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> REPLACES: 17.04.13 REVISED: 16.01.18

EAT131SY

FITTING INSTRUCTIONS

TOYOTA RAV 4 -2015 on ECB ARC BAR PROTECTION BAR (with fog lights) VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

- 1. Lift Bonnet
- 2. Across top of false grille, remove two 10mm head bolts, one push pull plastic clip, one push pull plastic clip with rubber top and two Phillips head screws with rubber top. From underside of vehicle, remove six 10mm head bolts. On inner guards one 8mm head phillips screw and one flat blade clip (per side). Carefully pull out on rear of wings to unclip bumper from guards, unplug fog lights (if fitted) and remove front bumper. Remove polystyrene infill from front of bumper support.
- 3. Disconnect wiring from horns and temperature sensor. Remove wiring from top of bumper support in readiness for removal of bumper support.
- 4. Remove bumper support, four 14mm head bolts each side.
- 5. Remove lower plastic bumper support six 10mm head bolts and lower section of air dam from front of vehicle to allow access to rear bolt of protection bar. Allow under body guard to hang.
- 6. Install ECB steel mounting brackets (supplied) onto bumper support. Two of the holes will match the bumper support (one only on rear face). Ensure mounts are central to bumper support. And holes to meet chassis rail are correct. Drill holes in bumper support using ECB steel mounting brackets as a guide. Fit four M10 x 50 bolts, flat washers, spring washers and nuts (supplied) for front holes and one 3/8 x 5 ½ bolt, flat washers, spring washer and nut (supplied) for hole in crush can area of mount. Note: Blow filings clear and treat all exposed metal with a rust inhibitor. See figure 1.
- 7. Remove air ducting from front of oil cooler under passengers headlight, two 10mm bolts then gently pull up to disconnect from bottom tab. Unbolt oil cooler from side of chassis rail, three 10mm head bolts, two in chassis rail and one at rear of cooler. Allow to hang.
- 8. Disconnect water bottle from drivers side of chassis rail. Install ECB steel mounting brackets using removed bolts with welded bolt to top. See figure 2. Small flat bracket to lower front mount, medium flat bracket to rear lower mount and bent bracket to top hole with fold to shift bottle forward. Install bottle onto ECB mounting brackets using M6 nyloc nuts and flat washers (supplied). Push bottle to its full height on mounts and tighten all bolts. See figure 3. Caution: Bottle at full height traps wiring between top and air conditioning line. Ensure wiring is not too tightly compacted.
- 9. Fit bumper support back to vehicle using four M10 x 40 bolts, spring washers and flat washers (supplied) (per side) **TIGHTEN ALL BOLTS**. See figure 4.
- Install oil cooler onto outside of ECB steel mounting bracket using flat washers and nyloc nuts (supplied). TIGHTEN ALL BOLTS. Turn hoses on oil cooler so they do not contact the chassis rails. Zip tie together gently. See figure 5.

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- 11. Disconnect indicator and parking lights on vehicle. Install ECB quick click wiring harnesses (supplied) between disconnected harness and indicator / park lights on vehicle. Run wiring out from under lights ensuring clearance from sharp edges and moving parts.
- 12. Connect ECB Quick Click fog light wiring harness (supplied) into original wiring harness.
- 13. On inside of plastic bumper, remove fog lights (two 10mm head bolts and one plastic push pull clip),top grille and white plastic clips from join between top and bottom of bumper. Remove bottom half of bumper. Refit lower white plastic clip to bottom of flare.
- 14. Remove the parking sensors from plastic bumper using a small flat blade screwdriver to gently pry open the 4 tabs holding the sensor to the mount.
- 15. Remove the parking sensor mounts by prying the legs of the mount open and putting slight pressure to pull the front and rear of the mount apart.
- 16. Check sizing of Template 1 (supplied). As all printers are different and can be set differently, template must be measured to ensure correct sizing. Using a sharp pair of scissors, carefully cut template (supplied) from page.
- 17. Mask rear wing of plastic bumper using paper masking tape. Using template (supplied) mark wing of plastic bumper with cut line. Join cut line across top of fog light opening to centre of bar where centre of bar removed. Check line matches development sample in **Figure 6**.
- 18. After you are certain the cut line is correct, trim lower half of bumper and discard. Ensure lower edge is tidy. Fit 3mm clip lock trim to lower outer edge of bumper. For best fit, trim rear edge of clip lock back to allow an overhang on outside of bumper. Trim to suit rear edge of bumper after fitted. Refit top half of bumper to vehicle using original clips.
- 19. Fit ECB LED indicator / park lights into protection bar as per instructions supplied with the LED indicator kit. **NOTE: Ensure park light is to outside. See figure 7.**
- 20. 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. See figure 8.**
- 21. Fit 6mm clip lock trim to air vent cut outs in front of protection bar. Start at top centre and feed into corners. Trim off end slightly longer than needed and force in at top to create a neat finish. See figure 9. NOTE: Ensure ends are cut square
- 22. Install mesh to rear of ECB arc bar using six M5 flat washers and nyloc nuts.
- 23. Attach 6mm clip lock trim (supplied) to top of ECB protection bar. **NOTE**: Trim off lower edge on an angle so trim will sit flush with end of protection bar. **See figures 10, 11 and 12.**
- 24. Install plastic sensor mounts into the holes at the front of the protection bar. Ensure the large openings on the front and rear part of the sensor mount line up.
- 25. Fit ECB Arc bar onto ECB steel mounting brackets using M12 x 40 bolts, flat washers, spring washers and nuts (supplied). **Finger tighten only.**
- 26. Align ECB Arc Bar with vehicle. See figures 13 and 14.
- 27. Connect and check operation of ECB indicator / park lights, ECB fog lights.



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- 28. Install ECB under body guard to top of centre skirt and between front of under body guard and body of vehicle. Use original bolts in front of under body guard and four M6 x 20 bolts, flat washers and nyloc nuts for front holes. Finger tighten only. **Figure 15.**
- 29. Working on one side at a time, remove four 17mm head bolts from front of chassis. See figure 16.
- 30. Attach steel tow brackets (supplied) to where bolts were removed. Use original 100mm long bolts for rear holes. Use M12 x 35 socket head bolts with 20mm OD spring washers (supplied) for front holes. **TIGHTEN ALL BOLTS FULLY.**
- 31. Repeat for other side. Trim under body guard to suit around tow hook to suit.
- 32. Install side under body guards under wings of Protection Bar using four M6 x 20 bolts, flat washers and nyloc nuts. Tighten all bolts including centre under body guard. **See figure 17.** Cut inner strengtheners from rear of inner guard level with top of fold on under body guard. Drill and screw to rear of under body guard using 12-14 gauge hex self tapping screws. (supplied).
- 33. Ensure protection bar is aligned with vehicle and TIGHTEN ALL BOLTS
- 34. Fit ECB air vents into holes in lower skirt. Place vents with longer section to top to allow direct air flow to radiators.

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

IMPORTANT INFORMATION				
Periodically check bolts and nuts for correct tigh	ntness, especially if travelling on rough roads			
FITTING KIT				
1 – Pair ECB steel mounts	2 - 3/8 nut			
2 – ECB Steel tow hooks	14 – M6 x 20 bolt			
1 - Small bottle mount (60 x 26 x 4, one M6 welded bolt)	37 – M6 flat washers			
1 - Large bottle mount (77 x 26 x 4, one M6 welded bolt)	17 – M6 nyloc nuts			
1 - Bent bottle mount (80 x 26 x 4, one M6 welded bolt)	2 - M6 nuts			
$1 - \text{small extended mesh} (635 \times 135)$	6 – M5 nyloc nuts			
4 – M12 x 35 cap head bolts	6 – 12-14 gauge hex self tapping screws			
6 – M12 x 1.25 x 40 bolts	1 – ECB LED Indicator / Park light kit			
12 – M12 flat washers	1 – Quick Click Indi / Park kit (IC15TOR4HIPDH)			
10 – M12 spring washers	1 – ECB fog light kit			
6 – M12 x 1.25 nuts	1 – Quick Click fog wiring kit (IC10D40S1004ECBH)			
8 – M10 x 1.25 x 40 bolts	2 – ECB fog light surrounds			
8 – M10 x 1.25 x 60 bolts	2 – 350mm length, 3mm clip lock trim			
8 – M10 x 1.25 nuts	2 – 600mm length, 6mm clip lock trim			
28 – M10 flat washers	1 – 2600mm length, 6mm clip lock trim			
20 – M10 spring washers	2-300mm zip ties			
$2 - 3/8 \ge 5 \frac{1}{2}$ bolt				
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Figure 1: Mount attached to bumper support



Figure 3: front mount as high as possible.



Figure 5: Oil cooler mounted to passengers side outer.



Figure 2:Disconnect bottle from passengers side inner guard



Figure 4: ECB steel mounts



Figure 6: Bumper after cut



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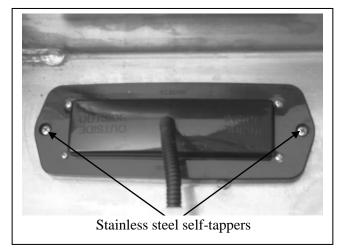
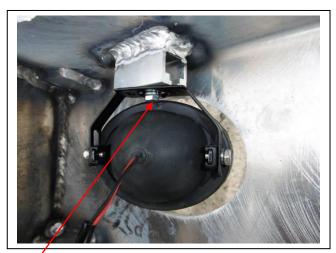


Figure 7



M6 bolt

Figure 8



Figure 9

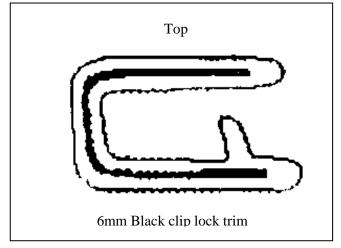


Figure 10

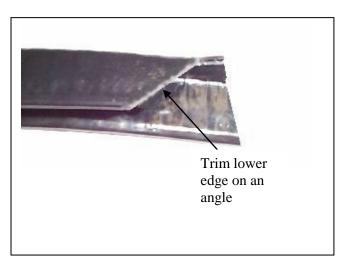
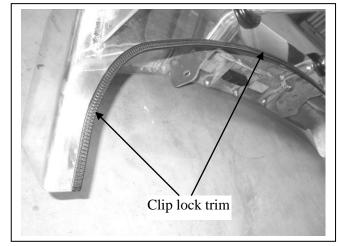


Figure 11







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Figure 13



Figure 14



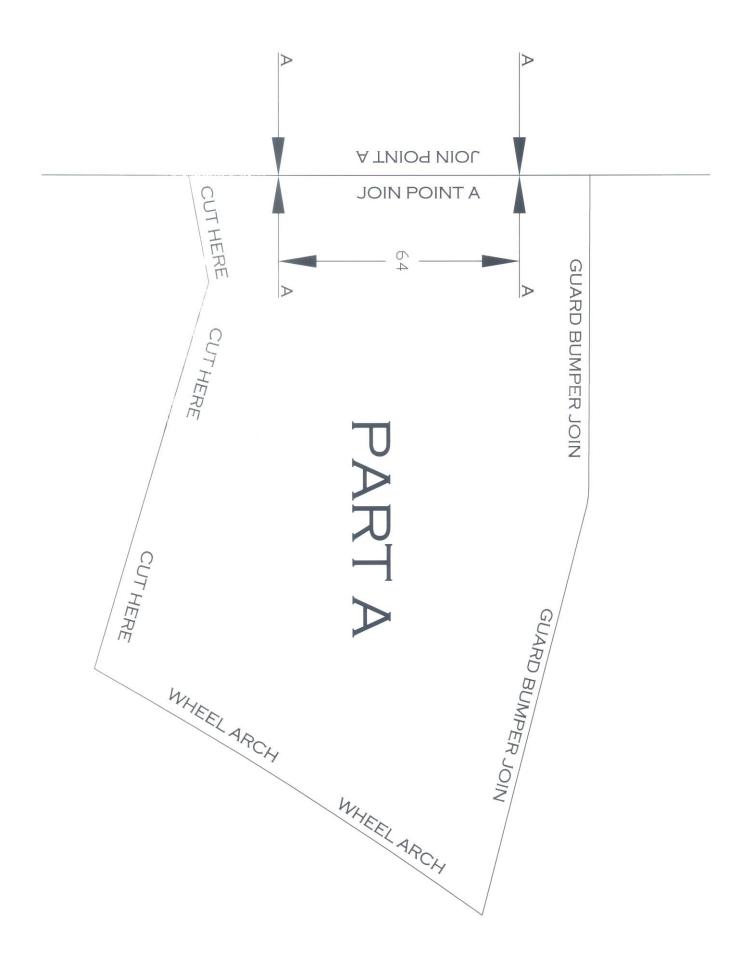
Figure 15: Tow hook installed onto under body frame



Figure 16: Centre under body guard fitted

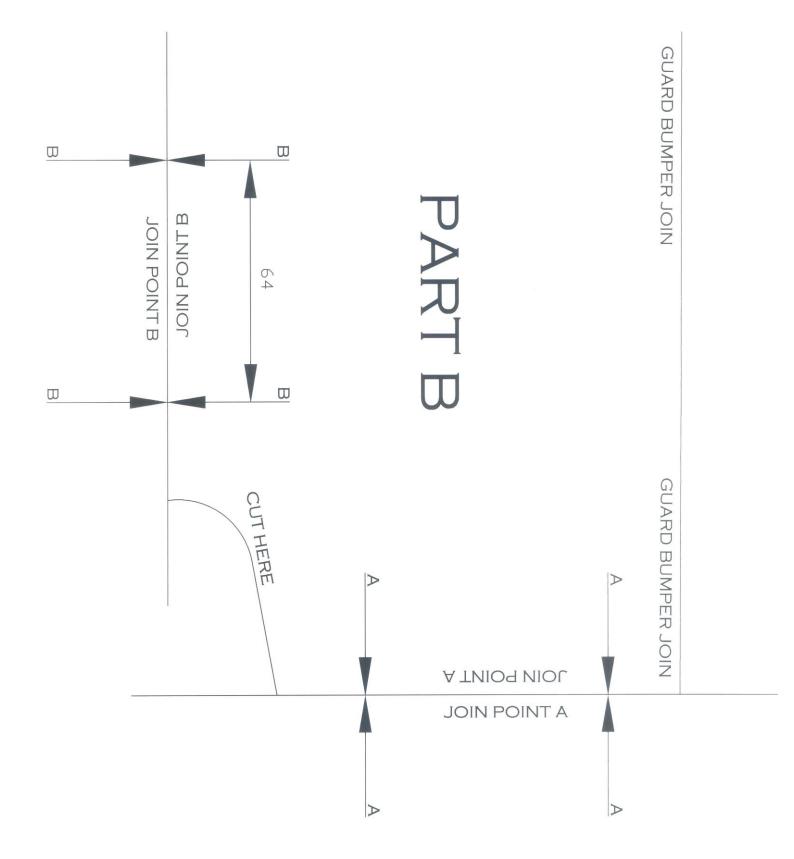


Figure 17: Side under body guard



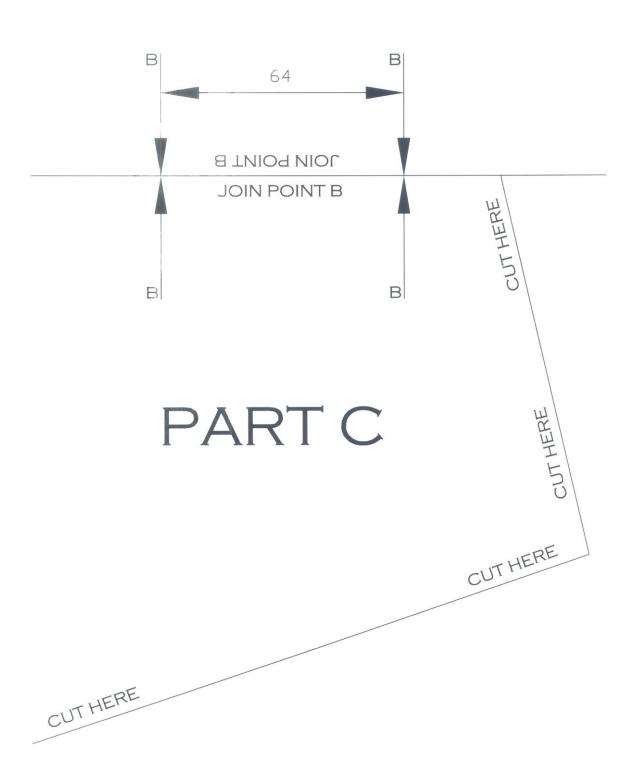


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We value your comments

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.	
Product Description:	Make, model, and year of vehicle:		
Product Work Order No.	Company your from/Co	ompany 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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East Coast Bullbars (ECB Pty Ltd)

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DESPATCH CHECKLIST EAT131SY

ICZBKCT131

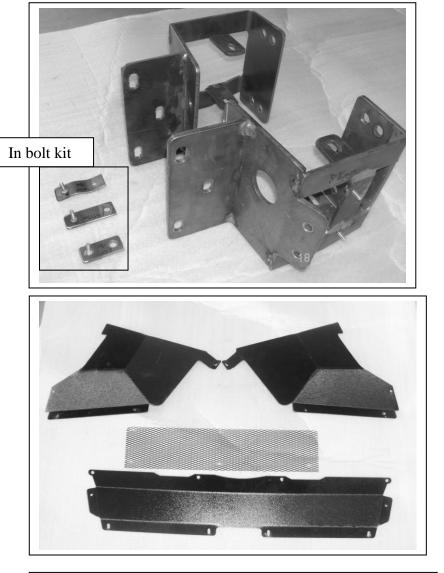
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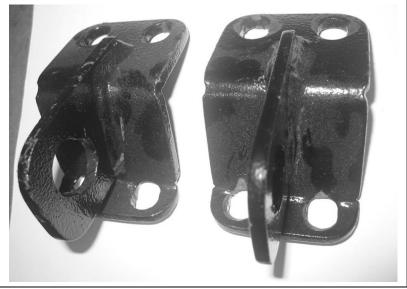
Work Order #		
Finish:		
Transport:		
Due Date:		
OC1 – Pair Steel m	ounting brackets.	
OC2 - ECB steel to	ow hooks	See other side of
OC1 – Alloy centre	•	this page for
OC1 – Pair side un	der body skirts	photos of all
BK1 – Bolt Kit.		mounts
	ded mesh (635 x 135) (p/c black)	
	mount ($60 \times 26 \times 4$, one M6 weld	
•	mount (77 x 26 x 4, one M6 weld	
BK1 – Bent bottle mount ($80 \times 26 \times 4$, one M6 welded bolt)		
	ndicator / park light kit.	
BK1 – Fog light ki	i indicator/ park kit (IC15TOR4HI	
_	Fog wiring kit (IC10D40S1004E	
BK2 – Fog light su	-	CDII)
BK1 – 2600mm lei		
BK2 – 600mm leng	•	
BK2 – 350mm length 3mm clip lock		
OC2 – ECB Overriders – Fitted to Bar		
OC8 – 6mm Air V	ents – Fitted to Bar	
STOP	roduct "the best it can be x before continuing	e ^{**} Yes / / Checker initials
	6	
All parts checked and comple	eted by:	
Nut and bolts:		_Date//
Order control:	<u> </u>	_Date//
Final wrap check:		_Date//



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Wrappers initials / Checkers initials