRING LEVER RETURN		
	6564507	2	BUSH PIVOT BRACKET		
	2125214	1	STICKER FRAME TILT OPERATION		

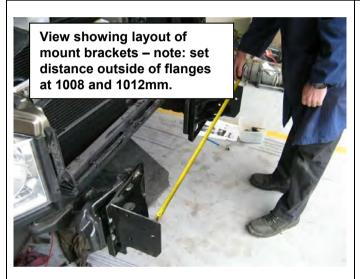
REMOVAL OF BUMPER



- If fog lights fitted in bumper, undo fog light loom connection (connection located on LHS of bumper)
- 2. Remove bumper by undoing 4 x M12 nuts on 'U' bolts through chassis and withdrawing bumper off chassis mount position, set aside. Retain bumper retaining 'U' bolts and nuts.

Note: For 2500 turbo diesel shown (and 3500 TD), undo and remove intercooler top mount bolts and rubber suspension blocks, this will allow the intercooler to tip back at the top and clear of the bumper U bolts allowing removal).

FITTING PROCEDURE GENERAL



FOR 1500 MODEL VEHICLES FOLLOW STEPS 3 - 9, FOR 2500 AND 3500 VEHICLES STEPS 10 - 16.

- 3. Fit mount brackets to chassis end plates, fit reinforcing brackets behind flanges as shown below. Fasten using M12 x 40 bolts, washer and nut sets, *but only nip up hand tight at this stage.*.
- 4. Align bracket set evenly on vehicle so that the outside measurement across vertical bracket plates is 1008-1012mm.

NOTE: Distance between uprights in bull bar is 1013mm.



- 5. Do fasteners up tight, ensuring that reinforcing bracket is sitting snugly against chassis side face.
- 6. Recheck 1008-1012mm pitch, readjust if necessary.

FITTING PROCEDURE GENERAL



 Drill 1 x M10 pinning hole in chassis using existing hole in reinforcing bracket as a guide.

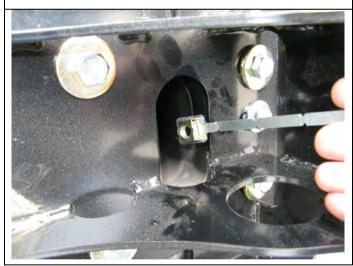




Warning: Drilling operations can result in flying metal debris, safety glasses should be



8. Fit the M10 cage nut to nut plate as shown.



9. For pinning bolt from outboard of reinforcing bracket, fit cage nut plate assembly through into chassis end aperture as shown, then fasten in place through drilled pinning hole with M10 x 30 SEMS bolt and washer set. Do up tight. Repeat for other side of vehicle.

FITTING PROCEDURE GENERAL

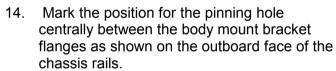


2500 AND 3500 ONLY STEPS 10 - 16

10. Fit chassis brackets as shown.



- Insert original U bolts, entering from *inboard* face of chassis (you may have to tilt intercooler to gain sufficient clearance to allow U bolt to enter this side).
- 12. Set brackets so front edge is vertical then do bolts up tight.
- 13. Replace the intercooler suspension blocks and bolts if removed for U bolt removal.



- 15. Drill through both sides of chassis and mount bracket flange Dia 10.0mm.
- 16. Fit M10 x 100 pinning bolt, M10 x 3MM washer and flange nut set and do up tight.





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

FITTING PROCEDURE BULL BAR PREPARATION



17. If fitting fog lamps, refer to instructions supplied with kit.



18. Fit the surrounds into the openings in the wings referring to the fitting instructions with surround kit.

THIS STEP MAY ALSO BE COMPLETED WITH THE SAHARA BAR FITTED TO THE VEHICLE



- 19. Fit large eyebolt nut into the plate on the inside of the bar.
- 20. Screw in the eyebolt using the large washer. Eyebolt can be positioned to sit vertically by rotating the large nut to the correct position

NOTE: EYEBOLTS SHOULD BE REMOVED FOR SAFETY REASONS WHEN TRAVELLING ON PUBLIC ROADS.



21. When the large nut is in its final position, secure with the nut retaining bracket using an M6 bolt, washer and flange nut.

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FITTING PROCEDURE BULL BAR PREPARATION



22. Secure the number plate bracket using M6 bolts, flat washers and flange nuts. Attach the longer side to the bullbar and the shorter side to the number plate.

BAR PREPARATION: FITTING PROCEDURE WINCH

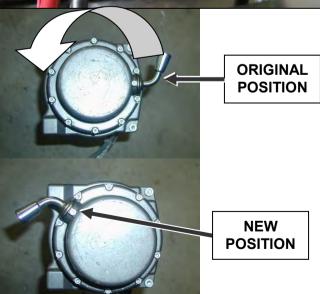


- 23. Fit large grommets to holes in top pan
- 24. Fit control box bracket to control box studs as shown. *Picture also shows routing of leads through grommets in pan.*

NOTE: If 12-15000lb winch is to be fitted, fit off Kit # 3512050 extra-long leads, marking the end of each one for easy identification for connections to motor terminals



25. Using M8 fasteners fit control box mounting bracket to pan



- 26. Prepare winch for fitting by undoing the cap screws on the gearbox end.
- 27. Then rotate the end cap and gearbox in a counter clockwise direction 144° (four hole pitches) while looking down at the gearbox, as shown (for 12-15000lb winches rotate clockwise 72°, two hole pitches)
- 28. Tighten the cap screws ensuring the gearbox handle operates freely.
- 29. For 9500lb only rotate the motor end 90° clockwise (elec. terminals will be up)

NOTE: Be careful not to lift the gearbox more than a few millimetres. Before doing up cap screws, ensure that the flange faces engage properly and gaskets are not damaged.

BAR PREPARATION: FITTING PROCEDURE WINCH



30. Position the winch with the mount face facing upward on an adjustable table or similar and with the assistance of another person lower the bulbar over the winch. The winch handle should be in the LHS of the bull bar for smaller winches than 12-15000lb winches which are on the opposite side as they spool in the opposite direction. The cable must always spool off the bottom of the winch.

NOTE: Also follow the installation instructions in the Warn winch handbook accompanying the winch.



31. Fit the roller fair lead, pull only the end of the cable through and adjust the position of winch then bolt up securely. Use the 1 ½" long bolts in the top and 1 ¾"in the lower set through the RFL.

Hint: To increase access to mount bolts in front of roller fairlead, remove circlips from bottom of each vertical roller shaft, push shaft up so roller can be dislodged sideways. Do up bolts in fairlead and winch, then refit circlip.

- 32. With the aid of another person, turn the bull bar over so that the back of the bar is accessible.
- 33. Connect up the wires to the winch per Warn handbook (shown 9500lb motor top, 15000lb lower view)

NOTE: Refer to the Warn winch handbook for wiring instructions to vehicle.

FITTING PROCEDURE CONT.



34. Fitting number plate – with winch

Bolt number plate to the bracket with the M6 X 16mm bolts and M6 flange nuts through the lower holes of the number plate.

If not fitting winch.

Bolt the number plate through the top holes using M6 X 16mm bolts and M6 flange nuts.



35. Wrap rubber extrusion around winch cover as shown starting from the centre of the back edge, trim off excess.



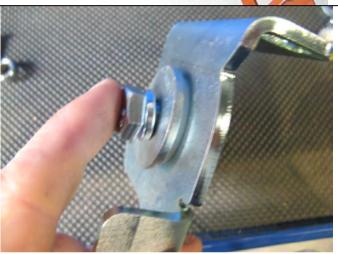
- 36. Place washers over the winch cover fixing holes located on the top middle face of the winch bumper.
- 37. Place the winch cover on top of the winch bumper inline with the mount holes.
- 38. Bolt together using the M6 button head stainless steel screws and M6 nuts.

FITTING BUFFERS or BUFFERS WITH FRAME



BUFFERS ONLY

39. With sahara bar sitting as it would when fitted to vehicle, fit each buffer in turn and secure with M6 flange nuts on 6 x studs per side once buffers are carefully pushed home against the profile of the bull bar be careful not to over tighten the flange nuts as damage to buffer can result.



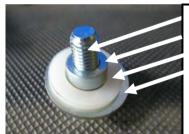
BUFFERS AND FRAME

- 40. Place the sahara bar face down on a soft surface
- 41. Fit the RH hinge bracket assembly to outboard side of upright as shown, with M10 bolt, large M10 washer, spring washer, flange nut, bush and 16mm ID nylon washer. Tighten to recommended torque.

NOTE: The top flange of hinge bracket must face inboard, ie top flanges are towards each other when fitted

42. Repeat for LHS.





M10 x 30 bolt Spacer bush M16 nylon washer Large M10 washer



NOTE: When the frame sits on the bumper, it is angled backward. Put it up against the bumper and determine which side is LH and RH. The buffers are handed RH and LH. Select the correctly handed buffer to fit over each end of the frame before proceeding.

43. Slide the buffers over the frame as shown

FITTING BUFFERS WITH FRAME



- 44. Fix the frame to the hinge brackets using 4 x sets M10 x 30 Cap Screws, flat and spring washers
- 45. Ensure that the frame is centred on the brackets and bar assembly
- 46. Tighten the cap screws to recommended torque





47. Slide the buffers down over the frame and secure using M6 flange nuts on the four lower buffer studs on each buffer and M6 nyloc nuts with large M6 flat washers on the two studs located on top face.

CAUTION: Do not over tighten nuts as damage to buffer can result



NOTE: The latching assembly is only fitted to RHS of the bumper

- 48. Fit the slam latch assembly to *RHS* (inboard side of upright) secure using ½ UNC x 1" bolts, flat and spring washers. *Lever arm is to rear of bumper.*
- 49. Tighten firmly, to 12Nm (9lbft).

FITTING BUFFERS WITH FRAME



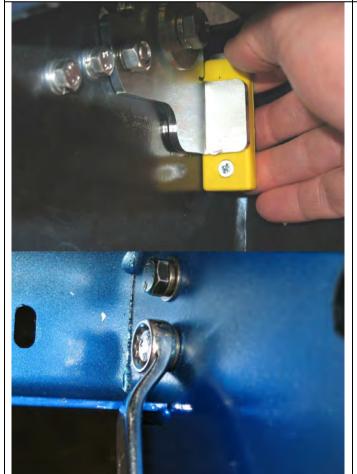
50. Fit the striker pin to the **RHS** hinge plate and secure with 5/16"UNC nut and spring washer as shown and tighten to 22Nm or 16lbft





- 51. Fit a urethane buffer pad to each of the right angle brackets using M4x16 csk head screws and M4 nyloc nuts, to create a pair of RH and LH assemblies as shown.
- 52. Tighten the screws until the heads are 1.5mm below the face of the urethane pad

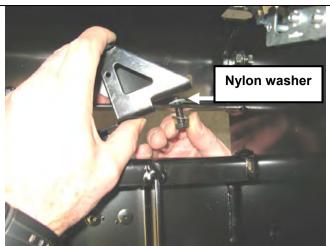




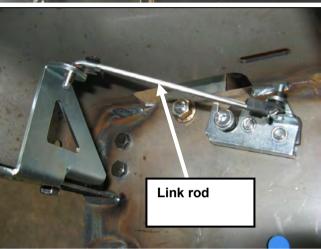
- 53. Fit the RHS buffer pad assembly as shown, wedge of pad up. Secure with 2 x M8 bolts, washers and flange nut sets. Load bolts from inboard side of upright, nuts are on bracket side.
- 54. With the striker pin engaged fully in the latch and a slight amount of pressure on the frame pushing it back against the slam latch, pull the pad hard against the hinge bracket flange as shown.
- 55. Tighten the M8 bolts to recommended torque.
- 56. Repeat for the LHS

The intention once the assembly is complete is for the frame to feel solid without any play.

FITTING BUFFERS WITH FRAME

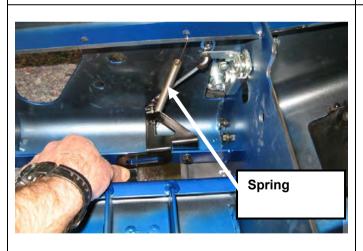


- 57. Fit the lever bracket for the slam latch operation using an M8 x 25 black bolt, nyloc nut, 2 x M8 flat washers and *nylon washer* which is *sandwiched between the pan flange and face of bracket at pivot point.*
- 58. Once M8 nyloc nut is tensioned, bracket must be able to pivot freely, without play and without rubbing contact with mounting flange, adjust accordingly.



- 59. Fit the plastic rod connector fittings from underneath into the lever in the slam latch and from above into the operating bracket
- 60. Fit the 4mm link rod





- 61. Fit the spring as shown. It connects to the lever bracket through the hole in the side and to a hole in the pan brace at the rear of the top pan
- 62. Crimp over the end loops to secure the spring ends in position

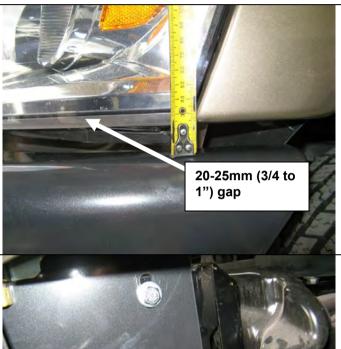


FITTING PROCEDURE BAR ON VEHICLE



63. Using two people, three if winch fitted, position the bar assembly on the vehicle mounts.

Caution: This product is heavy, especially if a winch is fitted. Do not attempt to lift it and fit it by yourself. Have some assistants help you or use a mechanical aid such as this hydraulic lift table as shown.



64. Bolt the bar to the mounts using M12 bolts, large flat washers and spring washers. Bolt the bar to the mounts using M12 bolts, large flat washers and spring washers. Align the bar to the profile of the guards, grille and light profile and tighten all bolts.



65. When bar is aligned, tighten bolts.



Osing the M10 pilot holes in mount brackets, drill pinning hole through uprights on bull bar. Fit M10 screw, washer set and flange nut and do up tight.





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

FITTING PROCEDURE BAR ON VEHICLE



- 67. Wire up indicators and running lamps. Wire loom extensions are supplied in fitting kit.
- 68. Wire up fog lamps if fitted



69. If winch fitted, fit off winch hook.

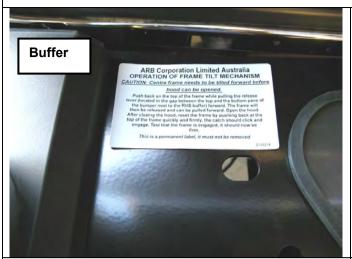


- 70. Trim fender liner with air hacksaw or similar tool along line as shown so it will pull back inside the wing tip.
- 71. Cut away the outboard flap, which normally fits in the end of the bumper wing. This is so the liner can be held back easily by the retaining bracket at next step.



72. Fit liner retainer bracket with black M6 bolt and washer sets into M6 cage nuts in wing returns each side as shown.

FITTING PROCEDURE BAR ON VEHICLE



73. Apply the frame tilt operation label to the top face of the pan adjacent to the buffer as shown in diagram

WARNING: LABEL FOR FRAME TILT
OPERATION FOR HOOD CLEARANCE MUST
BE APPLIED TO TOP FACE OF SAHARA
BUMPER IN THE POSITION IDENTIFIED IN
THESE FITTING INSTRUCTIONS. FAILURE TO
APPLY THIS PERMANENT LABEL AT SAHARA
BUMPER FITMENT INDEMNIFIES ARB
CORPORATION OF ANY LIABILITY ARISING
FROM THE OPERATION OR USE OF THIS
PRODUCT.



- 74. Test the operation of the frame tilt assembly
- 75. Frame should release from latch and engage as per the supplied label.

If necessary, adjust the slam latch and or the bump stops to ensure that the frame complies and does not have any free play when latched in the home position yet releases to come forward with slight backward pressure on top of tube when lever is pulled forward.

WARNING: THIS FRAME IS NOT DESIGNED TO SUSTAIN EXCESS LOADING EITHER FORWARDS OR BACKWARDS, SUCH LOADS MAY DAMAGE THE FRAME ASSEMBLY TILT MECHANISM



76. Unless fitting CB aerials, fit blanking plugs in provided holes in the top of the wings.

NOTE:

- Connect wiring to fitted lights and winch.
- ♦ Check that wiring does not contact sharp edges and piping etc is clear of moving parts by at least 15mm
- ♦ Check operation of all lights.
- Adjust fog lamp beam aim.
- ♦ Check winch operation
- ♦ If fitted check frame tilt operation

FITTED PRODUCT ON 1500 MODEL

