PART No: 03145RW

MERCEDES BENZ V-CLASS 447 SERIES

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT ALL INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED



Installation Time: Approx 60 Mins

Towbar Installation Instructions

Towbar capacity

MERCEDES BENZ VITO 447 SERIES

Part Number 03145RW

Max Towing Braked2500 kgMax Towing Unbraked750 kgMax Static Ball Load250 kg



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Warning:

- 1. Do not, drill, cut, weld or otherwise modify the towbar.
- If you are using electric welding on a motor vehicle, always check that the vehicle is not equipped with electronic engine or instrument management equipment. Failure to do so could destroy any onboard computers. If in doubt, check with the vehicle's manufacturer.
- 3. If TBM is used in inverted position tow ball may make contact with rear tailgate when lowered, which could cause damage.

General:

- Ensure all hardware items have been included refer to assembly diagram.
- It is recommended that the instructions are read through and completely understood before making any attempt to fit this product.
- Be wary of any changes to vehicle designs or other accessories that may conflict with the installation of this product.
- Before drilling ensure that the area is clear of fuel, electrical & other components.
- All holes drilled into the body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.
- The high tensile fasteners supplied with this product were used to achieve the specified rating. If replacement is required ensure that fasteners of the same rating & quality are used. Contact an authorised Hayman Reese dealer if further information is required.
- 7. Ensure that all hardware is fastened to torque list below check fasteners on regular basis.
- Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door. (See diagram below).
- Hayman Reese recommends that you check your tow ball to ensure that it complies with the Australian standards AS 4177.2.
- 10. PLEASE NOTE: It is advised to remove your lug or tbm when not actually towing so as to produce a clear view of the vehicles registration plate if obscured, and to also provide maximum available departure angle.
- 11. Pull Pin must be fit in down position.

Tow bar Maintenance and Care.

Hayman Reese recommends that bolt torque's, as listed below, are routinely and regularly inspected and checked for correct tension. Replace any worn or defective parts.

We recommended to remove Tow Ball Mounts (TBM's, tongues or lugs) when not being used for any considerable length of time.

So as to avoid injury, when not towing it is suggested that the tongue, Pull Pin and R-clip are removed then stored in a safe, clean and dry place, away from excessive moisture.

Hitch Pull Pins and spring "R" clips are regularly checked for proper installation. Replace any worn or defective parts.



For towing capacity details please refer to vehicle owner's manual or to the manufacturer. Overloading can void your warranties.

www.haymanreese.com.au

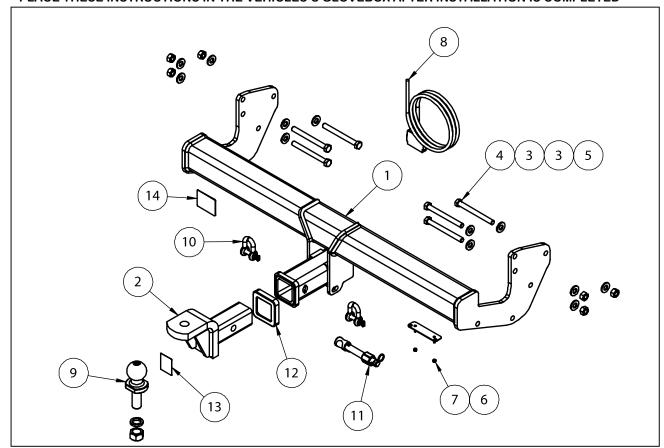


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QTY.	DESCRIPTION	ITEM NO.
1	WELDED ASSEMBLY	1
1	TBM ASSY	2
12	WASHER FLAT 1/2"x1 1/8" x 1/8"	3
6	BOLT HEX HD M12x120x1.25P	4
6	HEX NUT M12x1.25 PC8	5
1	PLUT BRACKET	6
2	NUT NYLOC M4-0.7 Z/P	7
1	WIRING LOOM	8
1	HR TOWBALL	9
2	10mm "D" SHACKLE	10
1	ANTI-RATTLE PULL PIN ASSY GOLD	11
1	HITCH BOX COLLAR COVER	12
1	H.R STICKER	13
1	ACRYLIC COMPLIANCE PLATE	14

PART No: 03145RW

MERCEDES BENZ V-CLASS 447 SERIES

INSTALLATION INSTRUCTIONS

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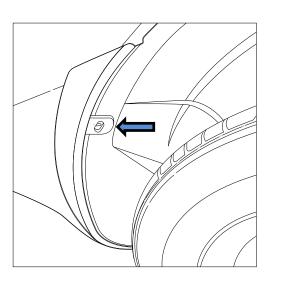
PART No: 03145RW

MERCEDES BENZ V-CLASS 447 SERIES

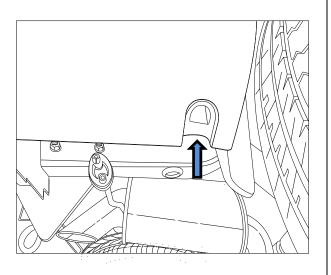
INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT ALL INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLES'S GLOVEBOX AFTER INSTALLATION IS COMPLETED

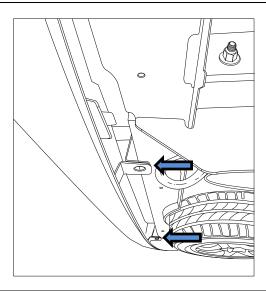
4. On the inside of the guard liner, remove 1 x Push Rivet. Repeat for opposite side.



5. On the underside of the bumper near the wheel arch remove 1 x Push rivet. Repeat for opposite side.



6. Remove 2 x Push Rivets on the underside of the bumper.



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MERCEDES BENZ V-CLASS 447 SERIES

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT ALL INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

PLACE THESE INSTRUCTIONS IN THE VEHICLES'S GLOVEBOX AFTER INSTALLATION IS COMPLETED 7. Carefully remove bumper by peeling away at each edge. Store in a safe place for reattachment. J 8. Remove and discard factory shipping hook. 9. If fitted, detach plastic under tray by removing 2 x Plastic Nuts.

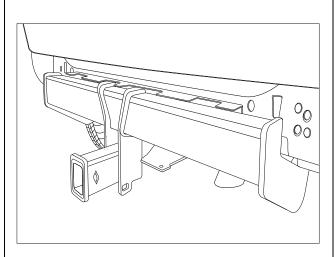
PART No: 03145RW

MERCEDES BENZ V-CLASS 447 SERIES

INSTALLATION INSTRUCTIONS

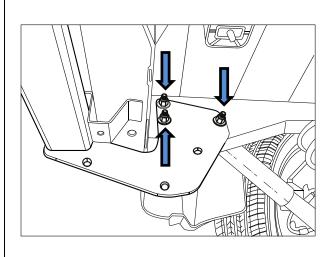
PLEASE ENSURE THAT ALL INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLES'S GLOVEBOX AFTER INSTALLATION IS COMPLETED

 Offer Towbar to vehicle. Loosely secure it using 6 x M12 x 1.25P Set Screws with accompanying flat washers and nuts.

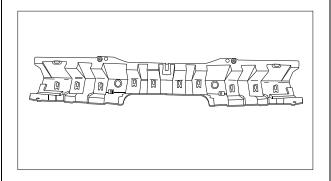


11. Torque all fasteners to the following specification:

M12 x 1.25P x G10.9: 140Nm



12. On the inside face of the bumper remove and discard internal reinforcement.



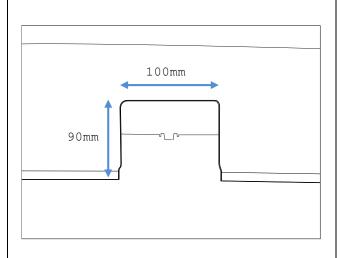
PART No: 03145RW

MERCEDES BENZ V-CLASS 447 SERIES

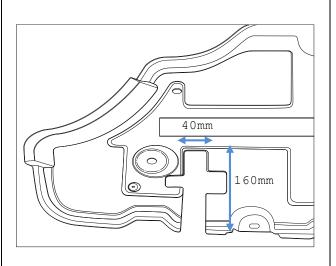
INSTALLATION INSTRUCTIONS

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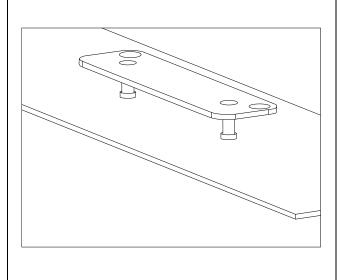
13. Locate the centre of the bumper and cut approximately 90mm up **ON THE SURFACE** of the bumper edge and 50mm wide on either side of the centre line.



14. If your vehicle is fitted with a plastic under tray. Cut a relief 160mm long and 40mm wide in line of the passenger side arm of the towbar. Start from the rearward edge of the trim.



15. Mark out and drill 2x ø5mm holes 69mm apart on bumper skin to support plug bracket. Feed bracket threads through drilled holes prior to reinstalling bumper.



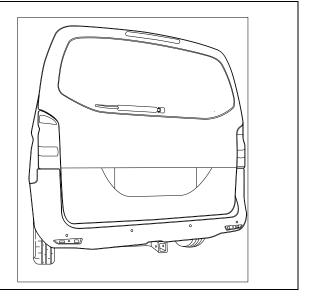
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16. Re-attach bumper by following steps 1-9 in reverse.



PART No: 101375-WL MERCEDES VITO / VALENTE 447

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

Wiring Loom Installation Instructions

MERCEDES VITO / VALENTE 447

Part No: 101375-WL

ECU Required: 04828 (Incandescent Tail Lights)

ECU Required: 04827 (LED Tail Lights)

Tail Harness Length Required: 1800mm

Wiring Loom Installation Time: Vito - Approx. 30 minutes Valente - Approx. 45 minutes



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.

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MERCEDES VITO / VALENTE 447

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

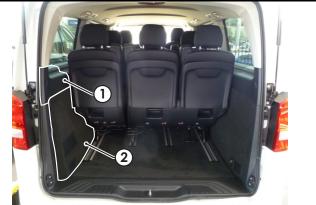
All Steps apply to all models unless otherwise specified.

The following Steps 1 to 3 for Valente only. For Vito, start on Step 4:

 Gain access to the rear luggage compartment area and remove the RHS middle trim (1) and dislodge the RHS lower trim (2) by removing the required fasteners.



2. Dislodge enough of the LHS luggage compartment centre (1) and lower trims (2) by removing the required fasteners.



3. Dislodge the upper trims (1) and headlining (2) to allow for harness routing later on.



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PART No: 101375-WL

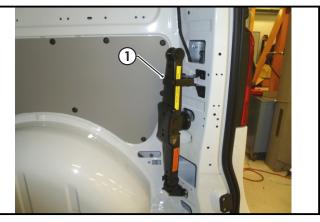
MERCEDES VITO / VALENTE 447

INSTALLATION INSTRUCTIONS

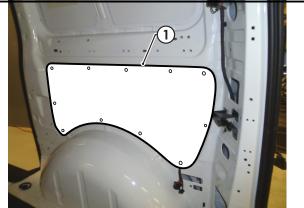
PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

Steps 4 to 5 for Vito models only.

4. In the luggage compartment, remove the vehicle jack (1).

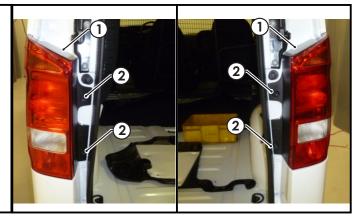


5. Remove the RHS panel (1) by removing all the clips.



The remaining Steps applicable to both Vito and Valente models with either incandescent or LED tail lights.

6. Remove the LHS and RHS tail light assemblies (1) by removing the two screws (2) from each assembly.



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MERCEDES VITO / VALENTE 447

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

7. Retrieve the LHS and RHS vehicle harness tail light connectors (1) into the vehicle (RHS shown).



8. Drill out the existing RHS grommet hole (1) to Ø30mm (deburr and apply rust inhibitor after drilling).

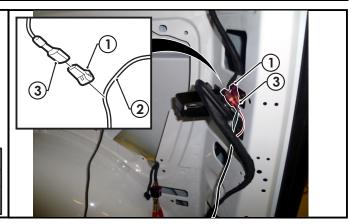


For models with LED tail lights, go to Step 10, otherwise, for models with incandescent tail lights, continue:

9. Following the table below, connect the trailer patch (P/No:101375-WL) ezy-taps (1) to the corresponding vehicle wires (2), then connect the trailer patch terminal (3) to the ezy-taps (1). Scotch lock onto the vehicle harness location BEFORE the exterior harness grommet.

Tape back the trailer patch BROWN / BLACK wire as it is not required.

Function	Trailer Patch	Vehicle Connector
R.IND	GREEN / BLACK	BLACK / GREEN
BRAKES/TAILS	RED / BLACK	GREY / BLACK
REVERSE	BLACK / WHITE	WHITE / YELLOW



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PART No: 101375-WL

MERCEDES VITO / VALENTE 447

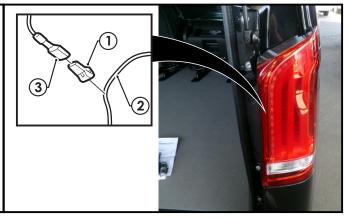
INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

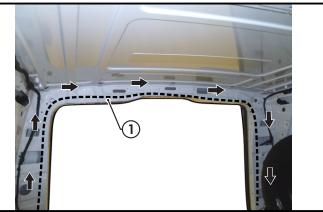
This step only for models with LED tail lights:

10. Following the table below, connect the trailer patch (P/No:101375-WL) ezy-taps (1) to the corresponding vehicle wires (2), then connect the trailer patch terminal (3) to the ezy-taps (1). Scotch lock the area on the vehicle harness BEFORE the exterior grommet.

Function	Trailer Patch	Vehicle Connector
R.IND	GREEN / BLACK	BLACK / GREEN
BRAKES	RED / BLACK	GREY / BLACK
TAILS	BROWN / BLACK	BLACK / RED
REVERSE	BLACK / WHITE	WHITE / YELLOW



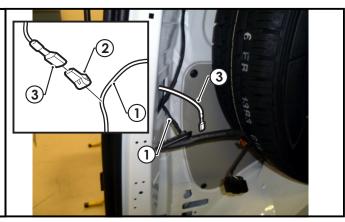
- **11.** For Vito models: Route the trailer patch (1) up the RHS cavity, across the cargo door and down the LHS cavity towards the tail light connector.
- 12. For Valente models (not shown): Route the trailer patch (1) up the trim cavity and into the headlining. Continue to route the trailer patch (1) across the roof and then down into the LHS tail light area.



- **13.** In the upper LHS of the luggage compartment, locate the tail light wiring harness **(1)**.
- 14. Following the table below, connect the ezy-taps(2) to the vehicle tail light wires (1) then connect the trailer harness wire terminal (3) to the ezy tap (2).

Scotch lock the area on the vehicle harness BEFORE the exterior grommet.

Function	Trailer Patch	Vehicle Connector
L.IND	YELLOW/BLACK	BLACK / WHITE



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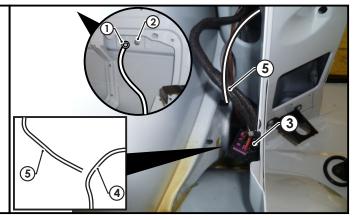
PART No: 101375-WL

MERCEDES VITO / VALENTE 447

INSTALLATION INSTRUCTIONS

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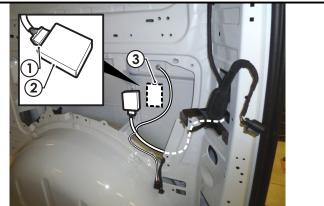
- **15.** Secure the trailer patch ground ring terminal (1) to the vehicle grounding point (2) located on the area behind the RHS trim using the vehicle fastener.
- **16.** Locate the RHS vehicle break out connector (3), and strip back the RED/BROWN wire (4) and solder the trailer patch ORANGE (5) wire onto the RED/BROWN wire (4).



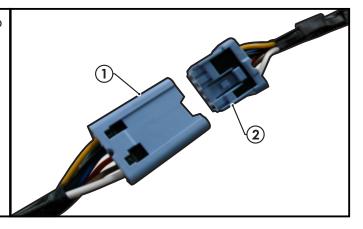
For vehicle models with LED tail lights, use ECU P/No: 04827.

For vehicle models with incandescent tail lights, use ECU P/No: 04828.

- **17.** Connect the trailer patch ECU connector (1) to the ECU (2).
- **18.** Clean the area on the sheet metal (3) below the grounding point with alcohol wipe (not supplied) and allow to dry. Peel off the backing from the ECU (2) and mount the ECU into place.



19. Connect the tail harness 8-way connector (1) to the Trailer Patch 8-way mating connector (2).





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MERCEDES VITO / VALENTE 447

INSTALLATION INSTRUCTIONS

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- 20. Refit tail lights.
- **21.** Test the trailer harness function using a light board or multi-meter.
- **22.** Secure all harnesses using cables ties (not supplied).
- **23.** Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
- **24.** Place instructions in glove box after fitment.
- **25.** RPA can be disabled via a switch on the dash panel (1).



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FITTING INSTRUCTIONS Smart Pin (55070BL)

- These fitting instructions are supplied to ensure understanding of how the SMART PIN should be fitted and used correctly.
- Once installed, we recommend <u>ALL</u> instructions are kept and placed in the vehicle glove box.

NOTE: Routine maintenance and inspection of the towbar & SMART PIN is required. Regularly inspect for wear and check the tightness of the SMART PIN NUT. Follow instructions below to retighten the nut when necessary.

*Do not tow with your vehicle if the R CLIP or the SMART PIN NUT is loose or missing. Replacement parts are available from your Hayman Reese Distributor.

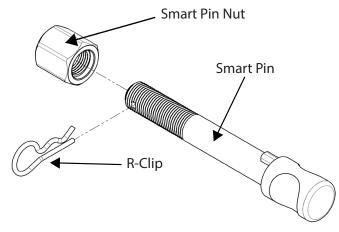
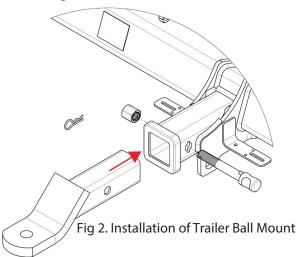
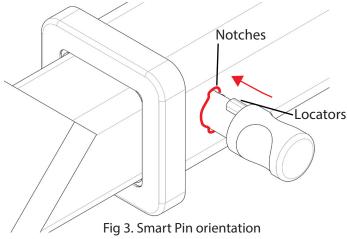


Fig 1. Smart Pin assembly

STEP 1

Insert Trailer Ball Mount (TBM) into towbar HITCHBOX, aligning hole in TBM SHANK with hole in HITCHBOX (Fig. 2).





STEP 2

Insert SMART PIN through hole in HITCHBOX and hole in TBM SHANK; ensure the LOCATORS are inserted into the NOTCHES in the HITCHBOX (Fig. 3).

STEP 3

Screw SMART PIN NUT onto SMART PIN; tighten SMART PIN NUT until finger tight, ensuring TBM is restrained from 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).



Install SMART PIN R CLIP through the hole on the SMART PIN (Fig. 1).

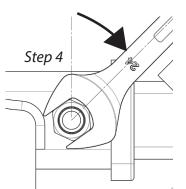


Fig 4. Tightening of Smart Pin Nut

