



FITTING INSTRUCTIONS

Part Number: **3415150 F/Kit 6173369**

Product Description: **ARB DELUXE WINCH BULL BAR (suitable for up to 12000lb winch)**

Suited to vehicle/s: **TOYOTA LANDCRUISER 200 SERIES 2012 ON**

- For vehicles fitted with front camera, order camera relocation kit 3515030.
- For vehicles equipped with 19W fog lamps 3500440 loom is required. Do not use factory fog light wiring.

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

Corporate Head Office

42-44 Garden St
Kilsyth, Victoria
AUSTRALIA 3137

Tel: +61 (3) 9761 6622
Fax: +61 (3) 9761 6807

Australian enquiries
North & South American enquiries
Other international enquiries

sales@arb.com.au
sales@arbusa.com
exports@arb.com.au

www.arb.com.au

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 & 2 x 300mm rulers
	Paint black fast drying

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:

- ◆ FOG LAMP SET P# 6821201, P#3500440 LOOM KIT TO SUIT ALL MODELS
- ◆ 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 x 1.75
	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	4	SEMS Bolt M10 x 1.5 x 30mm
	6151321	4	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
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
Number Plate To Bull Bar	6821189	2	Grommet round
	6151384	2	Screw self tapping pan head
	6781408	1	Tape double sided
Wing Inner Panels	6522884R	1	Panel Inner Wing RH
	6522884L	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	
Buffers	3163018R	1	Buffer
	3163018L	1	Buffer
	6151128	12	Nut M6 Flanged
Lights	3163015	1PR	Light Surround Set
	6821151R	1	Indicator
	6821151L	1	Indicator
	6821152	2	Loom
	180701	6	Scotch Locks
	180302	6	Cable Ties
Miscellaneous	6191019	2	Trim Pinch Weld
	3788059	1	Template Bumper Cutting
	3788060	1	Template Bumper Cutting
	EG50	2	Grommet Dia 50mm
	180302	5	Cable ties
	6821257	1	Conduit 13mm x 850mm
	6821254	1	Conduit 13mm x 670mm
	3163074	2	Front Park Assist Sensor Blanking Plug

OPTIONAL: Camera Relocation Kit (3515030)	3759010	1	Bracket Camera Mount LC2100
	6151282	3	Nut Flange M5
	6151281	3	Screw M5 x 12
	6821271	1	Wiring Camera Loom Extension
	6151180	2	Bolt M6 x 1 x 20
	6151042	2	Washer Spring M6
	6151046	2	Washer Flat M6
180302	4	Cable Ties	
VX and Sahara fog lamps (19W fog lamps)	3500440	1	Auxiliary light wiring loom

REMOVAL OF BUMPER



1. Remove number plate



2. Remove inner guard bumper retaining screws three per side using T30 Torx key



3. 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



4. 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.



5. Remove lower bumper retaining screws.



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

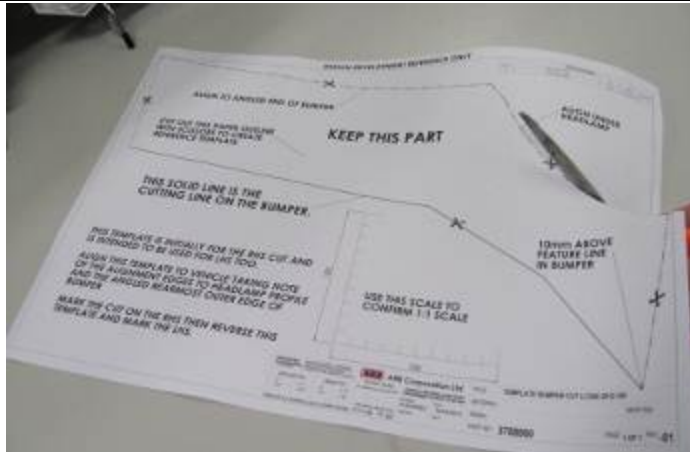


7. Remove retaining screws from top of grille
8. Pull upper RH and LH grill corners to release from upper clips
9. Remove RH and LH splash guards located at the recovery hooks

MASKING BUMPER FOR TRIMMING



10. Apply wide masking tape along bumper as shown



11. Cut A3 paper templates along identified cutting line.

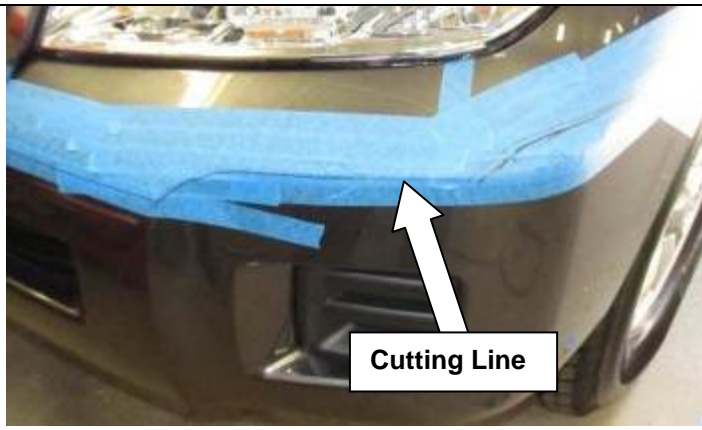
NOTE: There is a scale on the sheet to confirm that the template is 1:1 scale, this is critical.



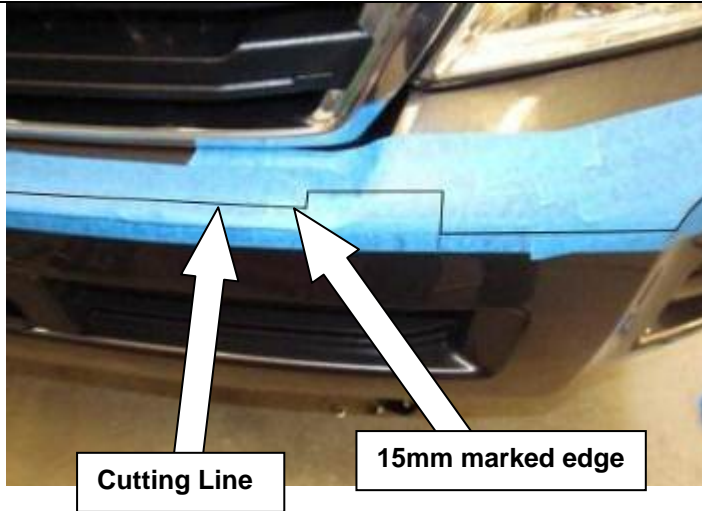
12. Apply template 3788060 to outer corner of LHS bumper as shown aligning accurately to features such as the lower line of headlamp and end of bumper. Tape in position



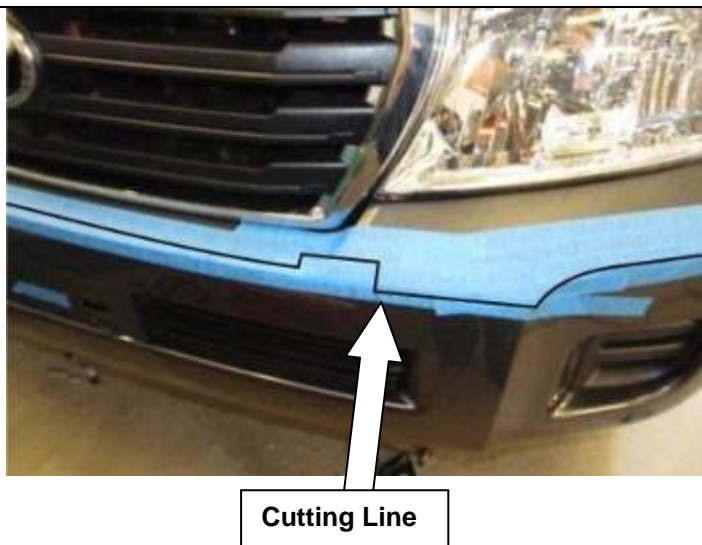
13. Now position template 3788059 by aligning inside edge coincident with number plate mount plate and the templates lower edge with the upper edge of the lower grille as shown. Mark around the template.
14. Reverse templates and apply to RHS of bumper and follow same steps as LHS.



15. Mark a line 10 mm down from the bumper edge as shown



16. Now using a straight edge mark a line connecting the 15mm mark edges from the paper templates on the centre of the bumper as shown
17. Now join the two marked lines by bending a flexible ruler around the bumper as shown



18. The bumper is now marked out for cutting

Bumper Removal



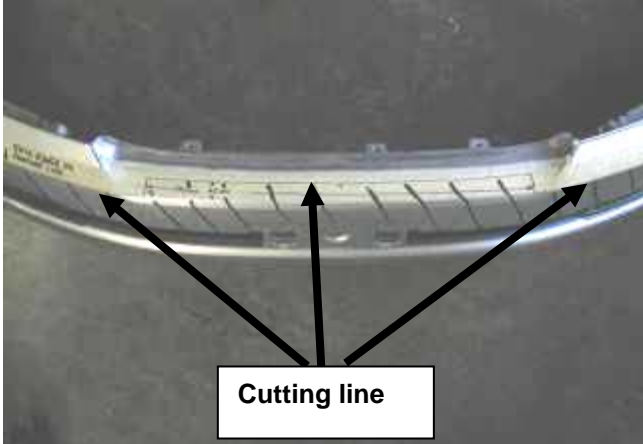
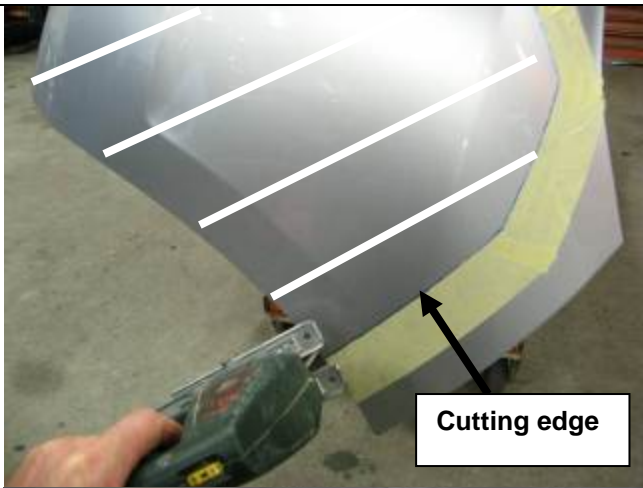
19. Remove plastic plugs securing upper bumper tabs to cross member.
20. You can now remove the bumper and grille and place on soft non abrasive rug or similar, it is best to do this with the help of another person.
21. If headlight washer system is fitted disconnect the main line from the vehicle to the bumper circuit and clamp/crimp it to prevent washer fluid from leaking out
22. If factory fog lights and are fitted, disconnect the fog light harness from the vehicle by opening the white flip over clip on the connector and releasing the loom plug.
23. **NOTE: As bumper is being removed, check that all wiring looms and washer lines are disconnected.**



24. Remove the bumper and grill.



25. If applicable unclip and remove headlight washer plumbing, parking sensor wiring loom and fog light wiring loom from the rear of the bumper.



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 marked edge of the masking tape.
28. Remove burrs from the cut edge of the bumper, and then set aside on a soft nonabrasive surface.

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



29. If fitting 12000lb winch, undo bolt securing the brace attached to the centre of grille cross member.

PREPARATION FOR MOUNT BRACKETS



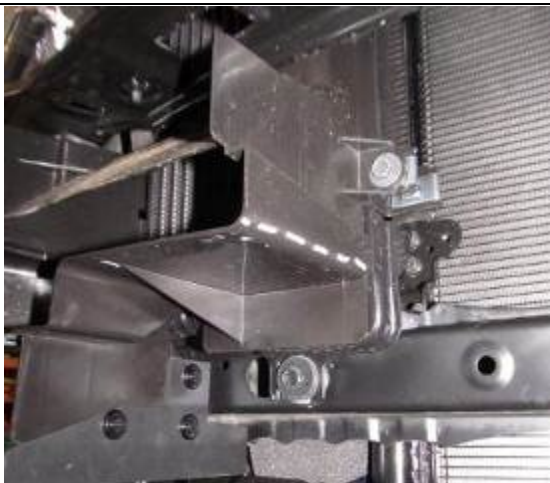
30. Remove foam absorber bar and set aside, this will not be reused
31. Remove crash bar then beam mount brackets and set aside, retain only M10 flange nuts for reuse.



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



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

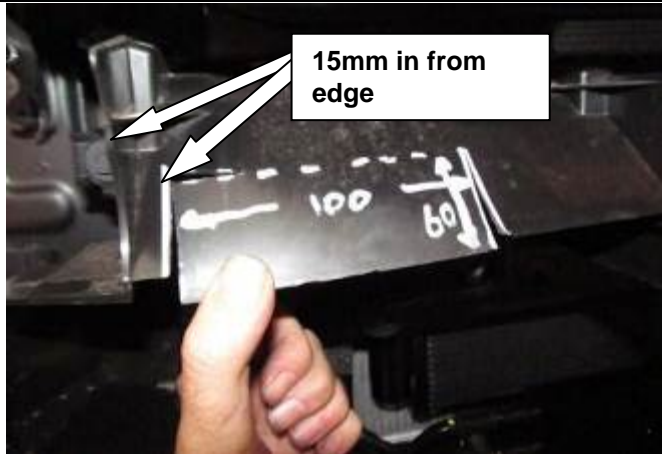


34. Now mark along the lower bend as shown, now cut the shroud along the marked edges as shown

PREPARATION FOR MOUNT BRACKETS

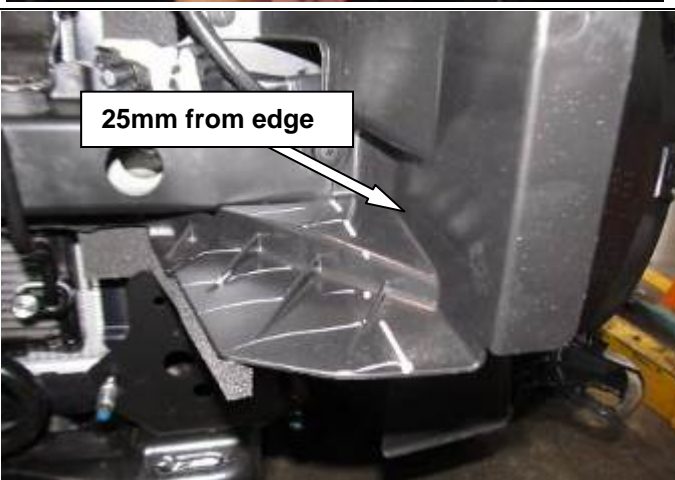


35. Once the cut is complete it should look as displayed.



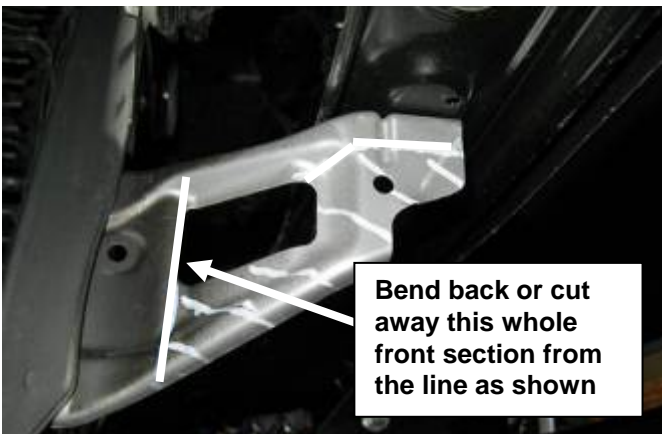
36. Now on the upper face of the power steering shroud mark and cut as shown

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



37. Mark out and trim the air deflector on the LHS of the vehicle using a Stanley knife or similar.

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

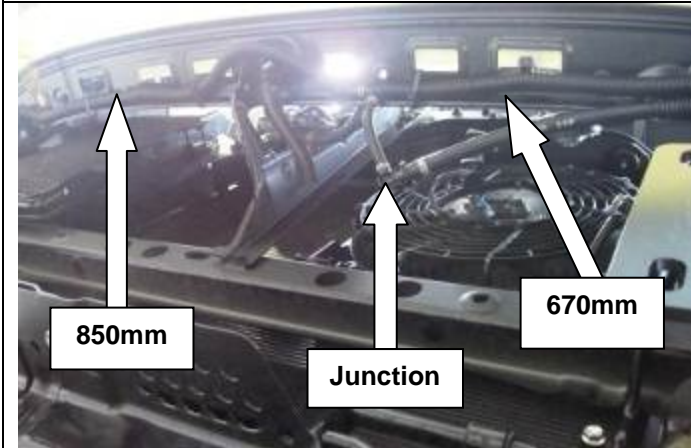


If fitting 12000lb winch only

38. Relieve or bend back the forward section of the vehicle sheet metal member as shown to clear winch tie rod.



39. Fit the cut bumper and grille and secure.
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.



42. Fit 2 x large rubber grommets to holes in uprights inside the upper area of the bull bar.
43. If fitting fog lamps, factory loom can be reused and routed through the grommets in uprights and along inside the lower lip of the top pan.
44. If refitting HID washer unit, apply conduit to headlight cleaner hose. Fit the 850mm length on RH side of the junction and 670mm length on LH side of the junction and refit Headlight cleaner hose back to vehicle routing along the underside of the grille support member as shown.

PREPARATION OF BULL BAR



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

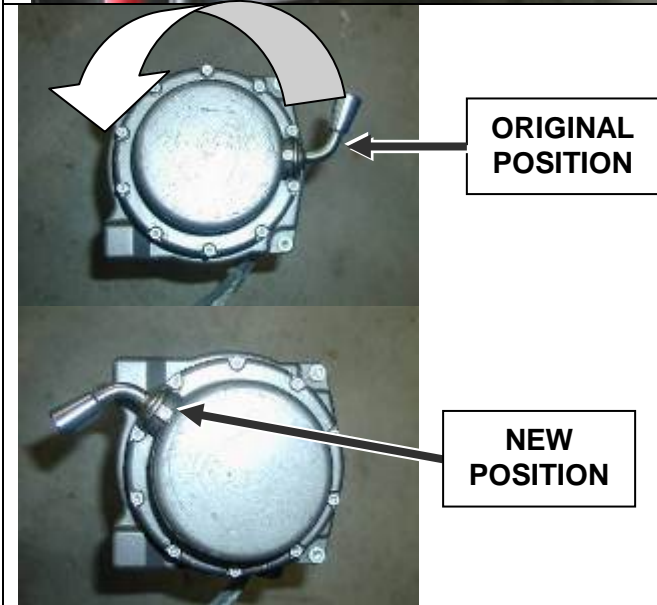


FITTING WINCH

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



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

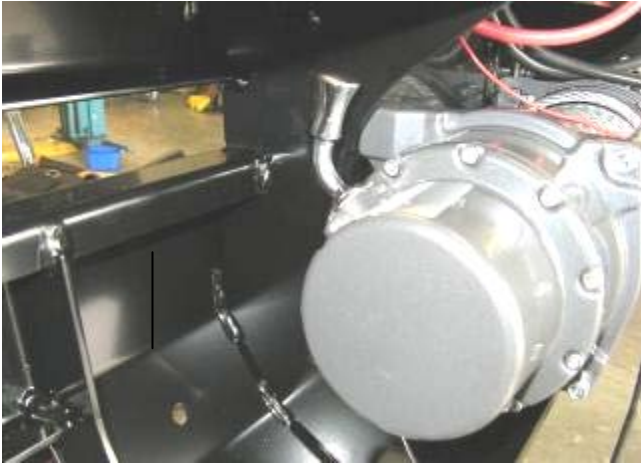


50. Prepare winch for fitting by undoing the cap screws on the gearbox end.
51. Then rotate the end cap and gearbox in a counter clockwise direction 144° (four hole pitches) while looking down at the gearbox, as shown (for 12000lb winches rotate clockwise 72°)
52. Tighten the cap screws ensuring the gearbox handle operates freely.
53. For 8-9500lb only rotate the motor end 90° clockwise (elec. terminals will be up, see step 56)

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



54. 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 all winches except 12000lb winch is on the opposite side. The cable must spool off the bottom of the winch.

NOTE: The 12000lb winch will need to be at the bottom of the adjustment slots.

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



55. 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.



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

57. Connect up the wires to the winch. Note that the 12000lb winch requires supplementary wire kit 3512050. Connect the longer wires to control box connections, marking them for correct connection to motor terminals.

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

PREPARATION OF BULL BAR



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. If parking sensors are not to be fitted push blanking plugs into the sensor holes as shown.



60. Carefully slide top section of buffer past edge of cover strap as shown



61. Adjust buffers so they sit neatly on the bull bar profile then secure using M6 flange nuts over studs.

NOTE: Do not over tighten nuts as damage to buffer may result.

FITTING MOUNT BRACKETS



62. 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.



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

64. Remove nuts and repeat for the LHS.



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

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



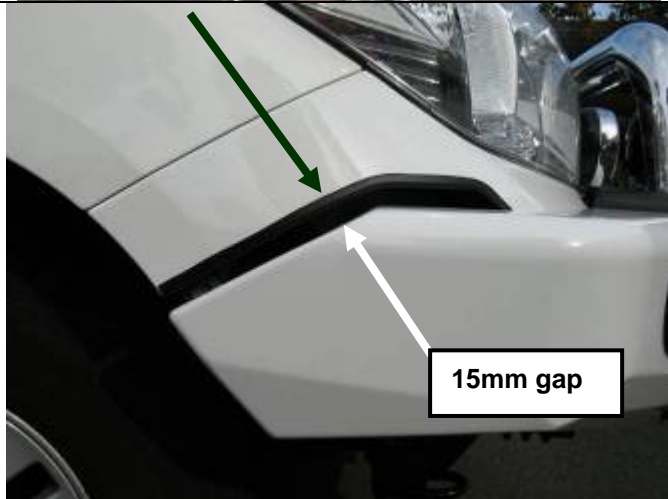
67. Tap the outer flange of the mount brackets until they are hard up against the tow hook mount area. Nip up the lowest outboard nut on each bracket. Brackets should be 935mm apart



FITTING BULL BAR TO VEHICLE



68. With the aid of a lift table or one or more assistants carefully and safely lift, position and loosely 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.
69. 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.**



70. Adjust the bar height leaving approximately 15mm gap between top of wing angled face and the pinch weld on bumper.
71. Tighten bar mount M12 bolts to specified torque.
72. Tighten the factory M10 flange nuts to chassis studs to **67Nm.**



73. Then tighten up the long M12 chassis studs, ensuring that the clevis nut is positioned correctly over the hole in the chassis.
74. Tighten brace bolts to specified torque.
75. Remove each tow hook bolt in turn, apply Loctite 262 © to threads and tighten to specified torque.



76. Using the M10 pilot holes in the mount brackets drill the two pinning holes through uprights on bull bar on each side. Fit M10 bolt and washer sets and flange nuts and tighten to specified torque.



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

FITTING BULL BAR TO VEHICLE



77. If headlight cleaner system to be fitted, reconnect circuit at main joint to vehicle and also hoses to tails of spray heads



78. Remove and discard screws and speed nuts on supplied indicators.
79. Using the 25mm long pan head screws in the fitting kit, fit indicators to light surrounds, note that the indicators are handed and drain holes must be on the lowest edge.



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



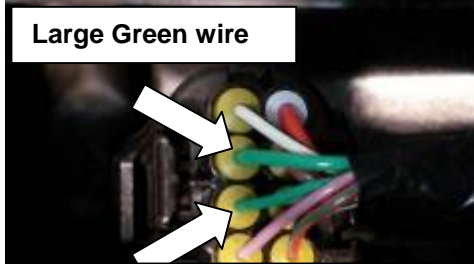
81. Fit insert assemblies into the wings as shown
82. Fit the 4 x clamps to secure light assembly in position.
- HINT: You can loose fit the top two screw and clamp sets before loading the assembly into the wing to make fit up easier.**

CONNECTING INDICATOR/CLEARANCE LIGHTS



Parker lamp wiring low grade

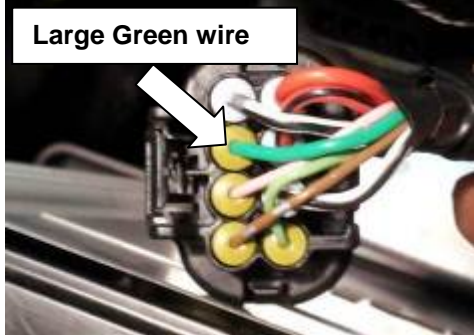
Large Green wire



Small Green wire (do not connect to this)

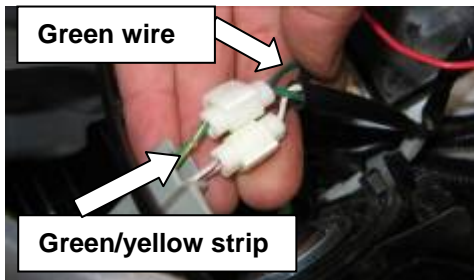
Parker lamp wiring high grade LHS plug shown

Large Green wire



Parker lamp wiring high grade RHS pug shown

Green wire



Green/yellow strip

Indicator lamp wiring

1. **Wire up indicators and parking lamps.**
2. **LOW GRADE:** Connect red wire from supplied loom to green wire from parker lamp. Connect black wire from supplied loom to white/black indicator wire. Connect green loom wire to green/yellow indicator wire.
3. **HIGH GRADE:** For high grade vehicles with HID and LED vehicle parker lamps, follow above instructions for indicator connection and then connect signal wire for supplied loom to **larger** green wire in vehicle harness for parker lamp operation, see pictures across.
4. Use supplied scotch locks for the electrical connections then secure wiring with cable ties when complete.

HINT: Temporarily undo the battery clamps and move batteries sideways to gain better access.

CONNECTING FOG LIGHTS

NOTE: The wiring in vehicles fitted with factory 19W fog lights is not suitable for running ARB fog lamps.

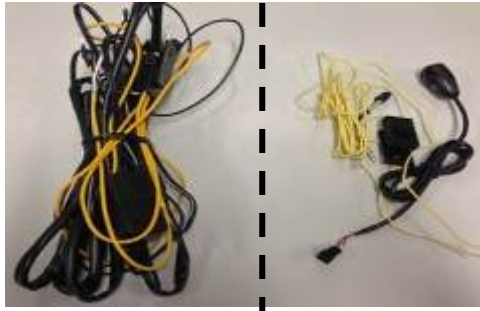
For vehicles without factory fog lamps:

5. Install ARB wiring loom 3500440 and switch into vehicle. Refer to instructions supplied with loom. Place switch inside cabin in a suitable position.
6. Connect ARB fog lights (# 6821201) to wiring loom.

CAUTION: Ensure that all cables are securely fastened away from sharp, abrasive or hot surfaces.

Keep these items

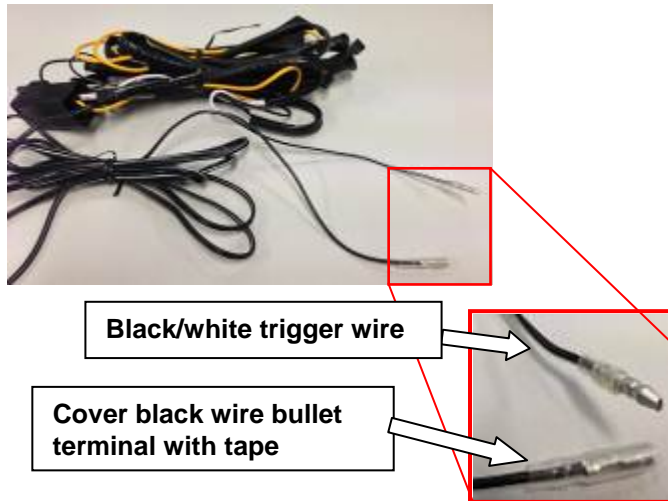
Discard these items



For vehicles with factory fog lamps:

7. The factory fog light switch can be used in conjunction with the ARB loom 3500440 to power the ARB fog lights.
8. Discard loom switch and thin yellow wire from 3500440.
9. Install ARB wiring loom 3500440 into vehicle. Do not install switch or thin yellow wire.

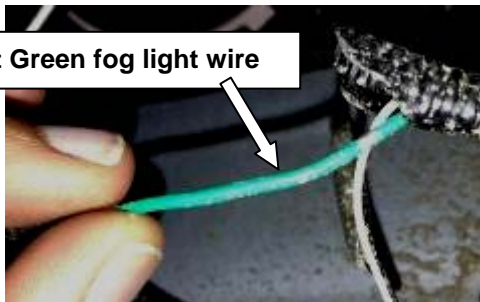
CAUTION: Ensure that all cables are securely fastened away from sharp, abrasive or hot surfaces.



Black/white trigger wire


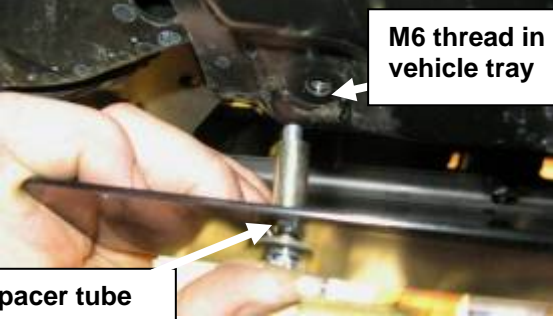

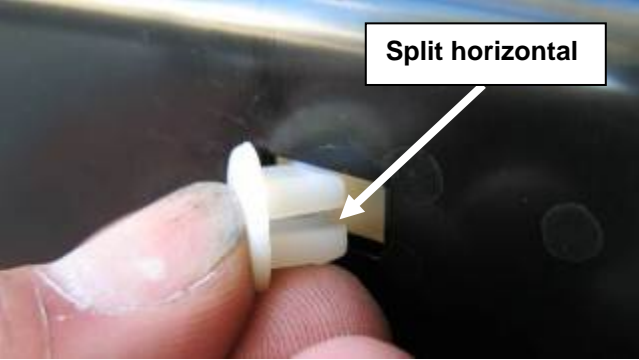
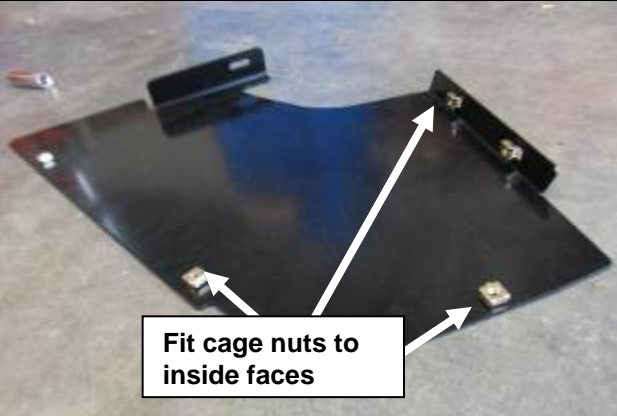
Cover black wire bullet terminal with tape

Light Green fog light wire



10. Identify the black/white trigger wire from 3500440 as shown.
11. Connect the black/white trigger wire to the factory fog light wire using the supplied scotch lock or a female bullet connector. The factory fog light wire is light green and can be found at the back of the fog light as shown.
12. Tape the bullet terminal from the black wire from 3500440 to prevent short-circuits. Securely fasten it away from sharp, abrasive or hot surfaces.

FITTING BULLBAR TO VEHICLE

 <p>Check that sensor fits flush</p>	<ol style="list-style-type: none"> 13. If parking sensors to be fitted, insert sleeves first noting that they must be in the same orientation as in the original bumper (tab to top RHS down on LHS). 14. Fit sensors checking that they are not too tight, otherwise correct operation may be affected (if tight check hole size and rectify as necessary) 15. Connect to main loom and cable tie wiring securely
 <p>M6 thread in vehicle tray</p> <p>Spacer tube</p>	<ol style="list-style-type: none"> 16. 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.
	<ol style="list-style-type: none"> 17. Fit winch hook.
 <p>Split horizontal</p>	<ol style="list-style-type: none"> 18. If fitting winch apply double sided tape strip to top back of number plate. If not fitting winch use top holes in number plate and no adhesive is required. 19. Fit grommets to slots, with split horizontal as shown 20. Fit number plate using supplied pan head screws into grommets.
 <p>Fit cage nuts to inside faces</p>	<ol style="list-style-type: none"> 21. Fit 5 x M6 cage nuts to each wing splash panel as shown on <i>inside</i> faces. 22. 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.



23. 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 15mm up from the marked line.

24. Use M6 x 20 black bolts and washer sets to secure the fender liner to the panels.
25. 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:

- ◆ **Check wiring connections to fitted lights and winch.**
- ◆ **Check operation of winch and all lights.**
- ◆ **Check operation of headlight washers if fitted**
- ◆ **Check operation of parking sensors if fitted**
- ◆ **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

