



WORLD'S BEST
ALLOY BULLBARS

East Coast Bullbars (ECB Pty Ltd)

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BM145SY

REPLACES: 24.03.10

REVISED: 05.03.13

FITTING INSTRUCTIONS

MITSUBISHI CHALLENGER 12/09 on BIG TUBE™ PROTECTION BAR WITH FOG LIGHTS VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

1. Remove steel under body guard. Completely remove two 12mm head bolts at front, loosen only two rear 12mm head bolts, slide under body guard forward to drop away from rear bolts of vehicle and remove from vehicle.
2. Remove lower centre of plastic bumper. From under vehicle remove three PK screws (per side) and one PK screw from top centre. Top centre PK screw is best accessed from under vehicle above front bumper support. Pull lower centre of plastic bumper forward to release side and grille clips. **See Figures 1 and 2** for screw placement.
3. Using a sharp knife trim grille to accept ECB steel mounting brackets. **See figure 3** for trim information.
4. Remove two 10mm head bolts from number plate area of bumper. Remove black plastic grille by pushing into vehicle to unclip. **Caution:** Grille will unclip with some pressure. Take care not to damage radiators.
5. Install ECB steel mounting brackets onto sides of chassis rails using one M10 x 1.25 x 40 bolt, spring washer and flat washer (per side) (supplied) for rear holes. **Note:** Use top hole in mount for drivers side and lower hole for passengers side. Newer vehicles require M10 x 1.25 nut and flat washer (supplied) for passenger side. Place grille over ECB mounts and allow to hang. Fit one M10 x 1.25 x 60 bolt, spring washer and flat washer (per side) (supplied) for front holes. **See figure 4 and 5.** Align mount to vehicle and **TIGHTEN ALL BOLTS.** Clip grille back into bumper and refit original 10mm head bolts back into number plate area of bumper.
6. Using ECB steel mount bracket as a guide, drill 10mm holes through underside of chassis rail. **See figure 6.** **Note: All filings must be blown out and bare metal treated using paint or a rust inhibitor.**
7. Feed 3/8 x 1 1/2 bolt and washer on 300mm wire (supplied) into pre drilled holes from inside of chassis rail. Attach using flat washer, spring washer and nut (supplied). **TIGHTEN ALL BOLTS.** **See figure 7.**
8. Carefully, using a flat blade screwdriver, lever inside edge of fog surrounds away from vehicle. Gently pull forward to remove. **See figure 8.** *Tip:* pad screwdriver well with paper masking tape to not damage paint work when inserting screwdriver.
9. Remove three PK screws and disconnect to remove fog light. **See figure 9.**
10. Splice ECB indicator/ park wiring to original equipment harness behind headlight. Run ECB wiring under headlight and out through hole left by fog light.
11. Splice ECB fog light wiring into original equipment fog light wiring harness. Refit fog light surround only.
12. Refit lower plastic bumper section to vehicle. Ensure centre screw is replaced to original position.
13. Refit steel under body guard by placing front against body above plastic bumper and move as far forward as possible, placing onto rear bolts and moving back. Refit original front bolts. **TIGHTEN ALL BOLTS.**



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14. 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 10.**
15. 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 11.** Do not fit fog light surrounds at this time as fog light can be turned on angle and openings used for fitment of ½ nuts and washers.
16. Fit 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 12, 13 and 14.**
17. Fit lengths of 6mm clip lock (supplied) to upper air vents in protection bar. **Note:** Ensure start and finish of trim joins neatly at top in centre. **See figure 15.**
18. Fit lengths of 3mm clip lock trim (supplied) to lower air vents in protection bar. **Note:** Trim outside edge of clip lock on an angle to follow bottom edge of protection bar. **See figure 15.**
19. Attach ECB protection bar to outside of ECB steel mounting brackets using ½ x 1 ½ bolts, flat washers, spring washers and nuts. **FINGER TIGHTEN ONLY.**
20. Align ECB protection bar to front of vehicle ensuring head light washers clear rear edge of ECB protection bar. **TIGHTEN ALL BOLTS. See figures 16 and 17.**
21. Connect indicator / park light wiring and fog light wiring. Check all lights for correct operation. Fit fog light surrounds.

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

1 – pair ECB steel mounting brackets	6 - ½ nuts
2 – M10 x 1.25 x 40 bolts	2 – M6 x 20 bolts
2 – M10 x 1.25 x 60 bolts	2 – M6 spring washers
7 – M10 flat washers	2 – M6 nuts
6 – M10 spring washers	1 – ECB LED Indicator / Park light kit
1 – M10 x 1.25 nut	1 – fog light kit
2 – 3/8 x 1 ½ bolts and washers on 300mm wire	2 – fog light trims
2 – 3/8 nuts	10 – cable locks
6 - ½ x 1 ½ bolts	1 – 2100mm length 6mm clip lock trim
12 - ½ flat washers	2 – 700mm length 6mm clip lock trim
6 - ½ spring washers	2 – 500mm length 3mm clip lock trim

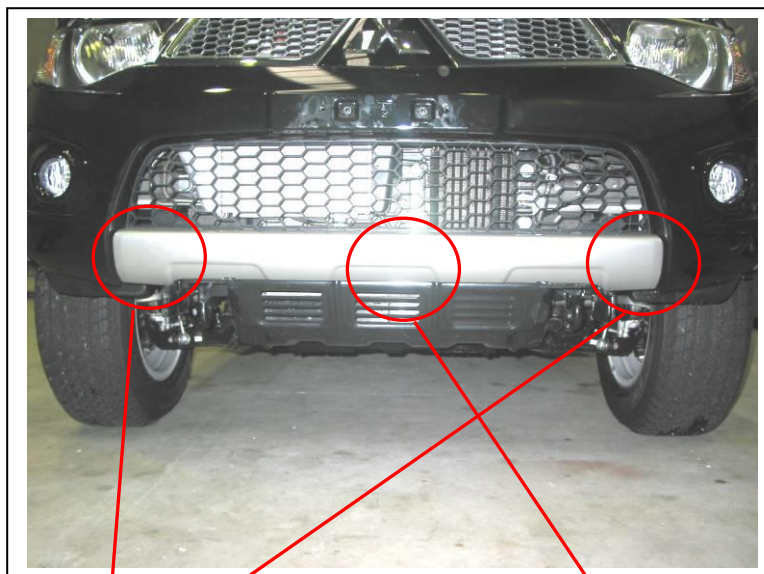


Figure 1: End screws of lower centre, removed from vehicle for photo.



Figure 2: Centre screw of lower bumper centre, removed from vehicle for photo.



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Figure 3: Area to be trimmed on lower centre grille.



Figure 4: Grille fitment onto ECB steel mount brackets upon installation of mounts.



Figure 5: Bolt pattern on drivers side of vehicle.

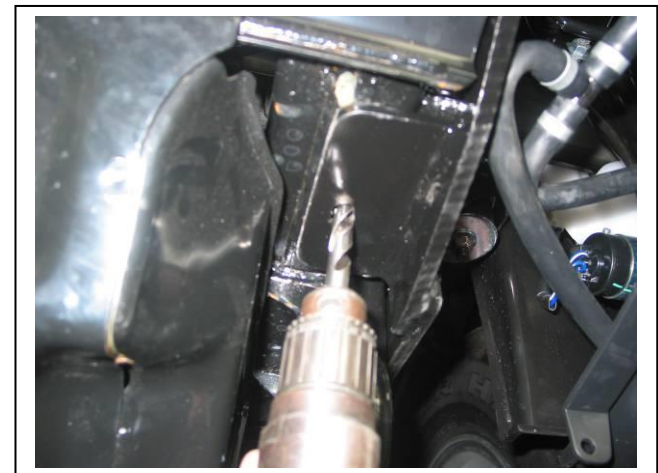


Figure 6: Drilling underside of chassis rail.

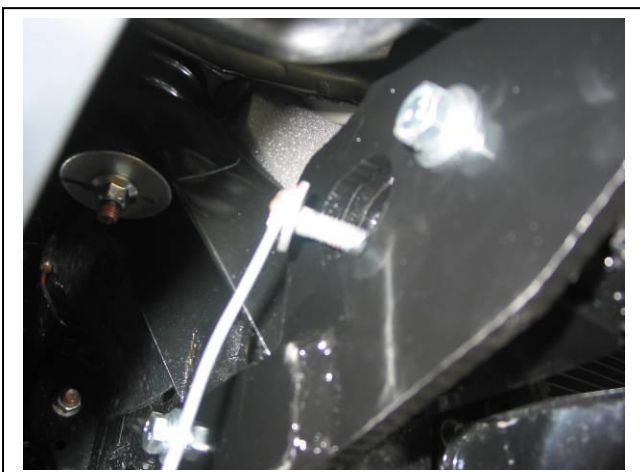


Figure 7: Feeding 3/8 x 1 1/2 bolt and washer on 300mm wire into chassis rail. Bend wire on bolt to suit requirements.



Figure 8: Use a flat bladed screw driver to carefully remove fog light covers.



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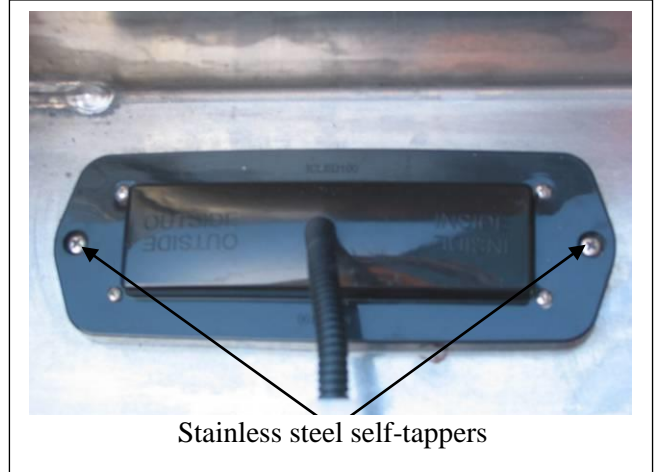
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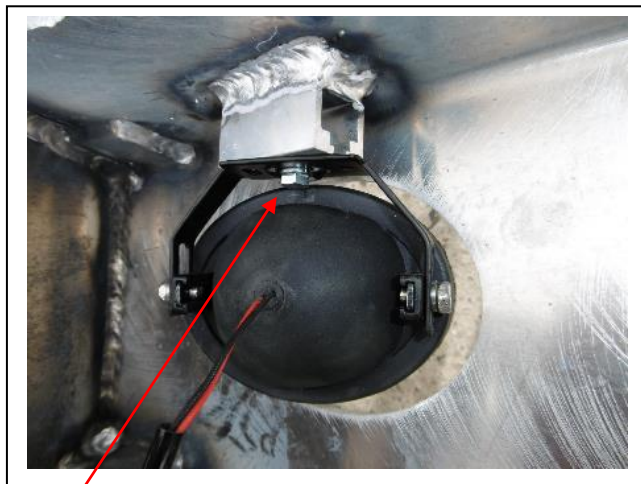


Figure 9: Screws on fog light. Drivers side shown.



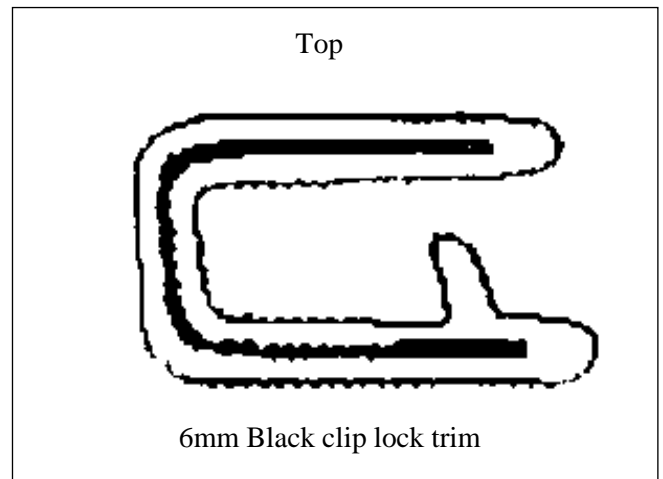
Stainless steel self-tappers

Figure 10



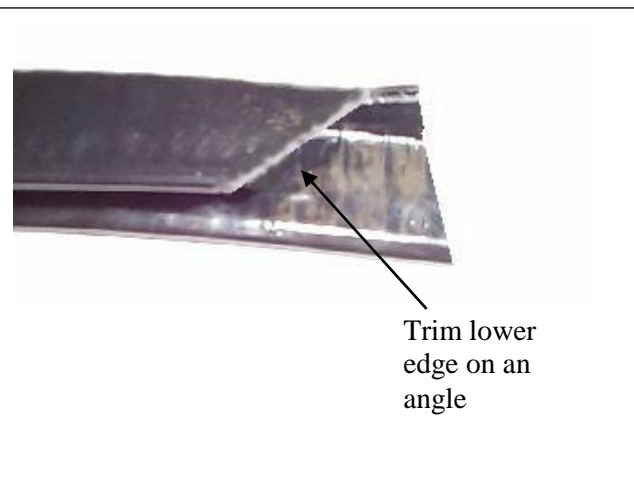
M6 bolt

Figure 11



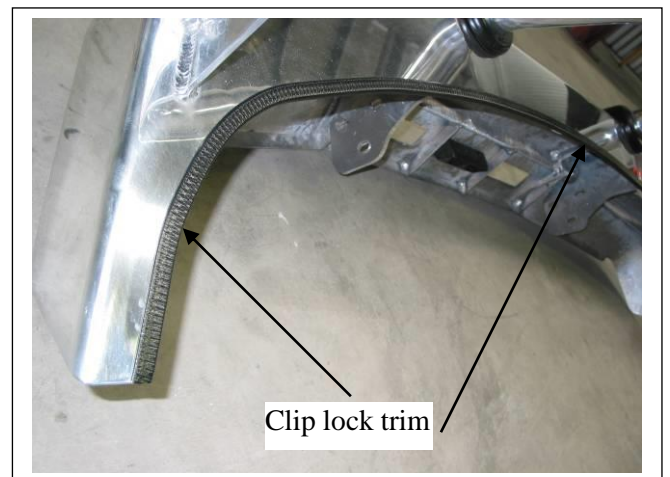
6mm Black clip lock trim

Figure 12



Trim lower edge on an angle

Figure 13



Clip lock trim

Figure 14



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Figure 15



Figure 16: Front view

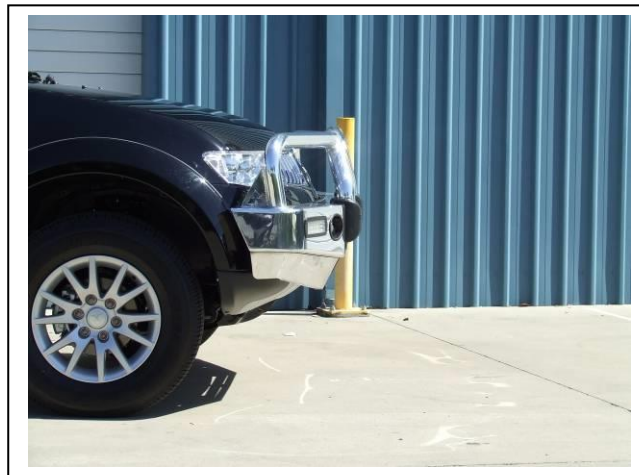


Figure 17: Side view



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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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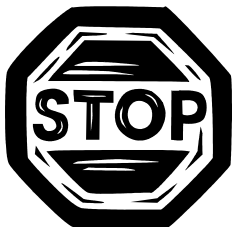
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DESPATCH CHECKLIST BM145SY

Work Order #	
Finish:	
Transport:	
Due Date:	

- OC..... 1 – Pair steel mounting brackets.
- BK..... 1 – Bolt Kit.
- BK..... 1 – ECB LED Indicator / Park light kit
- BK..... 1 – ECB Fog light kit
- BK..... 2 – Fog light trims
- BK..... 1 – 2100mm length 6mm clip lock trim
- BK..... 2 – 700mm lengths 6mm clip lock trim
- BK..... 2 – 500mm lengths 3mm clip lock trim
- OC..... 2 – ECB Overrides – **Fitted to Bar**

**See other side of
this page for
photos of 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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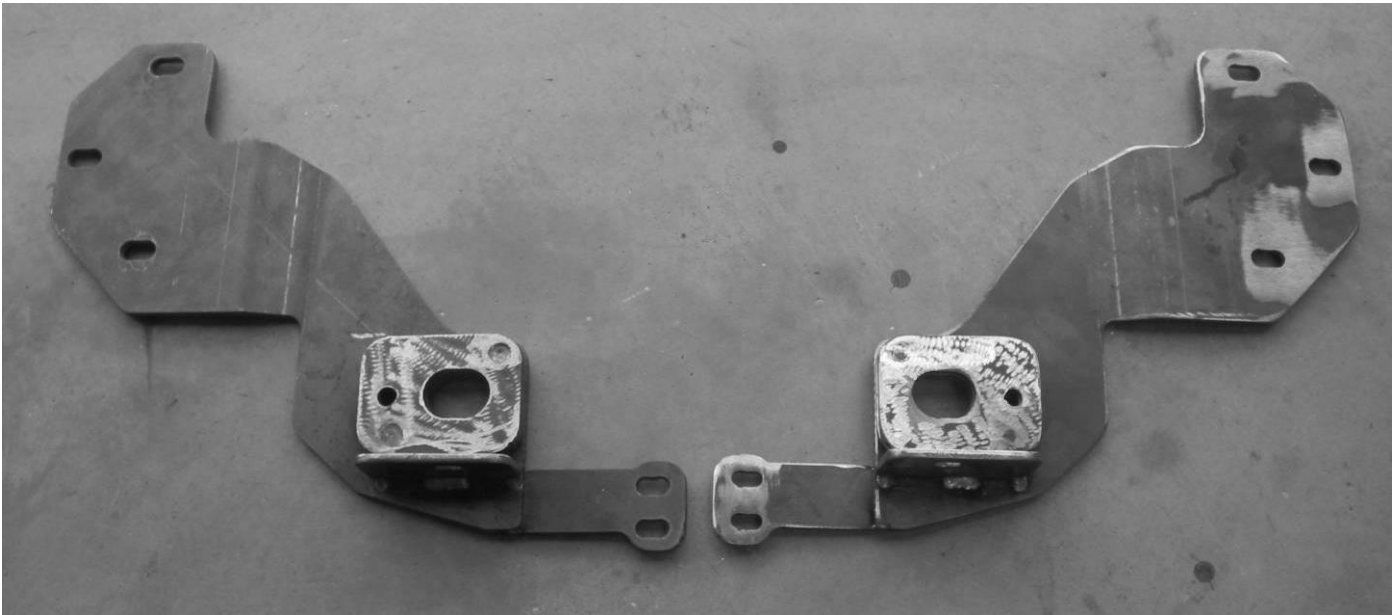
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Check by Order Control: _____

Final Check: _____