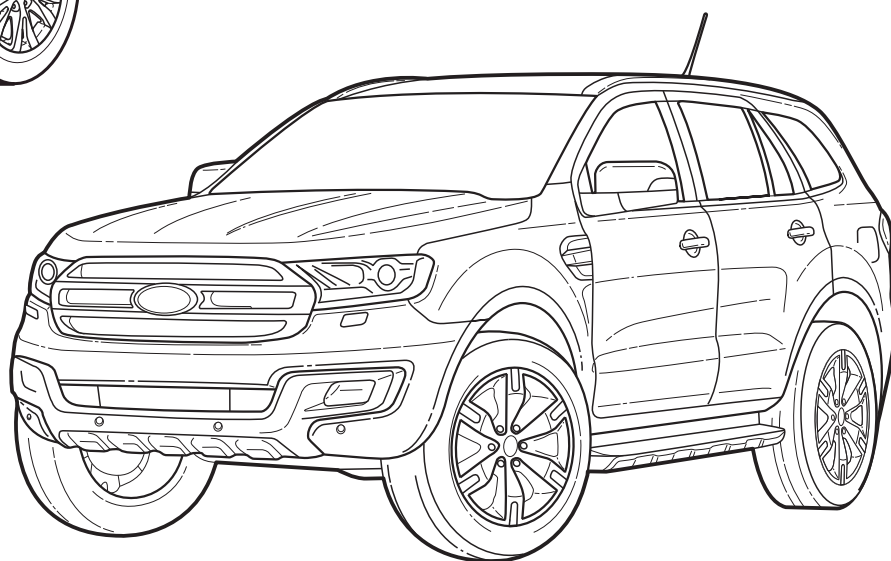
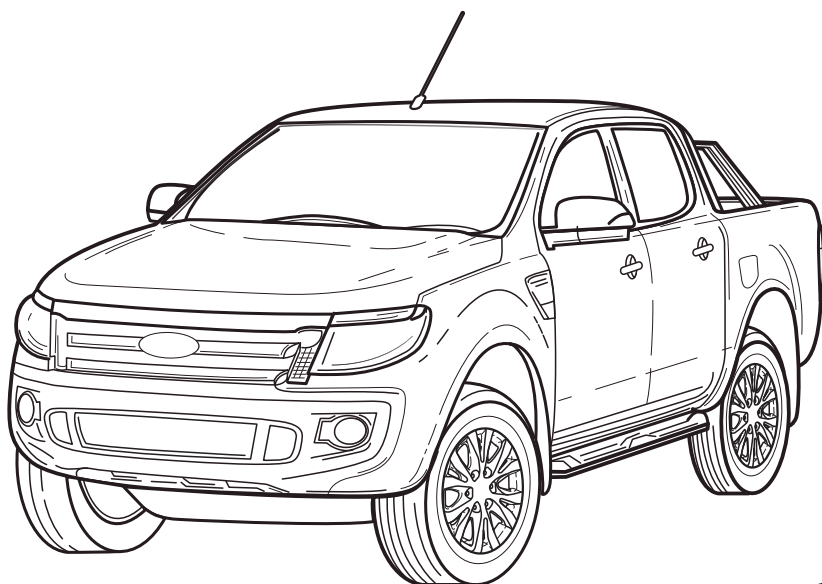


Tow-Pro Wiring Kit - Ford Ranger / Everest

Kit Part No: TPWKIT-001



Accessory Kit

Estimated Fitting Time: 90 Minutes

General Notes

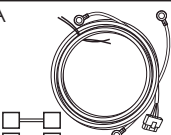
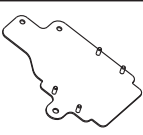
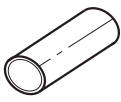
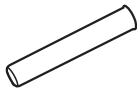
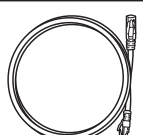
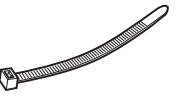
- Read through the fitting instructions before installation of the accessory. Install the accessory following the fitting instructions. Failure to do so may cause damage to the vehicle or the accessory.
- Ensure all recyclables, discarded vehicle accessory components and packaging are recycled following local recycling regulations.
- It is always recommend 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 metals swarf and dust from all vehicle surface if surfaces is used for accessory installation.

Safety Notes

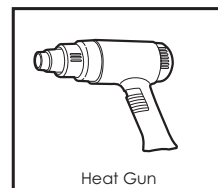
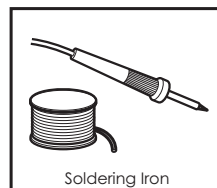
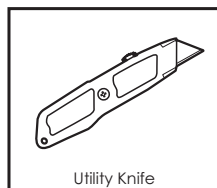
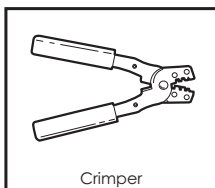
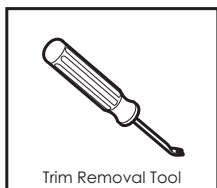
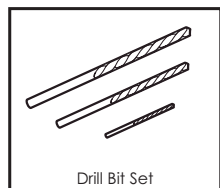
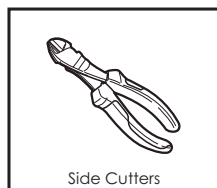
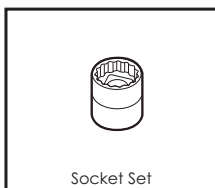
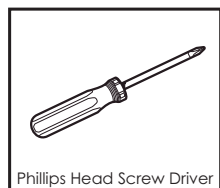
- Check that all work practices comply with safety standards.
- Please wear appropriate clothing and use safety equipment.



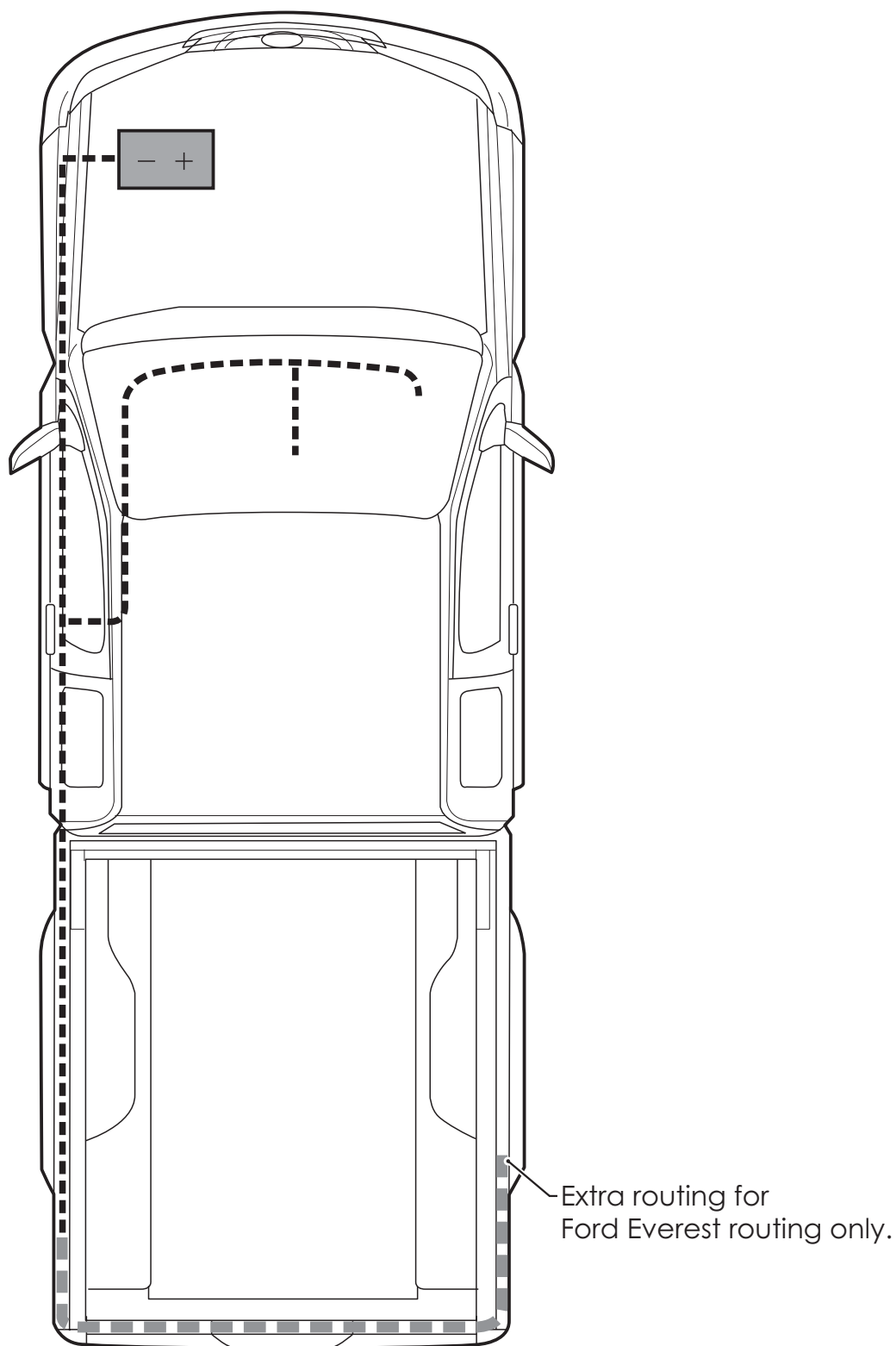
Parts Supplied

A  Electric Brake Harness x1	B  Brake Controller Bracket x1	C  Heatshrink x1	D  Butt Splice x1	E  Cat 5 Cable x1	F  900mm Cable Ties x15 200mm Cable Ties x15
G  M4 Flat Washer x4	H  M4 Nyloc Nut x4	I  M5x16mm Thread Cutting Screw x2	J  M5 Flat Washer x2	K  Push Clip Cable Tie x1	L  Switch Template (Page 17) x1
M  Fitting Instruction x1					

Tools Required



— Wiring Diagram —



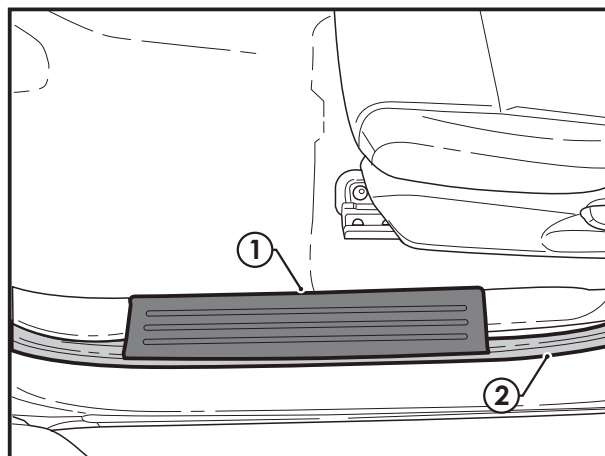
Step 1

Important



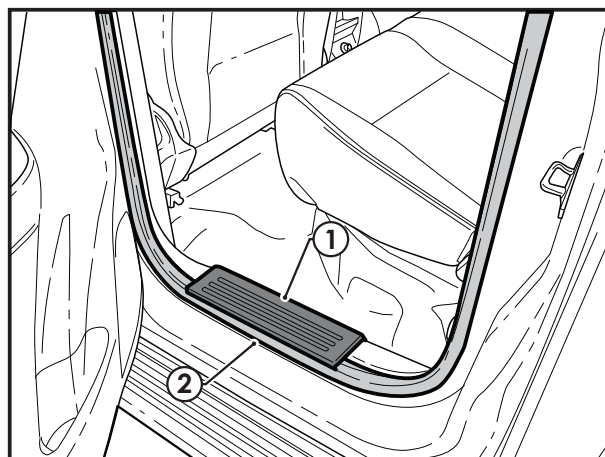
Always refer to the vehicle's Workshop Manual when removing vehicle components.

- Note down all clock and radio settings.
- In the engine bay, disconnect the negative battery terminal.
- Remove the LHS front scuff plate **(1)** and dislodge the LHS front rubber door seal **(2)**.



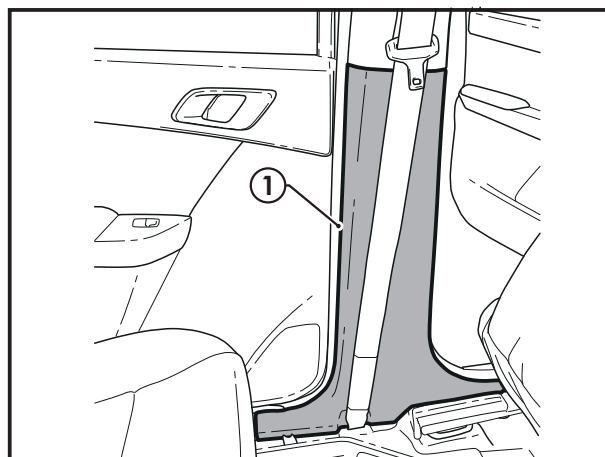
Step 2

- Remove the rear LHS scuff plate **(1)**.
- Dislodge the rear LHS rubber door seal **(2)**.



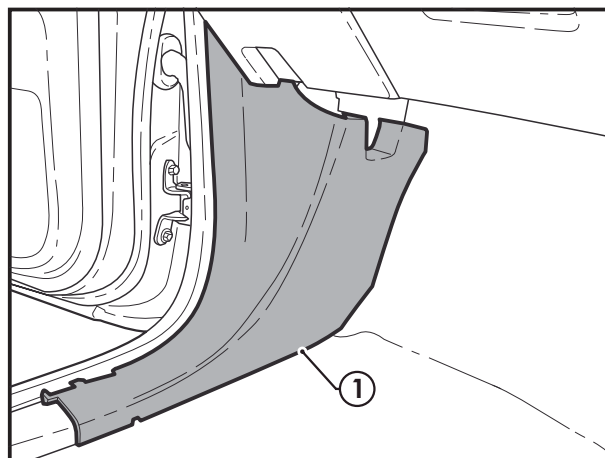
Step 3

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



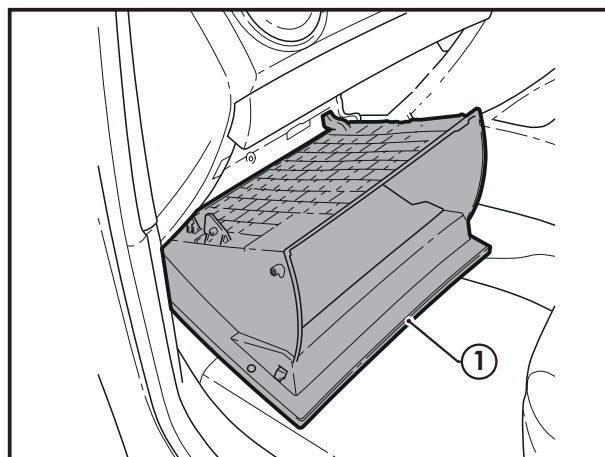
Step 4

- Remove the LHS kick panel (1).



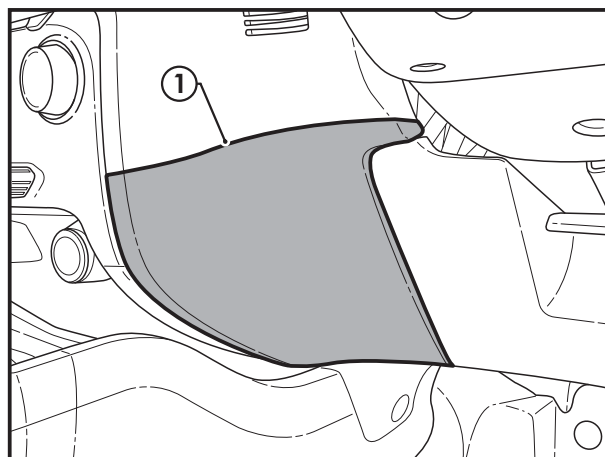
Step 5

- Squeeze both sides of the glove box compartment (1) and swing the drawer downwards towards the footwell.
- On each corner of the glove box compartment (1), pull the drawer towards the seat to dislodge the hinges.



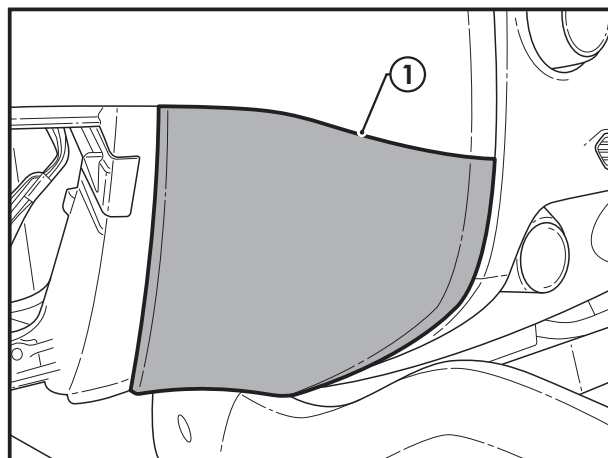
Step 6

- Remove the RHS center consol trim (1).



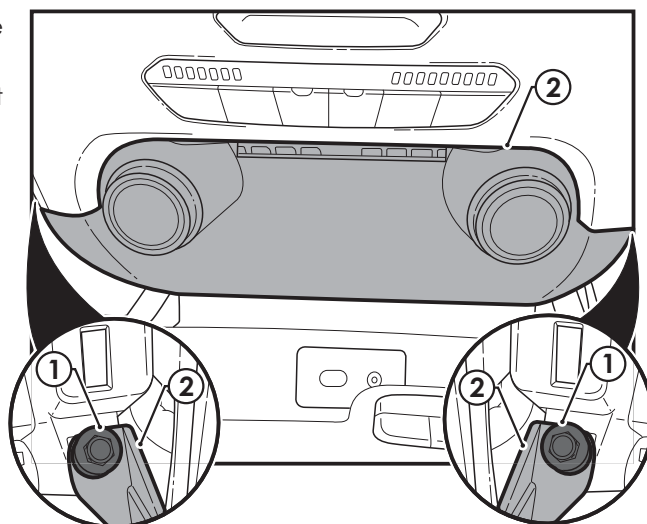
Step 7

- Remove the LHS center consol trim **(1)**.



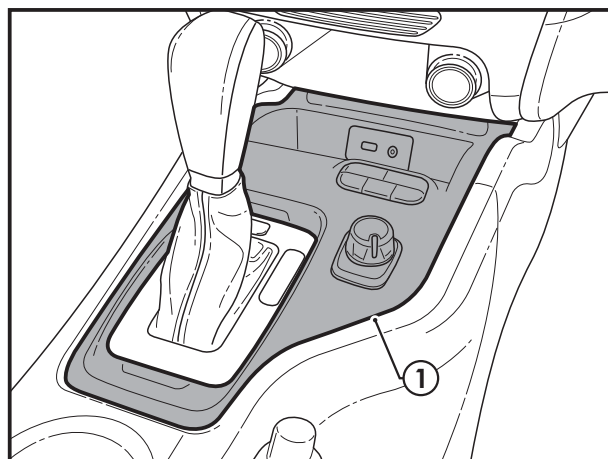
Step 8

- Remove the two bolts **(1)** on either side of the center console accessory trim **(2)**.
- Dislodge the center console accessory trim **(2)** and disconnect any connectors behind it before removing from vehicle.



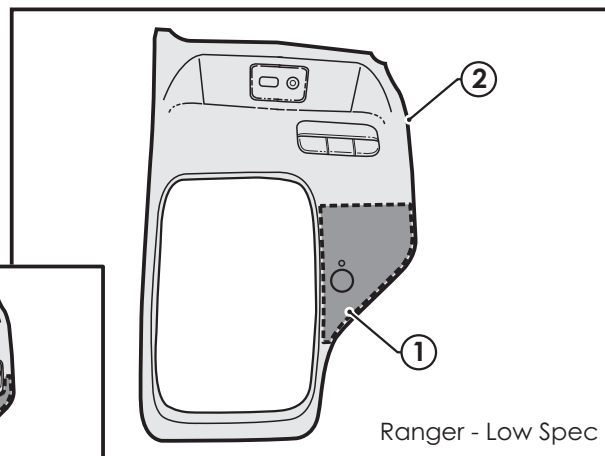
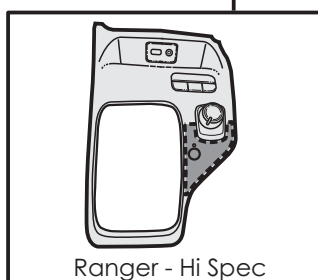
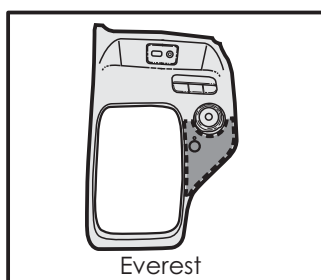
Step 9

- Dislodge the gear shift surround trim **(1)** and disconnect any connectors behind it before removing from vehicle.



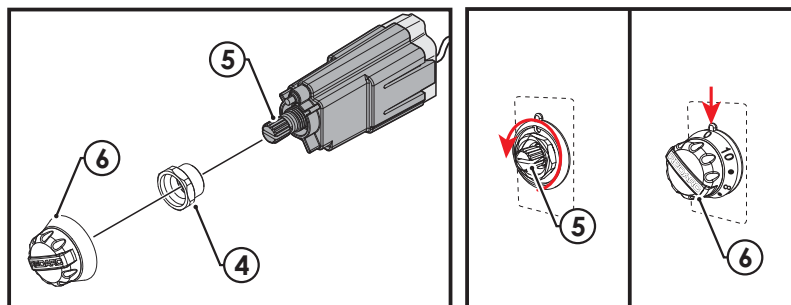
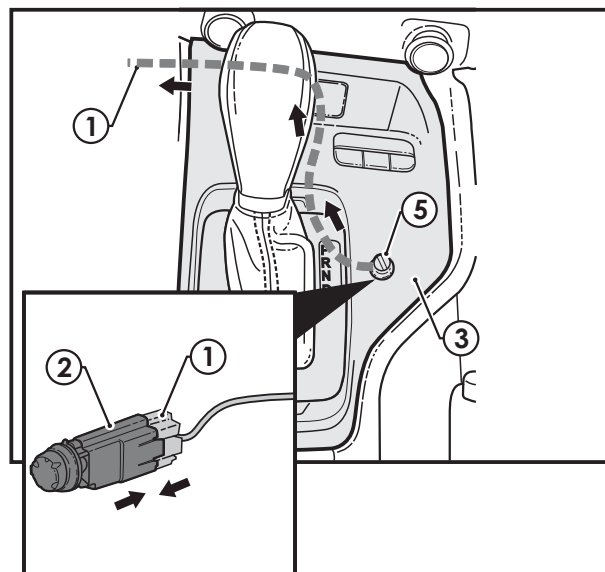
Step 10

- Cut out and adhere the appropriate supplied Switch Template **(1)** (Page 17) to the gear shift surrounding trim **(2)**, ensuring to align them to the vehicle trim edges as indicated.
- Using a Ø2mm drill bit, drill out the pilot hole in the locations specified on the template **(1)**.
- Drill out the top hole to Ø3.5mm and the bottom hole to Ø10mm.
- Remove any plastic ribs interfering with the hole from behind.



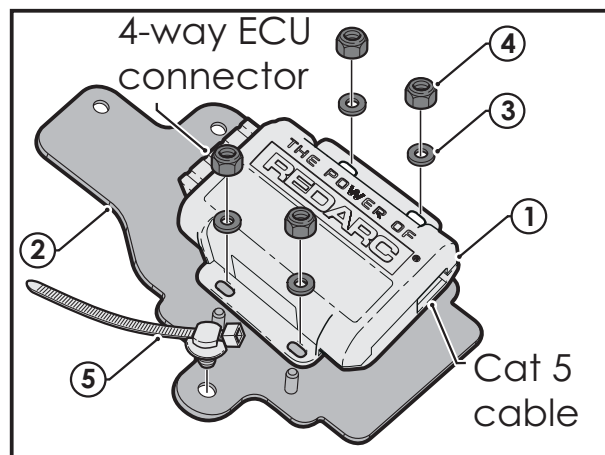
Step 11

- Plug the Cat 5 Cable **(1)** supplied in the wiring kit, into the remote head **(2)** and fit the remote head to the gear shift surrounding trim **(3)**.
- Secure the remote head to the surround trim **(3)** as shown. Torque the nut **(4)** to 0.8 Nm.
- Rotate the shaft **(5)** fully anti-clockwise and fit the knob **(6)** to the shaft **(5)** with "0" pointing upwards as shown below.
- Route the Cat 5 Cable **(1)** towards the glove box area.



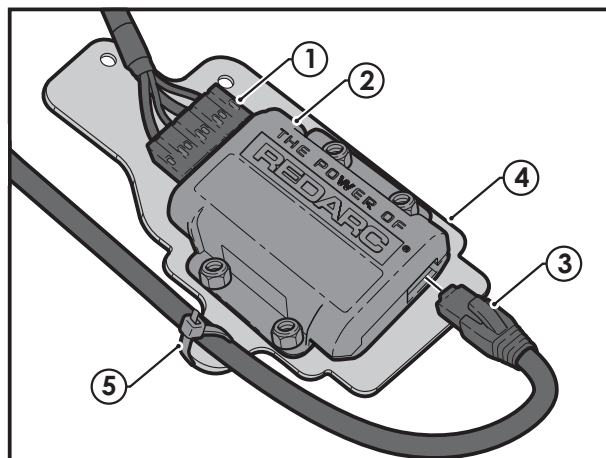
Step 12

- Secure the Brake Controller ECU **(1)** onto the Brake Controller Bracket **(2)** using the supplied M4 Flat Washers **(3)** and M4 Nyloc Nuts **(4)**.
- Ensure the ECU orientation is correct, as shown.
- Attach the supplied Push Clip Cable Tie **(5)** to the Brake Controller Bracket **(2)** as shown.



Step 13

- Connect the 4-Way connector (1) from the Electric Brake Harness to the Brake Controller ECU (2).
- Connect the supplied Cat 5 Cable (3) to the Brake Controller ECU (2).
- Route the Cat 5 Cable (3) back onto the Brake Controller Bracket (4) and secure using the Push Clip Cable Tie (5) as shown.



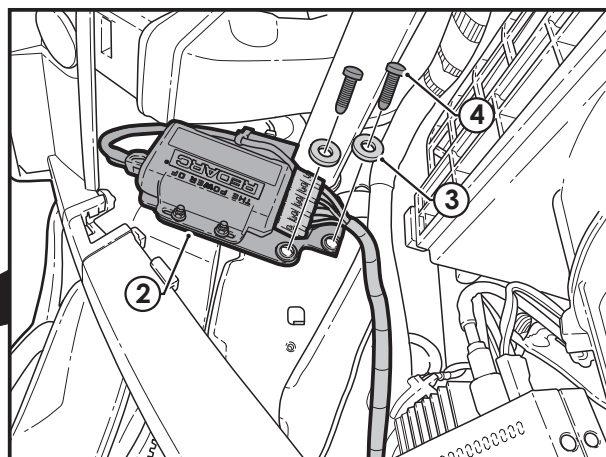
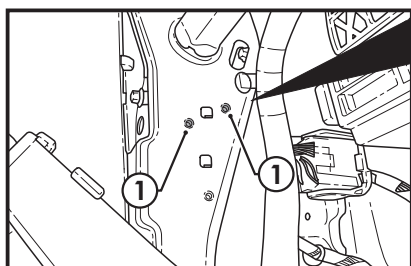
Step 14

If the vehicle is a Ford Everest, proceed to Step 15.

If the vehicle is a Ford Ranger, continue:

- Locate the two holes (1) on the inner LHS of the glove box compartment area.
- Secure the Brake Controller bracket assembly (2) to the vehicle chassis using the supplied M5 Washers (3) and Thread Cutting Screws (4) as shown. **Ensure not to over tighten.**

Proceed to step 16.



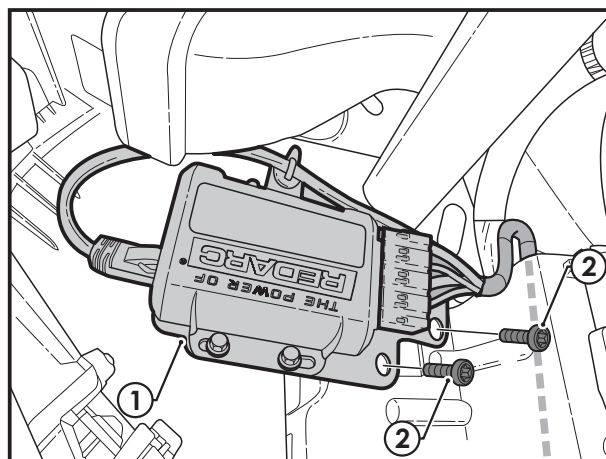
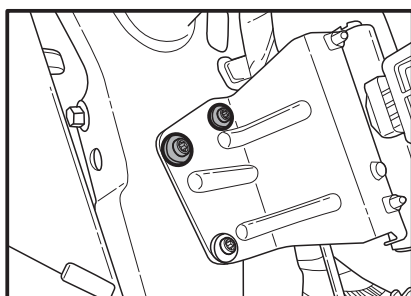
Step 15

If the vehicle is a Ford Ranger, refer to Step 14.

If the vehicle is a Ford Everest, continue:

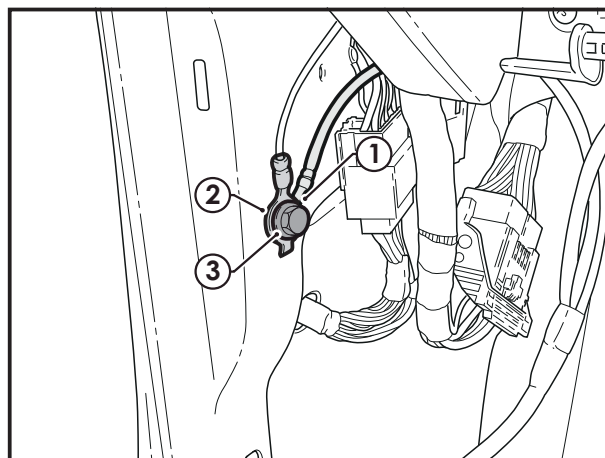
- Locate and remove the two torx bolts on the inner LHS of the glove box compartment area.
- Secure the Brake Controller Bracket assembly (1) to the vehicle chassis using the two previously removed vehicle torx bolts (2) as shown.

Proceed to step 16.



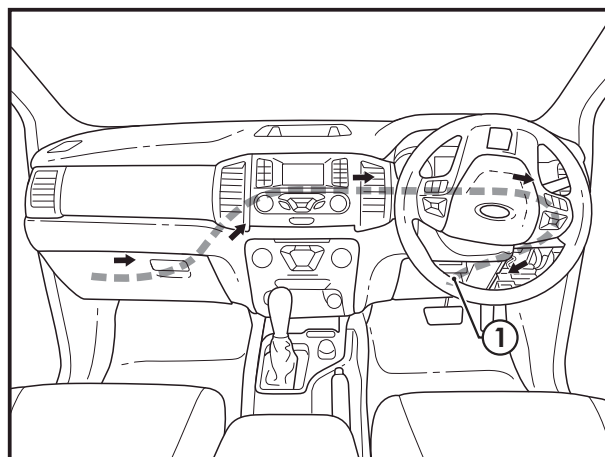
Step 16

- Secure the ground ring terminal **(1)** from the Electric Brake Harness to the vehicle earth point **(2)** using the existing fastener **(3)**.



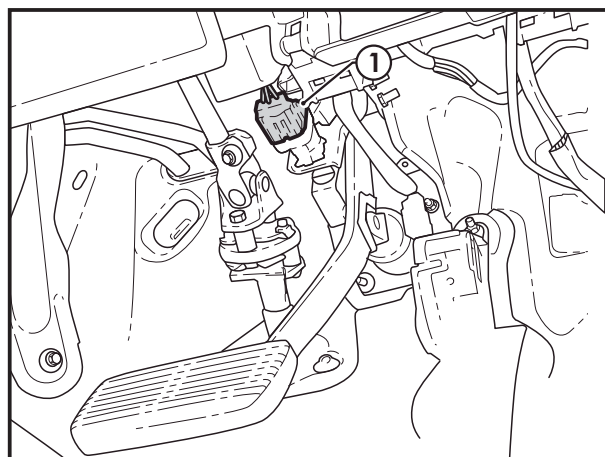
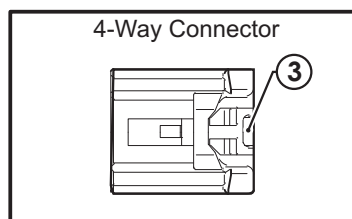
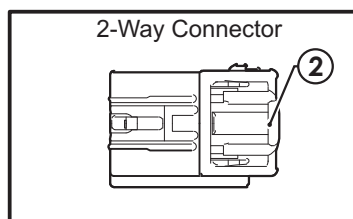
Step 17

- Inside the cabin, route the Electric Brake Harness Red Wire terminals **(1)** towards the driver's brake pedal area.
- Secure using the supplied Cable Ties and ensuring the wire does not interfere with any moving parts.



Step 18

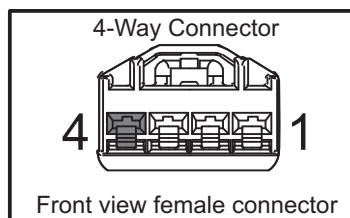
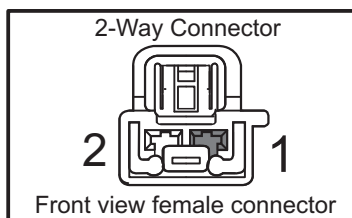
- Disconnect the brake switch connector **(1)**.
- Once disconnected, identify which connector is used.
PX1 Ranger vehicles will be a 2-way connector **(2)**.
PX2 Ranger\Everest vehicles will be a 4-way connector **(3)**.



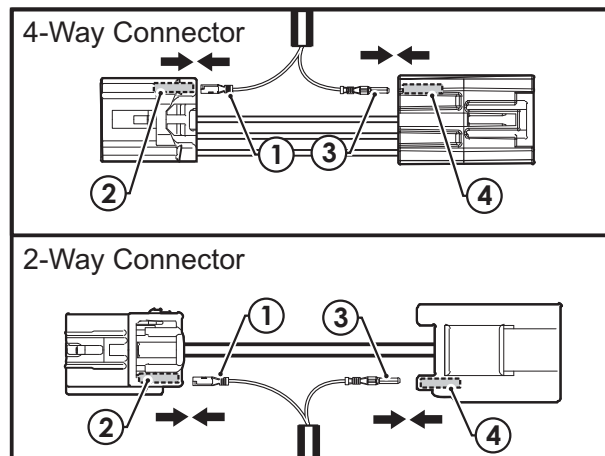
Step 19

For all models excluding PX2 Ranger XL Plus, continue with step 19.
For PX2 Ranger XL Plus models, go to step 20.

- Select the appropriate patch from the two supplied in the wiring harness kit.
- If required, release the secondary locks on the supplied patch connectors before housing the terminals.
- House the RED female terminal (1) into the female connector empty cavity (2).
- House the RED male terminal (3) into the male connector empty cavity (4).
- Ensure the secondary locks are re-engaged after inserting the terminals.



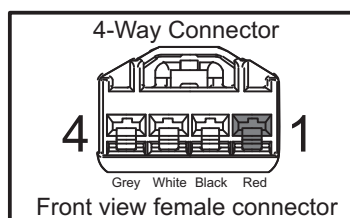
Proceed to Step 21.



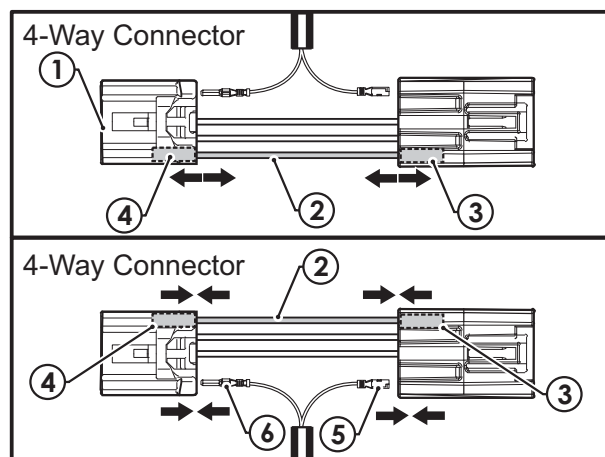
Step 20

For PX2 Ranger XL Plus models only.

- On the 4-way Connector Patch (1) locate the grey wire (2) on Pin 1.
- Carefully de-house the GREY wire male (3) and female (4) terminals.
- House the GREY wire male (3) and female (4) terminals into the pin 4 location.
- House the RED female (5) and male (6) terminals into pin 1 location.
- Ensure secondary locks are re-engaged after inserting the terminals.

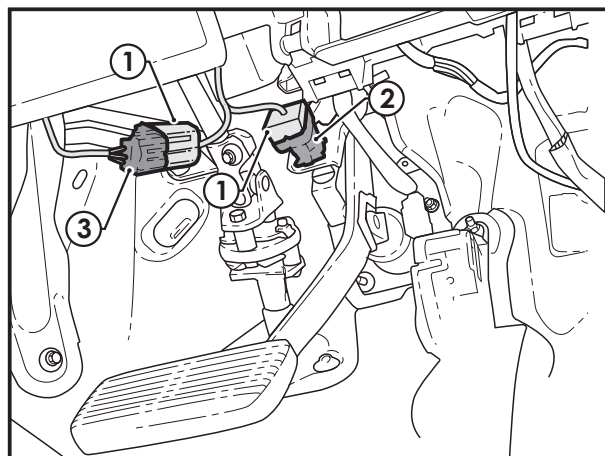


Proceed to Step 21.



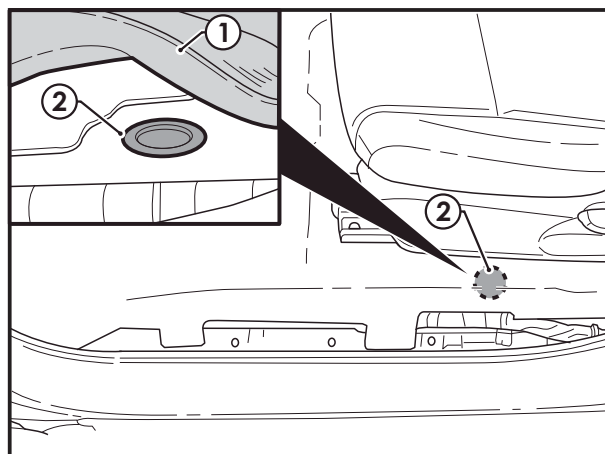
Step 21

- Connect the patch (1) created in Step 19/20 between the brake switch (2) and brake switch connector (3).
- Secure using the supplied Cable Ties.



Step 22

- Lift the front passenger side carpet (1) and remove the LHS vehicle blanking grommet (2).



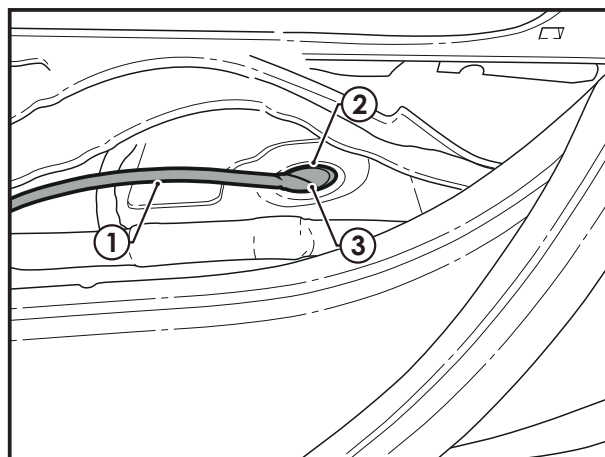
Step 23

- Route the Electric Brake Harness blue wire and Circuit Breaker (1) through the vehicle grommet hole (2) and seat the harness grommet (3) to the vehicle.

Important

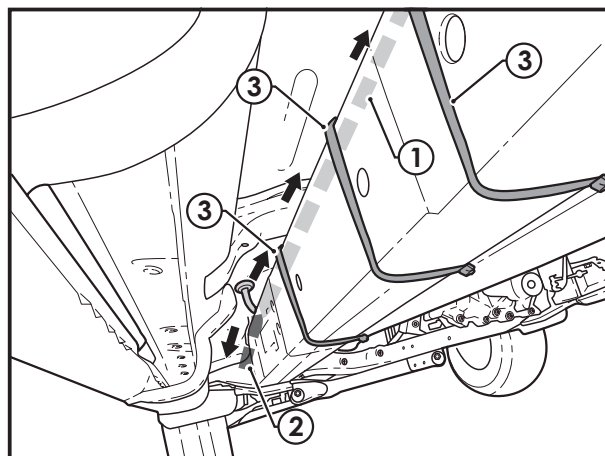


Ensure the Harness Grommet is seated correctly to prevent any water ingress.



Step 24

- Route the Electric Brake Harness blue wire **(1)** along the top of the chassis rail towards the rear of the vehicle.
- Route the Electric Brake Harness circuit breaker **(2)** along the top of the chassis rail towards the front of the vehicle.
- Secure Harness using supplied 900mm Cable Ties **(3)**.

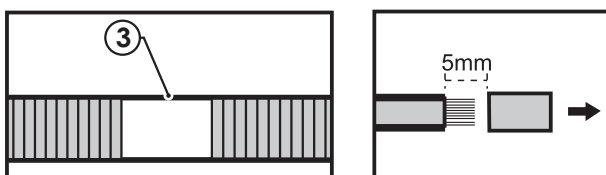
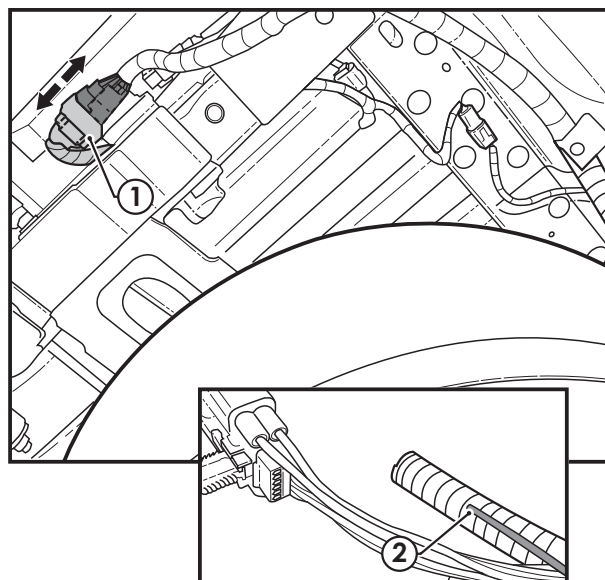


Step 25

If the vehicle is a Ford Everest, proceed to Step 27.

If the vehicle is a Ford Ranger, continue:

- On the LHS rear tub area, locate the OE Harness 16-way connector **(1)** and disconnect.
- On the male connector, peel the back of the PVC tape to expose the blue wire **(2)**.
- Locate the White Tape **(3)** on the Electric Brake Harness (blue wire), cut at this point and discard the extra length.
- Strip 5mm of insulation from both the Electric Brake Harness (blue wire) and the vehicle blue wire.
- Route the Electric Brake Harness (blue wire) to this area.



Step 26

- Slip the supplied Heatshrink over the wire and insert both blue wires into the supplied Butt Splice.

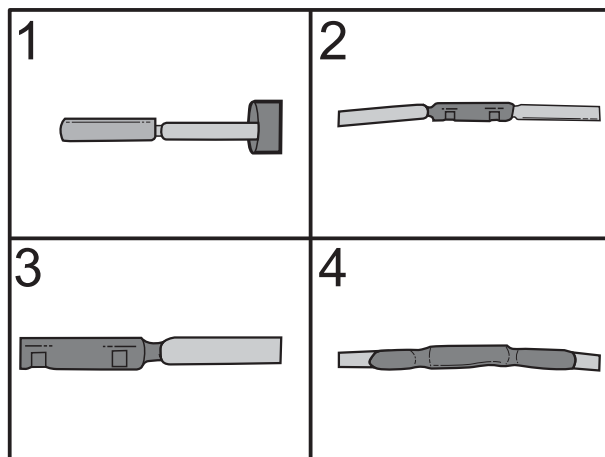
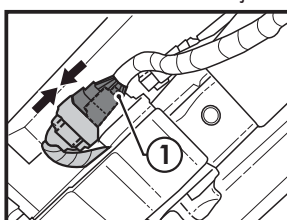
Important



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

- 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.
- Wait for the Butt Splice to cool, slip the Heatshrink over the joint and heat.
- Reconnect the 16-way connector **(1)**.

Proceed to Step 30.

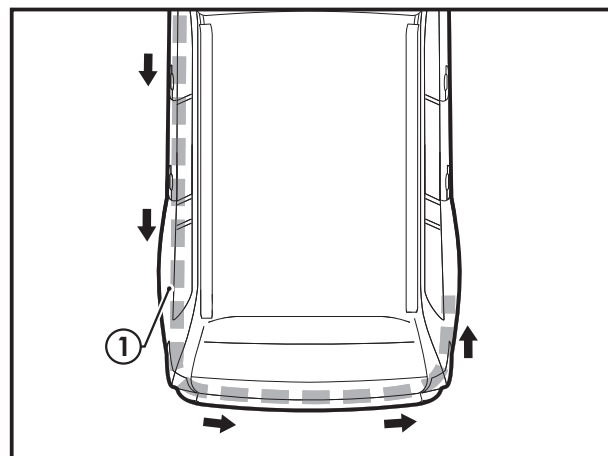


Step 27

If the vehicle is a Ford Ranger, refer to Step 25.

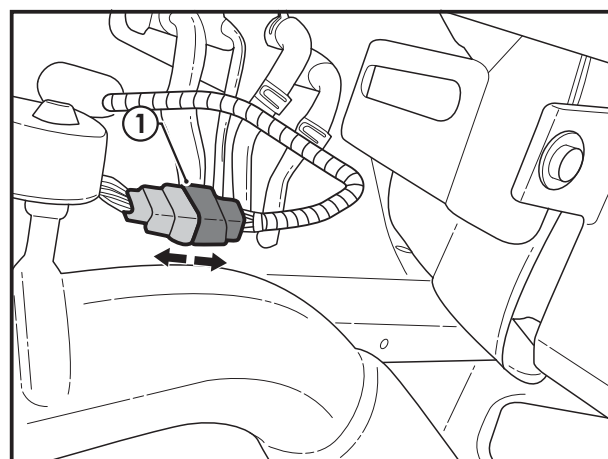
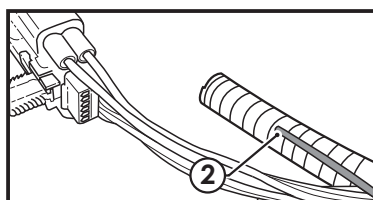
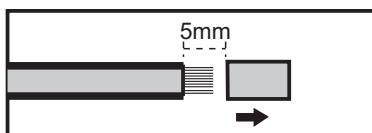
If the vehicle is a Ford Everest, continue:

- Continue routing the Electric Brake Harness blue wire (1) around the rear of the vehicle towards the RHS rear wheel area.
- Secure Harness using supplied Cable Ties along the top of the towbar and vehicle harnesses.



Step 28

- On the RHS rear wheel area near the exhaust hanger, locate the OE Harness 16-way connector (1) and disconnect.
- On the male connector, peel the back of the PVC tape to expose the blue wire (2). The blue wire (2) may be up to 300mm away.
- Strip 5mm of insulation from both the Electric Brake Harness (blue wire) and the vehicle blue wire.
- Route the Electric Brake Harness (blue wire) to this area.



Step 29

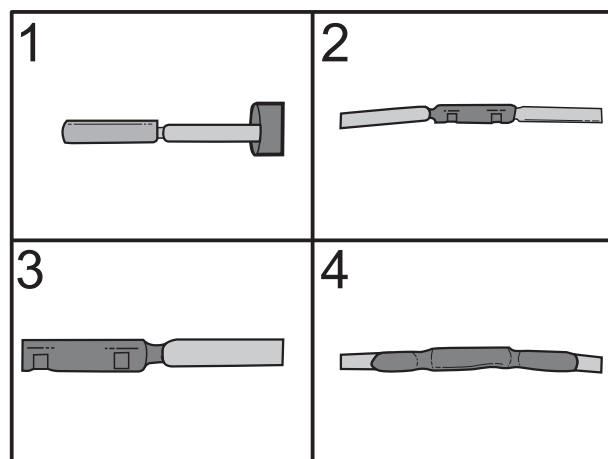
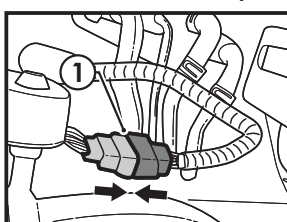
- Slip the supplied Heatshrink over the wire and insert both blue wires into the supplied Butt Splice.



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

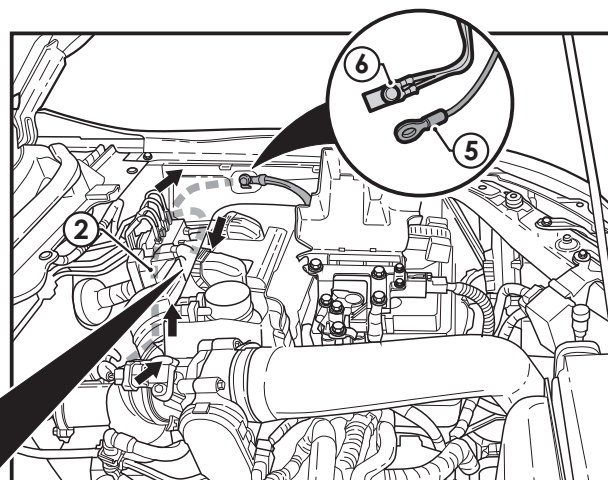
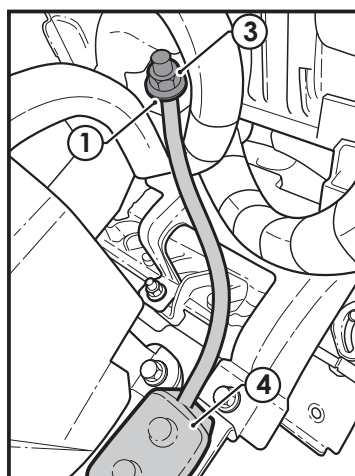
- Crimp both wires to the Butt Splice using indent type crimpers.
- Solder the wires to the Butt Splice. Ensure that a good connection is made.
- Wait for the Butt Splice to cool, slip the Heatshrink over the joint and heat.
- Reconnect the 16-way connector (1).

Proceed to Step 30.



Step 30

- Route the positive ring terminal **(1)** from the Electric Brake Harness **(2)** along the chassis rail towards the engine bay.
- Secure with the supplied 900mm Cable Ties.
- In the engine bay, fasten the positive Electric Brake Harness ring terminal **(1)** to the vehicle positive post **(3)** located behind the fuse box.
- Secure the Circuit Breaker **(4)** onto the vehicle bracket as shown.
- Fasten the negative Electric Brake Harness ring terminal **(5)** to the vehicle ground location **(6)**.
- Secure the Electric Brake Harness **(2)** in the engine bay using the supplied 200mm Cable Ties.



Step 31

- Reconnect the engine bay negative battery terminal.
- Test the operation of the Electric Brake Harness using a test lamp or a multimeter to ensure correct operation.
- Dispose of any parts not used from the fitment.

Important



Secure all harnesses to the vehicle using cable ties. Refit all removed parts and secure all fasteners to the Service Manual torque specifications.

Important



Reprogram all radio stations and clock settings by referring to the vehicle's Owner's Manual.



Please place the Fitting Instructions and Owner's Manual in the glove box after installation is completed.

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 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.

Offer and duration of product warranties

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.

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.

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

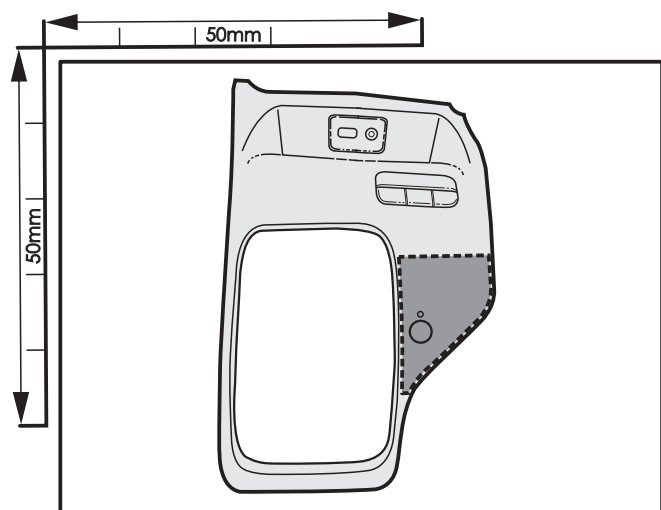
12. If the Purchaser acquired a Product for the purpose of resupply, then this Warranty shall not apply to that Product.
13. In particular, the sale of a Product via an online auction, online store or other internet website by a party that is not an authorised distributor or reseller of the Product will 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
Telephone: +61 8 8322 4848

Electric Brake Switch Template

– Template



Important



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

