## PRODUCT DETAILS:

| | | | |
|---|---|---|---|
| **Part Number:** | 03448RW | **Maximum Towing Braked:** | 2000 kg |
| **ECU Number:** | WLE70024 | **Maximum Towing Unbraked:** | 750 kg |
| **Tail Harness Length Required:** | 1800 mm | **Maximum Static Ball Load:** | 200 kg |
| **TBM/Lug Part Number:** | 21201 | | |
| **Wiring Part Number:** | WLL90024 | | |

## FITTING DETAILS:

| | | | |
|---|---|---|---|
| **Towbar Installation Time:** | 90 Mins. | **Hayman Reese SmartCODE Solution Required:** | YES |
| **Wiring Installation Time:** | 30 Mins. | **RPA Disable/Other:** | YES |
| **Total Installation Time:** | 120 Mins. | **Note:** | |
| **Bumper Cut Required:** | Yes | | |

**Note:**

- Please refer vehicles owner's manual for proper operation and understanding of towing features enabled when coded.

## 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).

**CORRECT**



Figure 1

**INCORRECT**

**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.**



Figure 2

- 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).
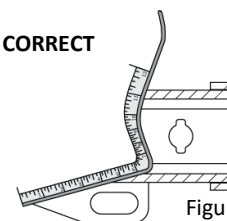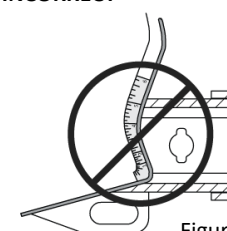  - o Do not measure from visible bumper front of corner, upwards (Figure 2).

**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 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.
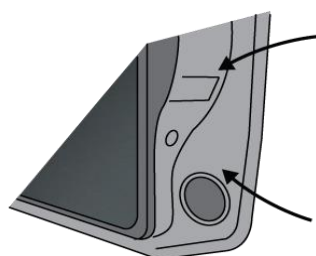


Place **Load Rating sticker** inside driver's door here

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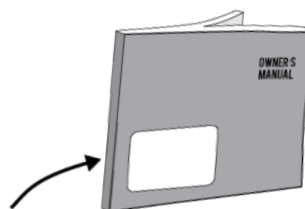


### ⚠ WARNING:

**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.**
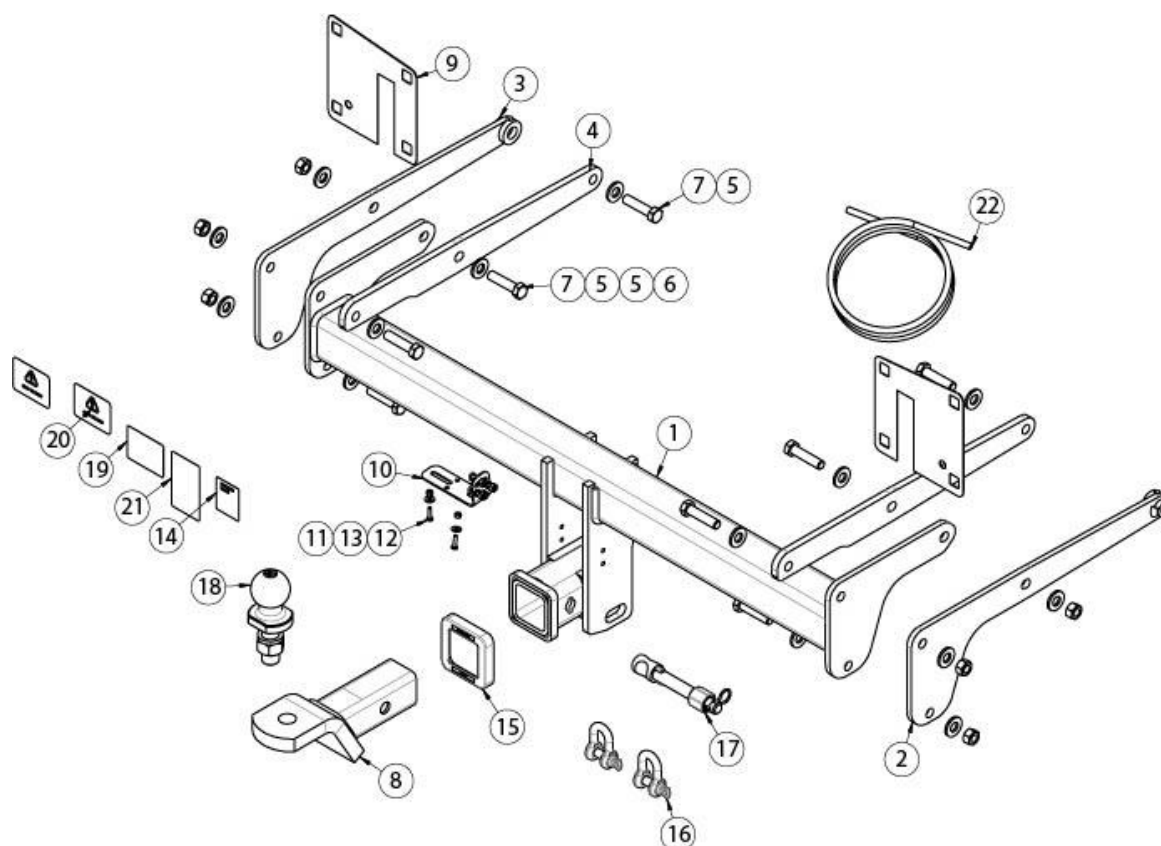
**HAYMAN REESE**

## ℹ TOWBAR ASSEMBLY DIAGRAM



| ITEM | DESCRIPTION | QTY |
|------|-------------|-----|
| 1 | AUDI Q5 WELDED ASSY | 1 |
| 2 | SIDE ARM ASSY RH | 1 |
| 3 | SIDE ARM ASSY LH | 1 |
| 4 | SIDEARM SUPPORT | 2 |
| 5 | WASHER PLAIN 1/2" | 14 |
| 6 | NUT HEX HD M12x1.25P | 6 |
| 7 | SET SCREW HEX HD M12x50x1.25P | 8 |
| 8 | TRAILER BALL MOUNT | 1 |
| 9 | SPLASH PLATE | 2 |
| 10 | UNIVERSAL PLUG BRACKET KIT | 1 |
| 11 | NUT NYLOC HEX HD M4x0.7P | 2 |

| ITEM | DESCRIPTION | QTY |
|------|-------------|-----|
| 12 | SCREW PAN HD M4x16x0.7P | 2 |
| 13 | WASHER PLAIN 3/16x1/2x20 | 2 |
| 14 | HAYMAN REESE LOGO STICKER | 1 |
| 15 | HITCH BOX COLLAR COVER | 1 |
| 16 | "D" SHACKLE 10mm | 2 |
| 17 | SMART PIN GOLD | 1 |
| 18 | TOWBALL 50mm | 1 |
| 19 | COMPLIANCE LABEL | 1 |
| 20 | CAN MODULE WARNING LABEL | 2 |
| 21 | LOAD RATING LABEL | 1 |
| 22 | WIRE LOOM | 1 |

## WIRING ASSEMBLY DIAGRAM
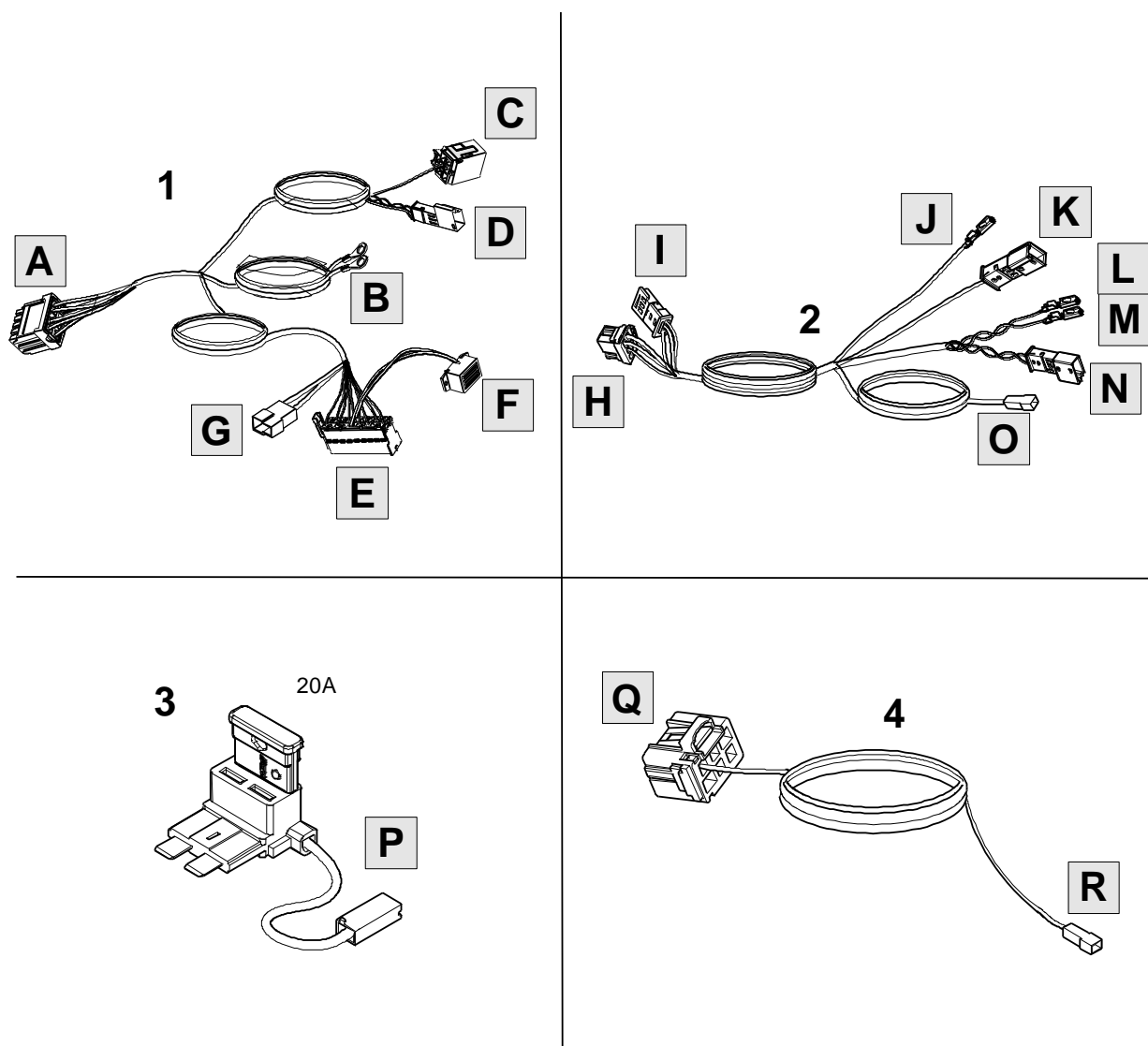


| ITEM | DESCRIPTION | QTY |
|:---:|:---|:---:|
| 1 | MAIN HARNESS | 1 |
| 2 | CAN EXTENSION HARNESS (NOT REQUIRED) | 1 |
| 3 | ADD-A FUSE (NOT REQUIRED) | 1 |
| 4 | POWER INPUT HARNESS (NOT REQUIRED) | 1 |

| HARNESS ACCESSORIES | | |
|---|---|---|
| ITEM | DESCRIPTION | QTY |
| 1 | 2-WAY F. CONNECTOR 6.3MM (BRAKE PREP CONNECTOR) | 1 |
| 2 | F. CONTACT 6,30MM/1,00mm² (BRAKE PREP CONNECTOR) | 1 |
| 3 | F. CONTACT 6,30MM/2,50mm² (BRAKE PREP CONNECTOR) | 1 |
| 4 | LABEL DIAGNOSTICS CAN- MODULE | 2 |
| 5 | TRAILER ECU (WLE70024) | 1 |
| 6 | 3-WAY F. CONNECTOR (BLACK) | 1 |
| 7 | 3-WAY F. CONNECTOR (WHITE) (NOT REQUIRED) | 1 |
| 8 | 300mm CABLE TIE | 4 |
| 9 | 150mm CABLE TIE | 5 |
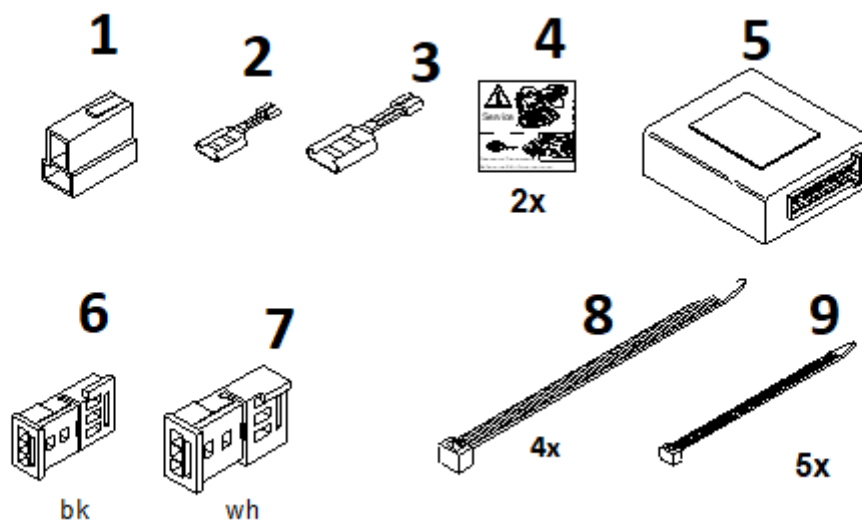
1. In bottom of wheel arch, remove 1 x Torx screw.

   Repeat for other side.
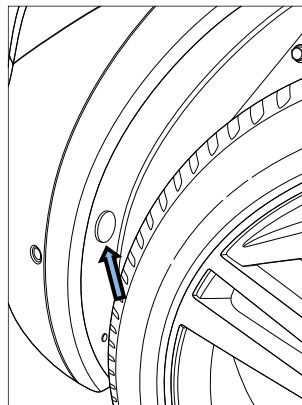


2. In the wheel arch peel back the trim and remove the 3 x Torx screws.

   Repeat for other side.
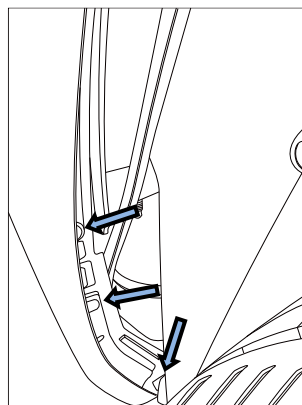


3. Peel away the wheel arch skirt to reveal a torx screw.
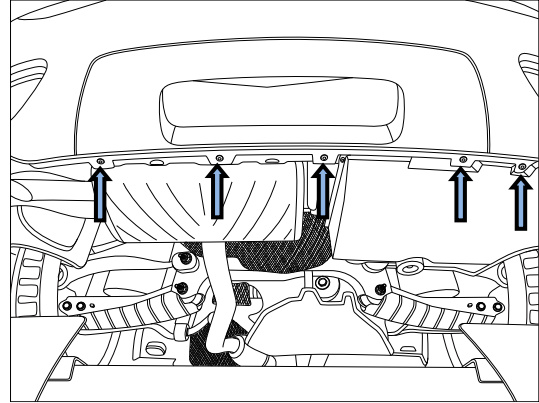
   Remove 1 x Torx screw.

   Repeat for other side.
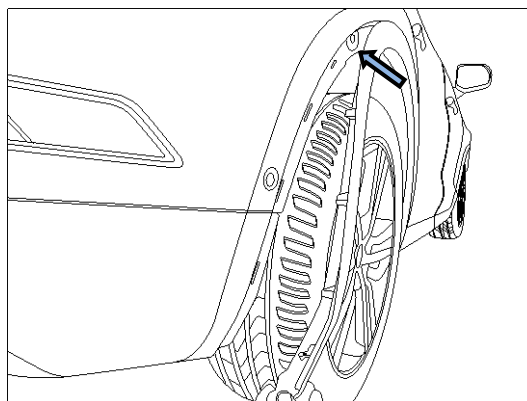
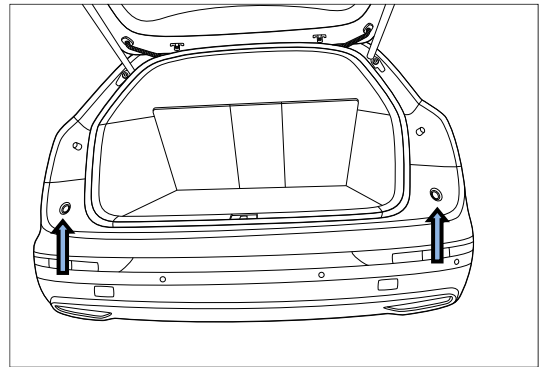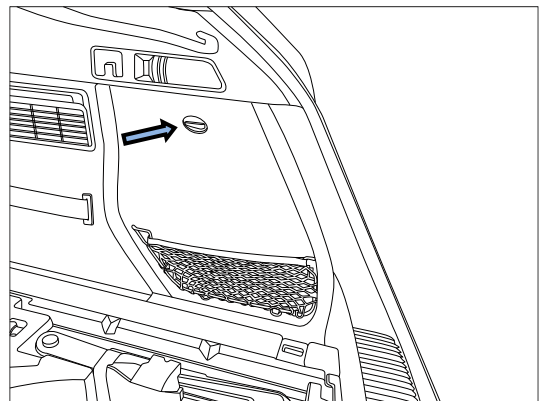4. Remove 5 x Torx screws located along bottom width of the bumper.



5. Open tailgate and remove the exposed 2 x Torx screws securing the bumper to the body.



6. In luggage compartment, remove the RH and LH side covers.
   Disconnect the electrical harness connected to the RH cover.
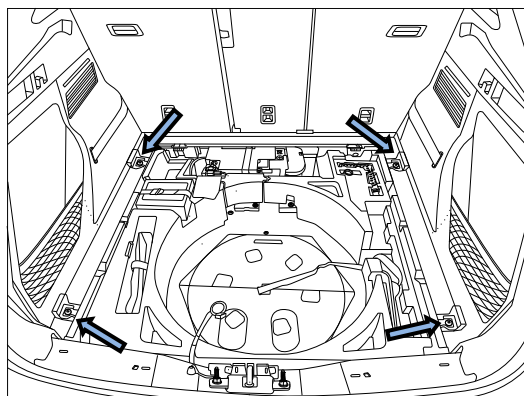
7.  Remove luggage compartment cover.
8.  Remove rear trim panel (pull upwards).
9.  Disconnect harness and remove the speaker, spare wheel, compressor, jack and tool kit.
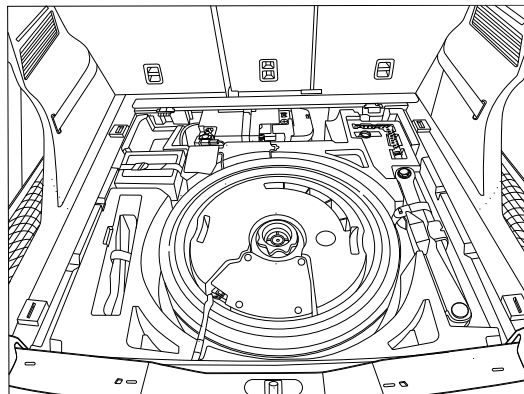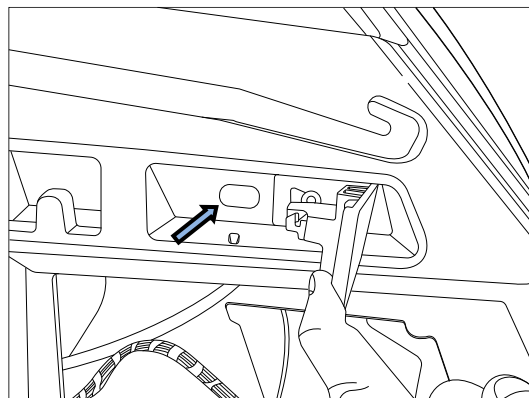


10. In luggage compartment, lift the tie down bracket covers and remove the 4 x Tie down brackets secured with 1 x Torx screw per bracket.
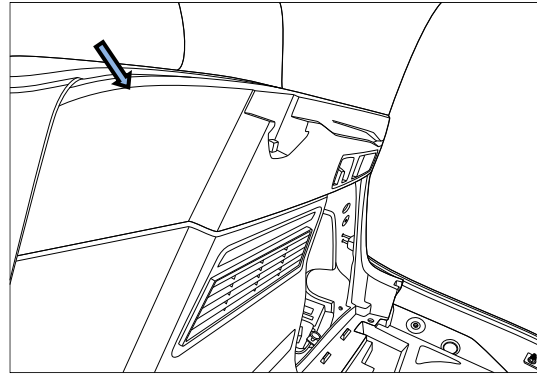
    Remove the LH and RH plates.



11. In luggage compartment, remove plastic tab and the 1 x Torx screw, located behind the seat release lever.
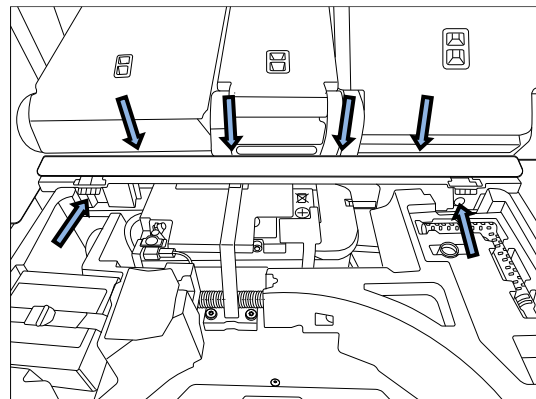
    Repeat for other side.

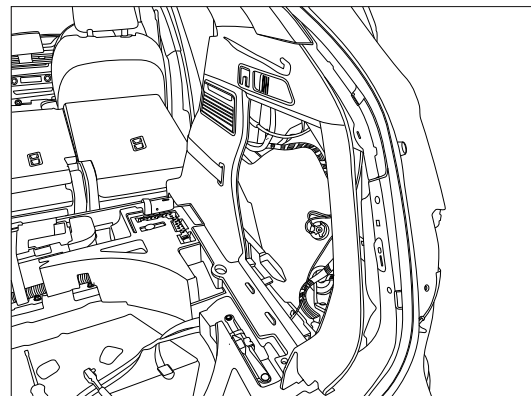12. In luggage compartment, remove the top trim panel (pull off).

    Repeat for other side.



13. Move rear seats forwards to access the front luggage plate.
14. Remove the front luggage plate secured with 6 x grommets (2 x rear and 4 x front).



15. Peel away the LH and RH side trim to enable the removal of the polystyrene tool kit holder.
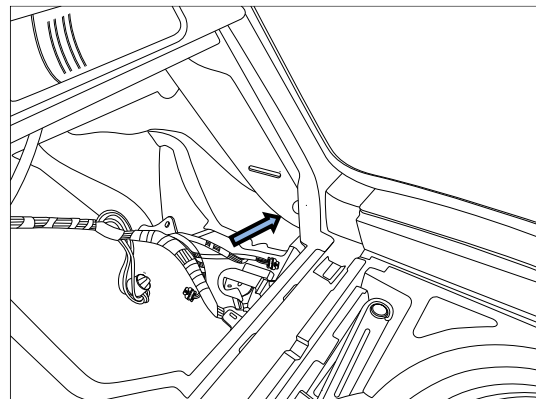16. Remove the polystyrene toolkit holder.

17. In luggage compartment on the rear panel remove the outer 2 x rubber caps to expose the bumper securing studs.
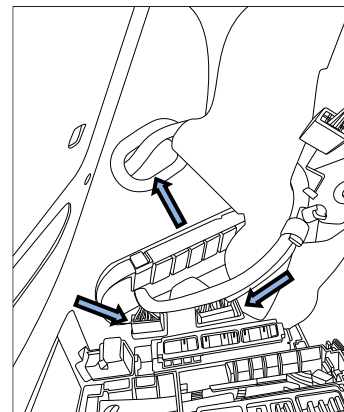18. Remove the nuts.
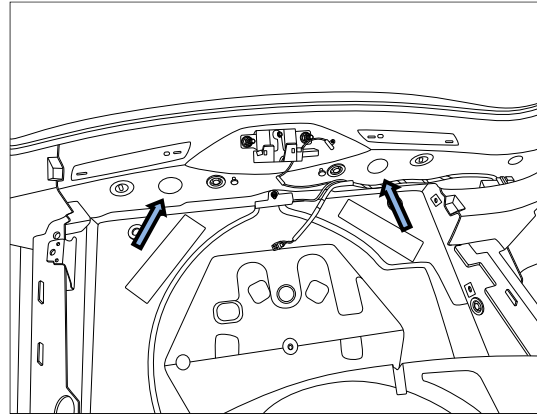


19. In the RH luggage compartment side wall cavity, move away the felt to expose a bumper securing stud. Remove the nut.

Repeat for LH side.



20. In the LH luggage compartment side wall cavity disconnect 2 x connectors from the fuse box and push out the rubber grommet (towards bumper).
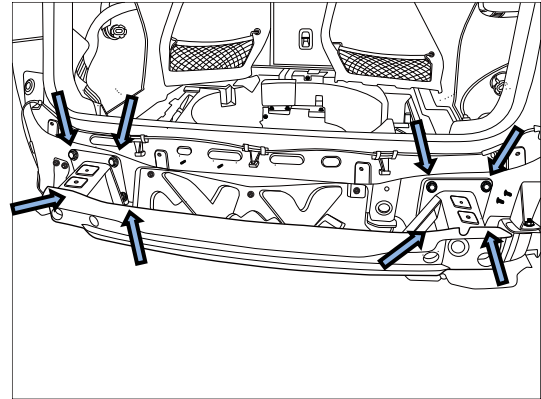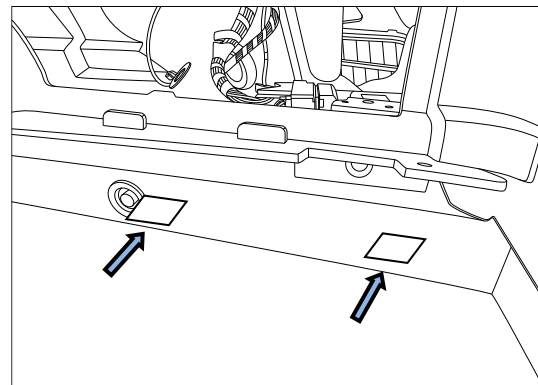
21. Carefully peel bumper away from the sides of the vehicle and remove.
22. Remove and discard the impact beam secured with 8 x bolts (4 per side).

    **NOTE: Retain the bolts for later use.**



23. In luggage compartment, remove the tape from the chassis to expose the side arm mounting holes.
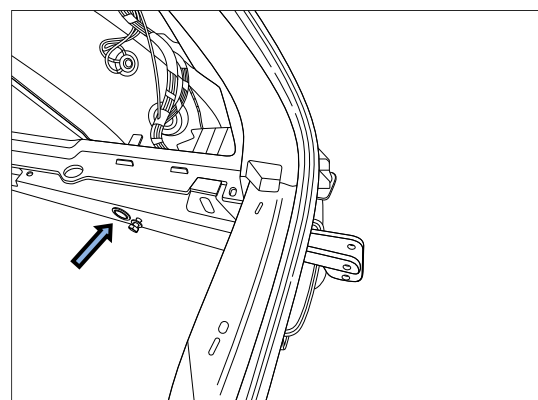
    Repeat for other side.



24. Insert the RH side arm assembly (outside) with the side arm support (inside) and loosely secure to the front mounting hole with 1 x M12 bolt complete with 1 x washer.

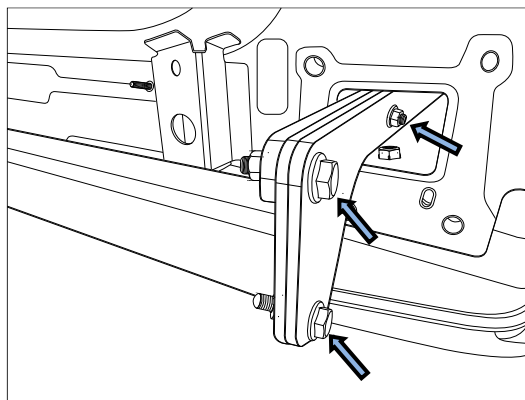    Note: The cut away on the side arm support must face down.

    Repeat for LH side.

25. Position the cross tube side arm between the side arm support and the side arm assembly and secure with 3 x M12 bolts complete with 2 x washers and 1 x nut per bolt.

    NOTE. The front bolt is fitted from inside the luggage compartment.

    Repeat for other side.

    **Torque all fasteners to 89Nm.**



26. Position the splash plate over the side arm assembly and secure with the retained 4 x M12 bolts.
    Seal around the side arms with a suitable sealant.
    Do not seal off the drain hole.

    Torque the bolts to 89Nm.

    Repeat for other side.
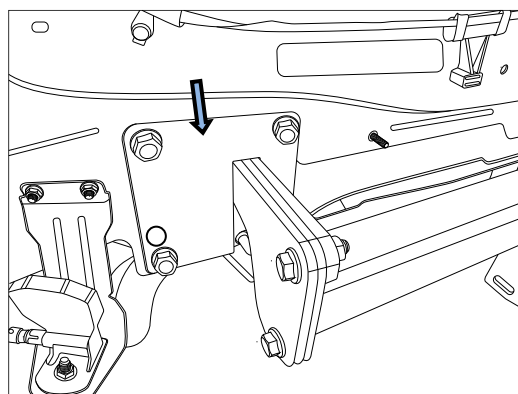


27. Locate and remove the LHS vehicle blanking grommet.
28. From outside the vehicle using a step drill, drill the hole out to Ø30mm.

    **Note: Remove all sharp edges and spray rust inhibitor.**

29. Secure the tail harness to towbar.
30. Route the tail harness connector up through the previously drilled hole.
31. Slide the grommet to desired location, secure the grommet to the tail harness with cable tie.

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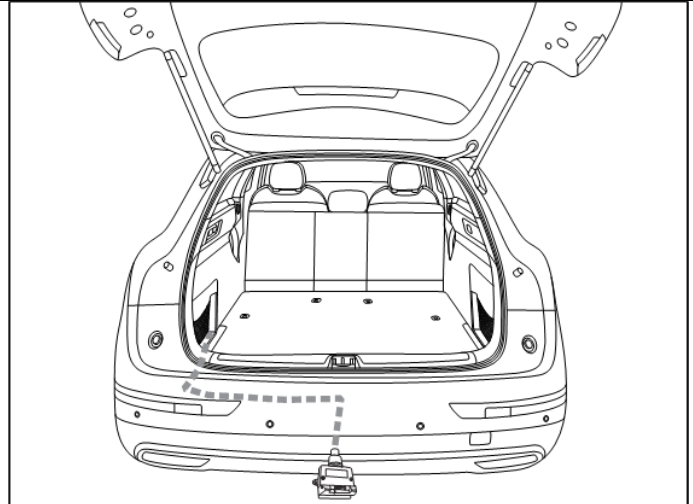


32. Connect the trailer patch ring terminals (B) to the factory ground point.
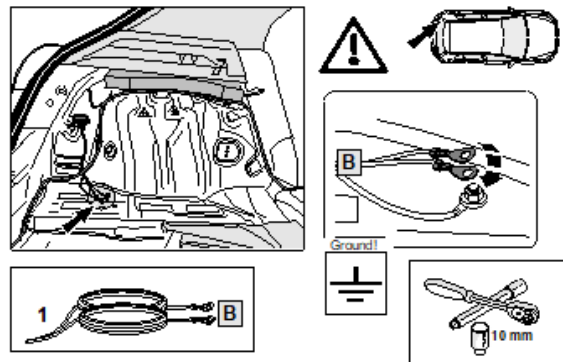


33. From inside the LHS rear of the vehicle locate vehicle trailer prewire 6-way and 10-way connectors.

    **Note: These connectors are wrapped in foam.**

34. Locate the black 10-way connector, using a jeweller's screwdriver release the secondary lock.
35. Remove the following wires, place them into the 3-way black supplied female connector (6) by pressing down on the terminal tang to release.
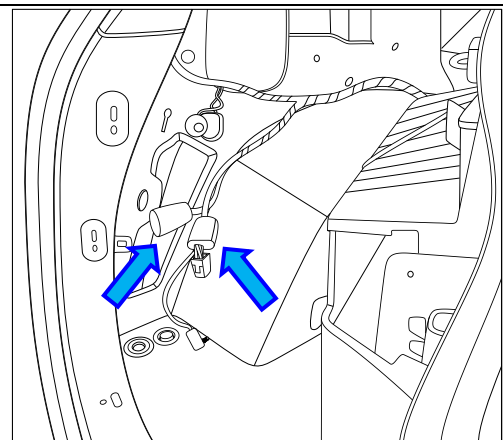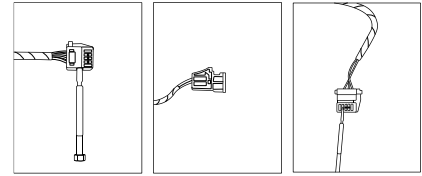
| Vehicle 10 pin | C o l o u r | Harness 3 pin | Function |
|---|---|---|---|
| Pin 2 | Black/Red | Pin 2 | Brake |
| Pin 3 | Orange/Green | Pin 1 | Can hi |
| Pin 4 | Orange/Brown | Pin 3 | Can low |

**Note: Ensure the terminals do not make contact.**
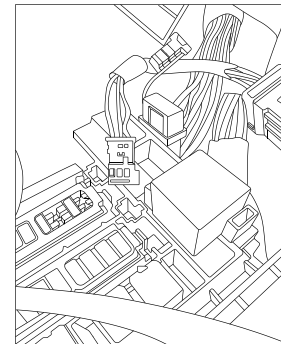
36. Plug the trailer patch 6-way power connector (C) into the vehicle mating connector.
37. Plug the trailer patch 3-way black connector (D) into the 3-way mating connector.

38. Peel the backing tape from the trailer module (5), place module to vehicle plastic ECU bracket and apply pressure ensuring good adhesion.
39. Plug the trailer patch blue connector (A) to mating 1800mm tail connector.
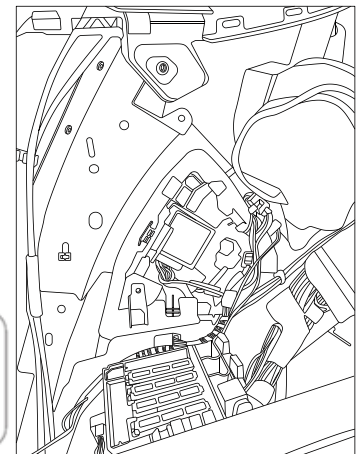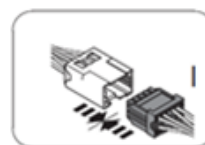
40. Secure all harnesses using cable ties
41. Carefully feed the bumper towbar cavity over the hitch box and reinstall bumper.
42. Refit all removed parts from step 1 – 21 in reverse and secure all fasteners, ensuring there are no squeaks or rattles.
43. Ensure all connections are reconnected.
44. **Test the trailer light function using a trailer test board, Prior to coding of vehicle**.
45. Next step is coding of vehicle. Pay attention to the "SmartCODE" instruction page.
46. Once the vehicle is coded test the trailer functionality with a test board again.
47. Place the fitting instructions in the glove box after fitment.

**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.

# 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.

ℹ️ 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.
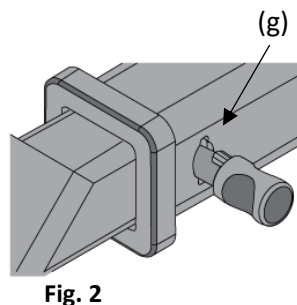
## TOWBALL MOUNT REMOVAL/INSTALLATION

### 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)
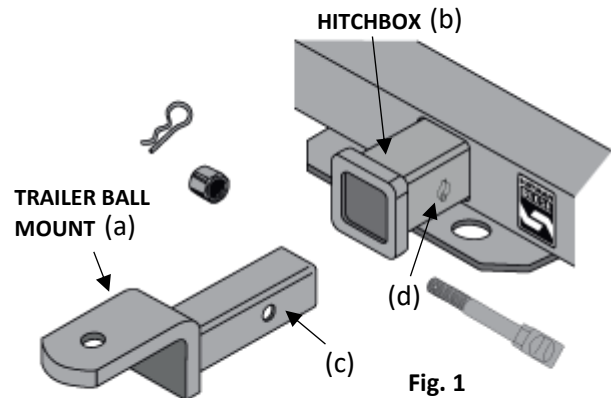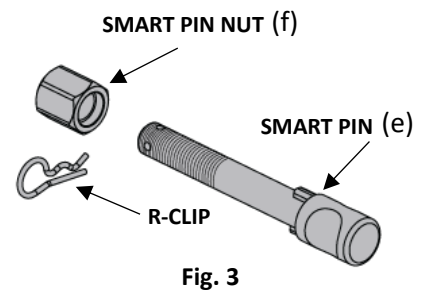
### STEP 2

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)
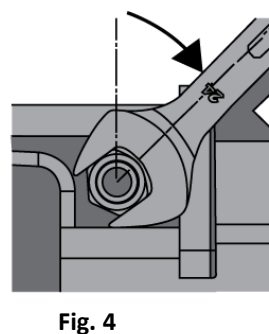
### STEP 3

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)
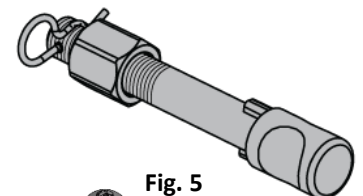
### STEP 6

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

**HITCHBOX** (b)

**TRAILER BALL MOUNT** (a)

(d)

(c)

**Fig. 1**

(g)

**SMART PIN NUT** (f)

**SMART PIN** (e)

**R-CLIP**

**Fig. 2**

**Fig. 3**

**Fig. 4**

**Fig. 5**

**Fig. 6**

# Appendix



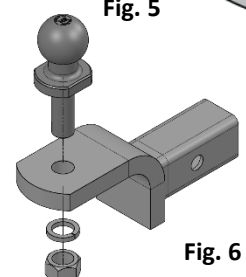**WARNING:** This vehicle requires a system setting to ensure the trailer wiring and control module are correctly recognised. This process (referred to as 'coding') must be carried out to enable correct vehicle functionality when trailer is connected. Towing features enabled by correct control module and coding support OE functionality as set by OE manufacturer. Please read the vehicles owner's manual for proper operation and understanding.

Coding can be carried out using the Hayman Reese SmartCODE (HRSC) using the following steps. Note, if HRSC is unavailable, vehicle coding can be carried out by OE manufacturer as needed.

Before you start:

- **Ensure the HRSC software is up to date using the HAYMAN REESE SMARTCODE PC APP.**
- **Ensure the vehicle battery is fully charged**
- **Use of a battery support unit (BSU) is advised during the coding process.**
- **Ensure towbar, wiring loom and ECU are correctly installed as per Hayman Reese fitting instructions.**

1. Locate the OBD2 port under the drivers footwell on the right-hand side and plug in the HRSC.
2. Close all doors and turn the ignition on
3. Follow the directions on the screen of the HRSC
4. Once the vehicle has been coded successfully proceed to the "clear codes" tab
5. Remove disconnect HRSC from OBD2 port.
6. Check the dash to make sure there are no warning faults.
7. Check the operation of trailer lights and ensure the Reverse Park Assist (RPA) is disabled and 'trailer on' icon is active where available.

For technical support and further information on Hayman Reese SmartCODE tool and coding process contact your nearest Hayman Reese stockist.

Australia: 1800 812 017

New Zealand: 0800 237 886