



TOWBAR INSTALLATION INSTRUCTIONS

PART NUMBER 03538RW

KGM SSANGYONG TORRES CL4



PRODUCT DETAILS:

Part Number:	03538RW	Maximum Towing Braked:	1500	kg
ECU Number:	04835	Maximum Towing Unbraked:	750	kg
Tail Harness Length Required:	See Note	Maximum Static Ball Load:	150	kg
TBM/Lug Part Number:	21126			
Wiring Part Number:	107064-WL			

FITTING DETAILS:

Towbar Installation Time:	60 Mins.	Hayman Reese SmartCODE Solution Required:	NO
Wiring Installation Time:	60 Mins.	RPA Disable/Other:	YES
Total Installation Time:	120 Mins.		
Bumper Cut Required:	YES	Note:	
		• Redd 04936 Tail	
		• Require for RPA disable	



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ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT.

i BEFORE YOU START:

Hayman Reese recommends that instructions are read completely prior to fitment. Check all hardware items have been included refer to assembly diagram. Please ensure this towbar is only fitted to vehicle models as per Hayman Reese application guide (www.haymanreese.com.au).

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 Hayman Reese 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).

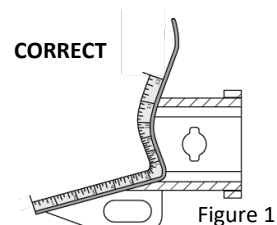


Figure 1

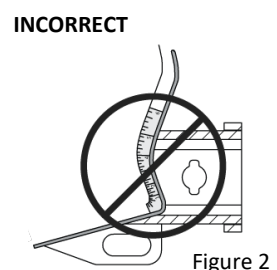


Figure 2

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 the body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.

Bolts/Fasteners

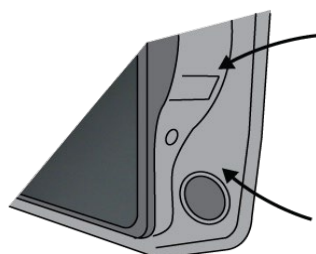
- Ensure that all hardware is fastened to correct torque as specified in this fitting instruction.
- All fasteners supplied with this product are used to achieve a specified clamp loading. If replacement is required ensure that fasteners of the same thread pitch and grade class are used.



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 Hayman Reese warranty.

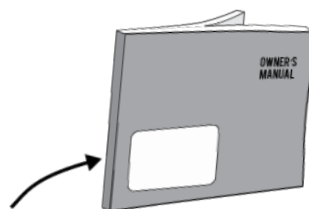
Product Labels

- a. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door.
- b. Powertrain Control Module (PCM)/Body Control Module (BCM) upgrade warning label will be provided in towbar kit for vehicles as required. Affix warning label in door and owner's handbook.



Place **Load Rating sticker** inside driver's door here

Place **Vehicle PCM/ BCM upgrade warning label** in door AND on front cover of owner's service handbook



WARNING:

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

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



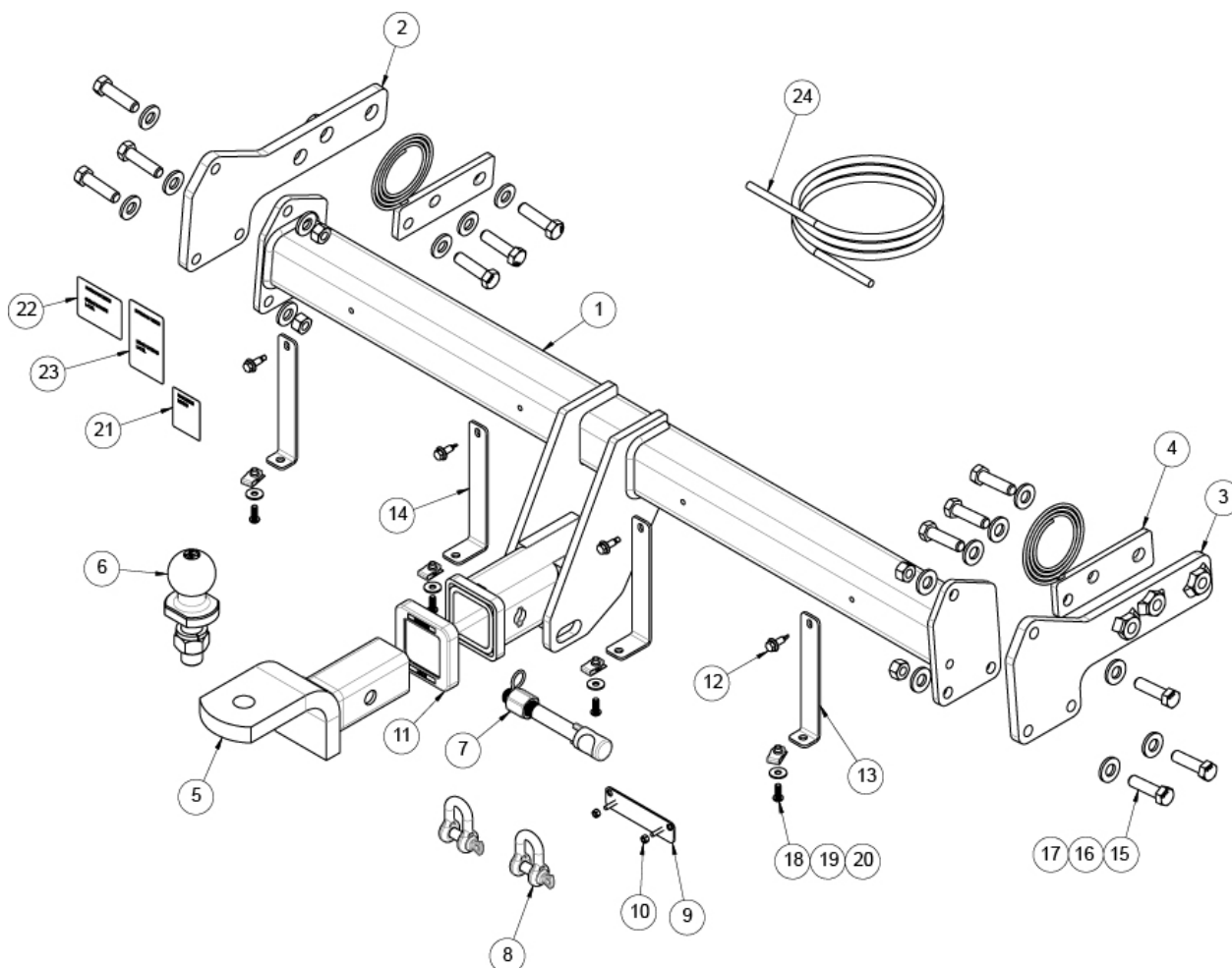
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TOWBAR ASSEMBLY DIAGRAM

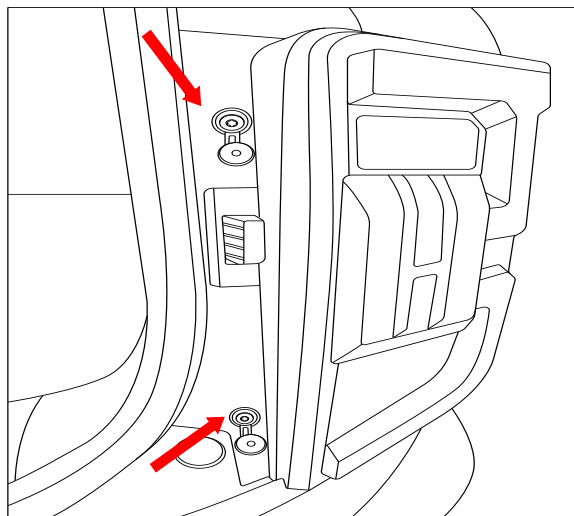


ITEM	DESCRIPTION	QTY
1	TORRES CROSSTUBE ASSY	1
2	SIDE ARM ASSEMBLY LH	1
3	SIDE ARM ASSEMBLY RH	1
4	SPACER PLATE ASSY	2
5	TRAILER BALL MOUNT	1
6	TOWBAL 50mm	1
7	SMART PIN GOLD	1
8	D-SHACKLE 10mm	2
9	PLUG BRACKET	1
10	NUT NYLOC HEX HD M4x0.7P G8	2
11	HITCH BOX COLLAR COVER	1
12	TEK SCREW 14-20 HEX HD 22mm	4

ITEM	DESCRIPTION	QTY
13	BUMPER TAB SHORT	2
14	BUMPER TAB LONG	2
15	BOLT HEX HD M12x45x1.75P G10.9	12
16	WASHER PLAIN M12x27x3.0mm	18
17	NUT HEX HD M12x1.75P G10	6
18	SCREW BUTTON M6x16x1.0P G010.9	4
19	CLIP NUT 6mm	4
20	WASHER PLAIN M6x18x1.5mm	4
21	HAYMAN REESE LOGO STICKER	1
22	COMPLIANCE LABEL	1
23	LOAD RATING LABEL	1
24	WIRING LOOM	1

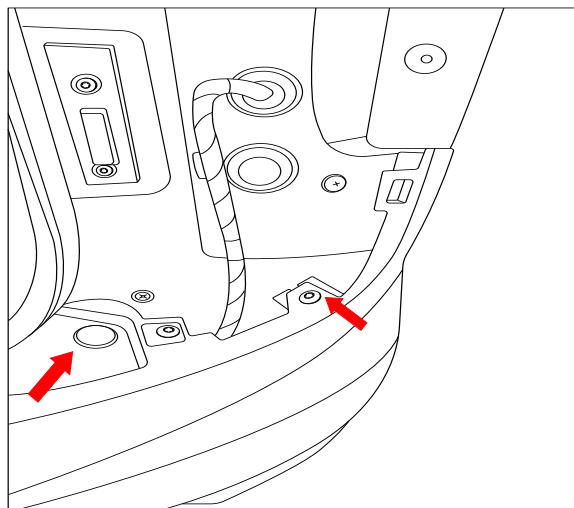
1. Open tailgate, unclip the taillight mounting caps and remove the exposed 2x screws.
2. Remove the taillight from the vehicle by applying rearward force. Ensure to disconnect the wiring loom from the taillight.

Repeat for other side.



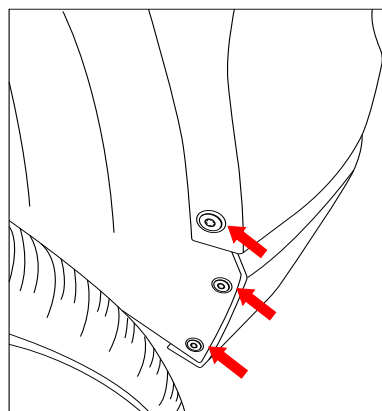
3. In the light cavity, remove the 1x exposed screw and 1x scrivet from the bumper.

Repeat for other side.



4. In the wheel arch, remove 2x screws and 1x scrivet.

Repeat for other side.

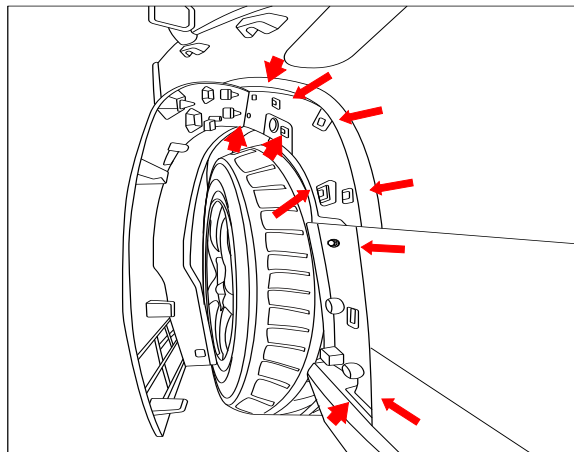


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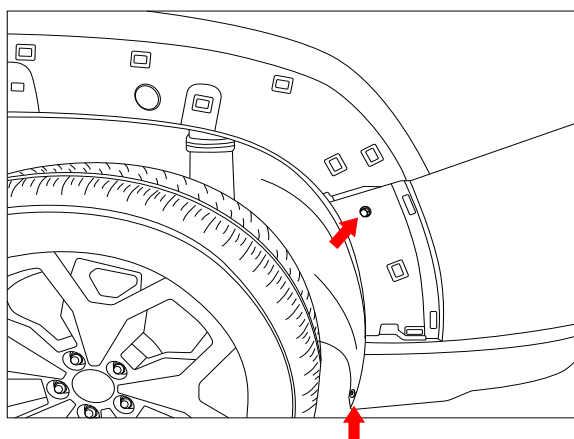
5. Remove the wheel arch skirting from the sides secured with push clips.

Repeat for other side.

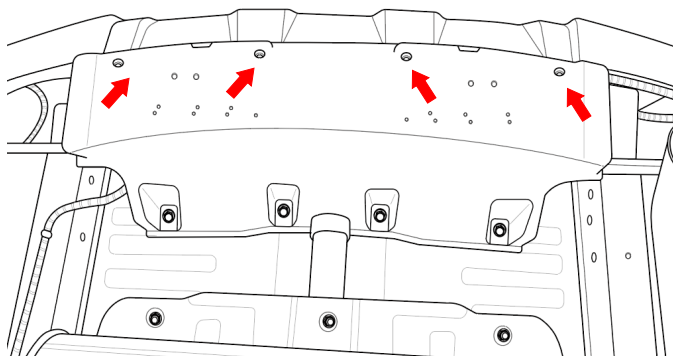


6. Remove the 1x screw from the bumper.
7. Remove 1x scrivet from under the bumper.

Repeat for other side.

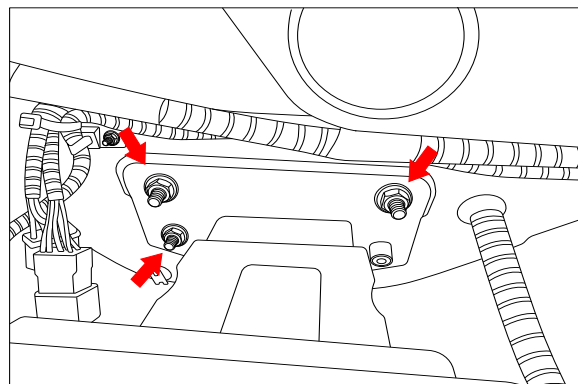


8. From the underside of the vehicle remove the 4x screws from the underbody protector.



9. Peel bumper away from the sides and remove from vehicle. Ensure to disconnect the wiring harness located on the LH side

10. Remove and discard the impact beam secured with 3x nuts per side.



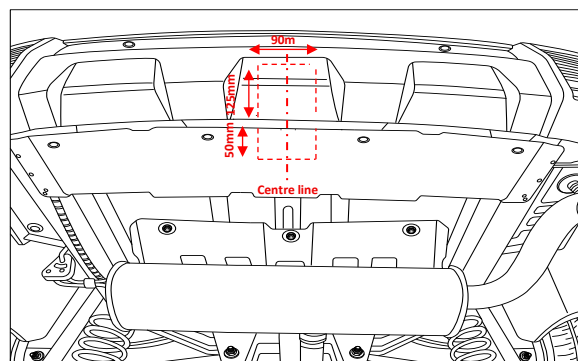
11. For Bumper cut.

The image is for illustrative purpose as the bumper is currently removed.

Determine the centre of the bumper and the underbody protector.

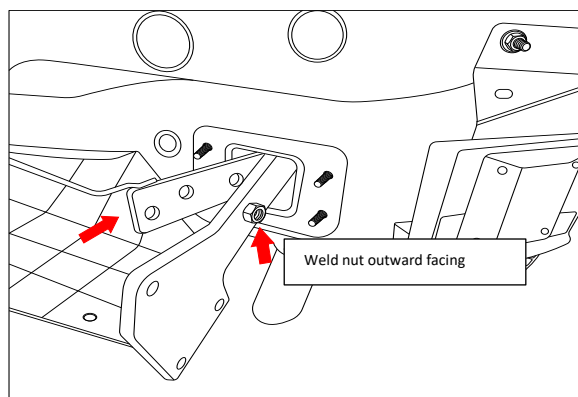
On the underbody protector, mark and cut out 90mm wide by 50mm long and for the bumper, mark and cut out 90mm wide by 125mm long measured from the bottom edge along the contour of the bumper (It should end below the bumper style line.)

NOTE: Ensure there are no wires in the section to be cut



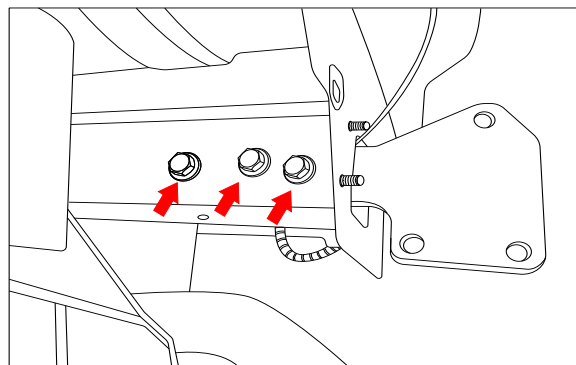
12. Insert the spacer plate along with the side arm into the chassis cavity. Ensure that the correct side arm is used and note the weld nuts face towards the outside of the vehicle.
The image illustrates the RH side fitment

Repeat for other side.



13. Loosely secure the side arm along with the spacer plate with 3x M12x1.75x45 Gr10.9 bolts complete with 1x M12 washer per bolt. The image illustrates the RH side fitment

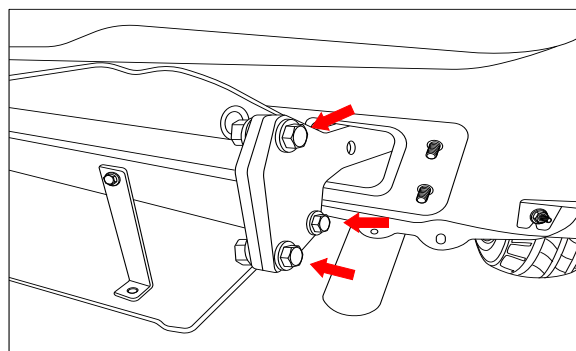
Repeat for other side



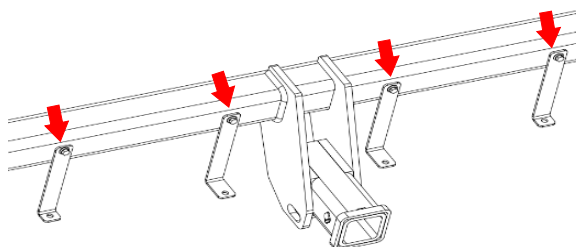
14. Position the crosstube to the side arms and loosely secure each side with 3x M12x1.75x45 Gr10.9 bolts complete with 2x M12 washers and 1x M12 nut per bolt.

15. Tighten all fasteners to the following torque:

M12 x 1.75 Gr10.9 : 109Nm



16. Fit the 2x Short and 2x Long bumper tabs to the crosstube using the supplied Tek screws. Do not overtighten the Tek screw.





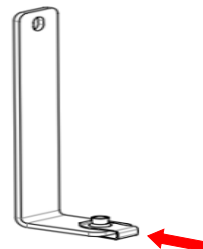
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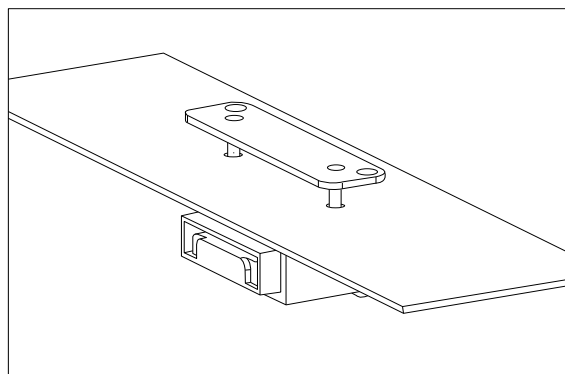
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17. Fit the M6 clip nut to the 4 x Bumper tabs.



18. For the plug bracket.

On the underside of the bumper, determine an appropriate position, mark out and drill 2x $\varnothing 5\text{mm}$ holes 69mm apart on bumper skin to support plug bracket.



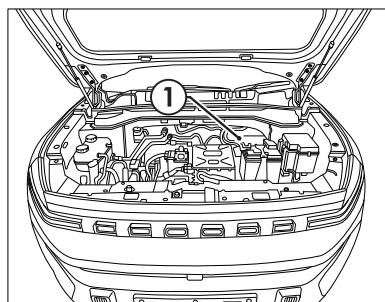


IMPORTANT

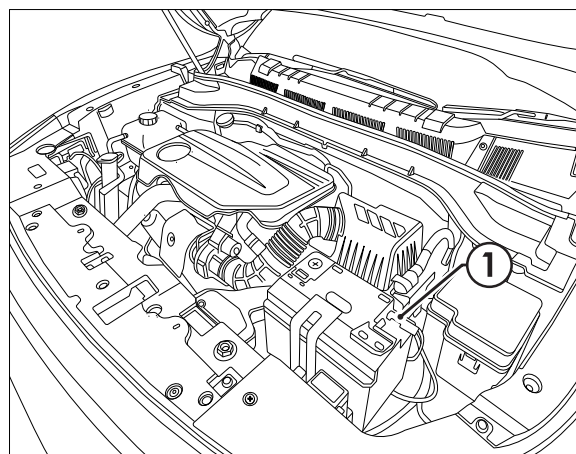
Due to possible vehicle variations, always confirm any noted vehicle colour wires with a multi-meter to ensure the correct function is identified before soldering or scotch locking. For vehicle wires denoted with two colours (example; RED/GREEN) the first colour will always be the main wire colour while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

19. Steps 1 to 4 apply to ICE and EV models only. For Hybrid models skip to Step 5.

- In the engine bay, disconnect the vehicle battery negative terminal (1).

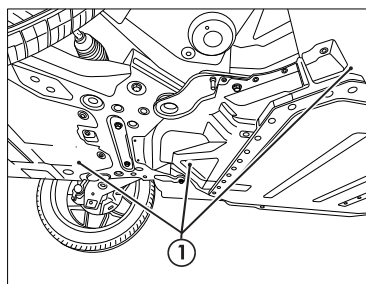


EV Model Shown

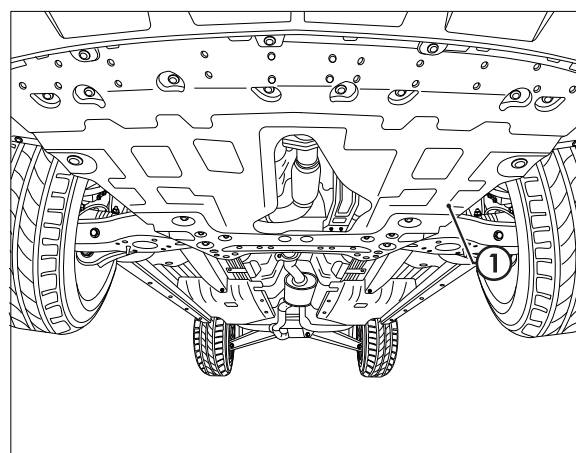


ICE Model Shown

20. Lift the vehicle on a hoist and remove the underbody trim panels (1).



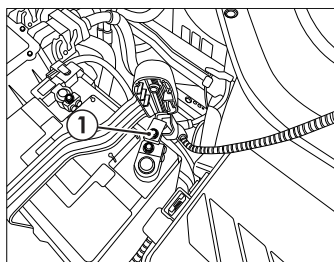
ICE Model Shown



EV Model Shown

21. Secure the ring terminal on the supplied **long** power harness (04825) to the positive battery terminal **(1)**.

Route the power harness down along the firewall towards the LHS chassis rail.



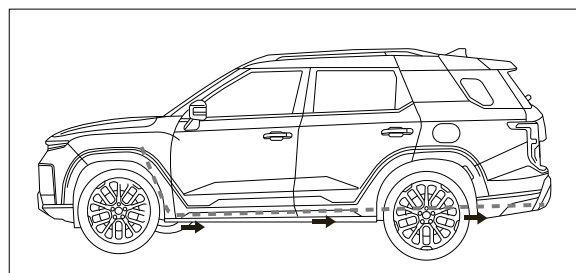
EV Model Shown



ICE Model Shown

22. Continue routing the power harness along the LHS chassis rail to the back of the vehicle.

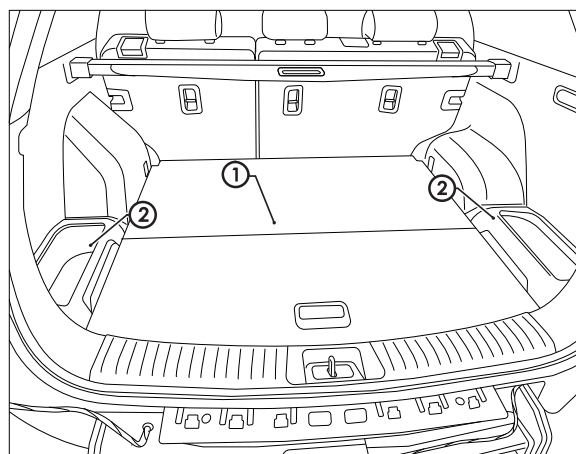
Note: Ensure harness is routed away from brake lines, high voltage wiring, moving components, and sources of heat.



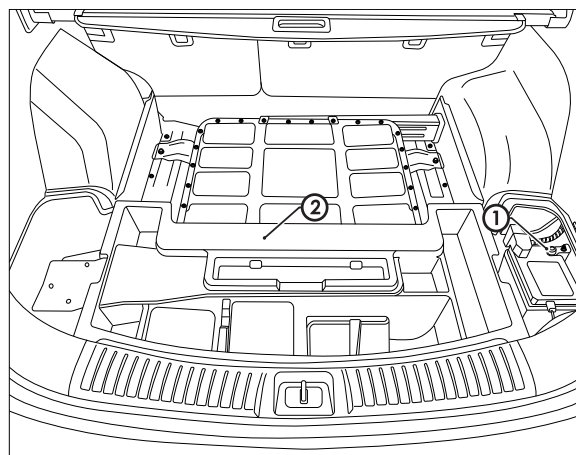
23. Steps 24 to 28 apply to Hybrid models only.

For ICE and EV models skip to Step 10.

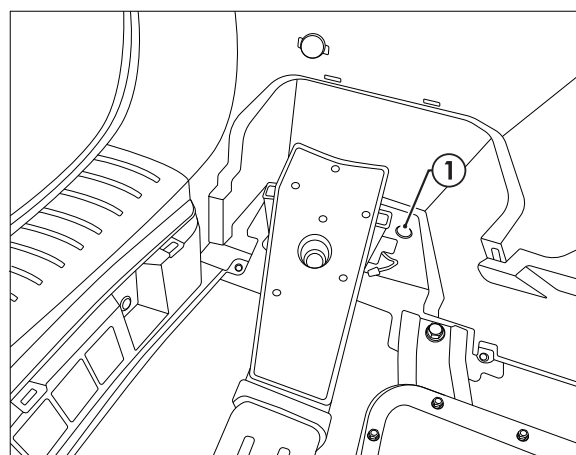
- In the boot, remove the boot floor panel **(1)**.
- Remove both side trays **(2)**.



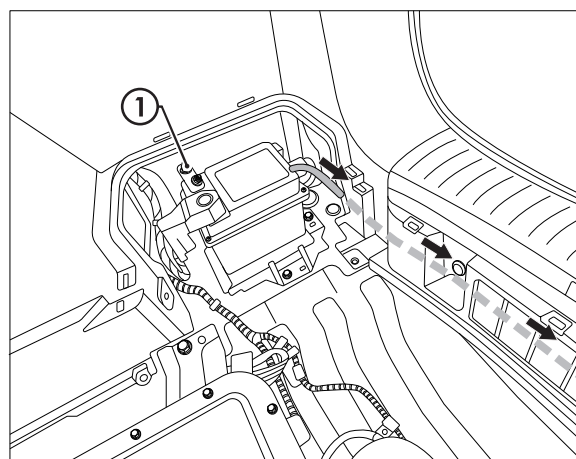
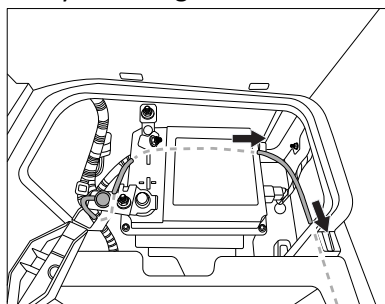
24. Disconnect the negative battery terminal **(1)**.
Remove the tool tray **(2)**.



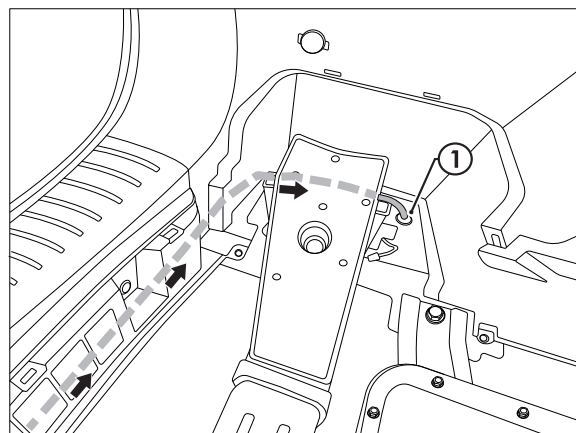
25. Locate the blanking grommet **(1)** under the LHS side tray.
Remove the grommet and discard.



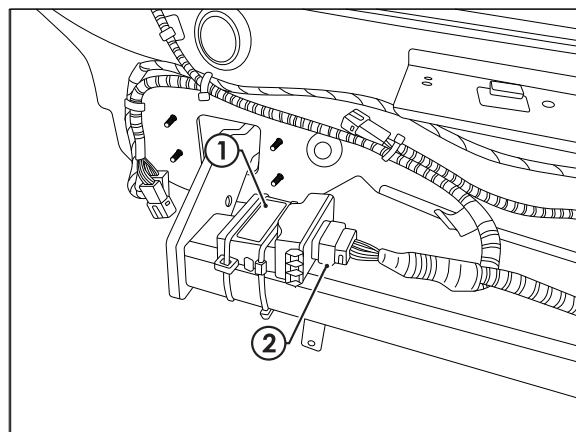
26. Secure the ring terminal on the supplied **short** power harness to the positive battery terminal **(1)**.
Route the power harness behind the boot sill trim towards the previously located grommet hole.



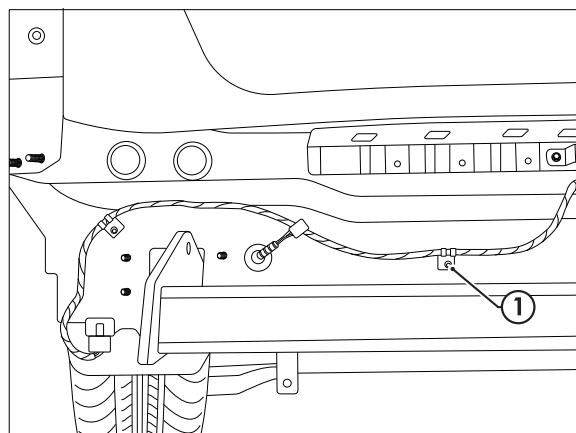
27. Route the power harness out through the grommet hole.
Seat the harness grommet in the grommet hole (1).



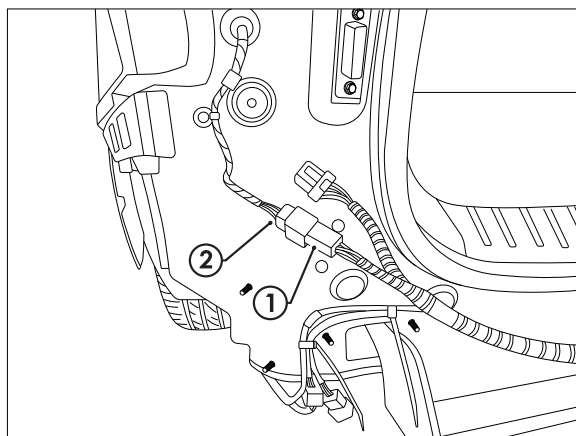
28. **Steps 29 to 34 apply to all models.**
Secure the ECU (04835) (1) to the towbar using cable ties.
Connect 24-way connector (2) on the trailer patch harness to the ECU.



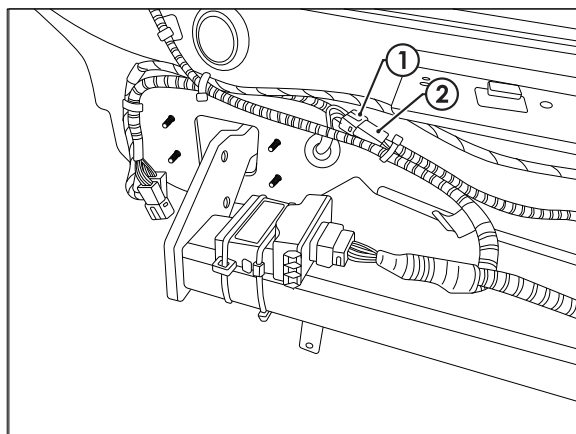
29. Unclip vehicle harness clip from the stud (1).
- Secure the ground ring terminal on the harness to the stud using the supplied flange nut.
 - Reinstall the vehicle harness clip onto the stud.



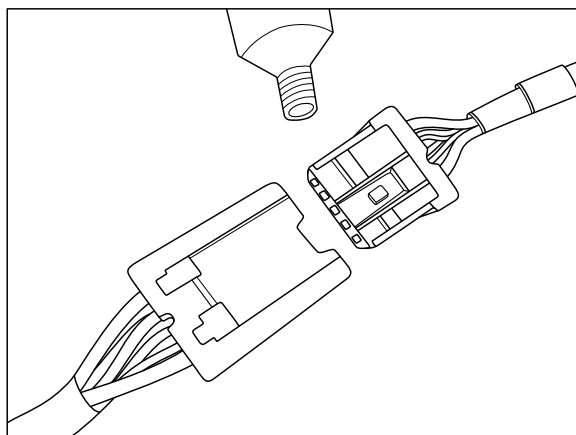
30. Connect 6-way male connector **(1)** on the shorter T-patch branch to the LHS taillight connector **(2)**. Repeat for RHS with the longer T-patch branch.



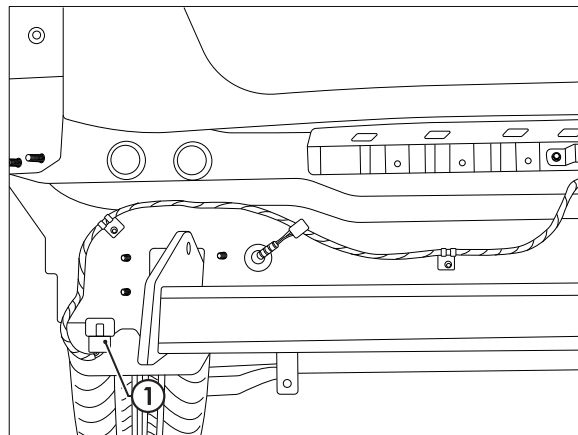
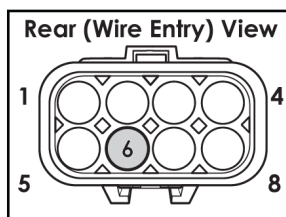
31. Connect the 1-way connector **(1)** on the harness to the mating connector **(2)** on the power harness.



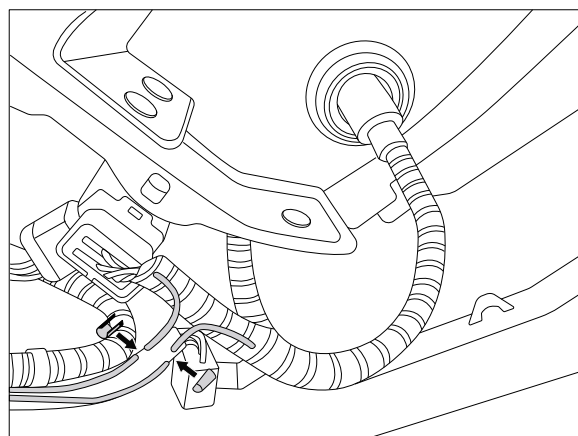
32. Connect the 8-way blue connector on the harness to the mating connector on the tail harness (04936).
Use dielectric grease to seal the blue connectors.



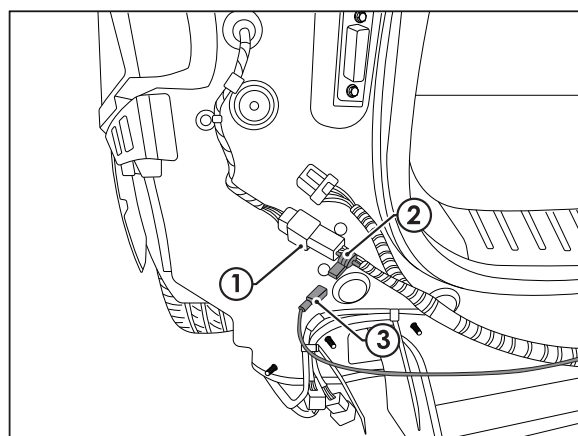
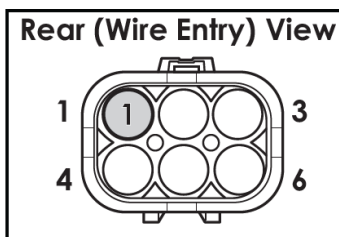
33. At the LHS rear corner of the vehicle, locate the 8-way male bumper connector (1). Peel back the corrugated tube approximately 60mm from the back of the connector. Cut the **BLACK** wire going to PIN 6 of the connector approximately 40mm from the back of the connector.



34. Crimp/solder one cut end of the **BLACK** wire to the **GREY** wire coming from the tail harness. Crimp/solder the other cut end of the **BLACK** wire to the **GREY/BLACK** wire coming from the tail harness. Reinstall the corrugated tube.



35. This step only applies to ICE and Hybrid models where REVERSE functionality is required:
- Locate 6-way male connector (1) on the supplied wiring harness previously connected to the vehicle LHS taillight connector.
 - Clamp the supplied wire tap (2) onto the **GREY** wire going to PIN 1 of the connector.
 - Route the **BLACK/WHITE** wire on the harness up along the LHS T-patch branch.
 - Connect the male terminal (3) at the end of the wire to the wire tap.





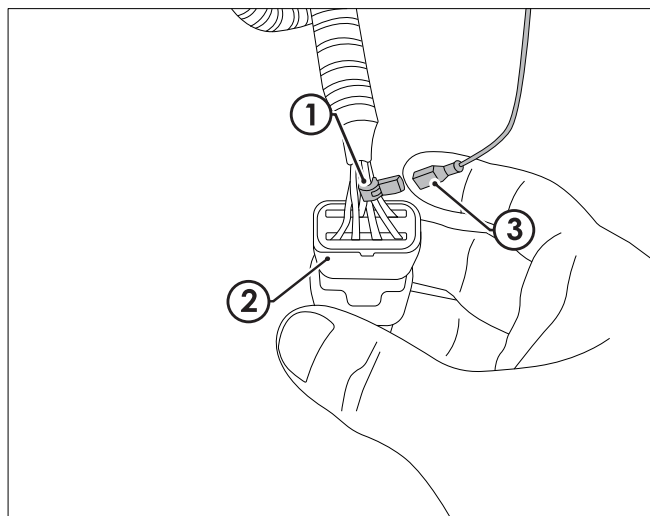
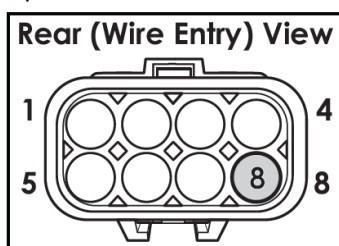
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36. This step only applies to EV models where REVERSE functionality is required:

- Clamp supplied wire tap (1) onto the **BLACK** wire coming from PIN 8 of the 8-way male bumper connector (2).
- Route the **BLACK/WHITE** wire on the harness along the vehicle harness to the LHS, then down to the bumper connector.
- Connect the male terminal (3) at the end of the wire to the wire tap.



37. Bundle up any excess harness lengths using cable ties.

Secure all harness using supplied cable ties.

Test the trailer patch function using a light board or multi-meter.

Refit the bumper and other removed parts to the vehicle. Use the supplied 4x M6 Button screws along with 1 x washer per screw to retain the underbody protector to the bumper tab.

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 HAYMAN REESE.
WITH CORRECT MAINTENANCE AND CARE THIS PRODUCT WILL PROVIDE A
LIFETIME OF TROUBLE-FREE OPERATION.**

i TOWBAR MAINTENANCE AND CARE:

1. Hayman Reese recommend that the towbar LUG or TBM (tow ball Mount) Pull Pin and R-clip are removed and stored when not in use. Removal of LUG or TBM (tow 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. Hayman Reese 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.

i WARRANTY INFORMATION:

Hayman Reese 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 visit www.haymanreese.com.au/warranty or contact customer service on 1800 812 017 or info@haymanreese.com.au.



CUSTOMER INFORMATION

PLACE THESE INSTRUCTIONS IN THE
VEHICLE'S GLOVEBOX AFTER INSTALLATION

HAYMAN REESE SMART PIN

Your Hayman Reese towbar is equipped with Smart 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.

i Regularly inspect for wear and check the tightness of the Smart Pin Nut. 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 Smart pin nut is installed and tensioned. Replacement parts are available from your Hayman Reese 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 Smart 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 Smart 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 Smart 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 Smart Pin R-Clip through the hole that provides best clearance or easiest access. (Fig. 5)

STEP 6

Install towball onto TBM and tighten to **350 Nm** using a calibrated torque wrench (Fig. 6).

