



FITTING INSTRUCTIONS

Part Number: **3936150**
Product **SAHARA BAR FORD F250 08ON**
Description: **F/KIT 6172475**
Suited to **FORD F250 08ON F250, 350**
vehicle/s:

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

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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	STEEL RULE
PHILIPS and FLAT BLADE SCREWDRIVERS	
POWER DRILL DIA 13mm CHUCK CAPACITY	DRILL BIT, DIA10.0mm

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

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
MOUNT BRACKETS TO VEHICLE	3757721R&L	1+1	BRACKET BAR MOUNT SET
	4581049	16	WASHER M12 FLAT
	4581050	10	WASHER M12 SPRING
	6151189	10	NUT M12x1.75
	6151255	10	BOLT M12 X 40
	4581007	4	WASHER M12 LARGE
WINCH	180302	10	CABLE TIE
	6151074	2	BOLT 3/8 X 1 3/4
TOW HOOK RELOCATION	6151365	2	EYEBOLT M24 2.5T SWL
	6151361	2	NUT M24 GR8 ZP
	3757694	2	BRACKET NUT RETAINING
	4581300	2	WASHER M24 EYEBOLT
	6151046	4	WASHER M6
	6151207	4	BOLT M6 X 25mm
	6151128	4	NUT FLANGE M6
	451703R&L	1+1	GUSSET ASSY
	6151255	4	BOLT M12 X 40
	4581049	4	WASHER M12
CONTROL BOX FITTMENT	6151428	4	NUT FLANGED M12
	3757729	1	BRACKET BOTTLE OPEN
	4581045	2	WASHER M8 BZ
	6151132	2	NUT FLANGED M8
	3756499	1	BRACKET STD CONTROL BOX IN PAN
NUMBER PLATE FITTMENT	6151234	2	BOLT M8 X 25 BZ
	EG50	4	GROMMET 50MM
	6151017	4	BOLT M6 X 16mm
	6151128	4	NUT FLANGE M6
WINCH COVER FITTMENT	6151046	4	WASHER M6
	3751384	1	BRACKET NO.PLATE
	6151128	2	NUT FLANGE M6
	6151256	2	SCREW M6 S/STEEL BUTTON HEAD
	4581304	4	WASHER M6 ST STL
BUFFER FASTENERS	6191006	1	EXTRUSION WINCH COVER @ 1500
	6522695	1	PANEL WINCH COVER
BAR TO MOUNT ASSEMBLY	6151128	12	NUT M6 FLANGED
	6151255	6	BOLT M12 X 40mm
	4581050	6	WASHER SPRING M12
	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.

INDICATOR ASSY	3163015	1	LIGHT SURROUND
	6821151R	1	INDICATOR ASSY RHS
	6821151L	1	INDICATOR ASSY LHS
	6821152	2	LOOM
	180701	6	SCOTCH LOCKS
	180302	4	CABLE TIE
	GLO47207	2	GLOBE 12V 5W BA15S RSW
MISCELLANEOUS	3162152	2	PLUG BLANKING DIA 16
OPT: BLANK BUFFERS ONLY KIT P#5100150	3163016R	1	BUFFER LARGE SAHARA
	3163016L	1	BUFFER LARGE SAHARA
OPT: BUFFERS SUIT FRAME P# 5100140	3163017R	1	BUFFER LARGE WITH HOLE SAHARA
	3163017L	1	BUFFER LARGE WITH HOLE SAHARA
OPT: FRAME ASSY KIT P#5136010	6131558	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	6	WASHER FLAT M8 BZ
	4581040	4	WASHER FLAT M10
	4581288	2	WASHER FLAT M10 LARGE
	6151042	2	WASHER SPRING M6
	4581047	5	WASHER SPRING M8 BZ
	4581048	6	WASHER SPRING M10
	6151068	2	BOLT ¼ UNC X 1"
	6151234	5	BOLT M8 X 25 BZ
	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



1. If fog lights fitted in bumper, undo fog light loom connection (connection located on LHS of vehicle behind headlamp)



2. Undo 2 x M8 bolts securing rear bracing flanges of bumper
3. Remove and set aside bumper by undoing 4 x M12 bolts through front of bumper in tow hook regions
4. Recover fog lamp loom if fitted, this can be reused.

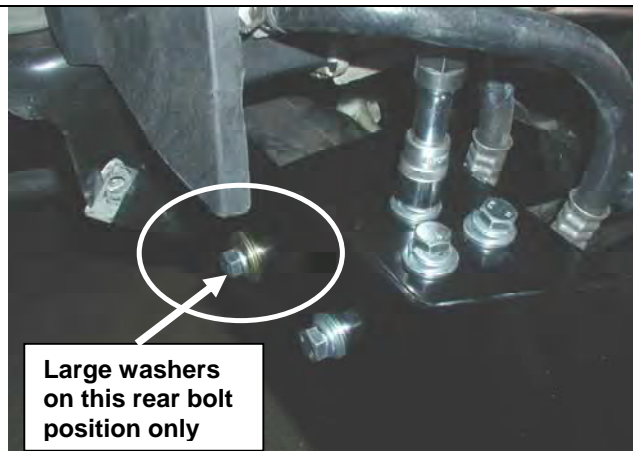


5. Remove tow hooks and set aside, these will not be reused

FITTING PROCEDURE GENERAL

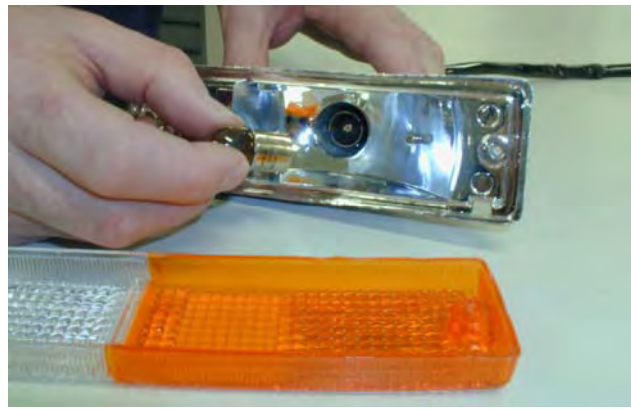


6. Fit mount brackets to chassis as shown, with flanges outboard.



7. Fasten using M12 x 40 bolts, washer and nut sets in all bolt hole positions, use large thick washers for lower rear position only as shown, ***nip up initially then tighten to recommended torque, starting with bolts through original tow hook position.***
8. ***Adjust piping so that it will not rub on brackets or sharp edges.***

FITTING PROCEDURE BULL BAR PREPARATION



FITTING LIGHT SURROUND ASSEMBLY

Follow fitting instructions supplied with kit.

9. Prior to fitting the supplied indicators, with lenses temporarily removed, replace 21W indicator light bulbs only (amber reflector side) with 5W bulbs supplied in fitting kit.

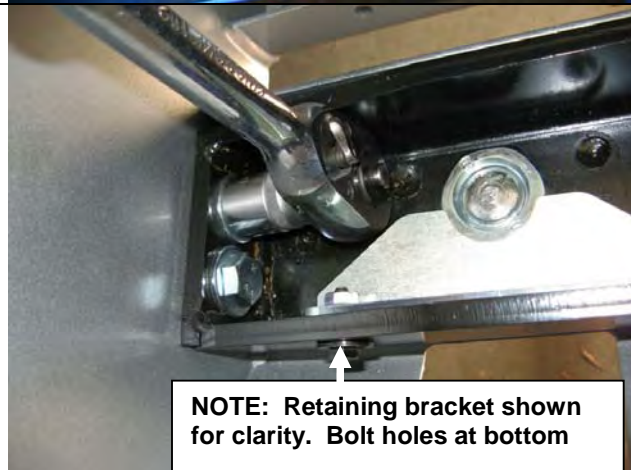


10. If fitting fog lamps, refer to instructions supplied with kit.



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

NOTE: THIS STEP MAY ALSO BE COMPLETED ONCE THE SAHARA BAR IS FITTED TO THE VEHICLE SO THERE IS CLEAR ACCESS THROUGH THE LIGHT SURROUND HOLE IN WING TO MOUNT BOLTS.



NOTE: Retaining bracket shown for clarity. Bolt holes at bottom

12. Fit channel assemblies into rear of sahara bar as shown. The tangs on the end of the channel section are to be positioned inboard, they locate into slots in the side of the winch bracket gusset plate.

NOTE: There is a RH and LH version of the channel assembly.

13. Secure through channel end cap and upright with M12 bolts, washers and flange nuts as shown.

FITTING PROCEDURE BULL BAR PREPARATION



14. Fit large eye bolt nut into the location plate of channel gusset.
15. Screw in the eye bolt fitted with the supplied large washer.

NOTE: Eye bolt can be positioned to sit vertically by rotating the large nut at rear to the correct angle

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



16. When the large nut is in its final position, fit the retaining bracket and optional bottle opener as shown and secure using M6 bolt, washer and flange nut sets.



17. 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

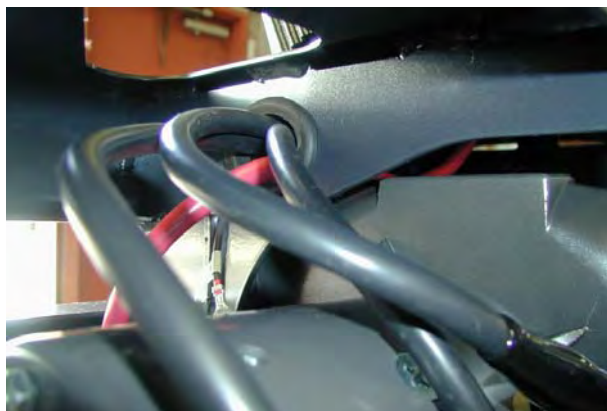


18. Fit large grommets to holes in top pan
19. Fit control box bracket to control box studs as shown. *Picture also shows routing of leads through grommets in pan.*

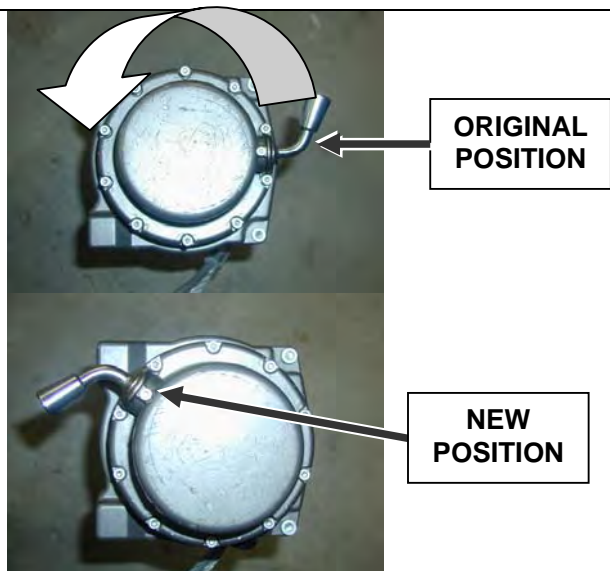
NOTE: If 12-15000lb winch is to be fitted, install Kit # 3512050 extra long leads, marking the end of each one for easy identification for connections to motor terminals



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



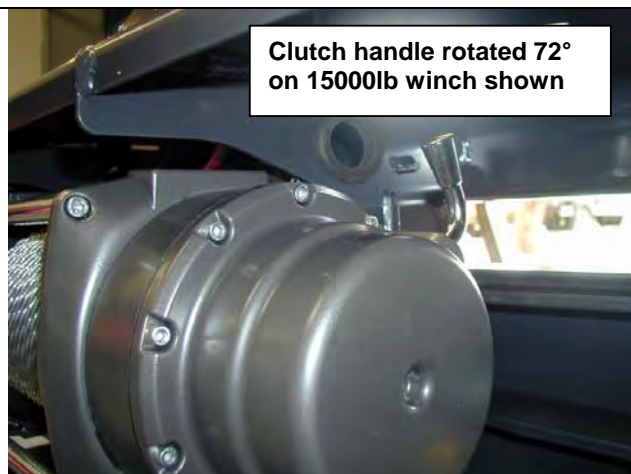
21. Insert grommets to winch bracket gusset holes and route cables through them as shown



22. Prepare winch for fitting by undoing the cap screws on the gearbox end.
23. 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)
24. Tighten the cap screws ensuring the gearbox handle operates freely.
25. 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



26. 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 frame Warn winches and on the RHS as shown for large frame 12-15000lb winches. 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.



27. Fit the roller fair lead, pull only the end of the cable through and adjust the position of winch then bolt up to specified torque. For 9500 winch, use the 3/8"UNC x 1 1/2" long bolts in the top and supplied 1 3/4" 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.

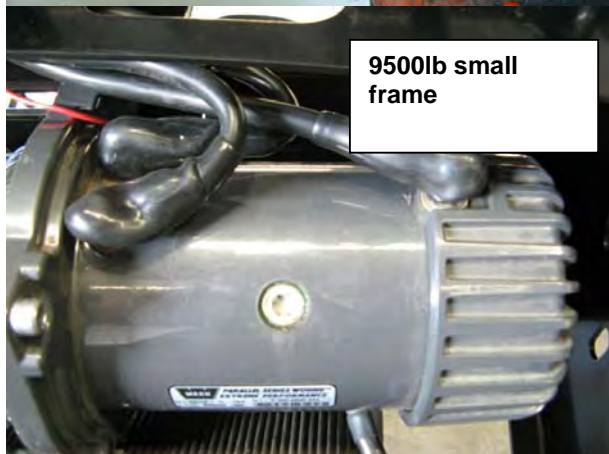


28. With the aid of another person, turn the bull bar over so that the back of the bar is accessible.

29. Connect up the wires to the winch per Warn handbook (shown 9500lb motor top, 15000lb lower view)

NOTE: There are holes in the winch bracket gusset plate to route cables.

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



FITTING PROCEDURE CONT.



30. 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.

Winch cover in place



If not fitting winch

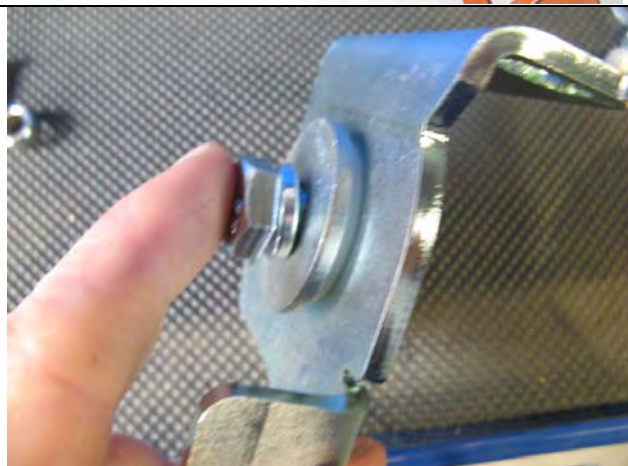
31. Wrap rubber extrusion around winch cover starting from the centre of the back edge, trim off excess.
32. Place washers over the winch cover fixing holes located on the top middle face of the winch bumper.
33. Place the winch cover on top of the winch bumper inline with the mount holes.
34. Bolt together using the M6 button head stainless steel screws and M6 nuts.

FITTING BUFFERS or BUFFERS WITH FRAME



BUFFERS ONLY

35. 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.

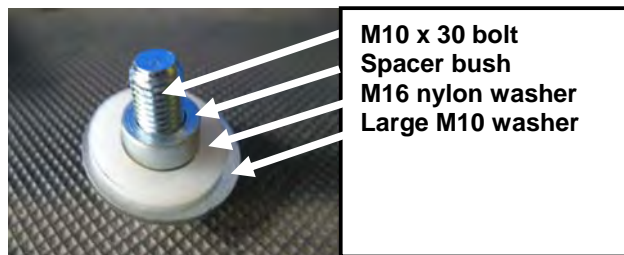


BUFFERS AND FRAME

36. Place the sahara bar face down on a soft surface
37. 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

38. Repeat for LHS.



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.

39. Slide the buffers over the frame as shown

FITTING BUFFERS WITH FRAME

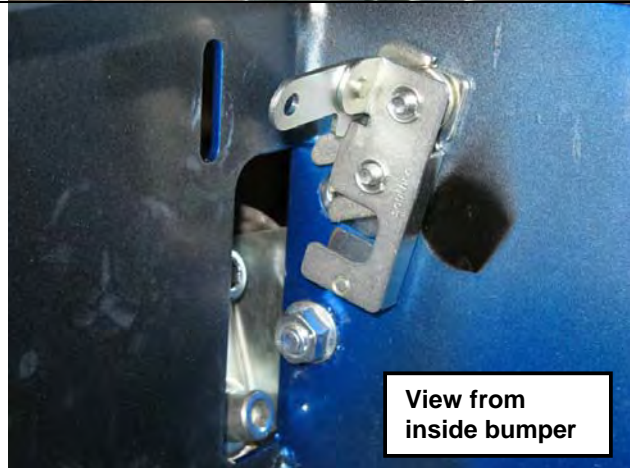


40. Fix the frame to the hinge brackets using 4 x sets M10 x 30 Cap Screws, flat and spring washers
41. Ensure that the frame is centred on the brackets and bar assembly
42. Tighten the cap screws to recommended torque



43. 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



View from
inside bumper

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

44. Fit the slam latch assembly to **RHS** (inboard side of upright) secure using ¼ UNC x 1" bolts, flat and spring washers. *Lever arm is to rear of bumper.*
45. **Tighten firmly, to 12Nm (9lbft).**

FITTING BUFFERS WITH FRAME



46. 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 16lbf



47. 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.

48. Tighten the screws until the heads are 1.5mm below the face of the urethane pad



49. Fit the RHS buffer pad assembly to wing side of upright 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.

50. 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.

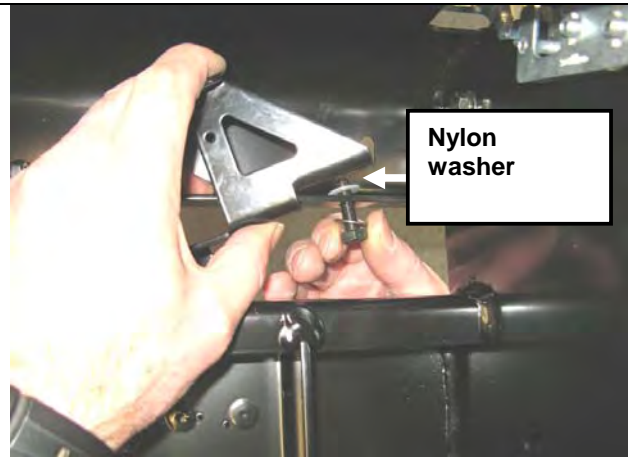
51. Tighten the M8 bolts to recommended torque.

52. Repeat for the LHS

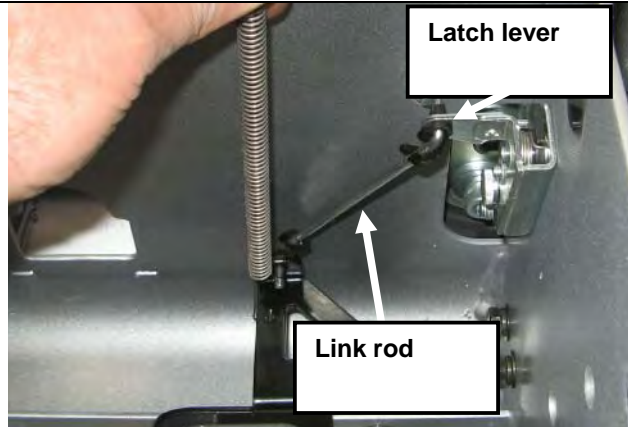
The intention once the assembly is complete is for the frame to feel solid without any play.



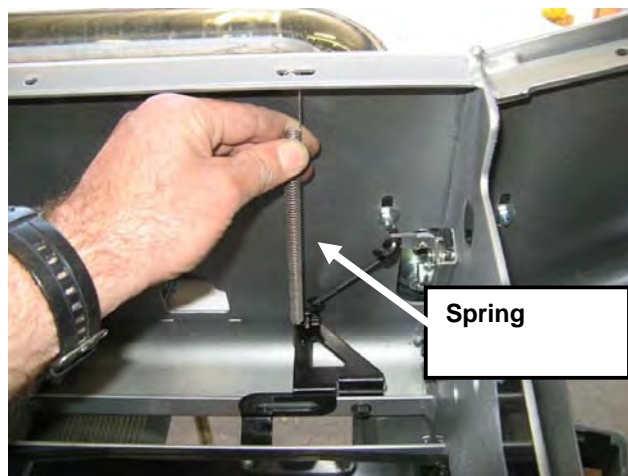
FITTING BUFFERS WITH FRAME



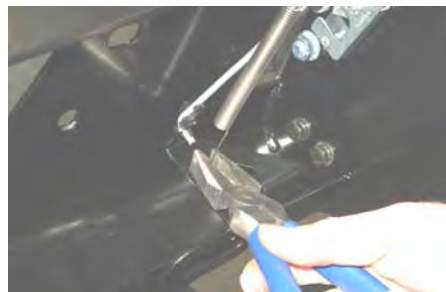
53. Fit the lever bracket for the slam latch operation using an M8 x 25 black bolt, nyloc nut, 2 x M8 flat washers and **nylon washer** which is *sandwiched between the pan flange and face of bracket at pivot point.*
54. Once M8 nyloc nut is tensioned, bracket must be able to pivot freely, without play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



55. Fit the plastic rod connector fittings so that the lever arm fits into the lever in the slam latch from below and then from above into the operating bracket
56. Fit the 4mm link rod, rotate clips to retain rod



57. 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
58. Crimp over the end loops to secure the spring ends in position



FITTING PROCEDURE BAR ON VEHICLE



59. 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.*



60. 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.



61. When bar is aligned, tighten bolts to specified torque.



62. Using 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

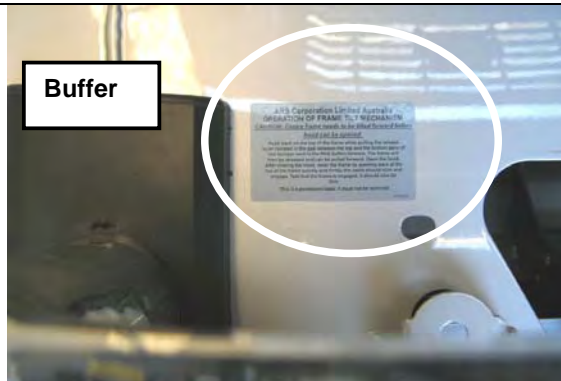
FITTING PROCEDURE BAR ON VEHICLE



63. Wire up indicators and running lamps.
NOTE: Wire loom extensions are supplied in fitting kit.
64. Wire up fog lamps if fitted



65. If winch fitted, fit off winch hook.



66. 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.

FITTING PROCEDURE BAR ON VEHICLE



67. Test the operation of the frame tilt assembly
68. 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



69. 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

