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BM68SY

REPLACES: 28.06.10 REVISED: 11.05.11

FITTING INSTRUCTIONS

NM/NP PAJERO 5/00-10/06 BIG TUBE™ PROTECTION BAR VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

NOTE: All drilled holes and any exposed metal must be treated with a rust inhibitor.

- 1. Remove grille. Five clips along top and three push in/out clips. (V6 models remove plastic air intake cover from passenger side top of grille three plastic clips).
- 2. Remove steel protection guard from vehicle tow bracket area.
- 3. Remove bumper skin. Four plastic clips in lower centre, five plastic clips (each side) and two 10mm head bolts each side (NM), two plastic clips each side (NP) to detach inner guard, one 10mm head self tapper (each side) at top side bumper returns (access under flare), one 10mm head bolt (each side) at top just under indicator (access under guard below indicator), three 10mm head bolts along top centre (where grille removed to access). Do not discard any clips or bolts. They will be useful to secure the inner guard when the protection bar is fitted.
- 4. Remove headlight/indicator assemblies from vehicle. Three 10mm bolts and one 10mm nut (per light). Disconnect wiring. See figure 1.
- 5. Remove washer bottle from drivers' side. Three 10mm head bolts, disconnect wiring and hoses.
- 6. Splice ECB indicator / park light wiring into original wiring loome.
- 7. Remove steel inner guard supports from vehicle and discard.
- 8. Using hole-marking template, mark where rear steel mounting bracket is to be drilled on inside of chassis rail. Line up template with inside top of tow bracket on vehicle chassis and mark hole.
- 9. Centre punch mark and drill 10mm hole through inside edge of chassis only. Treat exposed steel. See figure 2.
- 10. Using 3/8 x 2 bolt/washer on wire (supplied), bend wire to shape. Insert through lower 25mm access hole in chassis to come out through 10mm hole just drilled. **NOTE:** Access hole may need to be enlarged slightly. Use die grinder or similar.
- 11. Attach steel mounting bracket to 3/8 x 2 bolt. Align in centre of slot hole on mount. Hold in position with front plate on steel mounting bracket approximately 0-3mm off crash can. See figures 3 and 4. TIGHTEN NUT FIRM ONLY.
- 12. Ensuring top of steel mounting bracket is level, drill 10mm hole entirely through chassis using slot hole in steel mounting bracket as a guide. Drill in centre of slot hole for if any adjustment is necessary.
- 13. Where 10mm hole has been drilled in outside of chassis, enlarge this hole to 17mm for chassis spacer to fit through. Treat exposed steel. (Use die grinder with steel cutting burr or similar to enlarge hole) See figure 5.
- 14. Insert 40 x 6 round alloy washer plate (supplied) between chassis and steel spacer welded to steel mounting bracket **See figure 6.** Insert 3/8 x 5 ½ bolt (supplied) from steel mounting bracket side into chassis. Slide



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chassis spacer tube (supplied) over bolt. See figure 6a. Attach 75 x 50 x 6 alloy plate over bolt. Use 3/8 nut/washers (supplied). TIGHTEN IN POSITION. See figures 3 and 4. TIGHTEN ALL STEEL MOUNTING BRACKET BOLTS/NUTS.

- 15. Using 10mm hole in steel mounting bracket as a guide. Drill 10mm hole in lower chassis. Treat exposed metal. Use 3/8 x 1 ¼ bolt and nut (supplied). See figure 7.
- 16. Repeat for other side, ensuring mounts are aligned in same position.
- 17. Refit original washer bottle, headlight/ indicator assemblies and grille to vehicle.
- 18. Fit ECB LED indicator / park lights (supplied) into protection bar as per instructions supplied with the LED indicator kit. **NOTE: Ensure park light is to outside. See figure 8.**
- 19. Attach infill trims (supplied) to protection bar. Use M6 nylock nuts (supplied). Do not over tighten **FIRM ONLY. See figure 9.**
- 20. Attach protection bar to inside of steel mounting brackets. Insert M14 x 40 bolts (supplied) from inside. Attach M14 nuts/washer on wire (supplied).
 NOTE: Connect ECB park light / indicators as installing.
- 21. Position protection bar up in slot holes to where infill trims just contact vehicle. NOTE: Ensure nylock nuts that hold trim infills in place are clear of washer bottle on driver's side. Align protection bar and TIGHTEN ALL BOLTS. If necessary loosen ¼" nylock nuts and align polyurethane infill trims with vehicle. Retighten firm only.
- 22. Either fold plastic inner guard forward or alternately trim the plastic guard with scissors to your taste. Secure with zip ties (supplied). Use the original plastic clips to secure the plastic inner guard.
- 23. Check operation of all indicator / park lights.
- 24. Reattach steel protection guard to vehicle.
- **Note:** When fitting/refitting the licence plate to the vehicle, ensure there is no obstruction to licence plate vision in accordance with local authorities. If required relocate licence plate to an alternate location.

Further VFPS Notes:

- a) Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mounting bolts).
- b) Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.
- c) Do not remove the plaque or label from the VFPS.
- d) Do not modify the structure of the VFPS in any way.
- e) No accessory or fitment should project forward of the VFPS forward profile.
- f) ENSURE THESE INSTRUCTIONS ARE LEFT WITH VEHICLE OWNER AND/OR OPERATOR.

IMPORTANT INFORMATION

Periodically check bolts and nuts for correct tightness, especially if travelling on rough roads



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FITTING KIT

2 – Steel mounting brackets.	4 – M14 x 40 x 1.5 bolts.
$2 - 40 \ge 6$ round alloy washer plates.	4 – M14 nuts with washers and 450mm wire
$2 - 75 \ge 50 \ge 6$ alloy plates (As per template).	4 – 14mm flat washers.
2 – 78mm long 10 n.b chassis tube spacers.	4 – 14mm spring washers.
$2 - 3/8 \ge 2$ bolt/washers on 300mm wire.	4 – 200mm long zip ties.
2 - 3/8 nuts.	2 – Pajero infill trims.
$2 - 3/8 \ge 5\frac{1}{2}$ bolts/nuts.	6 – M6 nylock nuts
$2 - 3/8 \ge 1 \frac{1}{4}$ bolts/nuts	6 – M6 flat washers.
10 - 3/8 flat washers.	1 – ECB LED Indicator / Park light kit
6 - 3/8 spring washers.	6 – Cable locks.



Figure 1



Figure 3



Figure 2

75 x 50 x 6 alloy plate over 3/8 x 5 $\frac{1}{2}$ bolt



Figure 4 0-3mm clearance here.



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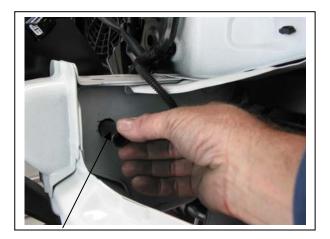


Figure 5 – Enlarging outer chassis hole to 17mm for chassis spacer.



6mm alloy chassis spacer

Figure 6



Spacer tube

Figure 6a

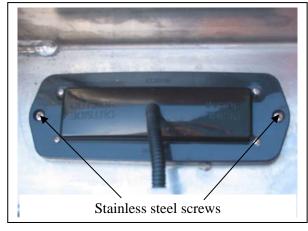


Figure 8



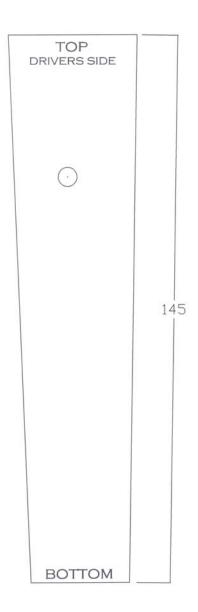
Figure 7



Figure 9 Attach Pajero infill trim

HOLE MARKING TEMPLATE

Cut out and line up top with top of tow bracket.





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We value your comments

Dear Fitter,

ECB would like to know how you went with the installation of this product. We value your comment and may need to contact you to clarify some details so please complete your contact details clearly.

We would appreciate if you could complete as many of the following details as possible.

Your Name:	Your contact No.
Product Part No.	Product Invoice No.
Product Description:	Make, model, and year of vehicle:
Product Work Order No.	Company your from/Company product purchased from:
Date of fitment:/ Was the fitting hardware supplied complete? If no what was not supplied	Yes No
Did the installation go well? Please provide comments	Yes No

Please draw diagrams if you need to.

Post to Reply Paid 122 PO Box 122 Margate QLD 4019 **Fax to** (07) 3283 1168



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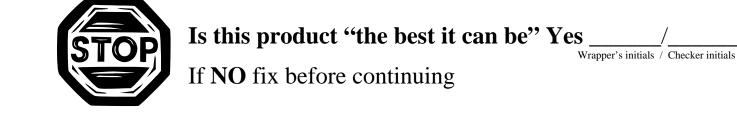
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DESPATCH CHECKLIST BM68SY

Work Order #	
Finish:	
Transport:	
Due Date:	

- $0 \quad 2$ Steel mounting brackets.
- $0 \quad 1 \text{Bolt kit.}$
- 0 1 ECB LED Indicator / Park light kit.
- O = 2 Pajero infill trim's
- 0 2 ECB overriders **Fitted to Bar**
- O 3 3mm air scoops **Fitted to Bar**
- **O** 2 6mm air scoops **Fitted to Bar**





All parts <u>checked</u> and <u>completed</u> by:

Nut and bolts:	Date_/_/
Order control:	Date//
Final wrap check:	Date//



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