TOWBAR INSTALLATION INSTRUCTIONS

PART NUMBER QTFD1931L

FORD AV TRANSIT CUSTOM CL4

PRODUCT DETAILS:

Part Number:	QTFD1931L	**Maximum Towing Braked:**	2800	kg
ECU Number:	WLE70054	**Maximum Towing Unbraked:**	750	kg
Tail Harness Length Required:	400 mm	**Maximum Static Ball Load:**	280	kg
TBM/Lug Part Number:	21231			

FITTING DETAILS:

Towbar Installation Time:	90 Mins.	**RPA Disable/Other:**	YES
Total Installation Time:	120 Mins.		
Bumper Cut Required:	Yes		

Note:

- Please refer vehicles owner's manual for proper operation and understanding of towing features enabled when coded.
- For vehicles coded within the FORD dealer network using the FORD IDS tool. Aftermarket (AM) module must be selected.
- Vehicle E-brake is fused at 15amp under seat.

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TRAILBOSS RECOMMENDS THAT INSTRUCTIONS ARE READ AND UNDERSTOOD COMPLETELY PRIOR TO FITMENT.

BEFORE YOU START:

Check all hardware items have been included refer to assembly diagram.
Please ensure this towbar is only fitted to vehicle models as per Trailboss application guide.

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 Trailboss warranty.

NOTE: Bumper cuts need to be approached with care, refer to notes below.

- 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.
    - Measure from bottom edge along bumper and around corner to the 70 mm point (Figure 1).
    - Do not measure from visible bumper front of corner, upwards (Figure 2).

CORRECT

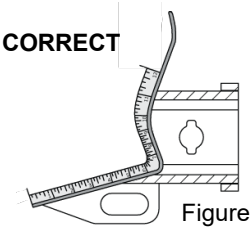


Figure 1

INCORRECT

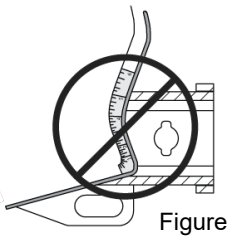


Figure 2

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 metal 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 Trailboss warranty.

Product Labels

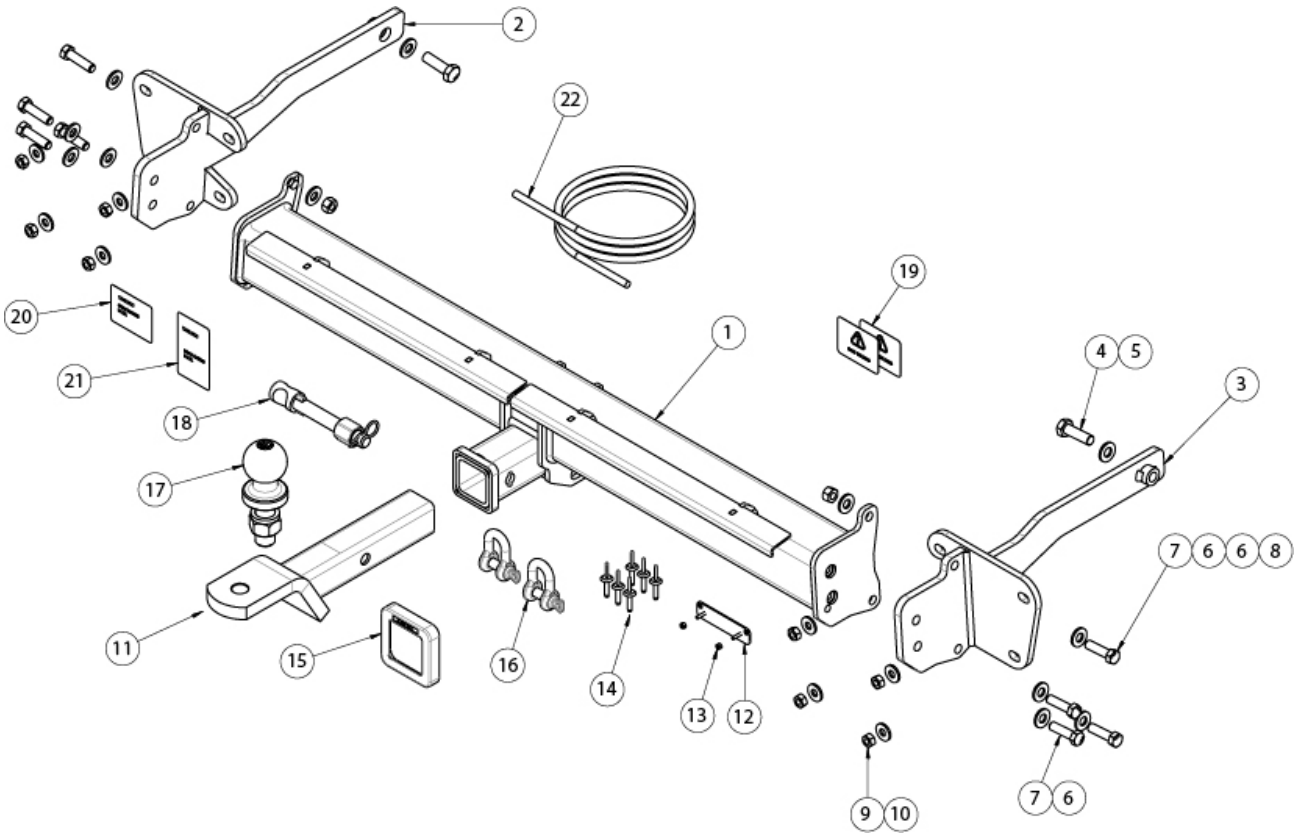
a. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door.

WARNING:

Do not, drill, cut, weld or otherwise modify the towbar.
FOR TOWING PURPOSES ONLY - This towbar is designed and tested by Trailboss to adhere to ADR 62/02 which provides only for the expected load demands of towing.

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TOWBAR ASSEMBLY DIAGRAM



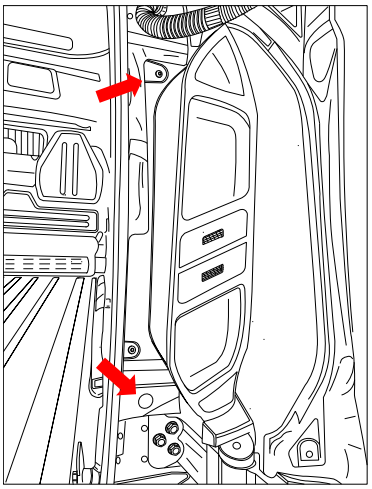
ITEM	DESCRIPTION	QTY
1	TRANSIT CROSSTUBE ASSEMBLY	1
2	SIDE ARM ASSEMBLY, LH	1
3	SIDE ARM ASSEMBLY, RH	1
4	SCREW HEX HD M14x45x2P G10.9	2
5	WASHER PLAIN M14x28x3.0mm	2
6	WASHER PLAIN M12x27x3.0mm	12
7	BOLT HEX HD M12x45x1.75P G10.9	8
8	NUT HEX HD M12x1.75P G10	4
9	NUT HEX HD M10x1.5P G10	8
10	WASHER PLAIN M10x25x3	8
11	TRAILER BALL MOUNT	1

ITEM	DESCRIPTION	QTY
12	PLUG BRACKET	1
13	NUT NYLOC HEX HD M4x0.7P G8	2
14	POP RIVET	6
15	HITCH BOX COLLAR COVER	1
16	“D” SHACKLE 10mm	2
17	TOWBALL 50mm 3500KG	1
18	SMART PIN SILVER	1
19	CAN MODULE WARNING LABEL	2
20	COMPLIANCE LABEL	1
21	LOAD RATING LABEL	1
22	WIRING LOOM	1

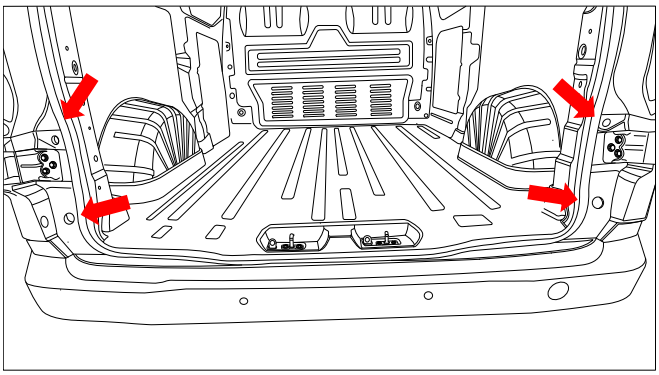
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1. Open the rear doors and remove 2 x Torx screws securing the taillight.
2. Remove the taillight from the vehicle by pulling it rearwards.
3. Disconnect the taillight from the wiring loom and set aside.

   Repeat for the other side.

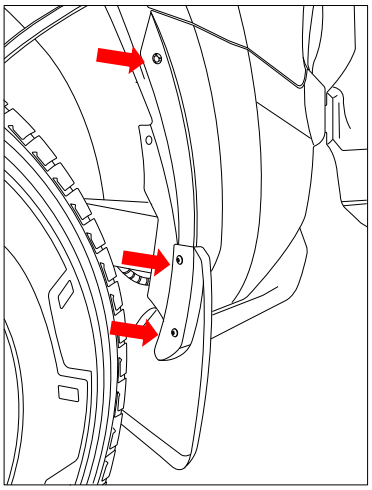


4. Remove 4 x Torx screws from the bumper.



5. In the wheel arch, drill out the 3 x rivets with a 6.5mm drill. The 6.5mm hole is required for the bumper installation.

   Repeat for the other side.

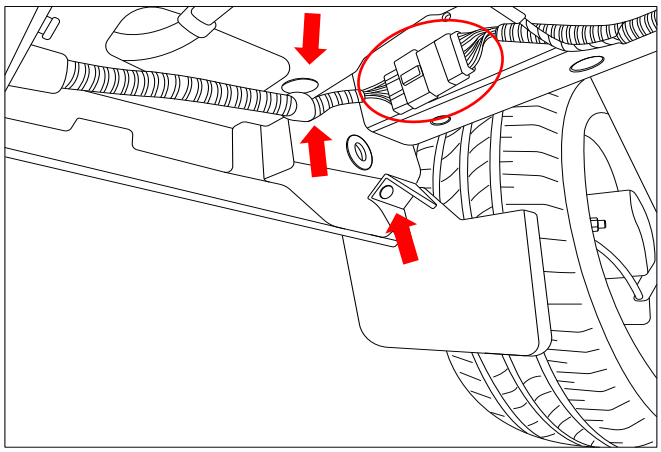


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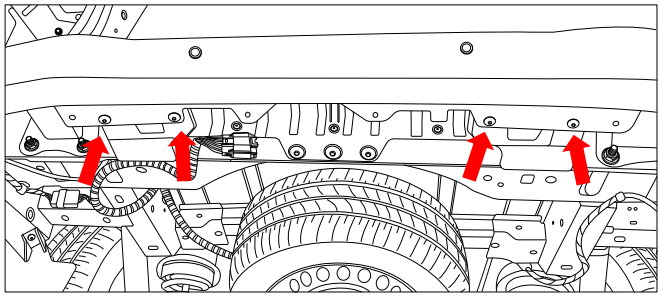
6. From under the vehicle, remove the mudflap secured with 1 x scrivet. (This may not be required for some installers.)

   Repeat for the other side

7. Under vehicle on the LHS, disconnect the plug and release the loom from the chassis secured with 2 x push in clips.

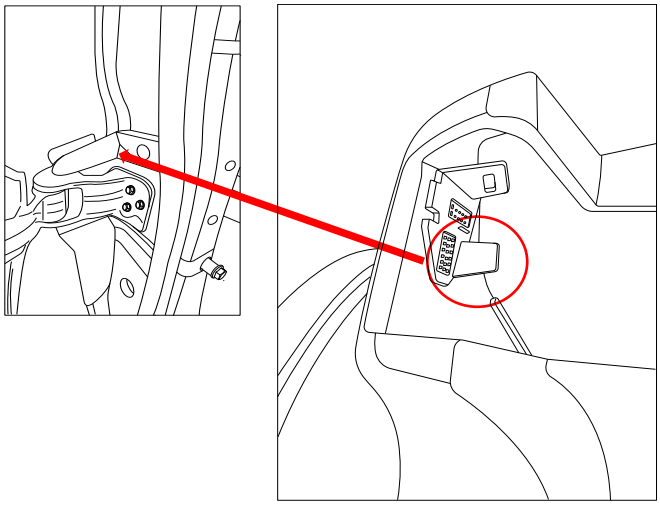


8. Remove the 4 x scrivets from under the bumper.



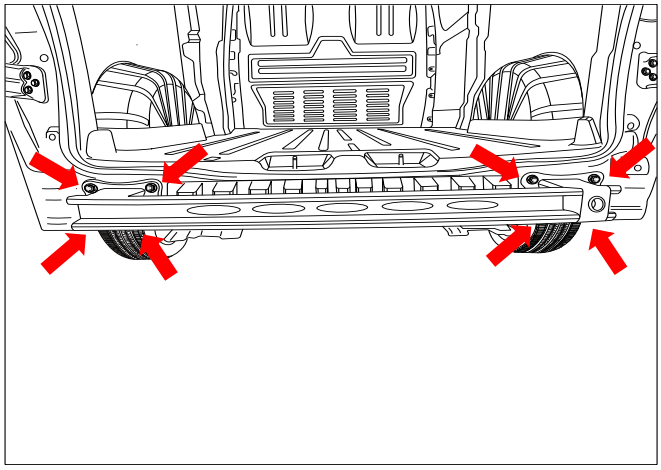
9. Peel away bumper from the sides and remove from vehicle.
   NOTE: There is a retainer clip by the lower door hinge that requires some manipulation to release the top section of the bumper.
   Tip: The clip must be pushed rearwards of vehicle while the bumper is manipulated outwards.

   Image right shows the clip position with the bumper removed.



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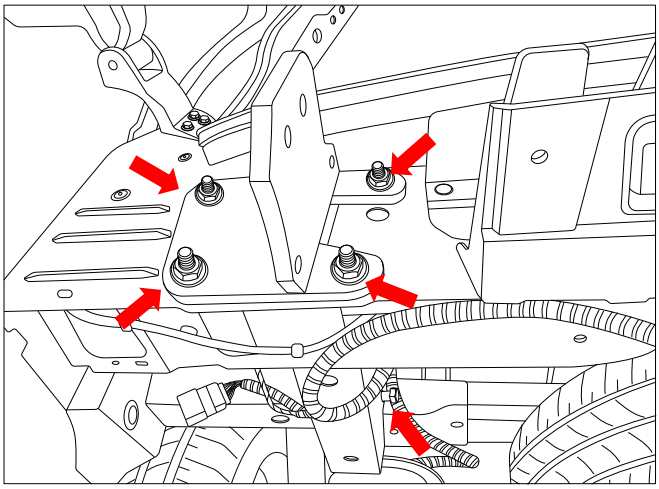
10. Remove and discard the impact beam, secured with 4 X nuts per side.



11. Insert the side arm assembly into the chassis rail and loosely secure to the side of the chassis with 1x M14x45x2P setscrew complete with 1 x washer and to the rear studs with 4x M10x1.5P nuts complete with 1 x washer per nut.

    Tip: Clean out the M14x2P weldnut with a tap prior to installation.

    Repeat for other side.

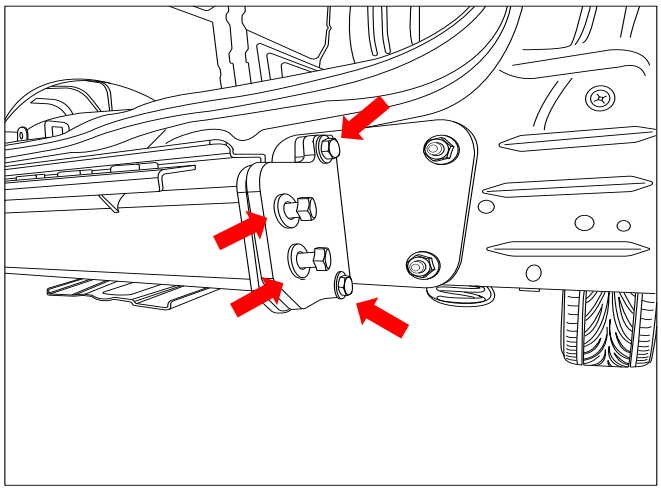


12. Position the crosstube to the side arms and loosely secure each side with 2 x M12x45x1.75P bolts complete with 2 x washers and 1 x nut per bolt, along with 2 x M12x45x1.75P bolts complete with 1 x washer per bolt.

    Tip: Clean out the M12 x 1.75P weldnuts in the crosstube with a tap prior to installation.

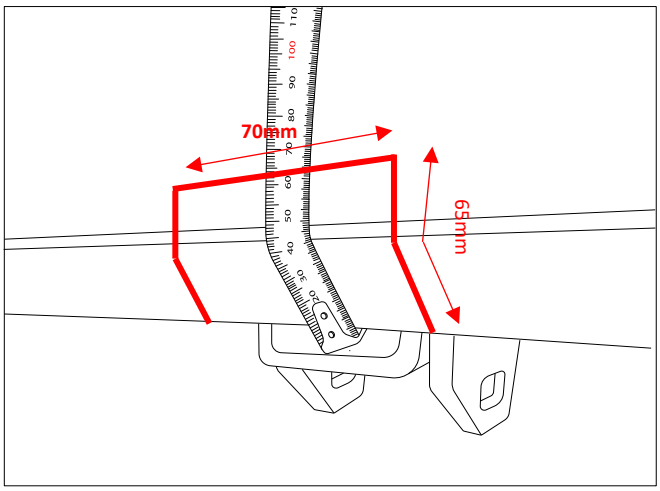
    Tighten all fasteners to the following torque:

    M10 x 1.5 Gr 10.9 Nut : **62Nm**
    M12 x 1.75 Gr 10.9 : **109Nm**
    M14 x 2 Gr10.9 : **175Nm**

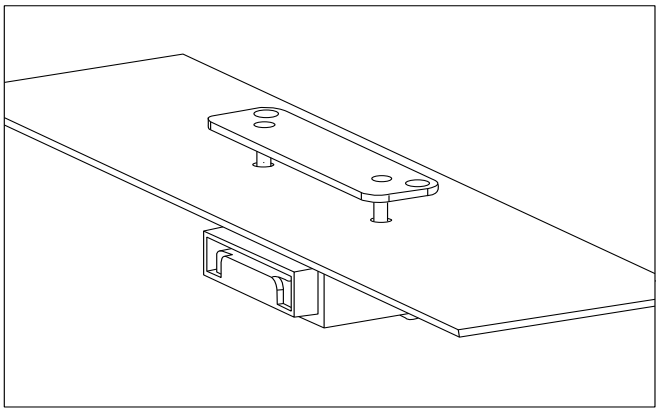


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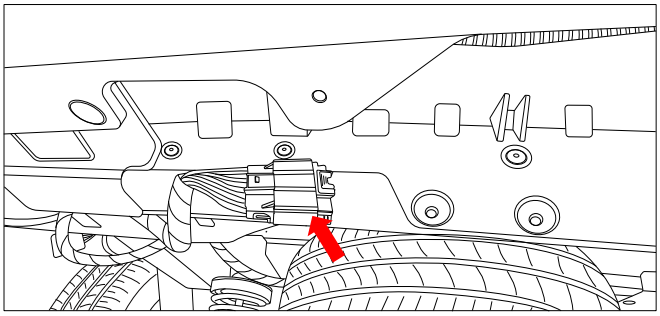
13. For the bumper cut.
    Locate the centre of the bumper, and on the outside face, mark off and cut out 70mm wide by 65mm long measured from the bottom edge of the bumper.
    Deburr and smooth off cut edge.



14. For the plug bracket.
    On the underside of the bumper, determine an appropriate position, mark out and drill 2x ø5mm holes 69mm apart on bumper skin to support plug bracket.

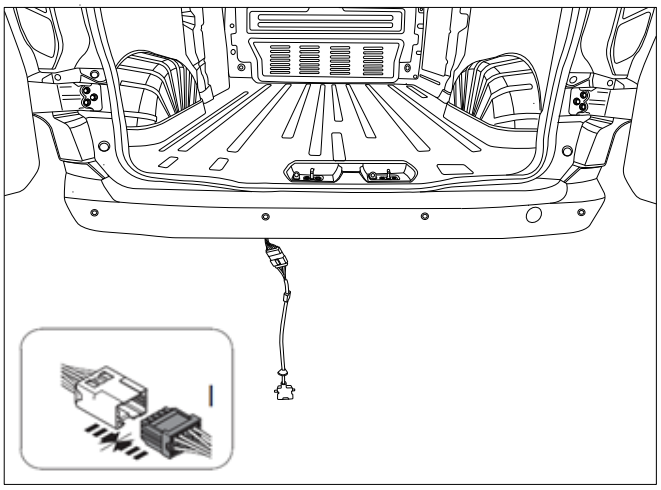


15. On the centre rear under carriage, locate the 16-way Trailer Pre-wire connector, remove the mating connector and discard.

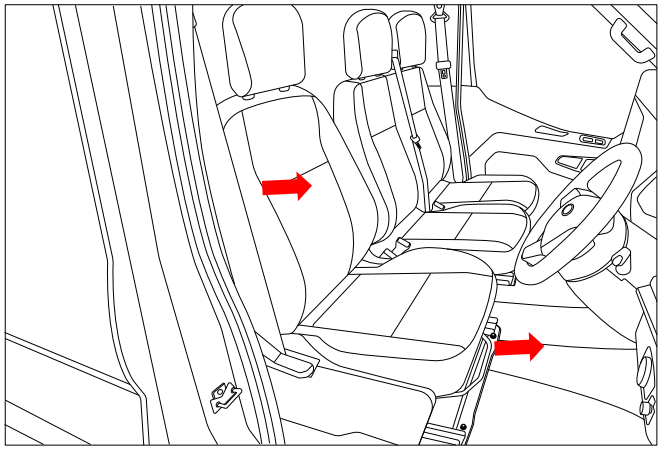


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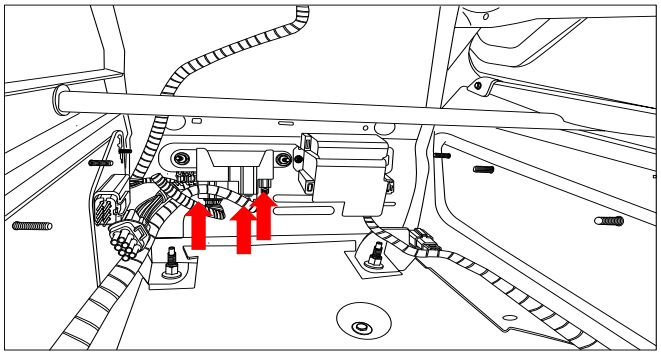
16. Connect the trailer patch (WLL90054) exterior harness to vehicle mating connector.
17. Connect the trailer patch blue connector to tail harness (400mm) mating connector. **Waterproof the blue connector using Die Electric Grease.**
18. Route the tail towards the plug bracket.
19. Secure the harness using cable ties allow enough length for trailer socket to be mounted on the plug bracket.



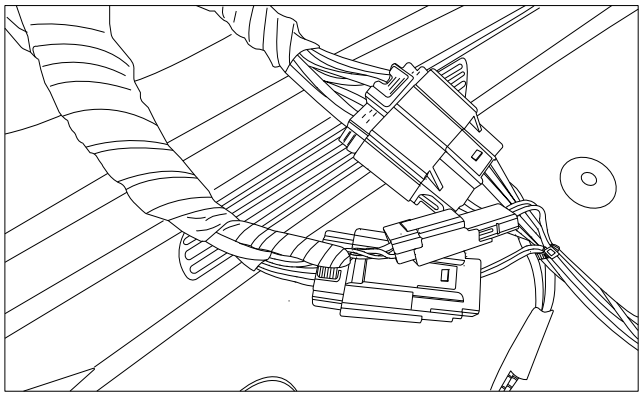
20. Slide the driver seat forward.
21. Tilt the lumber support forward to gain access to under seat cover.
22. Reomve 1x Torx, slide out cover.



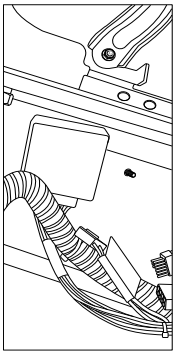
23. Locate the and disconnect 3x Trailer Pre-wire connectors from the plastic holder.

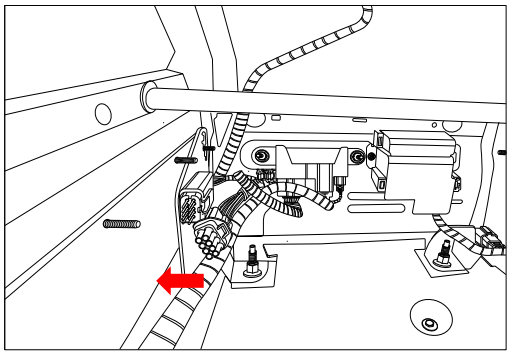


24. Connect trailer patch (WLL90054) Interior harness to mating connector.



25. Connect the trailer patch 18-way connector to ECU (WLE70054).
26. Peel back and remove the ECU adhesive backing tape and secure the module to vehicle Sheetmetal.





27. Re-fit all removed parts and use the supplied 6x plastic rivets for the bumper and mudflap fitment. (removed in step 5).
28. Mount the trailer socket to plug bracket. **Note: Ensure that all connections are reconnected.**
29. Prior to coding test, the functionality of lights using a test board, if functionality passes proceed to coding of vehicle. **Note: When testing Prior to coding the instrument cluster will display a message "Blind Spot Assist not available Trailer attached".**
30. Once vehicle is coded re-test trailer functionality.
31. Place the fitting instructions in the glove box after fitment.

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CUSTOMER INFORMATION

PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION

THANK YOU FOR PURCHASING TRAILBOSS. WITH CORRECT MAINTENANCE AND CARE THIS PRODUCT WILL PROVIDE A LIFETIME OF TROUBLE-FREE OPERATION.

TOWBAR MAINTENANCE AND CARE:

1. Trailboss recommend that the towbar LUG or TBM (Trailer Ball Mount) Pull Pin and R-clip are removed and stored when not in use. Removal of LUG or TBM (Trailer 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. Trailboss 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:

Trailboss 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 contact customer service on 1800 812 017.

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PRO SERIES SILENT ANTI-RATTLE HITCH PIN

Your Trailboss towbar is equipped with a Pro Series Silent Anti-Rattle Hitch 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.

Regularly inspect for wear and check the tightness of the Silent Anti-Rattle Hitch Pin. 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 hitch pin nut is installed and tensioned. Replacement parts are available from your Pro Series 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 Silent Anti-Rattle Hitch 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 Silent Anti-Rattle Hitch Pin (f) onto Smart Pin (g); tighten Smart Pin Nut until finger tight, ensuring TBM is restrained from up and down movement.

STEP 4

Tighten Silent Anti-Rattle 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 Silent Anti-Rattle Hitch Pin R-Clip through the hole that provides best clearance or easiest access. (Fig. 5)

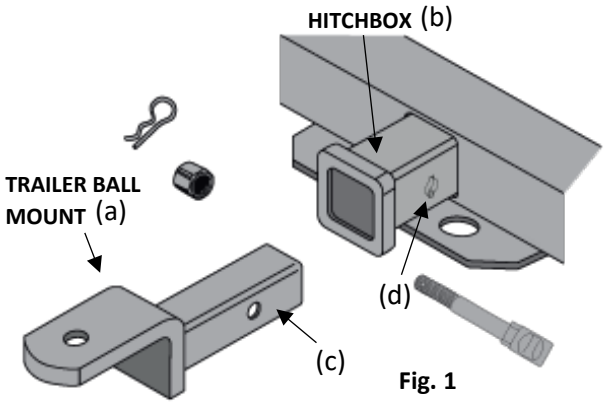


Fig. 1

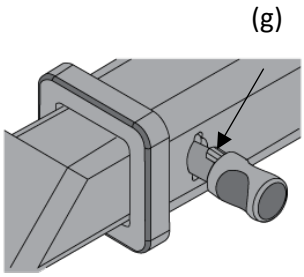


Fig. 2

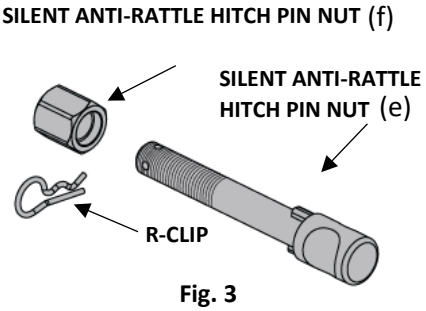
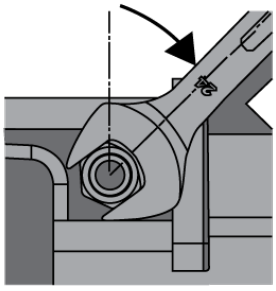
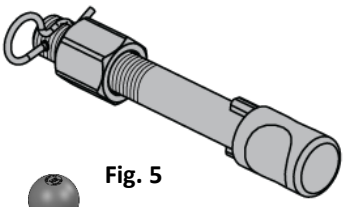
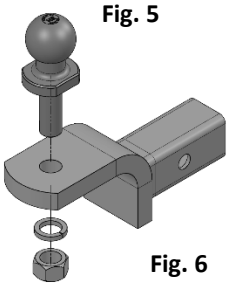


Fig. 3


Fig. 4


Fig. 5


Fig. 6

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