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Po Box 122 Margate QLD 4019 Australia

EAF166SY

REPLACES: 00.00.00 REVISED: 21.10.15

FITTING INSTRUCTIONS

FORD RANGER SERIES 2 ECB ARC BAR VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

- 1. Lift bonnet
- 2. Remove plastic push pull clips from radiator cover on top of grille. Remove radiator cover by sliding hand between grille and radiator support to release clips from front of cover. **See figure 1.**
- 3. Under front of guards, remove four plastic screw clips and one 8mm head screw from rear corner of bumper / guard join. Pull inner guards away from bumper. See figure 2. Disconnect fog lights (left hand side of vehicle).
- 4. From top of grille near headlights remove two 10mm head bolts each side. Gently unclip grille from headlight. Release clips on each side of the grille by reaching through the inner guard and pressing the three clips forward while applying pressure on the grille. From in front of the car reach behind grille and unclip the six clips along the bottom of the grille behind the bumper. Remove grille. **See figure 3** for clip placement.
- 5. Under front of bumper, remove four 10mm head bolts. **See figure 4.** From on top of the bumper remove four plastic push pull clips.
- 6. Gently pull bumper away from guard to release plastic bumper clips. Remove bumper from vehicle.
- 7. From underneath the vehicle loosen only the two rear 15mm bolts from the under belly guard. Completely remove the front two 15mm bolts. Slide the guard towards the front of the vehicle and remove.
- 8. Remove four plastic push pull clip from front plastic support on bumper support. Remove plastic support. See figure 5.
- 9. Remove two plastic push pull clips from plastic air dam behind the bumper support and four 15mm head bolts from front of bumper support. Remove bumper support.
- 10. Remove plastic radiator air dams, two 8mm head bolts per side.
- 11. Detached the four lower bumper supports.
- 12. Fit steel mounting bracket (supplied) to front of chassis by sliding down from top of chassis. Rear of steel mounting bracket will be tight on outside of chassis. This is an expansion fit. It is important that the mount is level and lined up square with the vehicle body. Refit four original equipment bolts to front of chassis rails and two M10 x 40 bolts, flat washers, spring washers and nuts (supplied) to front hole on side of chassis. See figure 7. NOTE: Extra holes in steel mounting bracket chassis face plates are not required for non winch bars. NOTE: Should the chassis mount not be level and square, a hammer may need to be used to realign the front of the chassis at the connection points on the vehicle to achieve a level and aligned mount.



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- 13. Using steel mounting bracket as a guide, drill rear hole in chassis to 10mm. Blow filings clear and treat all exposed metal with a rust inhibitor. Fit M10 x 40 bolts, spring washer, flat washer and nut and washer on 300mm wire (supplied).
- 14. Trim wheel arch around metallic aerial from drivers side wheel guard, **see figure 8**. Gently relocate the FM aerial as shown in **figure 9 and 10**. Drill 6mm attachment holes in top and bottom holes of aerial and attach using a plastic screw clip from lower inner guard.
- 15. Remove FM booster box from right hand front of vehicle, one 8mm head bolt. Move FM booster box upward and resecure to radiator support using one self tapping screw (supplied). See figure 11.
- 16. Hold radiator air dam in position on vehicle. **See figure 12.** Mark and trim minimal amount from air dam to fit around ECB steel mount. Attach wiring for aerial or temperature sensor (dependant on side of vehicle), refit to vehicle ensuring wiring has clearance from moving parts and sharp edges.
- 17. Fit plastic air dams to rear of mounting bracket using M6 x 20 bolts, flat washers and nyloc nuts.
- 18. Splice ECB wiring harness into wiring harness behind headlight using cable locks (supplied). Ensure harness is clear of sharp edges and moving parts.
- 19. Mark and cut grille. See figures 13 and 14.
- 20. Tape outer corners of bumper for protection when cutting and marking out. Check template for correct sizing. Using sharp scissors, carefully cut bumper template from these instructions. Fit template to outer corners and join line of bumper. Mark bumper for cutting. See figure 15 and 16. Double check line for correct.
- 21. Carefully cut bumper on marked line. **CAUTION:** This cut is the final cut. Ensure lines and cuts are straight and clean as cut is not trimmed.
- 22. Mark the bumper side clips ready for cutting. **See figure 17.** Remove bumper side clip from vehicle, two 10mm head bolts. Cut the bumper side clips and refit the front section only. **See figure 18**.
- 23. Fit cut bumper back to the vehicle using the original side clips and grille side plastic push pull clip. Install grille to vehicle using original equipment top clips and lower 10mm head bolts. Install guard infill (supplied) to rear of guard using original screws.
- 24. Fit 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 21.
- 25. 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 figure 23, 24 and 25.
- 26. Fit protection bar to outside of steel mounting bracket using M12 x 40 bolts, flat washers, spring washers and nuts (supplied). **Finger tighten only.**
- 27. Align protection bar to vehicle. See figures 26 and 27. Tighten all bolts.
- 28. Connect and check indicator / park lights for correct operation.
- 29. Refit under body steel guard using original bolts into steel mounting bracket at front. Tighten all bolts.



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- 30. Install under body guards to top of lower leg of channel section of protection bar with rear flange pointing down. **See figure 28.** Access to inner hole from side of plate, rear hole from behind inner guard and front outer hole through access hole in under body guard. Use two M6 x 25 bolts, one M6 x 25 bolt and washer on 100mm wire, flat washers and nyloc nuts (per side). **See figure 29.**
- 31. Using under body guard as a guide, drill holes in inner guard to 6mm and attach using two M6 x 20 bolts, flat washers and nyloc nuts (per side). Trim inner guards from bottom of channel to vehicles inner guard removing lower section. See figure 30.
- 32. Refit grille- radiator cover using four plastic push pull clips and push gently on the front of cover to seat in position.

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 – ECB steel mounting bracket	$2 - M10 \times 1.5$ nuts and washers on 300 wire
1 – Pair under body guards (marked with "F")	6 – M6 x 20 bolts
1 - Pair guard infills (EAF162SY_IC3AL)	4 – M6 x 25 bolt
8 – M12 x 1.75 x 40 bolts	$2 - M6 \ge 25$ bolt and washer on 100 wire
16 – M12 flat washers	25 – M6 flat washer
8 – M12 spring washers	12 – M6 nyloc nuts
8 – M12 x 1.75 nuts	1 – 8 gauge 16-24 Self tapping screw
4 – M10 x 1.5 x 40 bolts	1 – ECB Indicator / Park Light kit
6 – M10 flat washers	8 – Cable Locks
4 – M10 spring washers	1 – 2550mm Length 6mm clip lock trim
2 – M10 x 1.5 nuts	



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Figure 1



Figure 2

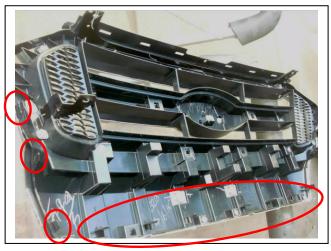


Figure 3



Figure 4



Figure 5



Figure 6



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Figure 7

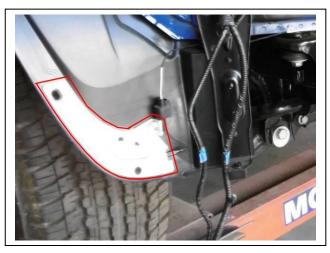


Figure 8



Figure 9: Bend aerial carefully to the shape of the dam and drill in the holes already in place

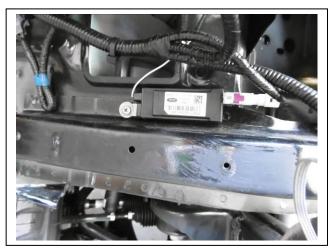


Figure 11: Relocate FM booster from hole below to on top of the railing



Figure 10: Bend aerial carefully to the shape of the dam and drill in the holes already in place



Figure 12



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Figure 13



Figure 15



Figure 14



Figure 16

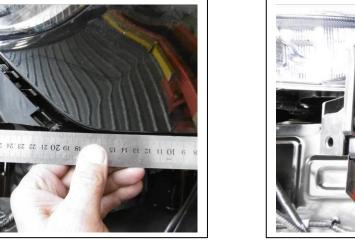


Figure 17



Figure 18



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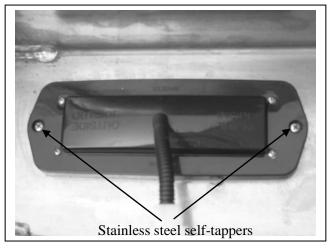


Figure 21

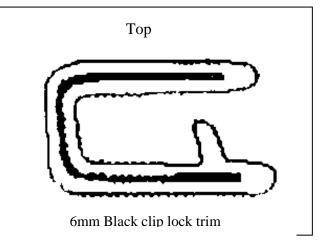


Figure 23

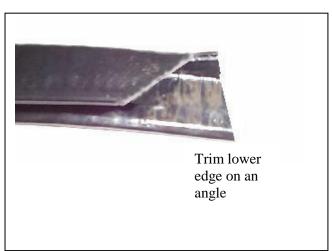


Figure 24

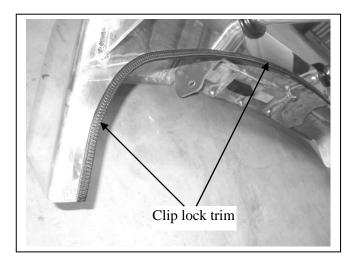


Figure 25



Figure 26



Figure 27



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Figure 28: Placement of under body guard. Bumper removed for photo.



Figure 29: Placing bolt in from side of under body guard.



Figure 30: Using underbelly guard as a guide trim wheel



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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.

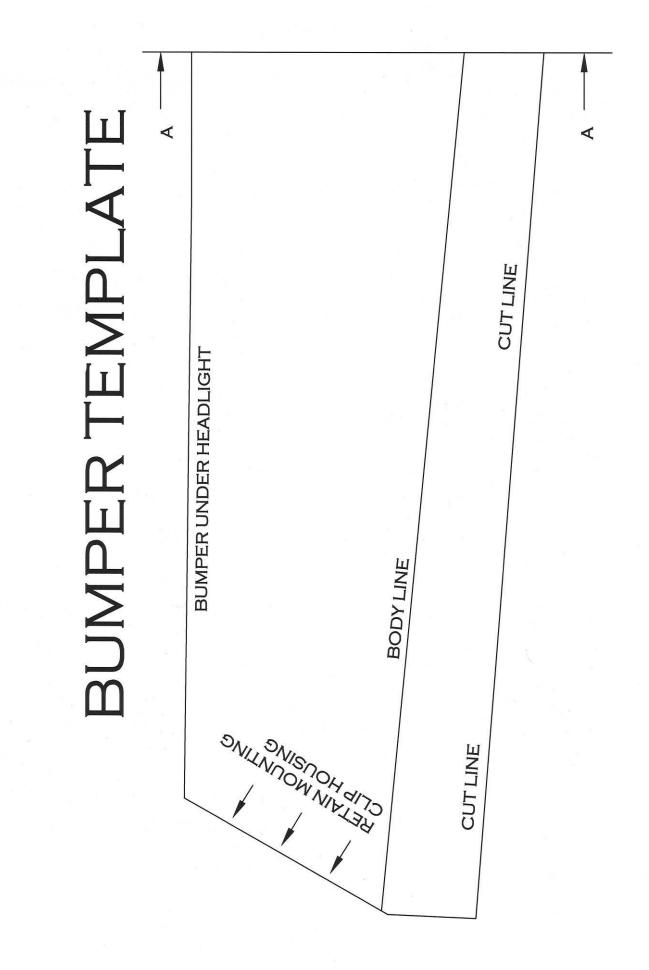
Your Name:	Your contact No.	
Product Part No.	Product Invoice No.	
Product Description:	Make, model, and year of vehicle:	
Product Work Order No.	Company your from/Company product purchased from:	
Date of Fitment:// Was the fitting hardware supplied complete? If no what was not supplied	Yes No	
Did the installation go well?	Yes No	
Please provide comments		

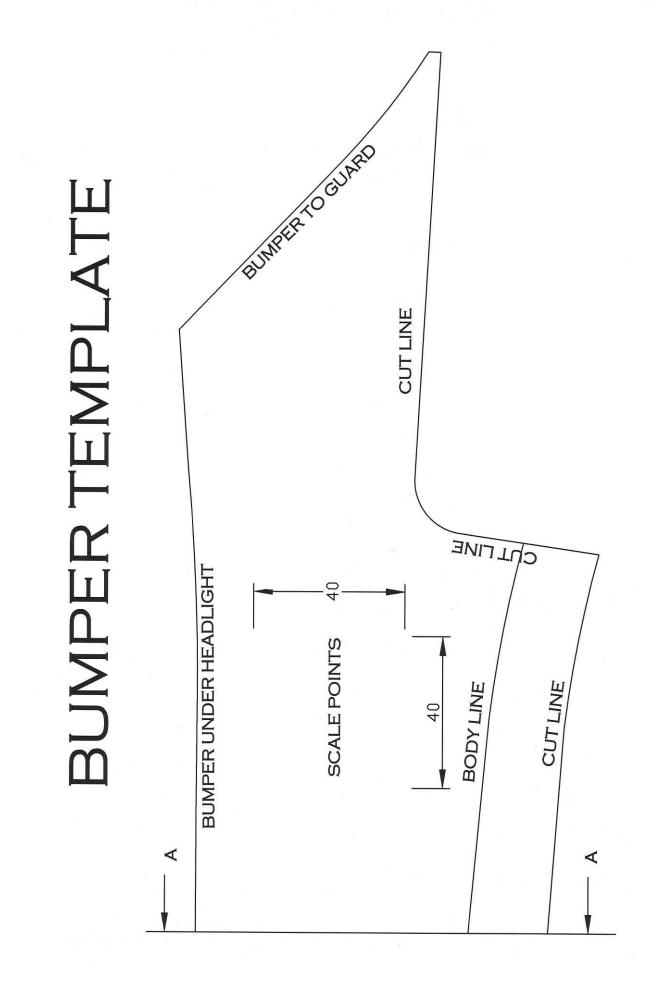
Please draw diagrams if you need to.

Post to Reply Paid 122 PO Box 122 Margate QLD 4019 **Fax to** (07) 3283 1168



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DESPATCH CHECKLIST EAF166SY

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

- OC.....1– Steel mounting bracket.
- OC.....1 pair under body guards "F" cut in front
- BK.....1 Bolt Kit.
- BK..... 1 Pair guard infill (EAF162SY_IC3AL)
- BK.....1 ECB LED Indicator / Park light kit
- BK....1 2550mm Length 6mm clip lock trim
- OC.....2 ECB Overriders Fitted to Bar
- OC.....4 6mm Air Scoops Fitted to Bar

OC..... Agi-pipe must be put on the end of the bar – see photo for placement



Is this product "the best it can be" Yes If NO fix before continuing

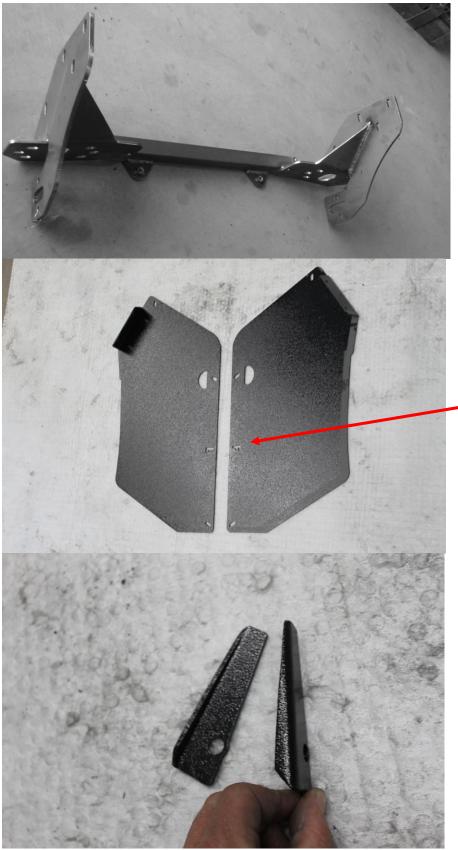
All parts checked and completed by:

Nut and bolts:	Date//
Order control:	Date//
Final wrap check:	Date//



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Wrapper's initials / Checker initials

NOTE: "F" in front edge

Check for correct part infills



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Ensure Wing is wrapped with Agi-Pipe