

PRODUCT DETAILS:

Part Number:	QTBM120L	Maximum Towing Braked:	2700	kg
ECU Number:	WLE70014	Maximum Towing Unbraked:	750	kg
Tail Harness Length Required:	1800 mm	Maximum Static Ball Load:	270	kg
TBM/Lug Part Number:	21342			

FITTING DETAILS:

Towbar Installation Time:	120 min	RPA Disable/Other Notes:	NO
Total Installation Time:	180 min	Note <ul style="list-style-type: none">• Electric Brake = Brake Prep Connector• Ensure when towing coasting mode / ECO mode must be disable• RPA is via switch on dash	
Bumper Cut Required:	Yes		

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

BEFORE YOU START:

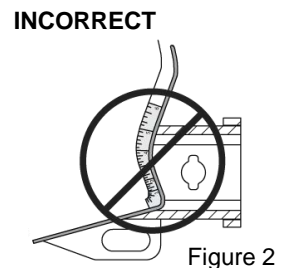
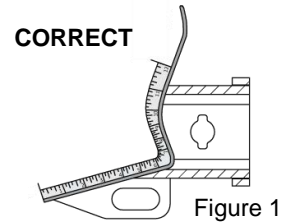
Check all hardware items have been included refer to assembly diagram.
Please ensure this towbar is only fitted to vehicle models as per Trailboss application guide.

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.

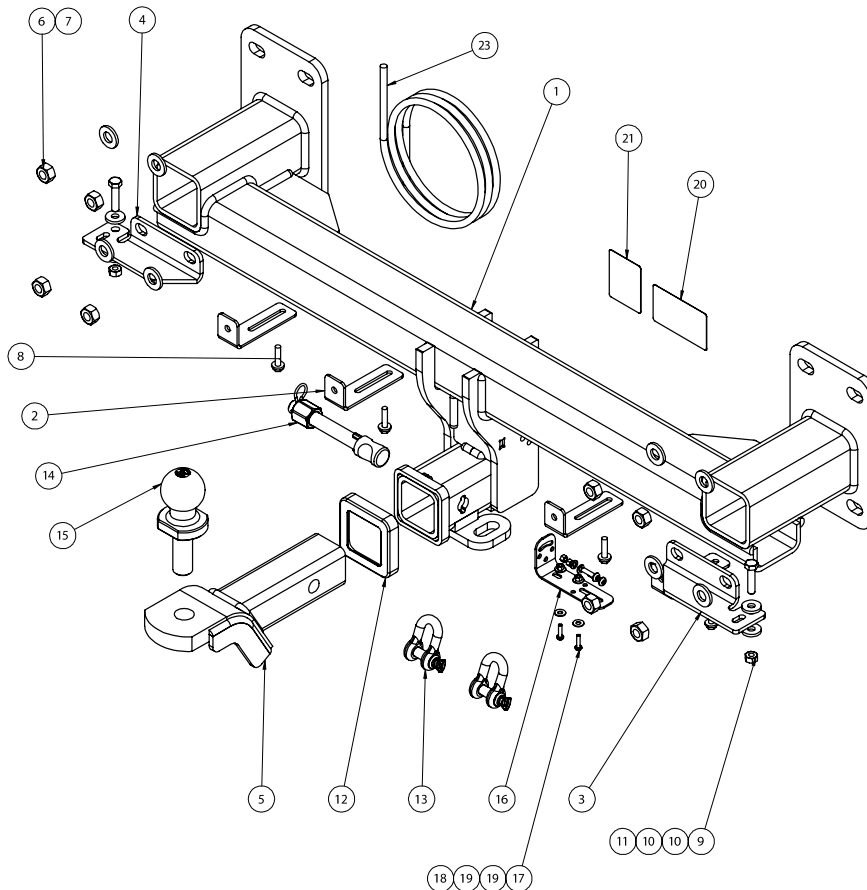
WARNING:

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.

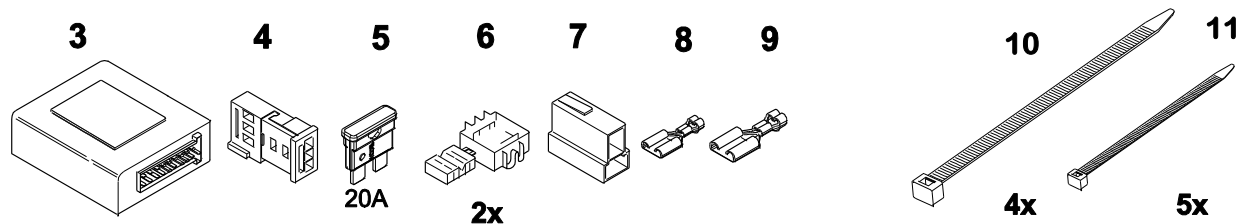
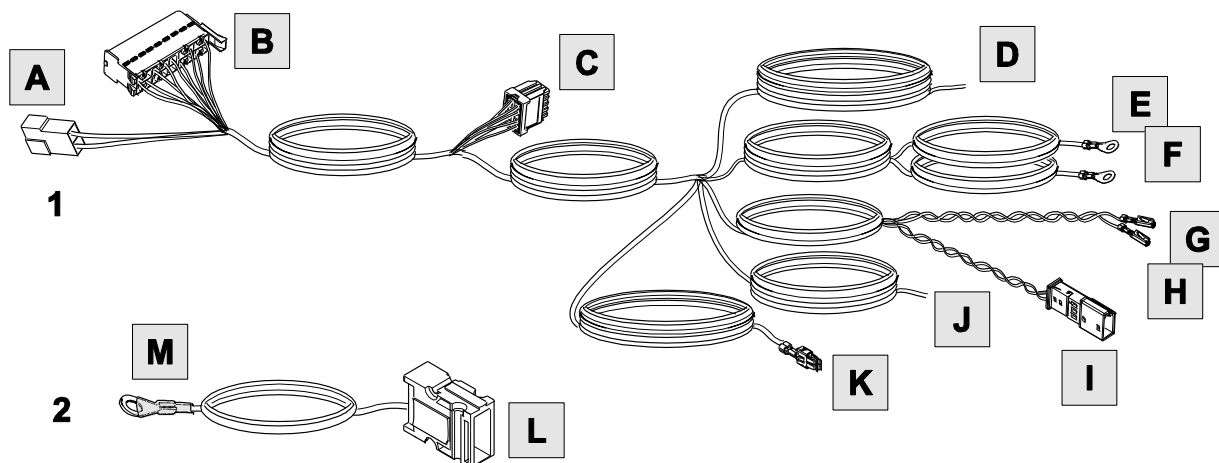


TOWBAR ASSEMBLY DIAGRAM



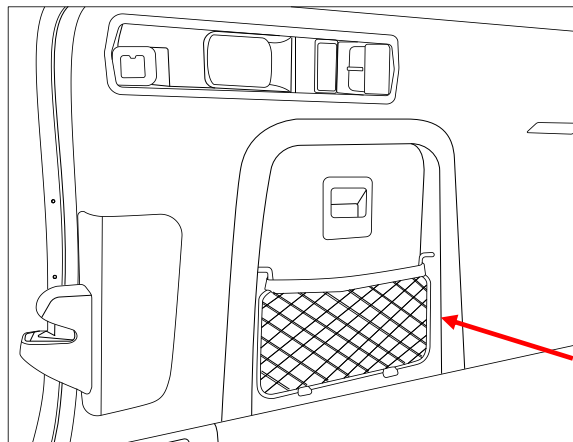
ITEM	DESCRIPTION	QTY
1	BMW X5 WELDED ASSEMBLY	1
2	KICK PANEL BRACKET	4
3	EXHAUST BRACKET RHS	1
4	EXHAUST BRACKET LHS	1
5	TRAILER BALL MOUNT	1
6	M12x1.5 HEX NUT PC8	8
7	WASHER PLAIN 1/2X1-1/8X16G	8
8	TEK SCREW 14-20 HEX HD 22mm	4
9	M8 - 1.25 NUT	2
10	WASHER PLAIN M8 X 22 X 3	4
11	BOLT HX HD M8X35X1.25P G8.8	2

ITEM	DESCRIPTION	QTY
12	HITCH BOX COLLAR COVER	1
13	10mm "D" SHACKLE	2
14	ANTI-RATTLE PULL PIN ASSY GOLD	1
15	HR TOWBALL	1
16	UNIVERSAL PLUG BRACKET KIT	1
17	SCREW PAN HD M4 X 16 X 0.7P	2
18	NYLOC NUT HEX M4X0.7P	2
19	WASHER PLAIN 3/16X1/2X20G	4
18	ACRYLIC COMPLIANCE LABEL	1
21	CAN WIRING WARNING LABEL	1
22	WIRING LOOM	1

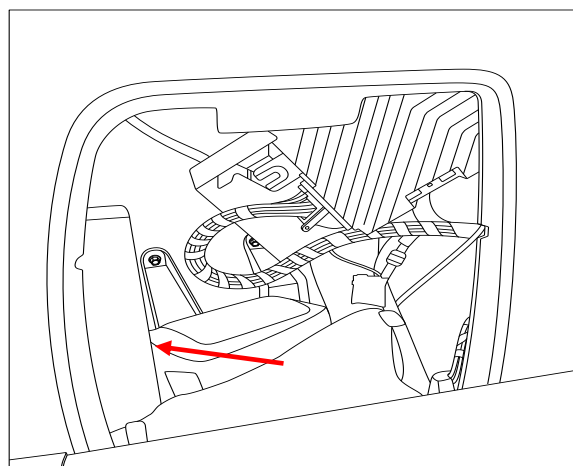


ITEM	DESCRIPTION	QTY
1	Main Harness	1
2	Fuse line	1
3	Trailer module → WLE70014	1
4	CAN 3-pin housing	1
5	20amp fuse	1
6	Wire Tap	2
7	Brake controller 2-pin housing	1
8	Brake controller plug pin - small	1
9	Brake controller plug pin - large	1
10	Tie straps 300mm	4
11	Tie straps 150mm	5

1. Open tail gate and remove the LH and RH side covers in the luggage compartment.

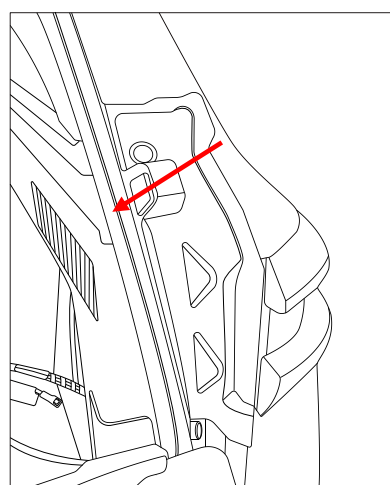


2. On the LH side, unclip and remove the safety triangle container.



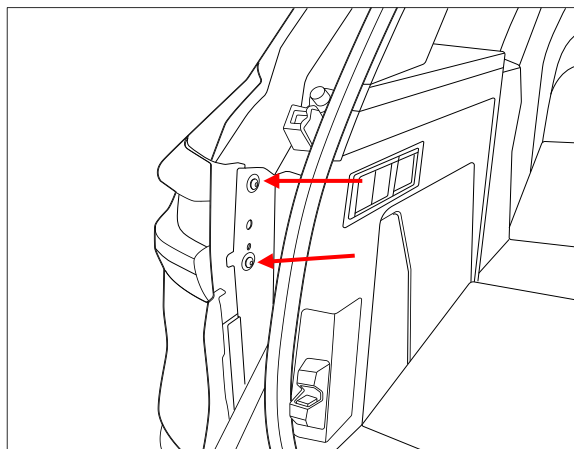
3. Unclip and remove cover from the water channel.

Repeat for opposite side.



4. Remove 2 x exposed nuts securing the taillight.

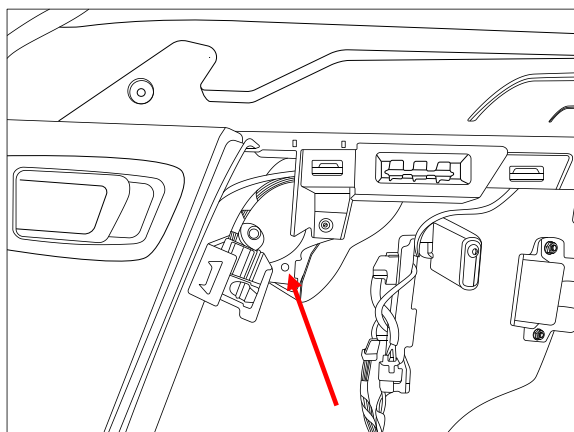
Repeat for opposite side



5. In the luggage compartment, remove 1 x nut securing the side of the tail light.

Remove tail light rearwards and disconnect from wiring harness.

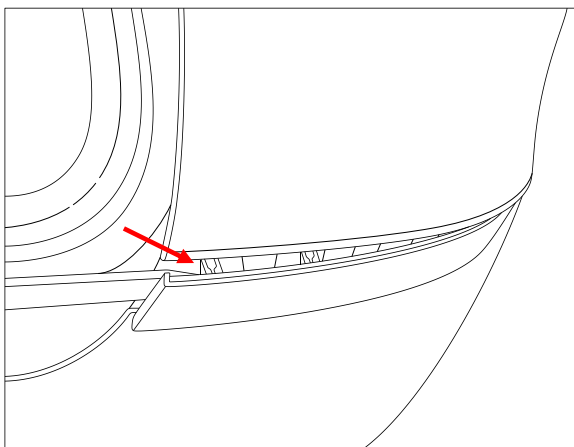
Repeat for opposite side.



6. Remove reflector from bumper (push plastic tool from the side to release clip).

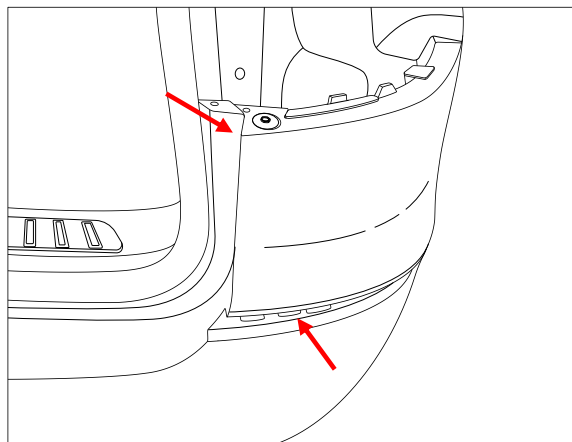
Ensure to disconnect any plug connections on RHS.

Repeat for opposite side.

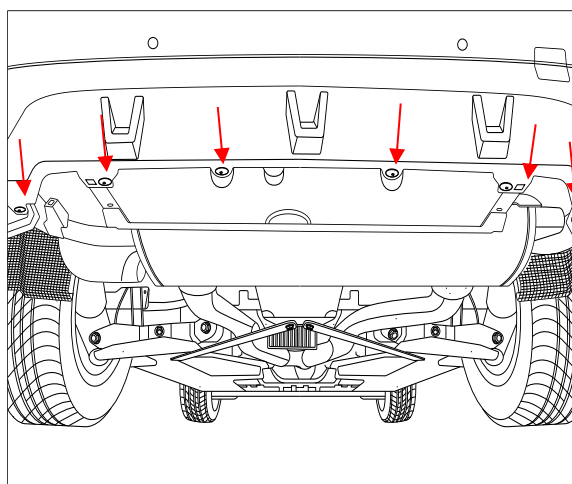


7. Remove 2 x screws located on the bumper and in the reflector cavity.

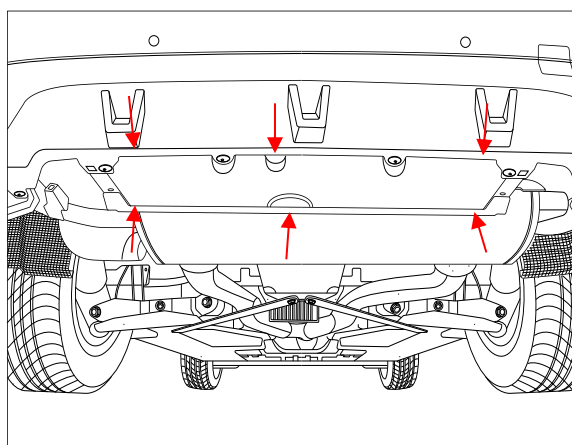
Repeat for opposite side.



8. Remove 10 x screws from the bottom edge of the bumper.

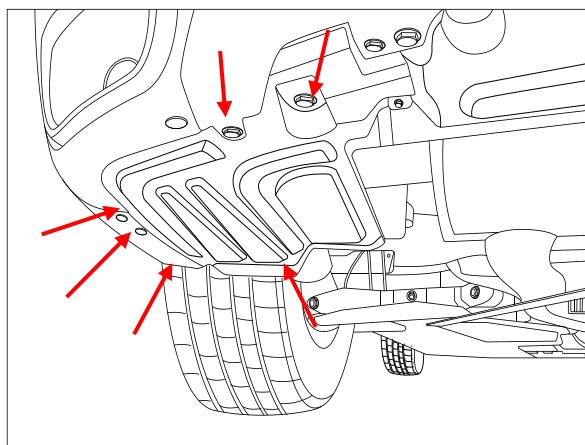


9. Remove and discard the centre underside protector secured with 6 x screws.



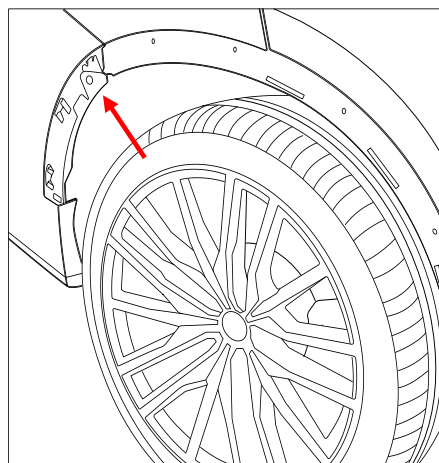
10. Remove the LHS underside protector secured with 6 screws.

Repeat for opposite side



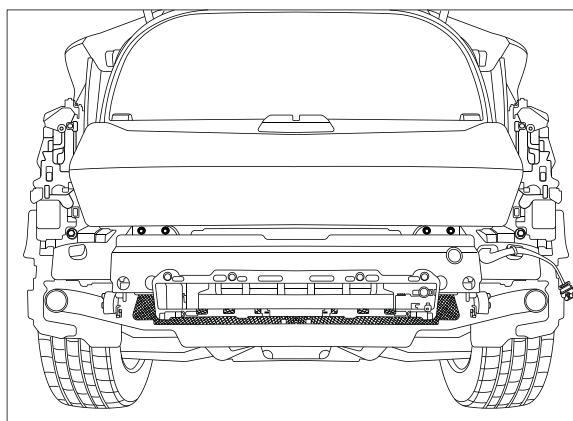
11. Remove RHS wheel arch trim to expose 1 x screw. Remove the screw.

Repeat for opposite side.



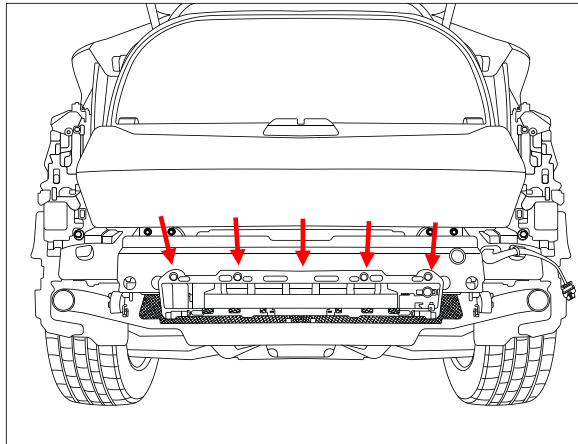
12. Peel the bumper away from the sides and remove.

Ensure to disconnect any plug connections located on the RH side.



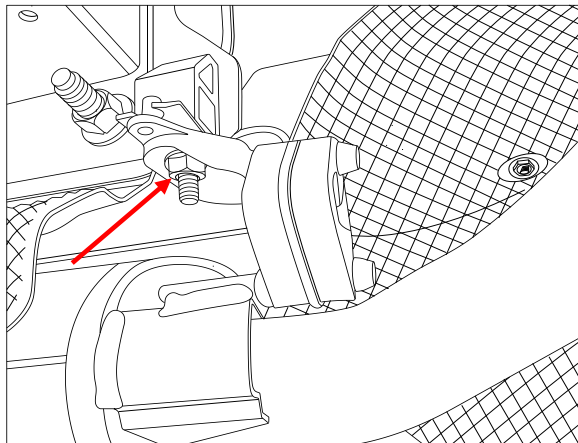
13. Remove the plastic kick panel from the impact beam secured with 5 x scriveners. Retain scriveners for installation.

Ensure to disconnect the centre plug connection and supporting clip located on the RH side.



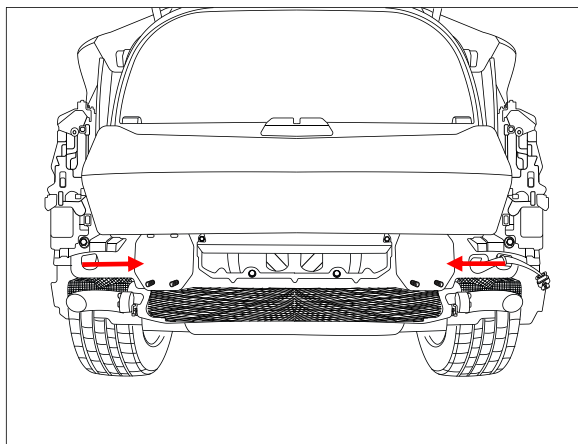
14. Remove the exhaust hanger bracket from the impact beam secured with 1 x nut.

Repeat for opposite side.

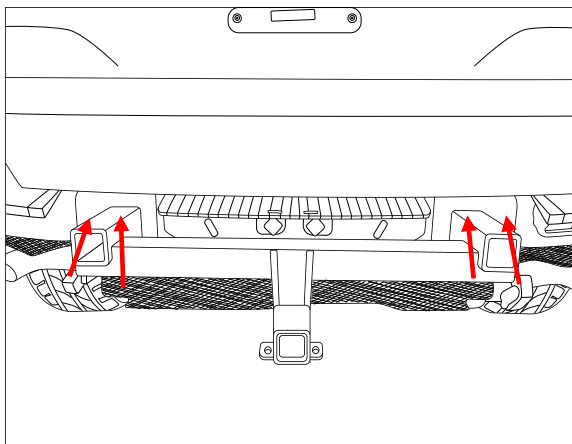


15. Remove and discard impact beam secured with 4 x M12 nuts per side. Discard fasteners.

Ensure the water ingress seal behind the impact beam remains intact and on the vehicle.



16. Position towbar onto vehicle and secure the top 4 mounting studs (LH and RH side) with 1 x M12 nut complete with 1 x M12 washer.

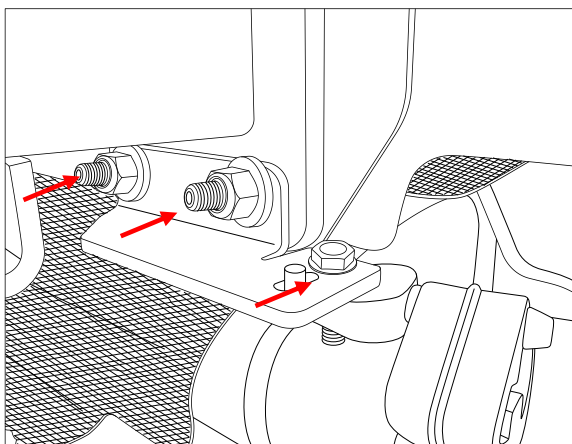


17. Position the exhaust bracket onto the lower 2 mounting studs and loosely secure with 1 x M12 nut complete with 1 x M12 washer.

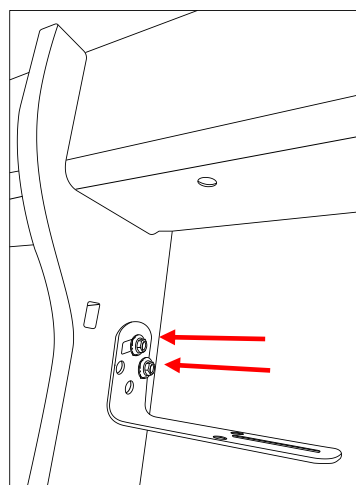
Secure exhaust hanger to exhaust bracket with 1 x M8 bolt complete with 2 x washers and 1 x nut.

Torque all M8 fasteners to 22Nm.

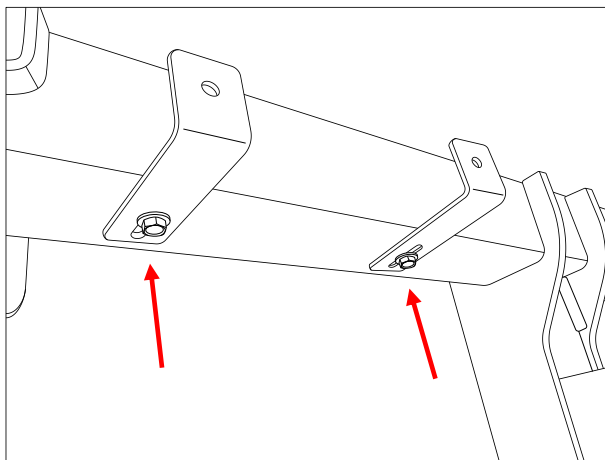
Torque all M12 fasteners to 90Nm.



18. Fit the plug bracket to the side of the towbar dropper with M5 fasteners provided.



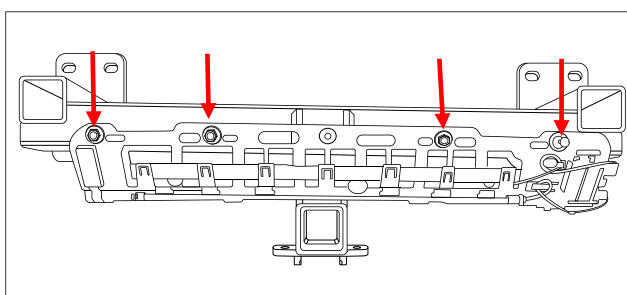
19. Loosely secure the 4 x kick panel brackets with 4 x tek screws (1 per tab).



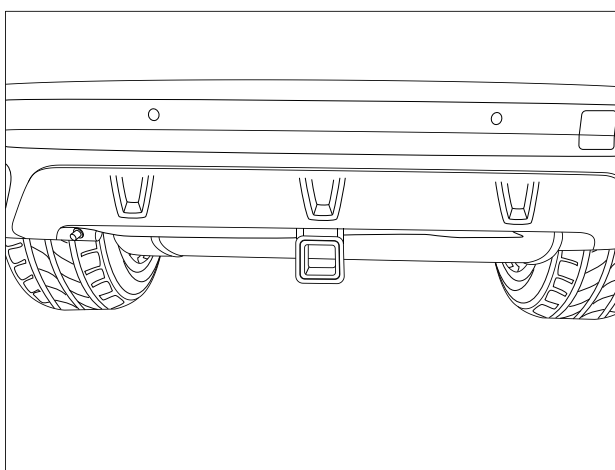
20. Secure the kick panel onto the 4 kick panel brackets with 4 x scrivenets (retained from step 13).

Adjust position of kick panel brackets where necessary then tighten tek screws.

On the RHS reconnect the centre plug connection and supporting clip of the sensor holder removed in step 13.



21. Refit all removed components to the vehicle following steps 12 to 1 in reverse.

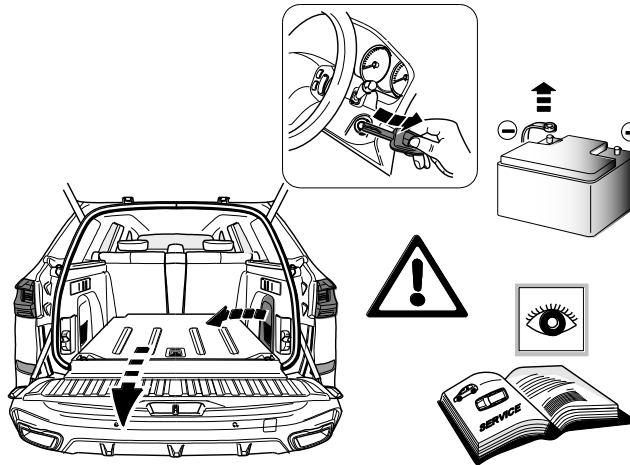


IMPORTANT

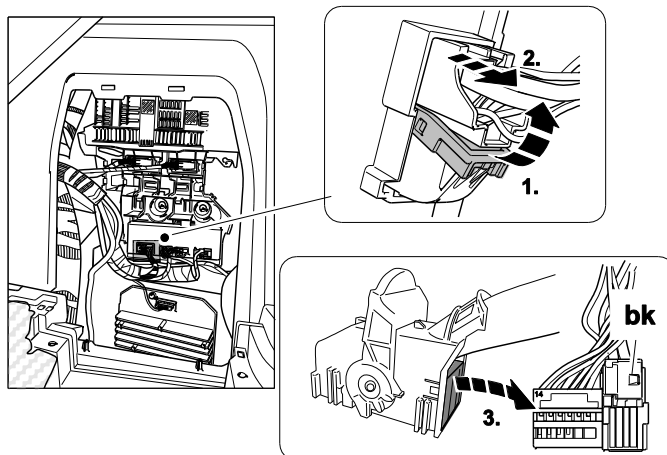
Due to possible vehicle variations, always confirm any noted vehicle colour wires with a multi-meter to ensure the correct function is identified before soldering or scotch locking. For vehicle wires denoted with two colours (example; RED/GREEN) the first colour will always be the main wire colour while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

22. Open the tailgate remove the RHS access panel.

23. Lift the boot floor and access the battery cover disconnect the battery.



24. Locate and disconnect the white CAN connector position 1 and remove the shell.



25. Unhouse using the following arrangement:

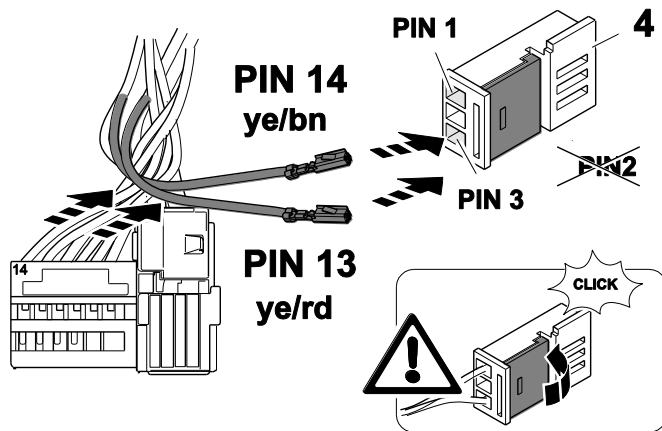
Pin 13 ye/rd (Yellow/Red)

Pin 14 ye/bn (Yellow/Brown)

26. Use enclosed the 3-way female connector and insert the previously removed wires into the following arrangement:

ye/bn (Yellow/Brown) = Pin 1

ye/rd (Yellow/Red) = Pin 3



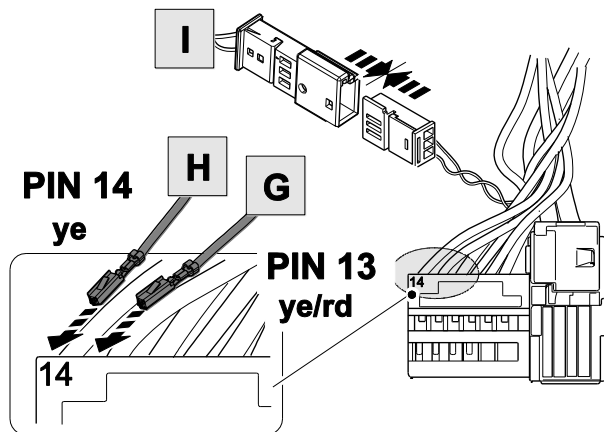
27. Close the locking tab.

28. Locate the CAN wires on the harness and insert the wires into the vehicle connector in the following arrangement:

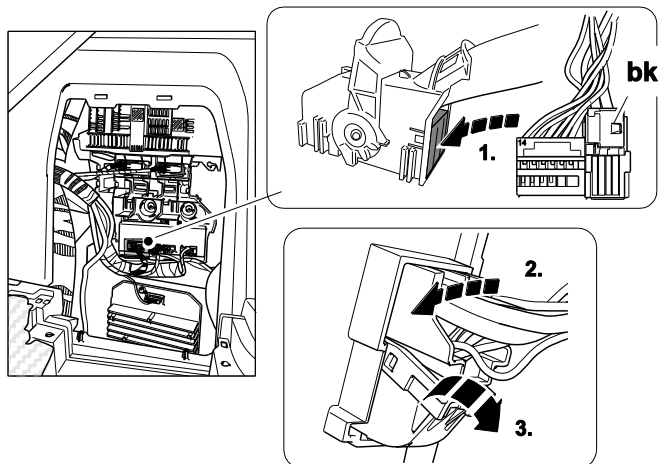
Pin 13 ye/rd (Yellow/Red)

Pin 14 ye (Yellow)

29. Connect the 3-way female connector with the counterpart.

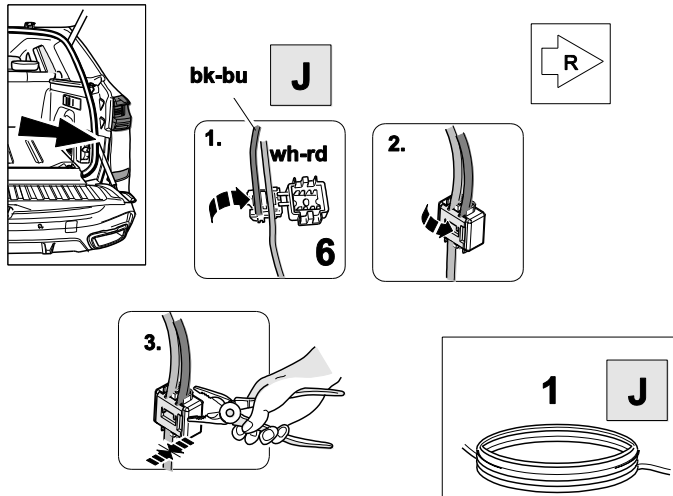


30. Assemble white CAN connector and reconnect in position 1.



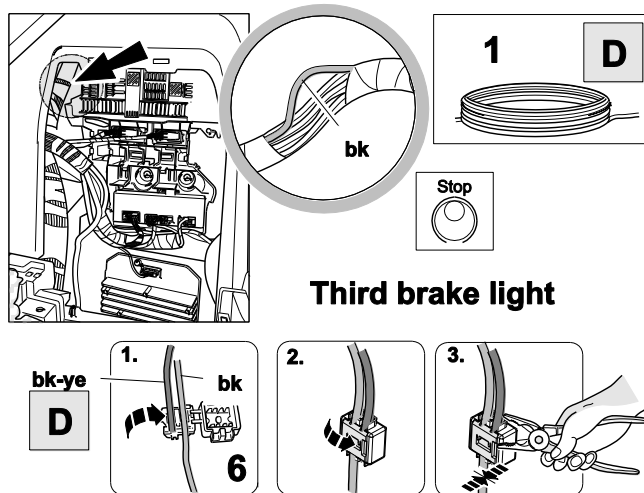
31. Locate the taillight harness and connect the following wire using a wiretap.

Harness bk-bu (Black/Blue) = wh-rd
(White/Red) R.IND

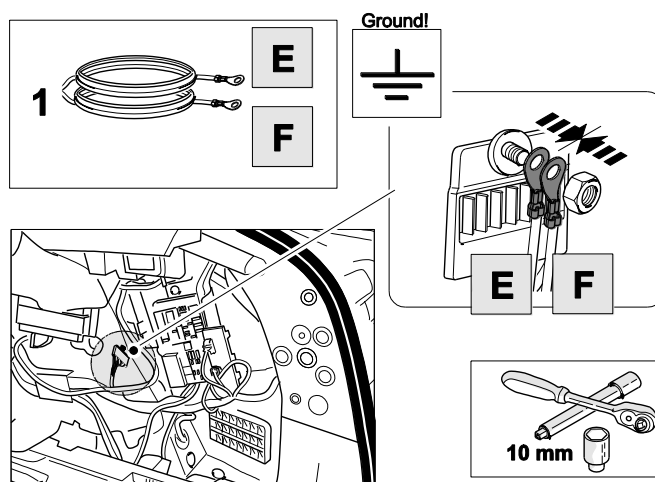


32. Locate the third brake light wire and connect the following wire using a wiretap

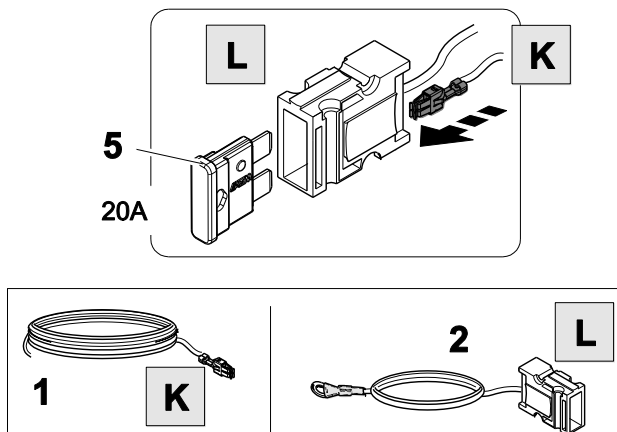
Harness bk-ye (Black/Yellow) = bk
(Black) Third brake light



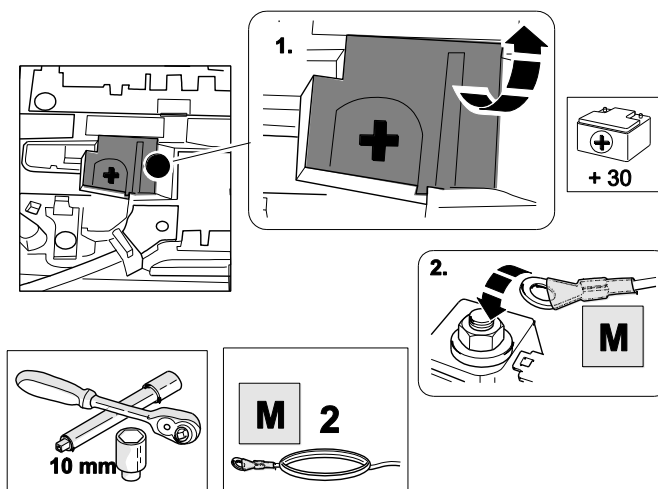
33. Secure the harness Ground ring terminals to the factory Ground point.



34. Route the power harness towards and insert into the fuse connector.

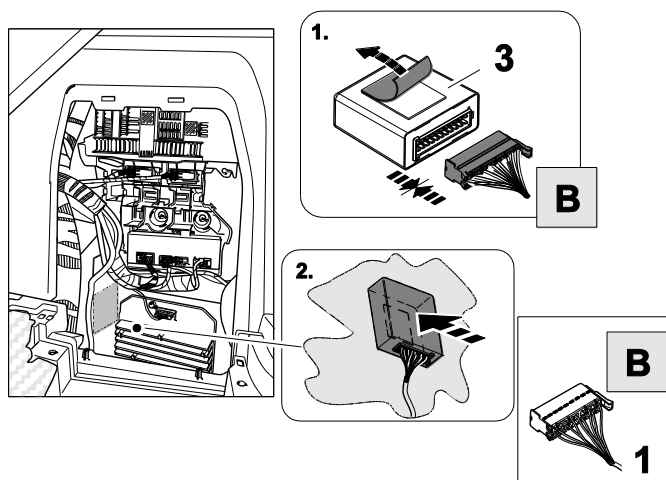


35. Secure the ring terminal to the positive terminal.

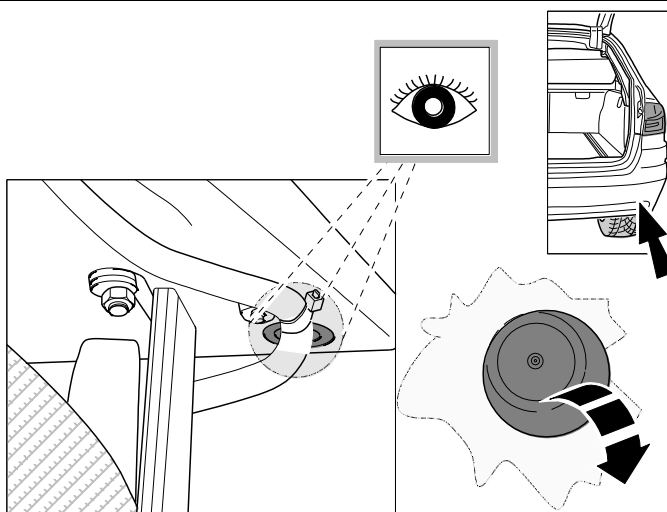


36. Connect the trailer ECU. Peel the adhesivebacking tape form and press the module against this surface.

Apply pressure for 60 seconds to ensure good adhesion.

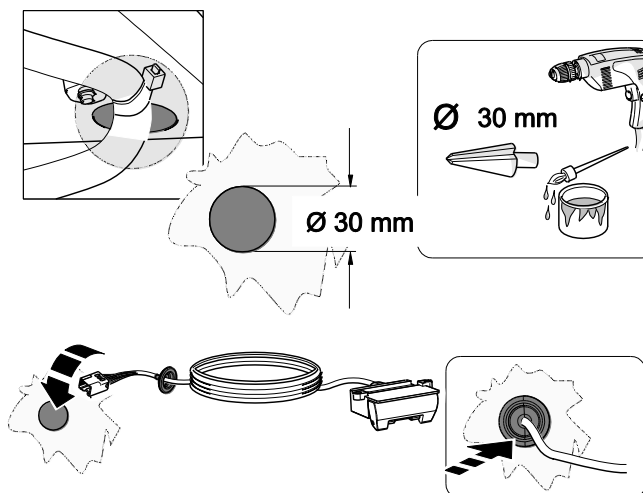


37. Locate the plastic blanking grommet on the RHS and remove.

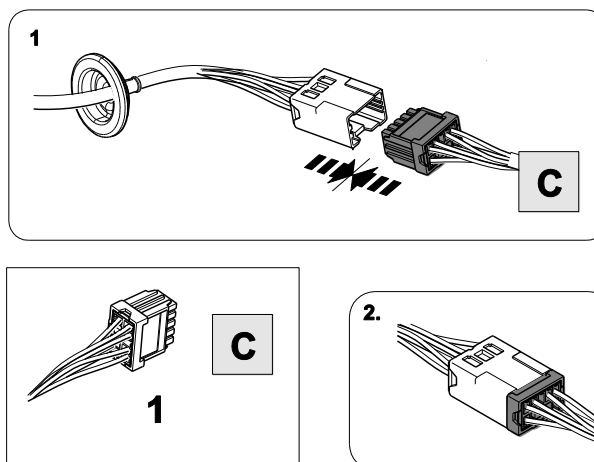


38. Drill it out to Ø30mm feed the tail harness (1800) blue connector through the blanking grommet, replace the blanking grommet back in the vehicle.

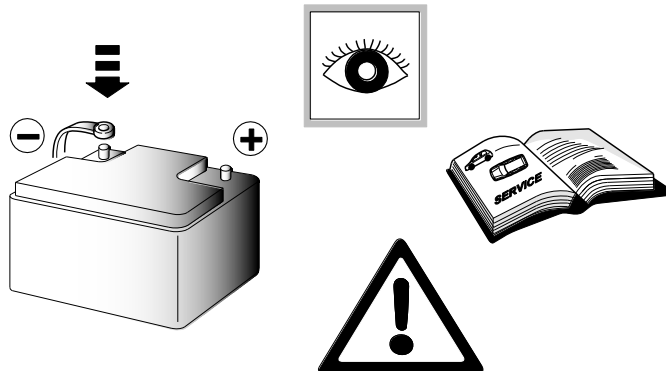
Slide the tail grommet to desired location ensure the grommet is seated properly.



39. Locate the 8-way tail harness connector and connect it to the 8-way female connector on the trailer patch.



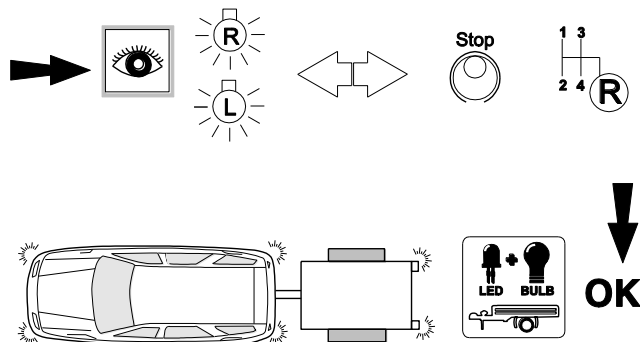
40. Reconnect the battery.



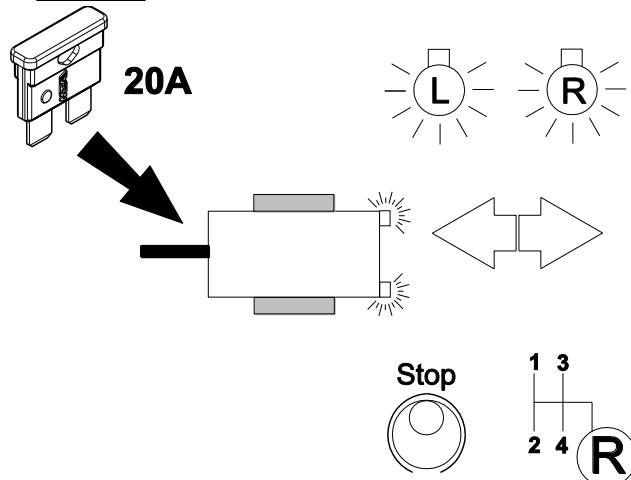
41. Check all light functions.

Before testing the lights with a tester or trailer connected, the trailer module must be activated by putting your foot on the brake.

This allows the module to detect if a trailer is connected. Once a trailer is disconnected, another press on the brake will enable the module to detect no trailer is connected.

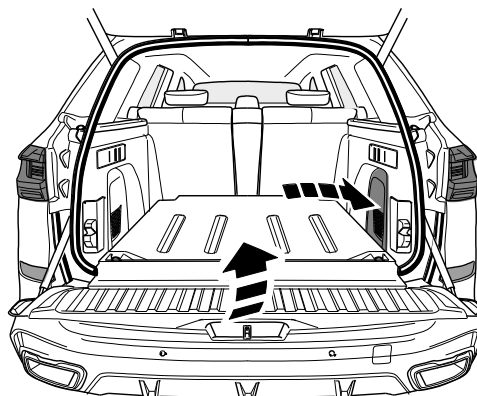


42. Information service.

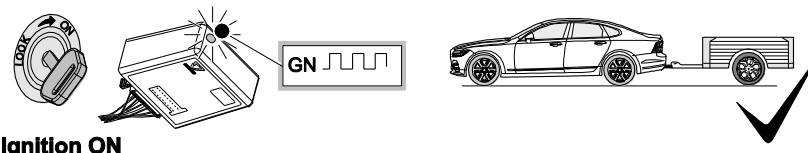
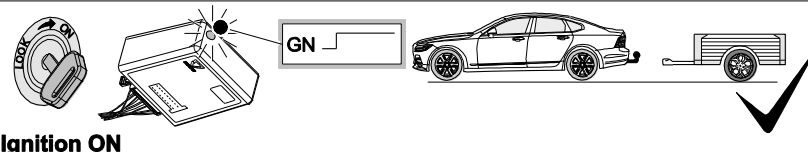
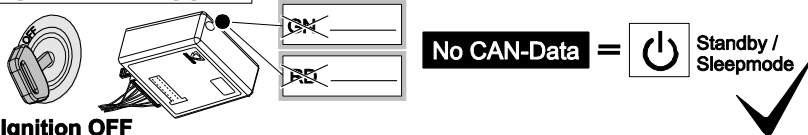


43. Reinstall all parts including the bumper mount the trailer socket.

Secure the plug to the plug bracket.

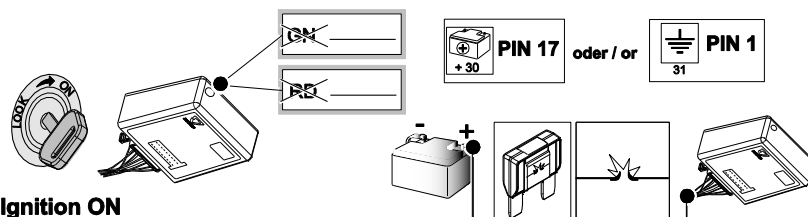
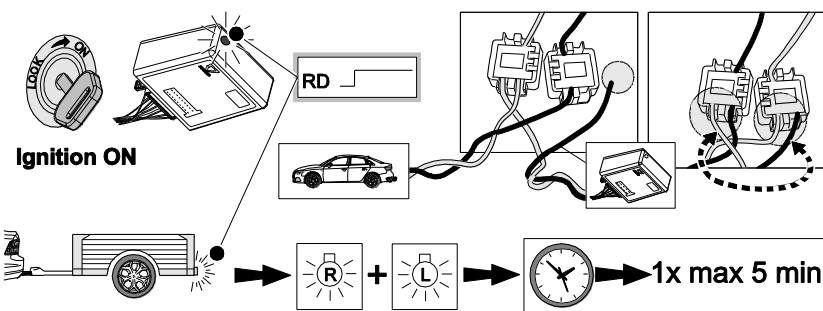


Operation support



Failure support

Check CAN-Data Wire





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)

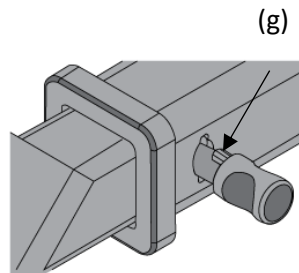
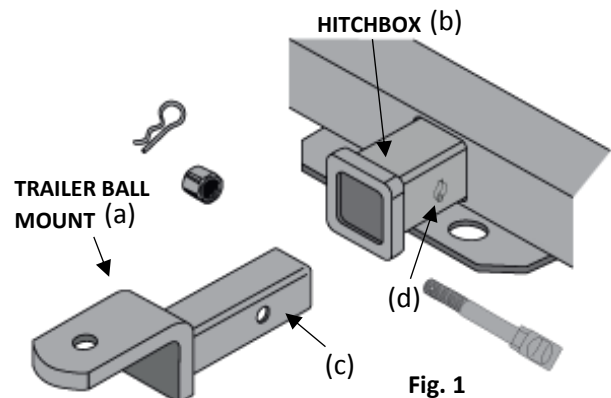


Fig. 2

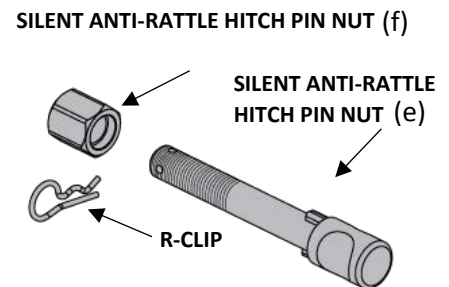


Fig. 3

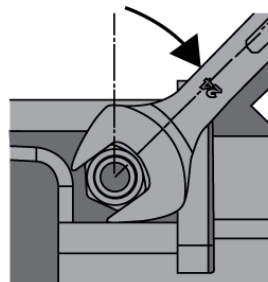


Fig. 4

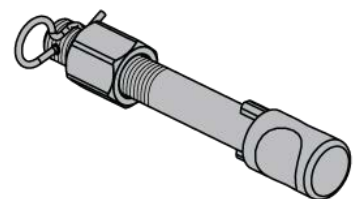


Fig. 5