



**WORLD'S BEST
ALLOY BULLBARS**

East Coast Bullbars (ECB Pty Ltd)

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BHU46SY

REPLACES: 24.02.10

REVISED: 24.01.18

FITTING INSTRUCTIONS

HYUNDAI TERRACAN 11/01on and HIGHLANDER10/04on BIG TUBE™ PROTECTION BAR VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

1. Lift bonnet.
2. Remove one plastic clip in centre top of bumper cover.
3. Remove indicators, one PK screw in top of headlight. Lift tab over headlight and pull straight out. **See figure 1.**
TIP: If indicator is stuck on lower push in-out stud, remove three accessible headlight bolts and wriggle headlight to loosen.
4. Remove four bolts securing each headlight, remove headlight, locate one plastic clip under each headlight and remove. **See figure 2.**
5. Remove one 10mm nut (each side) from under indicator. **See figure 3.**
6. Remove one 10mm head bolt (each side) from top of bumper side returns.
7. Remove two 10mm head bolts, one PK plastic clip and one 10mm head self-tapper (each side) from plastic inner guard. Remove one 10mm head bolt and one 10mm nut (each side) on steel bracket for bumper cover side return (access from top). Disconnect O.E fog lights (if fitted).
8. Loosen only two 10mm head bolts on steel bracket side returns where it bolts to steel inner guard.
9. Remove two 10mm head bolts from lower central bumper cover. **NOTE:** For 10/04- Highlander models remove two 12mm head bolts located behind plastic cover. Pull plastic cover outwards to access. **See figure 4.**
10. Pull bumper cover side returns out from locators and slide bumper cover off vehicle.
11. Remove plastic under guard from vehicle. Four 12mm head bolts and four plastic PK clips. **See figure 5.**
12. Working on one side at a time, remove one 17mm head bolt and one 17mm nut from steel bumper cover support.
13. Place two ½ flat washers (supplied) over stud where 17mm nut was removed (**see figure 6**), then install ECB steel mounting bracket (supplied) to where bolt and nut were removed. **NOTE:** On some vehicles, edge of chassis may require sanding, so steel mounting bracket will sit level. **See figure 7.** Treat exposed metal with a rust inhibitor. Use original bolts and washers (supplied). **See figures 8 and 9. TIGHTEN BOLT AND NUT EVENLY ENSURING STEEL-MOUNTING BRACKET REMAINS SQUARE and LEVEL AT TOP. See figure 10.**
14. Repeat for other side. Ensure steel mounting brackets are aligned with each other and are set at correct measurement for protection bar to be installed with protection bar brackets on outside of steel mounting brackets.



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15. Drill three 10mm holes (each side) through chassis using steel mounting bracket as a guide. **See figure 11.** Note: Place a piece of alloy or steel in between chassis and oil cooler for front holes to avoid damage to oil cooler from drill bit. **NOTE: Exercise care when drilling all holes; ensure area is clear of any fluid lines etc. See figure 12. Treat all holes with rust inhibitor.** For front holes use 3/8x 4 bolts, nuts and washers (supplied) with 50 x 30 x 6 steel plate (supplied) on inside of chassis. For driver's side middle hole use 3/8x 1½ bolts, nuts and washers (supplied) through tie down bracket. For passenger side middle hole use 3/8 x 2 ½ bolt, nut and washers (supplied) with 50 x 30 x 6 steel plate (supplied) on inside. For rear holes use 3/8 x 3 ½ bolts, nuts and washers (supplied). **See figures 13, 14 and 15. TIGHTEN ALL BOLTS/NUTS.**
16. Hold plastic under guard against steel mounting brackets and mark where trimming is needed. Trim and refit to vehicle.
17. Connect ECB indicator / park light and fog light wiring to original wiring. Use cable locks (supplied). Remove original fog lights from bumper cover, as this is where wiring is feed to protection bar.
18. Reinstall bumper cover, headlight and indicators, do not fit lower centre bolts in bumper cover at this stage. For Highlander models mesh grille is to be cut to allow protection bar steel mounts to protrude through. **See figure 16.** For other model bumper cover is to be cut to fit around steel mounting brackets. **See figure 17.**
19. Attach ECB fog light bracket only 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. **FINGER TIGHTEN ONLY. See figure 18.**
20. 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 19.**
21. Fit 6mm black clip lock trim (supplied) to rear of protection bar. **NOTE:** Trim off lower edge on an angle so trim will sit flush with end of protection bar. **See figures 20, 21 and 22.**
22. Remove plastic air vents in lower protection bar skirt (if fitted).
23. Install ECB protection bar to outside of steel mounting brackets. Use ½ x 1 ½ bolts, nuts and washers (supplied). **FINGER TIGHTEN ONLY.** Access through fog light and oval airflow cut outs in protection bar.
24. Align protection bar with vehicle. **See figure 23 for side view and figure 24 for front view. TIGHTEN ALL BOLTS. NOTE:** For impact wrench, access from under skirt, push bumper cover back to fit impact wrench in. **See figure 25.** Refit two lower bumper cover bolts.
25. Replace plastic air vents in lower skirt. **NOTE:** Ensure ECB logo is to bottom, as this position will direct air onto cooler.
26. Fit fog lights to protection bar. **TIGHTEN FIRM ONLY.** Connect wiring and check operation. Aim with low beam. **TIGHTEN BOLTS.** Fit fog light surrounds (supplied) wider part to inside.
27. Connect indicator / park light wiring and check operation.
28. Tidy all wiring.

NOTE: If fitting spotlights check depth of light for bonnet opening first. **See figure 26.**



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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

2 – ECB steel mounting brackets	6 – 3/8 spring washers.
3 – 50 x 30 x 6 steel plates with 10mm hole in centre	1 – 2230 length 6mm clip lock trim.
6 – 1/2 x 1 1/2 bolts and nuts.	1 – ECB LED Indicator / Park light kit.
16 – 1/2 flat washers.	2 – ECB fog lights and wiring.
6 – 1/2 spring washers.	2 – M6 x 20 bolts.
2 – 3/8 x 4 bolts and nuts.	2 – M6 nuts
2 – 3/8 x 3 1/2 bolts and nuts.	2 – M6 flat washers.
1 – 3/8 x 2 3/4 bolt and nut.	2 – M6 spring washers.
1 – 3/8 x 1 1/2 bolt and nut.	4 – Fog Light surrounds.
12 – 3/8 flat washers.	10 – Cable locks.

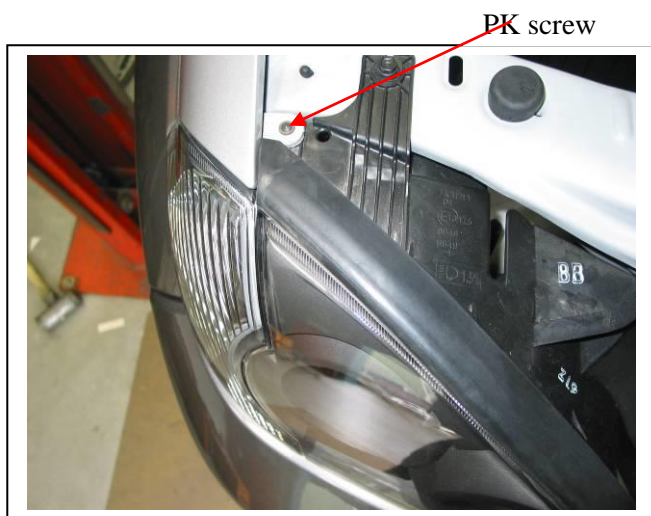


Figure 1

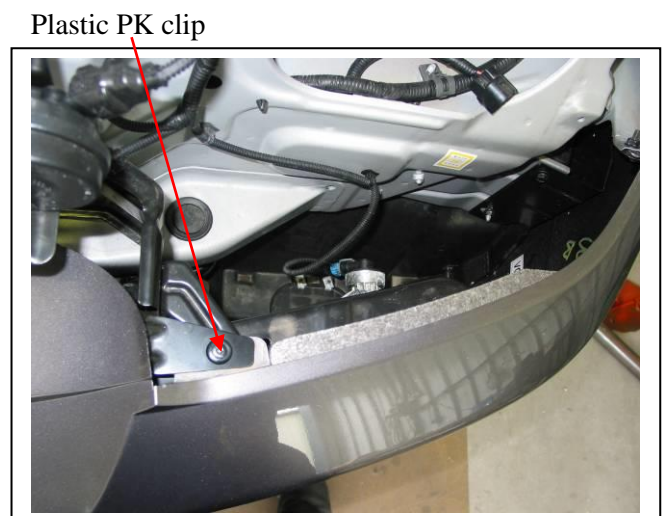


Figure 2 – Passenger side shown



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Figure 3 10mm Nut for bumper cover



Figure 4 – Highlander model shown

Two – ½ flat washers over stud



Figure 5 Remove plastic under guard

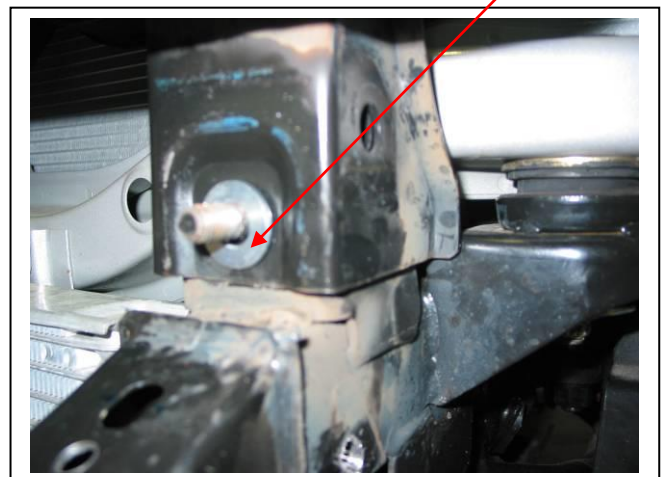


Figure 6 – Passenger side shown

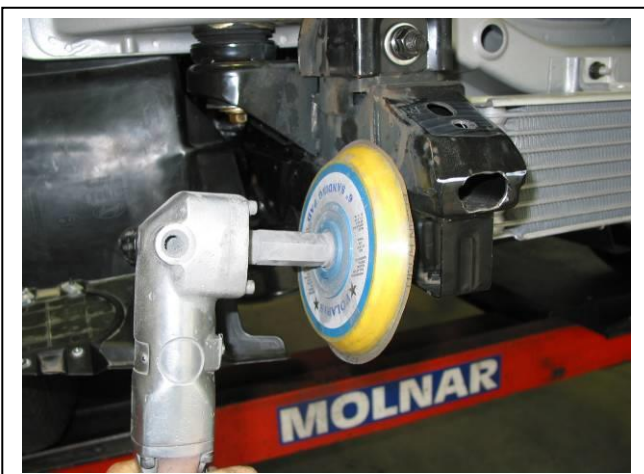
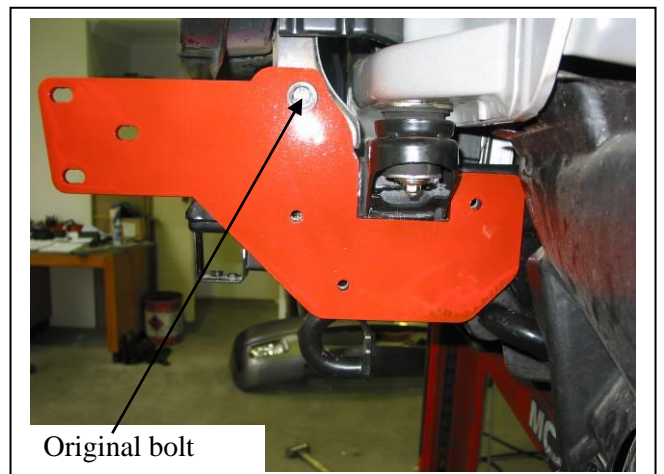


Figure 7
Lip on chassis may require slight sanding



Original bolt

Figure 8 – Passenger side shown



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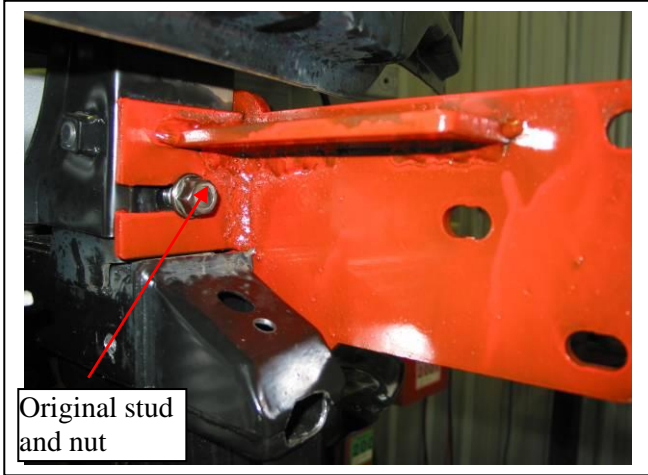


Figure 9 – Passenger side shown

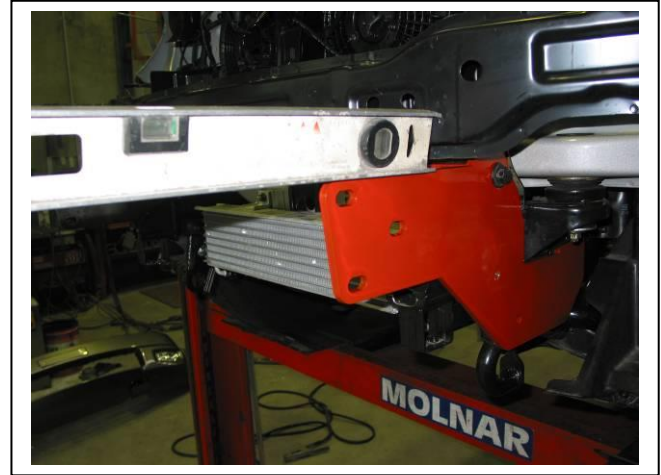


Figure 10 - Level off top edge



Figure 11
Shown drilling rear hole on passenger side chassis

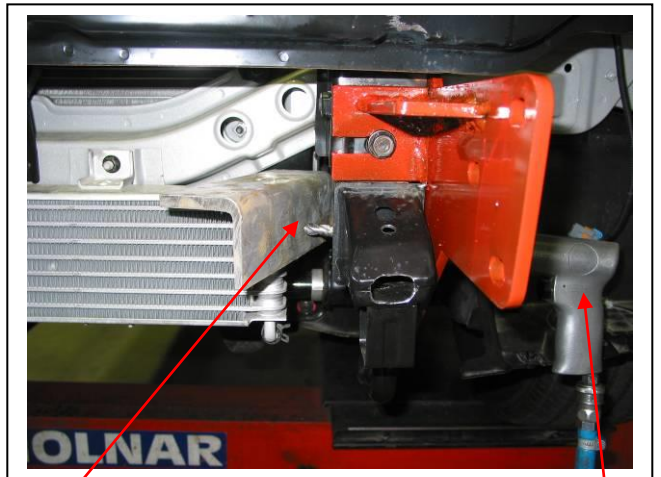
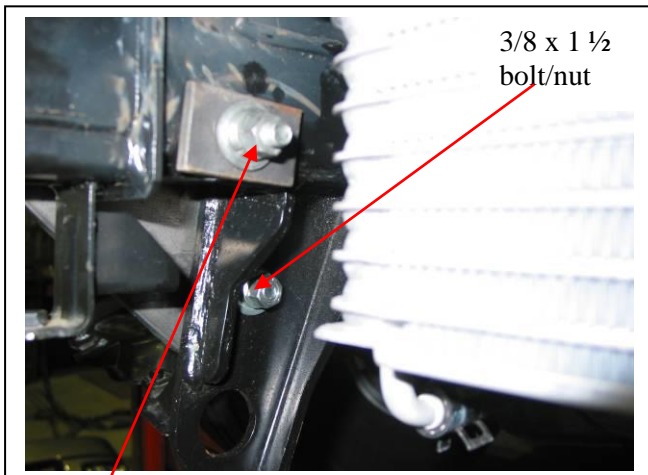
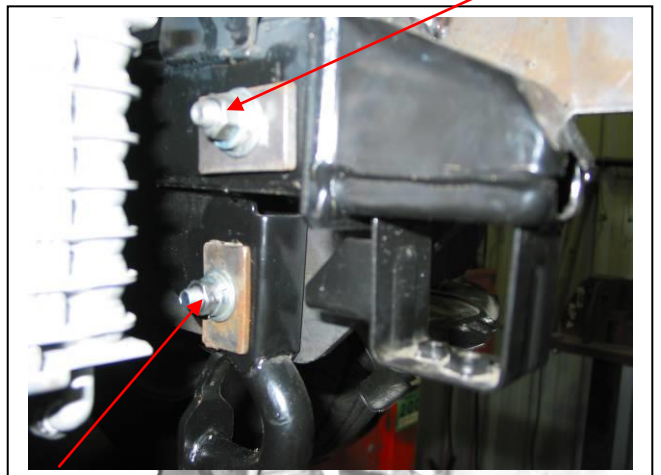


Figure 12
Piece of angle used to protect cooler
Drill
3/8 x 4 bolt/nut with chassis plate



3/8 x 4 bolt/nut with chassis plate

Figure 13 – Drivers side shown



3/8 x 2 1/2 bolt/nut with chassis plate

Figure 14 – Passenger side shown



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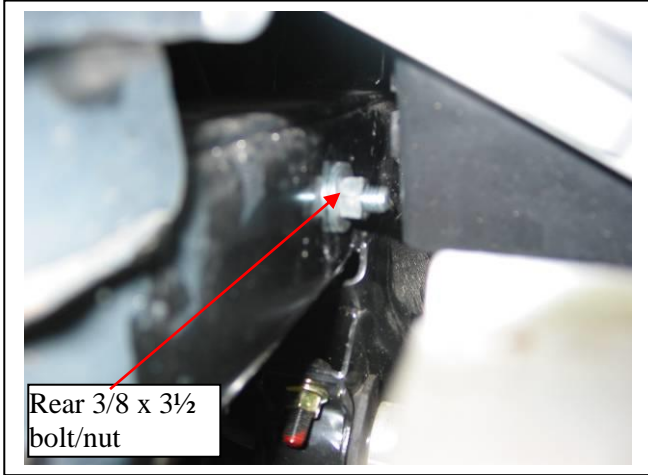


Figure 15 - Drivers side shown



Figure 16

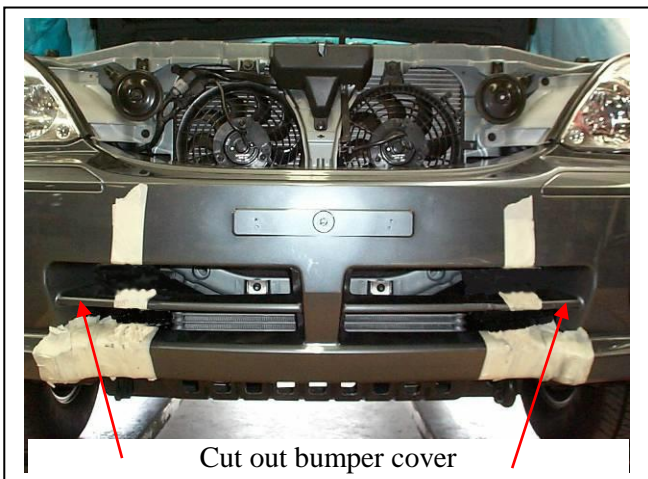


Figure 17

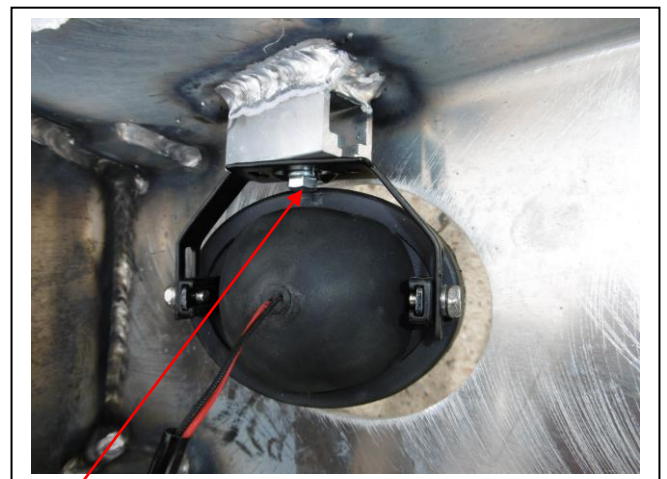


Figure 18

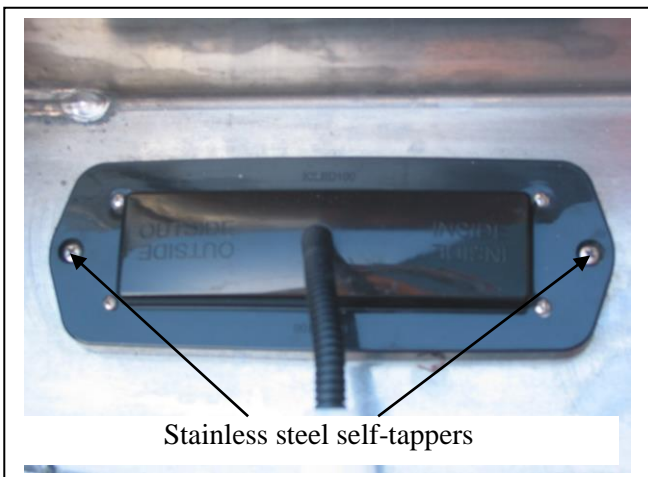


Figure 19

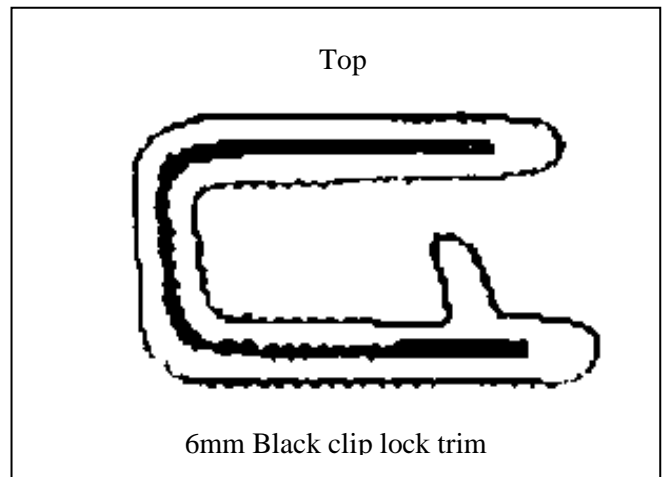


Figure 20



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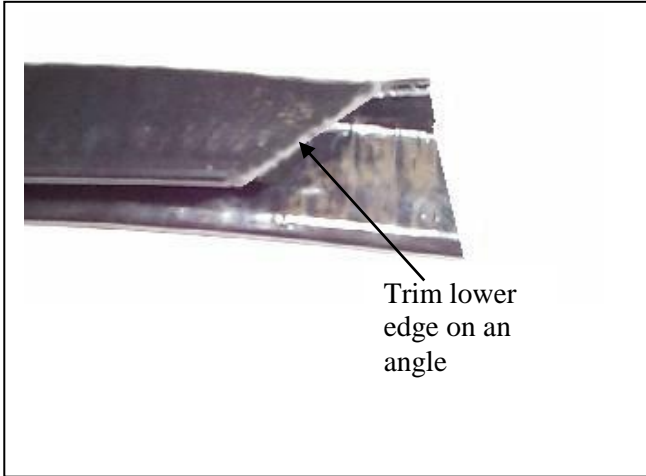


Figure 21

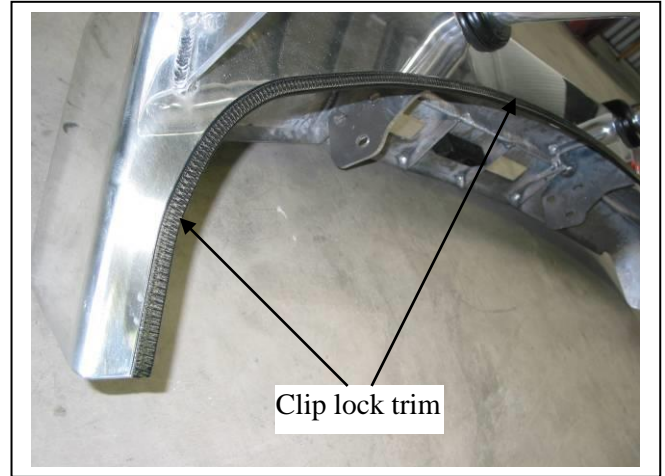


Figure 22



Figure 23 – Side view shown



Figure 24 – Front view shown



Figure 25



Figure 26 – Check bonnet opening



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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?

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
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Fax to
(07) 3283 1168



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DESPATCH CHECKLIST BHU46SY

ICZBKCHU46



Work Order #	
Finish:	
Transport:	
Due Date:	

- OC.....2 – ECB steel mounting brackets
- BK.....3 – 50 x 30 x 6 steel mounting plates with 10 mm hole in centre (in kit)
- BK.....1 – Bolt Kit
- BK.....1 – ECB LED Indicator / Park light kit.
- BK.....1 – Pair ECB Fog lights.
- BK.....4 – Fog light surrounds.
- BK.....1 – 2230mm length 6mm clip lock trim
- OC.....2 – ECB Overrides – **Fitted to bar**
- OC.....3 – 3mm Air Scoops – **Fitted to bar**

**See other side of
this page for
photos of all
mounts**



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 ___/___/___



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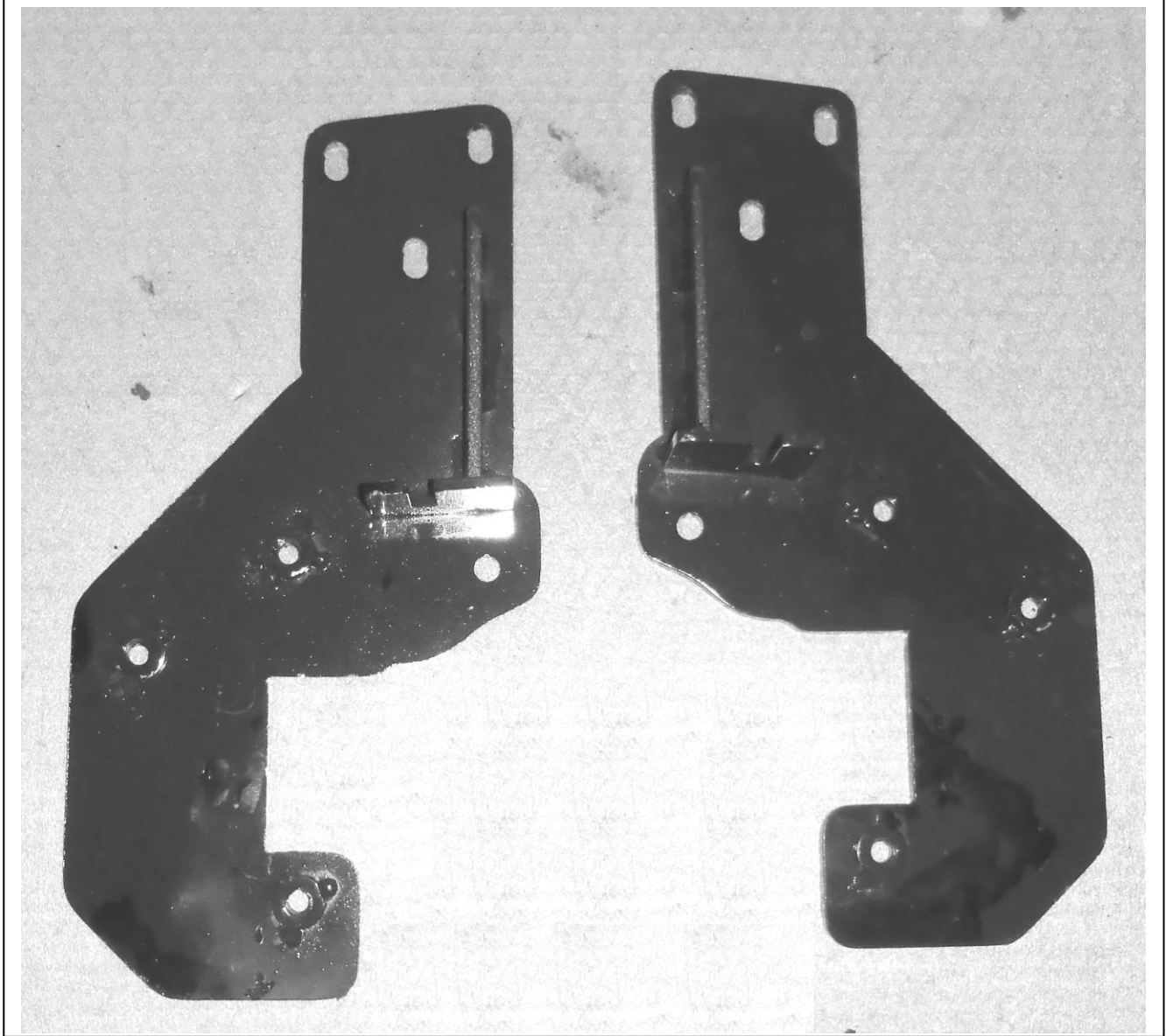
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