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29 Snook St Clontarf QLD 4019 Australia Po Box 122 Margate QLD 4019 Australia

REPLACES: 09.07.10

BT100SY

REVISED: 22.12.10

LANDCRUISER 100 SERIES IFS BIG TUBE™ PROTECTION BAR VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR ADR AND AIR BAG COMPLANT VEHICLES

Check installation hardware before commencing.

NOTE: Ensure any exposed ends of infill trim are sealed with silicone or similar to prevent corrosion.

- 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. Disconnect original bumper lights as removing.
- 2. Remove foam from bumper sub-frame to access sub-frame bolts.
- 3. Remove bumper sub-frame.
- 4. Remove tow hook tie and down brackets.
- 5. Bend bumper cover locating tab under headlight downwards (98-9/02 models only).
- 6. Remove indicators from vehicle (1 PK screw under bonnet, top outside of headlight) push out from under guard. Splice ECB wiring into original indicator wiring. Use cable locks (supplied). Splice ECB park light wiring into original park light wiring. Refit original indicators.
- 7. Attach ECB steel mounting brackets (supplied) to vehicle. **NOTE:** Tilt steel mounting brackets slightly in toward centre and feed onto chassis. Use M10 x 30 x 1.25 bolts (supplied) in place of original bumper sub frame bolts. **DO NOT TIGHTEN. See figures 2 and 3.**
- 8. Insert ½ x 6 bolts (supplied) vertically through mount hole at front of chassis. Place 40mm round spacer (supplied) between mount and top of chassis. Use nuts/washers (supplied). **DO NOT TIGHTEN**. **See figure 3. NOTE:** Ensure all air conditioning lines are clear of nut/bolts on passenger side. Bend slightly to clear if necessary.
- 9. Replace tow hooks using original bolts. DO NOT TIGHTEN.
- 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 4.**
- 11. 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 5.**
- 12. 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 6 and 7. Trim excess off end to follow protection bar. See figure 8. NOTE:** Seal any exposed edges of trim with silicone or similar to avoid corrosion of inner steel.

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- 13. 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.
- 14. Refit grille to vehicle.
- 15. Attach ECB protection bar to inside of steel mounting brackets using ½ x 1 ½ bolts and nuts (supplied). **DO NOT TIGHTEN.**
- 16. **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.
- 17. Adjust at side returns so protection bar infill trim just makes contact with vehicle guards. **See figure 9**.
- 18. TIGHTEN PROTECTION BAR BOLTS/NUTS.
- 19. Connect ECB indicator/park lights and ECB fog lamps. **CHECK OPERATION**. **NOTE**: Cut original fog lamp socket from original wiring. Use connectors supplied with ECB fitting kit.
- 20. Aim fog lights just below low beam and **TIGHTEN all fog light bolts**.
- 21. Remove centre air vent from protection bar skirt.
- 22. Remove three 12mm head bolts for original steel under guard. **See figure 10. Note:** Loosen side bolts to drop guard if necessary.
- 23. Slide ECB protection plate (supplied) in between under guard and chassis. Use original bolts. **FINGER TIGHTEN ONLY.**
- 24. Using alloy protection plate as a guide, drill three 6mm holes through skirt on protection bar. Use ¼ x 1 bolts, flat washers and nylock nuts (supplied). **TIGHTEN ALL BOLTS/NUTS. See figure 11. NOTE:** Access centre nut through air vent cut out. Replace air vent.

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 mounting brackets.	$3 - \frac{1}{4}$ nyloc nuts.	
1 – Alloy protection plate	$6 - \frac{1}{4}$ flat washers.	
2 – 40mm alloy washers c/w 13mm round holes.	1 – ECB LED Indicator / Park light kit.	
4 – M10 x 30 x 1.25 bolts.	1 – ECB fog light kit	
$4 - \frac{3}{8}$ flat washers.	4 – ECB Fog light surrounds	
$4 - \frac{3}{8}$ spring washers.	2 – M6 x 20 bolts.	
$2 - \frac{1}{2} \times 6$ unc bolts and nuts.	2 – M6 nuts	
$6 - \frac{1}{2} \times 1 \frac{1}{2}$ bolts and nuts.	2 – M6 flat washers.	
$16 - \frac{1}{2}$ flat washers.	2 – M6 spring washers	
$8 - \frac{1}{2}$ spring washers.	10 – Cable locks.	
$3 - \frac{1}{4} \times 1$ bolts.	1 – 2500mm length 6mm black infill trim.	

3 plastic clips

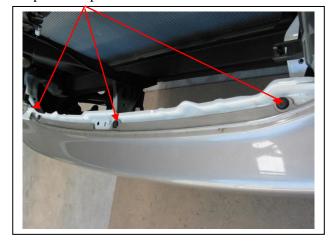


Figure 1

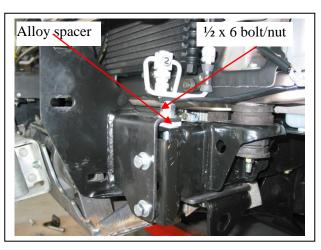
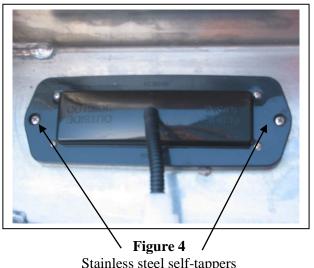


Figure 3 – Passenger side shown

M10 x 30 x 1.25 bolts



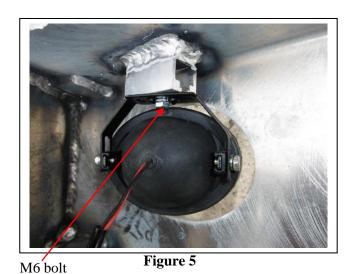
Figure 2 – Passenger side shown



Stainless steel self-tappers



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Trim 30mm off lower edge

Figure 6

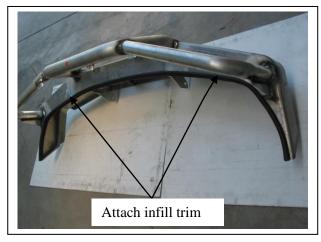
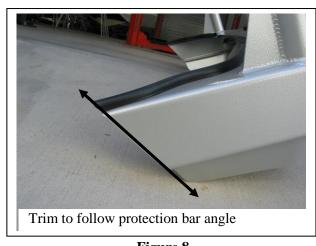


Figure 7



 $\label{eq:Figure 8} \textbf{Note} \hbox{: Example only angle on bar maybe different to the above}$

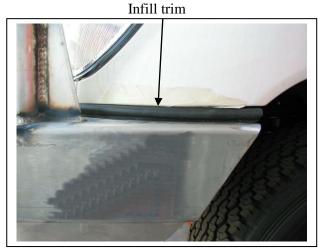


Figure 9

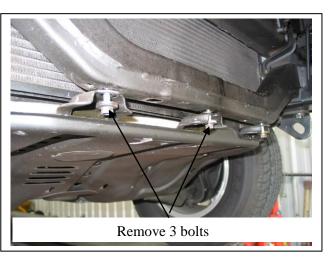


Figure 10



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Figure 11



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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 Invoice No. Make, model, and year of vehicle:	
Product Description:	Make, model, and yea		
Product Work Order No.	Company your from/	Company your from/Company product purchased from:	
Date of fitment:/	Yes	No	
Did the installation go well? Please provide comments	Yes	No	
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 BT100SY

ICZBKCT100



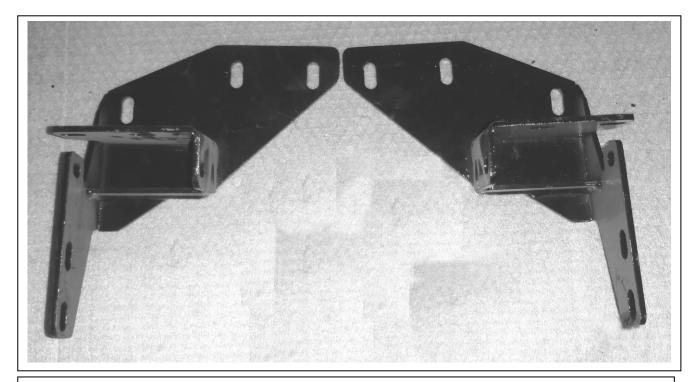
Work Order #	
Finish:	
Transport:	
Due Date:	
OC2 – Steel mounting brackets. OC1 – Alloy protection plate BK1 – Bolt Kit. BK1 – ECB LED Indicator / Park light kit BK1 – Pair ECB fog lights. BK4 – Fog light surrounds. BK1 – 2500mm length 6mm infill trim OC2 – ECB overriders – Fitted to Bar OC3 – 6mm Air Scoops – Fitted to Bar Is this product "the best it can be" If NO fix before continuing All parts checked and completed by:	Wrapper's initials / Checker initials
Nut and bolts:	_Date//
Order control:	_Date//
Final wrap check:	_Date//



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