# TRAILBUSS® TOWBARS

# **TOWBAR INSTALLATION INSTRUCTIONS**

PART NUMBER QTHY271L HYUNDAI VENUS CL4

#### **PRODUCT DETAILS:**

| Part Number:                  | QTHY271L | Maximum Towing Braked:    | 1100 | kg |
|-------------------------------|----------|---------------------------|------|----|
| ECU Number:                   | 04826    | Maximum Towing Unbraked:  | 750  | kg |
| Tail Harness Length Required: | 1200 mm  | Maximum Static Ball Load: | 110  | kg |
| TBM/Lug Part Number:          | 21205    |                           |      |    |

# FITTING DETAILS:

| Towbar Installation Time: | 60 Mins.  | RPA Disable/Other: | YES |
|---------------------------|-----------|--------------------|-----|
| Total Installation Time:  | 120 Mins. |                    |     |
| Bumper Cut Required:      | Yes       |                    |     |

#### Note:

• Electric Brake Input Location: N/A

• RPA Disable - Switch near transmission lever

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PART NUMBER QTHY271L

**HYUNDAI VENUS CL4** 

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

#### **BEFORE YOU START:**

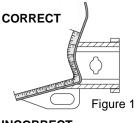
Check all hardware items have been included refer to assembly diagram. Please ensure this towbar is only fitted to vehicle models as per Trailboss application guide.

#### **Bumper Cuts**

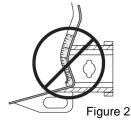
Vehicle and bumper variations can and do occur during vehicle manufacture after initial towbar design. Fitment of towbar to vehicle and accuracy of bumper cut must be assessed prior to any bumper modifications made. Incorrect bumper cuts are not covered under Trailboss warranty.

#### 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).







#### **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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# TO

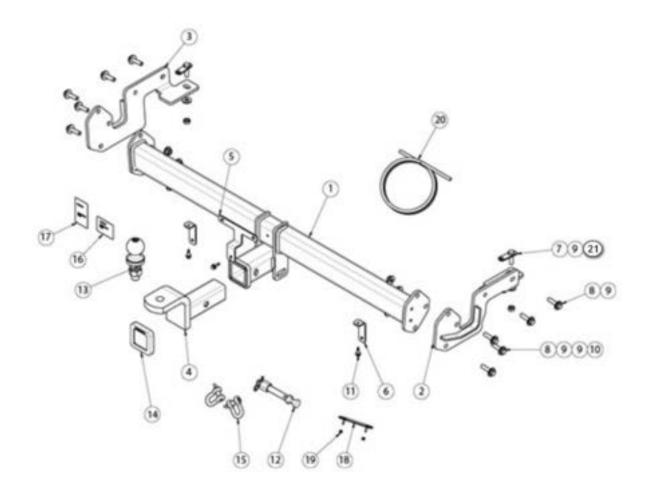
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# TOWBAR ASSEMBLY DIAGRAM



| ITEM | DESCRIPTION                   | QTY |
|------|-------------------------------|-----|
| 1    | HYUNDAI VENUE WELDED ASSEMBLY | 1   |
| 2    | RH SIDEARM ASSEMBLY           | 1   |
| 3    | LH SIDEARM ASSEMBLY           | 1   |
| 4    | TRAILER BALL MOUNT            | 1   |
| 5    | SENSOR BRACKET                | 1   |
| 6    | BUMPER TAB                    | 2   |
| 7    | T BOLT ASSEMBLY               | 2   |
| 8    | BOLT HEX HD M10x40x1.25P      | 10  |
| 9    | WASHER PLAIN M10x25.4x3       | 18  |
| 10   | NUT HEX HD M10x1.25P          | 6   |

| ITEM | DESCRIPTION                 | QTY |
|------|-----------------------------|-----|
| 11   | TEK SCREW 14-20 HEX HD 22mm | 3   |
| 12   | SMART PIN SILVER            | 1   |
| 13   | TOWBALL 50mm                | 1   |
| 14   | HITCH BOX COLLAR COVER      | 1   |
| 15   | "D" SHACKLE 10mm            | 2   |
| 16   | COMPLIANCE LABEL            | 1   |
| 17   | DOOR RATING LABEL           | 1   |
| 18   | PLUG BRACKET                | 1   |
| 19   | NUT NYLOC HEX HD M4x0.7P    | 2   |
| 20   | WIRING LOOM                 | 1   |
| 21   | NUT HEX HD M10x1.5P         | 2   |

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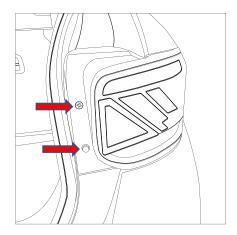
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**HYUNDAI VENUS CL4** 

Open the tailgate.
 Remove 2x screws on the taillight.
 Pull the taillight rear ward from the car.

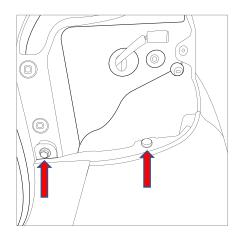
Disconnect the taillight harness.

Repeat for the other side.



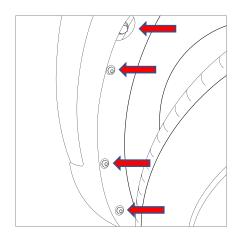
2. Remove 1x screw and 1x scrivet clip.

Repeat for the other side.



3. Remove 3 x screws and 1x bolt in the wheel arch.

Repeat for the other side.



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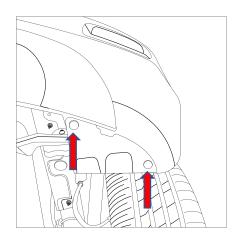


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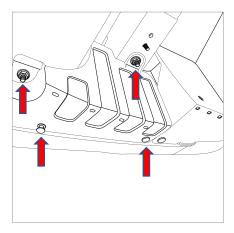
**HYUNDAI VENUS CL4** 

4. Remove 2x scrivets under the bumper. Remove the splash cover.

Repeat for the other side

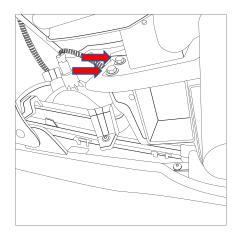


5. On the LHS bumper cover.
Remove 2x scrivets and 2x plastic nuts



6. Remove 2x bolts from the impact beam.

Repeat for the other side.



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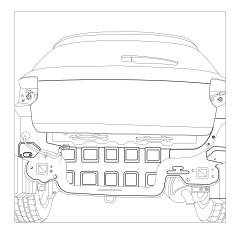
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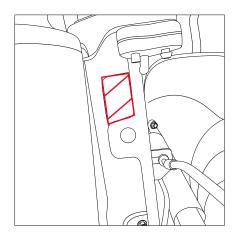
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7. Carefully unclip the bumper. Disconnect the bumper harness.

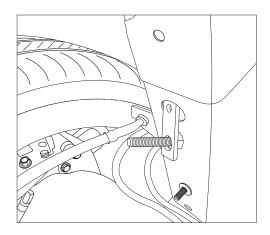


8. Cut off an area 75mm x 50mm from the heat shield locate next to the exhaust muffler.



9. Insert a stub plate into the chassis hole.

Repeat for the other side.



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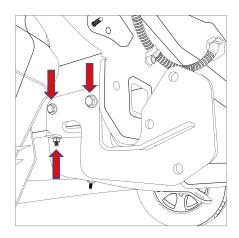


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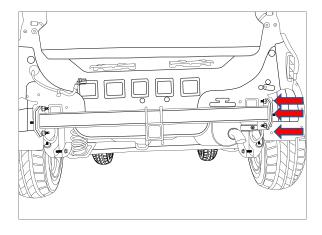
10. Fit the side arm to the chassis and loosely secure with 2x bolts, 1x nut and 3x washer.

Repeat for the other side



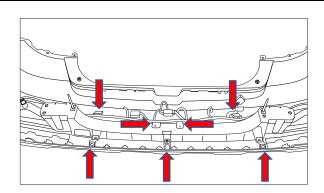
11. Fit the cross tube between the side arm and loosely secure with 3x bolts, 3x nuts and 6x nuts per side.

Torque fasteners as follows: M10 x 1.5 = 44 Nm M10 x 1.25 = 68 Nm



12. Remove 5x scrivets and 2x fir tree clips. Remove 2x screw holding the smart key antenna.

Remove and discard the impact beam.



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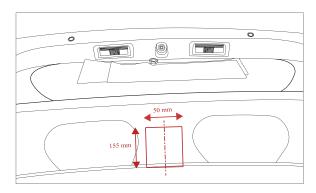
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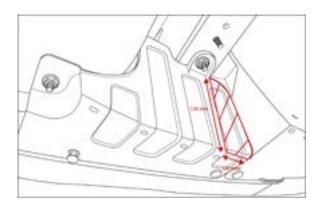
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13. Mark and cut an area 50mm x 155mm from the lower edge and at the centre of the bumper.

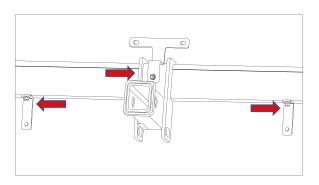


14. Mark and cut an area 50mm x 120mm from the upper edge of the LHS splash guard.



15. Fit the antenna bracket on the cross tube and secure with 1x Tek screw.
Fit the bumper tab brackets and secure with 1x Tek screw on each side.

Reassemble all the removed parts in the reverse order of removal. Secure all clips and fastener.



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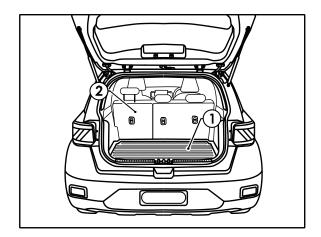
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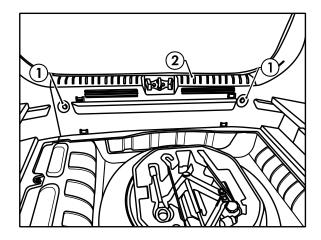
#### **IMPORTANT**

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.

- 16. In the Engine Bay, disconnect the vehicle battery negative terminal.
- 17. In the luggage compartment, remove the rubber liner and then floor carpet trim (1).
- 18. Remove the rear sunshade.
- 19. Fold down the rear seats (2).



- 20. Remove the two trim clips (1) securing the rear scuff trim (2).
- 21. Remove the rear scuff trim by lifting up.



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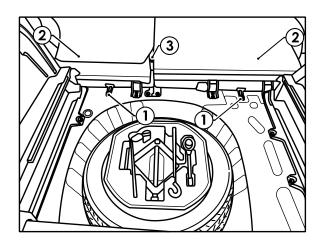
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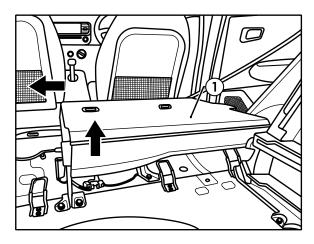
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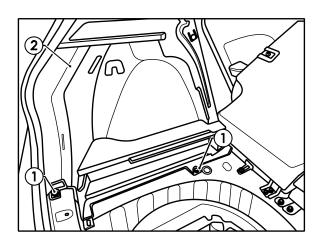
- 22. From the luggage compartment, remove the two bolts (1) securing the base of the rear seats (2), and 1 bolt (3) for securing seat backs.
- 23. From the rear passenger compartment, remove the rear seat bottom, by firmly lifting up to disengage the clips.



24. From the luggage compartment, remove the seat backrests (1) by lifting up from the centre bracket and then pulling towards the opposite side.



25. On the LHS, remove the two bolts (1) securing the luggage compartment LHS trim (2).



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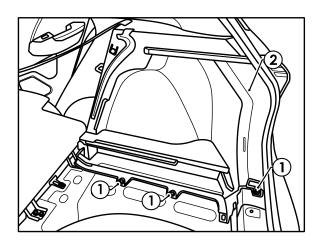
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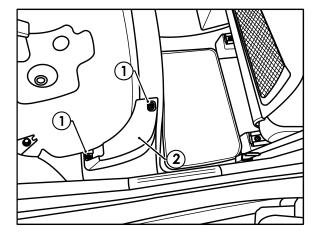
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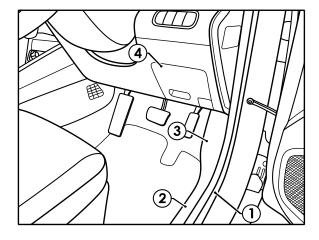
26. On the RHS, remove the three bolts (1) securing the luggage compartment RHS trim (2).



- 27. From the rear passenger doors, remove the two screws (1) securing the LHS and RHS rear scuff trims (2).
- 28. Remove the LHS and RHS rear scuff trims.
- 29. Remove the LHS and RHS rear luggage compartment trims.



- 30. From the driver's door, remove a small strip of the weather seal (1).
- 31. Dislodge and remove the drivers scuff trim (2).
- 32. Dislodge and remove the RHS kick panel trim (3).
- 33. Dislodge and remove the fuse panel cover (4).



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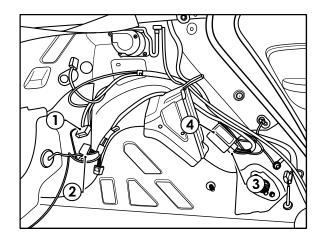
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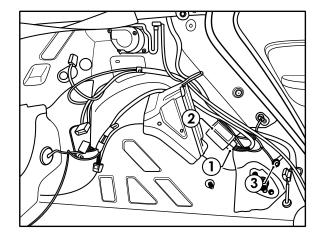
**HYUNDAI VENUS CL4** 

- 34. In the luggage compartment, at the rear left, locate the vehicle prewire connector (1).
- 35. Connect the trailer patch harness (102335- WL) mating connector (2) to the vehicle prewire.
- 36. Route the ECU connector (3) towards the LHS rear passenger door
- 37. Using an alcohol wipe, clean the RHS inner sheet metal area and the underside of the ECU (04826) (4).

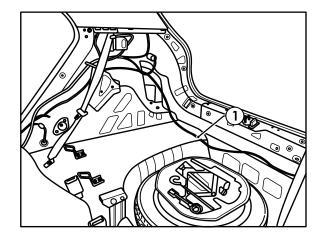


- 38. Connect the trailer patch 12-way connector (1) to the ECU (2).
- 39. Apply double sided tape to the ECU (2) and secure it to the vehicle sheet metal.
- 40. Route the ground wire towards the vehicle earthing point (3) near the rear left passenger seatbelt and connect.

Note: Mount the ECU, ensuring the connector is orientated downwards.



- 41. Route the orange power wire (1) across the rear of the luggage compartment and down towards the RHS vehicle fuse panel near the driver's right knee
- 42. Tuck the power wire (1) under the trim as required.



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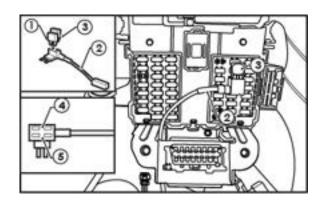
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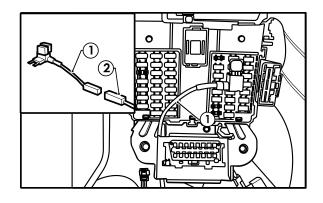
**HYUNDAI VENUS CL4** 

- 43. On the vehicle fuse box, remove the vehicle 20A fuse (1) for door locks.
- 44. On the Add-A-Fuse (2), insert the supplied 20 amp fuse (3) into the Add-A-Fuse top slot (4) and then insert the vehicle 20A fuse (1) into the bottom slot (5)
- 45. In the orientation shown, insert the Add-A-Fuse(2) into the slot where the previously removed fuse was located.

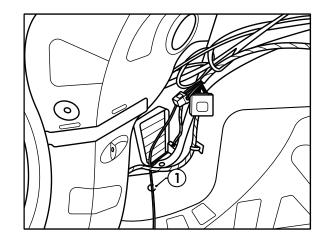


46. Connect the Add-A-Fuse (1) to the main harness (2).

Note: To maintain correct electrical operation, ensure you insert the fuse adaptor into the allocated slot and in the orientation shown.



47. Near the vehicle prewire, drill out the vehicle hole (1) to 30mm to enable the tail harness to be routed from the towbar to the ECU.



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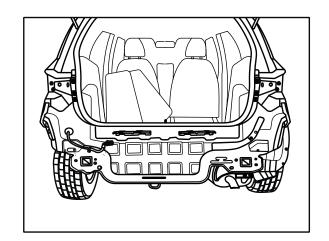
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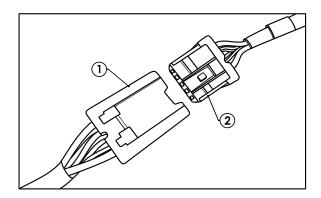
- 48. With the rear bumper removed, secure tail harness to towbar
- 49. Route tail harness up through chassis and previously drilled out 30mm hole.
- 50. Seat grommet in 30mm hole and route to trailer harness blue connector on patch loom.

Note: Keep harness routing clear of all sharp edges, moving parts and places of extreme heat.

Note: Ensure grommet is seated correctly and makes a water tight seal.



51. Connect the tail harness (tail length 1200mm) 8-way connector to the trailer patch mating 8-way connector.



- 52. Secure all harness using supplied cable ties.
- 53. Test the trailer patch function using a light board or multi-meter.
- 54. Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
- 55. The RPA function can be disabled via a switch next to the gear shifter.
- 56. 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:**

- 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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# **CUSTOMER INFORMATION**

PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION

# 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

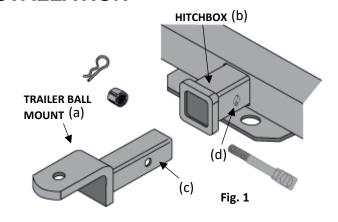
Screw Silent Anti-Rattle Hitch Pin (f) onto Smart Pin (g); tighten Smart Pin Nut until finger tight, ensuring TBM is restrained from up and down movement.

#### STEP 4

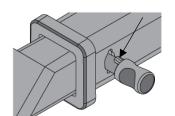
Tighten Silent Anti-Rattle Hitch Pin Nut by turning nut a further 1/8th of a turn in the clockwise direction using a 24mm spanner (Fig. 4).

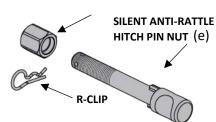
#### STEP 5

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



(g)

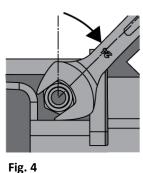


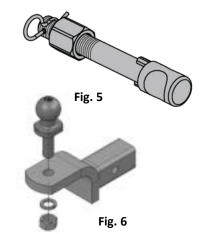


SILENT ANTI-RATTLE HITCH PIN NUT (f)

Fig. 2

Fig. 3





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