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Po Box 122 Margate QLD 4019 Australia

BT122SY

REPLACES: 00.00.00 REVISED: 09.09.11

FITTING INSTRUCTIONS

HILUX 03/05 – 07-11 2WD / 4WD BIG TUBE™ PROTECTION BAR VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

- 1. Lift bonnet
- 2. Remove grille, two plastic clips and two PK self-tappers along top, pull grille forward at top enough to access and release five fixed clips along bottom inside of grille
- 3. Remove bumper cover, three plastic clips along top (grille area), one plastic clip (each side) at bumper cover top side returns, one 10mm head self-tapper on passenger side inner guard, four plastic clips along bottom of bumper cover (<u>six on 4WD</u>). Pull bumper cover outward at sides to release off side supports on guards.
- 4. <u>On 4WD Models</u>: Remove plastic under guards (two) from front of vehicle, six 12mm head bolts and four plastic clips.
- 5. Remove steel chassis cross member from front of chassis. See figure 1. NOTE: <u>On 4WD</u> remove plastic air deflectors from inside of cross member first.
- 6. Remove four bumper cover support brackets from vehicle. See figure 2.
- 7. Remove headlight / indicator assemblies from vehicle. Three 10mm head self-tappers and one 10mm head bolt. Disconnect wiring as removing. **See figure 3.**
- 8. Remove plastic bumper cover support brackets from bottom of headlights. See figure 4.
- 9. Remove plastic bumper cover side supports from each guard. One 10mm head self-tapper, squeeze in two clips inside guard to remove. **See figure 5**.
- 10. Cut off plastic shrouds. See figure 6.
- 11. Connect ECB indicator / park light wiring to original wiring loome. Use cable locks (supplied) and refit headlight / indicator assemblies.
- 12. Refit grille to vehicle and then carefully drill three 3/16 holes in lower lip on grille, one in centre and one each side, zip tie bottom of grille to head light / indicator assemblies and to steel bracket in centre. See figures 7 and 8.
- 13. Fit ECB steel mounting bracket to outside of chassis. **NOTE:** Welded spacer plate to inside. Use M12 x 35 x 1.25 bolts, flat and spring washers (supplied) and M8 x 30 x 1.25 bolts, flat and spring washers (supplied) into captive nuts in chassis. **FINGER TIGHTEN ONLY. See figure 9.**
- 14. Place 3/8 flat washer (supplied) and 75x50x8 steel plate (supplied) over 3/8 x 4 bolt (supplied). Slide 52mm long steel chassis spacer pipe (supplied) over bolt. See figure 10. Slide through chassis and steel mounting bracket. Use 3/8 flat washer, spring washer and nut (supplied). FINGER TIGHTEN ONLY.



- 15. Fit ECB chassis cross member to original studs on chassis. Use original nuts. **FINGER TIGHTEN ONLY**. Use 3/8 x 1 ½ bolts, nuts and flat and spring washers (supplied) to attach ECB cross member to steel mounting brackets. **FINGER TIGHTEN ONLY**. See figures 11 and 12.
- 16. Tighten M12 x 35 x 1.25 bolts firm only. Level steel mounting brackets off front edge. See figure 13. TIGHTEN ALL BOLTS / NUTS (as per the below sequence) ensuring steel mounting brackets remain centralised with vehicle and are correct distance apart for alloy protection bar to mount on outside of steel mounting brackets. Mount bolt tighten sequence:
 - a) **TIGHTEN** M12 x 35 bolts first.
 - b) Centralize cross member and TIGHTEN original 14mm nuts on cross member studs.
 - c) TIGHTEN 3/8 x 4 bolt/nut FIRM ONLY 75x 50 steel plate in vertical position. See figure 14.
 - d) Align steel mounting brackets level at sides and with enough distance apart for protection bar to mount on outside of steel mounting brackets. See figure 15. TIP: Tighten 3/8x 1¹/₂ bolt/nut FIRM ONLY then tap mounts into position.
 - e) TIGHTEN 3/8 x 1 ½ bolts and nuts from ECB cross member to steel mounting brackets.
 - f) **TIGHTEN** 3/8 x 4 bolts/nuts. Ensure 75x50 steel plate is in vertical position.
 - g) **TIGHTEN** M8 x 30 bolts.
- 17. 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 16.**
- 18. Attach ECB infill trims (supplied) to protector bar. Use M6 nylock nuts and flat washers (supplied) **FINGER TIGHTEN ONLY. See figure 17.**
- 19. Fit ECB protection bar to outside of steel mounting brackets. Use ½ x 1 ¾ bolts, nuts flat and spring washers (supplied). **FINGER TIGHTEN ONLY**.
- 20. Align ECB protection bar with vehicle ensuring a cap of 15mm between protection bar and guard / flare at sides with approximately 10mm gap under grille. See **figure 18** for side view and **figure 19** for front view **TIGHTEN ALL BOLTS.** Impact wrench access is in between protection bar skirt and ECB cross member. See figure 20. NOTE: A 15mm cap each side is critical to allow for body/chassis twist in rough terrain.
- 21. Connect indicator / park light wiring and CHECK OPERATION.
- 22. Align ECB infill trims with vehicle and protection bar. **TIGHTEN NUTS FIRM ONLY DO NOT OVERTIGHTEN.**
- 23. Using ECB inner guard bracket supplied fit bracket to lower radiator support using one 10mm head bolt and one M6x20 bolt, washer and nyloc nut per side. See figure 21. Secure outer hole in liner to inner guard bracket with bolt supplied M6 x 20 bolt, washers and nyloc nuts. Then secure second hole in inner guard bracket to liner with M6 x 20 bolt, washer and nyloc nut, ensure is not pulled to tight it may cause liner to tear. Tighten bolts and trim any excess liner off. On passenger side ensure washer bottle stays covered after trim. See figure 22

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.



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

FITTING KIT

1 – Pair steel mounting brackets.	4 - 3/8 spring washers.
1 - ECB steel cross member.	$6 - \frac{1}{2} \ge 1 \frac{3}{4}$ bolts and nuts.
2 – Steel inner guard bracket	$14 - \frac{1}{2}$ flat washers.
2 - 75x50x8mm steel plates with 10mm hole in centre.	$8 - \frac{1}{2}$ spring washers.
2 – 52mm long 10NB steel pipe chassis spacers.	16 – M6 nyloc nuts.
2 – M8 x 30 x 1.25 bolts.	22 – M6x18x2mm flat washers
2 - M8 flat washers.	6 – M6 x 20 bolts
2 – M8 spring washers.	1 – ECB LED Indicator / Park light kit
2 – M12 x 35 x 1.25 bolts.	1 – Pair Hilux infill trims.
$2 - 3/8 \ge 1 \frac{1}{2}$ bolts and nuts.	6 – Cable locks.
$2 - 3/8 \ge 4$ bolts and nuts.	3 - 150mm zip ties.
8 - 3/8 flat washers.	



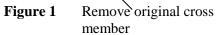




Figure 2



Figure 3



Remove plastic bracket. Figure 4 Three PK self-tappers



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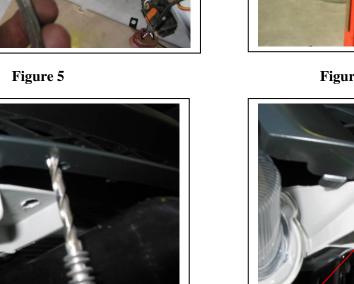
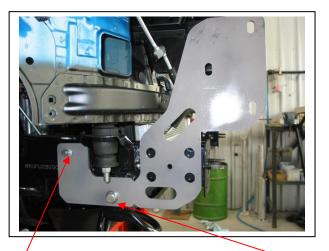


Figure 7 – Drivers side Shown. Shown drilling lower lip of grille



M8 x 30 bolt Figure 9 – Drivers side shown $M12 \times 35$ bolt

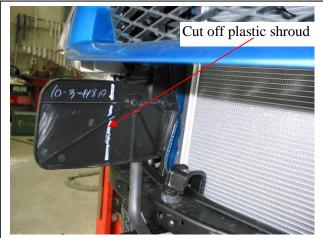
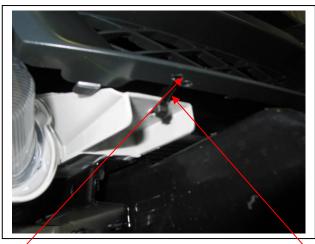


Figure 6 – Drivers side shown



Drilled **Figure 8** – Drivers side shown Zip tie hole

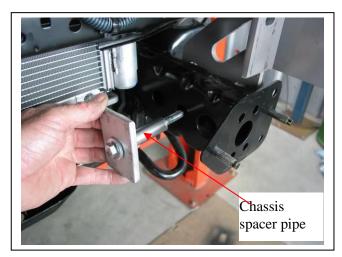


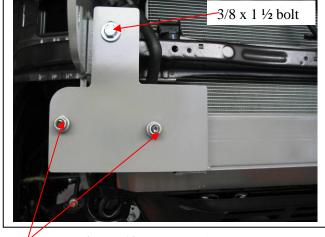
Figure 10 – Passenger side shown



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ECB steel cross Figure 11 member



Original nuts on studs

Figure 12 – Drivers side shown 75x 50 x 8 steel plate in vertical position

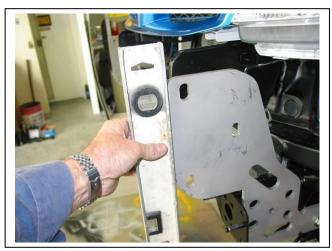


Figure 13 – Passenger side shown Levelling off front edge



Figure 15 – Drivers side shown Levelling at sides

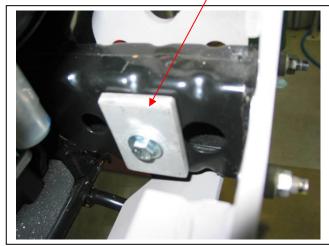
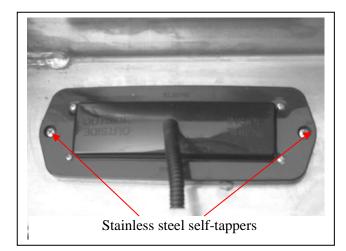


Figure 14 – Passenger side shown







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Figure 17



Figure 19



Figure 18



Figure 20



Figure 22: Trim inner guard to suit ECB inner guard bracket



Figure 21: Driver side shown



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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 Invoice No.	
Product Part 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.

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DESPATCH CHECKLIST BT122SY

ICZBRU	1122	
Nork Order #		
Finish:		
Transport:		
Due Date:		

- 2 Steel mounting brackets. 0
- 1 ECB steel cross member. 0
- 0 2 – Steel inner guard bracket
- 2 75x50x8mm steel plates with 10mm hole in centre. 0
- O1 – Bolt Kit.
- 0 1 – ECB LED Indicator / Park light kit.
- O 1 Pair Hilux infill trims.
- 2 ECB overriders Fitted to bar. 0
- 3 6mm air scoops Fitted to bar. 0
- 3 3mm air scoops Fitted to bar. 0

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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