

PART NUMBER QTCH109L

CHRYSLER 300C CL4 JUL 2012 - ON



### **PRODUCT DETAILS:**

**Part Number:** QTCJ109L **Maximum Towing Braked:** 2000 kg **ECU Number:** 04826 **Maximum Towing Unbraked:** 750 kg **Tail Harness Length Required: Maximum Static Ball Load:** 1200 mm 200 kg **TBM/Lug Part Number:** 21161

102511-WL

### **FITTING DETAILS:**

**Wiring Part Number:** 

Towbar Installation Time:45 Mins.Hayman Reese SmartCODE Solution Required:NOWiring Installation Time:45 Mins.RPA Disable/Other:YESTotal Installation Time:90 Mins.Note:

Bumper Cut Required: Yes

- Electric Brake wire = next to blue connector.
- RPA disable use tail 04936.
- Loop back connector required for MY13-MY17 see page 3 for load rating details.
- ECU 04826 required for MY18 >>

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CORRECT

**INCORRECT** 

Figure 1

Figure 2

### ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT.



## **BEFORE YOU START:**

Hayman Reese recommends that instructions are read completely prior to fitment. Check all hardware items have been included refer to assembly diagram. Please ensure this towbar is only fitted to vehicle models as per Hayman Reese application guide (www.haymanreese.com.au).

### **Bumper Cuts**

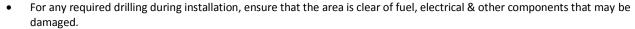


Vehicle and bumper variations can and do occur during vehicle manufacture after initial towbar design. Fitment of towbar to vehicle and accuracy of bumper cut must be assessed prior to any bumper modifications made. Incorrect bumper cuts are not covered under Hayman Reese warranty.

### 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**



• All holes drilled into the body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.

#### **Bolts/Fasteners**

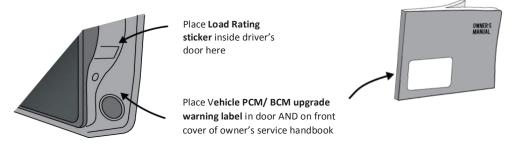
- Ensure that all hardware is fastened to correct torque as specified in this fitting instruction.
- All fasteners supplied with this product are used to achieve a specified clamp loading. If replacement is required ensure that fasteners of the same grade and class are used.



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 Hayman Reese 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.
- b. Powertrain Control Module (PCM)/Body Control Module (BCM) upgrade warning label will be provided in towbar kit for vehicles as required. Affix warning label in door and owner's handbook.





## **WARNING:**

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

FOR TOWING PURPOSES ONLY - This towbar is designed and tested by Hayman Reese to adhere to ADR 62/02 which provides only for the expected load demands of towing.

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### **Maximum Trailer Electrical Load**

This vehicle has a limited amount of current available for powering trailer lighting circuits. If the vehicle circuits are overloaded by the trailer lighting circuits, vehicle fuses can fail and potential damage to wiring can occur. While most trailers have a small number of lamps on them, some larger trailers (especially 2 axle trailers and caravans) have a large number of lighting circuits.

The ECU for the Chrysler 300C allows for any large trailer to be towed without concern about drawing too much power from the vehicle circuits. Refer to the tables below to see the maximum lighting loads with and without the ECU and power harness options:

### **Recommended Maximum Trailer Electrical Load without ECU**

Typically LED trailer tail lights

		Current Load (Amps)
Light Signal Name	Load (Watts) Total	Total (at 12V)
Left Turn	21W	1.75A
Right Turn	21W	1.75A
Tail Lamps	10W	0.83A
Reverse Lamps	42W	3.5A
Stop Lamps	42W	3.5A

### Recommended Maximum Trailer Electrical Load with ECU

Typically Incandescent trailer tail lights

Light Signal Name	Load (Watts) Total	Current Load (Amps) Total (at 12V)
Left Turn	96W	8A
Right Turn	96W	8A
Tail Lamps	132W	11A
Reverse Lamps	96W	8A

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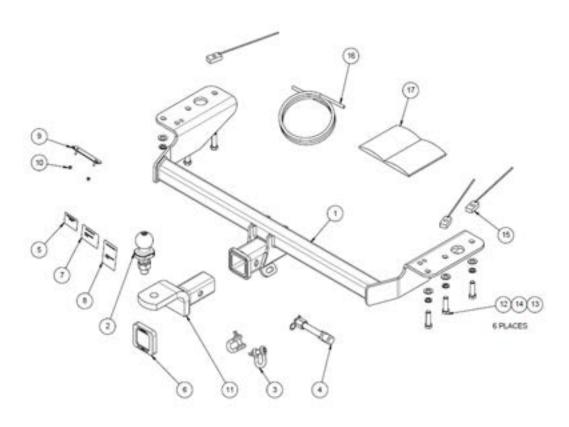


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## **TOWBAR ASSEMBLY DIAGRAM**



ITEM NO.	DESCRIPTION	QTY.
1	CHRYSLER 300C WELDED ASSY	1
2	TOWBALL 50MM FLAT CHROME 3500KG HR	1
3	10mm "D" SHACKLE	2
4	ANTI-RATTLE PULL PIN ASSY GOLD	1
5	H.R STICKER	1
6	HITCH BOX COLLAR COVER	1
7	ACRYLIC COMPLIANCE LABEL	1
8	ACRYLIC LOAD RATING LABEL	1
9	VE PLUG BRACKET	1
10	NUT NYLON LOCK HEX HD M4X0.7P G8	2
11	TRAILER BALL MOUNT	1
12	M12 x 45 1.75P BOLT	6
13	Wshr ft 1/2" x 1-1/8" x 16 z/p	6
14	WSHR SPRING FT SEC M12x4.0x2.5mm Z/P	6
15	TAPPED PLATE WITH WIRE	3
16	WIRE LOOM	1
17	FITTING INSTRUCTION	1

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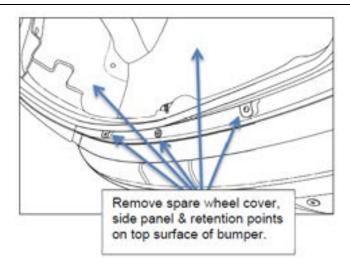
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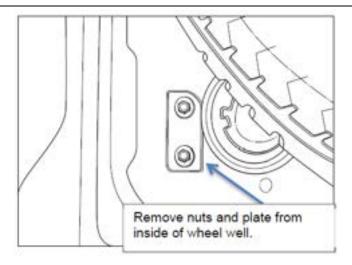
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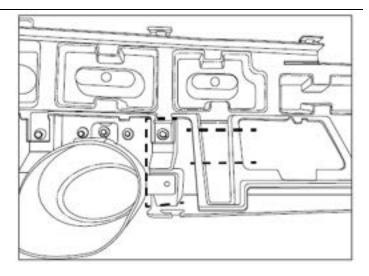
1. Remove Spare Wheel Cover, Side Panels & retention points on top surface of Bumper.



2. Remove Nuts and Plate from inside of Spare Wheel well.



3. Cut off the outer tags.



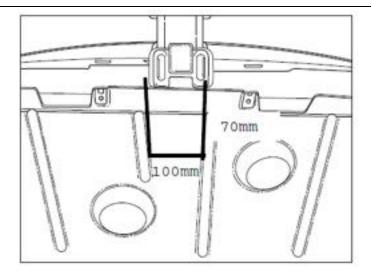
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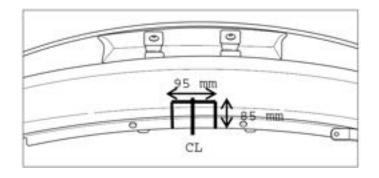
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4. Create a Secondary Bumper Cut on lower trim measuring 70mm high up from the bottom edge of the Bumper and 100mm Wide.



5. Create Bumper cut measuring 95mm Wide and 85mm High.

**Note**: It is advised to remove lug from receiver box when not actually towing so as to produce a clear view of the vehicle's registration plate if obscured, and to also provide increased departure angle.



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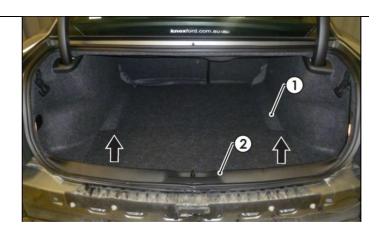
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## **IMPORTANT**

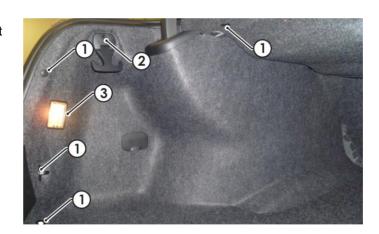
Due to possible vehicle variations, always confirm any noted vehicle colour wires with a multi-meter to ensure the correct function is identified before soldering or scotch locking. For vehicle wires denoted with two colours (example; RED/GREEN) the first colour will always be the main wire colour while the second colour is the thinner trace colour on the wire.

- 6. In the luggage compartment, remove the carpet cover (1).
- 7. Remove the rear luggage compartment trim (2) by pulling in an upwards direction.



- 8. Remove the four fasteners (1) and cargo hook (2).
- 9. Remove the 12v light (3) (LHS only). Disconnect the 2-way connector for the rear light.
- 10. Dislodge the LHS rear trim.

Repeat for the RHS.



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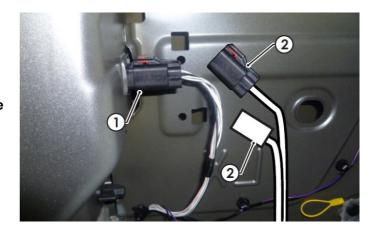
11. At the luggage compartment LHS rear quarter cavity drill a Ø30mm hole into indicated location (1).

Remove all sharp edges and spray rust inhibitor.



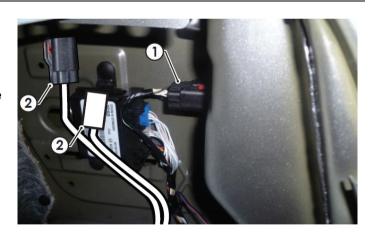
- On the LHS of the luggage compartment, disconnect the tail light connector (1) and connect the trailer patch connectors (2) in between.
- 13. Route the trailer patch towards the RHS.

For MY19>>, different tail light connectors are present, for these vehicles use the adaptor patches supplied in the harness.



14. On the RHS of the luggage compartment disconnect the tail light connector (1) and connect the trailer patch connectors (2) in between.

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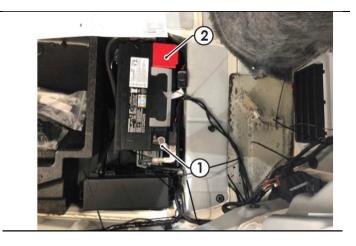


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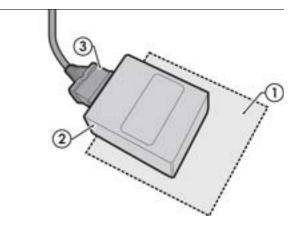
## For vehicles requiring an ECU follow steps 15-20.

- 15. Attach the earth to a suitable earthing point (1).
- 16. Route the fused orange power wire to vehicle battery positive battery post (2) and connect.
- 17. Remove the Loop back connector from the trailer patch and discard.

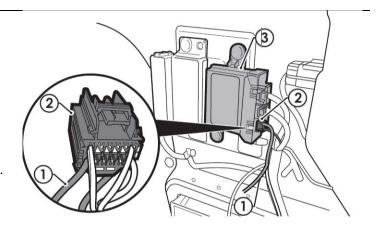


- 18. Using an alcohol wipe, clean the LHS inner sheet metal area (1) and the underside of the ECU (04826) (2).
- 19. Connect the trailer patch 12-way connector (3) to the ECU.
- 20. Apply double sided tape to the ECU (2) and adhere it to the vehicle sheet metal.

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



- 21. For Automatic RPA disable, locate the RPA module (3) mounted on the RHS of the luggage compartment locate the black wire (1) on the bottom connector (2) on the RPA module disconnect the connector.
- 22. Approximately 100mm back from the connector cut the black wire.
- 23. Connect the black wire coming from the connector to the trailer patch grey wire.
- 24. Tape up the opposite side back to main harness.



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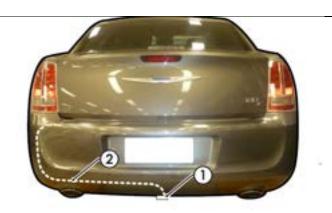
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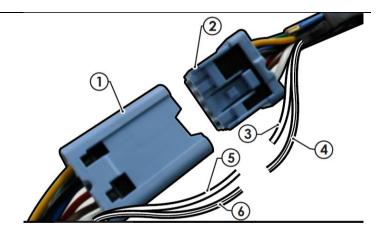
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- 25. Route the tail harness (2) (tail length 1200mm) across the tow bar towards the LHS previously drilled hole allowing enough length to attach to the plug bracket (1).
- 26. Ensure the tail harness grommet is seated correctly and secure in place using a cable tie.



- 27. From inside the vehicle connect the tail harness (tail length 1200mm) 8-way connector to the trailer patch mating 8-way connector (2).
- 28. Strip and solder, GREY (3) and GREY/BLACK (4) wires to RPA patch matching GREY (5) and GREY/BLACK wires and insulate connections.



- 29. Test the trailer patch function using a lightboard or multi meter.
- 30. Secure all harnesses using cables ties (not supplied).
- 31. Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
- 32. Place fitting instruction 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 HAYMAN REESE.
WITH CORRECT MAINTENANCE AND CARE THIS PRODUCT WILL PROVIDE A
LIFETIME OF TROUBLE-FREE OPERATION.



## **TOWBAR MAINTENANCE AND CARE:**

- 1. Hayman Reese recommend that the towbar LUG or TBM (tow ball Mount) Pull Pin and R-clip are removed and stored when not in use. Removal of LUG or TBM (tow 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. Hayman Reese 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:**

Hayman Reese 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 visit www.haymanreese.com.au/warranty or contact customer service on 1800 812 017 or info@haymanreese.com.au.

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## **CUSTOMER INFORMATION**

PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION

## **HAYMAN REESE SMART PIN**

Your Hayman Reese towbar is equipped with Smart 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 Smart Pin Nut. Follow instructions below to retighten the nut as necessary when movement and noise in the tow ball mount is noted.

• Before towing, ensure R-Clip is properly installed and Smart pin nut is installed and tensioned. Replacement parts are available from your Hayman Reese 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 Smart 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 Smart Pin Nut (f) onto Smart Pin (g); tighten Smart Pin Nut until finger tight, ensuring TBM is restrained from up and down movement.

#### STEP 4

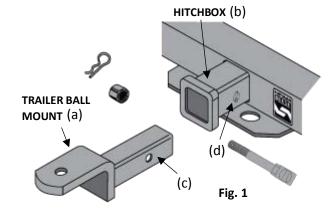
Tighten Smart Pin Nut by turning nut a further 1/8th of a turn in the clockwise direction using a 24mm spanner (Fig. 4).

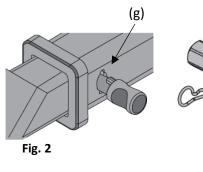
#### STEP 5

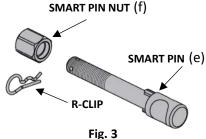
Install Smart Pin R-Clip through the hole that provides best clearance or easiest access. (Fig. 5)

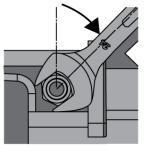
#### STEP 6

Install towball onto TBM and tighten to <u>350 Nm</u> using a calibrated torque wrench (Fig. 6).









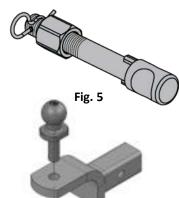


Fig. 6

Fig. 4

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