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#### BT68SY

#### REPLACES: 16.02.10 REVISED: 29.06.10

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#### FITTING INSTRUCTIONS

# 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.

- 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.
- 4. Remove tow hook tie and down brackets.
- 5. Bend bumper cover locating tab under headlight downwards (98-9/02 models only).
- 6. For 98-04/05 Models: Remove indicators from vehicle (one 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.
  - For 05/05- Models: Remove trim under headlight assemblies, one PK self-tapper then pull outer edge off plastic push in-out clip. **See figure 2.** Remove headlight assemblies to access original indicator and park light wiring, three 10mm head bolts and one 10mm head self-tapper. **See figure 3.** Splice ECB wiring into original indicator wiring. Use cable locks (supplied). Splice ECB park light wiring into original park light wiring. Connect ECB indicator / park lights and check operation. One confirmed remove. Refit original indicators / headlight assemblies and trim.
- 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. **FINGER TIGHTEN ONLY. See figures 4 and 5.**
- 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 flat washer, spring washer and nuts (supplied). **FINGER TIGHTEN ONLY**. See figure 5.
  - **NOTE:** Ensure all air conditioning lines are clear of nut/bolt on passenger side. Bend slightly to clear if necessary.
- 9. Replace tow hooks and tie down brackets over steel mounting brackets using original bolts. **FINGER TIGHTEN ONLY.**
- 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 6.**
- 11. 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 7 and 8. Trim excess off end to follow protection bar. See figure 9. NOTE:** Seal any exposed edges of trim with silicone or similar to avoid corrosion of inner steel.

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- 12. Attach round cut out trims (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.
- 13. Refit grille to vehicle.
- 14. Attach ECB protection bar to inside of steel mounting brackets using ½ x 1 ½ bolts and nuts (supplied). **FINGER TIGHTEN ONLY.**
- 15. **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.
- 16. Adjust at side returns so protection bar infill trim just makes contact with vehicle guards. See figure 10.
- 17. TIGHTEN PROTECTION BAR BOLTS/NUTS to a force of 130 N-m (100ft/lb).
- 18. Connect ECB wiring to ECB indicators / park lights. Use cable lock (supplied). **CHECK FOR CORRECT OPERATION AND TIDY WIRING.**
- 19. Remove centre air vent from protection bar skirt.
- 20. Remove three 12mm head bolts for original steel under guard. **See figure 11. Note:** Loosen side bolts to drop guard if necessary.
- 21. Slide ECB protection plate (supplied) in between under guard and chassis. Use original bolts. **FINGER TIGHTEN ONLY.**
- 22. Using alloy protection plate as a guide, drill three 6mm holes through skirt on protection bar. Use ½ x 1 bolts, flat washers and nylock nuts (supplied). **TIGHTEN ALL BOLTS/NUTS. See figure 12**. **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.	8 – ½ spring washers.
1 – Alloy protection plate	$3 - \frac{1}{4} \times 1$ bolts.
2 – 40mm alloy washers c/w 13mm round holes.	3 − ¼ nylock nuts.
4 – M10 x 30 x 1.25 bolts.	$6 - \frac{1}{4}$ flat washers.
4 - 3/8 flat washers.	1 – ECB Indicator / Park light kit.
4 - 3/8 spring washers.	6 – Cable locks.
$2 - \frac{1}{2} \times 6$ unc bolts and nuts.	1 – 2500mm length 6mm black infill trim.
$6 - \frac{1}{2} \times 1 \frac{1}{2}$ bolts and nuts.	2 – Round cut out trims.
$16 - \frac{1}{2}$ flat washers.	

#### 3 plastic clips



Figure 1



Figure 3

### Removing trim under headlight assembly



Figure 2 – Drivers side shown



M10 x 30 x 1.25 bolts

Figure 4



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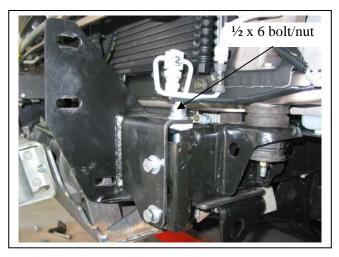


Figure 5

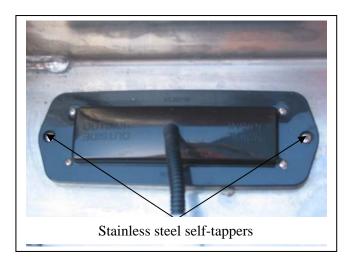


Figure 6

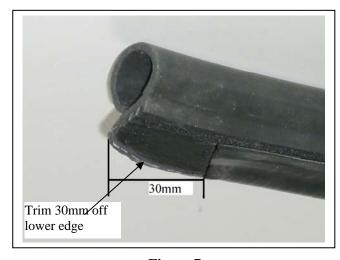


Figure 7



Figure 8



Figure 9

Note: Example only angle on bar maybe different to the above



Infill trim Figure 10

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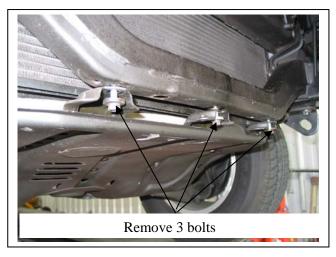




Figure 11 Figure 12



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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.	<b>Product Invoice No.</b>	roduct Invoice No.		
<b>Product Description:</b>	Make, model, and yo	Make, model, and year of vehicle:  Company your from/Company product purchased from:		
Product Work Order No.	Company your 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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# DESPATCH CHECKLIST BT68SY

Work	Order #			
	Finish:			
Tr	ansport:			
D	ue Date:			
0 0 0 0 0	1 – Alloy 1 – Bolt I 1 – ECB	mounting brackets.  protection plate  Kit.  LED Indicator / Park light kit.  nm length 6mm infill trim	See other side of this page for photos of all mounts	
0	•			
0	O 2 – ECB Overriders – <b>Fitted to Bar</b>			
0	3 – 6mm	Air Scoops – <b>Fitted to Bar</b>		
STO STO	If NO	s product "the best it can be" fix before continuing and completed by:	Yes/	
An parts	checked a	na <u>completea</u> by.		
Nut	and bolts:		_Date//	
Ord	ler control:		_Date//	
Final w	rap check:		_Date//	



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