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BR56SY

REPLACES: 01.06.10 REVISED: 11.05.11

FITTING INSTRUCTIONS

LANDROVER DISCOVERY 4 10/09on BIG TUBE™ WINCH COMPATIABLE BAR WITH FOG LAMPS VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

Check installation hardware before commencing. Special tools: T30 Torx bit with required socket

- 1. Lift bonnet
- 2. Remove grille four lever type clips along top and one push pull type clip on lower outer(each side). See figure 1.
- Remove headlamp assemblies slide two steel locking clips (per assembly) upward to align with round mouldings on assemblies. See figure 2. Pull assemblies forward off vehicle unplug wiring and remove.
 See figure 3. Disconnect wiring for fog lights and cameras (if fitted) from under drivers side headlamp and headlight washers from under passengers side headlamp.
- 4. Remove bumper assembly from vehicle Four 8mm head self-tappers along top of bumper. One flare PK self-tapper (each side) from inside headlamp area. See figure 4. One PK self-tapper (each side) from lower flare. Two PK self-tappers (each side) from plastic inner guard. Four T30 torx screws from along bottom of bumper. Pull plastic inner guard clear to access lower flare plastic locking tab. See figure 5. Release tab by pushing upward. Pull flare clear to access one T30 torx screws (each side) from bumper side returns. See Figure 6. NOTE: Use masking tape on flare to prevent damage. Pull bumper forward off vehicle. NOTE: Two plastic release tabs at top.
- 5. Unclip vehicles air suspension valve from behind drivers side of bumper support by firmly pulling up. Allow to hang. Unbolt two 10mm head bolts holding washer bottle to bumper support. Allow to hang. Remove bumper support from front of chassis rails, four 13mm head bolts (per side).
- 6. Using a die grinder, jigsaw or similar, remove plastic air dam support rail from behind bumper support by cutting area from sides of air dam. **See figure 7.** Clean remaining edge as this can be seen inside bumper.
- 7. Refit one PK self tapper (each side) into flare (from inside headlamp area).
- 8. Using plastic speed nut from rear edge of removed bumper (placed onto inner guard) **See figure 8** and original screw, refit plastic flare to inner guard.
- 9. Fit ECB Steel mounting brackets (supplied) to front of chassis rails using seven M8 x 35 bolts (supplied) and one M8 x 50 bolt (supplied) for washer bottle mount on passengers side outer top hole, spring washers and flat washers (supplied). **Finger tighten only**. **Caution:** Brackets are sided. See reverse of brackets and face arrow to centre of vehicle. **See figure 9.**
- 10. Install ECB winch plate (supplied) between ECB steel mounting brackets using ½ x 1 ½ bolts, flat washers, spring washers and nuts (supplied). Align lower mount of ECB winch plate with holes in lower chassis cross member. Fit using two 3/8 x 1 ¼ bolts (supplied) for outer holes and two 3/8 x 1 ¼ bolts and washers on 300mm wire (supplied) for inner holes, flat washers, spring washers and nuts(supplied). Finger tighten only.



- 11. Align ECB steel mounting brackets with body of vehicle allowing enough room for ECB protection bar to position to outside of mounting brackets. **Tighten** ECB steel mounting brackets to front of chassis rails.
- 12. **Tighten** 3/8 underside nuts to bring ECB winch mounting brackets to centre of slots on ECB steel mounting brackets. **Tighten** $\frac{1}{2} \times 1 \frac{1}{2}$ bolts from ECB winch frame to ECB steel mounting brackets. **See figure 10.**

13. Tighten all bolts.

- 14. Bend all wire on bolts; tighten around chassis, so as to avoid any rattling and or vibration. Trim off excess wire.
- 15. If winch is being installed. Install winch into winch frame as per manufacturer's instructions. Fit winch control box to ECB winch control box mount (supplied) and install onto front of ECB winch plate. Ensure wiring is kept clear of sharp edges, sources of heat and moving parts. If winch is not fitted, a winch plate cover is fitted at a later stage of installation. See figure 11, Tmax winch fitted.
- 16. Install ECB drivers side under body guard (supplied) onto ECB steel mounting brackets using two M6 x 20 bolts, flat washers and nyloc nuts (supplied). See figure 12. Using under body guard as a guide, drill 6mm hole through inner guard. Attach inner guard using M6 x 20mm bolts, flat washers and nyloc nut (supplied). Trim inner guard level with lower edge of ECB under body guard and in direct line to edge of bottom of flare. See figure 13.
- 17. Fit air suspension valve to ECB under body guard by removing rubber attachments from air suspension valve and pushing into holes on ECB under body guard. Using a rubber sensitive lubricant (e.g. Hand cleaner/moisturiser) press air suspension valve home into rubber mounts. Place 150mm piece of split tubing onto air lines to protect from sharp edges and possible rubbing. See figure 14. Caution: Not placing this tubing onto the air lines could damage vehicles suspension system.
- 18. Install ECB passengers side under body guard (supplied) onto ECB steel mounting brackets using two M6 x 20 bolts, flat washers and nyloc nuts (supplied). Attach washer bottle to under body guard using two M6 x 20 bolts, flat washers, one M6 nyloc nut for top bolt and one M6 nut and washer on wire for bottom bolt (supplied). **See figure 15.** Using under body guard as a guide, drill 6mm hole through inner guard taking care not to put a hole in the washer bottle. Attach inner guard using M6 x 20mm bolts, flat washers and nut on 100mm wire (supplied). Trim inner guard level with lower edge of ECB under body guard and in direct line to edge of bottom of flare.
- 19. Bend all wire on bolts; tighten around under body guard, so as to avoid any rattling and or vibration. Trim off excess wire.
- 20. Splice ECB indicator / park light wiring into original wiring. Connect ECB indicators / park lights and **check operation**, once confirmed remove.
- 21. 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 16.**
- 22. 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 17**.

NOTE: Do not fit fog lights or fog light trims at this stage as fog light cut outs are to be used to access protection bar bolts/nuts.



- 23. Carefully disconnect and remove parking sensors, cameras (if fitted) and headlamp washers from plastic bumper. Remove wiring, from plastic bumper. **Caution:** Plastic headlamp washers become brittle with age. Care must be taken when removing and refitting into protection bar.
- 24. Attach parking sensors and cameras (if fitted) **see figures 18 and 19** to inside of ECB bulbar using zip ties provided. Ensure wiring is fitted to parking sensors before attaching zip ties and zip ties hold parking sensors and cameras firmly into openings. Feed wiring through hole where alloy mount bracket meets channel on ECB protection bar. Zip tie wiring into position along lower edge of bumper and across three wiring support tabs in centre of protection bar. See figure 20. Caution: Parking sensors are extremely sensitive. Ensure silicon sleeves around parking sensors are placed correctly into the protection bar. Should the protection bar be too tight around parking sensors, they may give false readings. Should this be the case, some adjustment to the holes may be required. Please paint to a suitable colour the adjusted area before refitting the parking sensor if protection bar is painted or powder coated.
- 25. For vehicles without parking sensors and or cameras, plastic blanks have been included to seal holes left empty in ECB protection bar. Plastic blanks are in two sizes, use larger blanks in lower holes in centre of channel.
- 26. Splice ECB fog lights into original wiring harness attached to ECB protection bar.
- 27. Carefully fit headlamp washer into top of protection bar. Gently flatten spring steel clip to firmly attach under headlamp washer. **Caution:** Once damaged repair of these items is extremely difficult.
- 28. Fit ECB alloy infill's (supplied) to top of ECB protection bar using three M6 x 25 bolts, flat washers and nyloc nuts (supplied). **Tighten only enough** to allow movement for adjustment. Fit 3mm clip lock trim to top of infill. Cut clip lock trim to match ends of ECB alloy infills. **See figure 21.**
- 29. Fit ECB protection bar to outside of steel mounting brackets. Use ½ x 1 ½ bolts, nuts and washers (supplied). **FINGER TIGHTEN ONLY.** Connect wiring and water tubing when fitting.
- 30. Connect and refit vehicle headlights and grille.
- 31. Align protection bar with vehicle. See figures 22 and 23.TIGHTEN ALL BOLTS/NUTS. See figure 24. Use air vent cut outs in centre of protection bar for impact wrench access.
- 32. Fit ECB fog lights to protection bar **TIGHTEN FIRM ONLY. See figure 25.** Check operation and aim with low beam. **TIGHTEN IN POSITION** Fit ECB fog light trims (supplied) to protection bar, wider part of trim to inside.
- 33. Fit 6mm clip lock trim (supplied) to air flow cut outs in protection bar. Start at top middle; ensure flat side of trim is to front, feeding hard into all corners, overlap staring point by 3-4mm and cut off, force in. NOTE: Ensure start and finish cuts are square. See figure 26.
- 34. Should winch not be installed, fit winch cover plate level using two 3/8 flat washers and nyloc nuts (supplied) and align with ECB protection bar.

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.



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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

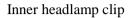
FITTING KIT

1 – Pair steel mounting brackets.	4 - 3/8 nuts
1 – Steel winch mounting frame	2 - 3/8 Nyloc nuts
1 – Steel winch control box bracket	18 – M6 x 20 bolts
1 – Pair alloy headlight infill	34 – M6 flat washers
1 – Passenger side alloy under body guard	14 – M6 nyloc nuts
1 – Drivers side alloy under body guard	2 - M6 nuts
7 – M8 x 35 bolts	2 – M6 spring washers
1 – M8 x 50 bolt	2 - M6 nuts on 100mm wire
8 – M8 flat washers	1 – 150mm length split plastic tubing
8 – M8 spring washers	1 – ECB LED indicator/ park light kit
$10 - \frac{1}{2} \times 1 \frac{1}{2}$ bolts	1 – Pair ECB fog lights
$20 - \frac{1}{2}$ flat washers	2 – Fog light trims
$10 - \frac{1}{2}$ spring washers	10 – Cable locks
$10 - \frac{1}{2}$ nuts	15 – 150mm zip ties
$2 - 3/8 \ge 1 \frac{1}{4}$ bolts	2 – 450mm lengths 3mm clip lock trim
$2 - 3/8 \ge 1 \frac{1}{4}$ bolt and washer on 300mm wire	2 – 645mm lengths 6mm clip lock trim
8-3/8 flat washers	2 – 25mm plastic blanks
4 - 3/8 spring washers	4 – 22mm plastic blanks



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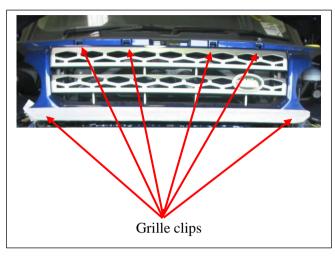


Figure 1



Figure 3



Figure 2 – Drivers side shown



PK Flare Screw inside Figure 4 headlamp area





Flare locking tab

Figure 5

Figure 6

T30 torx screw

Slot on bumper for flare



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Figure 7 – Passenger side shown. Remove section including air dam brace.



Figure 9 – Arrow points to centre of vehicle



Figure 8 – Plastic clip reused to secure inner guard to flare.



Figure 10 – Passenger side shown



Figure 11



Figure 12



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Figure 13



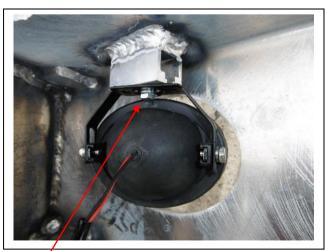
Inset picture: split tubing covering air lines



Figure 15– Passengers side shown



Figure 16



M6 Bolt

Figure 17



Figure 18 - Passenger side centre mounting



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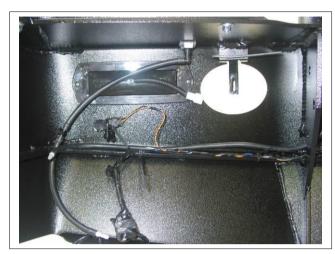


Figure 19 – Passenger side outer section



Figure 20



Figure 21



Figure 22



Figure 23



Figure 24 - Accessing bolts/nuts



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Figure 25 – Fitting of Fog lights



Figure 26 – Note join at top



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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 ye	ear 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 BR56SY

ICZBKCR56

W	/ork Order #	
	Finish:	
	Transport:	
	Due Date:	
0	1 – Pair steel mo	ounting brackets.
Ο	1 – Steel winch	mounting frame.
Ο	1 – Steel winch	control bracket
Ο	1 – Pair alloy he	adlight infill (black rip. for polish, channel colour for all others)
Ο	1 - D/S under be	ody guard (powder coated black)
Ο	1 - P/S under bo	dy guard (powder coated black)
Ο	1 - Winch cover	· plate (powder coated black)
Ο	1 – Bolt kit (incl	uding 6 plastic blanks)
Ο	1 – ECB LED In	ndicator / Park light kit.
Ο	1 – Pair ECB fog	g lights with wiring and surrounds.
Ο	2-645mm leng	ths 6mm clip lock trim.
Ο	2-450mm leng	ths 3mm clip lock trim.
Ο	2 – ECB overrid	ers – Fitted to Bar
Ο	2 - ECB 6mm at	ir vents – Fitted to Bar

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Is this product "the bes	t it can be"	Yes	/
		Wrapper's initials	/ Checker initials

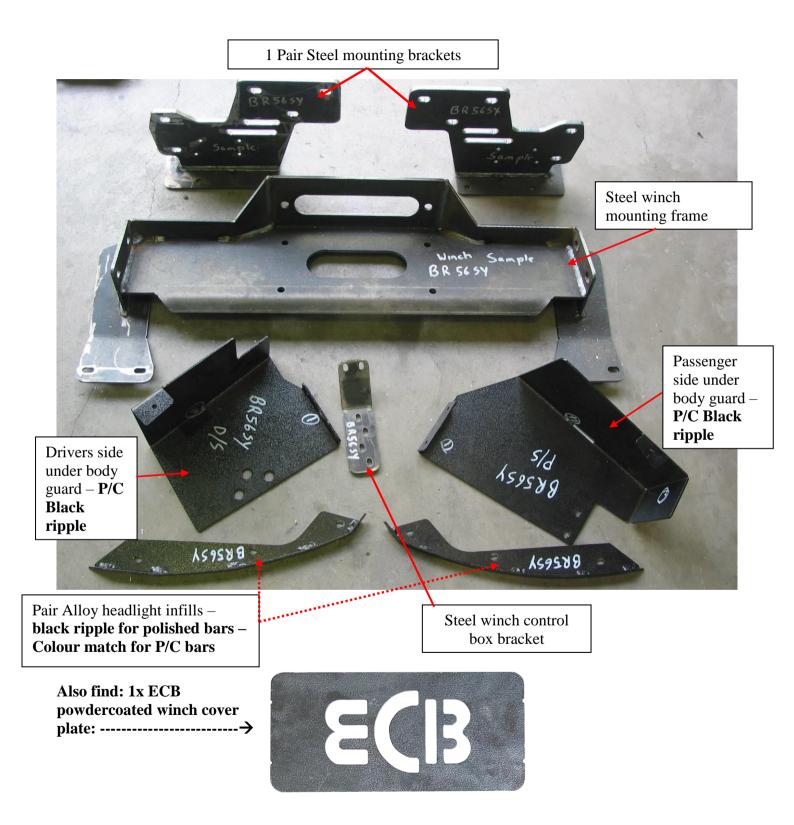
If NO fix before continuing

All parts checked and completed by:

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



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