

EAT133SY

REPLACES: 12.01.18
REVISED: 10.03.21

FITTING INSTRUCTIONS

TOYOTA RAV 4 12/15-12/18 BIG TUBE BAR WITH BUMPER LIGHTS VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Ensure these instructions are left with the vehicle owner and/or operator.

1. Ensure vehicle is on level ground, park brake is on. 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 bodyguard 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 1/2 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.**
10. 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.**

11. Disconnect indicator and parking lights on vehicle. Install ECB quick click wiring harnesses (supplied) between disconnected harness and indicator / DRL / park lights on vehicle. Run wiring out from under lights ensuring clearance from sharp edges and moving parts.
12. Connect ECB Quick Click bumper 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 and unplug from wiring harness. **Figure 6.**
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. **Figure 7.**
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 bumper light opening to centre of bar where centre of bar removed. Check line matches development sample in **Figure 8.**
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 / DRL / park lights into protection bar as per instructions supplied with the LED indicator kit. **See figure 9.**
20. Attach ECB bumper 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 centralise light to hole. **TIGHTEN FIRM ONLY. See figure 10.**
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 11. NOTE:** Ensure ends are cut square.
22. Install mesh to rear of Big Tube bar using six M5 flat washers and nyloc nuts.
23. Attach 6mm clip lock trim (supplied) to top of protection bar. **NOTE:** Trim off lower edge on an angle so trim will sit flush with end of protection bar. **See figures 12, 13 and 14.**
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.** Fit parking sensor into the mounts now situated in the protection bar.
25. Fit Big Tube bar onto steel mounting brackets using M12 x 40 bolts, flat washers, spring washers and nuts (supplied). **Finger tighten only.**
26. Align Big Tube bar with vehicle. **See figures 15 and 16.**

27. Connect and check operation of ECB indicator / DRL/ park lights, ECB bumper lights and parking sensors. **IMPORTANT:** Check the sensors capability by turning the car on and selecting drive. If the sensors are triggered with nothing in front of the vehicle, enlarge the sensor holes in the bar slightly. Caution: If sensor holes are enlarged too much the sensor will not be secured properly in the bar.
28. Install ECB under bodyguard to top of centre skirt and between front of under bodyguard and body of vehicle. Use original bolts in front of under bodyguard and four M6 x 20 bolts, flat washers and nyloc nuts for front holes. Finger tighten only. **Figure 17.**
29. Working on one side at a time, remove four 17mm head bolts from front of chassis. **See figure 18.**
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.**
31. Repeat for other side. Trim under bodyguard to suit around tow hook to suit.
32. Install side under bodyguards under wings of Protection Bar using four M6 x 20 bolts, flat washers and nyloc nuts. Tighten all bolts including centre under bodyguard. **See figure 19.** Cut inner strengtheners from rear of inner guard level with top of fold on under body guard. Drill and screw to rear of under bodyguard 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

Periodically check bolts and nuts for correct tightness, 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 20mm 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 and spring washers
1 – small extended mesh (635 x 135)	6 – M5 nyloc nuts
4 – M12 x 35mm cap head bolts	6 – 12-14 gauge hex self-tapping screws
6 – M12 x 1.25 x 40mm bolts	1 – ECB LED Indicator / Park light kit / DRL
12 – M12 flat washers	1 – Quick Click Indi / Park kit (IC15TOR4HIPDH)
10 – M12 spring washers	1 – ECB Bumper light kit
6 – M12 x 1.25 nuts	1 – Quick Click Bumper wiring kit (IC10D40S1004ECBH)
8 – M10 x 1.25 x 40mm bolts	2 – ECB bumper light surrounds
8 – M10 x 1.25 x 60mm 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 x 5 ½ bolt	4 – 25mm Black Plugs

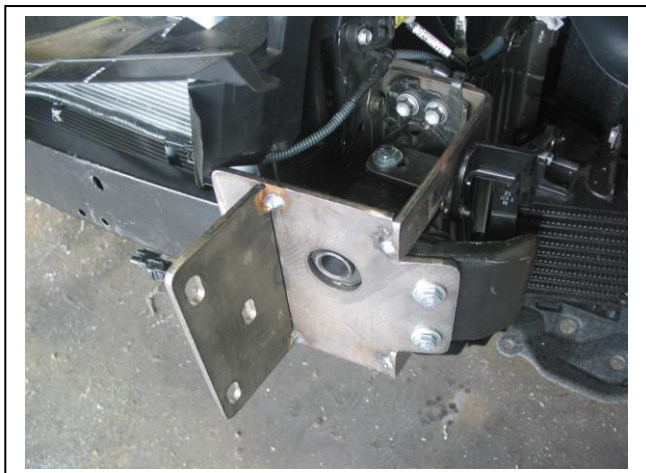


Figure 1: Mount attached to bumper support



Figure 2: Disconnect bottle from passengers side inner guard



Figure 3: Front mount as high as possible.



Figure 4: ECB steel mounts

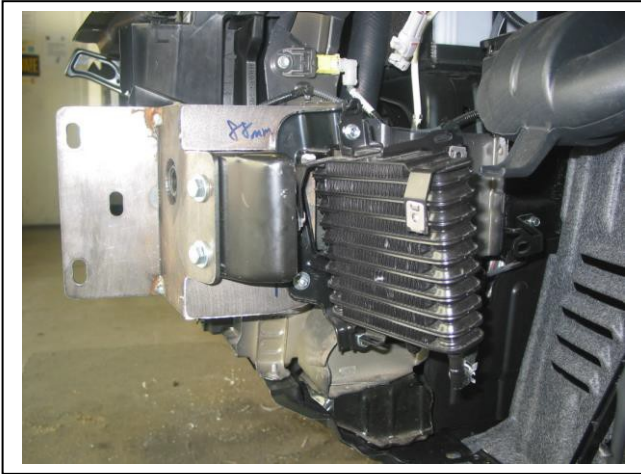


Figure 5: Oil cooler mounted to passengers side outer.



Figure 6: Remove parking sensors



Figure 7: Remove parking sensor mounts



Figure 8: Bumper after cut

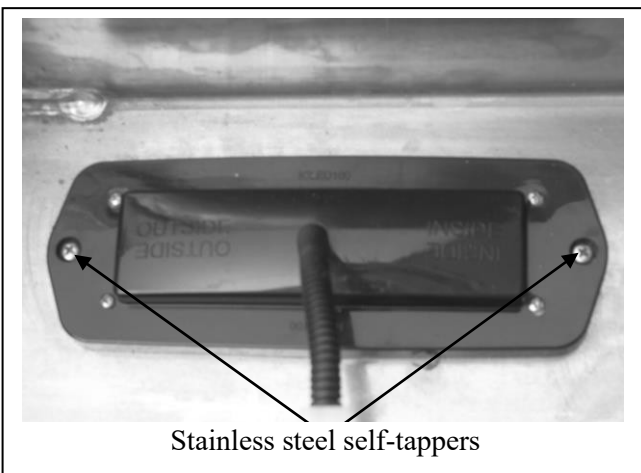
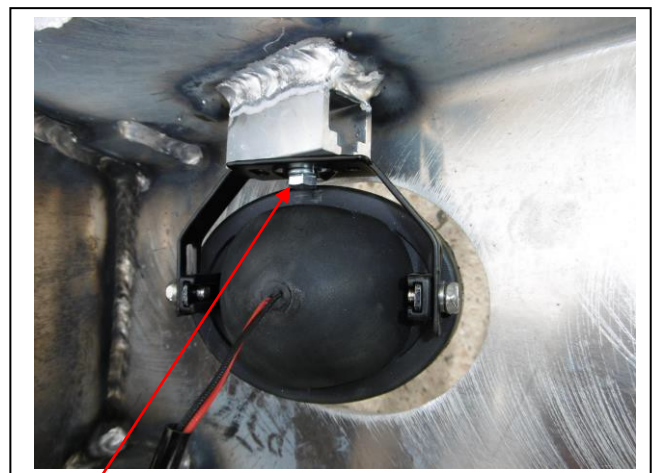


Figure 9



M6 bolt

Figure 10



Figure 11

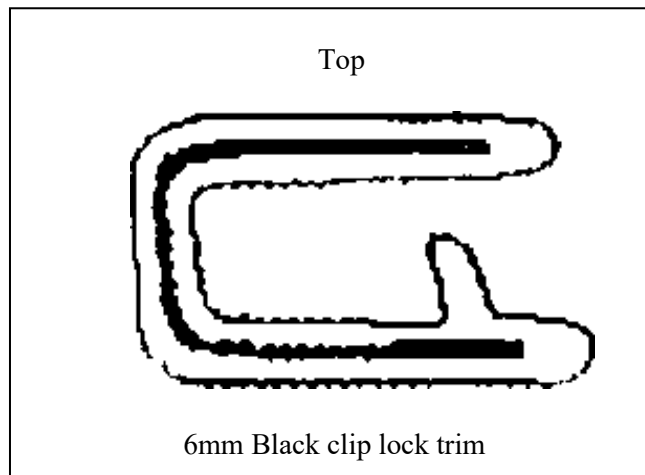


Figure 12

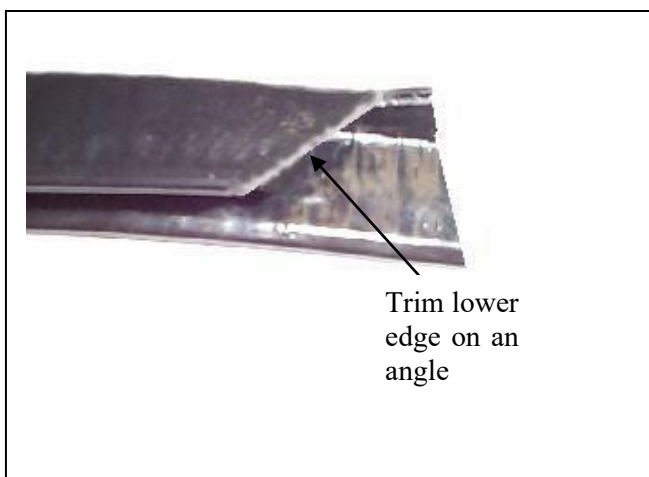


Figure 13

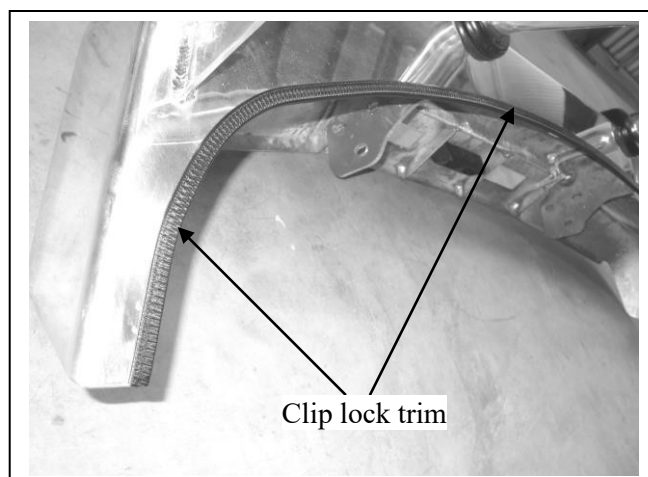


Figure 14



Figure 15

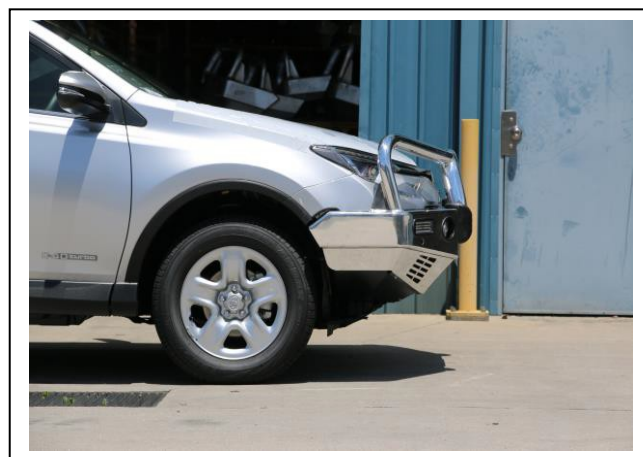


Figure 16



Figure 17: Tow hook installed onto under body frame



Figure 18: Centre under bodyguard fitted



Figure 19: Side under bodyguard

Thank you for purchasing an ECB Product

Please ensure that you read the below and complete the warranty registration.



Vehicle Owner / Operator Responsibilities and Product Care

Important Information

It is the responsibility of the vehicle owner and operator to ensure all nuts and bolts are checked periodically, especially when travelling on corrugated roads. Please ensure these are tightened as per the steps in the provided fitting instructions.

While ECB products are manufactured from high tensile alloy the vehicle owner / operator must check any steel mounting brackets or steel auxiliary parts for signs of corrosion. If you find any corrosion, please contact ECB Pty Ltd to discuss an appropriate solution – 1800 069 145 or www.ecb.com.au.

Product Care

Polished Products

Being a premium mirror polished finish, regular maintenance will be required to keep that iconic ECB shine. We recommend using our own brand of Aluminium Polish. This formula has been tried and tested and in our opinion is the world's best standard.

Directions: Apply a small quantity of Aluminium Polish to a clean soft cloth and rub the metal surface. The longer the rubbing the brighter the surface becomes. Wipe off Aluminium Polish with clean soft cloth. Also suitable for motorised buffing machines. Note: There are more specific details on the polish bottle. Please read before use.

Powder Coated Products

Our powder coated finishes are very low maintenance. In fact, there is actually very little you will ever need to do for this product. Just clean it as you would your car and it will stay looking good as new.

ECB Aluminium Polish

When you're looking for that showroom finish look for your polished automotive products, you can depend on the no compromise quality of East Coast Bullbars Aluminium Polish. This specifically designed product is the best polish available and we guarantee that this \$#!+ works. Within our decades of manufacturing polished alloy products, we have trialled a large range of different polishes on the market and believe without a doubt that nothing beats the finish quality of East Coast Bullbars Aluminium Polish.

East Coast Bullbars Aluminium Polish is excellent for use by hand and is ideal for polished bullbars, nudge bar and stainless-steel products. This polish will clean, polish and protect your product from the elements whilst bringing your products back to that showroom finish look.



Warranty Registration

Please Register your purchase online www.ecb.com.au/warranty-registration

If you have any questions, please contact our national office on 1800 069 145 or www.ecb.com.au

Or post the below information back to ECB, PO Box 122, Margate, QLD 4019.

Contact Details

Name:	
Address:	
Email:	
Phone:	

Purchase Details

Purchased from:	
Date of Purchase:	

Product Details

(You can find this information on the silver label of your ECB Product)

Part Number:	EAT133SY
Work Order Number:	

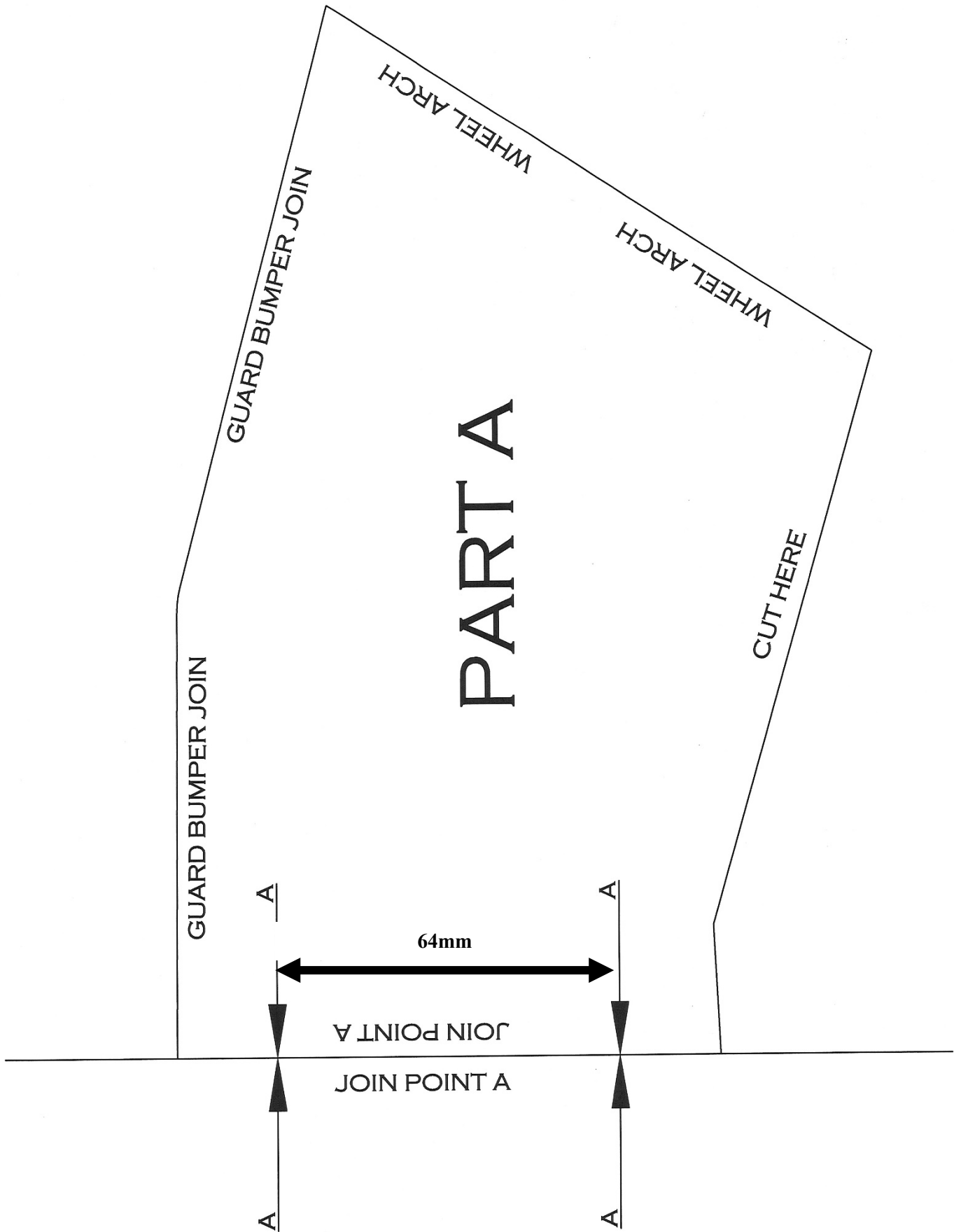
By submitting this registration, you automatically subscribe to ECB's mail outs. You can unsubscribe at any time.



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A: PO Box 122 Margate QLD 4019
P: 07 3897 5700
F: 07 3811 6480
E: info@ecb.com.au
W: ecb.com.au
W: customalloy.com.au







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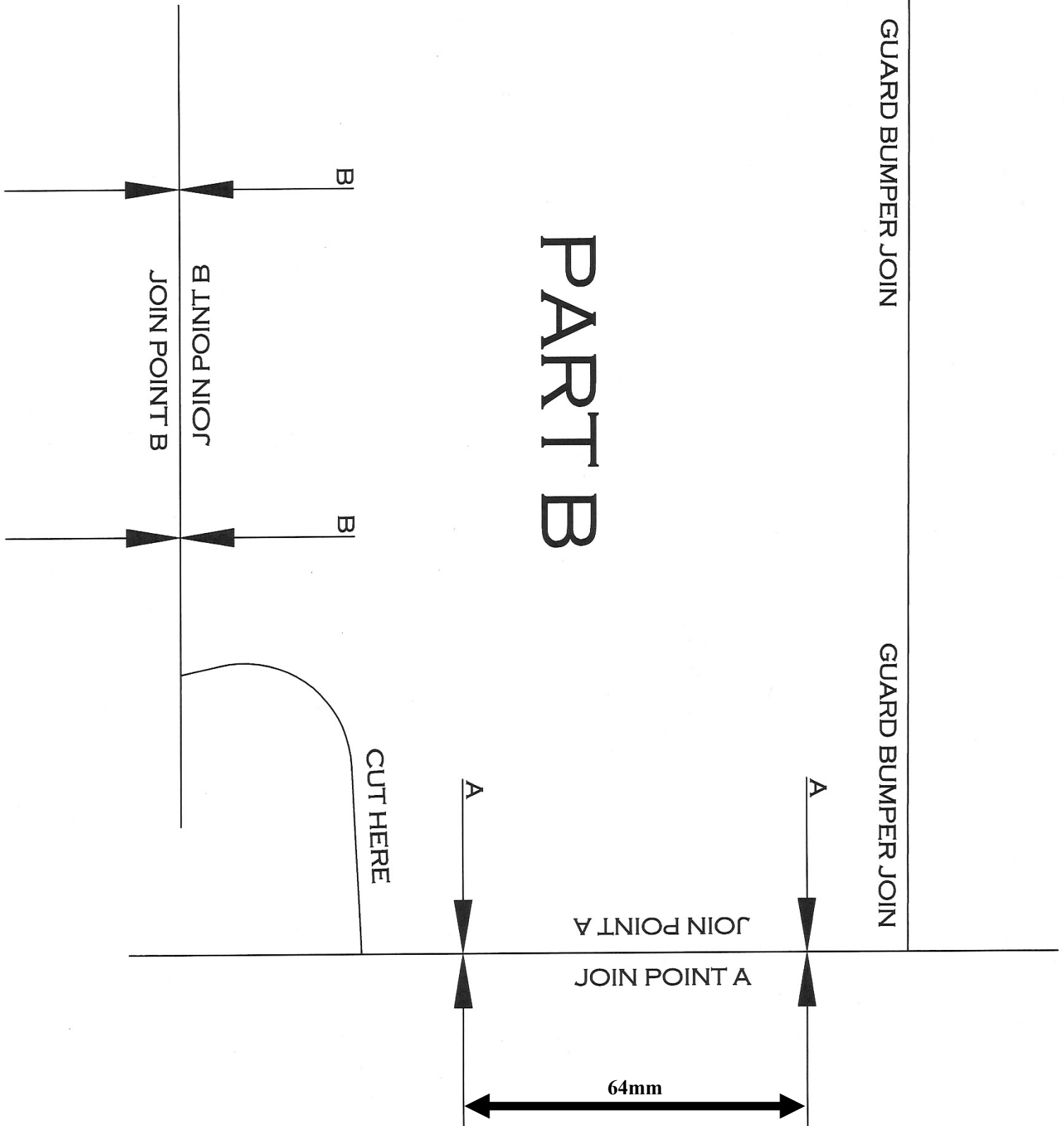
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GUARD BUMPER JOIN

GUARD BUMPER JOIN

PART B

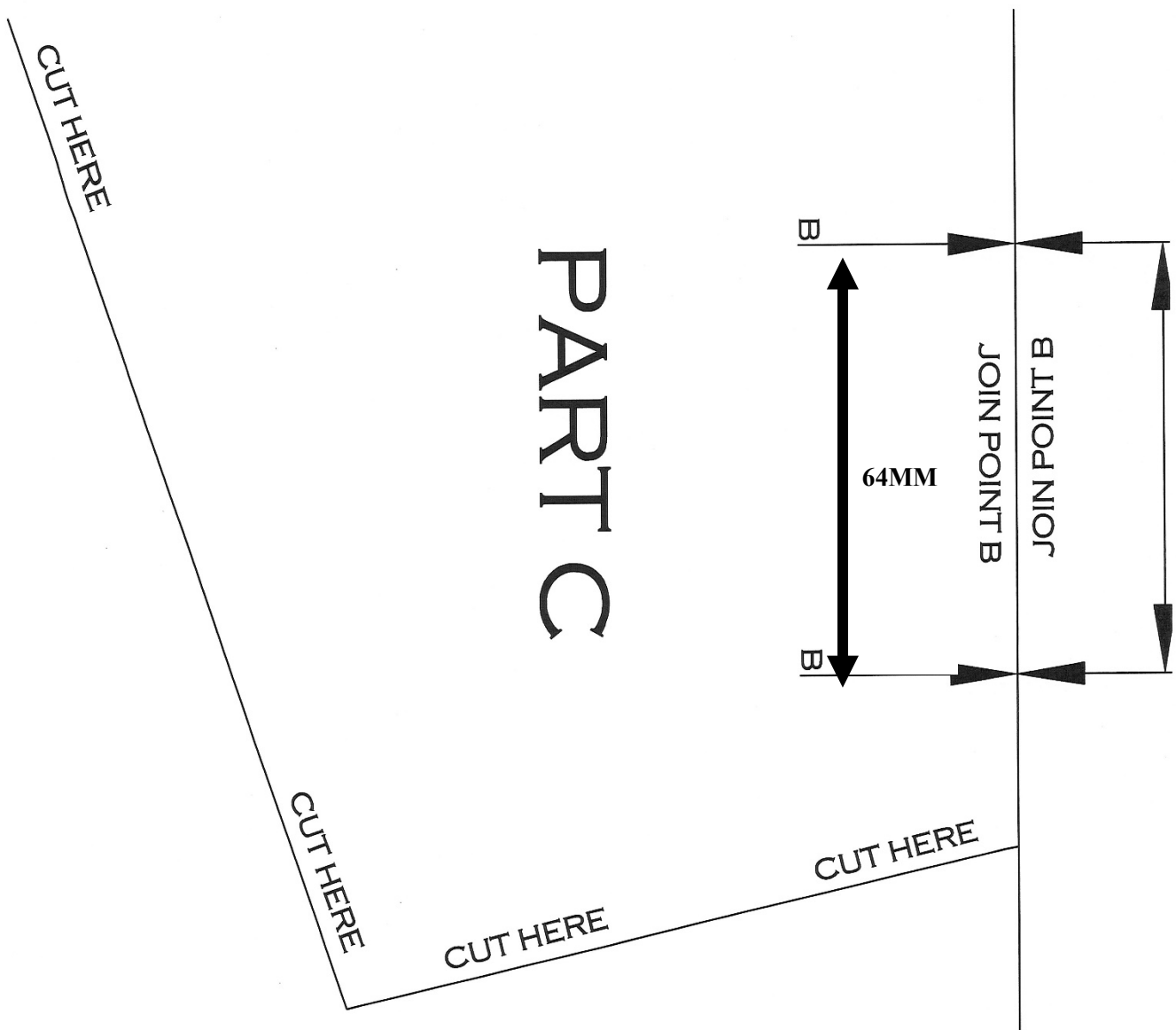




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We value your comments

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.	Your Company / Company product purchased from:

Date of Fitment: ____/____/____

Was the fitting hardware supplied complete?

Yes

☐

No

☐

If no what was not supplied

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

Email To:
info@ecb.com.au



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DESPATCH CHECKLIST EAT133SY

Work Order #		See other side of this page for photos of all mounts
Finish:		
Transport:		
Due Date:		

- OC.....1 – Pair Steel mounting brackets.
- OC.....2 – ECB steel tow hooks
- OC.....1 – Alloy centre under body skirt
- OC.....1 – Pair side under body skirts
- BK.....1 – Bolt Kit.
- BK.....1 – Small extended mesh (635 x 135) (p/c black)
- BK.....1 – small bottle mount (60 x 26 x 4, one M6 welded bolt)
- BK.....1 – Large bottle mount (77 x 26 x 4, one M6 welded bolt)
- BK.....1 – Bent bottle mount (80 x 26 x 4, one M6 welded bolt)
- BK.....1 – LED ECB indicator / park light kit / DRL
- BK.....1 – ECB Bumper Light Kit
- BK.....1 – Quick Click indicator/ park kit (IC15TOR4IPDH)
- BK.....1 – Quick Click Bumper light wiring kit (IC10D40S1004ECBH)
- BK.....2 – Bumper light surrounds
- BK.....1 – 2600mm length 6mm clip lock
- BK.....2 – 600mm length 6mm clip lock
- BK.....2 – 350mm length 3mm clip lock
- OC.....2 – ECB Overrides – **Fitted to Bar**
- OC.....8 – 6mm Air Vents – **Fitted to Bar**



Is this product “the best it can be” Yes _____ / _____
Wrapper's initials / Checker initials

If NO fix before continuing

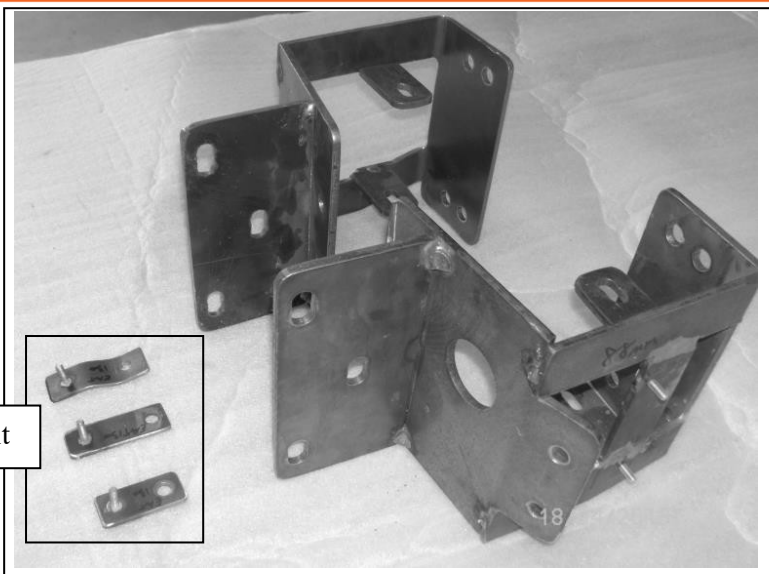
All parts checked and completed by:

Nut and bolts: _____ Date __/__/__

Order control: _____ Date __/__/__

Final wrap check: _____ Date __/__/__

In bolt kit



Wrappers initials / Checkers initials

