



FITTING INSTRUCTIONS

Part Number: **3420100**
Product **ARB WINCH BULL BAR**
Description:
Suited to **TOYOTA FJ CRUISER**
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

ARB 4x4 ACCESSORIES

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FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

Basic Tool Kit	External Circlip pliers
17mm Tube Spanner	Power Drill 13mm capacity
7mm, 10mm and 13mm drill bits	Cold chisel

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	4lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12	77Nm	57lbft

OPTIONAL LIGHT SETS TO SUIT THIS PRODUCT:

- ◆ ARB P#9249FCK 100mm 55WATT FOG LAMP KIT
- ◆ Up to IPF 900 SERIES FOG OR DRIVING LIGHT SETS

Fitting Kit 6172097 PARTS LISTING

APPLICATION.	PART NO.	QTY	DESCRIPTION
Mount Assembly To Chassis	3756848	1	Bracket Mount Assembly
	3756851R	1	Bracket Mount Brace RHS
	3756851L	1	Bracket Mount Brace LHS
	3193741	2	Captive Nut Plate
	6151306	2	Nut Cage M12 x 1.75
	6151255	8	Bolt M12 x 1.75 x 40mm
	6151189	6	Nut M12 x 1.75
	6151094	2	Bolt M12 x 1.25 x 30mm
	4581049	18	Washer Flat M12
	4581050	10	Washer Spring M12
	5846401	4	Spacer 8mm
Bull Bar To Impact Absorber	6151357	10	SEMS Bolt M10 x 1.5 x 30mm
	4581040	10	Washer Flat M10 x 2mm
	6151026	10	Nut M10 x 1.5
Stone Tray to Bull Bar	6542088	1	Stone Tray
	6151300	4	Nut Cage 6mm
	6151213	4	Bolt M6 x 20mm
	4581084	4	Washer Flat M6
	4581287	4	Washer Spring M6
Indicators To Bull Bar	3162468	2	Insert Fog Light Surround
	6151317	8	Screw 8-18 x 5/8 Pan Head
	3162467R	1	Surround Fog & Indicator RHS
	3162467L	1	Surround Fog & Indicator LHS
	6582425R	1	Clamp Indicator & Fog Surround
	6582425L	1	Clamp Indicator & Fog Surround
	6821151R	1	Indicator RHS
	6821151L	1	Indicator LHS
	6151128	6	Nut Flange M6
6821152	2	Turn signal / clearance light loom	
Winch To Bull Bar	EG50	1	Rubber Grommet
	3756499	1	Bracket Control Box
	6151021	2	Bolt M8 x 20mm
	4581044	2	Washer Flat M8
	6151132	2	Nut Flange M8
	BLB560	2	Cable Black 560mm
	4581040	4	Washer Flat 3/8" x 1"
	6151074	2	Bolt 1 3/4" x 3/8" UNC
Number Plate To Bull Bar	6821189	2	Grommet Nylon Nut
	6151384	2	Screw Pan Hd Phil 5x16mm
	6781408	1	Tape Double sided
Miscellaneous	6821132	2	Rubber Grommet 3/8" ID
	180302	8	Cable Ties
	3162152	2	Plastic Plug 16mm DIA
	3756857	1	Bracket Bracing Lower Grille

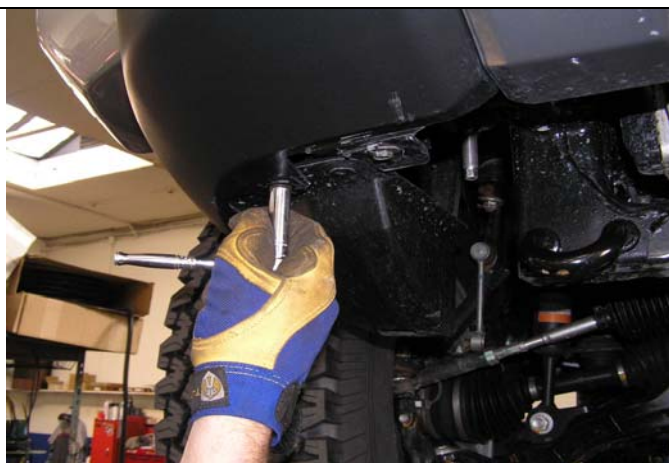
FITTING PROCEDURE



1. Remove protective plate if fitted



2. Remove front fasteners only from stone tray. Retain fasteners for reuse.



3. Remove lower bumper fixing screws and screws in wheel arch area



4. Remove grille. Screws are located in tabs at top of grille. Once these are removed carefully release clips some are located along the inside lower section.

FITTING PROCEDURE



5. Remove scrivets along top of bumper



6. Remove screw then remove front bumper cover from vehicle.

NOTE: Prise the rear lip of the bumper off the retaining spigot where screw was located (as shown with arrow) then pull bar wing outward.

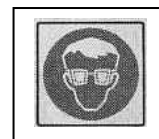


7. Remove front bumper reinforcing bar.

NOTE: Retain the 8 x flange nuts removed for fitment of the bull bar chassis mount.



8. Using the 13mm drill bit and power drill, drill out the M8 captive nut located at the outboard side of the chassis as shown, on both sides of the vehicle.

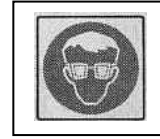


Warning: Drilling operations can result in flying metal debris, safety glasses should be

FITTING PROCEDURE



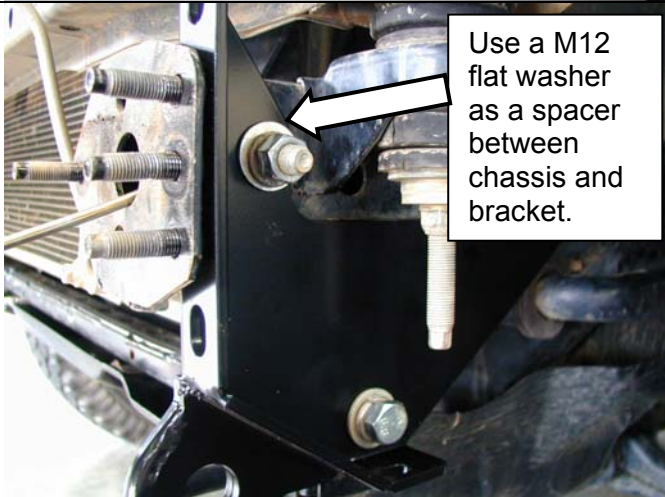
9. Check that the nut body is completely removed, if it is not cleared, using a cold chisel and hammer chisel the remainder off.



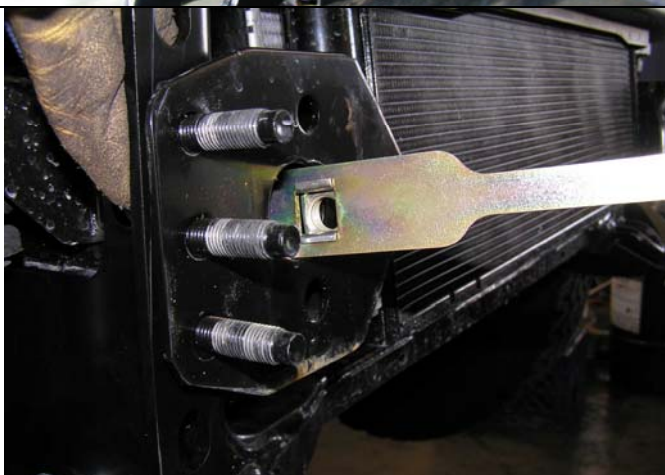
Warning: Hammering and chiselling operations can result in flying metal debris, safety glasses should be worn.



10. Fit an M12 cage nut to each of the captive nut plates 3193741.

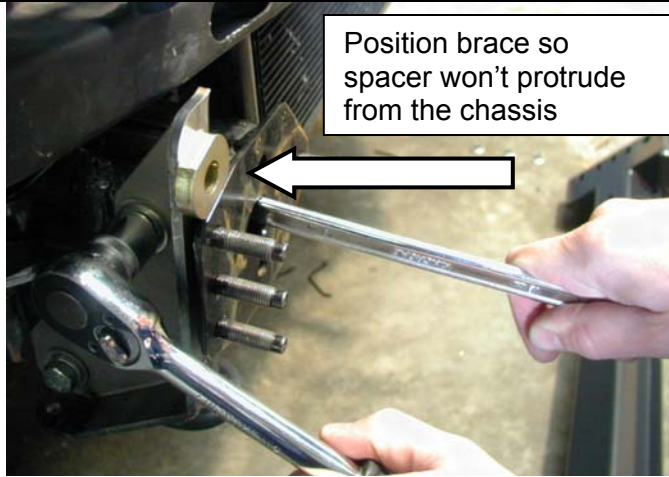


11. Fit the chassis mount braces to the vehicle using the M12 x 30mm fine pitched bolt, M12 spring and flat washers supplied in the lower hole. Use an M12 flat washer as a spacer between the brace and the chassis at the upper hole and fix with an M12 x 40mm bolt M12 spring and flat washers and M12 x 1.75 nut. Do not tighten the bolts.



12. Insert the captive nut assembly through the front of the chassis and line it up with the hole at the end of the mount brace. Fix in place with the M12 x 1.75 x 40mm bolt, M12 flat and spring washers. Break off the end of the captive nut plate. Do not tighten yet.

FITTING PROCEDURE



13. Hold the 8mm spacer against the chassis mount brace forward facing surface and position the brace so that the spacers sit just below the surface of the chassis front face. Tighten the bolts.



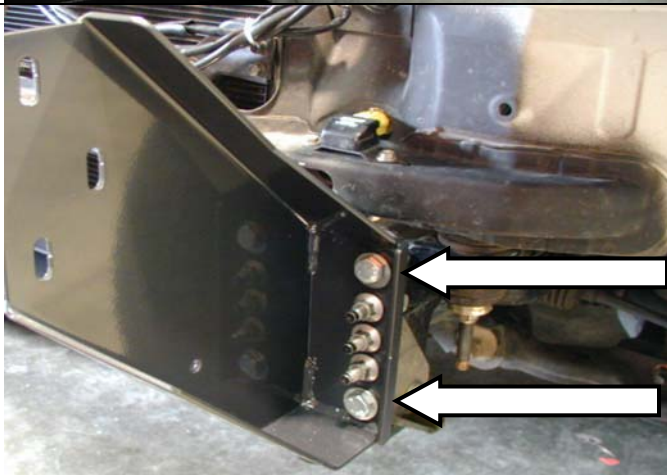
14. Fit the chassis mount bracket to the chassis using the original flange nuts removed with the bumper reinforcing bar. Centre the chassis mount bracket and tighten.

CAUTION: When fitting the Chassis mounting bracket carefully bend the air-conditioning pipe out of the way.



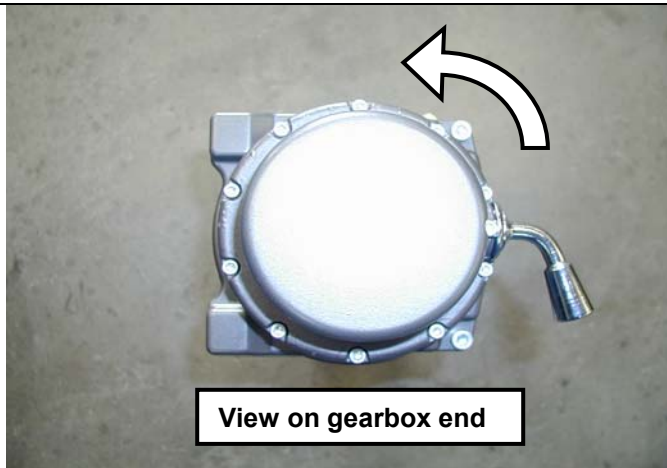
15. If required, carefully bend piping clear of mount bracket assembly, with **a minimum clearance of 20mm (3/4")**.

CAUTION: Piping must not rub on sharp edges, secure with cable tie and protective sheath if required.



16. Fix the chassis mount bracket to the chassis mount brace using M12 x 40mm bolts, M12 spring and flat washers, the 8mm spacers and M12 x 1.75 nuts. Tighten bolts

FITTING PROCEDURE



NOTE: If fitting winch continue through step 17, if not skip to step 29

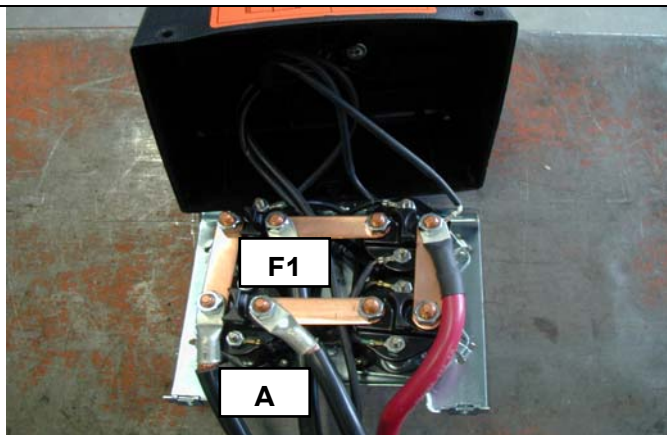
17. For ease of access the winch gearbox handle needs to be rotated. To do this undo all the cap screws, carefully lift the gearbox clear of the winch body so as not to damage the gasket. **(Do not lift the gearbox more than a couple of millimetres)** Rotate the gearbox anti-clockwise two hole spaces (72°). Re-fit the cap screws.



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



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19. Remove the three screws from the control box and remove the cover.
20. Replace the two cables marked "A" and "F1" and replace them with the two cables (BLB560) supplied with the fitting kit. Label the cables the same as the original to assist in the wiring of the winch.



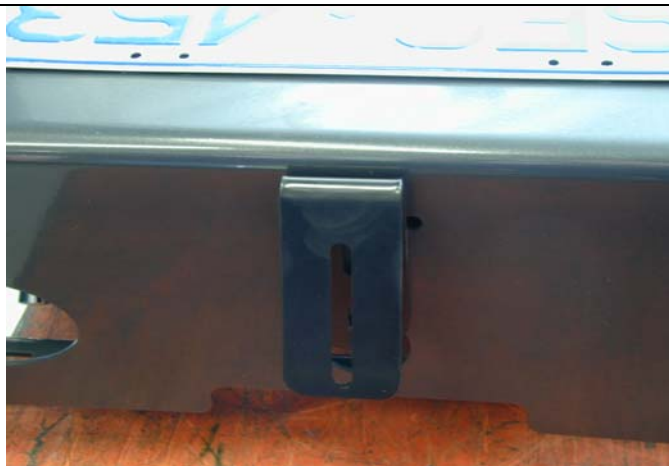
21. Place the winch on a table with the feet facing up and using an assistant; carefully lift the bull bar on top of the winch.
22. Attach the winch to the bull bar using two 1 1/2" x 3/8" bolts from the winch fitting kit, 3/8" spring washer and 3/8" flat washers in the top holes.
23. Fit the 4 x M6 cage nuts from inside of the lower flange on the pan, where the stone tray will bolt up.

NOTE: Access to this area for cage nut fitment will be restricted once the RFL is fitted so it is important to insert these now.

FITTING PROCEDURE



24. Position the roller fairlead, and remove the circlips from the lower of the vertical rollers and push the pins up to give access to the lower bolts.
25. Fix the roller fairlead to the bar using the 1 3/4" x 3/8" bolts, spring and flat washers



26. Fit the control box bracket to the bull bar using two M8 x 20mm bolts, M8 flat washers and M8 flange nuts.



27. Fit the control box to the control box bracket and connect the power cables to the winch as per the winch instructions.
28. Connect the ground wire to the tension bar of the winch.

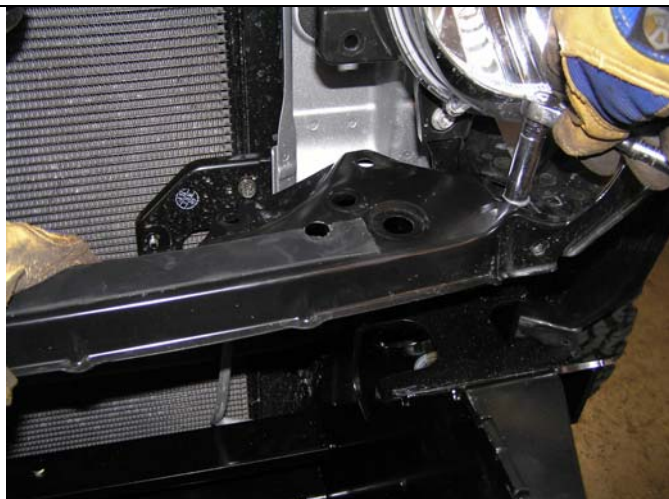
CAUTION: Cable-tie all cables together and keep all cables clear of sharp edges and all moving parts.



29. Insert square grommets into holes in front of bar for licence plate fixing. Place the double-sided tape along the top edge of the number plate. Using supplied black Hi-lo screws, attach the licence plate to the bull bar.

NOTE: If winch is not fitted, licence plate can be located lower on bar front to cover RFL opening.

FITTING PROCEDURE



30. Remove original grille brace member. Retain screws.

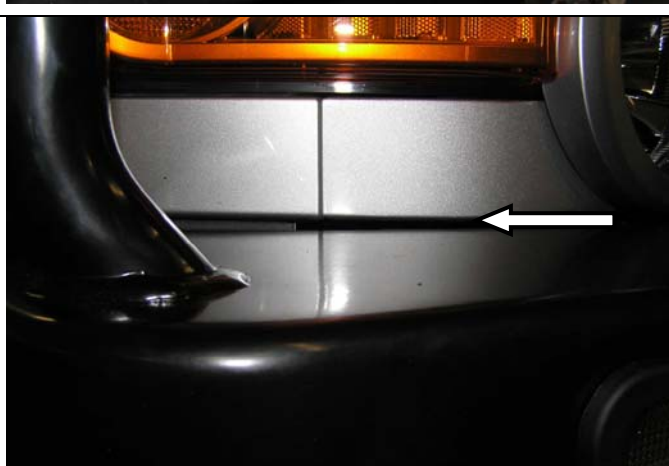


31. Fit supplied replacement brace and secure with original fasteners



32. With the help of an assistant position the bull bar on the chassis bracket and fix with six M10 x 30mm bolts, M10 spring and flat washers.

CAUTION: Nip up bolts, but do not tighten them yet.



33. Position the bull bar so that there is an even gap of approximately 5mm from the top face of the bar to the underside of the body edge. Then tighten all the bolts.

FITTING PROCEDURE



34. With the bull bar in position drill Dia10mm pinning holes, one though pilot hole in mount bracket and one through hole in upright for both sides of mounts.



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

35. Fix in place using two M10 x 30mm SEMS bolts, M10 Flat washers and M10 x 1.5 nuts per side.



36. Fit the bull bar stone tray by sliding the tray under the front of the vehicles original stone tray and fixing in place with the original bolts from the vehicles stone tray.
37. Fit the front of the stone tray to the bull bar with four M6 x 20mm bolts, M6 large panel washers and M6 spring washers.



38. Trim fender liner horizontally with sharp knife approximately 30mm (1 1/4") below hole as shown.



39. Trim corner as shown.

FITTING PROCEDURE



40. Drill 7mm securing holes in the liner and the plastic bracket arm as shown.



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41. Feed a cable tie through holes and secure.
42. The painted color coded area of vehicle visible in the region around the trimmed fender liner may be spray painted black to hide this area.



43. Attach the fog lamp insert to the indicator surround with four 8-18 pan head screws supplied.



44. Attach the indicator/clearance lamp to the indicator surround with the self-tapping screws provided. Place the plastic sleeves over the ends of the screws.

FITTED PRODUCT

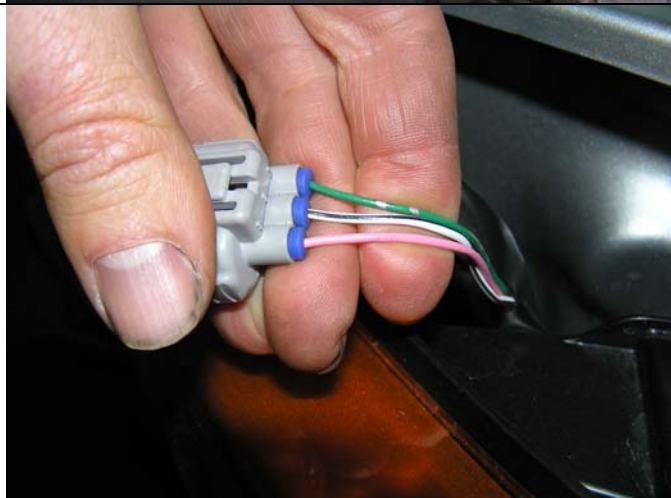


45. Place the clamp brackets for light surrounds inside the wing opening as shown.

HINT: Angle the bracket first then put it into the light surround opening in the wing, tilt it to the correct angle and position centrally once inside wing.



46. Fit light surround assembly (NOTE: Fog lamps 4249FCK optional extra). Fasten in position with 3 x M6 flange nuts on studs at rear of light assembly inside wing.



47. Wire up lights using loom extensions supplied in fitting kit.

Wiring loom detail for flasher and clearance lamps supplied standard with bullbar;

Red	Clearance lamp
Green	Flasher lamp
Black	Ground

Wiring loom detail on FJ Cruiser;

LHS

Blue	Flasher
Green	Run
Wh/Blk	Ground

RHS

Pink	Flasher
Green	Run
Wh/Blk	Ground

NOTE: Other wiring detail supplied with accessories.

NOTES:

When finished make sure all bolts are tightened and that all wiring is clear of hot, sharp and moving parts.

Also supplied in the kit are two 3/8" rubber grommets and two 16mm plugs. The rubber grommets are for the two holes in the top pan if lights are being fitted. The two plastic plugs are for the holes in the top surface of the wings if no CB aerials are going to be connected.

CAUTION: If winch fitted, check that the air conditioner piping is clear of the winch by at least 20mm (3/4"). Fit a sheath around tubing and secure with cable tie to prevent chaffing which may lead to piping damage.

FITTED PRODUCT ON VEHICLE

