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Po Box 122 Margate QLD 4019 Australia

#### BT81SY

REPLACES: 23.02.10 REVISED: 15.07.10

#### FITTING INSTRUCTIONS

#### LANDCRUISER 100 SER LIVE COIL BIG TUBE™ PROTECTION BAR with 9000LB WARN WINCH MOUNTING BRACKET VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG and ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

- 1. Lift Bonnet. Remove grille, three PK screw at top and two plastic clips at bottom. Remove bumper cover. Three plastic clips behind bottom of grille area, **See figure 1**, one 10mm head PK screw (each side at top of bumper side returns and four to six 10mm head bolts (depending on model) along bottom of bumper.
- 2. Remove foam from bumper sub-frame to access sub-frame bolts.
- 3. Remove bumper sub-frame (all models) and sub frame chassis brackets (depending on model).
- 4. Remove tow hooks.
- 5. Bend bumper cover locating tab under headlight downwards (98-9/02 models only).
- 6. Remove indicators from vehicle, one PK self-tapper at top of indicators (under bonnet). Splice ECB indicator wiring to original indicator wiring. Splice ECB park light wiring to original park light wiring. Refit original indicators.
- 7. Attach infill trim (supplied) to top of ECB protection bar. **NOTE:** Trim 30mm off lower edge so trim will sit over end of protection bar. See figures 2 and 3. Trim excess off end to follow protection bar. See figure 4. **NOTE:** Seal any exposed edges of trim with silicone or similar to avoid corrosion of inner steel.
- 8. Attach the 200mm lengths of 6mm black clip (supplied) to each side of the roller fairlead cut out, trim to edge of skirt. See figure 5.
- 9. 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 6.**
- 10. Attach round cut out surrounds (supplied) into the round cut outs on the front of the protection bar. **NOTE:** Wider part of trim faces to bottom side of cut out.
- 11. Attach steel mounts (supplied) to the inside of chassis. Use M12 x 35 x 1.25 high tensile bolts (supplied) for top holes. Use ½ x 1 ½ bolt, nut and washers for round hole in side of mount. Use original bolts for slot hole in side of mounts. FINGER TIGHTEN ALL BOLTS ONLY. See figures 7 and 8. Do not install lower chassis bolts yet.
- 12. Attach fairlead to ECB winch mount. Use 3/8 x 1 1/4 (supplied). TIGHTEN FIRM ONLY IN CENTRE OF SLOT HOLES ON WINCH MOUNTING BRACKET.
- 13. Loosely bolt winch to winch frame. Use bolts and spring washers supplied with winch along with <sup>3</sup>/<sub>8</sub> flat washers (supplied). See figure 9. NOTE: Feed winch cable through roller fairlead as installing.
- 14. Attach control box cables to winch. TIGHTEN.



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- 15. Place winch mount and winch onto trolley jack or similar. Ensure all cables are at top of winch and not at back.
- 16. Jack winch mount/ winch up onto chassis rails.
- 17. Reattach tow hooks. Use M12 x 50 x 1.25 high tensile bolts (supplied). For rear hole in winch mount use M12 x 45 x 1.25 high tensile bolts (supplied). **FINGER TIGHTEN ONLY.**
- 18. Position control bracket on **outside** (10/02- models) **inside** (98-9/02 models) of winch mounting bracket. Use 3/8 x 1 <sup>1</sup>/<sub>4</sub> bolts/nuts and washers (supplied). **FINGER TIGHTEN ONLY**. **See figure 10 & 10a.**
- 19. Attach control box to control box bracket. Use one ¼ flat washer (supplied) each side of control box bracket. (Position control box socket approximately 2-5mm in front of grille panel and top of socket approximately 20-30mm from underside of grille panel). **TIGHTEN ALL BOLTS/NUTS. See figures 11 and 12.**
- 20. Route positive and negative cables to battery and connect as per winch instructions.
- 21. Attach protection bar to the outside of the steel mounts. Use ½ x 1 ½ unc bolts and nuts/washers (supplied). FINGER TIGHTEN ONLY.
- 22. **TIGHTEN STEEL MOUNTS TO CHASSIS**. Align protection bar with vehicle. Adjust on slot holes for protection bar to sit neatly around grille and headlight under panels.
- 23. Adjust at side returns so protection bar infill trim just makes contact with vehicle guards. See figure 13.
- 24. TIGHTEN PROTECTION BAR BOLTS to a force of 130 N-m (100ft/lb).
- 25. Connect ECB indicators/park lights into the vehicle wiring loom use connectors (supplied). **CHECK FOR CORRECT OPERATION**.
- 26. Align winch in winch frame and TIGHTEN four winch bolts.
- 27. Realign roller fairlead if necessary. TIGHTEN IN POSITION.

#### 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



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#### FITTING KIT

2 – Steel Protection Bar mounting brackets.	$16 - \frac{1}{2}$ spring washers.
1 – Winch mounting plate.	$4 - 3/8 \ge 1 \frac{1}{4}$ bolts/nuts.
1 – Control Box bracket.	12 - 3/8 flat washers.
$4 - \frac{1}{4}$ flat washers.	4 - 3/8 spring washers.
2 – M12 x 35 x 1.25 bolts only.	1 – ECB LED Indicator / Park light kit
2 – M12 x 45 x 1.25 bolts only.	6 – Cable locks.
4 – M12 x 50 x 1.25 bolts only.	2 – 200mm lengths 6mm black clip lock trim.
$8 - \frac{1}{2} \times 1 \frac{1}{2}$ bolts/nuts.	1 – 2500mm length 6mm black infill trim.
$24 - \frac{1}{2}$ flat washers.	2 – Round cut out surrounds.

Three plastic clips

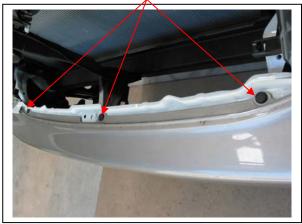


Figure 1

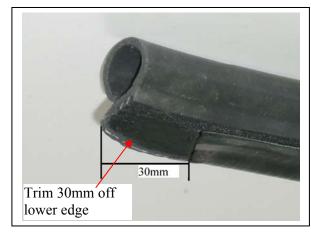


Figure 2

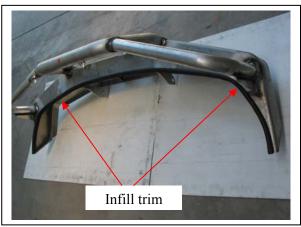


Figure 3

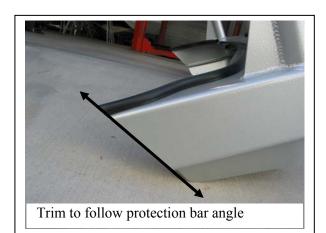


Figure 4



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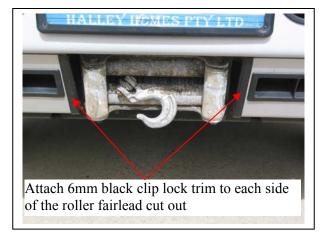
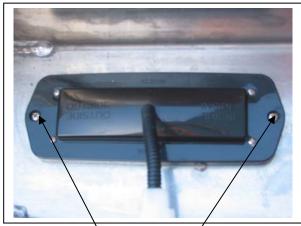
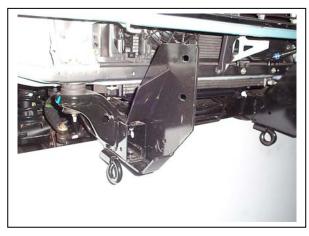


Figure 5



**Figure 6** / Stainless steel self-tappers



**Figure 7** – Drivers side shown

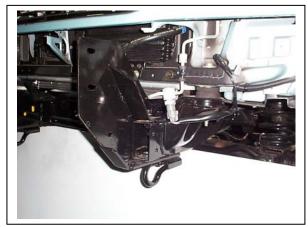


Figure 8 – Passenger side shown



Figure 9



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Control box bracket bolted to inside of winch mounting bracket



**Figure 10** – 98-9/02 model shown

Control box socket 20-30mm under panel

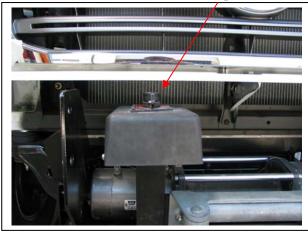


Figure 11



Figure 13

Control box bracket bolted to outside of winch mounting bracket

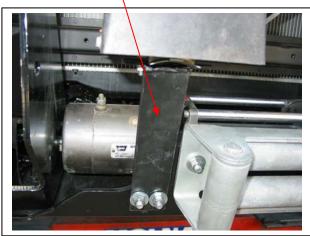


Figure 10a - 10/02 on model shown



Figure 12



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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? If no what was not supplied	Yes No
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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See other side of

this page for

photos of all

mounts

# DESPATCH CHECKLIST BT81SY

Work Order #	
Finish:	
Transport:	
Due Date:	

- *O* 2 Steel mounting brackets
- *O* 1 Winch mounting plate
- O 1 Control box bracket
- O 1 Bolt Kit.
- *O* 1 − ECB LED Indicator / Park light kit.
- O = 2 200mm lengths 6mm clip lock
- O = 1 2500mm lengths 6mm clip lock
- O = 2 Round cut out surrounds
- *O* 2 ECB Overriders **Fitted to Bar**
- *O* 2 6mm Air Scoops **Fitted to Bar**



Is this product "the best it can be" Yes // Wrapper's initials // Checker initials // Checker initials

All parts checked and completed by:

Nut and bolts:	Date//
Order control:	Date//
Final wrap check:	Date//



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