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BM71SY

REPLACES: 08.02.10 REVISED: 17.01.18

FITTING INSTRUCTIONS

NS/NT PAJERO EXCEED & VRX 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. Seven plastic clips along top and gently pull up to release three plastic clips under.
- 2. Remove steel protection guard from vehicle tow bracket area.
- 3. Remove front of inner guards to allow access to rear of bumper. Two plastic screw clips and one 10mm head bolt (flare to inner guard), three plastic clips (chassis rail) and two plastic clips on lower inner guard (each side).
- 4. Disconnect fog lamp wiring harness (passenger's side under grille, beside headlamp).
- 5. Disconnect headlight washer hose, (driver's side under grille, beside headlamp) by squeezing rippled edges of tube joiner. Drain into clean bucket or similar to allow re-use of fluid.
- 6. Remove bumper skin. Two plastic clips and two 10mm bolts in lower centre where steel protection guard removed, two plastic clips under number plate mounts, one 10mm head self tapper (each side) at top side bumper returns (access under flare), six plastic clips along top centre (where grille removed to access), and two 10mm head bolts under ends of bumper to lower bumper support. Gently ease flare away from vehicle until clips release, taking care not to damage flare. Carefully pull top edge of bar down to release from positioning lug (10mm head bolt retaining clip at top side bumper returns) and pull out away from guard to release plastic clips. Do not discard any clips or bolts.
- 7. Using hole-marking template, mark where rear steel mounting bracket is to be drilled on inside of chassis rail. Line up template with inside bottom of tow bracket on vehicle chassis and mark hole, **see figure 3.**
- 8. Remove power steering oil cooler from lower front of radiator. **DO NOT DISCONNECT FROM SUPPLY TUBES.** Two plastic clips to lower radiator. Gently move to passenger side to allow removal behind other tubing. Place of the way below radiator to allow drill clearance. **See figures 1 and 2.**
- 9. Centre punch mark and drill 10mm hole through inside edge of chassis only. Treat exposed steel. See figure 3.
- 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 12-15mm off crash can. **See figure 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.



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- 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 $\frac{3}{8}$ x 5 $\frac{1}{2}$ bolt (supplied) from steel mounting bracket side into chassis. Slide chassis spacer tube (supplied) over bolt. **See figure 6a**. Attach 75 x 50 x 6 alloy plate over bolt. Use $\frac{3}{8}$ nut/washers (supplied). **TIGHTEN IN POSITION. See figure 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 ¹/₄ bolt and nut (supplied). See figure 7.
- 16. Repeat for other side, ensuring mounts are aligned in same position and inner measurement of mounts matches outer measurement on protection bar.
- 17. Refit power steering oil cooler to original position. See reverse of step 6.
- 18. Remove plastic blanking covers from front of plastic bumper cover (six pk screws). Using Measurements supplied **See figure 6.** mark bumper cover for trimming. Drill out ends to 13mm. Using a jigsaw or similar cut neatly between holes. **Do not cut plastic blanking covers.** Retain all parts and give to customer. **See figure 8.**
- 19. Refit original bumper assembly and grille to vehicle as per reverse of steps 1-6.
- 20. Feed ECB indicator / park light and fog lamp wiring harness through hole in original fog lamp trim. Splice ECB indicator / park light wiring into original wiring loom behind headlamp, and ECB fog lamps into original fog lamp wiring loom at lights. Use cable locks (supplied). **NOTE:** Leave original fog lamps disconnected, as reconnecting will damage lamps.
- 21. 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 9**
- 22. Attach ECB fog lights to protection bar. Place M6 x 20 bolts, spring washers (supplied) through light mount from inside and attach nut to top. Slide assembly into light mount in Protection bar and centralize light to hole. **See figure 10. TIGHTEN FIRM ONLY. NOTE:** Do not fit ECB light trims to protection bar at this point.
- 23. Fit 6mm clip lock trim to rear of protection bar. **NOTE:** Trim off lower edge on an angle so trim will sit flush with end of protection bar. **See figures 11, 12 and 13.**
- 24. Attach protection bar to inside of steel mounting brackets. Use six ½ x 1 ½ bolts washers spring washer and nut (supplied). **DO NOT TIGHTEN. NOTE:** Connect ECB fog lights, ECB indicator / park lights as installing.

25. ALIGN PROTECTION BAR WITH VEHICLE. See figures 14 and 15.

26. TIGHTEN ALL BOLTS

- 25. Check operation of ECB indicator / park lights, ECB fog lights and headlamp washers. Adjust headlamp washers if required.
- 26. Reattach steel protection guard to vehicle.
- 27. Aim ECB fog lamps at low beam height. TIGHTEN IN POSITION.



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- 28. Attach ECB fog light trims (supplied) to protection bar.
- 29. Fit 6mm clip lock trim to air vent cut outs in front of protection bar. Start at top centre and feed into corners. Trim off end slightly longer than needed and force in at top to create a neat finish. **See figure 16. NOTE:** Ensure ends are cut square.
- 30. Fit 6mm clip lock trims to vents in skirt. When fitting trim on angle to suit hole and leave the trim slightly longer than required for hole, to allow a snug fit. See figure 17.

ENSURE NUMBER PLATE IS CLEARLY VISABLE

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

FITTING KIT

2 – Steel mounting brackets.	$6 - \frac{1}{2}$ spring washers.
$2-40 ext{ x 6 round alloy washer plates.}$	2 – ECB fog lights.
$2-75 \times 50 \times 6$ alloy plates (As per template).	2 – ECB fog light trims
2 – 78mm long 10 n.b chassis tube spacers.	2 – M6 x 20 bolts
$2 - 3/8 \ge 2$ bolt/washers on 300mm wire.	2 - M6 nuts
2 - 3/8 nuts.	2 – M6 flat washers.
$2 - 3/8 \ge 5 \frac{1}{2}$ bolts/nuts.	2 – M6 spring washers.
$2 - 3/8 \ge 1 \frac{1}{4}$ bolts/nuts.	1 – ECB LED Indicator / Park light kit.
10 - 3/8 flat washers.	10 – Cable locks.
6 - 3/8 spring washers.	1 – 2100mm length 6mm clip lock trim
$6 - \frac{1}{2} \times 1 \frac{1}{2}$ bolts.	2 – 600mm length 6mm clip lock trim
$6 - \frac{1}{2}$ nuts.	2 – 450mm length 6mm clip lock trim
$12 - \frac{1}{2}$ flat washers.	



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Figure 1



Figure 2

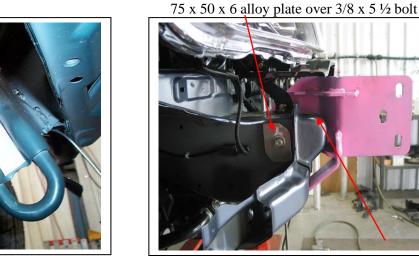


Figure 3

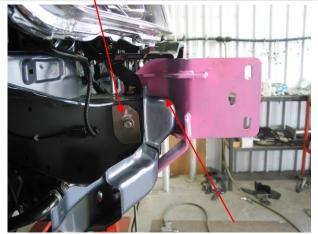


Figure 4 10-15mm clearance here

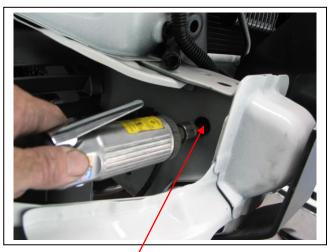


Figure 5 Enlarging outer chassis hole to 17mm for chassis spacer

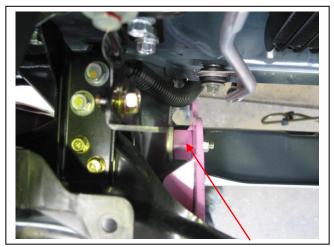


Figure 6

6mm alloy chassis spacer



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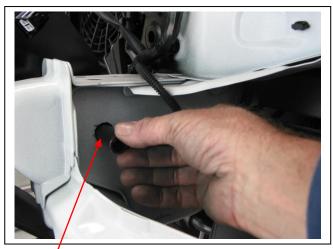
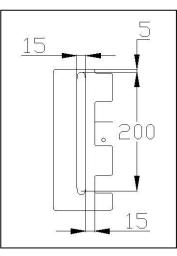




Figure 6a





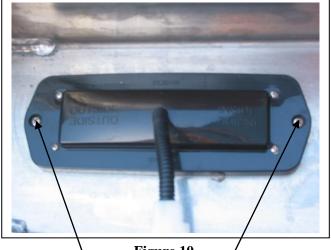


Figure 10 / Stainless steel self-tappers



Figure 7



Figure 9 - D/S front of bumper cover shown

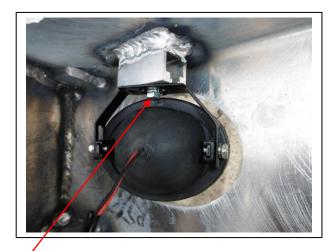




Figure 11



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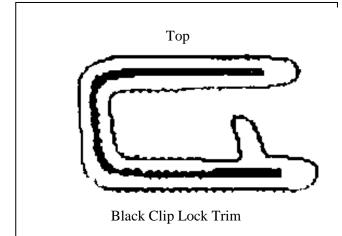


Figure 12

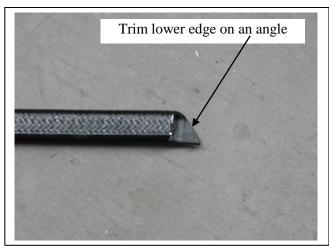


Figure 13



Figure 14



Figure 16 – Side view shown



Figure 15 – Front view shown



Figure 17



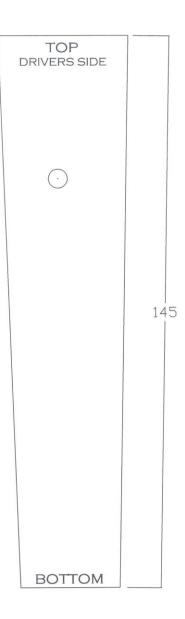
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Figure 18

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



HOLE MARKING TEMPLATE



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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 ye	ar of vehicle:
Product Work Order No.	Company your from/	/Company product purchased from:
Date of fitment://	Yes	No
Was the fitting hardware supplied complete? If no what was not supplied		
Did the installation go well?	Yes	No
Please provide comments		

Please draw diagrams if you need to.

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DESPATCH CHECKLIST BM71SY

ICZBKCM71

Work Order #	
Finish:	
Transport:	
Due Date:	

- O 2 Steel mounting brackets.
- O = 1 Bolt Kit.
- O = 1 ECB LED Indicator / Park lights kit.
- O 2 ECB fog lights.
- O = 2 ECB fog light trims.
- O = 1 2100mm length 6mm clip lock.
- O 2 600mm lengths 6mm clip lock.
- O = 2 450mm lengths 6mm clip lock.
- O 2 ECB overriders **Fitted to bar.**

See other side of this page for photos of all mounts



Is this product "the best it can be" Yes // Wrapper's initials // Checker initials If NO fix before continuing

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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