



TOWBAR INSTALLATION INSTRUCTIONS

PART NUMBER 03353RW

MG HS SAS23 CL4



PRODUCT DETAILS:

Part Number:	03353RW	Maximum Towing Braked:	750	kg
ECU Number:	04835	Maximum Towing Unbraked:	750	kg
Tail Harness Length Required:	See Note	Maximum Static Ball Load:	75	kg
TBM/Lug Part Number:	21126			
Wiring Part Number:	102483-WL			

FITTING DETAILS:

Towbar Installation Time:	60 Mins.	Hayman Reese SmartCODE Solution Required:	NO
Wiring Installation Time:	35 Mins.	RPA Disable/Other:	YES
Total Installation Time:	95 Mins.	Note:	
Bumper Cut Required:	Yes	<ul style="list-style-type: none">If vehicle is fitted with RPA use tail 04936, if there is no RPA use 400mm tail.	



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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).

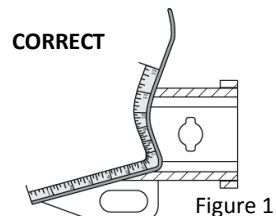


Figure 1

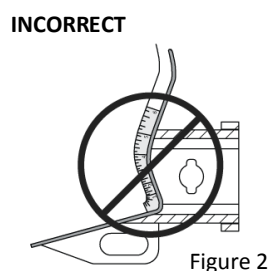


Figure 2

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

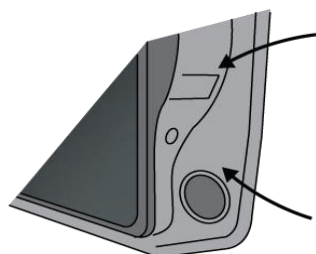
- Ensure that all hardware is fastened to correct torque as specified in this fitting instruction.
- All fasteners supplied with this product are used to achieve a specified clamp loading. If replacement is required ensure that fasteners of the same grade and class are used.



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 Hayman Reese warranty.

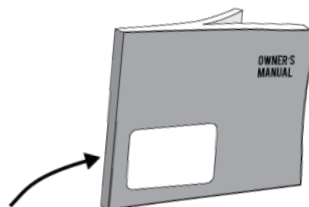
Product Labels

- 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.



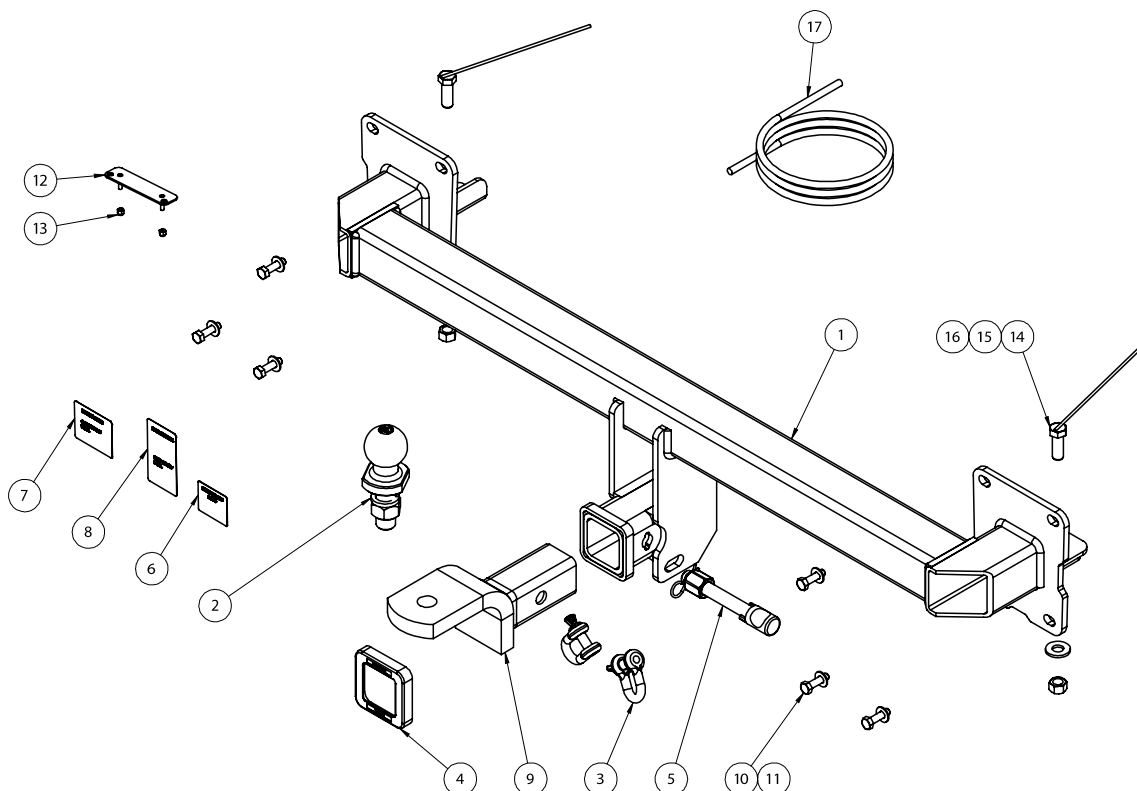
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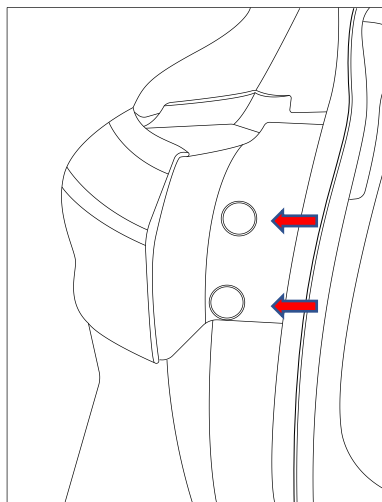
TOWBAR ASSEMBLY DIAGRAM



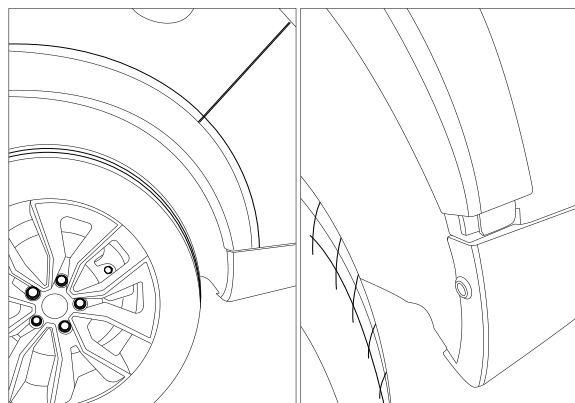
ITEM	DESCRIPTION	QTY
1	MG HS SUV FWD OCT 2019 WELDED ASSY	1
2	TOWBALL 50mm	1
3	"D" SHACKLE 10mm	2
4	HITCH BOX COLLAR COVER	1
5	SMART PIN	1
6	H.R STICKER	1
7	COMPLIANCE LABEL	1
8	DOOR RATING LABEL	1
9	TRAILER BALL MOUNT	1
10	BOLT HEX HD M8x30x1.25P	6
11	WASHER PLAIN M8x19.5x1.6	6
12	PLUG BRACKET	1
13	NUT NYLOC HEX M4x0.7P	2
14	BOLT & WIRE ASSEMBLY	1
15	WASHER PLAIN M12	2
16	NUT HEX M12x1.75P	2
17	WIRE LOOM	1

1. Remove 2x plastic cover.
 Unscrew 2x screws.
 Disconnect the taillight harness
 Pull rear ward to remove the taillight

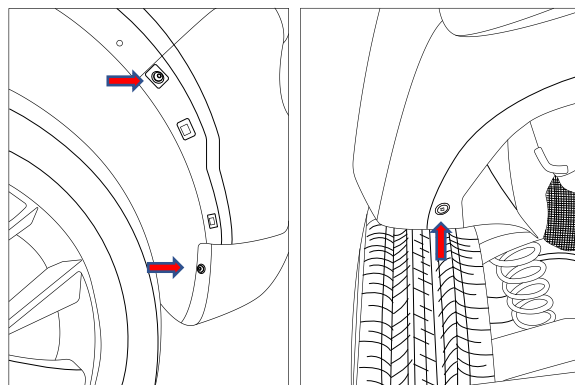
 Repeat for the other side



2. Unclip the wheel arch.
 Remove the wheel arch by lift it up.



3. Unscrew 2x screws from the side of the wheel.
 Unscrew 1x screws under the bumper.





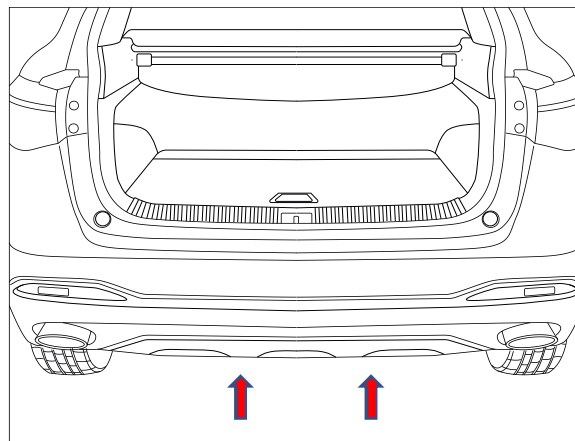
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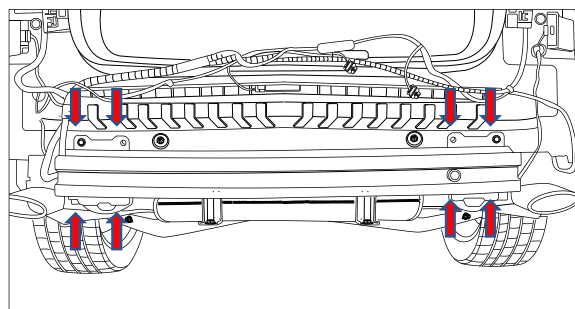
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4. Unscrew 2x screws under the bumper
Unclip the bumper and pull rearward
Disconnect the bumper sensor harness

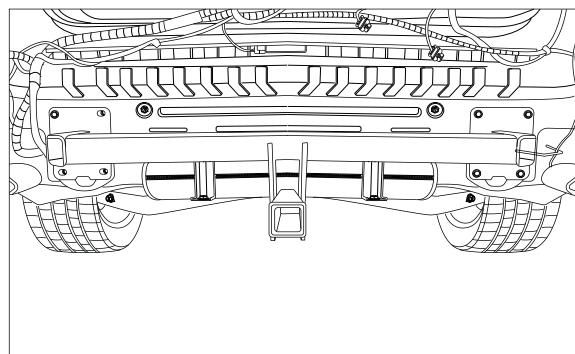


5. Unscrew 6x bolts and 2x nuts
Remove the impact beam and discard the impact beam
Retain the 2x flange nut.



6. Fit the towbar to the vehicle and torque the 6x bolts and 2x nuts.

TORQUE M8 = 31 Nm





TOWBAR

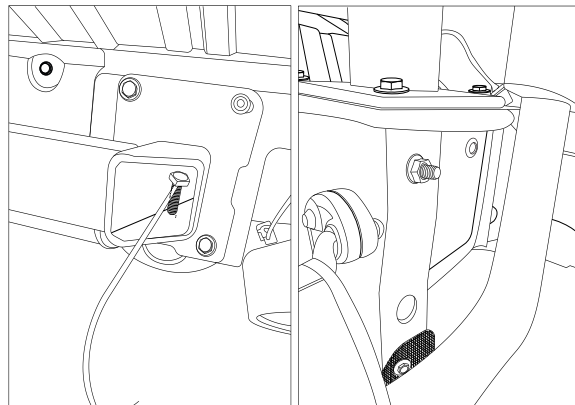
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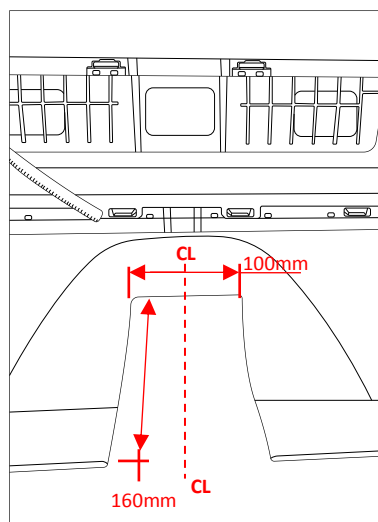
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7. Feed 1x M12 wire bolt into the chassis hole.
Place 1x washer and 1x nut to the bolts

TORQUE M12 = 77 Nm



8. Mark and cut an area from the centre of the bumper.
100mm wide and 160mm long



9. Reassemble all removed parts and secure all fastener.



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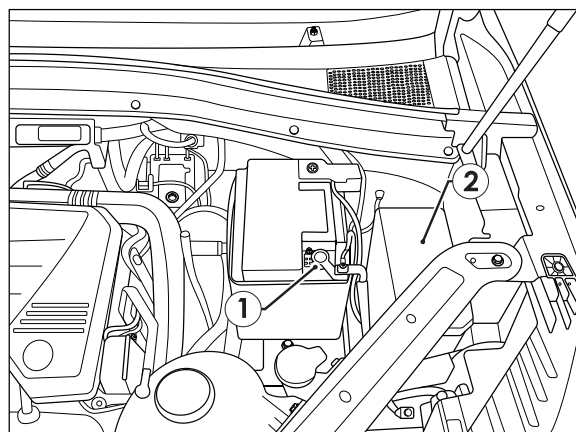
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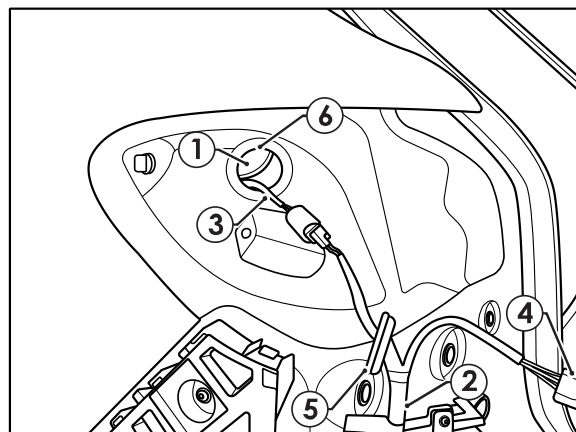
IMPORTANT

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.

10. At the rear of the vehicle, open the luggage compartment.
11. In the engine bay, disconnect the vehicle battery negative terminal (1).
12. Remove the cover off the main fuse box (2).



13. Unseat the LHS tail lamp harness grommet (1).
14. Patch in the trailer patch harness (102483-WL) LHS branch (2) in between the vehicle wiring (3) and the LHS tail lamp wiring (4).
15. Seat the grommet (5) on the trailer patch into the tail light wiring hole (6).





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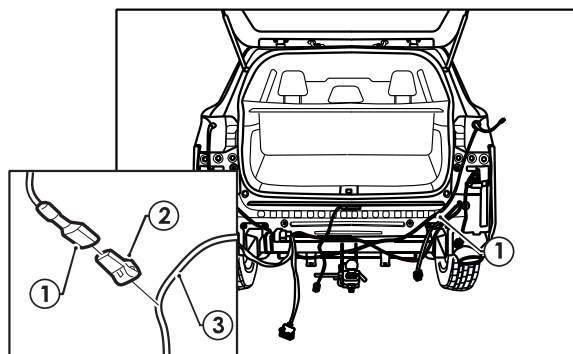
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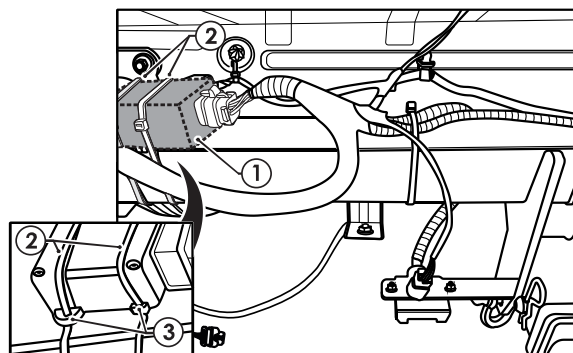
16. Route the RHS indicator wire (1) across to the RHS tail lamp.
17. Using a multi-meter, following the table below, connect the ezy-tap (2) to the mating tail light harness wire (3). Then connect the trailer patch wire (1) to the ezy-tap (2).

Note: The first wire specified is the main colour and the second wire is the trace colour.

Function	Trailer Patch	Vehicle Harness
RHS Indicator	Green/Black	Green

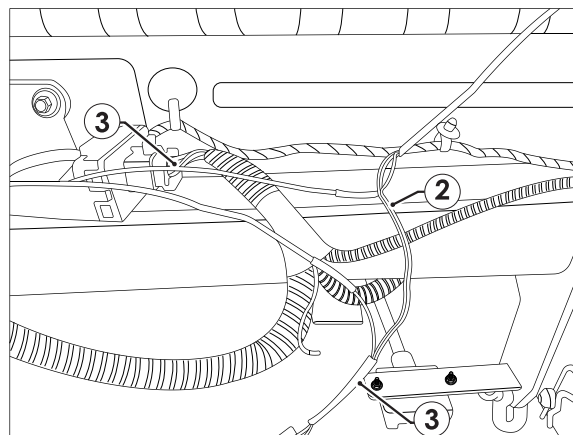


18. Locate a suitable area on the towbar to mount the Waterproof ECU (1).
19. Using the supplied 500mm Cable Ties (2), secure the ECU and to the towbar by looping the Cable Ties through the rectangular mounting holes (3).

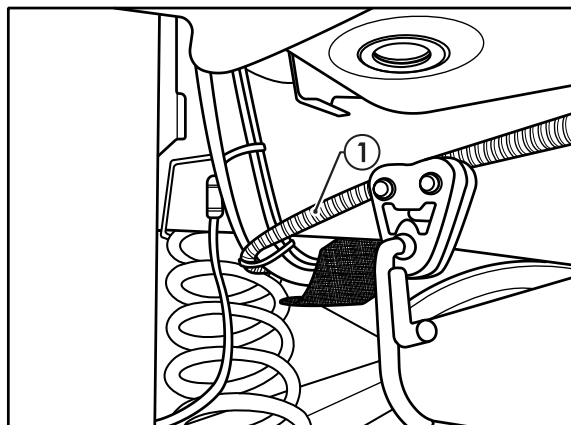


20. For vehicles equipped with parking sensors, locate the centre left sensor wiring (1).
21. Cut the PINK/BROWN wire (2) leading to Pin 2 on the centre left parking sensor.
22. Strip, crimp and seal the PINK/BLACK wires (3) of the Trailer Patch in between the PINK/BROWN wires of the parking sensor.
23. Tape up the loose wires and secure to the towbar using a supplied 500mm Cable Tie.

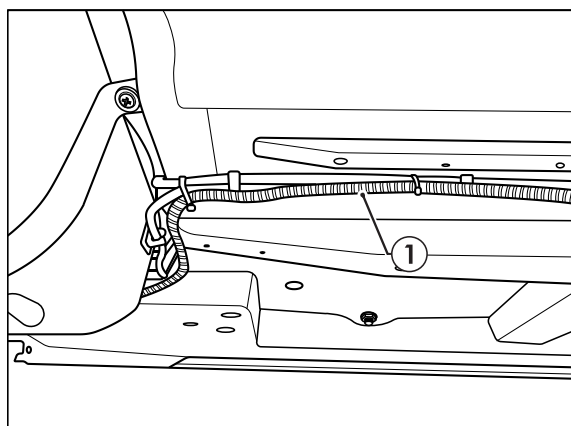
Note: Tape up the trailer patch Pink/black wires if they are not used.



24. Route the power and ground wire ring terminals (1) up over the rear suspension towards the front of the vehicle.
25. Use Cable Ties to secure the harness away from pinch points, moving parts and places of extreme heat.

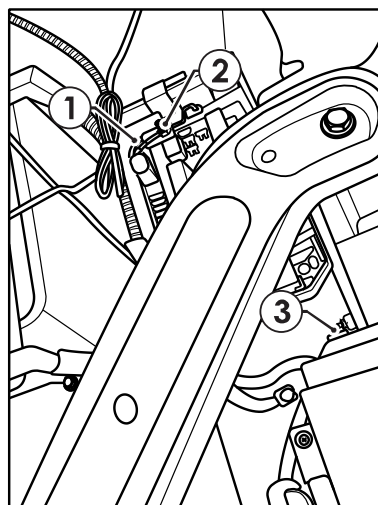


26. Continue routing the Harness (1) towards the front of the vehicle on the inside of the LHS chassis rail.
27. Use Cable Ties to secure the Harness (1) away from pinch points, moving parts and places of extreme heat.



28. Route the harness up the firewall towards the vehicle main fuse box.
29. Secure the fused orange power wire (1) ring terminal to the vehicle fuse panel positive distribution stud (2).
30. Secure the ground wire ring terminal to the vehicle earthing point (3).

NB: Do not install the vehicle ground direct to the vehicle battery before the battery monitoring device. These bolts are not designed to be removed.





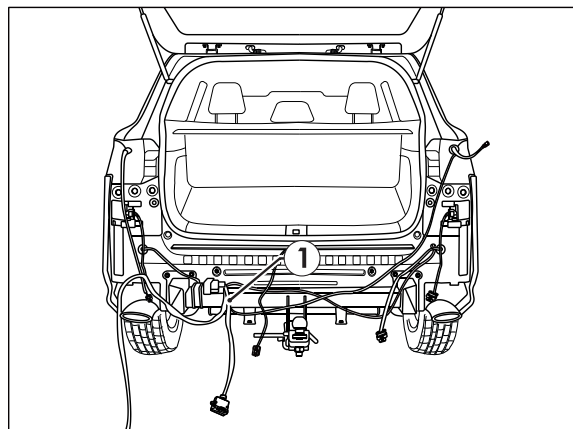
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31. With the rear bumper removed, secure tail harness (1) to towbar.
32. Route the tail harness blue connector to the blue connector on the patch loom

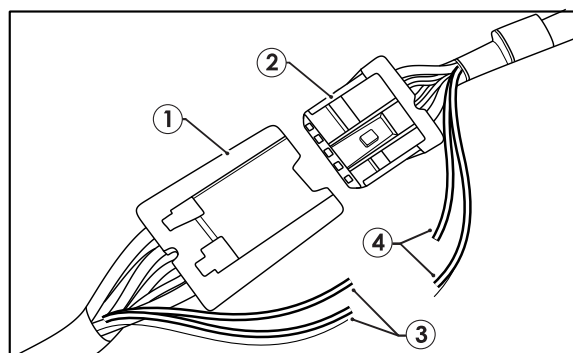
Note: Keep harness routing clear of all sharp edges, moving parts and places of extreme heat.



33. Connect the tail harness 8-way connector (1) to the trailer patch mating 8-way connector (2).
34. Cut-off, crimp the tail harness PINK/BLACK wires (3) to the trailer patch matching GREY and GREY/BLACK wires (4).

Note: This step is only done if vehicle is equipped with RPA, if not tape wire s back to harness.

35. Use silicone grease to seal the blue connectors.



36. Test the trailer patch function using a light board or multi-meter.
37. Secure all harness using Cable Ties (not supplied).
38. Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
39. 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.**

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.

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).

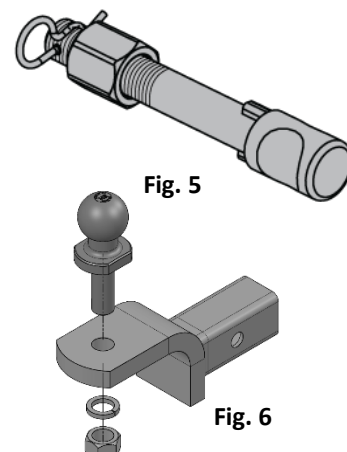
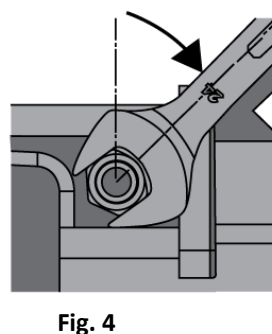
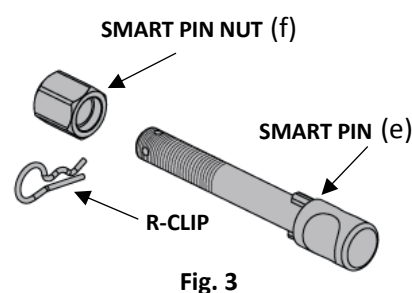
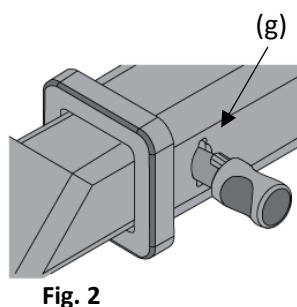
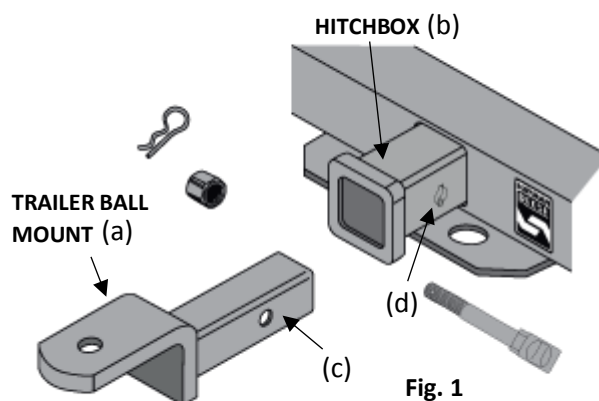


Fig. 4

Fig. 5

Fig. 6