ARB FITTING INSTRUCTIONS

ARB WINCH/NONWINCH BULLBAR
TO SUIT HJ100 IFS
(To suit October 2002 on)

PRODUCT No. 32/3413190
FITTING KITS 6172338, 6172342

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 ATTEMPED.**
- **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.**

OPTIONAL LIGHT SETS TO SUIT THIS PRODUCT:

-ARB 6821201 Fog Light Kit Suit 3163015

-Up to IPF 900 SERIES FOG OR DRIVING LIGHT SETS

f you have any queries regarding the installation of this product please contact the distributor from whom it was purchased, or alternatively the ARB office in your state.
Head Office – ARB Corporation Ltd VIC: 42-44 Garden Street, Kilsyth, Victoria, 3137 Tel: (03) 9761 6622 Fax: (03) 9761 6807
WA: (08) 9244 3553 **NSW:** (02) 9821 3633 **ACT:** (02) 6280 7475 **SA:** (08) 8244 5001 **QLD:** (07) 3872 3872 **NT:** (08) 8947 2262 **TAS:** (03) 6331 4190

USE	PART No	QTY	DESCRIPTION
MOUNT BRACKETS TO VEHICLE	6151099	2	BOLT M14 X 40mm
	4581052	2	WASHER SPRING M14
	6151299	2	BOLT M10 X 1.5 X 100mm
	6151040	2	BOLT M10 X 1.25 X 30
	4581048	4	WASHER SPRING M10
	4581040	6	WASHER FLAT M10
	6151026	2	NUT 10 X 1.5
	3756493L	1	BRACKET IMPACT ABSORBER LHS
	3756493R	1	BRACKET IMPACT ABSORBER RHS
	4721520	2	TUBE CRUSH
BULLBAR TO MOUNT ASSY	6151232	8	BOLT M10 X 30X 1.5
	4581288	4	WASHER FLAT M10 LARGE
	4581040	4	WASHER M10 FLAT
	4581048	8	WASHER M10 SPRING
	6151026	4	NUT M10
	6151304	4	NUT M10 CAGED
WINCH 8/9000/10,000 LB	4581040	4	WASHER FLAT 3/8"
	6151074	2	BOLT 3/8" X 1 ¾"
	4581041	2	WASHER FLAT 7/16"
NUMBER PLATE	3751451	1	NUMBER PLATE BRACKET
	6151180	4	BOLT M6 X 16
	6151046	4	WASHER FLAT M6
	6151128	4	NUT FLANGE M6
CONTROL BOX	3751564	1	CONTROL BOX BRACKET
	6151021	2	BOLT M8 X 20MM
	6151132	2	NUT FLANGE M8
	4581044	2	WASHER M8
BUFFERS TO BAR	6151128	12	NUT FLANGE M6
	6162470R	1	BUFFER UPRIGHT RH
	6162470L	1	BUFFER UPRIGHT LH
WINCH CABLES	BLB560	2	BLACK CABLE
	BLR 560	1	RED CABLE
CABLE TIES	180302	8	CABLE TIES
AIR DEFLECTOR	3314477	1	AIR DEFLECTOR
	6151300	4	NUT M6 CAGED
	6151180	4	BOLT M6 X 20
	6151046	4	WASHER FLAT
	4581036	4	WASHER SPRING
INDICATORS TO BAR	3163015	1	COMBINATION LIGHT SURROUND KIT
	180701	6	SCOTCH LOCK
	6821151L	1	TURN SIGNAL / CLEARANCE LIGHT
	6821151R	1	TURN SIGNAL / CLEARANCE LIGHT
	6821152	2	WIRING LOOM
TURBO DIESEL MODEL FIT KIT 6171775	3314478	1	PAN COVER INTERCOOLER
	6151128	5	NUT FLANGE M6
	6151180	5	BOLT M6 X 20
	6151046	5	WASHER FLAT M6

Tools Required

10mm, 14mm, 13mm 18mm, 19mm, 22mm Spanners and Sockets. Phillips head screwdriver, drill & 10mm drill bit, hacksaw or angle grinder and 50mm, 100m socket extension.



1. **Remove the bumper bar and grille from vehicle.**
2. **Remove the cross member bracket and tow brackets and tie downs. Remove the 4 front 8mm bolts that secure the vehicle stone tray.**



3. **To fit chassis brackets to chassis rails, cut off the lower section of chassis mount.**
4. **Mark out a line level with the bottom of chassis rail, and cut off using a hacksaw or a angle grinder and touch up bare metal with paint.**



5. **Fit chassis brackets to vehicle and secure as follows.**
6. **On RHS of vehicle, refit tie down bracket, tow hook, original 14mm long bolts and washers to underside of chassis bracket, finger tighten only.**

Note: Swap tie down brackets left to right so they mount as shown.



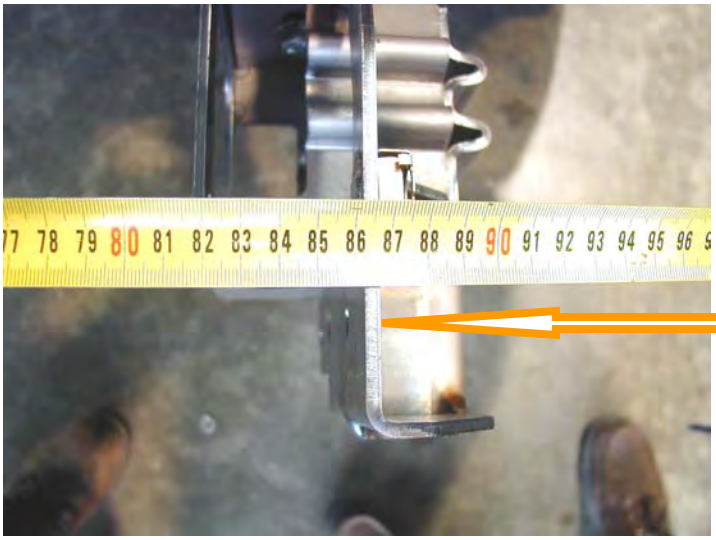
7. On LHS of vehicle secure chassis bracket and tie down bracket to vehicle using 14mm x 40 bolts and spring washers supplied in bolt kit. (finger tighten only)





8. Using a 13mm drill bit, drill through chassis rails using hole in impact absorber as a template. Fit crush tube, 100mm x10mm bolt, 10mm washers and nuts through both sides of chassis brackets. (Finger tighten only)

9.Fit a 10mm fine thread x 30mm bolt and washers in the front of chassis brackets.



10. When all bolts are fitted, the width of the chassis brackets at bolting surface should be 860mm. When measurement is correct, tighten all bolts securely. Fit 10mm caged nuts into each chassis bracket. (2 per side)



ORIGINAL

VIEWED FROM LHS OF VEHICLE



ROTATED

TO FIT A WINCH BAR.

11.To fit a 8/9/9.5/000lb winch, rotate gearbox 144° counterclockwise.

12.Stand winch upright and undo the capped head screws and by lifting the gearbox only a couple of millimeters, rotate the gearbox. Once in position, refit all screws and tighten firmly.

WARNING

Do not lift gear box more than a couple of millimeters.



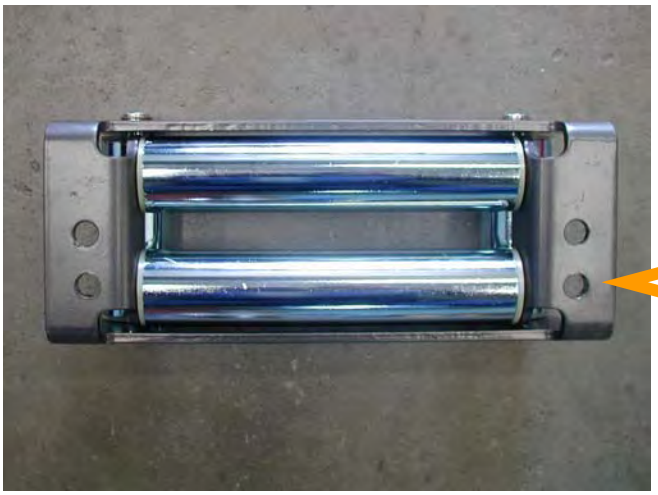
ORIGINAL

VIEWED FROM RHS OF VEHICLE



ROTATED

13. To fit a 10/12000 winch, rotate gearbox 72° clockwise. Both winches are viewed from gearbox end and cable spools from the bottom of both winches.

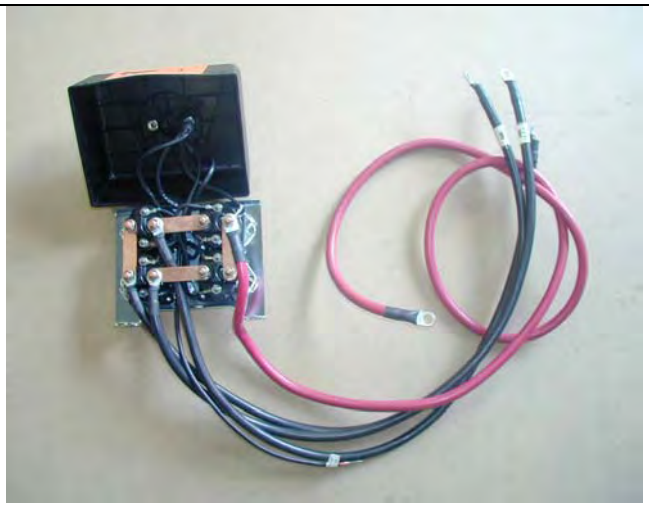


14. Drill out roller fairlead 25mm lower than original hole using a 12mm drill bit.

15. 8/9000lb winches use top holes when fitted to bar

New holes

16. 10/12000lb winches use lower holes when fitted to bar

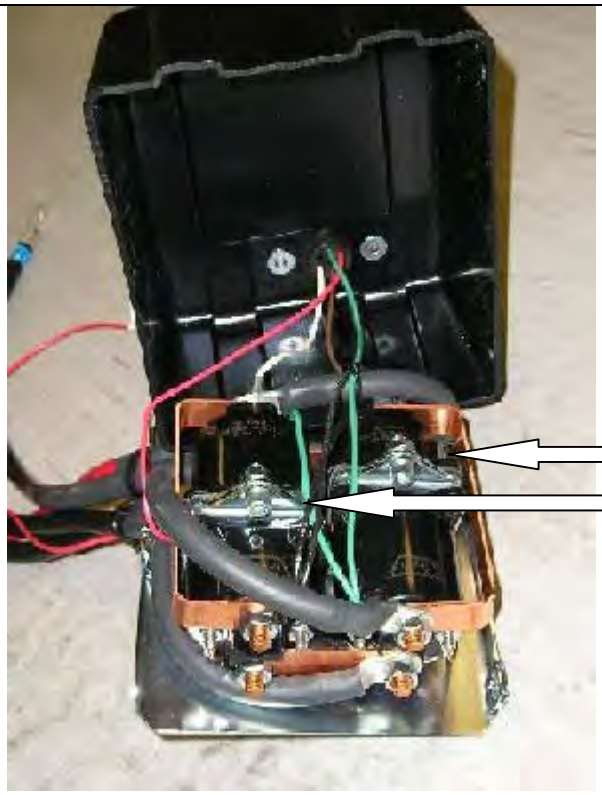


17. Remove the cover from the control box.

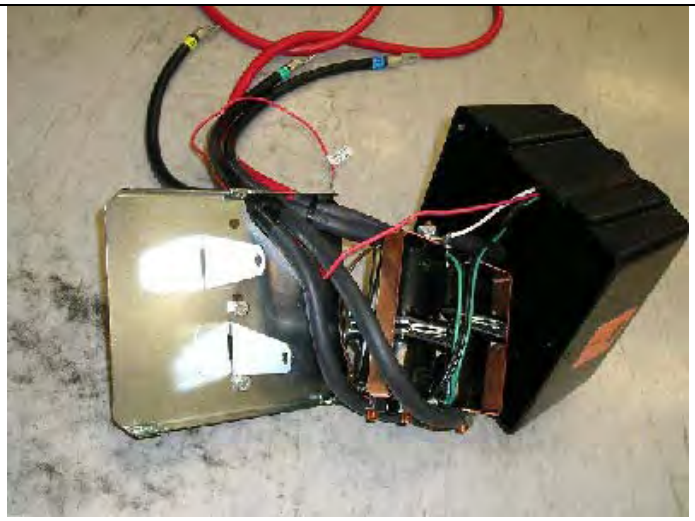
18. The three main power cables that go from winch to control box, must be changed over using longer cables from bolt kit. Make sure that you identify the colour codes on the new cables before replacing the cover.

(This must be done for all winches to be fitted to the bull bar)

<u>If fitting XP 9.5 winch, leave cover open and continue to step 19. For any other winch, advance to step 25.</u>

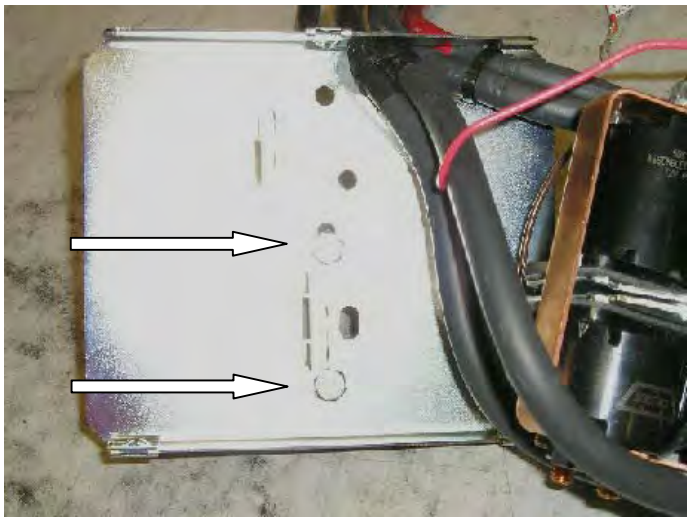


19. For <u>XP 9.5 winch</u>, remove the two cap screws, nuts and spacer washers that hold the four solenoids in place.

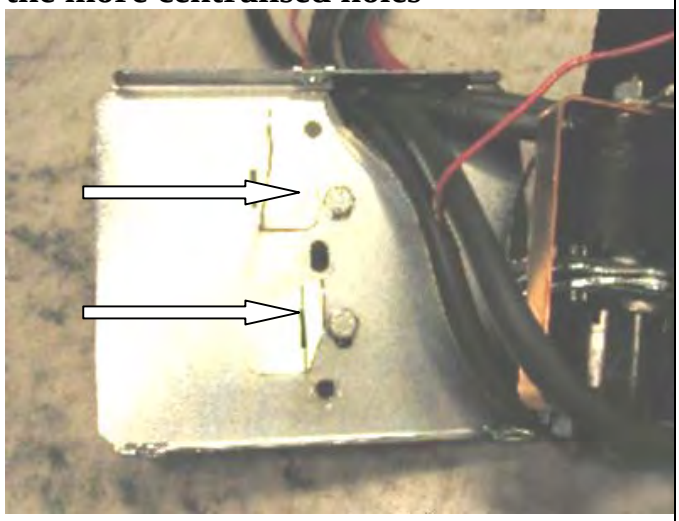


20. Remove the four solenoids from the base of the control box using the copper bus bar as an aid and hold to one side.

21. Remove the two bolts in the base of the control box and reposition them into the more centralised holes



Before



After



22. Place the 4 solenoids over the 2 metal stands that are facing upwards. Make sure they line up with the holes in the base.



23. Replace the 2 cap screws, washers and nuts removed in step 19 above into original holes.

24. Replace the black cover and refit the three cover screws (DO NOT OVER TIGHTEN)



25. Fit control box bracket to bar using 8mm hardware.

26. Fit buffers to bull bar using 6mm hardware.



27. Fit control box to control box bracket and pull wires through top cutouts.

28. Fit 8/9000lb winch to top hole pattern in rear of bar. Secure top holes of winch using 1 ½" x 3/8" bolts, spring and flat washers, and lower holes with 1 ¾" x 3/8' bolts through roller fairlead original top holes. When all bolts are fitted, tighten firmly.

29. Connect power wires to winch motor as per Warn instruction manual

(Clutch handle on LHS of vehicle)



30. Fit 10/12000lb winch to lower hole pattern in rear of bar. Secure top and lower holes of winch using 1 ½" x 7/6" bolts, spring and flat washers, through roller fairlead drilled lower holes. When all bolts are fitted, tighten firmly.

31. Connect power wires to winch motor as per Warn instruction manual.

(clutch handle on RHS of vehicle)



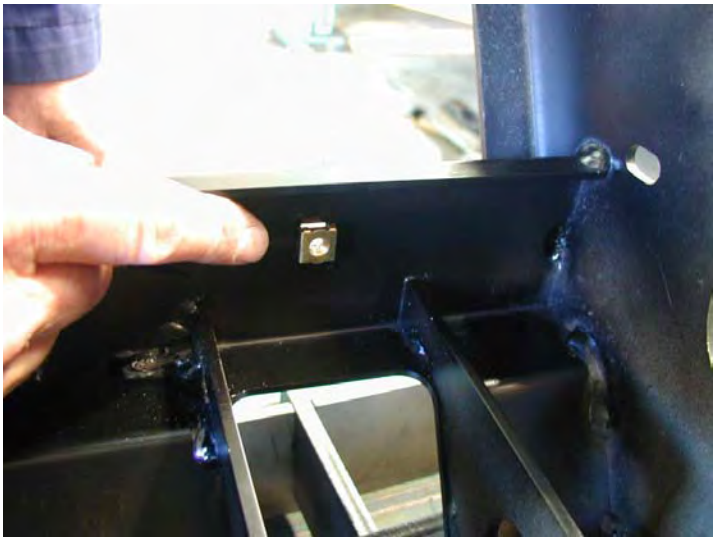
32. When fitting roller fairlead to bar, remove circlips and push vertical pins upward so you can push vertical rollers sideways to enable you to place a socket to the bolt



33. When all bolts are tighten, replace pins and circlips.



34. Before fitting bar to chassis brackets on vehicle, cable tie all winch power cables well clear of all moving parts. When bar is fitted to vehicle, fit leads to battery and cable tie clear of all moving parts.



35. Fit 6mm caged nuts into square holes in lower section of bar.



36. With the help of a friend, lift bar in between the chassis brackets and secure to caged nuts using 10mm x 30mm bolts, large HD washers and spring washers.



37. Adjust bar so there is a 15mm plus gap around the periphery of the front of the vehicle.

38. Tighten all 4 bolts until the washers start to deform.



39. Using a 10mm drill bit. Drill out pinning holes using holes in bar as a template. Secure using 10mm x 30mm bolts, washers and 10mm nuts. Tighten all bolts firmly.

40. Top hole through light aperture in bar



41. Lower hole through bottom of bar upright.



42. When bar is secured to vehicle, fit splash pan using 6mm caged nuts on lower lip of bar, and to where the stone tray 8mm bolts were removed earlier, when all bolts are in place tighten securely.



43. 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.

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.



44. For turbo diesel models, a cover shield for intercooler pipes must be fitted.

45. Cover shield fits to chassis bracket, lower lip of bar and to the tag on the tube inside the bar.





46. Fit number plate to bar.

Winch Bar

If you have a slimline number plate attach it directly to the top pan with the fasteners provided.

If you have a standard number plate, fasten it to the top pan using the bracket and fasteners provided.

Non Winch Bar

Fasten the number plate to the lower pan using the fasteners provided.

