

# **FITTING INSTRUCTIONS**

## **KJ JEEP COMBINATION BULL BAR**

**PRODUCT NUMBER**

**3450120**

**FITTING KIT NUMBER**

**6171962**

### **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.**
- **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.**

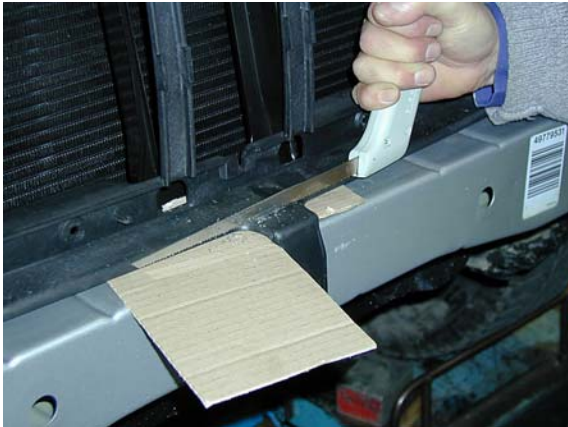
USE	PART No	QTY	DESCRIPTION
IMPACT ABSORBER MOUNTING SYSTEM	6151232	10	BOLT M10 x 30mm
	4581040	10	WASHER FLAT M10
	4581048	10	WASHER SPRING M10
	4601044	2	CHANNEL CAPTIVE NUT (INSIDE CHASSIS RAILS)
	4601045	2	CHANNEL CAPTIVE NUT (INSIDE CROSSMEMBER)
	3756772	1	MOUNTING SYSTEM
BULL BAR TO IMPACT ABSORBERS	6151232	6	BOLT M10 x 30mm
	4581048	6	WASHER SPRING M10
	4581040	8	WASHER FLAT M10
	6151026	2	NUT M10
CONTROL BOX BRACKET	6151021	2	BOLT M8 x 20mm
	4581044	2	WASHER FLAT M8
	3751564	1	CONTROL BOX BRACKET
	6151132	2	NUT FLANGE M8
NUMBER PLATE BRACKET	6151180	2	BOLT M6 x 20mm (BRACKET TO BAR)
	6151046	4	WASHER FLAT M6 x 13mm
	6151128	4	NUT FLANGE M6
	6151017	2	BOLT M6 x 16mm (NUMBER PLATE TO BRACKET)
	3751370	1	NUMBER PLATE BRACKET
INDICATORS TO BULL BAR	6821151R	1	INDICATOR KIT, RHS
	6821151L	1	INDICATOR KIT, LHS
	6821116	4	NYLON PLUG
	6151308	4	SCREW, SELF TAPPING
	6821152	2	WIRING LOOM
	180701	6	SCOTCH LOCK
WINCH (8000/9000/9500 LB)	4581040	4	WASHER FLAT 3/8" x 1"
	6151074	2	BOLT 1 3/4" x 3/8" UNC
	180302	10	CABLE TIES
WINCH PAN COVER	6191005	1	EXTRUSION RUBBER
	6521031	1	PANEL WINCH COVER
	6151256	2	SCREW BUTTON HEAD M6 x 16mm
	6151128	2	NUT FLANGE M6
AIR DEFLECTOR	6522656	1	AIR DEFLECTOR
	6151017	4	BOLT M6 X 16mm
	6151128	4	NUT M6 - FLANGE
	4581072	4	WASHER FLAT M6 x 20mm
WASHER BOTTLE COVER	6522655R	1	PANEL WING KJ JEEP 05
	6522655L	1	PANEL WING KJ JEEP 05
	6151300	6	CAGE NUT M6 (3mm PLATE)
	6151180	14	BOLT M6 x 20
	4581072	14	WASHER FLAT M6 x 20mm
	4581036	6	WASHER SPRING 1/4"
	6151128	8	NUT FLANGE M6
FOG LIGHT HOUSING / APERTURE COVER FITMENT	6151300	4	CAGE NUT, M6 (3mm PLATE)
	6151180	4	BOLT M6 x 20
	4581072	4	WASHER FLAT M6 (20 OD)
	4581036	4	WASHER SPRING 1/4"
	3756777	2	BRKT FOG MNT KJ JEEP 05
	3756778R	1	BRKT COVER MNT (RH) KJ JEEP 05
	3756778L	1	BRKT COVER MNT (LH) KJ JEEP 05
	6821184	1	3mm RED WIRE (1.3m LONG)
	180701	8	SCOTCH LOCK
	3162468	2	INSERT FOG INDICATOR SURROUND
	6151317	8	SCREW 8-18 x 5/8 PAN HEAD
WHEEL LINER TO BAR	6151017	4	BOLT M6 x 16mm
	4581072	4	WASHER FLAT M6 x 20mm
	6151128	4	NUT FLANGE M6

**TOOLS REQUIRED.**  
**BASIC TOOL KIT, KEY HOLE SAW, TORX KEY T-15**

**ASSEMBLY SEQUENCE FOR BULL BAR INSTALLATION.**  
**PLEASE READ AND UNDERSTAND FITTING INSTRUCTIONS BEFORE**  
**ATTEMPTING TO FIT BAR TO VEHICLE**



1. Remove grille from vehicle using torx keys.
2. Remove bumper from vehicle and disconnect the turn signal lights. If the vehicle is fitted with fog lamps, as shown in the adjacent photo, remove the fog lamps.
3. Be careful when removing bumper from the flares, as the plastic clips are awkward to undo.
4. Remove the turn signal lights.



5. When bumper is removed, cut the lower plastic lug from grille panel to enable bull bar mounting system to bolt up against vehicle cross member. Place either thick cardboard or plywood either side of lug to prevent paint damage.

**Remove tow hook and crush cans from vehicle.**

**Keep the fasteners used on the original bumper as some will be re-used on the new bull-bar.**



6. This is how it must look when it has been cut.



**7. To fit mounting system to vehicle, fit captive nut channel in through front apertures in vehicle cross member on both sides.**

**(Notch in channel must face front of vehicle)**



**8. When both channels are inside of cross member, using your finger, align with holes underneath of chassis rails.**

**9. Fit mounting system to front cross member of vehicle and centralized sideways.**



**10. Fit 10mm hardware to the two most forward holes in lower brackets, to both sides of vehicle, making sure mounting system is hard up against vehicle cross member, tighten firmly.**

**Photo shows underside of mounting system on LHS of vehicle.**





**11. Using 10mm drill bit, drill out holes in centre of slots in front of cross member.**



**12. Once holes have been drilled, fit captive nut channels through lower aperture in vehicle cross member.**



**13. Secure using 10mm hardware and tighten firmly making sure mounting system is hard against vehicle cross member.**

**NB. When step 14 is finished, slacken off bolt tension to enable sideways movement if needed when bar is fitted.**



14. When front bolts are tight, loosen off lower bolts in chassis brackets. Using a 10mm drill bit, drill out the most rearward hole in lower chassis bracket being careful not to drill too far into captive nut channel. When holes have been drilled, realign the rear hole with rear nut in captive nut channel, and secure using 10mm hardware, then lightly tighten all bolts in lower chassis brackets.

**MOUNTING SYSTEM MUST BE ABLE TO BE MOVED SIDEWAYS.**



15. If the vehicle is fitted with fog lights in the grill, as shown in diagram 1, the fog loom will need to be extended. First, cut the 1.3m red wire, supplied in the kit, into four equal lengths (i.e. 325mm each) and then cut the plug off the vehicle's fog loom. Use the four pieces of wire just cut together with the scotch locks to lengthen the vehicle's fog loom and re-connect the plugs. Once this task has been completed for both the LH & RH fog lights, refit the grill to the vehicle and allow the fog looms to hang out through the fog apertures.

Vehicle Park Loom



16. To fit the turn signal / park light loom first unplug the loom going into the park light in the headlamp. This is the lower small plug on the lower half of the head light. Disconnect this clip by first pulling the red lever back then push the black tab (behind the red lever) down and pull the clip apart. Remove the plastic sleeve from the loom supplied and then use a plastic scotch lock to connect red wire (supplied loom) to the yellow / black wire (passenger side) or the yellow / green wire (drivers side) of the vehicle park light loom. Once this connection has been made reconnect vehicle's loom into the park light and feed the new loom behind and below the headlight. Next use scotch locks to connect the remaining two wires to the vehicle's blinker loom.

#### Summary of Wire Connections

FUNCTION	TURN SIGNAL HARNESS	VEHICLE PARK LAMP	
		RIGHT	LEFT
PARK LAMP	RED	GREEN / YELLOW	YELLOW / BLACK
VEHICLE INDICATOR			
		RIGHT	LEFT
EARTH	BLACK	BLACK	BLACK
INDICATOR	GREEN	RED	RED



**17. Fit the M6 cage nuts to the bull-bar to mount the fog lights.**

**Fit the nylon plugs, used to mount the indicator / clearance lamps.**

**Fit the M6 cage nuts to mount the washer bottle / horn stone guards.**



**18. Remove the fastening screws and nuts supplied with the turn signal/clearance lamps and replace these with the four screws provided in the kit. Fasten the lamps to the bar as shown.**

#### **IMPORTANT**

**The turn signal is to the inside of the bar.**



**19. If bar is to have a winch fitted, follow the next steps.**

**20. Fit number plate bracket to bar using 6mm hardware. (20mm x 6mm bolts) Fit number plate to number plate bracket using 6mm hardware when bar is fitted to vehicle.**

**21. Fit control box bracket to bar using 8mm hardware.**

**VIEW OF THE CENTRE OF BAR**



**22. Drill 12mm holes under existing holes 25mm lower down the same pitch as existing holes, these will be the holes used to bolt to bar.**

**NEW HOLES**





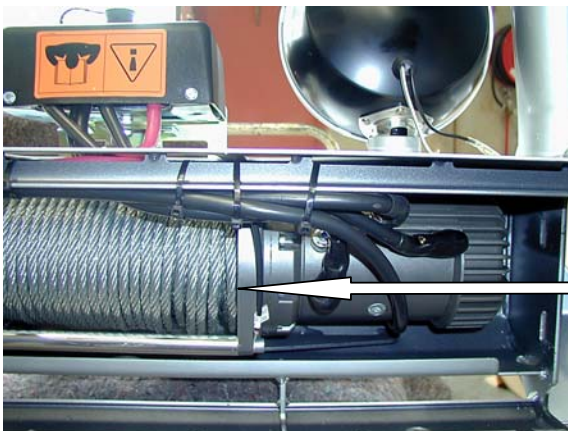
**23. To fit winch into bar you must pack winch up on a bench to enable you to lower bar down on winch.**

**24. Line up top holes first and secure using 3/8" hardware (1 1/2" x 3/8" bolts) flat and spring washers.**

**25. Place roller fairlead over lower holes and again secure using 3/8" hardware (1 3/4" x 3/8" bolts) flat and spring washers. When all bolts are fitted tighten firmly.**



**26. Fit control box to control box bracket using original 1/4" nuts from control box and connect power cables to winch motor as per winch instructions.**



**27. Cable tie power cables to bar keeping cables clear from all moving parts.**

**Optional driving light fitted.**

**( Viewed from rear of bar )**

**Fasten control box earth to winch tie rods.**





**28. Cable tie power leads to battery, to the left side of the bar keeping clear of all moving parts.**

**(Viewed from rear of bar)**



**29. Slide bar onto vehicle mounting system and secure using 10mm hardware. Place rags between the bar and the vehicle's grill to avoid the grill being scratched.**

**Prior to bolting the bar in place ensure the vehicles mudguards are tucked inside the wings as shown on the adjacent photo.**







**Align bar with vehicle grille and flares, and tighten bolts using socket, extension and uni joint through fog light aperture in bar. The vertical gap between the vehicle's flares and the top of the bull-bars wings should be 16mm. Lastly retighten the mounting system bolts when bar has been centralized sideways.**

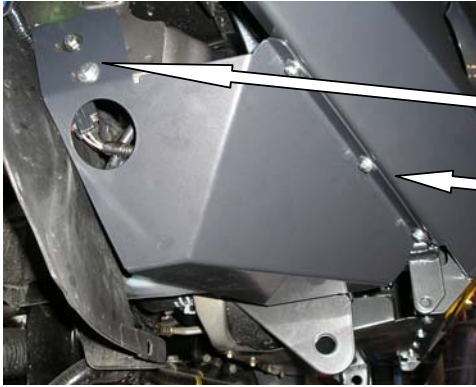
**30. Once the bar is in position, fasten the wheel liners to the bar using the M6 hardware. Drill through the wheel liner using the lower wing hole and fasten.**



**31. Once bar is secured to vehicle, using holes in locking plates as a template, drill 10mm holes through lower section of bar and bolt up using 10mm hardware.**



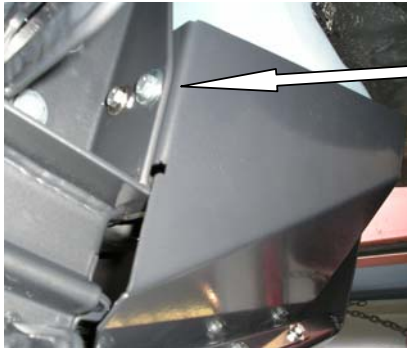
	<p><b>32. If bar is going to be a non-winch bar, fit number plate directly to front of bar using 6mm hardware.</b></p> <p><b>33. To fit cover plate on top of bar winch cut-out, fit rubber extrusion around top cover panel, trim to size and bolt to top of bar using M6 button head stainless steel screws and M6 flange nuts.</b></p>
  	<p><b>34. If fitting fog lights removed at step 2, fasten the fog lights to the brackets provided as shown in the adjacent photo.</b></p> <p><b>The black plastic fastener was taken off the original bumper and re-used here.</b></p> <p><b>Alternatively, if no fog lights are being fitted to the bar, assemble the aperture covers to the aperture cover brackets using the self-tapping screws provided.</b></p> <p><b>35. Fit the fog lights to the bull-bar, or the aperture covers, with the M6 hardware. Next connect the fog lights and the blinker / clearance lamps to the looms fitted at steps 15 &amp; 16.</b></p>



**36. Fit washer bottle / horn guards to bar & vehicle using 6mm hardware.**

**M6x20 bolts, M6 flat washers, M6 flange nuts**

**M6x20 bolts, M6 spring washers, M6 flat washers**



**M6x20 bolts, M6 flat washers, M6 flange nuts**



**37. Next step is to trim the plastic inner guards that hang down past the bar. Cut plastic level with the bottom of bar wing section to washer bottle guard.**

**Bar wing section**





**38. Fitting of AIR DEFLECTOR to underside of bar.**

**39. Fit rear of air deflector to vehicle lower cross member using original screws and front to bar using 6mm hardware. When all hardware is fitted, tighten firmly.**

**The two middle screws were removed elsewhere with the bumper and will be used here. These screws will be self-thread cutting as required.**



**40. Position for Hi Lift jacking point.**