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> REPLACES: 16.03.10 REVISED: 11.07.10

BT46S

FITTING INSTRUCTIONS

80 SERIES LANDCRUSIER BIG TUBE™ PROTECTION BAR VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) WITH XD9000 WARN WINCH FITMENT

Check installation hardware before commencing.

- 1. Place protection bar face down on workhorses or similar.
- 2. Fit winch mounting bracket (supplied) inside of protection bar and align with all holes. See figure 1.
- 3. Fit Warn Winch into protection bar feeding cable through winch mounting bracket and protection bar. Attach top two bolts into winch. **FINGER TIGHTEN ONLY**. Use two 3/8 x 1½ bolts and washers supplied with winch kit. **See figure 2.**
- 4. Attach roller fairlead to front of protection bar. Use 3/8 x 1 ³/₄ bolts, flat and spring and washers (supplied) into winch. **FINGER TIGHTEN ONLY. See figure 3.**
- 5. Align winch and roller fairlead. Ensure all winch mounting bracket holes are still aligned with protection bar holes. **TIGHTEN FOUR WINCH BOLTS**.
- 6. Fit two ¼ flat washers (supplied) over control box studs, then fit control box bracket (supplied) to control box. Use ¼ flat washers (supplied) and original control box nuts. **FINGER TIGHTEN ONLY. See figure 4.**
- Fit control box bracket and control box to top of protection bar, feed M8 x 25 bolts (supplied) from inside protection bar. Use M8 nuts, flat and spring washers (supplied). NOTE: Attach motor earth lead to M8 x 25 bolt. Align control box as far forward (against protection bar centre tube) as possible and TIGHTEN IN POSITION. See figure 5.
- 8. Attach control box cables to winch. Position cables in cut out in protection bar and cable tie in position. **See figure 6.**
- 9. Attach winch hook to winch cable. See figure 7.
- 10. 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 8.**
- 11. Remove bumper and all bumper bar brackets from the vehicle chassis.
- 12. Remove the towing brackets from the bottom of the chassis rails.
- 13. Slide protection bar and winch onto chassis rails.
- 14. Using six M10 x 30 x 1.25 bolts, flat and spring (supplied); loosely fit the bolts in the side mounting to the original threaded holes in the sides of the chassis.
- 15. Using four M12 x 40 x 1.25 bolts, flat and spring washers (supplied); loosely fit bolts in the upper protection bar mounting / winch mounting to the original threaded holes in the top of the chassis.



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- 16. Using spacers (supplied), refit towing brackets (using the furthermost holes back) over the lower protection bar / winch mountings. Use original bolts. **DO NOT TIGHTEN YET.**
- 17. Using one M12 x 40 bolt, flat and spring washers (each side) (supplied). Loosely fit bolts in the lower protection bar / winch mounting to the original threaded holes in the bottom of the chassis rails.
- 18. Using two ½ x 6 bolts, nuts, flat and spring washers (supplied). Loosely fit bolts vertically through protection bar / winch mounting / chassis rails.
- 19. Align protection bar with the vehicle.
- 20. TIGHTEN side chassis bolts first. Check alignment; TIGHTEN top and bottom chassis bolts.
- 21. Connect wiring into indicator / park lights in the ECB protection bar. CHECK FOR CORRECT OPERATION.
- 22. Connect winch cables as per winch instructions and CHECK OPERATION OF WINCH.

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

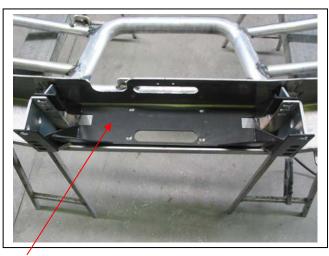
FITTING KIT

1 – Winch mounting bracket.	6 – M10 x 30 x 1.25 bolts.
2 – Steel spacers.	6 – M10 flat washers.
1 – Control box bracket.	6 – M10 spring washers.
$2 - 3/8 \ge 1 \frac{3}{4}$ bolts.	6 – M12 x 40 bolts.
4 - 3/8 flat washers.	$2 - \frac{1}{2} \times 6$ bolts and nuts.
$2 - M8 \times 25$ bolts and nuts.	10 – M12 flat washers.
2 – M8 flat washers.	8 – M12 spring washers.
2 – M8 spring washers.	1 – ECB LED Indicator / Park light kit.
$4 - \frac{1}{4}$ flat washers.	6 – Cable locks.
1 - 150mm cable tie.	



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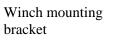


Figure 1

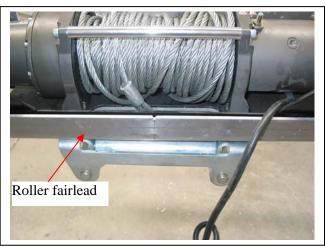


Figure 3



Figure 5



Figure 2

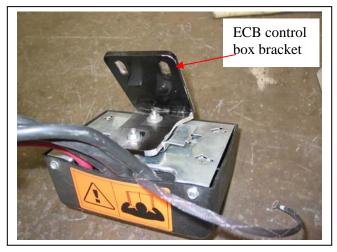
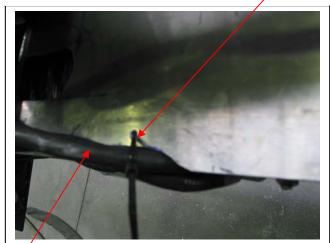


Figure 4

Cable tie



Control box cables

Figure 6



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Figure 7

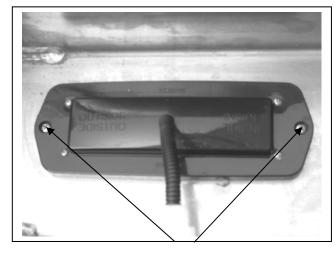


Figure 8 Stainless steel self-tappers



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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 contact No.
Product Invoice No.
Make, model, and year of vehicle:
Company your from/Company product purchased from:
Yes No
Yes No

Please draw diagrams if you need to.

Fax to (07) 3283 1168



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DESPATCH CHECKLIST BT46S

Work Order #	
Finish:	
Transport:	
Due Date:	

- O 1 Winch mounting bracket.
- O 2 Steel spacers.
- O 1 Control box bracket.
- O = 1 Bolt Kit.
- *O* 1 ECB LED Indicator / Park light kit.
- 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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