



FITTING INSTRUCTIONS

Part Number: **3415100 F/Kit 6172302**

Product **ARB COMMERCIAL COMBINATION WINCH BULL BAR**

Description:

Suited to **TOYOTA LANDCRUISER 200 SERIES 2007 ON**
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. This service can be performed by your local authorized ARB Stockist.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

Metric socket and spanner sets 8-25mm range	External Circlip pliers
Screwdrivers, Philips and Flat blade	Power Jigsaw with blade for plastic cutting
Short Body Power Drill 13mm (1/2") capacity	Dia 7.0mm (5/16") and 10.5mm (25/64") drill bits
Tin snips	Marking pen
Half round file	Soft Hammer
Metric hex key set	Loctite© 262 or equiv.
Wide masking tape	Stanley knife
Small Spirit Level	Tape Measure

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:

- ◆ Up to IPF 900 SERIES FOG OR DRIVING LIGHT SETS
- ◆ IPF 840 FYS FOG LIGHTS CAN BE FITTED TO LOWER PAN AREA

PARTS LISTING			
APPLICATION.	PART NO.	QTY	DESCRIPTION
Mount Brackets To Chassis	3757602R	1	Bracket Mount RHS
	3757602L	1	Bracket Mount LHS
	6151428	2	Flange Nut M12
	6151429	2	Chassis Stud M12 x 265 x 1.75
	6151435	2	Nut Clevis
	5846400	2	Packer M12 x 8mm
Brace Assembly	4681274	1	Brace
	6151357	7	SEMS Bolt M10 x 1.5 x 30mm
	6151321	7	Nut Flanged M10 x 1.5
Bull Bar To Mount Bracket Assy	6151357	2	SEMS Bolt M10 x 1.5 x 30mm
	6151321	2	Nut Flanged M10 x 1.5
	6151255	6	Bolt M12 x 1.75 x 40mm
	6151189	6	Nut M12 x 1.75
	4581049	12	Washer Flat M12
	4581050	6	Washer Spring M12
Stone Tray to Bull Bar	6522683	1	Stone Tray
	6151300	4	Nut Cage M6
	6151213	4	Bolt M6 x 20mm
	4581082	6	Washer Flat M6 x 16 x 3
	4581287	6	Washer Spring M6
	6151270	2	Bolt M6 x 40
	4721518	2	Spacer Tube 18mm
Indicators To Bull Bar	3500080	1	Indicator Set
	180302	6	Cable Tie
Winch To Bull Bar	3756499	1	Bracket Control Box Univ.
	6151234	2	Bolt M8 x 25
	4581045	2	Washer Flat M8 BZ
	4581047	2	Washer Spring M8 BZ
	6151132	2	Nut M8 Flanged
	180302	8	Cable Tie
	EG50	2	Grommet Dia 50mm
	6151074	2	Bolt 3/8 x 1 3/4
Winch Hole Cover Fitment (If Not Fitting Winch)	6151128	2	Nut Flange M6
	6151256	2	Screw M6 St/Stl Button Head
	6191013	1	Extrusion Winch Cover
	6522686	1	Panel Winch Cover
	4581304	2	Washer M6 St Stl
Number Plate To Bull Bar	6821189	2	Grommet round
	6151384	2	Screw self tapping pan head
	6781408	1	Tape double sided
Wing Inner Panels	6522685R	1	Panel Inner Wing RH
	6522685L	1	Panel Inner Wing LH
	6151300	10	Nut Caged M6
	6151213	10	Bolt M6 x 20 Blk
	4581082	10	Washer Flat M6 Blk
	4581287	10	Washer Spring M6 Blk
	6151234	2	Bolt M8
	4581045	2	Washer Flat M8
	4581047	2	Washer Spring M8
	6151132	2	Nut M8 Flanged
Miscellaneous	6191019	2	Trim Pinch Weld
	3786342	1	Template Bumper Cutting
	EG50	2	Grommet Dia 50mm
	5868356	3	Packer

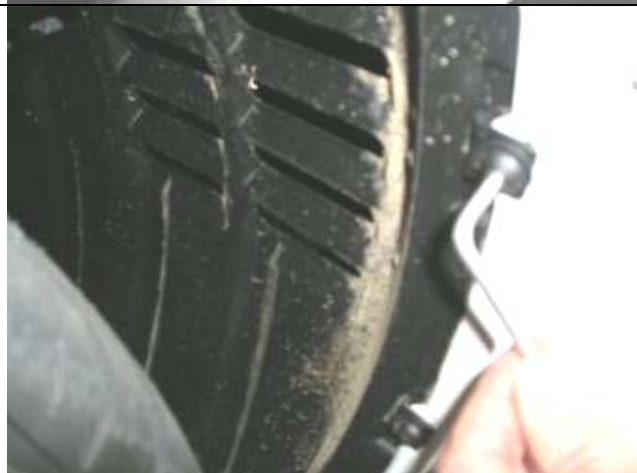
REMOVAL OF BUMPER



1. Remove number plate



2. Remove number plate mount bracket



3. Remove inner guard bumper retaining screws three per side using M4 hex key



4. Remove lower trim panel sets each side which attach to bumper and engine protective plate area then set aside, they will not be reused.

REMOVAL OF BUMPER



5. When removing lower trim panels, a plastic nut located on each side will need to be prized open with a small flat blade screwdriver to assist removal.



6. Remove lower bumper retaining screws.

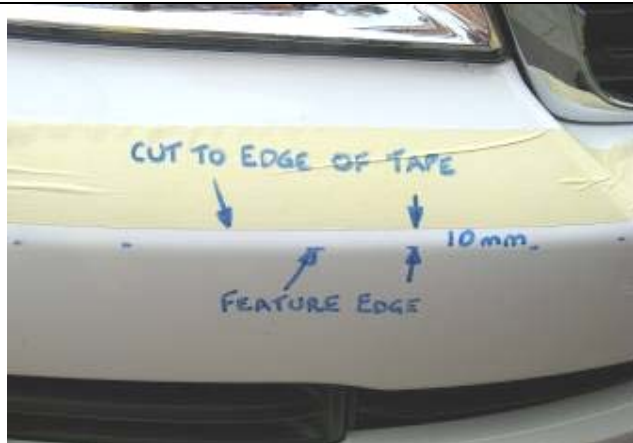


7. Remove plastic engine bay cover above grille area and set aside. Prise open plastic plugs with small flat blade screwdriver or similar as shown.



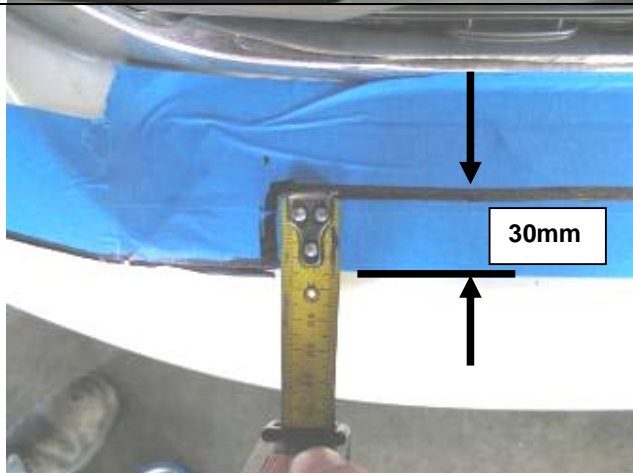
8. Remove retaining screws from top of grille

MASKING BUMPER FOR TRIMMING



9. Apply wide masking tape edge, carefully aligning 10mm above bumper feature line as shown. Keep the same line level through the centre section of the bumper as shown

Hint: Using a marking pen, run a line or dashed lines along the feature line on the bumper to assist in measuring the 10mm offset for the tape application.



10. Mark out centre cut area of bumper as shown, 740mm wide x 30mm back from feature edge.

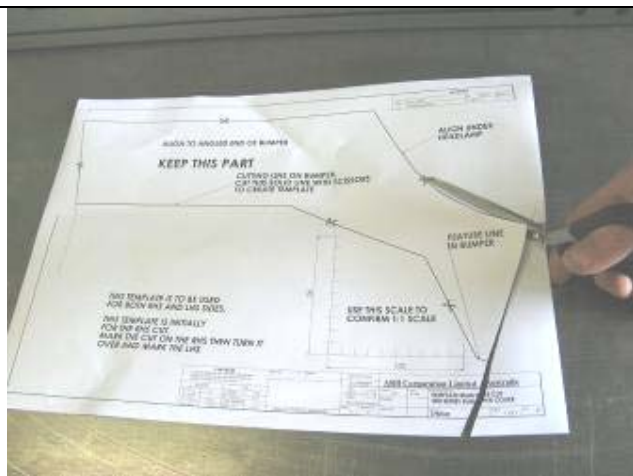


11. View of masking tape across bumper for reference.



12. Apply approx.200mm of masking tape with edge exactly 90mm from angled bumper end as shown.

MASKING BUMPER FOR TRIMMING



13. Cut A3 paper template along identified cutting line.

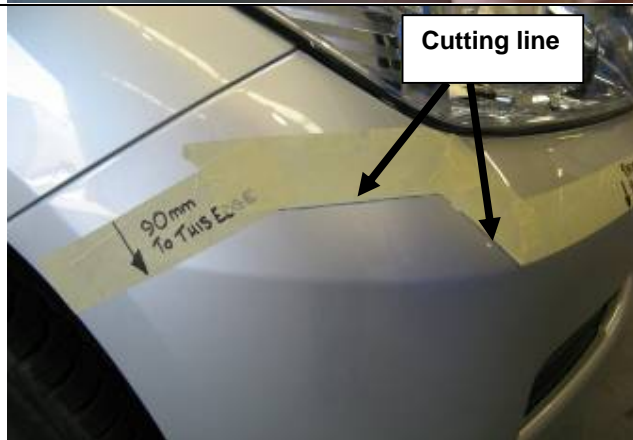
NOTE: There is a scale on the sheet to confirm that the template is 1:1 scale, this is critical.



14. Apply template to outer corner of RHS bumper as shown aligning accurately to features such as the lower line of headlamp and end of bumper. Tape in position

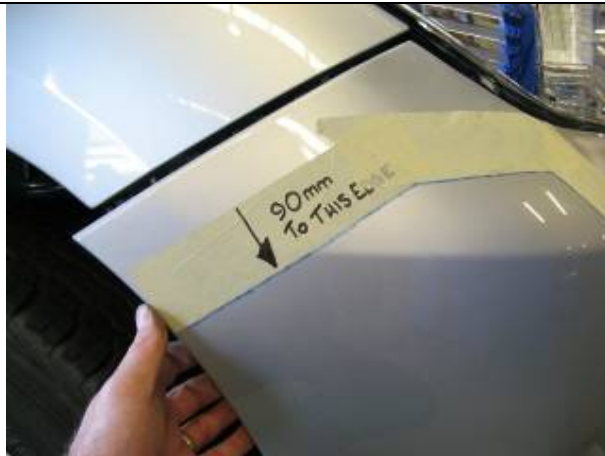


15. Transfer cutting line to bumper



16. Apply masking tape aligning edge to marked cut line as shown
17. Reverse template and apply to LHS of bumper and follow same steps as RHS.
18. The bumper is now marked out for cutting.

REMOVAL OF BUMPER



19. Pull outer returns of bumper outwards and out of retaining clips.



20. Push bumper down immediately below headlamp to gain access with a small flat blade screwdriver and release holding tab.

NOTE: Take care not to damage painted edge of bumper



21. Remove plastic plugs securing upper bumper tabs to cross member.



22. Release top of grille. It is retained by 2 x push in spring clips, located at the outer top sections below the bolt position.

Hint: You can use a small flat blade screwdriver to aid in pushing in spring.

23. You can now remove the bumper, it is best to do this with the help of another person. Place on a soft non abrasive surface

NOTE: As bumper is being removed, check that all wiring looms are disconnected.

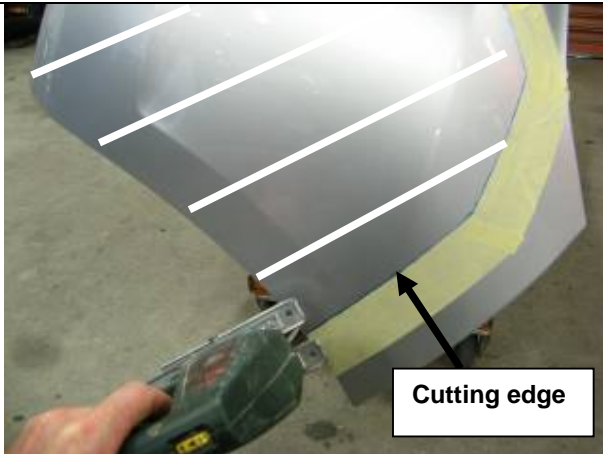
REMOVAL OF BUMPER Cont.



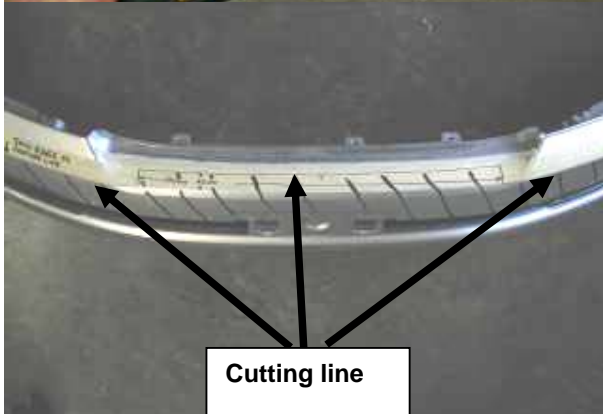
24. Remove grille from bumper cover by releasing plastic tabs as shown



25. Remove fog light brackets and set aside, these will not be reused



26. Place bumper face up on a bench or similar so there is sufficient access for the cutting operation
27. Using a jigsaw, carefully cut along the edge of the masking tape.
28. Remove burrs from the cut edge of the bumper, then set aside on the soft non abrasive surface.



Warning: Cutting operations can result in flying debris, safety glasses should be worn. Work safely; keep fingers clear of cutting blade.



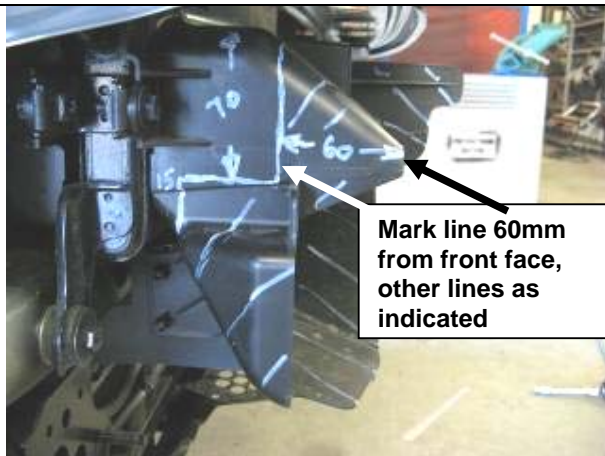
PREPARATION FOR MOUNT BRACKETS



29. Remove foam absorber bar and set aside, this will not be reused
30. Remove crash bar then beam mount brackets and set aside, retain only M10 flange nuts for reuse.



31. Remove tow hooks and set aside, these will be reused.



32. Mark the lower section of the air scoop for the power steering radiator as shown. This is for trimming to clear the mount brackets.

Note: The 60 mm line from front as indicated goes right over the top of the scoop and down the other side, then steps back in the same at 70mm from top, then back to 15mm and down as shown this side.

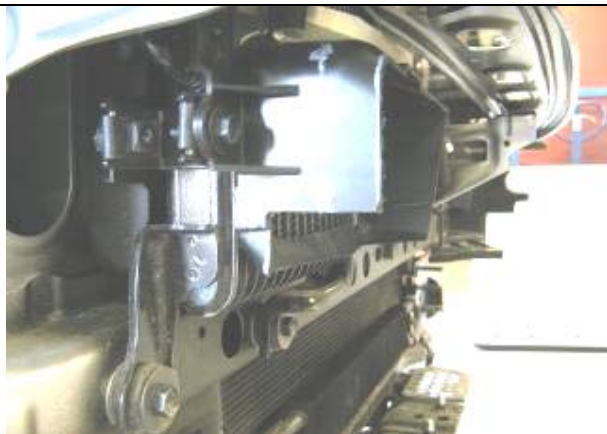


33. Remove scoop and cut using jigsaw or similar and remove burrs.

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



PREPARATION FOR MOUNT BRACKETS

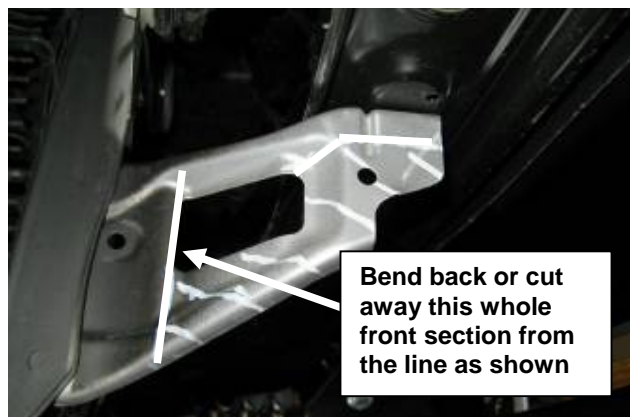


34. Refit to vehicle, it should now look like this.



35. Mark out and trim the air deflector on the LHS of the vehicle using a pair of tin snips or similar.

Hint: You can do this on the vehicle as shown below.



If fitting 12000lb winch only

36. Undo the bolt securing brace to grille cross member
37. Relieve or bend back the forward section of the vehicle sheet metal member as shown to clear winch tie rod.



38. Fit the cut bumper and secure.
39. Fit the grille
40. Fit pinch weld to each end of the bumper as shown
41. Secure the wing return in the wheel arch area with one of the original dome head screws each side.

PREPARATION OF BULL BAR



If fitting winch, proceed through steps 42 to 53, otherwise go to step 54 on.

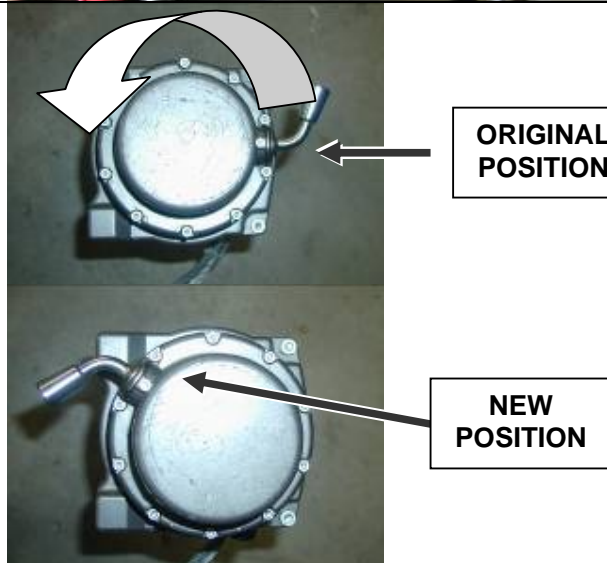
42. Fit large rubber grommets to holes in the top pan and in the uprights inside the upper area of the bull bar.
43. If fitting fog lamps, factory loom can be routed through the grommets in uprights and along inside the lower lip of the top pan.



44. Fit control box bracket to control box studs as shown. *Picture also shows routing of leads through grommets in pan.*



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

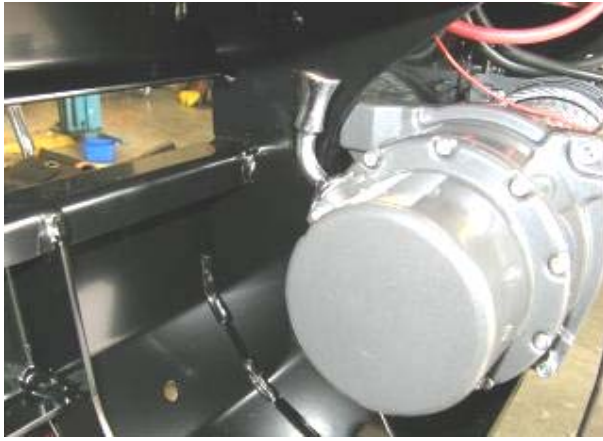


46. Prepare winch for fitting by undoing the cap screws on the gearbox end.
47. Then rotate the end cap and gearbox in a counter clockwise direction 144° (four hole pitches) while looking down at the gearbox, as shown (for 12000lb winches rotate clockwise 72°)
48. Tighten the cap screws ensuring the gearbox handle operates freely.
49. For 8-9500lb only rotate the motor end 90° clockwise (elec. terminals will be up, see step 52)

NOTE: 12000lb motor is in correct position as supplied

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.

PREPARATION OF BULL BAR



50. Position the winch with the mount face 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 8-9500lb (opposite for 12000lb). The cable must spool off the bottom of the winch.

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



51. 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.

NOTE: The 12000lb winch should be located at the bottom of the adjustment slots.

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.



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

53. Connect up the wires to the winch.

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

PREPARATION OF BULL BAR



If not fitting winch

54. Fit rubber extrusion to cover panel as shown starting and finishing at the centre of the large radius side which is the back then trim to length
55. Fit the panel to the top of the bull bar as shown using M6 pan head stainless steel screws and washers, flange nuts
56. As in step 40, fit rubber grommets but only to large holes on the inside of the bull bar, not to large holes in top face of bull bar.

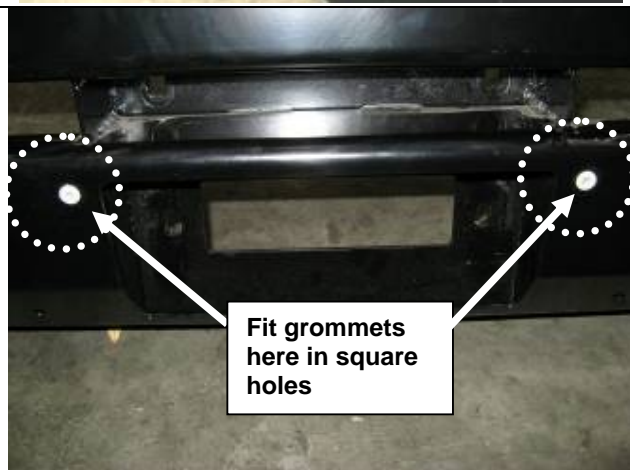


57. Fit the indicators into the recesses both sides of the bull bar as shown, using supplied installation instructions with light kit.



58. Fit 4 x M6 cage nuts to bottom inside face of lower pan in square holes as shown.

Hint: A small flat blade screwdriver may help to press nut cage flanges into hole.



59. Fit grommets to holes in front of pan for number plate mounting

FITTING MOUNT BRACKETS



Packers are supplied to compensate for body to chassis variation if required

60. Insert clevis nut into rectangular hole in the inboard face of chassis, ensuring the threaded end is inserted first.

The nut when fitted correctly should fit square and locate into the chassis rail.



61. Install the chassis stud by fitting 2 nuts to the end of the stud and tightening until thread bottoms out.

62. Remove nuts and repeat for the LHS.



63. Loosely fit the mounting brackets to the chassis securing with the 8mm packers and flange nuts.

64. Secure using existing OE M10 flange nuts, **but do not do up tight**.



65. Tap the outer flange of the mount brackets until they are hard up against the tow hook mount area. Nip up the lowest outboard nut on each bracket. Brackets should be about 935mm apart



FITTING BULL BAR TO VEHICLE



66. With the aid of a lift table or one or more assistants carefully and safely lift, position and bolt the bull bar to the mounts using 6 x M12 bolts, large flat washers and spring washers. Centralise the bar to the front of the vehicle and adjust height.
67. Fit the cross brace to underside of lower pan and on top of gussets in mount brackets. Use M10 x 30mm SEMS bolt and washer sets, flange nuts **but do not do up tight**.



68. Adjust the bar height leaving approximately 15mm gap between top of wing angled face and the pinch weld on bumper.
69. Tighten M12 bolt sets and M10 brace bolts.



70. Remove each tow hook bolt in turn, apply loctite © to threads and tighten up.
71. Tighten M10 flange nuts to chassis studs to 56Nm.
72. Then tighten up the long M12 chassis studs, ensuring that the clevis nut is positioned correctly over the hole in the chassis.



73. Using the M10 pilot holes in mount brackets (located up 175mm from bottom face of bar), drill pinning hole through uprights on bull bar. Fit M10 screw, washer set and flange nut and do up tight.

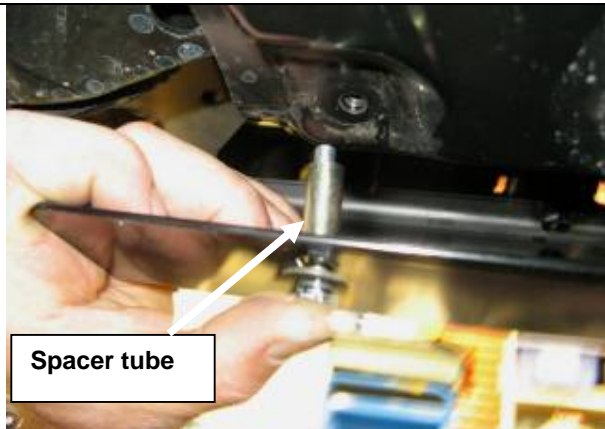


Warning: Drilling operations can result in flying metal debris, safety glasses should be

FITTING BULL BAR TO VEHICLE



74. Wire up indicators. Find vehicle indicator wires at the rear of the indicator lamps, as shown then scotch lock loom extensions which are supplied in fitting kit. Secure wiring with cable ties when complete.
75. Red loom wire to green/yellow indicator wire and black loom wire to white indicator wire.
76. If fitting OE fog loom through bar, connect loom to lights and connection point on vehicle

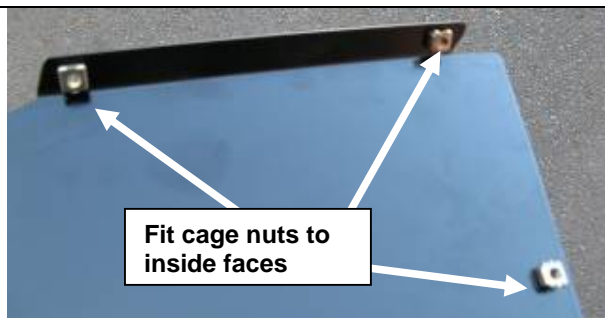


77. Fit stone tray using 4 x M6 bolts and washer sets at front under bull bar and 2 x M6 x 40 bolts, washers and 18mm long tube spacers at two locations into existing sump guard front section as shown.



78. If winch fitted, fit off winch hook.
79. If winch fitted, apply double sided tape strip to top back of number plate.
80. Fit number plate with pan head screws into grommets. If winch not fitted number plate covers RFL opening.

FITTING BULL BAR TO VEHICLE



81. Fit 5 x M6 cage nuts to each wing splash panel as shown on **inside** faces.

Note: LHS shown with 3 of 5 cage nuts inserted.

82. Fit panels up inside wings, secure using M6 x 20 black bolts and washer sets. Fix flange on panel to side of main mount bracket using M8 bolt set.



83. Mark out and drill 2 x Dia 7.0 mm holes in each fender liner for securing to the splash panel flange.

Hint: Scribe a line on the liner parallel to the splash panel, measure and mark the position of the required holes up from the marked line.

84. Use M6 x 20 black bolts and washer sets to secure the fender liner to the panels.

85. Trim the fender liner end flush with the splash panel face as shown.

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



NOTE:

- ◆ **Connect wiring to fitted lights and winch.**
- ◆ **Check operation of winch and all lights.**
- ◆ **IMPORTANT: Check that all piping and wiring is clear of sharp edges and pinch points. Adjust any piping to clear the bull bar or mounts by a minimum of 15mm.**

FINAL PRODUCT ON VEHICLE

