

PRODUCT DETAILS:

Part Number:	QTHY278L	Maximum Towing Braked:	2200	kg
ECU Number:	04835	Maximum Towing Unbraked:	750	kg
Tail Harness Length Required:	See Note.	Maximum Static Ball Load:	100	kg

TBM/Lug Part Number:	21161
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FITTING DETAILS:

Towbar Installation Time:	90 Mins.	RPA Disable/Other:	YES
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Total Installation Time:	110 Mins.
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Bumper Cut Required:	Yes
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Note:

- A 400mm tail can be used if customer does not require RPA Disable.
- RPA disable use 04936.

TRAILBOSS RECOMMENDS THAT INSTRUCTIONS ARE READ AND UNDERSTOOD COMPLETELY PRIOR TO FITMENT.

BEFORE YOU START:

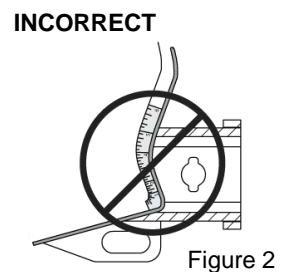
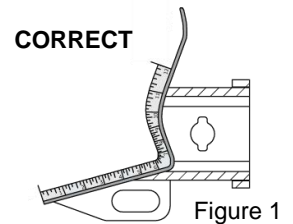
Check all hardware items have been included refer to assembly diagram.
Please ensure this towbar is only fitted to vehicle models as per Trailboss application guide.

Bumper Cuts

Vehicle and bumper variations can and do occur during vehicle manufacture after initial towbar design. Fitment of towbar to vehicle and accuracy of bumper cut must be assessed prior to any bumper modifications made. Incorrect bumper cuts are not covered under Trailboss warranty.

NOTE: Bumper cuts need to be approached with care, refer to notes below.

- Bumper centreline – where the centreline of the bumper needs to be determined, the installer must assess centre point by measurement of bumper width or determining two symmetrical reference points to give centreline.
- Bumper edge – To assist with accurate bumper cut measurement, reference to the start of the bumper edge is now being commonly used.
 - Measure from bottom edge along bumper and around corner to the 70 mm point (Figure 1).
 - Do not measure from visible bumper front of corner, upwards (Figure 2).



Drilling

- For any required drilling during installation, ensure that the area is clear of fuel, electrical & other components that may be damaged.
- All holes drilled into metal body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.

Bolts/Fasteners

- Ensure that all hardware is fastened to correct torque as specified in this fitting instruction.
- All fasteners supplied with this product are used to achieve a specified clamp loading. If replacement is required ensure that fasteners of the same grade and class are used.

NOTE: Achieving correct torque is critical to proper installation and responsibility of the installer. Towbar failures attributed to tension issues from over tightening or under tightening are not covered by Trailboss warranty.

Product Labels

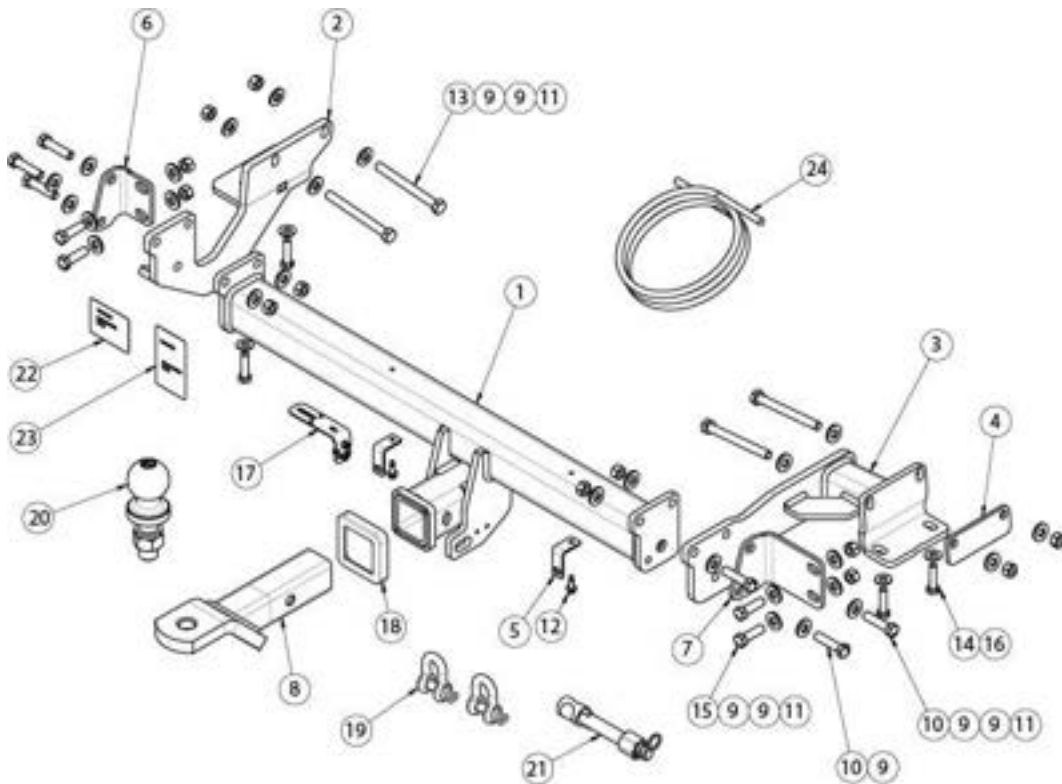
- a. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door.

WARNING:

Do not, drill, cut, weld or otherwise modify the towbar.

FOR TOWING PURPOSES ONLY - This towbar is designed and tested by Trailboss to adhere to ADR 62/02 which provides only for the expected load demands of towing.

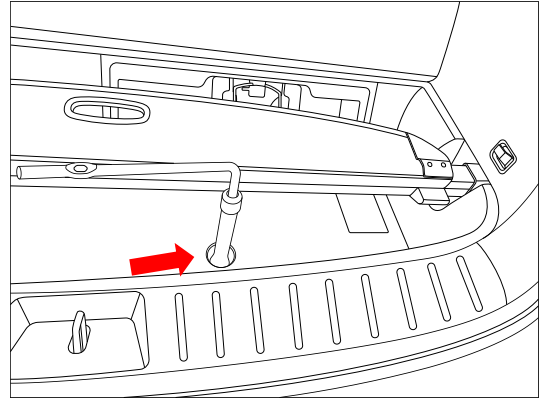
i TOWBAR ASSEMBLY DIAGRAM



ITEM	DESCRIPTION	QTY
1	PALISADE CROSTUBE ASSEMBLY	1
2	SIDE ARM ASSEMBLY LH	1
3	SIDE ARM ASSEMBLY RH	1
4	SPACER PLATE RH	1
5	BUMPER TAB	2
6	REAR PANEL BRACKET LHS	1
7	REAR PANEL BRACKET RHS	1
8	TRAILER BALL MOUNT	1
9	WASHER PLAIN 1/2"	26
10	BOLT HEX HD M12x50x1.75P	6
11	NUT HEX HD M12x1.75P	12
12	TEK SCREW 14-20 HEX HD 22mm	2

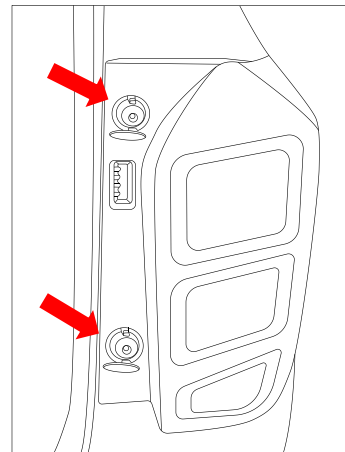
ITEM	DESCRIPTION	QTY
13	BOLT HEX HD M12x120x1.75P	4
14	BOLT HEX HD M10x40x1.25P	4
15	SET SCREW HEX HD M12xx40x1.75P	4
16	WASHER FLAT M10x23x2	4
17	UNIVERSAL PLUG BRACKET KIT	1
18	HITCH BOX COLLAR COVER	1
19	"D" SHACKLE 10mm	2
20	TOWBALL 50mm	1
21	SMART PIN SILVER	1
22	COMPLIANCE LABEL	1
23	LOAD RATING LABEL	1
24	WIRING LOOM	1

1. Open tailgate, use the vehicles tools, and lower spare wheel as per owners handbook.



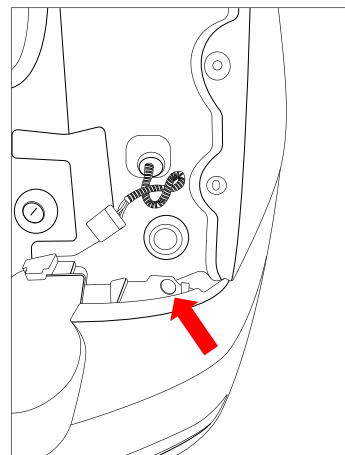
2. Unclip the 2 x taillight retaining screw covers to expose the screws. Remove the screws, disconnect wiring connector, and remove the taillight.

Repeat for other side.



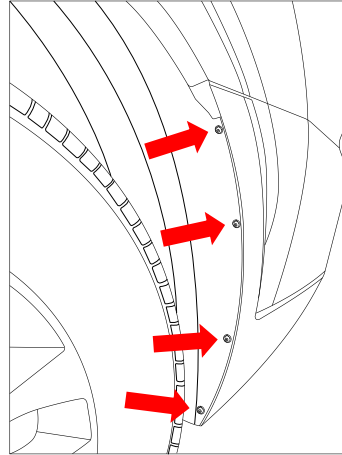
3. Remove 1 x scrivet from the taillight cavity.

Repeat for other side.

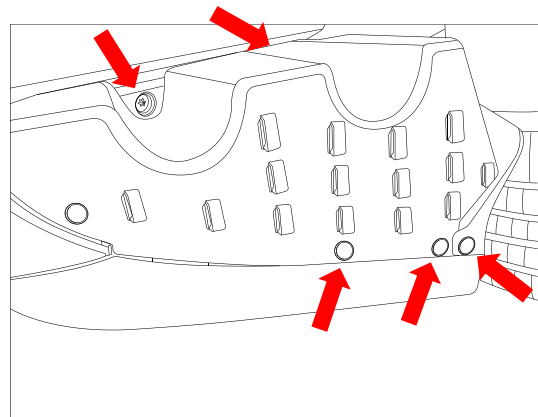


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4. In wheel arch, remove 4 x screws.

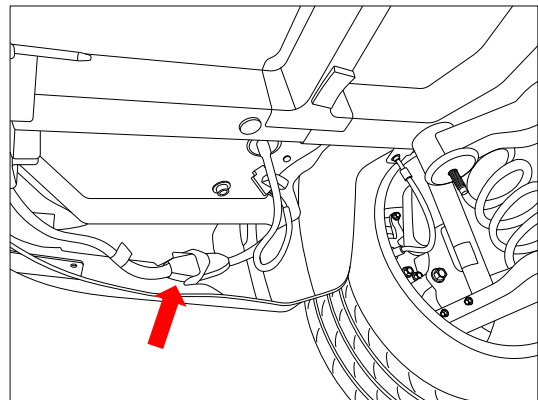
Repeat for other side.



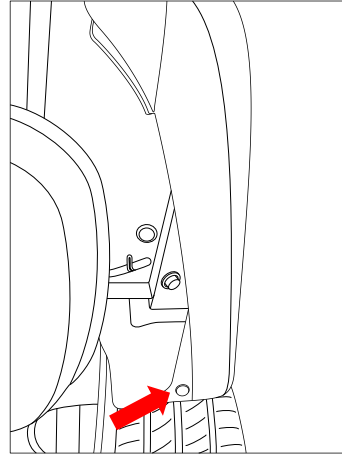
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5. On the passenger side, remove 1 x scrivet from the underside of the bumper.
6. Remove 2 x scrivets from the plastic underbody guard, release 2 x plastic nuts and remove from vehicle.



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7. On passenger side, disconnect the exposed wiring harness.



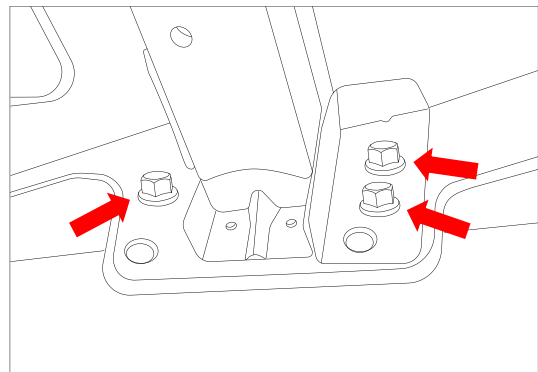
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8. On the drivers side, remove 1 x scrivet from the bumper underside.



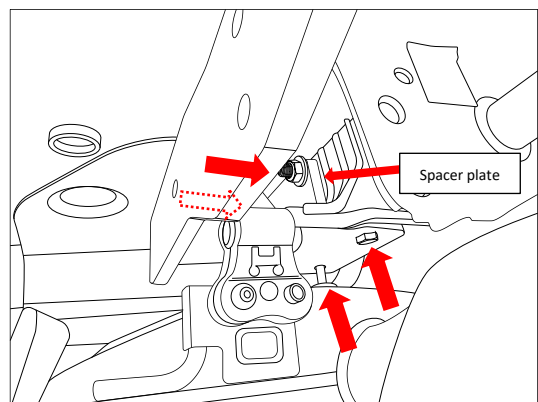
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9. From under the vehicle, remove the 3 x Bolts securing the impact beam to the vehicle.

Repeat for other side.

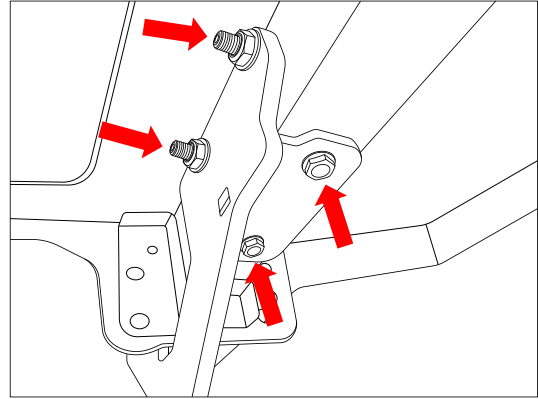
10. Peel bumper away from the sides and remove bumper, along with the impact beam, from vehicle.



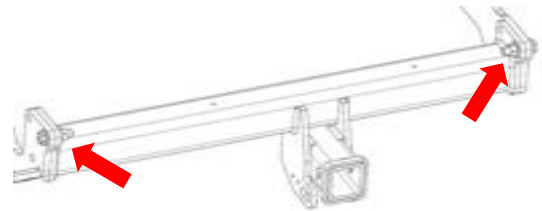
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11. Position the RH side arm assembly, along with the RH spacer plate, onto the chassis rail and loosely secure to the underside with 2 x M10 bolts complete with 1 x washer per bolt and to the sides with 2 x M12 bolts complete with 2 x washers and 1 x nut per bolt.



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12. Position the LH side arm assembly onto the chassis rail and loosely secure to the underside with 2 x M10 bolts complete with 1 x washer per bolt and to the sides with 2 x M12x120 bolts complete with 2 x washers and 1 x nut per bolt.

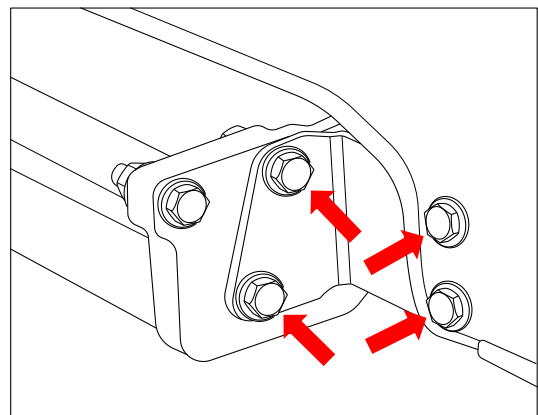


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13. Position the crosstube assembly to the side arm assembly and loosely secure the rear most top mounting with 1 x M12x50 bolt complete with 2 x washers and 1 x nut per bolt.



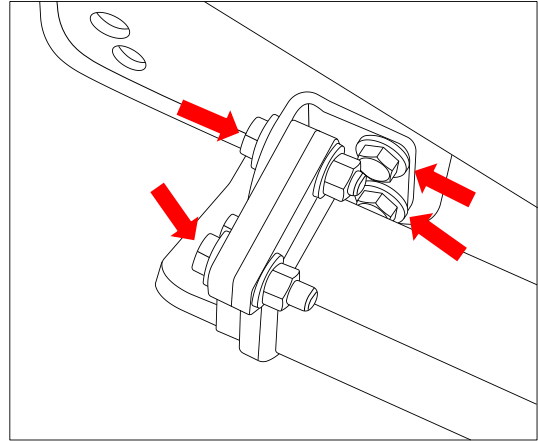
Repeat for other side.

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14. Position the RHS rear panel bracket to the **inside** of the vehicle back panel and loosely secure with 2 x M12x40 bolts complete with 2 x washers and 1 x nut per bolt.
15. Loosely secure to the outside of the side arm assembly along with the crosstube assembly with 1 x M12x50 bolt complete with 2 x washers and 1 x nut and 1 x M12x50 bolt complete with 1 x washer to the crosstube's weldnut.

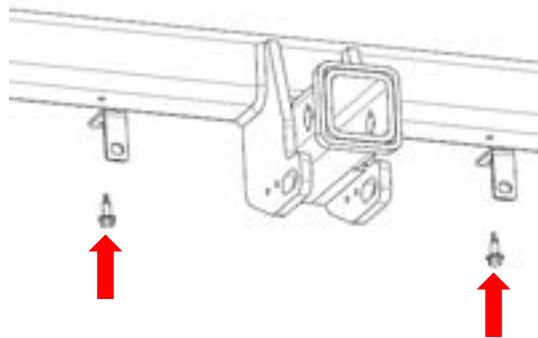


Note: Rear panel bolts may have to be reversed (nut outside) to ensure adequate clearance for the exhaust.

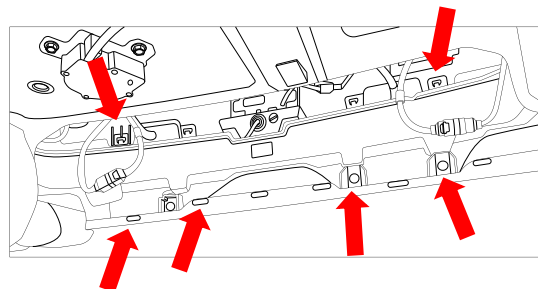
16. Position the LHS rear panel bracket to the **outside** of the vehicle back panel and loosely secure with 2 x M12x40 bolts complete with 2 x washers and 1 x nut per bolt.
17. Loosely secure to the outside of the side arm assembly along with the crosstube assembly with 1 x M12x50 bolt complete with 2 x washers and 1 x nut and 1 x M12x50 bolt complete with 1 x washer to the crosstube's internal weldnut.
18. **Tighten all bolts to the following torques:**
M10 x 1.25 Gr10.9 : 68Nm
M12 x 1.75 Gr10.9 : 109Nm



19. Secure the 2 x bumper tabs to the bottom of the crosstube assembly with the provided tek screws.



20. Remove and discard the impact beam from the bumper, secured with 6 x scrivets. Ensure to detach any wiring connected to the impact beam prior to removal.

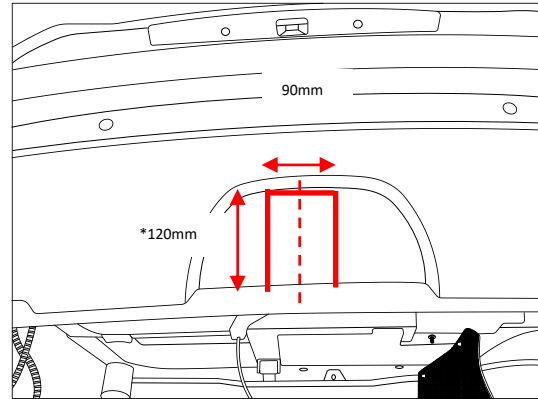


21. For bumper cut.

Determine the centre of the bumper, measure, mark off and cut out a section 90 mm wide and *120mm long measured from the bottom edge of the bumper as depicted in the image.

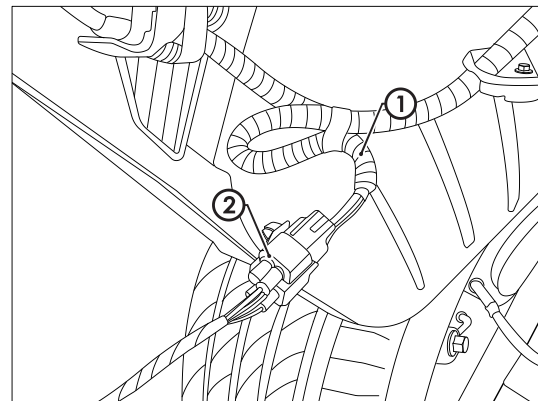
Ensure to not cut through any wiring on the inside of the bumper.

*Note: This is an estimated minimum dimension.



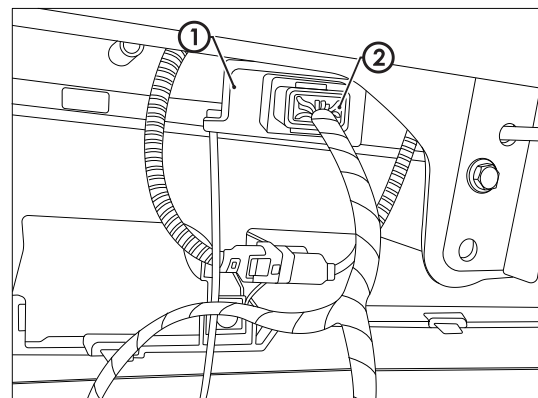
22. Under the LHS of the vehicle locate the vehicle prewire connector (1) taped back to the vehicle harness.

23. Remove tape and connect to trailer patch harness (2) (Part Number 102644-WL).

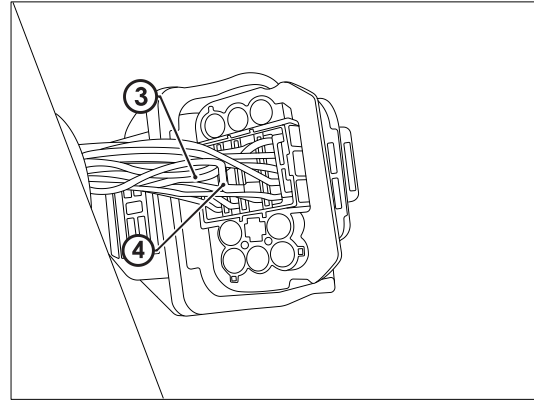


24. Connect the waterproof ECU (04835) 24-way connector (1) to the trailer patch (2) and lock together using the purple lock.

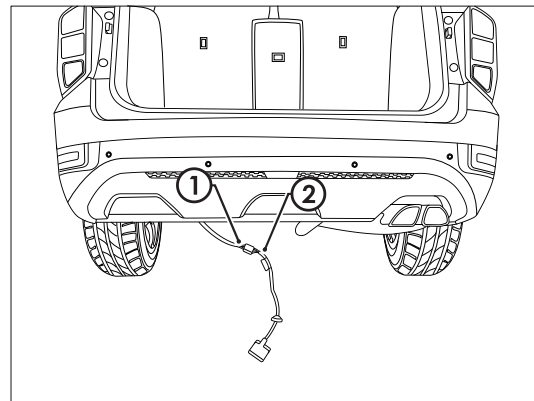
25. Secure the ECU to the top of the towbar using cable ties.



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26. For RPA Disable locate the bumper connector on the LHS. Peel back the tube on the brown wire and cut it 100mm back from the connector. Strip, crimp and seal the tail harness (04936) GREY and GREY/BLACK wires (3) to the vehicle brown wire (4). (1 wire going to each side of the brown wire).



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27. With the rear bumper removed, secure tail harness to towbar.
28. Connect the tail harness 8-way connector (1) to the trailer patch mating 8-way connector (2).
29. Use silicone grease to seal the blue connectors
30. Secure all harness using supplied cable ties.
31. Test the trailer patch function using a light board or multimeter.
32. Re-fit all removed parts, step 1-8 in reverse and secure all fasteners, ensuring there are no squeaks or rattles.
33. Place the fitting instructions in the glove box after fitment.





CUSTOMER INFORMATION

PLACE THESE INSTRUCTIONS IN THE
VEHICLE'S GLOVEBOX AFTER INSTALLATION

**THANK YOU FOR PURCHASING TRAILBOSS. WITH CORRECT MAINTENANCE AND CARE
THIS PRODUCT WILL PROVIDE A LIFETIME OF TROUBLE-FREE OPERATION.**

TOWBAR MAINTENANCE AND CARE:

1. Trailboss recommend that the towbar LUG or TBM (Trailer Ball Mount) Pull Pin and R-clip are removed and stored when not in use. Removal of LUG or TBM (Trailer Ball Mount) is advisable when not in use to assist with any of the following.
 - Ensure rear number plate is not obscured.
 - Allow maximum available departure angle and prevent any potential interference.
 - Prevent possible interference with vehicles reverse sensors or camera detecting a tow ball mount as an obstruction during reversing.
 - Removes towball mount as an obstruction for when moving around the rear of the vehicle.
2. Trailboss recommends routine inspection of your towbar to ensure trouble free towing.
 - Bolt security and tension should be regularly inspected and checked for correct tension. Replace any worn or defective parts with suitable grade & class fasteners. Inspection should be requested to coincide with vehicle major services.
3. It is the owner's responsibility to ensure towing and down ball weight capacities of the towing vehicle are not exceeded.
 - Towing and down ball weights allowable may differ according to model variations. Please refer to owner's manual or vehicle dealer to confirm exact rating for your vehicle model variant.
 - It is not uncommon for the vehicle tow rating to differ from the towbar rating. When this occurs, the lesser rating must be adhered to.
 - For vehicles fitted with enhanced vehicle functions that may be altered/changed when towing i.e Trailer sway mitigation, blind spot detection, adaptive cruise control etc. Please consult owner's manual to understand changes enabled when towing and after towing.

WARRANTY INFORMATION:

Trailboss Towbars are covered by a Lifetime Warranty.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

For further details please contact customer service on 1800 812 017.

PRO SERIES SILENT ANTI-RATTLE HITCH PIN

Your Trailboss towbar is equipped with a Pro Series Silent Anti-Rattle Hitch Pin technology to help reduce towbar tongue rattle in most driving conditions. Please ensure below instructions are understood and routine maintenance is carried out to ensure best towing experience.

Regularly inspect for wear and check the tightness of the Silent Anti-Rattle Hitch Pin. Follow instructions below to re-tighten the nut as necessary when movement and noise in the tow ball mount is noted.

- Before towing, ensure R-Clip is properly installed and hitch pin nut is installed and tensioned. Replacement parts are available from your Pro Series Distributor.

TOWBALL MOUNT REMOVAL/INSTALLATION

STEP 1

Insert Trailer Ball Mount (TBM) (a) into towbar hitchbox (b), aligning hole in TBM shank (c) with hole in hitchbox (d) (Fig. 1)

STEP 2

Insert Silent Anti-Rattle Hitch Pin (e) through hole in hitchbox and hole in TBM shank (g); ensure the locators are inserted into the notches in the hitchbox (Fig. 2)

STEP 3

Screw Silent Anti-Rattle Hitch Pin Nut (f) onto Smart Pin (g); tighten Smart Pin Nut until finger tight, ensuring TBM is restrained from up and down movement.

STEP 4

Tighten Silent Anti-Rattle Hitch Pin Nut by turning nut a further 1/8th of a turn in the clockwise direction using a 24mm spanner (Fig. 4).

STEP 5

Install Silent Anti-Rattle Hitch Pin R-Clip through the hole that provides best clearance or easiest access. (Fig. 5)

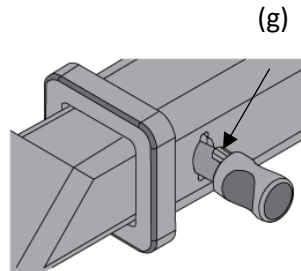
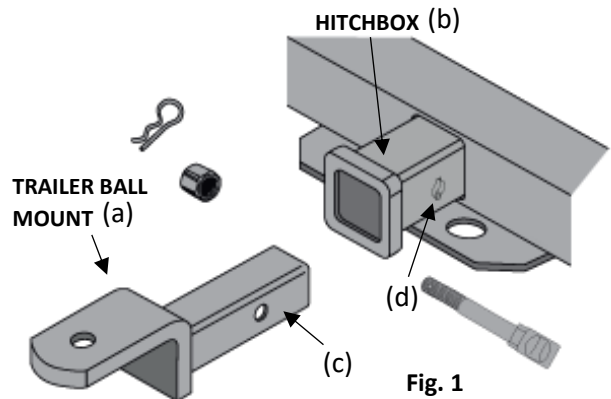


Fig. 2

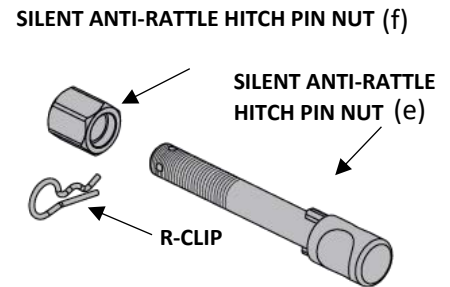


Fig. 3

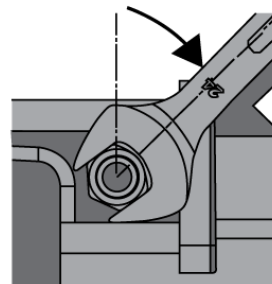


Fig. 4

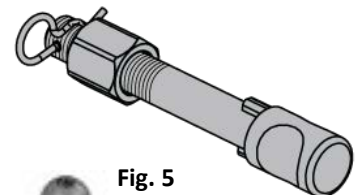


Fig. 5

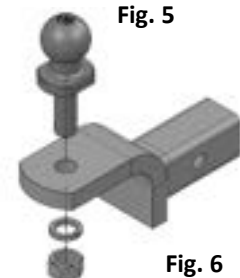


Fig. 6