

## **Tow-Pro Wiring Kit**

# **Fitting Instructions**

*Suitable for: Amarok Utility*

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**Kit Part No: TPWKIT-010**

## **Accessory Kit**

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**Estimated Fitting Time: 90 Minutes**

**General Notes**

- Read through the fitting instructions before installation of the accessory. Install the accessory following the fitting instructions. Failure to do so may cause damage to the vehicle or the accessory.
- Ensure all recyclables, discarded vehicle accessory components and packaging are recycled following local recycling regulations.
- It is always recommended that this accessory is fitted by a qualified automotive Technician.
- Safely store and protect any removed vehicle components.
- Ensure all bare metal surfaces are protected using automotive bare metal primer and touch-up paint, or suitable automotive rust inhibitor.
- Remove all metal swarf and dust from all vehicle surfaces if surfaces are used for accessory installation.

**Safety Notes**

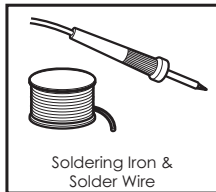
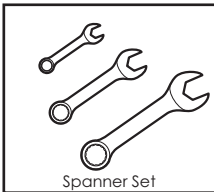
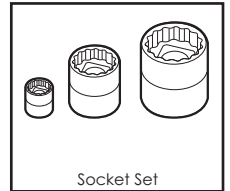
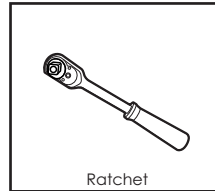
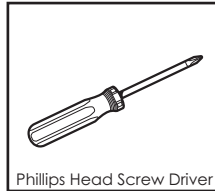
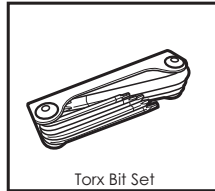
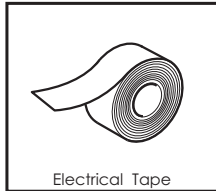
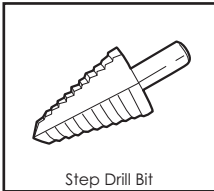
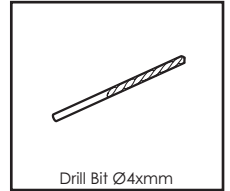
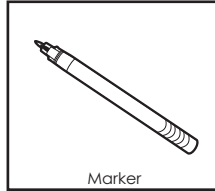
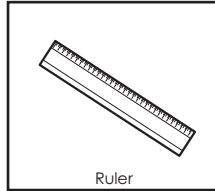
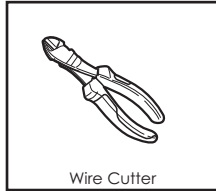
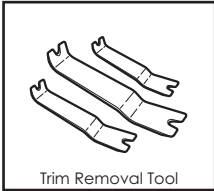
- Check that all work practices comply with safety standards.
- Please wear appropriate clothing and use safety equipment.



**Parts Supplied**

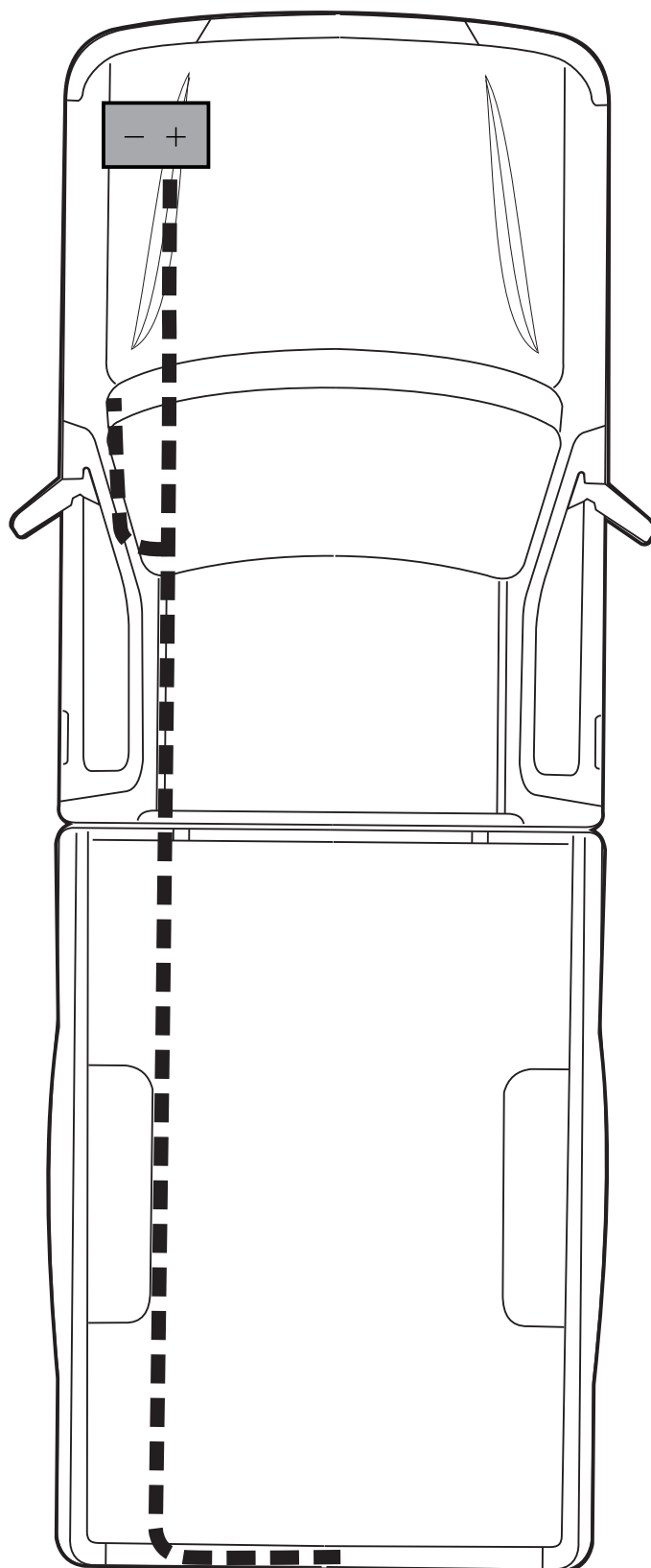
<b>A</b>  Harness x1	<b>B</b>  Universal Fascia x1	<b>C</b>  Butt Splice x1	<b>D</b>  Bracket x1	<b>E</b>  Cat-5 Cable x1	<b>F</b>  4-Way Connector x1
<b>G</b>  M4x10mm Pan Head Screw x4	<b>H</b>  M4 Flat Washer x4	<b>I</b>  M4 Nyloc Nut x4	<b>J</b>  M8 Flat Washer x2	<b>K</b>  M8 Nyloc Nut x2	<b>L</b>  M8x12mm Hex Head Bolt x2
<b>M</b>  Fitting Instructions x1	<b>N</b>  Edge Clip Cable Tie x1	<b>O</b>  Ø6x25mm Black Heatsink x1	<b>P</b>  900mmx15 200mmx10 Cable Tie	<b>Q</b>  Template x1	

**Tools Required**



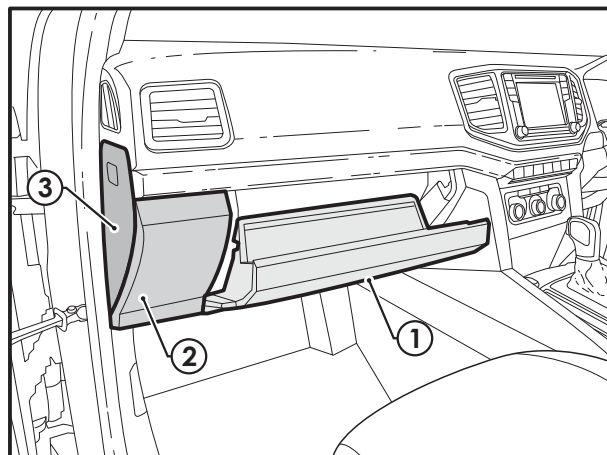
– Wiring Diagram

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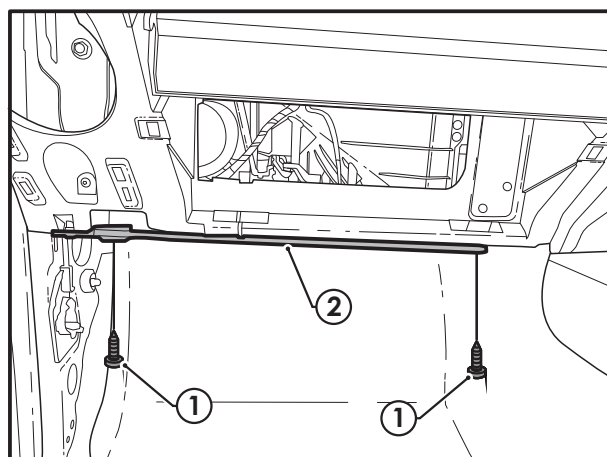
### Step 1

- Disconnect the negative battery terminal.
- Remove the glove compartment **(1)**.
- Remove the glove compartment side trim **(2)**.
- Remove the LHS dash side trim **(3)**.



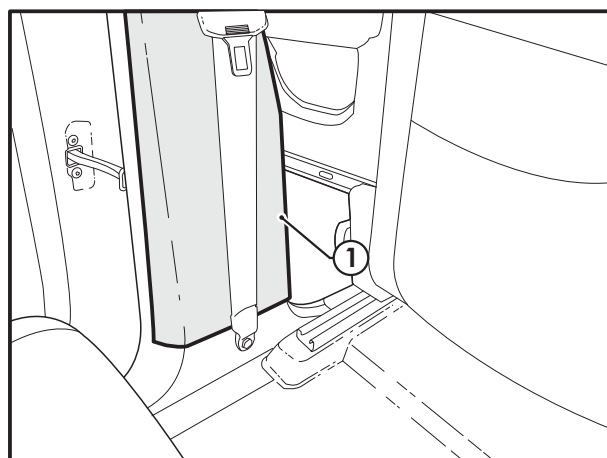
### Step 2

- Release the two T20 torx screw **(1)** and remove glove compartment undertray **(2)**.



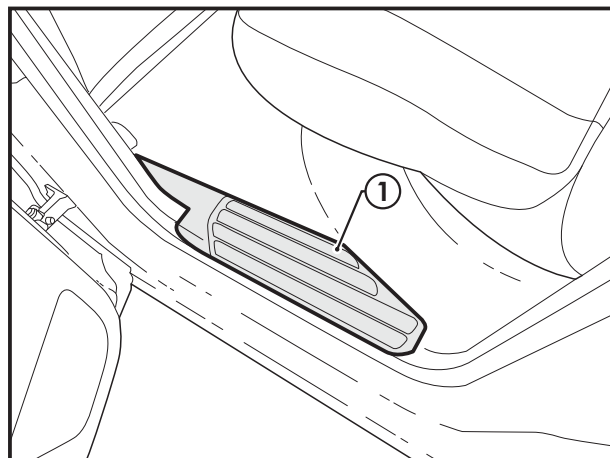
### Step 3

- Dislodge the LHS 'B' pillar trim **(1)**.



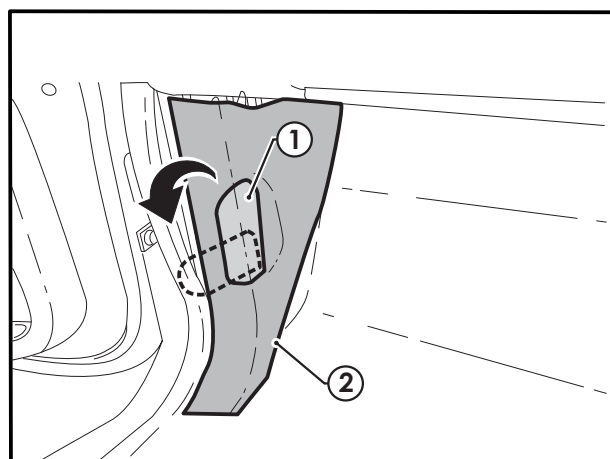
### Step 4

- Dislodge the LHS front door sill trim **(1)**.



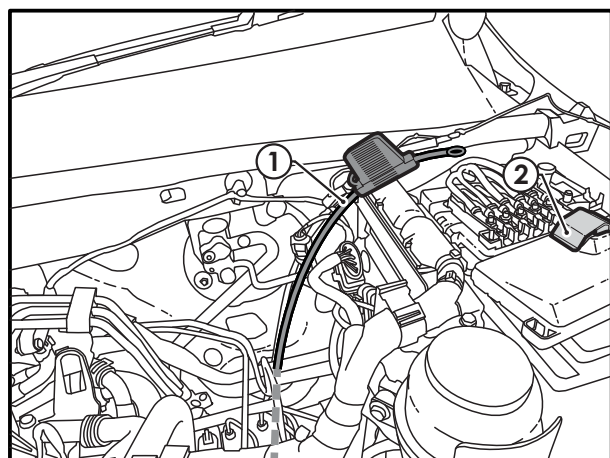
### Step 5

- Rotate bonnet release lever **(1)** to horizontal and use a small flathead screw driver to remove the locking clip.
- Remove the bonnet release lever.
- Dislodge and remove the LHS kick panel trim **(2)**.



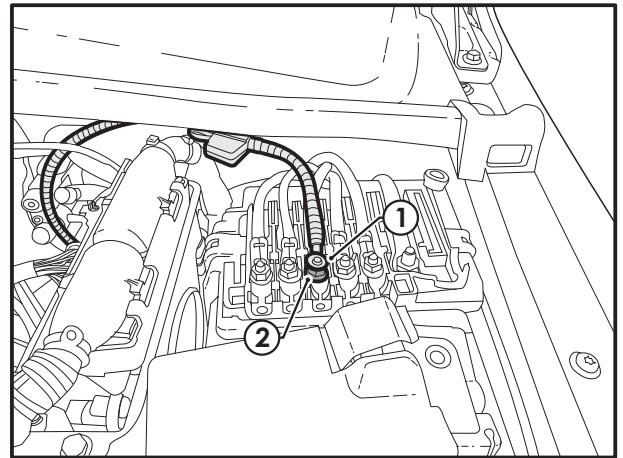
### Step 6

- Using a guide wire, route the Electric Brake Harness **(1)** fused ring terminal from underneath the vehicle up towards the vehicle battery **(2)**.



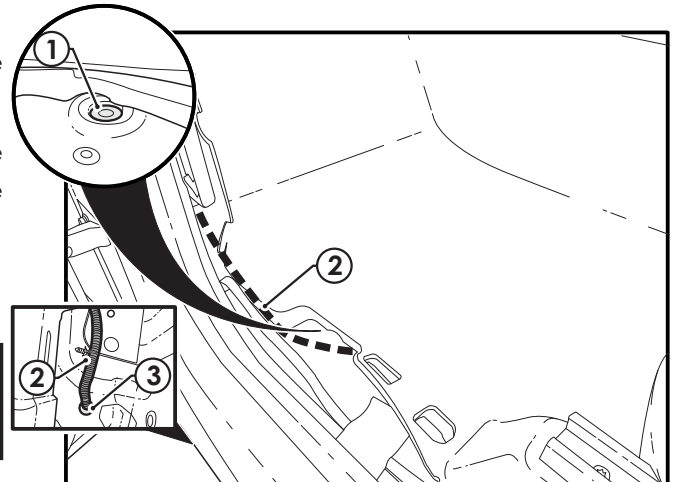
### Step 7

- Secure the Electric Brake Harness fused ring terminal **(1)** to the vehicle positive terminal **(2)** using the existing fastener.



### Step 8

- Remove the vehicle grommet **(1)** located underneath the passenger side footwell carpet.
- Route the loose terminals of Electric Brake Harness **(2)** over the chassis near the LHS wheel liner and through the grommet hole into the vehicle cabin, and up to the LHS kick panel.



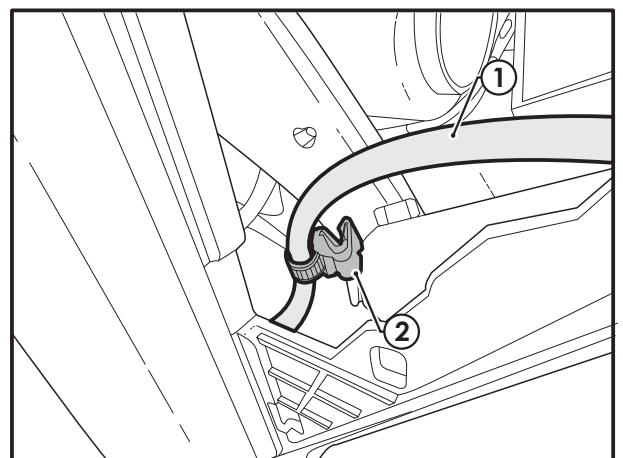
**Important**



**Important:** Ensure the Electric Brake Harness grommet **(3)** is seated correctly and makes a good seal.

### Step 9

- Route harness **(1)** up past the kick panel into the LHS dash cavity. Use the supplied edge clip cable tie **(2)** to secure to vehicle sheet metal.



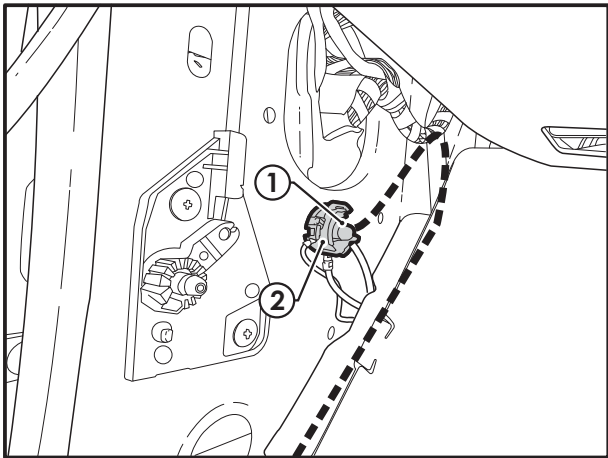
**Important**



**Important:** Ensure harness is secured away from any sharp metal edges that could rub against and damage the wiring.

**Step 10**

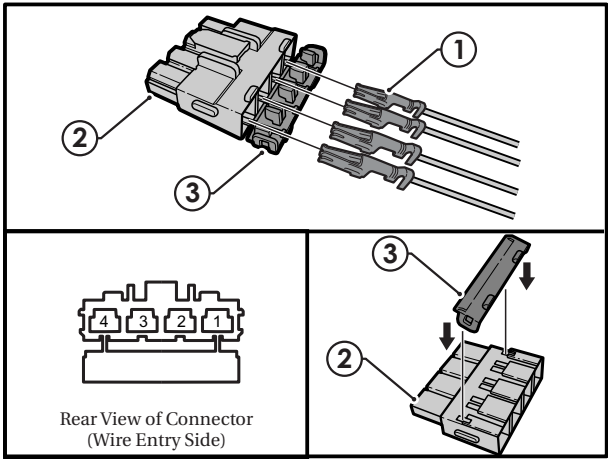
- Secure earth ring terminal **(1)** to vehicle's earth point **(2)**.



**Step 11**

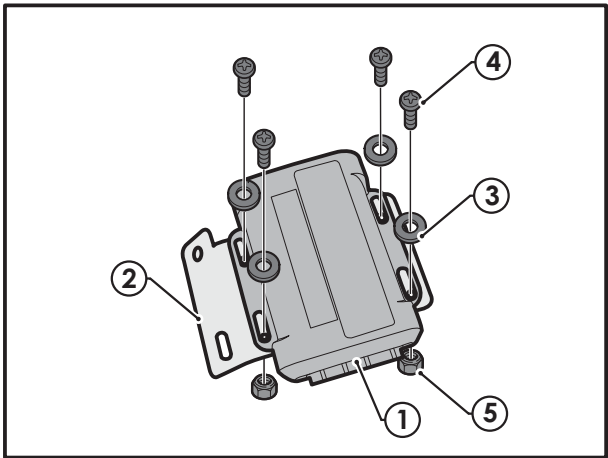
- Using the table below, house the terminals **(1)** from the Electric Brake Harness into the supplied 4-Way Connector **(2)** ensuring the terminals lock into the housing.
- Snap off the secondary lock **(3)** from behind the 4-Way Connector **(2)**.
- Fit the secondary lock **(3)** to the underside of the 4-Way Connector **(2)**.

Terminal	Wire Colour
1	Red
2	Blue
3	White
4	Black



**Step 12**

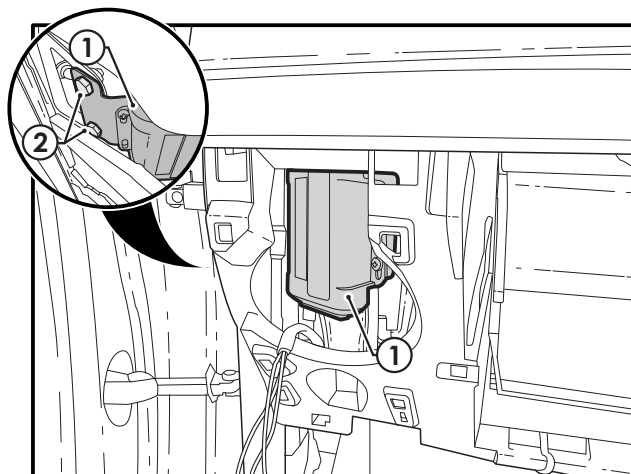
- Secure the Brake Controller ECU **(1)** to the ECU Bracket **(2)** using the supplied M4 Flat Washers **(3)** and M4 Screws **(4)** and M4 Nyloc Nuts **(5)**.





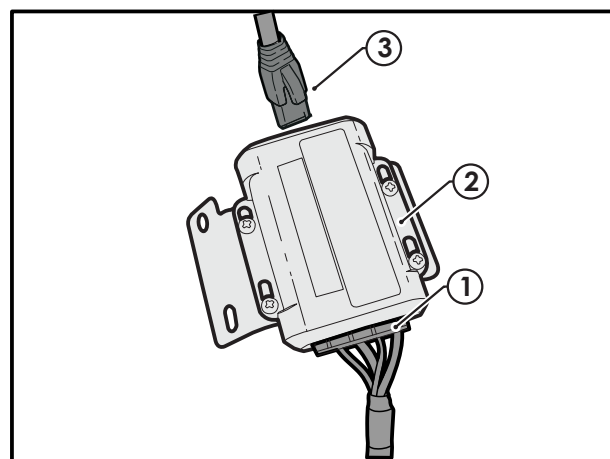
### Step 13

- Secure the ECU bracket assembly **(1)** to the vehicle using the supplied M8 Nyloc Nuts, Washers & M8 Bolts **(2)**.



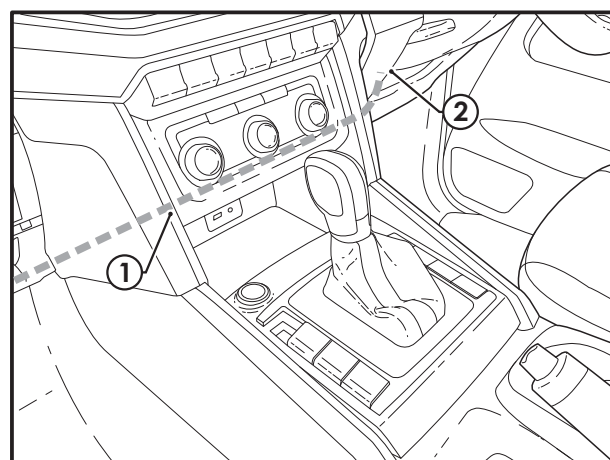
### Step 14

- Connect the 4-way connector **(1)** from the Electric Brake Harness to the ECU **(2)**.
- Connect the supplied Cat 5 Cable **(3)** to the ECU **(2)**.



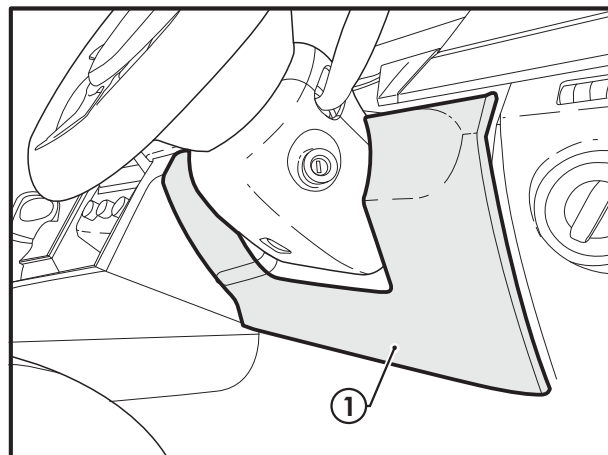
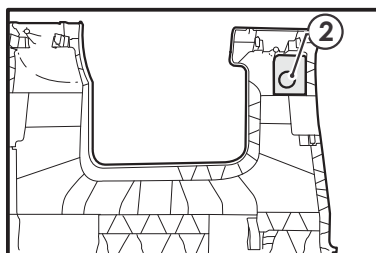
### Step 15

- Route the CAT 5 cable behind the glove box **(1)** and centre console across to the driver side knee trim **(2)**.



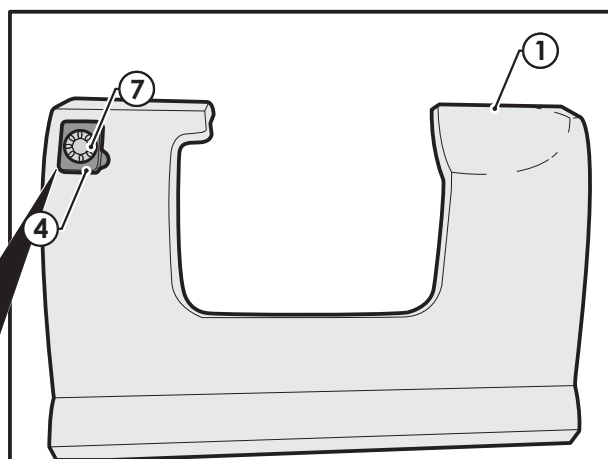
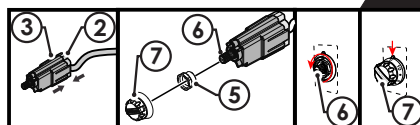
## Step 16

- Remove the knee trim **(1)** and use the supplied Template **(2)** to drill the hole for the switch fascia.



## Step 17

- Fit the switch fascia **(4)** into the hole in the knee trim **(1)**.
- Plug the CAT 5 Cable **(2)** into the remote head **(3)** and fit the remote head to the switch fascia **(4)** from behind.
- Secure the remote head to the switch fascia by fitting the nut **(5)** from the front. Torque the nut to 0.8 Nm.
- Rotate the shaft **(6)** fully anti-clockwise and fit the knob **(7)** to the shaft **(6)** with "0" pointing upwards as shown below.
- Secure the CAT 5 cable to the existing vehicle wiring harness with cable ties and refit the knee trim **(1)**.



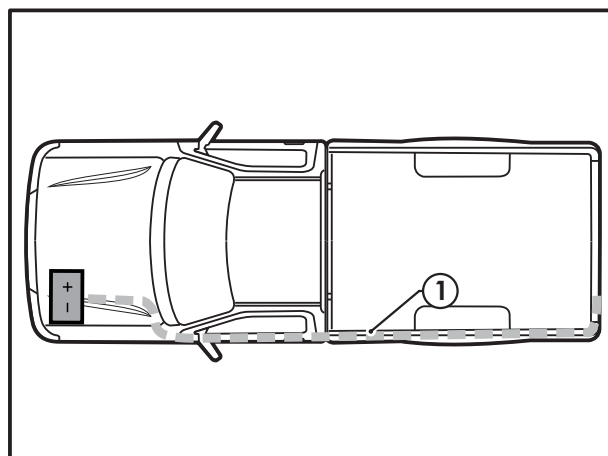
## Step 18

- From underneath the vehicle, route the Electric Brake Harness **(1)** down the LHS chassis rail following the existing vehicle harness towards the trailer socket at the rear of vehicle.
- Secure Electric Brake Harness to the existing vehicle harness at every 300mm using supplied Cable Ties.

### Important



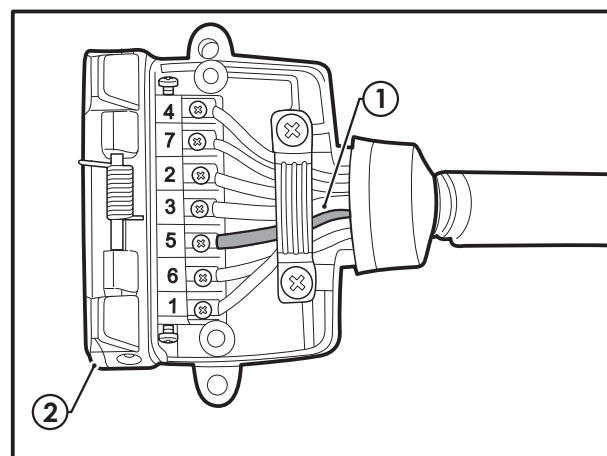
A guide wire may be required to continue routing the Electric Brake Harness near the LHS rear wheel area.



## Step 19

- Remove the 'BLUE' wire (pin 5) (1) from the trailer wiring harness socket head (2).
- Tape back and isolate.
- Insert new 'BLUE' wire with brass ferrule from the Electric Brake Harness into the same position in the trailer socket.

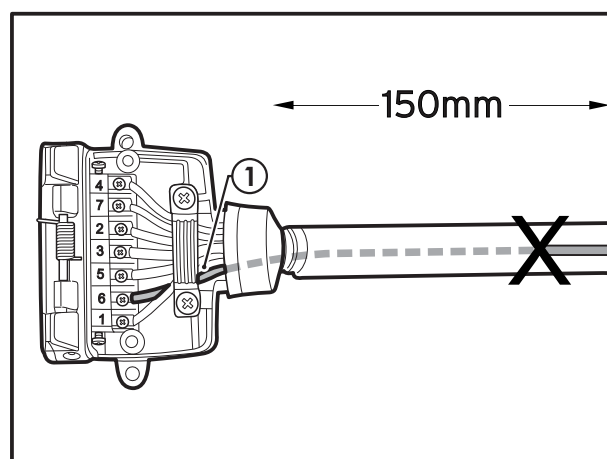
Pin No.	Function	Cable Colour
1	Left-hand turn signal	Yellow
2	Reversing signal	Black
3	Earth return	White
4	Right-hand signal	Green
5	Service brakes	Blue
6	Stop lamp signal	Red
7	Rear lamps, clearance and side marker lamps	Brown



## Step 20

- Locate 'RED' wire (pin 6) (1) on the trailer wiring harness socket head.
- Cut the wire 150mm from the base of the socket.

Pin No.	Function	Cable Colour
1	Left-hand turn signal	Yellow
2	Reversing signal	Black
3	Earth return	White
4	Right-hand signal	Green
5	Service brakes	Blue
6	Stop lamp signal	Red
7	Rear lamps, clearance and side marker lamps	Brown



**Note:** If the wiring from the 7-pin socket is a 7-core cable, strip the outer insulation back past 150mm from the socket so the red wire can be accessed, once installation is complete, cover the wiring with PVC tape to re-insulate.

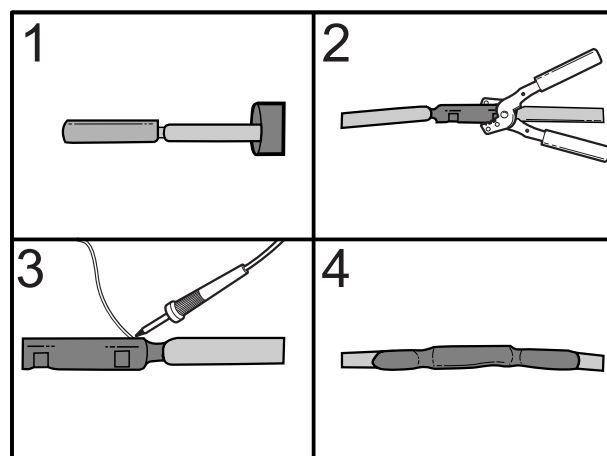
## Step 21

- Butt-splice and heat shrink the previously cut 'RED' wire on the vehicle end, to the 'RED/WHITE' wire on the Electric Brake Harness.
  - Crimp both wires to the butt splice using indent type crimpers.
  - Solder the wires to the butt splice. Ensure that a good connection is made.



**Keep heatshrink away from joint until after soldering is complete and cooled.**

- Wait for the butt splice to cool, slip heatshrink over the joint and heat.
- Remove the cut 'RED' wire (pin 6) from the trailer socket.
- Insert new 'RED' wire with brass ferrule from the Electric Brake Harness into the same position in the trailer socket.



## Step 22

- Re-connect negative battery terminal.
- Test the operation of the Electric Brake Controller using a test lamp (12W) to ensure correct operation.
- Dispose of any parts not used from the fitment.

**Important**

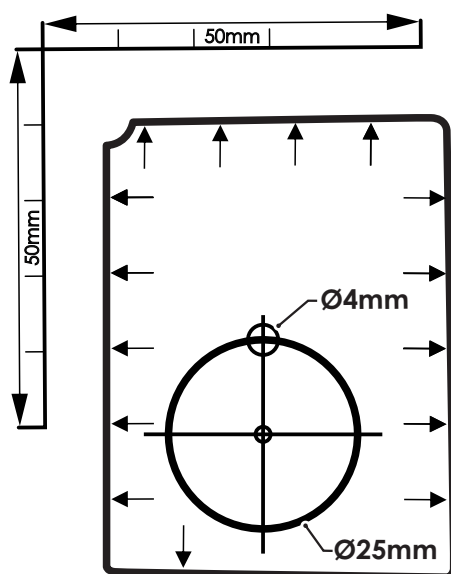


Refit all removed parts and secure all fasteners to the service manual torque specifications.

**Important**



Please place the fitting instructions in the glove box after completing installation.



**Important**



Always confirm the length of the 50mm scale markers before drilling.

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# TWO YEAR PRODUCT WARRANTY

Over the last three decades our company has established a reputation as the power conversion specialist.

A 100% Australian-owned company, we have met the needs of customers in transport and other industries through exciting, innovative thinking.

We believe in total customer satisfaction and practice this by offering our customers:

- Technical advice free of jargon and free of charge
- Prompt turnaround of orders throughout Australia and globally
- Friendly, personalised, professional service and product support

In the unlikely event that a technical issue arises with a Redarc product, customers are encouraged to initially contact the Redarc Technical Support Team on (08) 8322 4848 or [power@redarc.com.au](mailto:power@redarc.com.au) for prompt and efficient diagnosis and product support.

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 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.

The benefits of this Warranty are in addition to other rights and remedies available at law in respect of the Products and shall not derogate from any applicable mandatory statutory provisions or rights under the Australian Consumer Law.

Redarc Electronics Pty Ltd atf the Redarc Trust trading as Redarc Electronics ("Redarc") offers a warranty in respect of its Products where the Products are purchased from an authorised distributor or reseller of Redarc by a person ("Purchaser"), on the terms and conditions, and for the duration, outlined below in this document ("Warranty").

1. In this Warranty, the term **Products** means:
  - 1.1 all products manufactured or supplied by Redarc (excluding its solar products which are covered by Redarc's Solar Product Warranty); and
  - 1.2 any component of or accessory for any product in clause 1.1 manufactured or supplied by Redarc.
2. Redarc warrants that its Products will be free, under normal application, installation, use and service conditions, from defects in materials and workmanship affecting normal use, for **2 years** from the date of purchase (**Warranty Period**).
3. Where a Product malfunctions or becomes inoperative during the Warranty Period, due to a defect in materials or workmanship, as determined by Redarc, then subject to further rights conferred by the Australian Consumer Law on the Purchaser, Redarc will, in exercise of its sole discretion, either:
  - 3.1 repair the defective Product;
  - 3.2 replace the defective Product; or
  - 3.3 provide a refund to the Purchaser for the purchase price paid for the defective Product,without charge to the Purchaser.
4. The warranty given by Redarc in clause 3 covers the reasonable costs of delivery and installation of any repaired or replaced Products or components of Products to the Purchaser's usual residential address notified to Redarc, together with the reasonable costs of removal and return of any Products determined by Redarc to be defective.
5. If the Purchaser incurs expenses of the nature referred to in clause 4 in the context of making a claim pursuant to this Warranty that is accepted by Redarc, the Purchaser will be entitled to claim for reimbursement of those expenses which Redarc determines, in exercise of its sole discretion, to be reasonably incurred, provided that the claim is notified to Redarc in writing at the postal address or email address specified in clause 21 and includes:
  - 5.1 details of the relevant expenses incurred by the Purchaser; and
  - 5.2 proof of the relevant expenses having been incurred by the Purchaser.
8. Without limiting any other clause in this Warranty, Redarc has the right to reject any Warranty claim made by a Purchaser pursuant to this Warranty where:
  - 8.1 the Purchaser does not notify Redarc in writing of a Warranty claim within the Warranty Period;
  - 8.2 the Purchaser does not notify Redarc in writing of a Warranty claim within 1 month of becoming aware of the relevant circumstances giving rise to the claim, so that any further problems with the Product are minimised;
  - 8.3 the serial number of the Product has been altered, removed or made illegible without the written authority of Redarc;
  - 8.4 the Purchaser is unable to provide proof of purchase documentation in accordance with clause 7.4 or evidence that the Product was properly installed and removed (if relevant), and that proper maintenance has been performed on the Product, by, or under the supervision of, a qualified auto electrician or technician, in accordance with the instructions of Redarc.
9. If the Product is found to be working satisfactorily on return to Redarc or upon investigation by Redarc, the Purchaser must pay Redarc's reasonable costs of testing and investigating the Product in addition to shipping and transportation charges. Where Redarc is in possession of the Product, the Product will be returned to the Purchaser on receipt of the amount charged.
10. Any replaced Products or components of Products shall become the property of Redarc.
11. Redarc may, in exercise of its sole discretion, deliver another type of Product or component of a Product (different in size, colour, shape, weight, brand and/or other specifications) in fulfilling its obligations under this Warranty, in the event that Redarc has discontinued manufacturing or supplying the relevant Product or component at the time of the Warranty claim, or where such Product or component is superior to that originally purchased by the Purchaser.

## Other conditions of Warranty

## Exclusions and limitations

6. This Warranty will not apply to, or include any defect, damage, fault, failure or malfunction of a Product, which Redarc determines, in exercise of its sole discretion, to be due to:
  - 6.1 normal wear and tear or exposure to weather conditions over time;
  - 6.2 accident, misuse, abuse, negligence, vandalism, alteration or modification;
  - 6.3 non-observance of any of the instructions supplied by Redarc, including instructions concerning installation, configuring, connecting, commissioning, use or application of the Product, including without limitation choice of location;
  - 6.4 failure to ensure proper maintenance of the Product strictly in accordance with Redarc's instructions or failure to ensure proper maintenance of any associated equipment or machinery;
  - 6.5 repairs to the Product that are not strictly in accordance with Redarc's instructions;
  - 6.6 installation, repairs or maintenance of the Product by, or under the supervision of, a person who is not a qualified auto electrician or technician, or if non-genuine or non-approved parts have been fitted;
  - 6.7 faulty power supply, power failure, electrical spikes or surges, lightning, flood, storm, hail, extreme heat, fire or other occurrence outside the control of Redarc;
  - 6.8 use other than for any reasonable purpose for which the Product was manufactured;
  - 6.9 any indirect or incidental damage of whatever nature outside the control of Redarc.
7. Warranty claims in respect of a Product must be made in writing to Redarc at the postal address or email address specified in clause 21 within the Warranty Period. Such claims must include the following:
  - 7.1 details of the alleged defect or fault and the circumstances surrounding the defect or fault;
  - 7.2 evidence of the claim, including photographs of the Product (where the subject of the claim is capable of being photographed);
  - 7.3 the serial number of the Product, specified on the label affixed to the Product; and
  - 7.4 proof of purchase documentation for the Product from an authorised distributor or reseller of Redarc, which clearly shows the date and place of purchase.The return of any Products without the prior written instructions of Redarc will not be accepted by Redarc.
12. If the Purchaser acquired a Product for the purpose of resupply, then this Warranty shall not apply to that Product.
13. In particular, the sale of a Product via an online auction, online store or other internet website by a party that is not an authorised distributor or reseller of the Product will be deemed to be a resupply within the meaning of the Australian Consumer Law and will render this Warranty void, as Redarc has no control over the storage, handling, quality or safety of Products sold by such persons.
14. A Purchaser shall only be entitled to the benefit of this Warranty after all amounts owing in respect of the Product have been paid.
15. While Redarc warrants that the Products will be free from defects in materials and workmanship in the circumstances set out in this Warranty, to the maximum extent permitted by law Redarc does not warrant that the operation of the Products will be uninterrupted or error-free.
16. To the maximum extent permitted by law, Redarc's determination of the existence of any defect and the cause of any defect will be conclusive.
17. Spare parts or materials for the Products are guaranteed to be available for a period of at least 2 years after purchase of the Products.
18. The agents, officers and employees of any distributor or reseller of the Products and of Redarc are not authorised to vary or extend the terms of this Warranty.
19. Redarc shall not be responsible or liable to the Customer or any third party in connection with any non-performance or delay in performance of any terms and conditions of this Warranty, due to acts of God, war, riots, strikes, warlike conditions, plague or other epidemic, fire, flood, blizzard, hurricane, changes of public policies, terrorism and other events which are beyond the control of Redarc. In such circumstances, Redarc may suspend performance of this Warranty without liability for the period of the delay reasonably attributable to such causes.
20. If a clause or part of a clause in this Warranty can be read in a way that makes it illegal, unenforceable or invalid, but can also be read in a way that makes it legal, enforceable and valid, it must be read in the latter way. If any clause or part of a clause in this Warranty is illegal, unenforceable or invalid, that clause or part is to be treated as removed from this Warranty, but the rest of this Warranty is not affected.

## Redarc's contact details

21. Redarc's contact details for the sending of Warranty claims under this Warranty are:

Redarc Electronics Pty Ltd  
23 Brodie Road (North), Lonsdale SA 5160  
Email: [power@redarc.com.au](mailto:power@redarc.com.au)  
Telephone: +61 8 8322 4848