PART No: 03417RW

VOLKSWAGEN CRAFTER 2EF1/2EF2 CL4

TO SUIT MID WHEEL & LONG WHEEL BASE (3.5 AND 4.49-5 TONNES WITH STEP)

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT



Installation Time: Approx 30 Mins

Towbar Installation Instructions
VOLKSWAGEN CRAFTER 2010
TO SUIT MID WHEEL & LONG WHEEL BASE (3.5 AND 4.49-5 TONNES WITH STEP)

Towbar capacity

Part Number 03417RW

Max Towing Braked 2000kg Max Static Ball Load 200kg



PART No: 03417RW

MERCEDES SPRINTER/VOLKSWAGEN CRAFTER 2010

TO SUIT MID WHEEL & LONG WHEEL BASE (3.5 TO 4.49-5 TONNES WITH STEP)

INSTALLATION INSTRUCTIONS

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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, <u>always</u> check that the vehicle is not equipped with electronic
 engine or instrument management equipment. Failure to do so could <u>destroy</u> any onboard computers. If in
 doubt, check with the vehicle's manufacturer.

General:

- 1. Ensure all hardware items have been included refer to assembly diagram.
- 2. It is recommended that the instructions are read through and completely understood before making any attempt to fit this product.
- 3. Be wary of any changes to vehicle designs or other accessories that may conflict with the installation of this product.
- 4. Before drilling ensure that the area is clear of fuel, electrical & other components.
- 5. All holes drilled into the body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.
- 6. 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.
- 8. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door. (See diagram below).
- 9. 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.

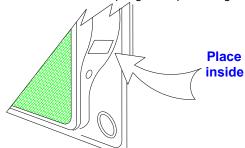
Tow bar Maintenance and Care.

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 insta



Place load rating sticker inside driver's door here

RECOMMENDED ASSEMBLY TORQUE LISTING Diameter Grade 8.8 Bolt

 M6
 9.5 Nm

 M8
 21.7 Nm

 M10
 43.4 Nm

 M12
 77.3 Nm

 M14
 146 Nm

 M16
 189.8 Nm

FOR TOWING PURPOSES ONLY

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

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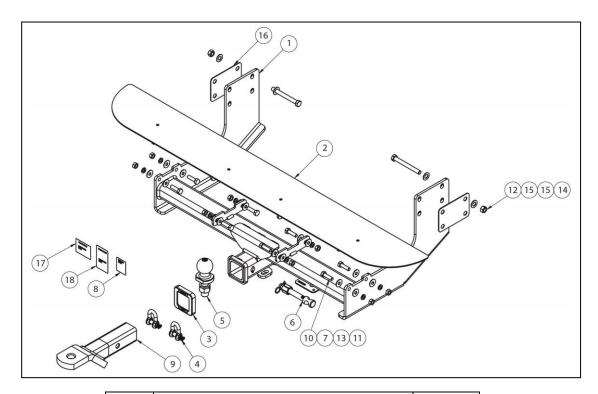


PART No: 03417RW

MERCEDES SPRINTER/VOLKSWAGEN CRAFTER 2010

TO SUIT MID WHEEL & LONG WHEEL BASE (3.5 TO 4.49-5 TONNES WITH STEP)

INSTALLATION INSTRUCTIONS
PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT



ITEM	DESCRIPTION	QTY
1	MERCEDES SPRINTER ASSEMBLY	1
2	WELDED STEP	1
3	HITCH BOX COLLAR COVER	1
4	"D" SHACKLE 10mm	2
5	TOWBALL 50mm	1
6	SMART PIN GOLD	1
7	WASHER PLAIN 3/8 X 1 X 16G	16
8	HAYMAN REESE LOGO STICKER	1
9	TRAILER BALL MOUNT	1
10	SCREW HEX M10 X 35 X 1.5P	8
11	SPACER, NUT HEX M10 X 1.5P	8
12	NUT HEX M12 X 1.25P	2
13	WASHER SPRING M10 X 3.5 X 2.2	8
14	BOLT HEX M12 X 110 X 1.25P	2
15	WASHER PLAIN 1/2 X 1-1/8 X 16	4
16	SPACER	2
17	CAN MODULE WARNING LABEL	2
18	COMPLIANCE LABEL	1
19	LOAD RATING LABEL	1

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PART No: 03417RW

MERCEDES SPRINTER/VOLKSWAGEN CRAFTER 2010 TO SUIT MID WHEEL & LONG WHEEL BASE (3.5 TO 4.49-5 TONNES WITH STEP)

INSTALLATION INSTRUCTIONS

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Note: Position the vehicle to a safe working height.

 Remove the shipping hook from the chassis inside face. Refer to Figure

Figure 2 – Remove the shipping hook.



- 2. Remove the torx screws x 3 and scrivets x 4, from the bumper, as shown in Figure 3.
- 3. Remove the shipping hook assembly and discard it.

Figure 3 – Remove scrivets and torx screws.

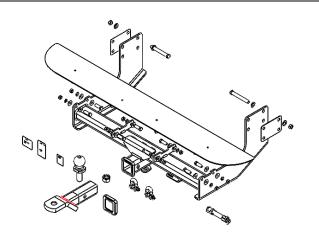


Figure 4 – Locate the towbar.

- 4. Locate the towbar on the vehicle and fit it with the relevant fasteners, as shown in BOM on Page 3.
- 5. Fit the step, under the plastic cover, using the scrivets x 4.
- 6. Fit the torx screws x 4 back on the bumper.
- 7. Torque the M12 and M10 bolts to the torque requirements mentioned on page 2.
- 8. Affix the load rating label, as shown on page 2.

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PART No: 100513-WL MERCEDES SPRINTER / VW CRAFTER

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

Wiring Loom Installation Instructions

MERCEDES SPRINTER / VW CRAFTER Part No: 100513-WL

Tail Harness Length Required: 1200mm Kit Includes Power Harness Part No: 04825

ECU Required Part No: 04826 RPA Override Switch Part No: 04848 (if fitted)

Wiring Loom Installation Time: Approx 40 Mins

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PART No: 100513-WL

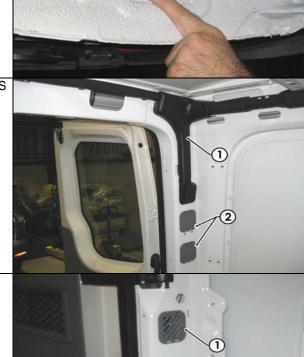
MERCEDES SPRINTER / VW CRAFTER

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

Note: This trailer patch harness is designed to fit the Mercedes Sprinter and the Volkswagen Crafter. Please ensure the correct trailer patch tail light connectors are used. Always refer to labels on the trailer patch tail light connector when fitting this kit.

- 1. Underneath the rear LHS of the vehicle drill out a Ø31mm hole in the area indicated (1).
- 2. File down any rough or sharp edges and spray on rust inhibitor.
- 3. Inside the LHS of the cargo area, remove the LHS trim cover (1) and the rear pillar caps (2).



4. Remove the LHS lower rear pillar caps (1).

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PART No: 100513-WL

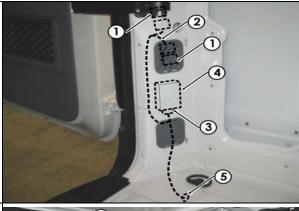
MERCEDES SPRINTER / VW CRAFTER INSTALLATION INSTRUCTIONS

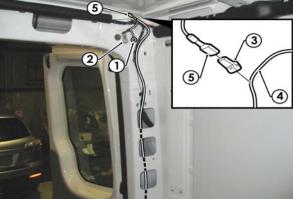
PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

- Inside the LHS rear pillar cavity, disconnect the LHS tail light connector (1) and patch the trailer patch harness (2) (P/No: 100513-WL) in between.
 Ensure the correct trailer patch tail light 12way female connectors are used.
- 6. Connect the trailer patch harness ECU connector (3) to the ECU (P/No: 04826) (4). Secure the ECU into the rear pillar cavity using double sided tape.
- 7. Feed in the guide wire and tape it to the trailer patch harness wires pull the trailer patch harness through the drilled out grommet hole (5).
- 8. From underneath the vehicle, ensure the trailer patch harness grommet is seated correctly and secure it in place using a cable tie (not suppled)
- Route the trailer patch harness up the rear pillar and out the highest pillar cavity opening, towards the top LHS corner vehicle ring terminal and the vehicle harness wire.
- 10. Secure the trailer patch harness earth terminal (1) to the vehicle grounding point (2).
- 11. Secure the supplied ezy tap (3) onto the vehicle harness right indicator GREEN/BLACK wire (4).
- 12.Insert the trailer patch harness 'GREEN/BLACK terminal wire (5) onto the ezy tap (3).

Function	Trailer Patch	Vehicle Connector
R.IND	GREEN / BLACK	GREEN / BLACK

13. In the vehicle cabin on the passenger side, gain access to the battery by removing the jack (1) and floor covers (2).







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PART No: 100513-WL

MERCEDES SPRINTER / VW CRAFTER

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

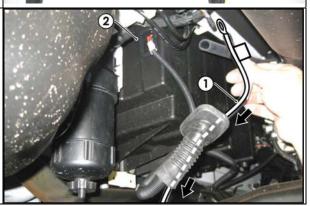
14. Remove the tool tray (1) and remove the battery cover (2).



15. Remove the black starter power cable (1).



- 16. Underneath the vehicle, locate the battery box and dislodge the battery box grommet.
- 17. Route the power harness (04825) (1) ring terminals up into the battery box cavity (2).
- 18. Route the other end of the power harness (1) down through the battery box grommet.



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PART No: 100513-WL

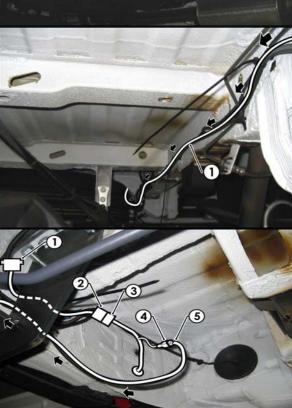
MERCEDES SPRINTER / VW CRAFTER INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

19.Following the existing vehicle harness, route the power harness along the LHS of the vehicle towards the rear.



20. Continue routing the harness (1) towards the rear of the vehicle.



- 21. Underneath the rear of the vehicle, secure the tail harness (tail length 1200mm) trailer socket (1) to the towbar mounting bracket using M4 fasteners (not supplied).
- 22. Using electrical grease or silicone, water proof the back of the tail harness and trailer patch harness 8-way connectors (2) (3).
- 23. Connect the tail harness connector (2) to the trailer patch harness mating connector (3).
- 24. Connect the trailer patch harness 1-way connector (4) to the power harness (5).

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PART No: 100513-WL

MERCEDES SPRINTER / VW CRAFTER

INSTALLATION INSTRUCTIONS

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25.Inside the passenger cabin, retrieve the power harness terminal (1). Secure the 'ORANGE' wire terminal (1) to the positive battery terminal (2).



- 26.Test the Trailer Patch Harness function using a Light Board or multimeter.
- 27. Secure the Trailer Patch Harness using cables ties (not supplied).
- 28.Re-fit all removed parts and secure all fasteners ensuring there are no squeaks or rattles.
- 29. Place instructions in glove box after fitment.

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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.

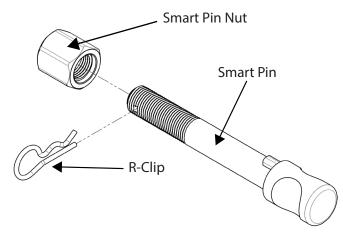
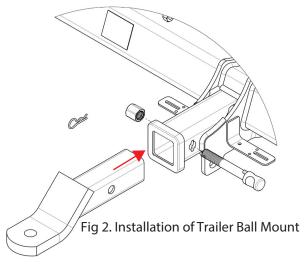
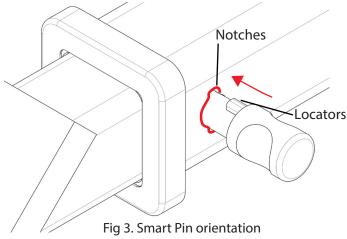


Fig 1. Smart Pin assembly

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).

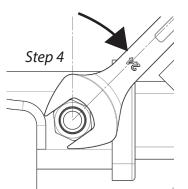


Fig 4. Tightening of Smart Pin Nut

