

BSM30SY

REPLACES: 26.08.08

REVISED: 08.06.10

FITTING INSTRUCTIONS

SSANGYONG MUSSO SPORT UTILITY 03/04on BIG TUBE™ VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

1. Lift bonnet.
2. Remove air cleaner housing from drivers side front to access bumper bar bolts. One 12mm head bolt at rear of air cleaner housing, Loosen worm drive clamp on outlet and ease housing off two rubber mounts on vehicle. **See figure 1.**
3. Remove two 22mm head bolts (each side) from bumper bar. Remove two 10mm nuts (each side) from bumper bar side supports. Remove bumper bar.
4. Remove bumper side supports from chassis. Two 10mm head bolts (each side).
5. Move headlights forward to access wiring. Three 10mm head bolts (per light). **See figure 2.** Splice ECB indicator/park light wiring (supplied) into original wiring. Use cable locks (supplied). Refit headlights.
6. Fit 100mm upper steel mounting brackets (supplied) to chassis. Use original 22mm head bolts. **FINGER TIGHTEN ONLY. See figure 3.**
7. Remove two 14mm head bolts (1 each side) from side of steel under body guard. Loosen two 14mm head bolts at rear of under body guard.
8. Fit lower steel mounting brackets (supplied) to outside of 100mm upper steel mounting brackets. Use two 3/8 x 1 1/2 bolts, nuts and washers (each side) (supplied). Use one 1/2 x 1 1/2 bolt, nut and washers (each side) (supplied) for original holes in chassis tie down brackets. **FINGER TIGHTEN ALL BOLT AND NUTS ONLY. See figures 4, 5 and 6.**
9. Fit ECB LED indicator / park lights into protection bar as per instructions supplied with the LED indicator kit. **NOTE: Ensure park light is to outside. See figure 7.**
10. Fit clip lock trim (supplied) to centre of protection bar. **See figures 8 and 9.**
11. Trim 30mm off lower edge of infill trim (supplied), so trim will sit over end of protection bar. **See figure 10.** Fit infill trim to sides of protection bar from clip lock trim to ends. **Trim excess off end to follow protection bar. See figure 11 and 12. NOTE:** Seal any exposed edges of trim with silicone or similar to avoid corrosion of inner steel.
12. Position protection bar on inside of steel mounting brackets. Use six 1/2 x 1 1/2 bolts, nuts and washers (supplied). **FINGER TIGHTEN ONLY.**
13. Support protection bar with a trolley jack or similar and align in position with protection bar leaning forward slightly, so infill trim looks good from side. **Note** front and side views. **See figures 13 and 14. NOTE:** 6mm clearance is required in front of grille. **See figure 15.**

14. **TIGHTEN ALL STEEL MOUNTING BRACKETS BOLTS AND NUTS.** Tighten rear original bolts on under bodyguard. **TIGHTEN** protection bar to steel mounting brackets.
15. Recheck alignment and bonnet opening and closing. Readjust if necessary.
16. Connect ECB indicator/park lights and check operation.
17. **Ensure three ECB air vents in lower skirt have ECB logo at bottom to direct air to oil cooler.**

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.**

FITTING KIT

2 – Upper 100mm steel mounting brackets.	6 – 3/8 spring washers.
2 – Lower steel mounting brackets.	2 – M10 x 60 x 1.25 bolts.
8 – ½ x 1 ½ bolts and nuts.	1 – ECB LED Indicator / Park light kit
16 – ½ flat washers.	1 – 750mm length 6mm clip lock.
8 – ½ spring washers.	2 – 850mm lengths infill trim.
4 – 3/8 x 1 ½ bolts and nuts.	6 – Cable locks.
10 – 3/8 flat washers.	



Figure 1 – Removing air cleaner housing



Figure 2 – Moving headlight forward to access wiring



**WORLD'S BEST
ALLOY BULLBARS**

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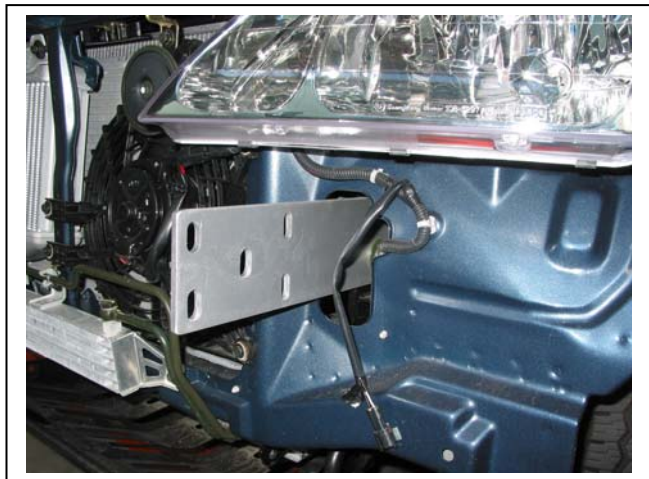


Figure 3 – Passenger side shown

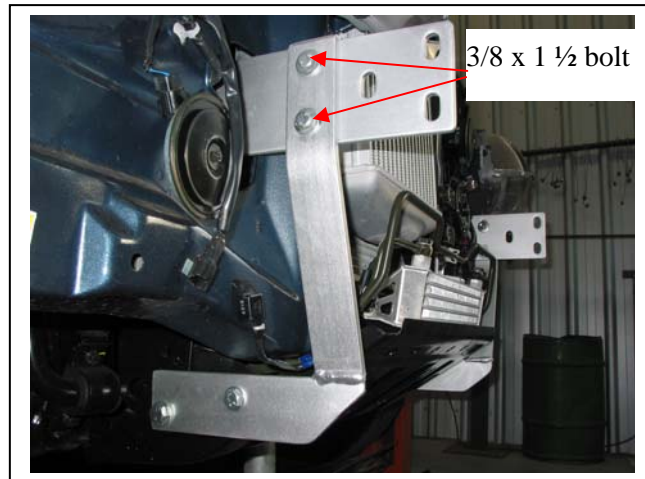


Figure 4 – Drivers side shown

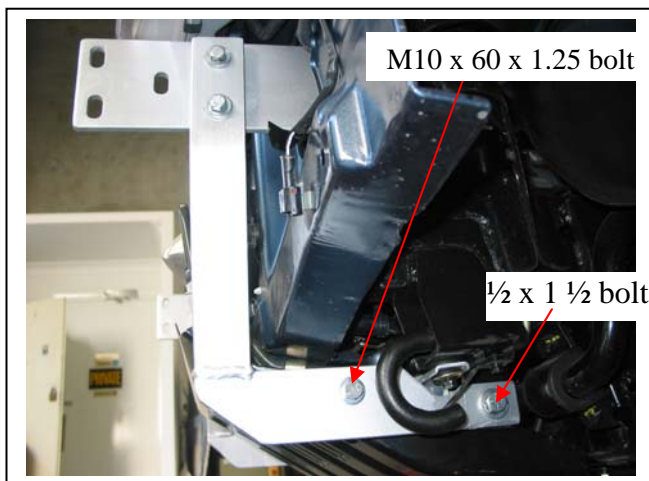


Figure 5 – Passenger side shown

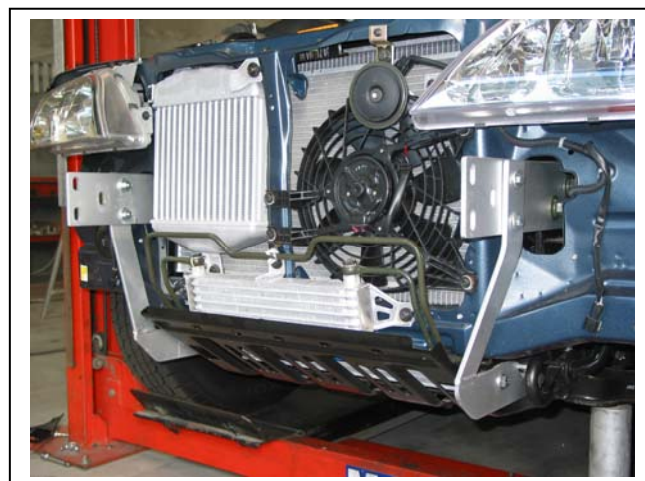


Figure 6



Figure 7
Stainless steel self-tappers

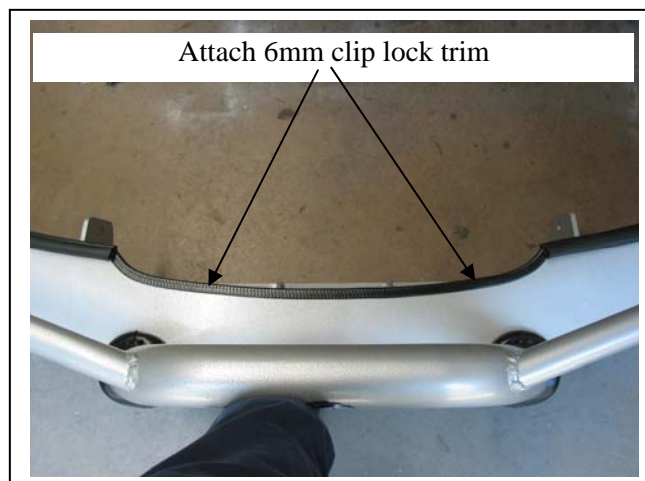


Figure 8



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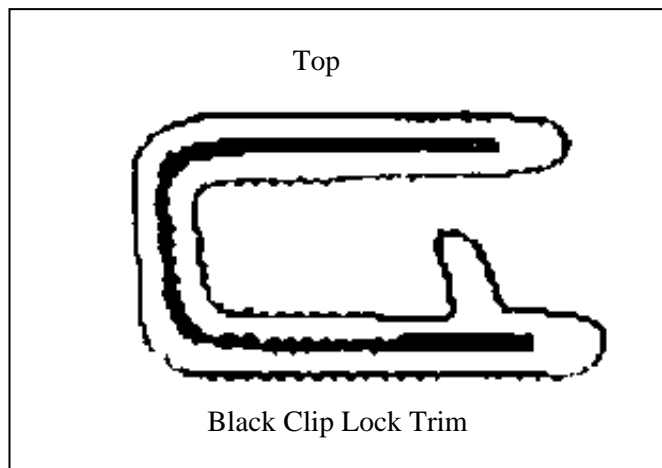


Figure 9

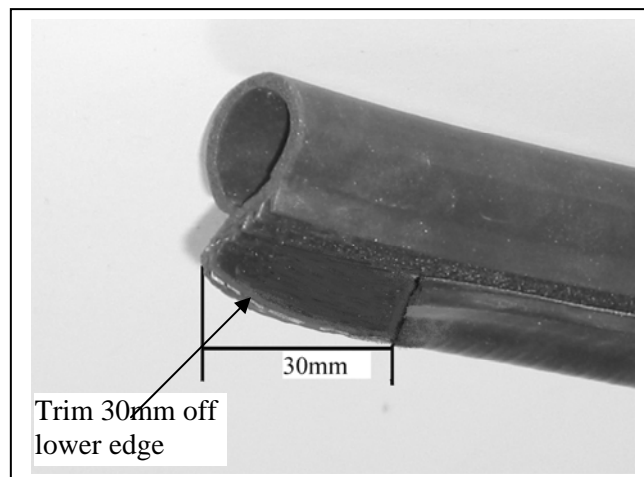


Figure 10

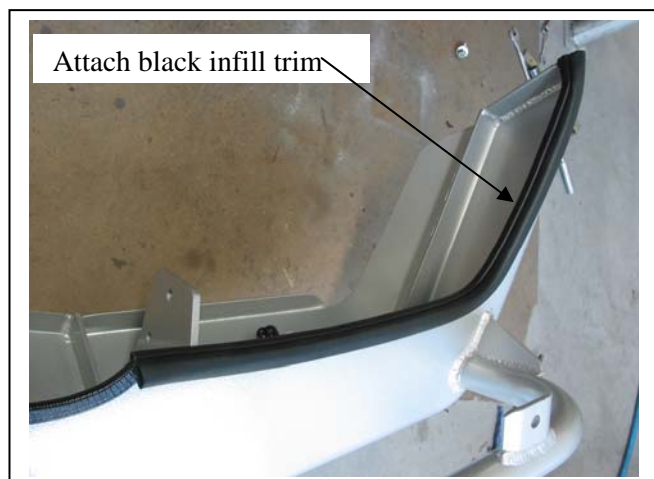


Figure 11

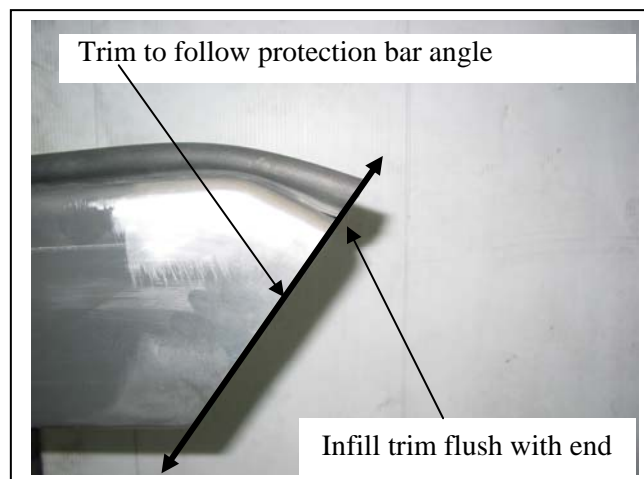


Figure 12



Figure 13



Figure 14



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Figure 15



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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?

Yes

☐

No

☐

If no what was not supplied

Did the installation go well?

Yes

☐

No

☐

Please provide comments

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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DESPATCH CHECKLIST BSM30SY

Work Order #	
Finish:	
Transport:	
Due Date:	

- ☐ 2 – Upper 100mm steel mounting brackets.
- ☐ 2 – Lower steel mounting brackets.
- ☐ 1 – Bolt kit.
- ☐ 1 – LED ECB indicator / park light kit.
- ☐ 1 – 750mm length 6mm clip lock.
- ☐ 2 – 850mm lengths infill trim.
- ☐ 2 – ECB overrides – **Fitted to Bar**
- ☐ 3 – 3mm air scoops – **Fitted to Bar**
- ☐ 2 – 6mm air scoops – **Fitted to Bar**

**See other side of
this page for
photos of all
mounts**



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

All parts checked and completed by:

Nut and bolts: _____ Date __/__/__

Order control: _____ Date __/__/__

Final wrap check: _____ Date __/__/__



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