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## BT37SY

REPLACES: 18.02.10 REVISED: 09.07.10

## FITTING INSTRUCTIONS

## PRADO GX 03/03-10/09 BIG TUBE PROTECTION BAR VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG AND ADR COMPLIANT VEHICLES

Check installation hardware before commencing.

- 1. Lift bonnet.
- 2. Remove bumper cover. One 10mm head self-tapper (each side) at top of side returns. One 10mm head self-tapper (each side) half way down side return. Two 10mm head self-tappers (each side) at bottom. Four 10mm head bolts along bottom and three plastic clips at top grille area. Pull out at side returns. Medium force is required to release off plastic clips. **See figure 1**. Remove bumper cover.
- 3. Remove side bumper cover clip assembly from vehicle, two 10mm head self-tappers (each side). See figure 2.
- 4. Remove steel bumper cover support, four 14mm head nuts behind foam. See figure 3.
- 5. Drill out upper holes in chassis extensions to 18mm for pipe chassis spacers. Drill out to 13mm then use die grinder if 18mm drill is not available. See figures 4 and 5. Treat exposed metal with rust inhibitor and or paint.
- 6. Feed 3/8 x 1 ¼ bolt, washers on 300mm wire (supplied) through 40 x 18 hole in chassis, **see figure 6**, to protrude out of forward chassis hole.
- 7. Place ECB steel mounting brackets over 3/8 x 1 <sup>1</sup>/<sub>4</sub> bolt (supplied). Insert M8 x 30 x 1.25 bolts/washers (supplied) into upper captive nut in chassis. **FINGER TIGHTEN ONLY** to hold steel mounting bracket in place. Use 3/8 washer/nut (supplied) for 3/8 x 1 <sup>1</sup>/<sub>4</sub> bolt. **FINGER TIGHTEN ONLY**.
- Insert M12 x 35 x 1.25 bolt/ washers (supplied) into lower captive nut in chassis. FINGER TIGHTEN ONLY. See figure 7
- 9. Place 3/8 x 5 bolts (supplied) through steel angle mounts. Slide pipe chassis spacers (supplied) over bolts and feed chassis spacers and bolts into top holes. See figure 8. Attach lower steel angle mounts to 3/8 x 5 bolts. Use 3/8 nuts/washers (supplied). FINGER TIGHTEN ONLY.
- 10. Attach steel angle mounts to steel mounting brackets. Feed 3/8 x 1 ½ bolts (supplied) from inside, attach washer and nuts (supplied). **FINGER TIGHTEN ONLY. See figure 9.**
- 11. Level and square steel mounting brackets, check measurement between steel mounting brackets for protection bar to mount on inside. **TIGHTEN ALL BOLTS**. Recheck measurements. Adjust if necessary. Fold approx 50mm of wire on 3/8 x 1 ¼ bolts around hole in chassis. Crimp tight to chassis and cut off excess. **See figure 10.**
- 12. Splice ECB indicators / park light wiring into original wiring loome. Use cable locks (supplied).
- 13. 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 11.**



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- 14. Fit ECB Prado infill trims (supplied) to top of protection bar. Use ¼ nylock nuts and flat washers (supplied) See **figure 12. FINGER TIGHTEN ONLY**.
- 15. Attach ECB protection bar to inside of steel mounting brackets. Use ½ x 1 ½ bolts, nuts and washers (supplied). FINGER TIGHTEN ONLY.
- 16. Align protection bar with top of infills approx 6mm from guards. See figure 13 for side view. TIGHTEN IN POSITION. NOTE: Clearance is needed for body/chassis twist in rough terrain. Align infill trims with vehicle and TIGHTEN nylock nuts firm only. DO NOT OVER TIGHTEN AS INFILL MAY GET DAMAGED.
- 17. Connect ECB indicator/park lights. CHECK OPERATION.
- 18. Fold small top portion of plastic inner guard over itself and then push behind infill trim. Tuck plastic inner guard in behind protection bar end cap. Fold remainder forward and up. Then secure with zip ties (supplied). Alternately bottom portion can be trimmed off to suit.
- 19. Attach air directional inserts (supplied) into cut outs in protection plate. See figure 14.
- 20. Position alloy protection plate up on inside of protection bar skirt. Secure to original steel under guard. Use M6 x 25 bolts and washers (supplied), FINGER TIGHTEN ONLY. See figure 14. Align in position and TIGHTEN to steel under guard. Drill three 6mm holes through fold on protection bar skirt and alloy protection plate. Use three M6 x 20 bolts, nuts and washers (supplied). TIGHTEN in position. Remove centre air vent in protection bar to access centre bolt and nut.

#### 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

2 – Steel mounting brackets.	$14 - \frac{1}{2}$ flat washers
4 – Steel angle mounts.	$8 - \frac{1}{2}$ spring washers.
2 – Prado infill mouldings (pair)	2 – M8 x 30 x 1.25 bolts.
1 – Alloy protection plate	2 – 8mm flat washers.
1 – ECB LED Indicator / Park light kit	2 – 8mm spring washers.
6 – Cable locks.	4 – 81mm long 10nb pipe chassis spacers.
$4 - 3/8 \ge 5$ bolts.	2 – M6 x 25 bolts.
$2 - 3/8 \times 1 \frac{1}{4}$ bolts/washers on 300mm wire.	3 – M6 x 20 bolts.
$8 - 3/8 \ge 1 \frac{1}{2}$ bolts.	3 - M6 nuts.
14 - 3/8 nuts.	5 – 6mm spring washers.
26 - 3/8 flat washers	$8 - \frac{1}{4}$ nylock nuts.
14 - 3/8 spring washers.	$16 - \frac{1}{4}$ flat washers.
$6 - \frac{1}{2} \ge 1 \frac{1}{2}$ bolts/nuts.	4 – 200mm zip ties.
2 – M12 x 35 x 1.25 bolts.	2 – 3mm Air Directional Inserts.



Figure 1



Steel bumper cover support

Figure 3



**Figure 2** – Drivers side shown. Removing bumper cover clip assembly.

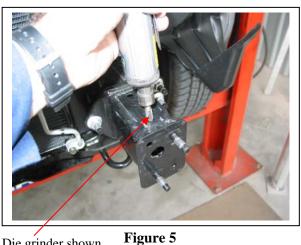


Figure 4



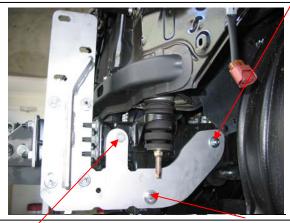
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Die grinder shown enlarging top holes

3/8 x 1 ¼ bolt/nut



M8 x 30

**Figure 7** M12 x 35

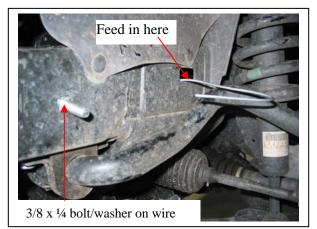
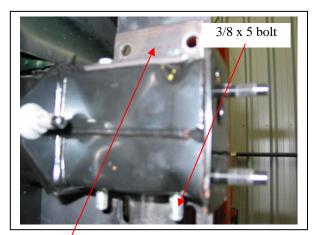


Figure 6 – Passenger side shown

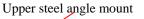


Steel angle mount on top of chassis – Passenger side shown

Figure 8



Wire on bolt folded tight around chassis and cut off



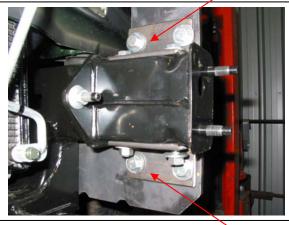


Figure 9 Lower steel angle mount – Passenger side shown



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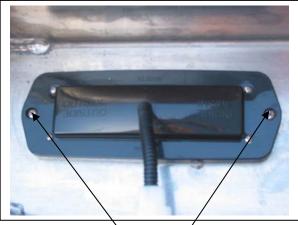


Figure 11 Stainless steel self-tappers

6mm clearance here



Figure 13

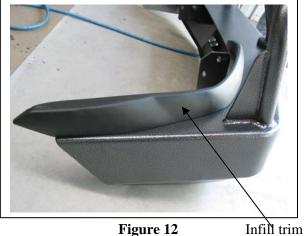


Figure 12



Figure 14



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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/Co	ompany 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.

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See other side of

this page for

photos of all

mounts

# DESPATCH CHECKLIST BT37SY

Work Order #	
Finish:	
Transport:	
Due Date:	

- O 2 Steel mounting brackets.
- O 4 Steel angle mounts.
- O 2 Prado infill mouldings (pair).
- O 1 Alloy protection plate.
- O 1 Bolt Kit.
- *O* 1 ECB LED Indicator / Park light kit.
- O 2 3mm air directional inserts *in kit*.
- O 2 ECB overriders **Fitted to bar.**
- O 2 6mm air scoops **Fitted to bar.**
- *O* 3 3mm air scoops **Fitted to bar.**



Is this product "the best it can be" Yes // Krapper's initials // Checker initials

If **NO** fix before continuing

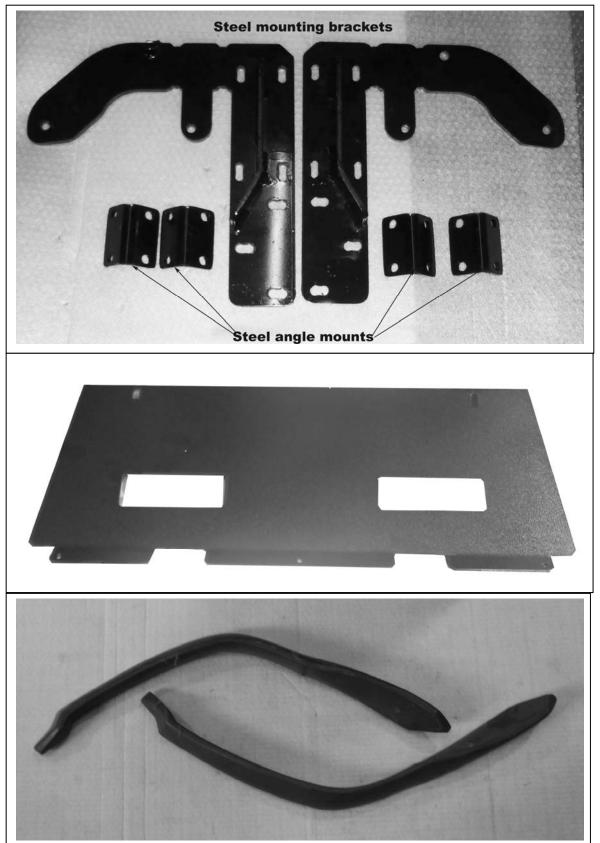
All parts checked and completed by:

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



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