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BT124SY

REPLACES: 00.00.00 REVISED: 09.09.11

FITTING INSTRUCTIONS

HILUX 03/05 – 07/11 2WD / 4WD BIG TUBE™ PROTECTION BAR WITH 9000LB WARN WINCH FITMENT 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. Remove two cross member supports from chassis. Five 14mm head bolts (per support). See figure 9.
- 14. Rotate gearbox housing on winch if necessary. See figure 10. Remove ten allen head bolts move housing out just off spline to rotate.
- 15. Connect control box cables to winch and sit control box on top of winch.



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- 16. Place winch mounting bracket (supplied) on trolley jack or similar, sit winch and control box in winch mount with winch slightly toward passenger side. **DO NOT BOLT** winch to winch mount. **See figure 11.**
- 17. Jack up onto chassis just forward of chassis studs once aligned push back onto chassis studs. Use original nuts for chassis studs. **FINGER TIGHTEN ONLY. See figures 12 and 13**.
- Refit two original cross member supports over winch mount. Use four M10 x 35 x 1.25 bolts, flat and spring washers (supplied) for winch mount. See figure 14. Ensure 10mm holes on winch mount are aligned with middle chassis hole. TIGHTEN FOUR ORIGINAL NUTS ON STUDS FIRST THEN TIGHTEN ALL CROSS MEMBER BOLTS.
- 19. Refit steel under guard.
- 20. Slide winch into position, insert top winch captive nuts, then bolt winch in place with top bolts only. Use 3/8 x 1¹/₄ winch bolts with flat and spring washers (supplied). **FINGER TIGHTEN ONLY. NOTE:** Ensure any air conditioning lines etc are clear of winch.
- 21. Fit control box bracket (supplied) to inside of winch mount. Use M8 x 30 bolts, nuts and washers (supplied) FINGER TIGHTEN ONLY. See figure 15. NOTE: Attach motor earth lead to one of M8 x 30 bolts – Ensure good earth contract.
- 22. Bolt control box to control box bracket. **See figure 16** for hole choice. **NOTE:** Standard control box will require the 95x 50x6 spacer plate to be positioned between control box and control box bracket. Use original nuts with four ¼ flat washers (supplied) for each side of control box bracket and spacer. Position with control box socket cover flush with bottom of grille and centre of socket cover approximately 20mm from grille. **See figures 17, 18** and 19. TIGHTEN ALL BOLTS AND NUTS Ensure all winch cables are positioned to avoid any rubbing etc.
- 23. Centralise winch ensuring all clearances around winch are sufficient, insert lower captive nuts into winch. Align lower captive nuts, then **TIGHTEN** top winch bolts.
- 24. Feed winch cable through winch mount. Fit roller fairlead over winch cable and bolt to winch. Use 3/8 x 1¹/₂ winch bolts with flat and spring washers (supplied). Align roller fairlead. **TIGHTEN BOLTS**.
- 25. Wire winch to battery as per winch instructions.
- 26. Place 3/8 x 4 bolt with flat washer (supplied) through 10mm hole in steel mounting bracket. Slide 52mm long pipe chassis spacer (supplied) over bolt. See figure 20. Fit steel mounting bracket to chassis with pipe spacer into middle chassis hole and insert through winch mount. See figure 21. Use 3/8 nut, flat and spring washers (supplied) FINGER TIGHTEN ONLY.
- 27. Fit M12 x 35 x 1.25 bolt, flat and spring washers (supplied) and M8 x 30 bolt, flat and spring washers (supplied) into captive nuts in chassis. **FINGER TIGHTEN ONLY. See figure 22**. Fit 3/8 x 1½ bolts, nuts and washers (supplied) from winch mount to steel mounting brackets. **See figure 23**.



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28. Tighten M12 x 35 x 1.25 bolts firm only. Level steel mounting brackets off front edge. See figure 24. 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) **TIGHTEN** 3/8 x 4 bolt/nut **FIRM ONLY**
- c) 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 25. TIP: Tighten 3/8x 1½ bolt/nut firm only then tap mounts into position.
- d) **TIGHTEN** 3/8 x 1 ½ bolts and nuts from winch mount to steel mounting bracket.
- e) **TIGHTEN** 3/8 x 4 bolts/nuts.
- f) **TIGHTEN** M8 x 30 bolts.
- 29. Use four 3/8 x 1¹/₄ bolts, nuts and washers (supplied) for extra holes in front of chassis. See figure 26. TIGHTEN.
- 30. Attach ECB Hilux infill trims (supplied) to protector bar. Use M6 nylock nuts with M6 flat washers (supplied) FINGER TIGHTEN ONLY. See figure 27. Attach 3mm clip lock trim (supplied) to roller fairlead cut out in protection bar. See figure 28.
- 31. 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**. **NOTE:** Use four ½ x 1¾ bolts and washer on wire (supplied) to access two front holes (each side), feed from inside. **See figure 29**
- 32. 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 30 for side views and figure 31 for front view TIGHTEN ALL BOLTS. NOTE: A 15mm cap each side is critical to allow for body/chassis twist in rough terrain.
- 33. 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 32.**
- 34. Connect indicator / park light wiring and CHECK OPERATION.
- 35. Align ECB Hilux infill trims with vehicle and protection bar. **TIGHTEN NUTS FIRM ONLY DO NOT OVERTIGHTEN.**
- 36. Attach oval cut out surround (supplied) to inspection / access cut out at top of protection bar. Thinner part of surround to rear. See figure 33.
- 37. Using ECB inner guard brackets supplied. Fit inner guard bracket to lower radiator support using one original equipment 10mm head bolt and one M6x20 bolt, washers and nyloc nut per side. **See figure 34.** Secure second hole in inner guard bracket to liner with M6 x 20 bolts, flat washer and nyloc nut .Ensure liner 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 fig 35**.

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.



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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.	$2 - \frac{1}{2} \times 1^{3/4}$ bolts.
1 - ECB steel cross member.	$4 - \frac{1}{2} \times 1^{\frac{3}{4}}$ bolts and washer on 250mm wire.
1 – ECB control box mount.	$6 - \frac{1}{2}$ nuts.
1 – ECB control box spacer (95x50x6)	$10 - \frac{1}{2}$ flat washers.
2 – ECB inner guard brackets	$8 - \frac{1}{2}$ spring washers.
2 – 52mm long 10NB steel pipe chassis spacers.	6 – M6 x 20 bolts
4 – M8 x 30 x 1.25 bolts.	16 – M6 nyloc nuts.
2 - M8 nuts.	22 – M6 flat washers
6 – M8 flat washers.	$4 - \frac{1}{4}$ flat washers
4 – M8 spring washers.	1 – ECB LED Indicator / Park light kit.
4 – M10 x 35 x 1.25 bolts.	1 – Pair Hilux infill trims.
2 – M12 x 35 x 1.25 bolts.	6 – Cable locks.
$2 - 3/8 \ge 1 \frac{1}{2}$ bolts and nuts.	3-150mm zip ties.
$4 - 3/8 \ge 1 \frac{1}{4}$ bolts and nuts.	2-3mm cut down skirt air vents – Fitted to bar.
$2-3/8 \times 4$ bolts and nuts.	3 – 6mm air vents – Fitted to bar.
20 - 3/8 flat washers.	2-215mm lengths of 3mm clip lock.
12 - 3/8 spring washers.	2 – ECB oval Light surround



Figure 1 Remove original cross member



Figure 2



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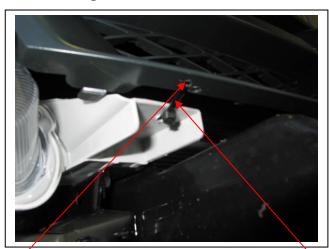
Figure 3



Remove plastic bracket. Figure 4 Three PK self-tappers Cut off plastic shroud



Figure 6 – Drivers side shown



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



Figure 5



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



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Figure 9 – Shown removing cross member supports



Figure 10 Clutch lever position



Figure 11



Figure 12

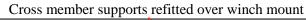




Figure 14



Figure 13



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Control box bracket



Figure 15 – Drivers side shown



Figure 17 – Standard control box shown



XP 9.5 control
box holesFigure 16Standard control
box holes

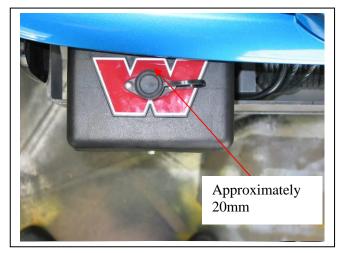


Figure 18

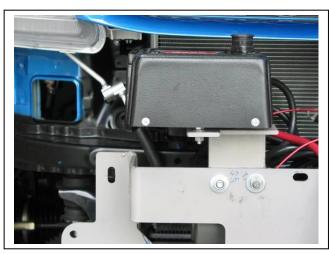


Figure 19 - XP 9.5 control box shown

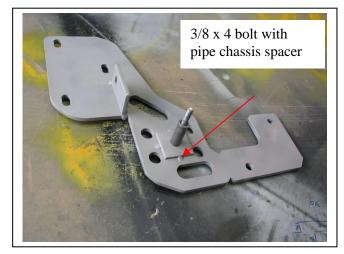


Figure 20 - Drivers side shown



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3/8x 4 bolt with pipe spacer

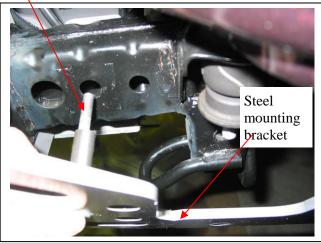
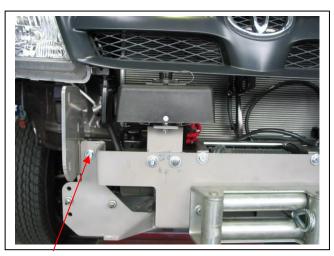


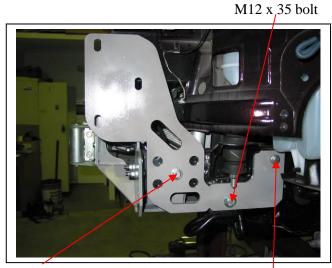
Figure 21 – Passenger side shown



3/8 x 1 ½ bolt, nut and Figure 23 washers. (One each side).



Figure 25 – Shown levelling passenger side steel mounting bracket off side



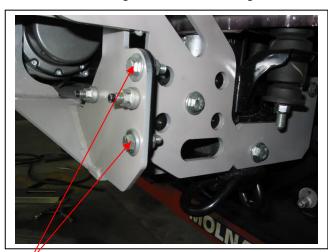
3/8 x 4 bolt

Figure 22

M8 x $\frac{1}{30}$ bolt



Figure 24 – Shown levelling passenger side steel mounting bracket off front edge



3/8x¹¹/₄ bolts, nuts and washers

Figure 26



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Figure 27

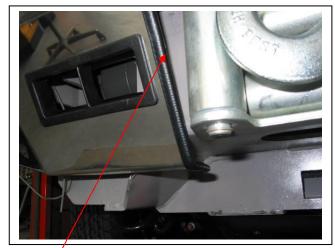


Figure 28

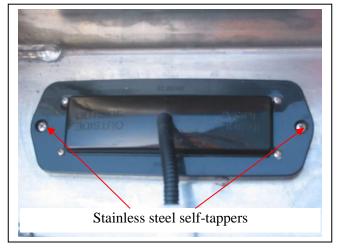
3mm clip lock trim



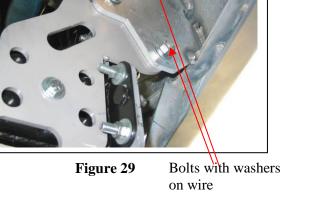
Figure 30



Figure 31 – Big TubeTM Bar non-winch shown









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Figure 33







Figure 35



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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. Make, model, and year of vehicle:		
Product Part No.			
Product Description:			
Product Work Order No.	Company your from	m/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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See other side of

this page for

photos of all

mounts

DESPATCH CHECKLIST BT124SY

ICZBKC	T124	* I CZBKCT1	24*
Work Order #			
Finish:			
Transport:			
Due Date:			

- O 1 Pair steel mounting brackets.
- O = 1 ECB steel cross member.
- O = 1 ECB control box mount.
- O = 1 ECB control box spacer (95x50x6).
- O = 2 ECB inner guard brackets
- O = 2 52mm long 10NB steel pipe chassis spacers.
- O 1 Bolt Kit.
- O 1 ECB LED Indicator / Park light kit.
- O 1 Pair Hilux infill trims.
- O = 2 215mm lengths 3mm clip lock.
- O 2 Oval cut out surround (use ECB fog light surround).
- O 2 ECB overriders **Fitted to bar.**
- O 2 3mm cut down skirt air vents **Fitted to bar.**
- O 3 6mm air vents **Fitted to bar.**



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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