

PRODUCT DETAILS:

Part Number:	QTKM27L	Maximum Towing Braked:	1110	kg
ECU Number:	04826	Maximum Towing Unbraked:	450	kg
Tail Harness Length Required:	1200 mm	Maximum Static Ball Load:	75	kg
TBM/Lug Part Number:	21126			

FITTING DETAILS:

Towbar Installation Time:	80 Mins.	RPA Disable/Other:	YES
Total Installation Time:	140 Mins.		
Bumper Cut Required:	Yes		

Note:

- Use 04936 for automatic RPA disable. RPA disable function can also be achieved via switch next to gear shift.

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

BEFORE YOU START:

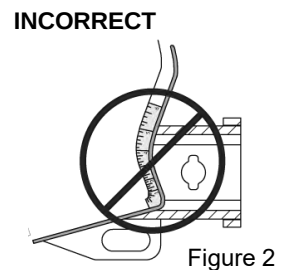
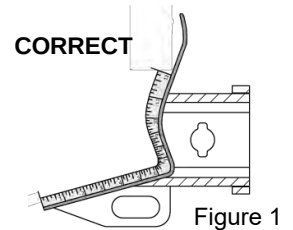
Check all hardware items have been included refer to assembly diagram.
Please ensure this towbar is only fitted to vehicle models as per Trailboss application guide.

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.
 - o Measure from bottom edge along bumper and around corner to the 70 mm point (Figure 1).
 - o 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.

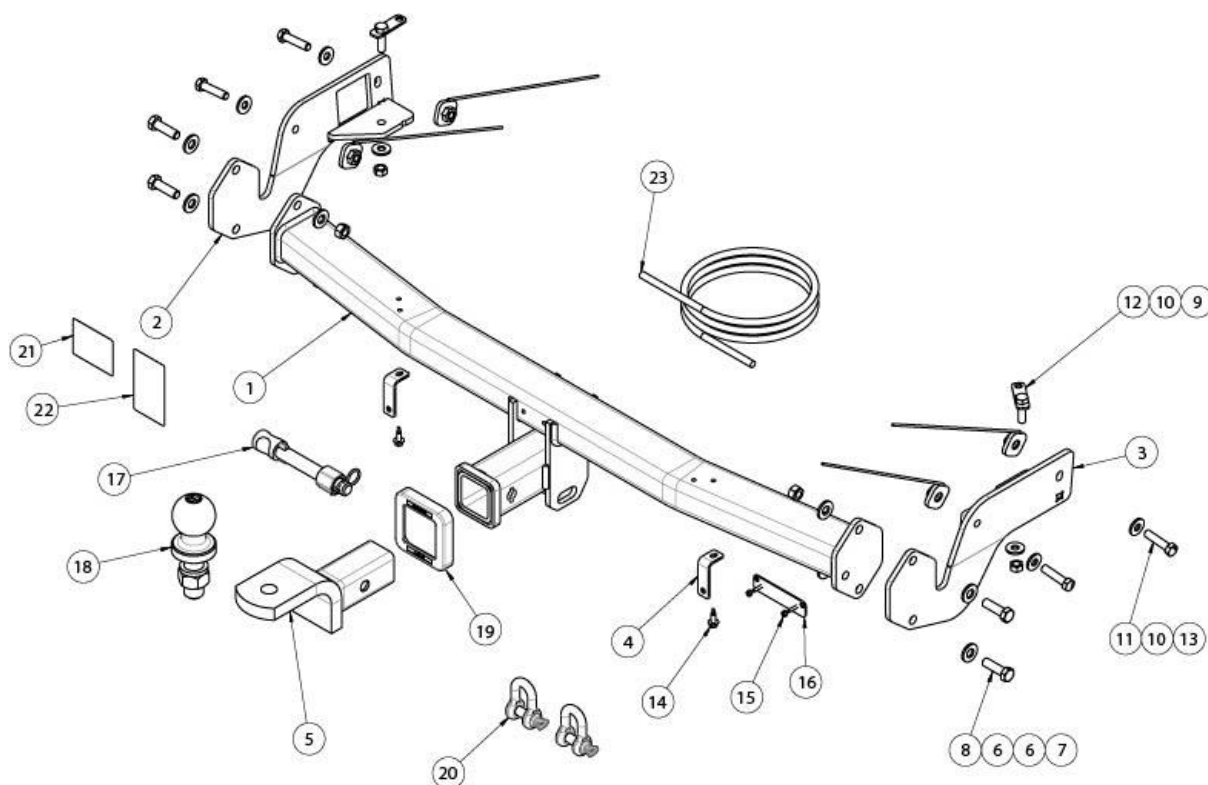
WARNING:

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.



TOWBAR ASSEMBLY DIAGRAM

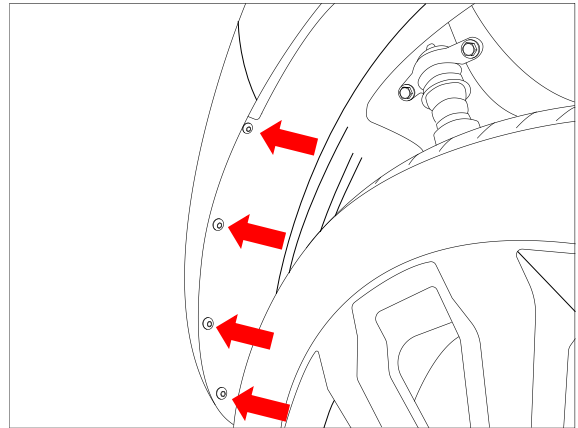


ITEM	DESCRIPTION	QTY
1	KIA STONIC WELDED ASSEMBLY	1
2	SIDE ARM ASSY LH	1
3	SIDE ARM ASSY RH	1
4	BUMPER TAB	2
5	TRAILER BALL MOUNT	1
6	WASHER PLAIN 1/2"	8
7	NUT HEX HD M12x1.25P	4
8	BOLT HEX HD M12x40x1.25P	4
9	HEX NUT M10x1.5P	2
10	WASHER PLAIN M10x25x3	6
11	BOLT HEX HD M10x45x1.5P	4
12	T BOLT ASSEMBLY	2

ITEM	DESCRIPTION	QTY
13	M10 NUT PLATE WITH WIRE	4
14	TEK SCREW 14-20 HEX HD 22mm	2
15	NUT NYLOC HEX HD M4x0.7P	2
16	PLUG BRACKET	1
17	SMART PIN SILVER	1
18	TOWBALL 50mm	1
19	HITCH BOX COLLAR COVER	1
20	"D" SHACKLE 10mm	2
21	COMPLIANCE LABEL	1
22	DOOR RATING LABEL	1
23	WIRING LOOM	1

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1. Remove 4 x screws from the wheel arch.

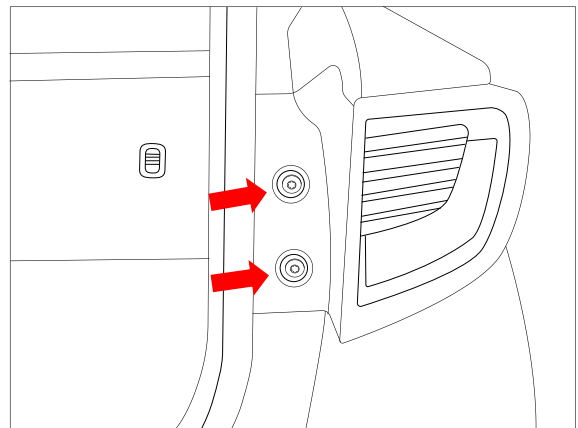
Repeat for other side.



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2. Open tailgate and remove 2 x screws securing the taillight.

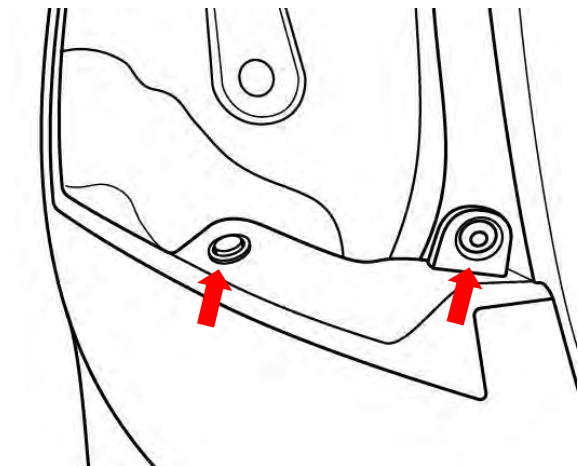
Remove taillight and disconnect electrical connections.

Repeat for other side.

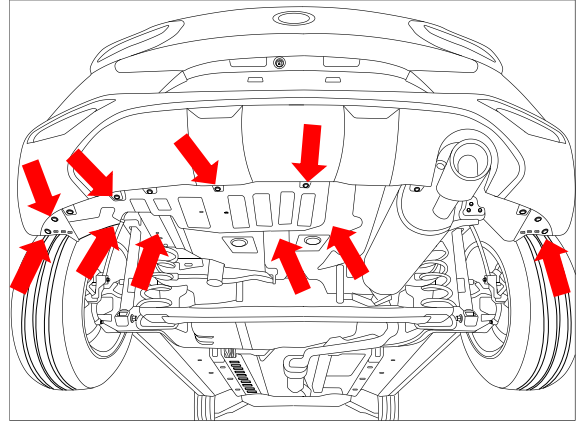


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3. From the taillight cavity, remove 1 x scrivet and 1 x screw.

Repeat for other side.

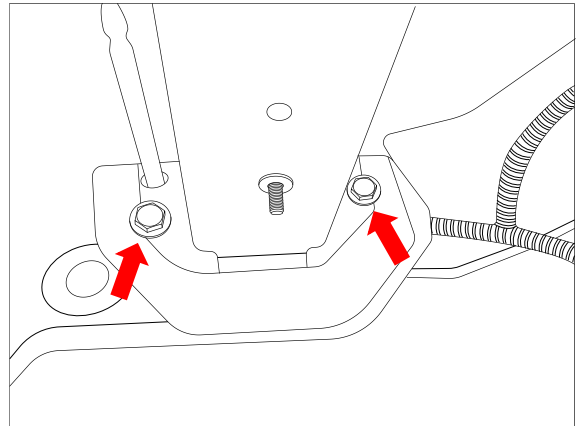


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4. From under the vehicle remove the plastic guard secured with 4 x scrivenets, 2 x plastic nuts and 2 x steel nuts along with 2 x scrivenets supporting the end of the bumper.



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5. From under the vehicle, remove 2 x bolts securing the impact beam to the vehicle.

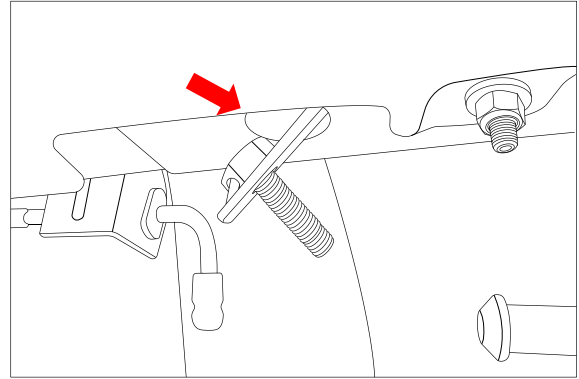
Repeat for other side.



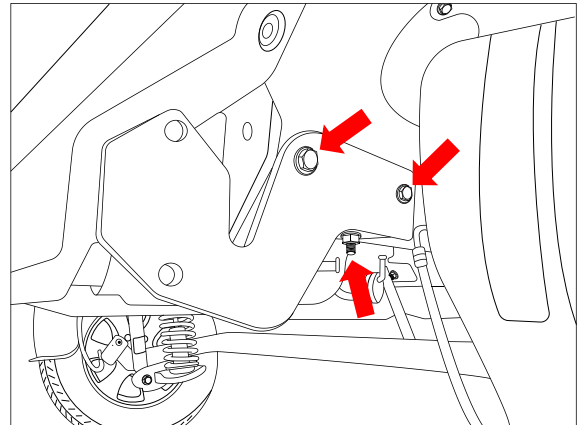
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6. Peel away from the sides and remove bumper along with the impact beam. Ensure to disconnect any wiring connectors from the main loom. Place the bumper assembly on a bumper stand in a safe place.

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7. From under the vehicle, remove the rubber grommet and insert the M10 T- bolt into the chassis rail.

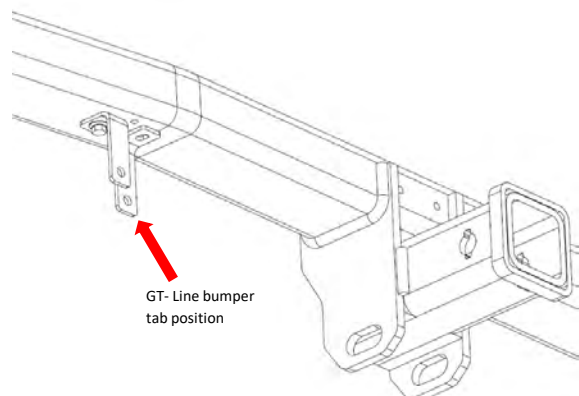
Repeat for other side.



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8. Position the RH Side arm assembly and loosely secure the side with 2 x M10 bolts complete with 1 x washer and 1 x nut plate on wire (inserted into the chassis rail) per bolt. Loosely secure the bottom using the previous installed T-bolt, complete with 1 x washer and 1 x M10 nut. Repeat for the LH Side arm assembly.



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9. Use the appropriate hole on the crosstube (vehicle model dependant), along with the correct orientation of the bumper tab bracket and secure to the crosstube using the provided tek screws.



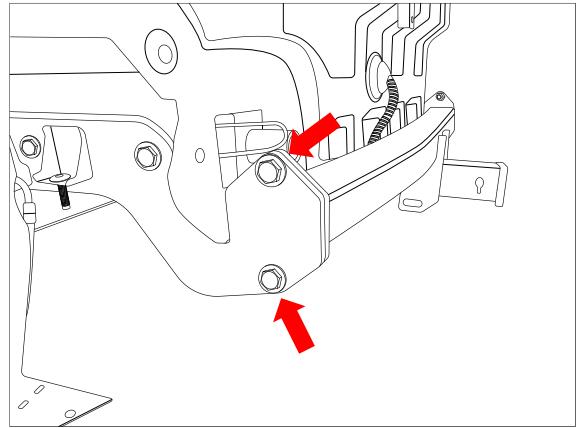
10. Lift the crosstube assembly to the side arms and loosely secure each side with 2 x M12 bolts complete with 2 x washers and 1 x nut per bolt.

Position the towbar and tighten all fasteners to the following torque.

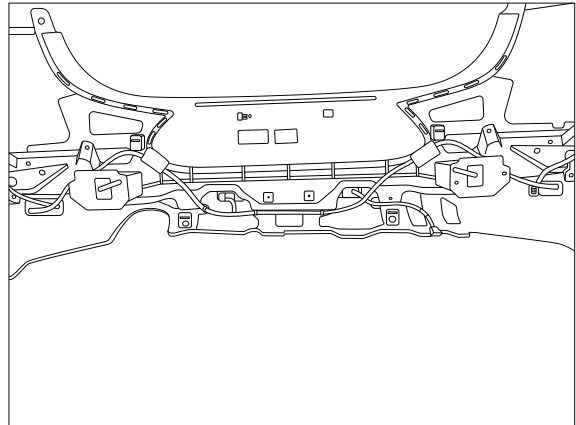
M10 x 1.5 Gr 10.9 : 62Nm

M10 x 1.5 nut : 44Nm (bottom mount)

M12 x 1.25 Gr 8.8 : 89Nm



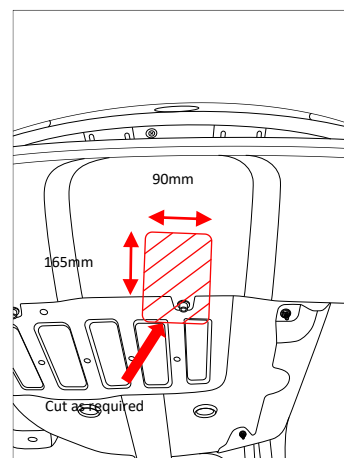
11. Remove all electrical components from the impact beam.
Remove and discard the impact beam secured with 5 x scrivenets.



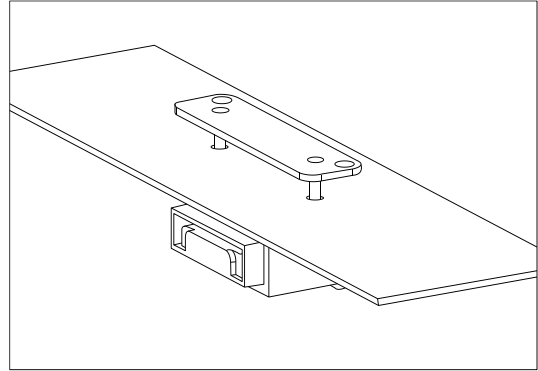
12. For bumper cut determine the centre of the bumper, measure, mark off and cut out a section 90 mm wide and 165mm long measured from the bottom edge of the bumper as depicted in the image.

Cut a clearance section from the under-body plastic guard as required.

Ensure to not damage wiring in the bumper.



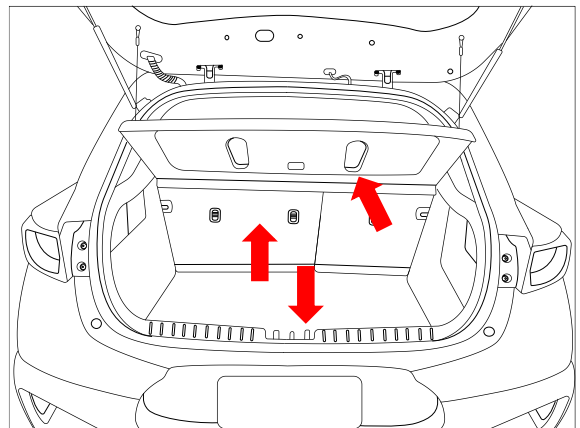
13. At an appropriate position on the bumper, mark out and drill 2x ø5mm holes 69mm apart on bumper skin to support plug bracket.



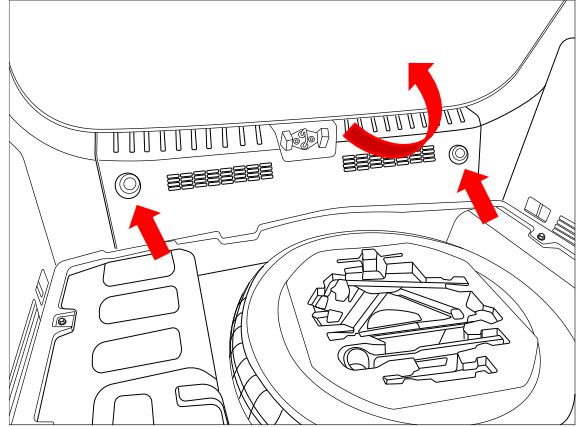
IMPORTANT

Due to possible vehicle variations, always confirm any noted vehicle colour wires with a multi-meter to ensure the correct function is identified before soldering or scotch locking. For vehicle wires denoted with two colours (example; RED/GREEN) the first colour will always be the main wire colour while the second colour is the thinner trace colour on the wire.

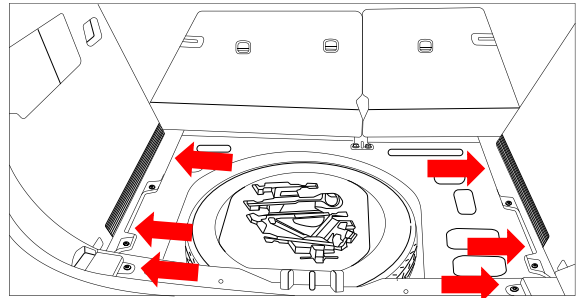
14. In the luggage compartment, remove the sunshade and floor carpet.
15. Fold down the rear seats.



16. Remove the 2x scrivenets securing the rear scuff trim.
17. Remove the rear scuff trim by lifting upwards.



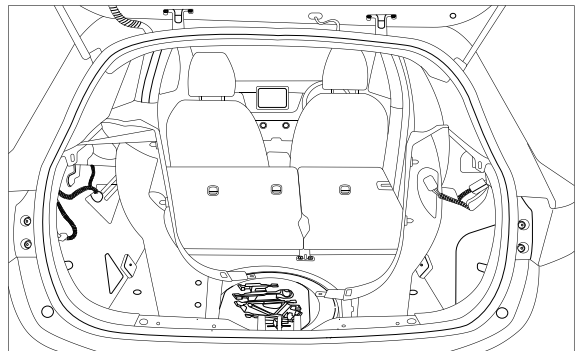
18. In the boot area remove the 3x screws on both LHS and RHS boot trims.



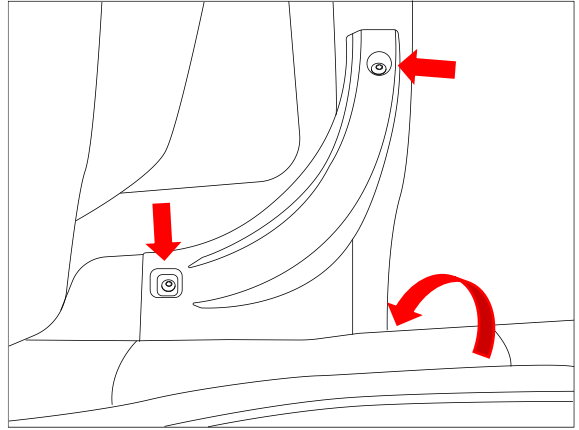
19. Dislodge the RHS boot trim and disconnect the boot light.
20. Dislodge the LHS boot trim and peel back towards the centre of the vehicle.

Repeat for RHS.

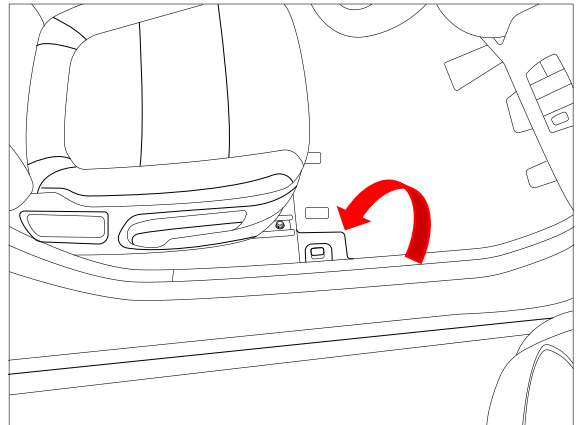
Note: Peel the trims enough to gain access to taillight connectors.



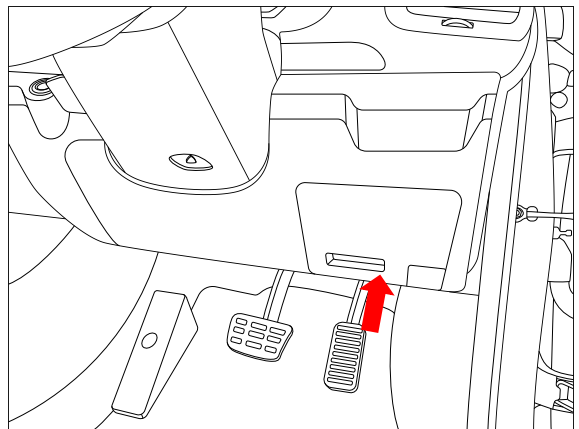
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21. Dislodge and lift the RHS rear lower seat cushion to expose the 2x screws that secure the rear RHS sill trim.
22. Remove the 2x screws, dislodge and remove rear RHS sill trim.



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23. Remove the RHS front sill trim.

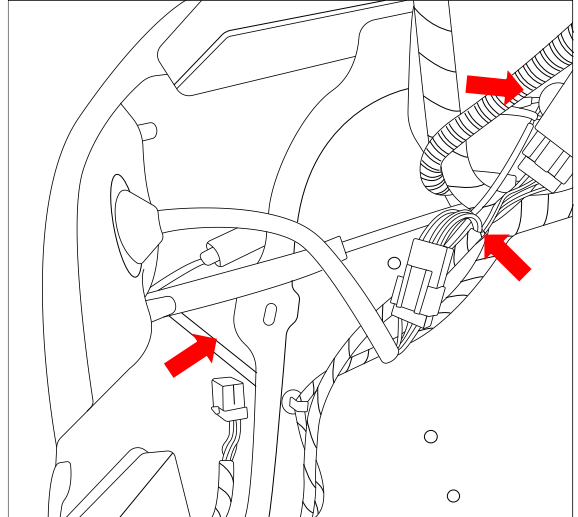


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24. Remove the fuse access panel.

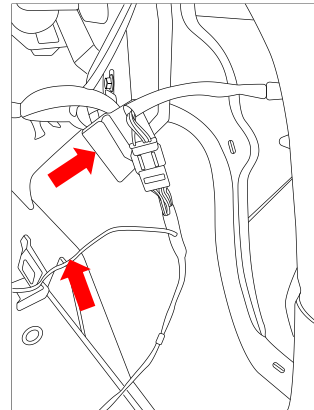


25. At the LHS tail lamp, patch in the LHS tail lamp connectors on the patch harness (102578-WL) in between the vehicle taillight wiring and the vehicle body wiring.
26. Using alcohol wipe, clean the LHS inner sheet metal area and the underside on the ECU (04826).
27. Apply double sided tape the the ECU
28. Plug the model into the trailer patch 12-way connector and secure the ECU to the previously clean area ensure good adhesion.
29. Route the remainder of the trailer patch towards the RHS of the vehicle.

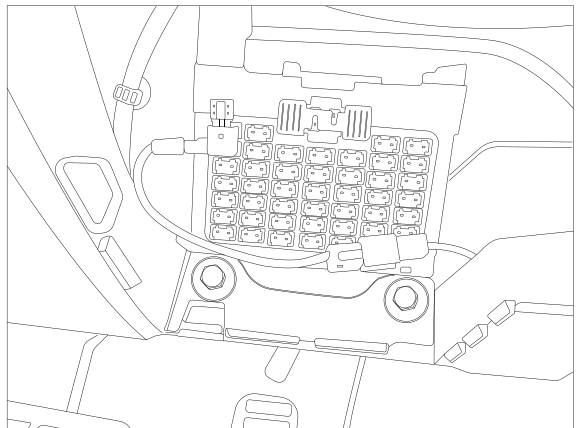
Note: Mount the ECU, ensuring the connector is orientated downwards.



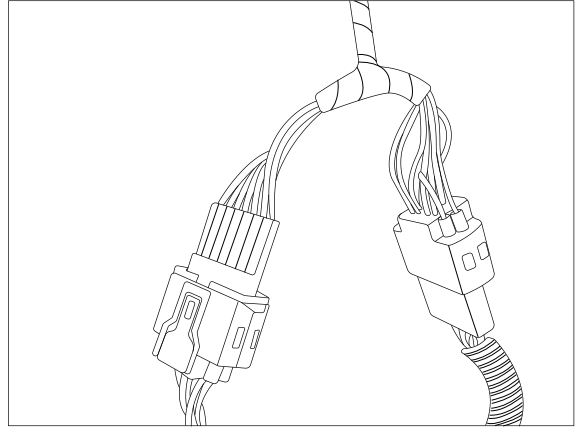
30. On the RHS, Patch in the RHS patch connectors in between the vehicle taillight wiring and the vehicle body wiring.
31. Route the trailer patch orange power wire along the vehicle main harness down the RHS towards the previously removed vehicle fuse access panel.
32. Tuck the power wire under B-pillar trim where required.



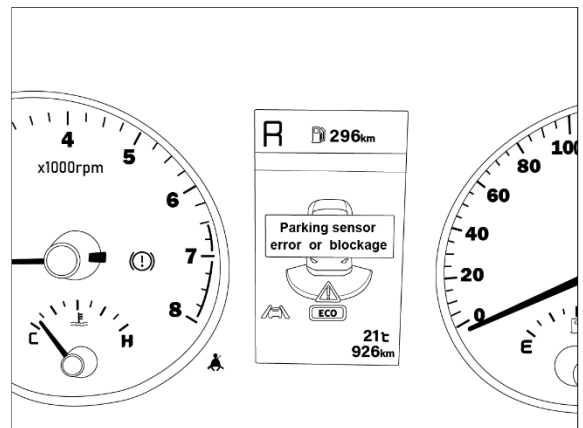
33. On the vehicle fuse box, remove the vehicle 15A hazard light fuse.
34. On the Add-A-Fuse, insert the supplied 20A fuse into the Add-A-Fuse top slot and then insert the 15A into the bottom slot.
35. Insert the Add-A-Fuse into the fuse slot in the orientation shown.
36. Plug the 1-way connector to the orange trailer patch wire.



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37. For RPA disable, use tail harness 04936 and strip, crimp and seal the tail harness GREY and GREY/BLACK wires to the small RPA disable patch matching GREY and GREY/BLACK wires.
38. Plug the RAP disable patch into the vehicle bumper 12-way connector.



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39. Secure all harness using supplied cable ties.
40. Refit the modified underbody guard, rear bumper and taillights referring to steps 1- 4 and 14 – 24 in reverse, ensuring no rattles or squeaks.
41. Test the trailer patch function using a light board or multimeter.
42. The RPA disable function will show the following on the centre cluster when reverse is engaged.
(This is not a fault)





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 (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)

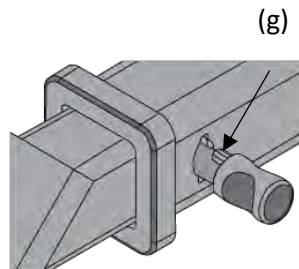
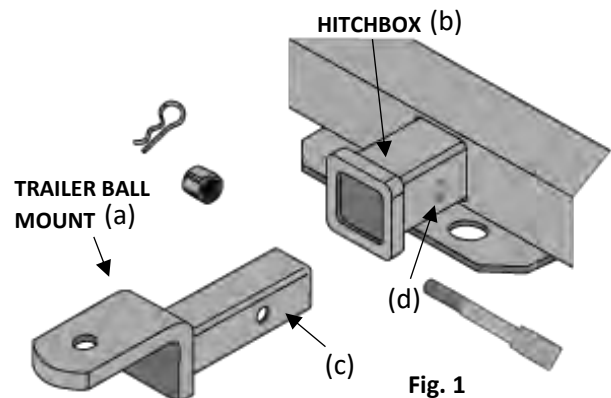


Fig. 2

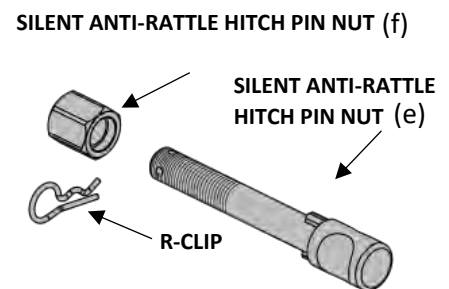


Fig. 3

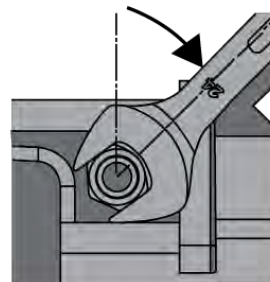


Fig. 4

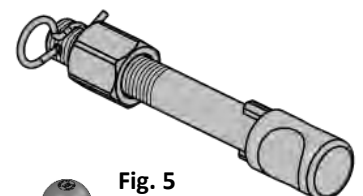


Fig. 5

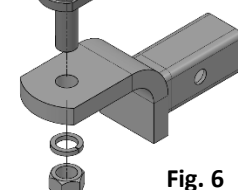


Fig. 6