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REPLACES: 00.00.00 REVISED: 17.01.18

#### **BT123SY**

#### FITTING INSTRUCTIONS

# HILUX 03/05 – 07/11 2WD / 4WD BIG TUBE™ PROTECTION BAR WITH FOG LIGHTS 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 (six on 4WD). Pull bumper cover outward at sides to release off side supports on guards.
- 4. On 4WD Models: 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**: **On 4WD** 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 3/8x 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**.



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- 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 1½ 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 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.) **TIGHTEN FIRM ONLY.** Fit ECB fog light trims (supplied) to protection bar. **NOTE:** Wider part of trim faces to centre. **See figure 17.**
- 19. Attach ECB infill trims (supplied) to protector bar. Use M6 nyloc nuts and flat washers (supplied) **FINGER TIGHTEN ONLY. See figure 18.**
- 20. 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**.
- 21. 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 19 for side view and figure 21 for front view TIGHTEN ALL BOLTS. Impact wrench access is in between protection bar skirt and ECB cross member. See figure 22. NOTE: A 15mm cap each side is critical to allow for body/chassis twist in rough terrain.
- 22. Connect ECB indicator/park lights and ECB fog lamps. CHECK OPERATION.
- 23. Aim fog lights just below low beam and TIGHTEN all fog light bolts.
- 24. Align ECB infill trims with vehicle and protection bar. **TIGHTEN NUTS FIRM ONLY DO NOT OVERTIGHTEN.**
- 25. Using ECB bracket supplied fit bracket to lower radiator support using one 10 mm head bolt and one M6x 20 bolt washers and nyloc nut per side. **See figure 23**. Secure outer hole in liner to bracket with bolt supplied M6 x 20 washers and nyloc nuts .Then secure second hole in bracket to liner with M6 x 20 bolt, washer and nyloc nut, ensure it 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 24**.



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#### 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**

1 – Pair steel mounting brackets.	$14 - \frac{1}{2}$ flat washers.
1 – ECB steel cross member.	8 – ½ spring washers.
2 - Steel inner guard bracket	1 – ECB LED Indicator / Park light kit
2 - 75x50x8mm steel plates with 10mm hole in centre.	2 – ECB Fog lamps
2 – 52mm long 10NB steel pipe chassis spacers.	2 – ECB Fog light trims.
2 – M8 x 30 x 1.25 bolts.	8 – M6 x 20 bolts.
2 – M8 flat washers.	2 – M6 nuts
2 – M8 spring washers.	16 – M6 nyloc nuts
2 – M12 x 35 x 1.25 bolts.	24 – M6 flat washers.
$2-3/8 \times 1\frac{1}{2}$ bolts and nuts.	2 – M6 spring washers
$2 - 3/8 \times 4$ bolts and nuts.	10 – Cable locks.
8 - 3/8 flat washers.	1 – Pair Hilux infill trims.
4 - 3/8 spring washers.	3 – 150mm zip ties.
$6 - \frac{1}{2} \times 1^{3/4}$ bolts and nuts.	



Figure 1 Remove original cross member



Figure 2



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Figure 3



Remove plastic bracket. Three PK self-tappers

Figure 4

Cut off plastic shroud



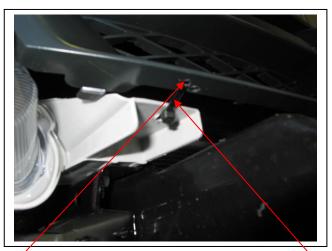
Figure 5



**Figure 6** – Drivers side shown



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



Drilled **Figu**i

Figure 8 – Drivers side shown

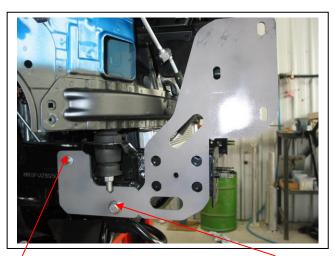
Zip tie

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M8 x 30 bolt **Figure 9** – Drivers side shown M12 x 35 bolt

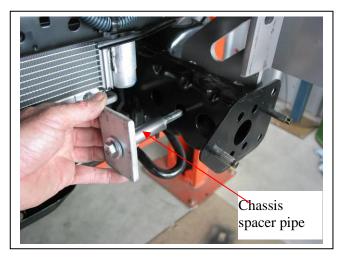


Figure 10 – Passenger side shown

### ECB steel cross member

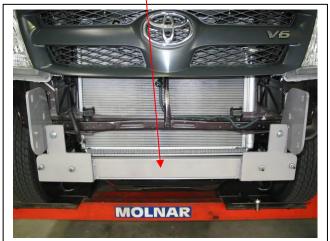
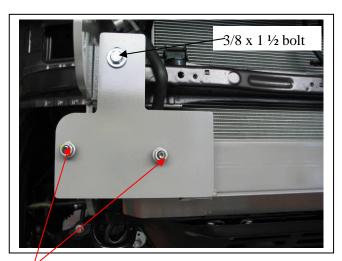


Figure 11



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

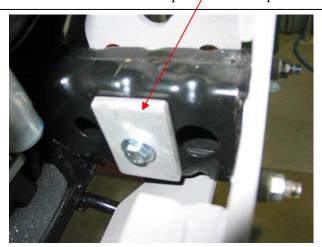
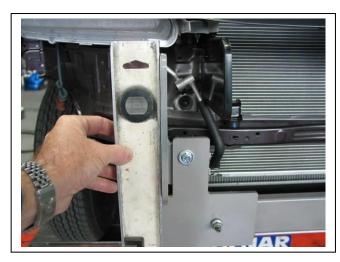


Figure 14 – Passenger side shown

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**Figure 15** – Drivers side shown Levelling at sides

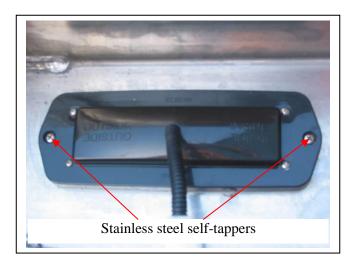
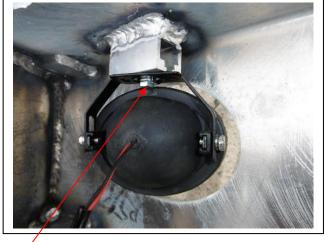


Figure 16



Mố nut Figure 17



Figure 18



**Figure 19** – Big Tube<sup>TM</sup> Bar shown



Figure 21 – Big Tube<sup>TM</sup> Bar Shown

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Figure 22 Figure 23



Figure 24



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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.	Your contact No.		
Product Part No.	Product Invoice No.			
Product Description:	Make, model, and y	Make, model, and year 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				

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



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# DESPATCH CHECKLIST BT123SY

Wor	k Order #		See other side of		
	Finish:		this page for		
T	ransport:		photos of all		
	Due Date:		mounts		
0		ounting brackets.			
_	O 1 – ECB steel cross member.				
	O 2 – ECB inner guard bracket				
	O $2-75x50x8mm$ steel plates with 10mm hole in centre.				
0 1 – Bolt Kit.					
O 1 – ECB LED Indicator / Park light kit.					
O 2 – ECB fog lights and wiring kit.					
<ul> <li>O 2 – ECB fog light trims.</li> <li>O 1 – Pair Hilux infill trims.</li> </ul>					
0					
0		erriders – <b>Fitted to bar.</b>			
0 0		scoops – <b>Fitted to bar.</b> scoops – <b>Fitted to bar.</b>			
O	5 – Jillii ali	scoops – Fitted to bar.			
STO	If NO	<pre>product "the best it can be" fix before continuing</pre>	Yes / Checker initials		
All parts	<u>checked</u> and <u>c</u>	ompleted by:			
Nut	and bolts:		Date//		
Ord	ler control:		Date/		
Final w	rap check:		Date//		



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