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#### BT39SY

REPLACES: 24.03.10 REVISED: 09.07.10

#### FITTING INSTRUCTIONS

# PRADO GXL/GRANDE 03/03on BIG TUBE™ PROTECTION BAR WITH 9000LB WARN WINCH MOUNTING BRACKET 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 ½ 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 ¼ 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 ¼ bolt. **FINGER TIGHTEN ONLY**.
- 8. 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 chassis pipe spacers (supplied) over bolts and feed pipe chassis spacers and bolts into top holes. **See figure 8**. Attach steel angle mounts to steel mounting brackets. Use 3/8 x 1 ½ bolts, nuts and washers (supplied). **FINGER TIGHTEN ONLY.**
- 10. Attach winch mounting bracket to 3/8 x 5 bolts. Use 3/8 nuts/washers (supplied) **See figure 9 FINGER TIGHTEN ONLY**. Attach winch mounting bracket to steel mounting brackets. Use 3/8 x 1 ½ bolts, nuts and washers (supplied) **FINGER TIGHTEN ONLY**. **See figure 10.**
- 11. Attach outer winch mounting bracket plates to front of chassis. Use 10mm x 1.25 nuts/washers (supplied). Attach to winch mounting bracket with 3/8 x 1 ½ bolts, nuts and washers (supplied). **FINGER TIGHTEN ONLY. See figure 11.**
- 12. 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 ½ bolts around hole in chassis. Crimp tight to chassis and cut off excess. **See figure 12.**



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- 13. Attach roller fairlead to winch mount bracket. Use original 7/16 x 1 bolt and nut (feed from inside).
- 14. Fit winch to winch mounting bracket. Feed cable through roller fairlead as installing. Use 3/8 x 1 ¼ original winch bolts and spring washers with 3/8 flat washers (supplied). **TIGHTEN IN POSITION**. **See figure 13.**
- 15. Attach control box bracket (supplied) to control box. Place ¼ flat washer (supplied) over studs, then control box bracket, then ¼ flat washer (supplied). Use original nuts.

**NOTE:** Control box is to fit hard up against inside of protection bar. **TIGHTEN** control box bracket flush with 8mm head control box self-tappers at top. **See figure 14.** 

16. Attach control box wiring to winch and wire to battery and earth etc. Sit control box on top of winch. **See figure** 15.

**NOTE:** Use zip ties (supplied) to ensure winch cable are routed in such a manner to avoid any sharp edges / rubbing etc.

- 17. Splice ECB indicators / park light wiring into original wiring loome. Use cable locks (supplied).
- 18. 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.**
- 19. 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.** Fit ECB fog light trims (supplied) to protection bar. **NOTE:** Wider part of trim faces to centre.
- 20. Fit ECB Prado infill trims (supplied) to top of protection bar. Use ¼ nylock nuts and flat washers (supplied). **See figure 18. FINGER TIGHTEN ONLY**.
- 21. Attach ECB protection bar to inside of steel mounting brackets. Use ½ x 1 ½ bolts, nuts and washers (supplied). **FINGER TIGHTEN ONLY**.
- 22. Attach control box bracket to protection bar. Use ½ x 1 bolt, nylock nuts and washers (supplied). Align in cut out and **TIGHTEN. See figure 19.**
- 23. Align protection bar with top of infills approx 6mm from guards. See figure 20 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.

- 24. Connect ECB indicator/park lights and ECB fog lamps. **CHECK OPERATION**. **NOTE**: Cut original fog lamp socket from original wiring. Use connectors supplied with ECB fog lamps.
- 25. Aim fog lights just below low beam and **TIGHTEN all fog light bolts**.
- 26. 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.

#### 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**

2 – Steel mounting brackets.	$14 - \frac{1}{2}$ flat washers
2 – Steel angle mounts.	$8 - \frac{1}{2}$ spring washers.
1 – Winch mounting bracket.	2 – M8 x 30 x 1.25 bolts.
1 – Pair outer winch mounting bracket plates.	2 – 8mm flat washers.
1 – Control box bracket.	2 – 8mm spring washers.
2 – Prado infill mouldings (pair)	4 – 81mm long 10nb pipe chassis spacers.
1 – ECB LED Indicator / Park light kit.	2 – ECB Fog Lamps and wiring kit.
10 – Cable locks.	2 – ECB round light trims.
$4 - 3/8 \times 5$ bolts.	$2 - \frac{1}{4} \times 1$ bolts.
$2 - 3/8 \times 1$ ½ bolts/washers on 300mm wire.	$10 - \frac{1}{4}$ nylock nuts.
$12 - 3/8 \times 1^{1/2}$ bolts.	$16 - \frac{1}{4}$ flat washers.
18 - 3/8 nuts.	8 – 200mm zip ties.
38 - 3/8 flat washers	2 – M6 x 20 bolts.
22 - 3/8 spring washers.	2 – M6 nuts
$6 - \frac{1}{2} \times 1^{\frac{1}{2}}$ bolts/nuts.	2 – M6 flat washers.
2 – M12 x 35 x 1.25 bolts.	2 – M6 spring washers.



Figure 1



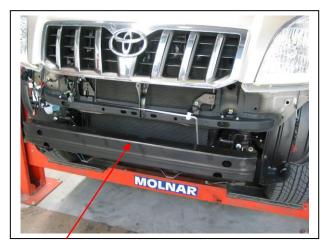
**Figure 2** – Drivers side shown. Removing bumper cover clip assembly.



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Steel bumper cover support

Figure 3



Figure 4

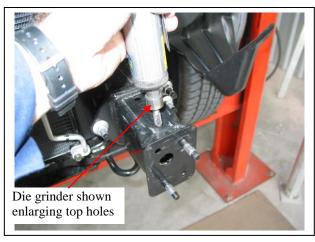


Figure 5

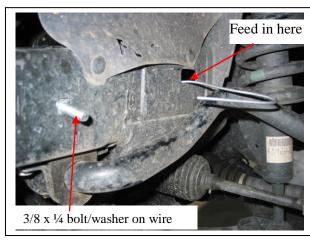
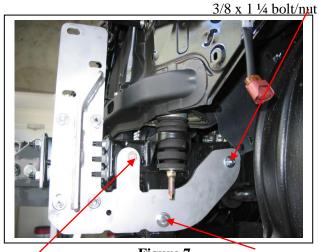


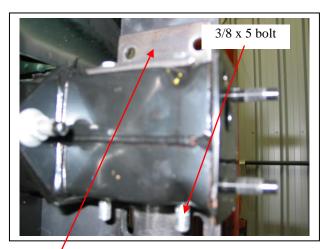
Figure 6 – Passenger side shown



 $M8 \times 30$ 

Figure 7

M12 x 35



Steel angle mount on top of chassis – Passenger side shown

Figure 8



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Figure 9

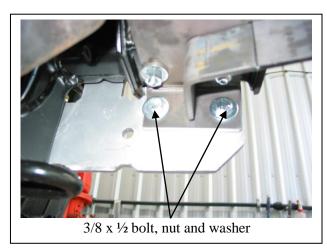


Figure 10



Figure 11

M10 nuts/ washers

 $3/8 \times 1 \frac{1}{2} \text{ bolts}$ nuts and washers



Wire on bolt folded tight around chassis and cut off

Figure 12



Figure 13

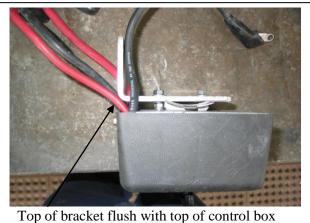


Figure 14



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Figure 15

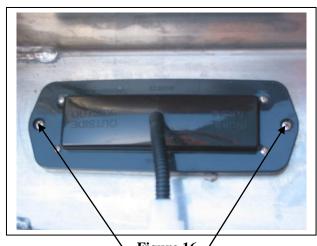
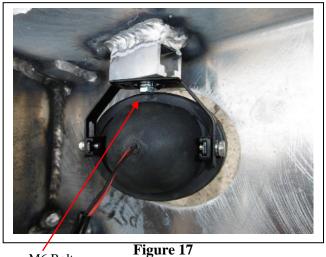
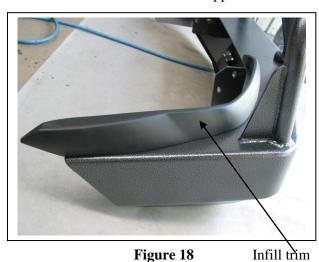


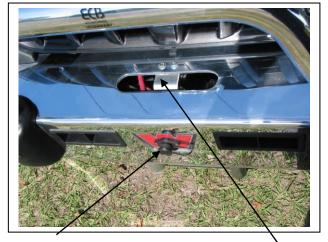
Figure 16 Stainless steel self-tappers



M6 Bolt



6mm clearance here



Control box

Control box bracket Figure 19



Figure 20



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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:/	Yes No	
Was the fitting hardware supplied complete?		
If no what was not supplied		
Did the installation go well?	Yes No	
Please provide comments		
Dlaces draw diagrams if you need to		
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 BT39SY

ICZBKCT39



Work	COrder #	See other side of	
	Finish:	this page for	
Т	ransport:	photos of all	
Due Date:		mounts	
0	2 – Steel mounting brackets.		
Ο	2 – Steel angle mounts.		
Ο	O 1 – Winch mounting bracket.		
Ο	O 1 – Control box bracket,		
O $1 - Pair$ outer winch mounting bracket plates.			
O 2 – Prado infill mouldings (pair).			
Ο	O 1 – Bolt Kit.		
0	O 1 – ECB LED Indicator / Park light kit.		
O $2 - ECB$ fog lamps and wiring kit.			
O 2 – ECB round light trims.			
O $2 - ECB$ overriders – <b>Fitted to bar.</b>			
O $2-6$ mm air scoops – <b>Fitted to bar.</b>			
0	O $2-3$ mm air scoops – <b>Fitted to bar.</b>		
STO	Is this product "the b		
	If <b>NO</b> fix before conti	Wrapper's initials / Checker initials nuing	
All parts	checked and completed by:		
Nut	and bolts:	Date//	
Ord	er control:	Date//	
Final w	ap check:	Date//	



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