

TRAILBOSS

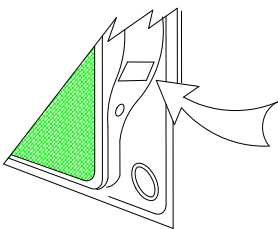
Towbar Fitting Instructions To Suit FORD RANGER/MAZDA BT50 2011-2015 Part Number QTFD1900L Rating 3500/350 kg

WARNING:

1. Do not, drill, cut, weld or otherwise modify the tow bar.
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.
3. 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 **Trailboss** dealer if further information is required.

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. For vehicles that require the bumper to be cut. Ensure cut out area is in correct position on the vehicle prior to cutting the bumper.
7. 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 authorized **Trailboss** dealer if further information is required.
8. Ensure that all hardware is fastened to torque list below check fasteners on regular basis.
9. Tow bar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door. **(See diagram below).**
10. Trailboss recommends that you check your tow ball to ensure that it complies with the Australian standards **AS 4177.2.**
11. **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
12. Pull Pin must be fit in down position.



Place load rating sticker
inside driver's door here

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

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	77.3Nm
M14	146 Nm
M16	189.8 Nm

Tow bar Maintenance and Care.

Trailboss 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.



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STEP 1. All Vehicles

- a. Disconnect the sensor and light connections.
- b. Lower the spare wheel.

CAUTION: BE AWARE OF WHEEL DISLOGEMENT WHEN LOWERING.

STEP 2. Complete either Step 2.1/ 2.2/ 2.3 or 2.4 depending on Vehicle application

2.1 For Vehicle with steel bumper

- a. Remove the 2 x M12 Flange Bolts from either side of the bumper step assembly and remove the steel bumper from vehicle.
NOTE: Place the bumper step assembly in a safe place to avoid damage.
- b. Remove two bolts from each side connecting the step mount bracket from rear bumper step assembly and discard the bolts.
- c. Align three existing holes of the passenger side mount bracket with the passenger side arm of the towbar. Use two M12 Bolts and Nuts to loosely secure the bracket.
- d. Turn the assembly around and mark the centre of the fourth hole, remove the two M12 Bolts and Nuts from the assembly.
- e. Using the centre mark, drill a 16mm hole on the step mount bracket.
- f. Repeat the step 'b' to 'e' on the driver side.
- g. Apply anti rust paint on both step mount brackets.
- h. Loosely secure the step mount bracket to rear bumper step assembly using the spacer plate in between, with the M10x40 Bolts and M10 Washers for both side. Refer page (4) exploded view.

2.2. For Vehicles with Plastic rear bumper

- a. Remove the bolts from either side of the plastic rear bumper, and remove the plastic bumper from the vehicle.
NOTE: Place the bumper step assembly in a safe place to avoid damage
- b. Release the two lock nuts on each side of the bumper and slide the step mount bracket outwards to have a gap of 1200mm. The Lock nuts are located on the underside of the bumper.

2.3. For Vehicles with Factory Fitted Towbar

- a. Remove the 2 x M12x 40 Step bolts from either side of the Bumper step assembly, and make sure to retain the 2 sets of M12 step bolts.
- b. Remove Towbar

2.4 For CAB CHASSIS Vehicles

- a. Proceed to step 3

STEP 3. Move wire loom Located on diff housing

- a. Remove wiring loom mounted on the diff housing.
- b. Drill an 8mm hole through the connector bracket from bottom to top surface which is welded on the diff housing.
- c. Apply anti-rust or paint to newly drilled hole to prevent corrosion.



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- d. Mount the wiring loom on the newly drilled top hole of the connector bracket.

STEP 4. Towbar Fitment

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

- a. Insert the Left Nut plate into the passenger side of the Chassis Rail and align with the holes, repeat the same with Right Nut Plate on the driver side.
- b. Loosely secure the towbar side arm to the Vehicle chassis rail via Nut plates using two M12 bolts and washer on either side.

STEP 5. Bumper Fitment

5.1 Fitment of Bumper step assembly for steel and plastic version

- a. Loosely secure the step mount bracket of the rear bumper step assembly to the chassis rail via towbar sidearm using two sets of M12 bolts & washer.
- b. Insert the M12 Bolt Plate & Wire using the wire inside the Chassis Rail for the hole that does not have a captive nut and secure loosely with 1xM12 Nut and Washer per side.

5.2. Fitment of Bumper step for the factory fitted towbar version

- a. Loosely secure the towbar sidearm to the chassis rail using two sets of M12 bolts and washer.
- b. Insert the M12 Bolt Plate & Wire using the wire inside the Chassis Rail for the hole that does not have a captive nut and secure loosely with 1xM12 Nut and Washer per side
- c. Loosely secure the step mount bracket of the rear bumper step assembly to the chassis rail via towbar sidearm using the retained M12 step bolts (2 Sets) along with the supplied M12 Nut & washer.
NOTE: Torque the M12 Step bolt to 100Nm

5.3 Fitment of CAB Chassis

- a. Loosely secure towbar using 2 sets of M12 Flange Bolts & Nuts.
- b. Insert the M12 Bolt Plate & Wire using the wire inside the Chassis Rail for the hole that does not have a captive nut and secure loosely with 1xM12 Nut and Washer per side.

STEP 6. Torque all bolts to recommended specification as per table on Page 3. Tighten Vertical M12 Bolts x2 per side first then horizontal bolts.

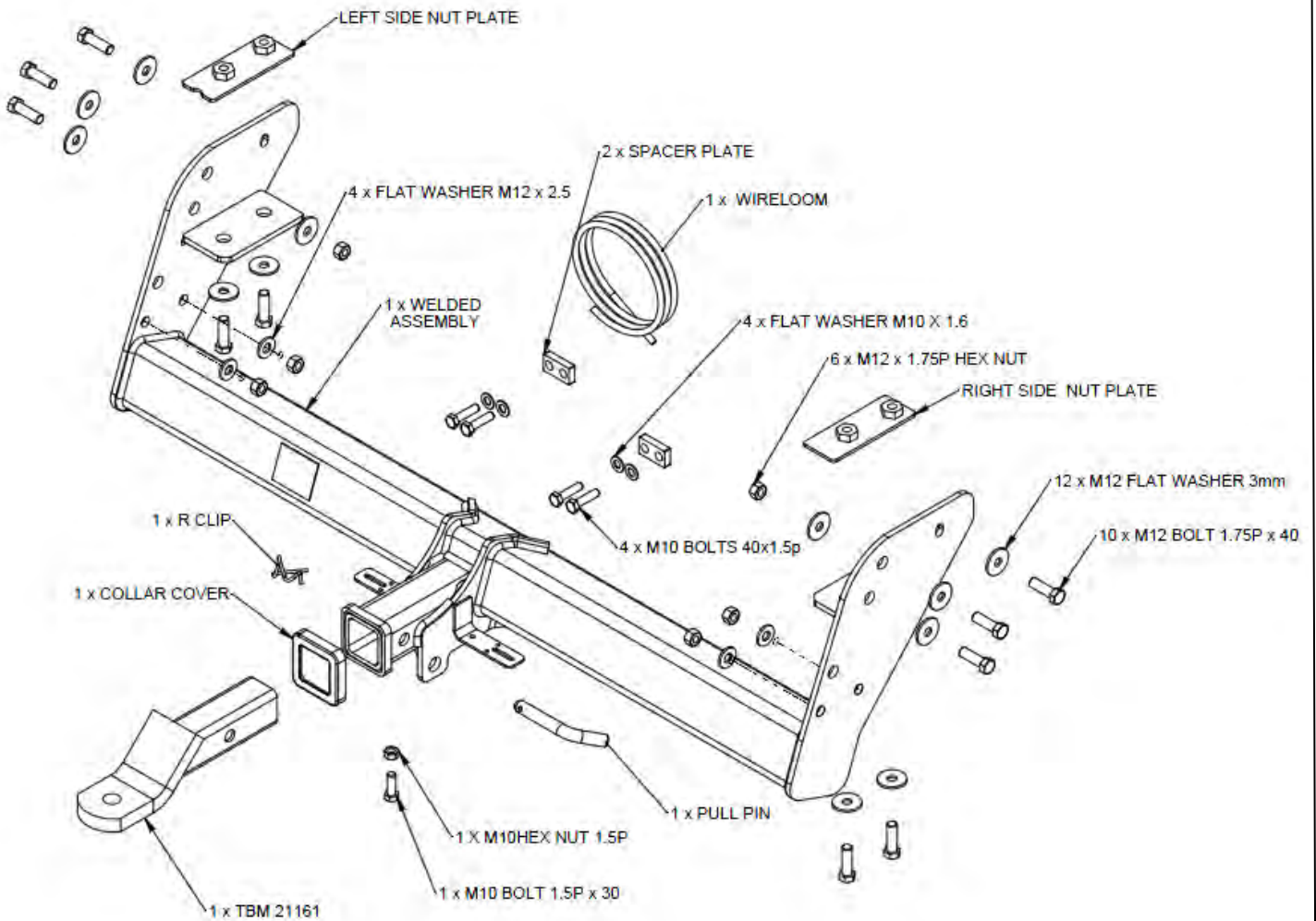
NOTE: Ensure rear bumper is aligned prior to fastening horizontal M12 Fasteners

STEP 7. Reconnect all electrical connections to rear bumper/ step assembly.

STEP 8. Reattach spare wheel on to Vehicle.



Towbar Fitting Instructions
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Wiring Loom Fitting Instructions
To Suit Mazda BT 50 / Ford T6 Ranger
Part Number 100713-WL

Wiring Loom Installation Instructions

Mazda BT 50 / Ford T6 Ranger
Part No: 100713-WL

Tail Harness Length Required: 400mm

Mazda BT 50 – Page: 2
Ford T6 Ranger – Page: 3

Wiring Loom Installation Time: Approx 20 Mins

If factory OEM RPA is fitted, Trouble Code will be logged if disabled.



Wiring Loom Fitting Instructions
To Suit Mazda BT 50 / Ford T6 Ranger
Part Number 100713-WL

The following steps are for the Mazda BT 50 only. For Ford T6 Ranger models, please proceed to page 3.

1. In the engine bay, connect the supplied power harness (P/No: 04825) ring terminal to the positive battery.
2. Route the power harness down towards the LHS of the vehicle under carriage.
3. From underneath the vehicle, route the power harness along the LHS of the chassis rail towards the rear of the vehicle.
4. Ensure that the power harness is secured with cable ties (not supplied).

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

5. On the LHS rear under carriage, locate and disconnect the 6-way tail light connectors and connect the 6-way trailer patch (P/No: 100713-WL) in between.
6. Connect the power harness 1-way male connector to the power harness 1-way female connector.
7. Route the trailer harness along the rear of vehicle across to the RHS tail light connectors.
8. On the RHS of the rear under carriage, disconnect the 6-way tail light connectors and connect the 6-way trailer patch connectors in between.
9. Mount the tail harness socket towbar mounting bracket using M4 fasteners (not supplied).
10. Route the tail harness (tail length 400mm) along the towbar towards the trailer patch.
11. Connect the trailer harness 8-way connector to the tail light harness mating connector.
12. Waterproof the connectors using electrical grease or silicone.
13. Test Trailer Harness function using trailer light board or multimeter.
14. Secure all harnesses using cable ties (not supplied).
15. Refit all removed parts and secure fasteners ensuring there are no squeaks or rattles.
16. Please place the fitting instructions in the glove box after installation.



Wiring Loom Fitting Instructions
To Suit Mazda BT 50 / Ford T6 Ranger
Part Number 100713-WL

The following steps are for the Ford T6 Ranger only. For Mazda BT 50 models, please refer to page 2.

1. In the engine bay, connect the supplied power harness (P/No: 04825) ring terminal to the positive battery.
2. Route the power harness down towards the LHS of the vehicle under carriage.
3. From underneath the vehicle, route the power harness along the LHS of the chassis rail towards the rear of the vehicle.
4. Ensure that the power harness is secure with cable ties (not supplied).
5. On the LHS rear under carriage, locate and disconnect the 6-way tail light connectors and connect the 6-way trailer patch (P/no: 100713-WL) in between.
6. Connect the power harness 1-way male connector to the power harness 1-way female connector.
7. Route the Trailer Harness along the rear of the vehicle across to the RHS tail light connectors.
8. On the RHS of the rear under carriage, disconnect the 6-way tail light connectors and connect the 6-way trailer patch connectors in between.
9. Mount the tail harness socket towbar mounting bracket using M4 fasteners (not supplied).
10. Route the tail harness (tail length 1800mm) along the towbar towards the trailer patch.
11. Connect the Trailer Harness 8-way connector to the tail light harness mating connector.
12. Waterproof the connectors using electrical grease or silicone.
13. Test Trailer Harness function using a trailer light board or multi-meter.
14. Secure all harnesses using cable ties (not supplied).
15. Re-fit all removed parts and secure all fasteners ensuring there are no squeaks or rattles.
16. Please place the fitting instructions in the glove box after installation.



FITTING INSTRUCTIONS

Silent Anti-Rattle Hitch Pin (PR0001)

• These fitting instructions are supplied to ensure understanding of how the HITCH 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 & HITCH PIN is required. Regularly inspect for wear and check the tightness of the Hitch Pin. Follow instructions below to retighten the nut when necessary.

***Do not tow with your vehicle if the R CLIP or the HITCH PIN is loose or missing. Replacement parts are available from your Pro Series Distributor.**

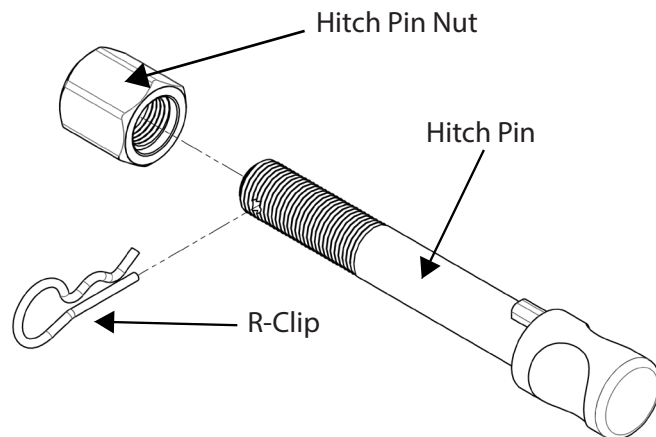


Fig 1. Silent Anti-Rattle Hitch Pin assembly

STEP 1

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

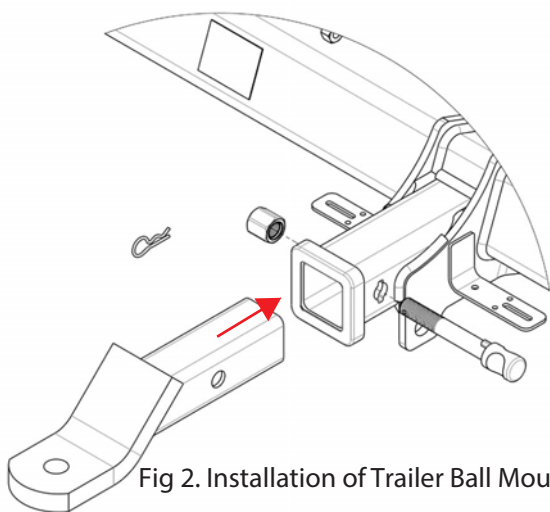


Fig 2. Installation of Trailer Ball Mount

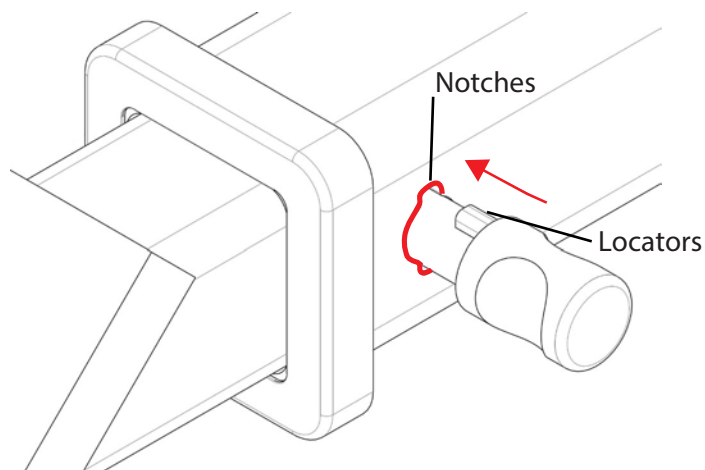


Fig 3. Silent Anti-Rattle Hitch Pin orientation

STEP 2

Insert HITCH 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 HITCH PIN NUT onto HITCH PIN ; tighten HITCH PIN NUT until finger tight, ensuring TBM is restrained from movement.

STEP 4

Tighten HITCH 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 HITCH PIN R CLIP through the hole on the HITCH PIN (Fig. 1).

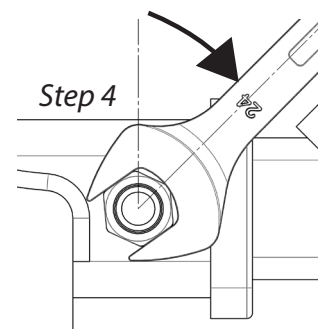


Fig 4. Tightening of Silent Anti-Rattle Hitch Pin Nut