

HAYMAN REESE
PART No: 03148RW
FORD RANGER / MAZDA BT-50 4x4 TUB

INSTALLATION INSTRUCTIONS

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



Towbar Installation Instructions	Towbar capacity
FORD RANGER / MAZDA BT50 CAB CHASSIS STANDARD	

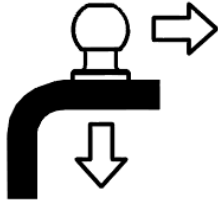
Part Number 03148RW

Max Towing Braked 3500kg
Max Static Ball Load 350kg

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Rating Braked	3500 Kg
Rating Unbraked	750 Kg
Max Static Ball Load	350 Kg

Warning:

1. Do not, drill, cut, weld or otherwise modify the towbar.
2. 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.

General:

1. Ensure all hardware items have been included
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 tbn 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.



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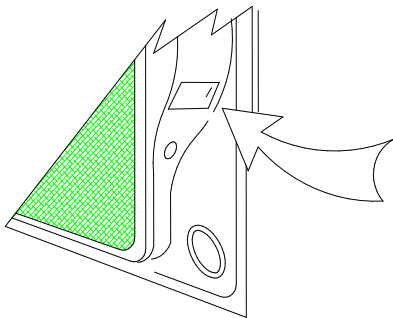
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So as to avoid injury, when not towing it is suggested that the tongue, Pull Pin and R-clip are removed then stored in a safe, clean and dry place, away from excessive moisture.

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



Place load rating sticker
inside driver's door here

RECOMMENDED ASSEMBLY TORQUE LISTING

<u>Diameter</u>	<u>Grade 8.8 Bolt</u>
M6	9.5 Nm
M8	21.7 Nm
M10	43.4 Nm
M12	77.3 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.

STEP 1. Move wire loom Located on diff housing

- a. Remove wiring loom mounted on the diff housing.
- b. Drill a 8mm hole through the connector bracket from bottom to top surface which is welded on the diff housing as shown in Fig 1.

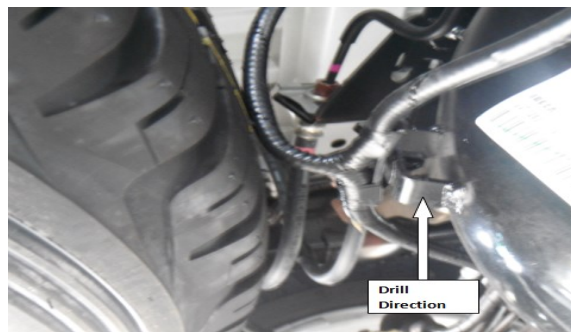


Fig 1

- c. Apply anti-rust or paint to newly drilled hole to prevent corrosion.
- d. Mount the wiring loom on the newly drilled top hole of the connector bracket.

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STEP 2. Towbar Fitment

NOTE: Two persons required to lift towbar up to vehicle.

- a. Insert the Nut plate (Item 4) into the passenger side of the Chassis Rail and align with the holes as shown in Fig 2 & 3, repeat with item 3 on the driver side.



Fig 2



Fig 3

- b. Loosely secure the towbar side arm to the Vehicle chassis rail via Nut plates using two M12 bolts and washers (item 5 & 7) on either side as shown in Fig 4.



Fig 4

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c. Loosely secure the towbar sidearm to the chassis rail using three sets of M12 bolts & washer (Items 5&7) as shown in Fig 5



Fig 5

NOTE: Use 1xM12 Nut & washer per side for the hole that doesn't have a captive nut.

STEP 3. Torque all bolts to recommended specification as per table on Page 3. Tighten Vertical M12 Bolts x2 per side first ten horizontal bolts.

STEP 4. Reconnect all electrical connections.

STEP 5. Reattach spare wheel on to Vehicle.

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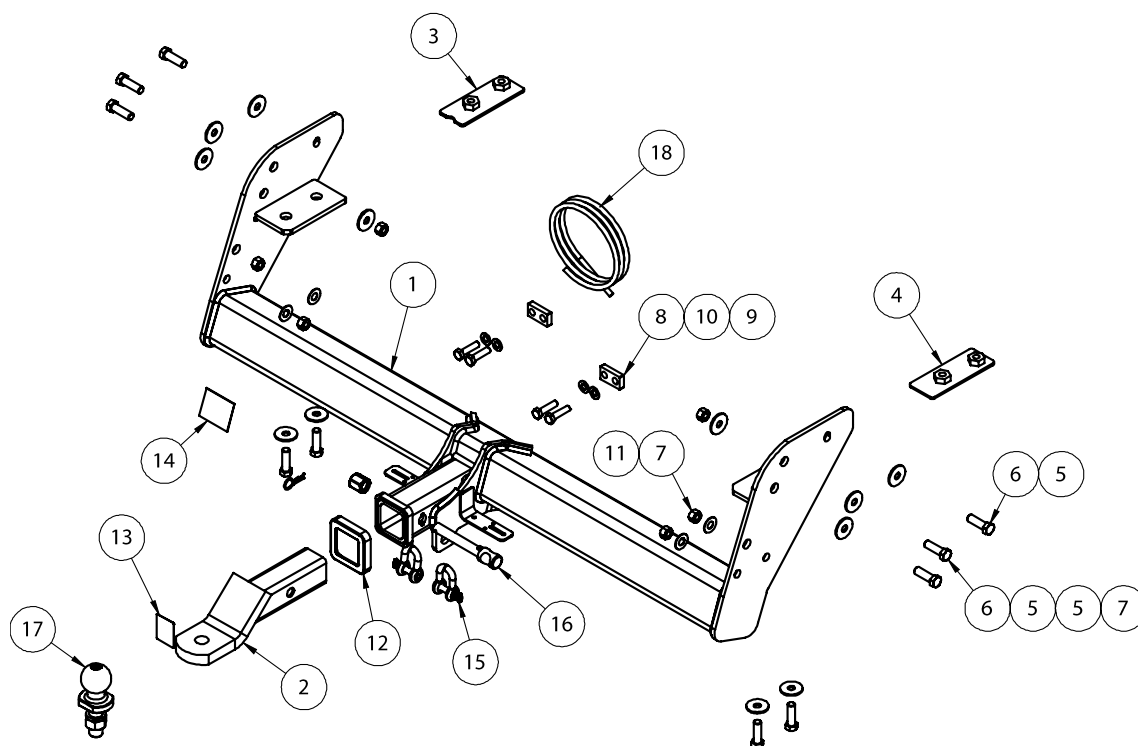
QTY	DESCRIPTION	ITEM
1	WELEDED ASSY	1
1	T.B.MOUNT	2
1	NUT PLATE LH T6	3
1	NUT PLATE RH T6	4
12	WASHER FT M12x37x3mm	5
10	SET SCREW M12 x 40 x 1.75P	6
6	HEX NUT M12x1.75 PC8	7
2	STEP BRACKET SPACER	8
4	BOLT M10 - 1.5 x 40mm	9
4	FLAT WASHER M10x 21X1.6mm	10
4	WASHER PLAIN M12x35x2.5	11
1	HITCH BOX COLLAR COVER	12
1	H.R STICKER	13
1	COMPLIANCE PLATE	14
2	10mm "D" SHACKLE	15
1	ANTI-RATTLE PULL PIN ASSY GOLD	16
1	HR TOWBALL	17
1	WIRING LOOM	18



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HAYMAN REESE
PART No: 101426-WL
FORD RANGER PXII, MAZDA BT-50 GT

INSTALLATION INSTRUCTIONS

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Wiring Loom Installation Instructions

FORD RANGER PXII, MAZDA BT-50 GT

Part No: 101426-WL

Tail Harness Length Required: 1800mm

ECU Required: 04835

Power Harness: 04825 (supplied)

Wiring Loom Installation Time: Approx. 20 minutes

Important



It is not possible to over-ride the Factory RPA.
It can however be disabled through a switch on the vehicle dash.

Issue Date 05-10-15

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Part No: 101426-WL

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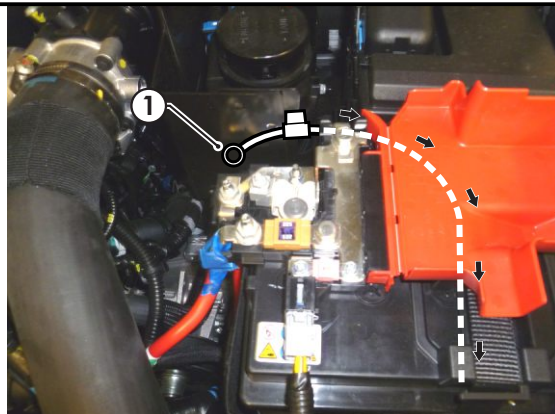
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PART No: 101426-WL
FORD RANGER PXII, MAZDA BT-50 GT
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Note: All steps are suitable for both vehicles. Ford Ranger shown for illustration purposes.

1. In the engine bay, route the power harness (1) down towards the LHS of the vehicle under carriage. **Do not connect the power harness ring terminal to the battery until the end of fitment.**

Note: When routing any harnesses underneath the vehicle, ensure to avoid all moving parts, sources of heat and sharp objects.



2. From underneath the vehicle, route the power harness (1) along the LHS of the chassis rail towards the rear of the vehicle. Ensure that the power harness is secured with cable ties (not supplied).

Note: When routing any harnesses underneath the vehicle, ensure to avoid all moving parts, sources of heat and sharp objects.



3. On the LHS rear under carriage, locate and disconnect the 6-way tail light connectors (1) and connect the 6-way trailer patch (P/No: 101426-WL) (2) in between.



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4. Connect the power harness 1-way male connector (1) to the power harness 1-way female connector (2).
5. Route the trailer patch (3) along the rear of the vehicle across to the RHS tail light connectors.



6. On the RHS of the rear under carriage, disconnect the 6-way tail light connectors (1) and connect the 6-way trailer patch connectors (2) in between.



7. Mount the tail harness socket (1) to the towbar mounting bracket using M4 fasteners (not supplied).
8. Route the tail harness (tail length 1800mm)(2) along the towbar, towards the trailer patch blue connector.



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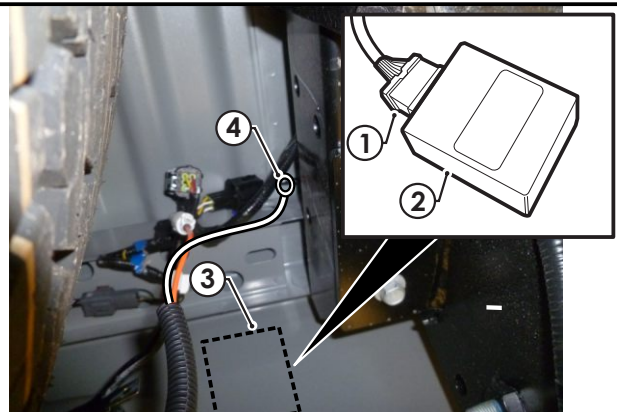
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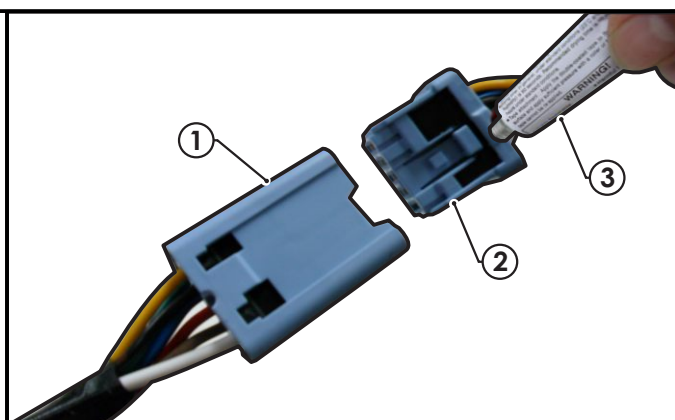
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9. Connect the trailer patch ECU connector (1) to the ECU (2).
10. Using a cleaning wipe (not supplied) clean the area on the vehicle rear interior sheet metal (3). Remove the ECU backing tape and secure the ECU (2) onto the vehicle. **Ensure the ECU is mounted pointing downwards.**
11. Secure the trailer patch ground ring terminal (4) to a suitable location on the vehicle chassis rail using a tek screw (not supplied).



12. Connect the tail harness 8-way connector (1) to the trailer patch 8-way mating connector (2).
13. Waterproof the trailer patch 8-way connector (1) and the tail harness 8-way male connector (2) using silicone or grease (3).



14. In the engine bay, secure the power harness ring terminal to the battery positive terminal.
15. Test the trailer wiring harness function using a light board or multi-meter.
16. Secure all harnesses using cable ties (not supplied).
17. Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
18. Place the fitting instructions in the 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 **ALL** 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.**

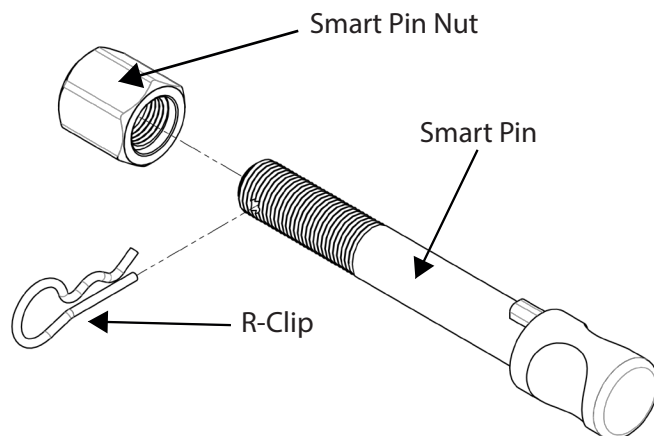
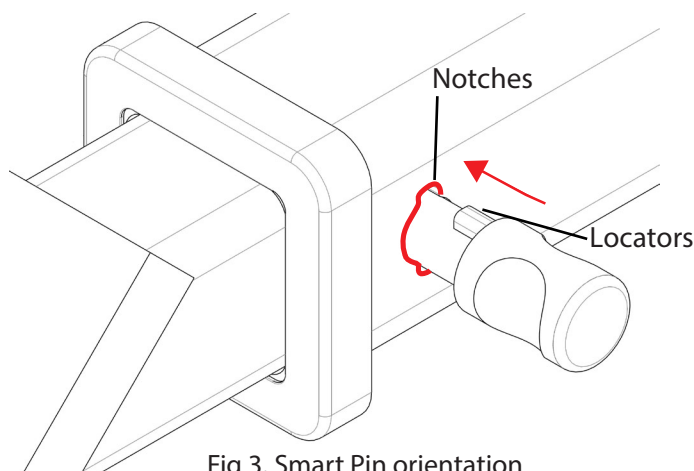
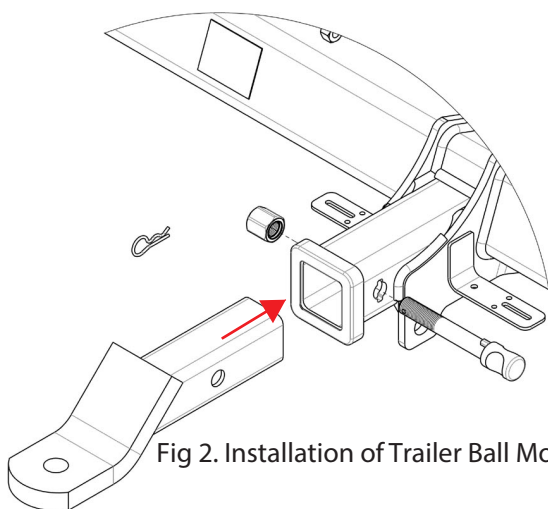


Fig 1. Smart Pin assembly

STEP 1

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



STEP 2

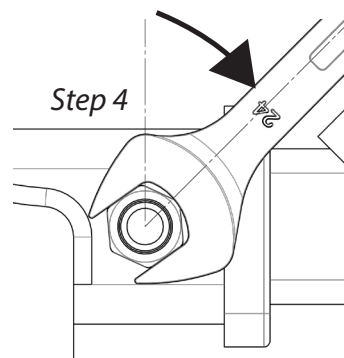
Insert SMART PIN through hole in HITCHBOX and hole in TBM SHANK; ensure the LOCATORS are inserted into the NOTCHES in the HITCHBOX (Fig. 3).

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).



STEP 5

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