

ARB FITTING INSTRUCTIONS

ARB WINCH/NON WINCH BUMPER TO SUIT NISSAN PATHFINDER & NAVARA 2005

PRODUCT No. 3938130
5138010 Top Tube Kit
5100020 Buffer Kit – With hole (required when fitting Top Tube)
5100030 Buffer Kit – With no hole
FITTING KIT No. 6172358

WARNING

**FOR VEHICLES EQUIPPED WITH SRS AIRBAG
WHEN INSTALLED IN ACCORDANCE WITH THESE INSTRUCTIONS, THE FRONT
PROTECTION BAR DOES NOT AFFECT OPERATION OF THE SRS AIRBAG.**

TAKE NOTE OF 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 INSTRUCTION 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 THE INSTALLATION , IT IS THE DUTY OF THE INSTALLER TO CHECK CORRECT OPERATION / CLEARANCES OF ALL COMPONENTS .**

OPTIONAL LIGHT SETS TO SUIT THIS PRODUCT:

- ARB 6821201 Fog Light Kit Suit 3163015
- Up to IPF 900 SERIES FOG OR DRIVING LIGHT SETS

TOOLS REQUIRED :

METRIC 3/8 DRIVE SOCKET SET, METRIC RING AND OPEN ENDED SPANNER SET , TORX BIT SET, PHILLIPS AND FLAT SCREW DRIVER SET, ELECTRIC DRILL AND 8mm ,10mm , 13.0 mm & 13.5 mm DRILL BITS , SHARP KNIFE , ELECTRIC JIG SAW , HACKSAW BLADE OR SMALL HAND SAW , FELT TIP PEN , METAL SCRIBE , CENTRE PUNCH , FINE FILE OR SAND PAPER , METRIC TAPE MEASURE AND A ROLL OF 12 mm & 50 mm WIDE MASKING TAPE.

18/04/13

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FITTING INSTRUCTIONS

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.

USE	PART No	QTY	DESCRIPTION
IMPACT ABSORBER FITMENT TO CHASSIS (FLANGE FACE)	3757768L	1	IMPACT ABSORBER ASSEMBLY LH
	3757768R	1	IMPACT ABSORBER ASSEMBLY RH
	6151096	2	BOLT M12 x 1.25 P x 40 mm LONG
	6151360	4	BOLT M12 x 1.75 P x 35 mm LONG
	4581049	6	WASHER M12 FLAT
	4581050	6	WASHER M12 SPRING
	3199822	2	NUT PLATE ASSY
	5848319	4	PACKER IMPACT ABSORBER
IMPACT ABSORBER FITMENT TO CHASSIS (PINNING HARDWARE)	6151299	4	BOLT M10 x 1.5 P x 100 mm LONG
	4721551	4	TUBE – CRUSH
	4581040	8	WASHER FLAT M10
	6151322	4	NUT- NYLOC M10 x 1.5 P
BULL BAR TO IMPACT ABSORBER	6151360	6	BOLT M12 x 35 mm LONG x 1.75 PITCH
	4581007	6	WASHER LARGE FLAT M12
	4581050	6	WASHER SPRING M12
	6151428	6	NUT FLANGED M12
BUFFERS TO BULL BAR (5100020 Required if fitting Top Tube)	6151128	12	NUT FLANGE M6
	3162469L	1	BUFFER LH
	3162469R	1	BUFFER RH
BUFFERS TO BULL BAR (5100030 Required if not fitting Top Tube)	6151128	12	NUT FLANGE M6
	3162466L	1	BUFFER LH
	3162466R	1	BUFFER RH
LICENCE PLATE TO BULL BAR	6821116	2	NYLON PLUG
	6151384	2	SCREW 8-18 x 5/8 PANHEAD
FOG, INDICATORS TO BULL BAR	3163015	1	COMBINATION LIGHT SURROUND KIT
	180701	12	SCOTCH LOCK
	6821151L	1	TURN SIGNAL / CLEARANCE LIGHT
	6821151R	1	TURN SIGNAL / CLEARANCE LIGHT
	6821191	1	LOOM KIT – TURN SIGNAL ARB
TOP TUBE TO BAR (5138010)	6151255	2	BOLTS M12 X 1.75 X 40
	4581049	2	WASHER FLAT M12
	4581050	2	WASHER M12 SPRING
	6131528	1	TOP TUBE

USE	PART No	QTY	DESCRIPTION
WINCH TO BULL BAR <i>SUPPLIED WITH WINCH BARS ONLY.</i>	3756499	1	CONTROL BOX MOUNT
	EG50	2	RUBBER GROMMET
	BLB850	3	WINCH LEAD 850mm BLACK
	6151074	2	BOLT 3/8" x 1 3/4" HEX HEAD
	6151073	2	BOLT 3/8" x 1 1/2" HEX HEAD
	4581040	4	WASHER FLAT M10
	4581048	4	WASHER SPRING M10
	6151022	2	BOLT M8 x 25mm
	6151132	2	NUT FLANGE M8
	4581044	2	WASHER FLAT M8
	180302	6	CABLE TIES
STONE TRAY BRACE TO IMPACT ABSORBERS	4681198	1	BRACE STONE TRAY
	6151022	2	BOLT M8 x 25 mm LONG
	4581044	2	WASHER FLAT M8
	4581046	2	WASHER SPRING M8
	6151132	2	NUT FLANGE M8
	6151300	2	CAGE NUT M6 (LONG LEG)
STONE TRAY TO BULL BAR	6542066	1	STONE TRAY
	6151300	4	CAGE NUT M6 (LONG LEG)
	6151213	6	BOLT M6 x 20mm BLACK ZINC
	4581082	6	WASHER FLAT M6 x 20 BLACK ZINC
	4581287	6	WASHER SPRING M6 BLACK ZINC
BULL BAR PINNING BOLT HARDWARE	6151357	4	BOLT SEMS M10 x 30mm LONG
	6151321	4	NUT FLANGED M10
MISCELLANEOUS	180302	6	CABLE TIES
	6191014	2	PINCH WELD (BLACK) 330mm LONG
	3162152	2	PLUG PLASTIC 16MM DIA
TO BOLT WING BRACE TO CHASSIS BRACKETS	4681262L	1	BRACE WING BOLT ON LHS
	4681262R	1	BRACE WING BOLT ON RHS
	6151021	8	BOLT M8 X 20MM
	4581044	8	WASHER FLAT M8
	6151132	8	NUT FLANGE M8
PANEL COVER NON WINCH	6522680	1	PANEL WINCH COVER
	6151256	2	SCREW M6 X 16MM BUTTON HEAD S/S
	6151128	2	NUT FLANGE M6
	4581304	2	WASHER FLAT M6 S/S
	6191006	1	EXTRUSION WINCH COVER

PREPARATION TO VEHICLE



1. Remove number plate from the vehicle.
2. Remove the four lower bolts 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.



3. Remove the two screws from the fender opening area each side that attaches the bumper bar to the plastic inner guard liner as shown .



4. Using the bumper bar “grooved highlight line” as a guide run the 12 mm wide masking tape from the fender opening from the left hand side across to the right hand side as shown. Align the lower edge of the tape with the groove in the bumper.
5. Ensure the area above the tape line is masked off to ensure the top surface is not scratched or damaged.

PREPARATION TO VEHICLE



6. Using an electric jig saw with a fine cutting blade - use the top of the 12mm tape as the cutting line. Start the cut in the wheel arch area as shown working from one side to the other . Cut thru both the back edge of the bumper and the plastic guard liner . **An assistant at this stage could hold the bumper cover in place to ensure a straight & level cut .** Ensure hearing and eye protection is used .

NOTE:- THE BUMPER IS CUT IN TWO STAGES , THE FIRST CUT AS DESCRIBED ABOVE , CUTS THE OUTER BUMPER COVER . THE SECOND CUT AS DESCRIBED IN STEP 9. CUTS THE LOWER BUMPER SUPPORT STRUCTURE LOCATED BEHIND THE BUMPER COVER.



7. With the first cut completed on the outer bumper cover , the fog lamp loom (where fog lamps are fitted) can be accessed & dis-connected both sides. The lower bumper bar is now free and can be removed .
8. The lower bumper can now be discarded.



9. The second cut is to the bumper support structure . Start in the centre of the vehicle and work towards the wheel arch area on each side as shown .While cutting the structure with one hand use your other hand to pull the structure forward to ensure the blade goes all the way through. **IMPORTANT :- KEEP YOUR FINGER CLEAR OF THE CUTTING BLADE .** The cut structure that is not needed will fall clear of the vehicle and can be discarded .
10. Clean up the cut edges of the bumper bar with a file or fine sand paper .

PREPARATION TO VEHICLE



11. The side cut can now be done to the bumper bar . Mask the area to be cut with 50 mm masking tape to protect the surrounding surfaces . Starting on the RH side first , tape the template into position and mark with a felt tip pen .
12. Remove the template and cut out the area with the electric jig saw, a second cut may be necessary to fully cut the support structure that sits behind the bumper bar.
13. Clean up the cut edges of the bumper bar with a file or fine sand paper .



14. The pinch weld trim can now be attached to the cut area .
15. Starting at the wheel opening end pull the outer bumper outward slightly and slip the trim over the cut edge and work the trim forward .



IMPORTANT CUT FOR WINCH BAR ONLY

Shown above is the Navara bumper bar , This bumper when cut is 30 mm longer than the pathfinder bull bar Cut as shown .

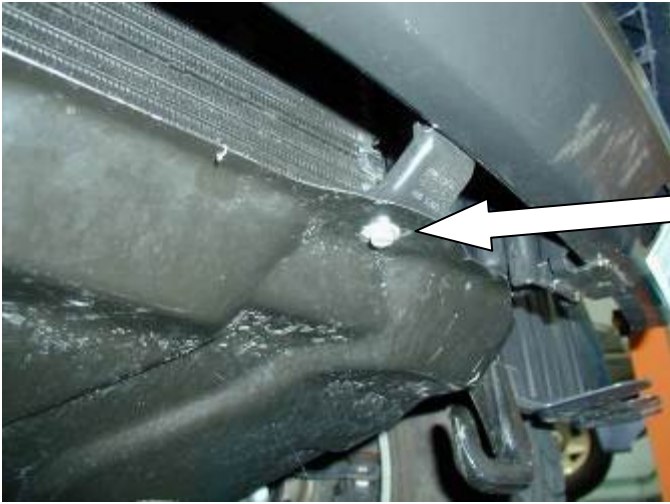
Note :- The bumper has been removed from the vehicle for clarity only ! This cut is to be done with the upper portion of the bumper still on the vehicle .

16. **If the vehicle is fitted with a winch only** . The winch viewing slot will need to be cut out at this stage. **Cut this slot while the bumper is on the vehicle.**

Using the template as a guide, mask off the area to protect the top surface. Tape the template into position and mark with a felt tip pen . Using the electric jig saw carefully cut out the area shown on the template. Clean up the cut edges with a file or fine sand paper.

The cut edge on a colour coded bumper bar can be touched up with paint if desired – this is not supplied in the fitting kit .

PREPARATION TO VEHICLE



17. The bumper reinforcement beam is now visible . Remove the two bolts that hold the factory steel stone tray to the beam and lower the front edge of the stone tray down passed the recovery hook .
18. The two bolts in the rear of the stone tray remain in place .



19. The four bolts that hold the bumper reinforcement beam can now be removed , two of these bolts will be re-used in step 21 .
20. There is one bolt in the top section of the beam each side and another bolt that is accessed thru the lower portion of the beam (four bolts in total) .



21. With the bumper reinforcement beam removed , Re-Install the bolts to the lower attachment points in the chassis flange as shown .
Ensure the bolt is fully engaged into the thread prior to breaking the weld nut away from the flange plate .
22. Using a large hammer break out the lower weld nut in the chassis by striking the bolt several times on the head. Repeat this on the other side .
Remove and discard both of the bolts and weld nuts – these are not re-used .

PREPARATION TO VEHICLE



23. The extra pinning hole in the front face of impact absorber can now be marked for position on the chassis flange .

Measure up a distance of 65 mm from the centre of the lower hole and in the centre of the chassis flange and mark the new pinning hole position with a centre punch.

24. Using a 13 mm drill bit , drill the pinning hole in the front face of the chassis flange as shown. **De-burr both the holes in the front face of the chassis .**

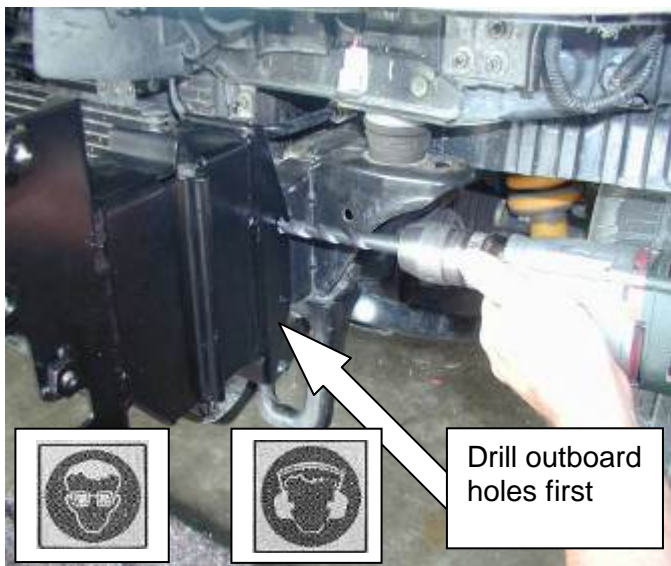
IMPORTANT :- Ensure eye and hearing protection is used .



25. Install the impact absorber as shown using the M12 bolts , spring washers and flat washers. Starting with the top attachment , use the **M12 fine pitch** bolt to secure the impact absorber to the chassis flange. **TORQUE TO 77 Nm**

26. Insert the nut plate up inside the chassis (ensure the nuts face rearward) and bolt into position using the **M12 fine pitch** bolts , spring washer & flat washer **TORQUE TO 77 Nm.**

IMPORTANT :- Ensure each impact absorber is vertical and sitting flush with the chassis flange surface .



27. With the impact absorber securely bolted into position the side pinning bolts can be drilled.

28. Drill 2 x Dia 8.0 mm hole per side thru the outside chassis walls using the pilot holes in the rear bracket as a guide. **NOTE: Don't drill the inboard chassis wall yet.**

29. Open these holes up by drilling with a Dia 13.5 mm drill bit.

Once the outer upper and lower holes are drilled, repeat on the inboard side of the chassis (**be careful not to damage the radiator during this operation**).

PREPARATION TO VEHICLE



31. Insert the bolt & washer and crush tube into the side pinning hole and align it with hole on the inboard side and push it thru the entire width of the chassis.

Attach the flat washer and nyloc nut to the pinning bolt.

Repeat this on the lower pinning holes also.

NOTE: Leave these bolts finger tight at this stage to enable the packers to be fitted.



NOTE :- BOLTS REMOVED FOR CLARITY .

32. Slide the packer into the space between the chassis and the impact absorber bracket as shown , (this is done on the inboard and out board sides on both the LH and RH brackets) and tighten the bolts .

BULL BAR PREPARATION



33. Fit the buffers. Buffer studs fit through the slots in the wings and the pan. Fasten using M6 flange nuts.

NOTE: This applies to both blank buffers and for those with the hole for optional frame.

CAUTION: DO NOT OVER TIGHTEN THE M6 NUTS AS YOU RISK PULLING THE STUDS OUT OF THE BUFFERS.

WINCH FITMENT ONLY



IF NOT FITTING A WINCH GO TO STEP 47

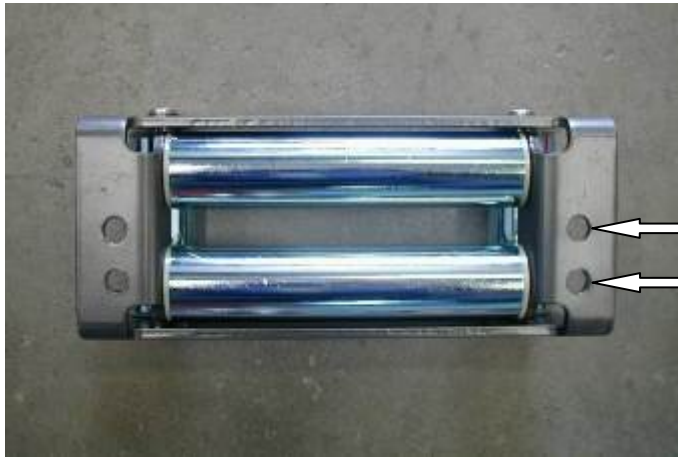
34. If fitting a Warn winch, replace the three cables in the control box marked A, F1 and F2 with the three 850mm cables from the fitting kit.
35. Mark the new cables as per the original cables for their locations.



36. Remove the cap head screws retaining the gearbox to the winch drum. Carefully lift the gearbox a small amount (5 mm) and rotate 144 degrees counter clockwise (four hole spacing) and re-fit the cap screws. This places the winch handle in the correct orientation.



37. 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.
38. 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 .



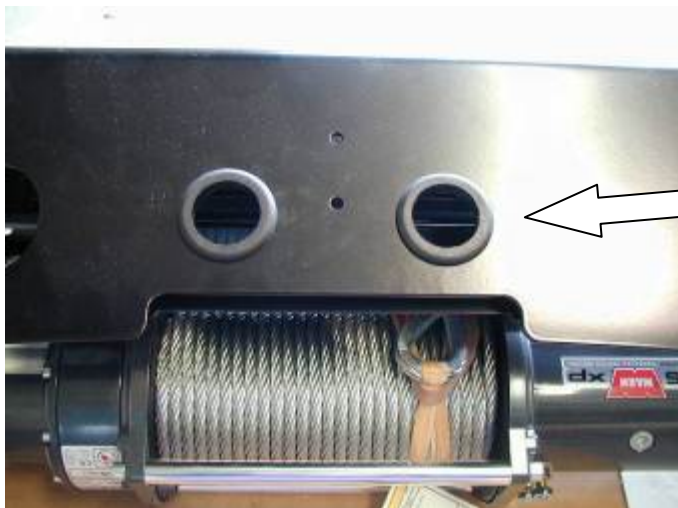
39. Using a 12mm drill bit , mark & drill two new holes in the roller fairlead 25mm below the original holes.

Drill the new hole 25mm below original



40. 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 3/4" bolts M10 flat and spring washers, attach the lower section of the roller fairlead to the bull bar and winch.

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



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

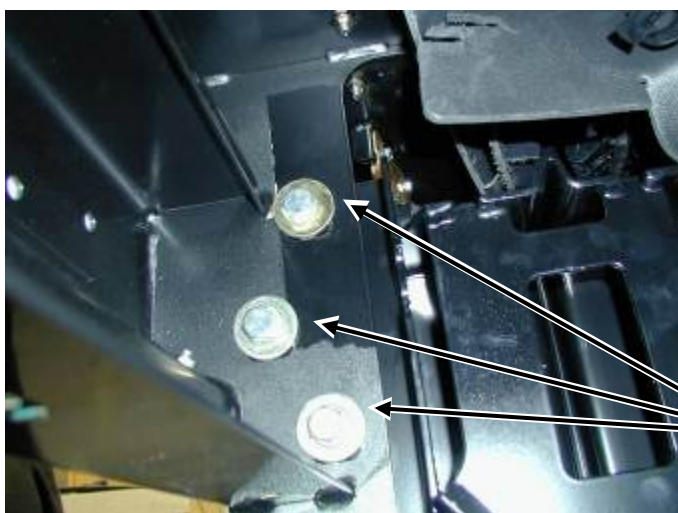


43. Attach the control box to the control box bracket as shown .
44. Fit the control box to the bull bar with two M8 x 20mm bolts , M8 flat washers and M8 flange nuts .

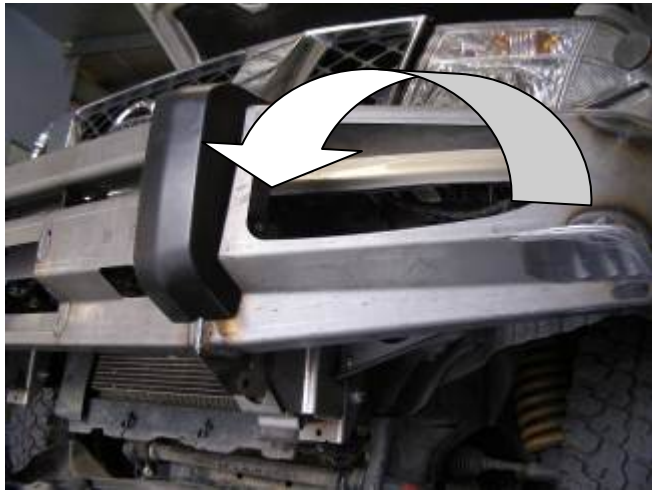


45. Run the cables through the rubber grommets and connect to the winch as per the wiring diagram supplied with the winch.
46. Using cable ties, fix the cables securely and ensure they are well away from any moving , sharp or hot surfaces .

BULL BAR FITMENT TO VEHICLE



47. With assistance guide the bull bar into position on the vehicle . Note as a reference - the top surface of the bull bar sits approx 10 mm below the bottom edge of the grille .The uprights on the bull bar sit inside the impact absorber blades.
48. Bolt the bull bar into position using the M12 bolts , spring washer and large body washer , 3 places each side as shown . Tighten the bolts firmly – but allow enough movement for the bull bar to be adjusted .
49. 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



50. 3. These bolts can be tighten through aperture in front of bar.



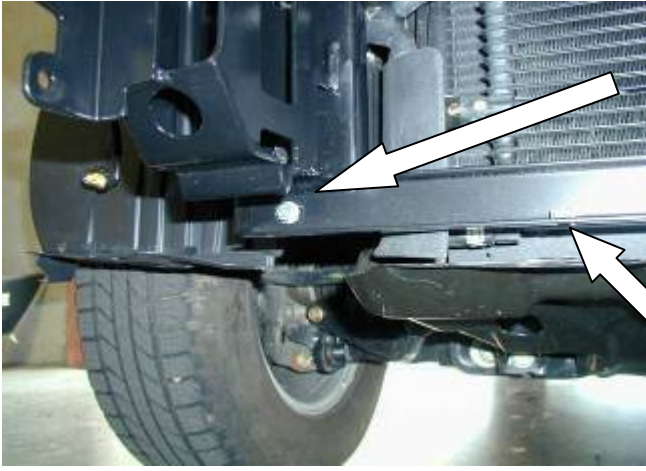
51. Ensure the bar is sitting on the vehicle level and the gap between the bumper bar and the bull bar wing is parallel .

18 / 20 mm GAP REQUIRED

52. Once happy with the position of the bull bar and the Gap is between 18mm – 20 mm clearance proceed with the next step



53. Now the bull bar is in position , all of the bolts can be tightened firmly .
54. The chassis bolts that hold the impact absorber to the chassis can be tightened firmly . These can be accessed thru the side of the impact absorber as shown .



55. The stone shield cross brace can now be fitted to the lower hole in the impact absorber using the M8 bolt , spring washer, flat washer and M8 flange nut. Tighten both sides .

56. Install the two M6 cage nuts (long leg) with the body of the nut facing upward as shown .

M6 cage



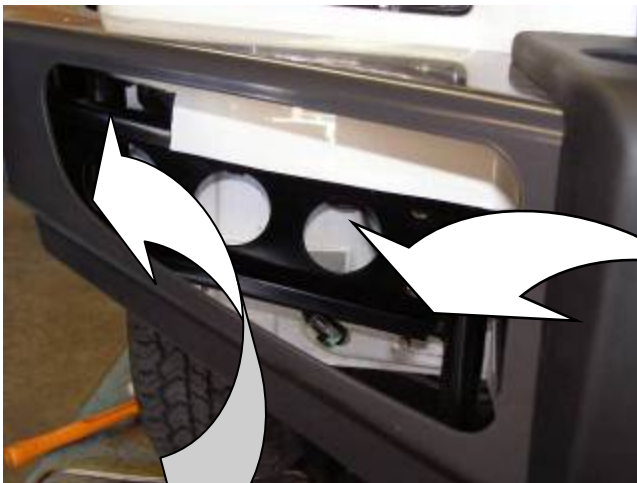
M10 PINNING BOLT.

57. Using an electric drill and a 10.0 mm drill bit , drill the pinning bolt holes, one in the lower position shown and the other at the top of the mount bracket. Use the holes in the mount bracket as a guide.

58. Bolt the bull bar to the impact absorber using two M10 SEMS bolts and M10 flange nuts.

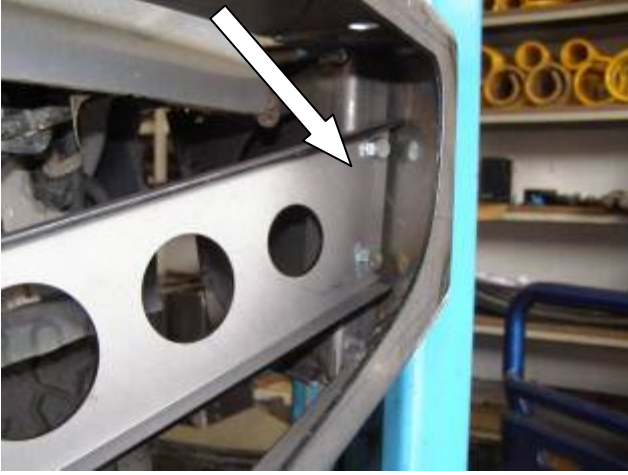
59.

IMPORTANT: Ensure eye and hearing protection is used .



60. Once bar is secured to chassis brackets, fit wing brace from chassis brackets to gusset inside of wing return and secure using 8mm hardware (bolts M8 x 20mm) tighten to torque specifications

BOLTING WING BRACE TO GUSSET IN WING



LHS OF VEHICLE SHOWN

BOLTING WING BRACE TO CHASSIS BRACKET



LHS OF VEHICLE SHOWN



IF NOT FITTING A TOP BAR GO TO STEP 65.

61. Once bar is secured to vehicle, it is time to fit centre tube to bar.
62. Press fit centre tube into round holes in top of buffers.



63. Using 12mm hardware, secure to bar from inside of aperture.
64. Tighten to torque specifications.

NOTE:

Torque these M12 fasteners to 44Nm only (Critical)



65. 15. 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.
66. Wire the combination lamp to the vehicles indicator and clearance lamps.

CAUTION: Cable tie all cables together and keep all cables clear of sharp edges and moving parts.



67. Attach the stone tray to the under side of the bull bar with the black M6 bolts, flat washers & spring washers.
68. There are four bolts in the front edge and two in the back edge .



69. Fit the two round head white plastic grommets to the two 8mm square holes in the front face of the lower pan.
70. Position the number plate as shown - using the two lower outer holes. If no winch fitted use two top outer holes.
71. Using the two dome head Philips head screws, screw firmly into position.



72. Using a hack saw blade or a sharp knife extend the top horizontal cut from the jig saw in towards the centre of the car .
73. Cut in approx 40/50 mm and do the same on the lower horizontal cut .



74. With the two horizontal cuts complete, cut down from the end of the top cut to the bottom cut vertically (the inner guard needs to have clearance to the bull bar wing return as shown).



75. With part of the inner guard now trimmed to clear the wing return the remaining part of the inner liner that hangs down below the bottom of the wing can be trimmed off horizontally.



76. Push the outer edge of the liner forward past the wing return edge so that it snaps in against the wing brace as shown.

ENSURE ALL BOLTS ARE TIGHT , AND ALL WIRING AND TURN SIGNAL LAMPS ARE FUNCTIONING CORRECTLY .



NON WINCH BULL BAR VERSION SHOWN .