## **Accessory Wiring Junction Block Package Installation**

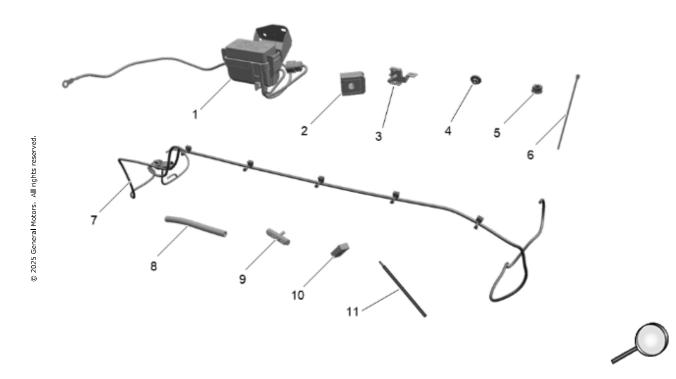
 Table 1:
 Kit Contents

Table 2: Accessory VBP Fuse Box Reference

**Table 3:** Fuse Type Reference

### **Installation Instructions Part Number**

84938257



### **Kit Contents**

Item	QTY	Description		
1	1	Accessory Wiring Junction Block		
2	1	60A Fuse		
3	1	Battery Positive Cable Bracket		
4	2	Battery Positive Cable Nut (6 mm)		
5	2	Accessory Junction Block Bracket Nut (8 mm)		
6	15	Tie Strap		
7	1	Wire Harness		
8	1	Colvolute		

Item	QTY	Description	
9	2	Splice Crimps	
10	1	20A Fuse	
11	1	Single Wire With Terminal	
-	1	Installation Instructions	

## **Tools Required**

Plastic flat-bladed tool

Suitable cutting tool

2' long fish/hook tool

Waterproof silicone sealant or equivalent

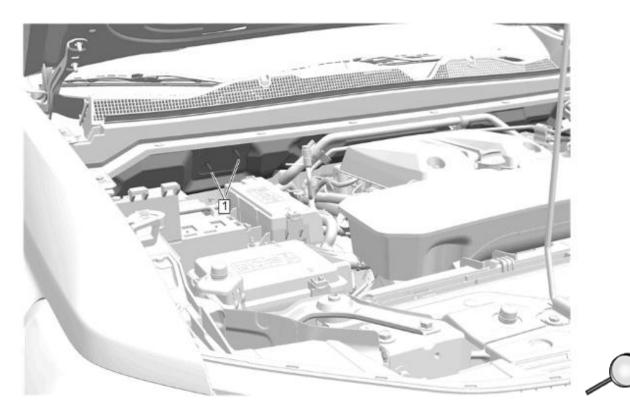
Drill and 3/8" drill bit (optional)

Wire cutter and stripper

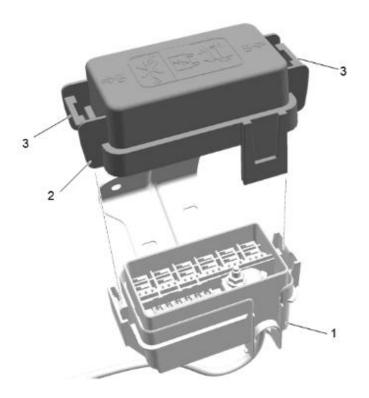
ਤੋਂ Splice crimpers

ੈਂStraight pick tool

# Procedure

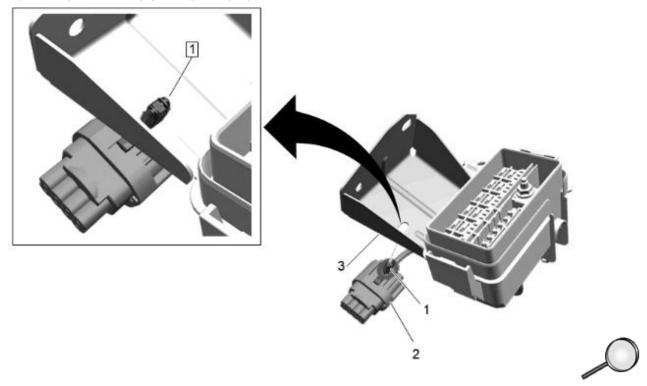


1. Open the hood and locate the mounting studs (1) for the relay box on the passenger side plenum.

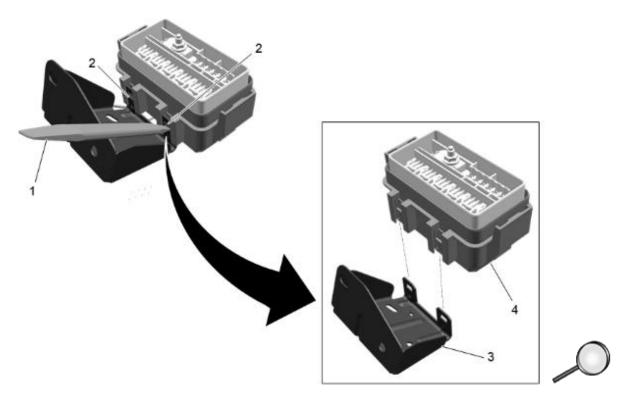




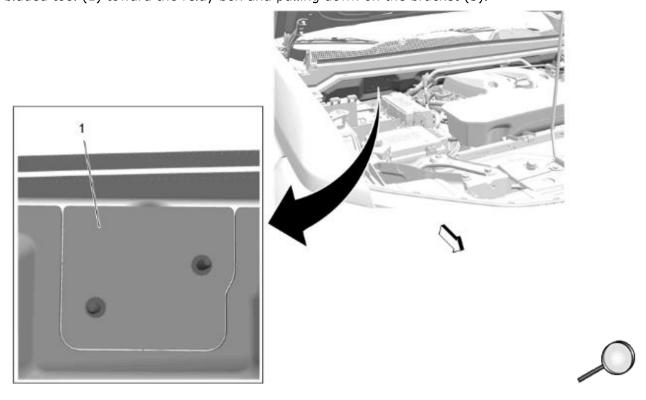
2. Remove the relay box assembly (1) from the box it came in and remove the cover (2) by squeezing the tabs (3) and pulling upward.



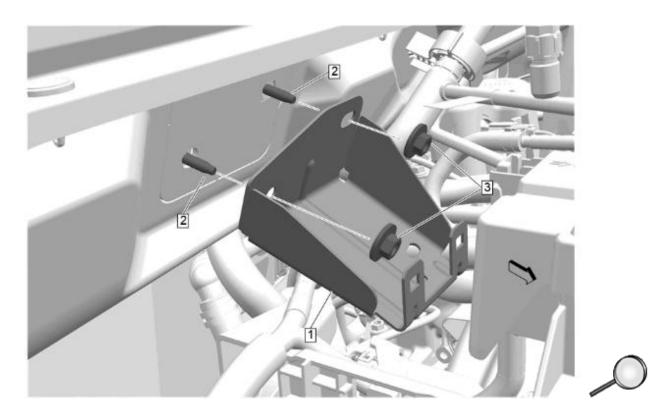
3. Disengage the retaining tab (1) from bracket (3) and remove 8-way connector (2).



4. Remove the bracket (3) from the relay box (4) by pushing the tabs (2) inward with a plastic flat-bladed tool (1) toward the relay box and pulling down on the bracket (3).

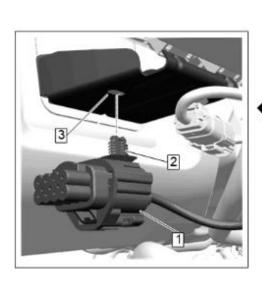


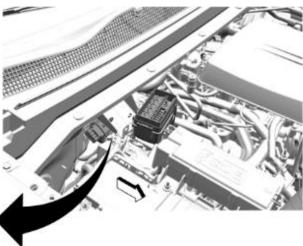
5. Using a suitable cutting tool, remove the insulator's cut out area (1) that is over the plenum and discard the material as the bracket will mount to the plenum directly.



**Caution:** Use the correct fastener in the correct location. Replacement fasteners must be the correct part number for that application. Fasteners requiring replacement or fasteners requiring the use of thread locking compound or sealant are identified in the service procedure. Do not use paints, lubricants, or corrosion inhibitors on fasteners or fastener joint surfaces unless specified. These coatings affect fastener torque and joint clamping force and may damage the fastener. Use the correct tightening sequence and specifications when installing fasteners in order to avoid damage to parts and systems.

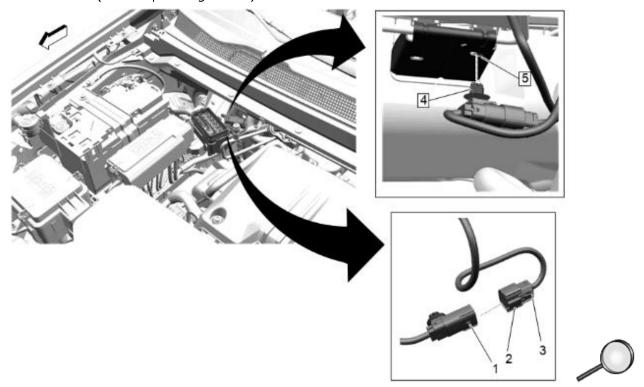
6. Position bracket (1) over the studs (2) and make sure enough material was removed so the bracket can lay flat on the plenum and secure with the supplied nuts (3). Tighten the nuts to 9 N.m (80 lb in).







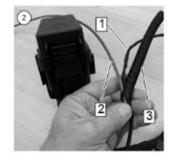
7. While holding relay box near bracket (toward right), position the large 8-way connector (1) with clip (2) onto the bottom of the relay bracket (3) by pushing upwards. The end with no wires will be on the left (toward passenger side).

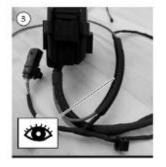


- 8. Locate the wire harness in kit and remove the harness and single Violet wire.
- 9. Attach the connector from the relay box (2) to the connector (1) from the harness and lock the red CPA (3).
- 10. Position the small 8-way connector clip (4) onto the bottom of the relay bracket (5) by pushing upward.

**Note:** The wiring with the clips should be on the right (toward driver side).

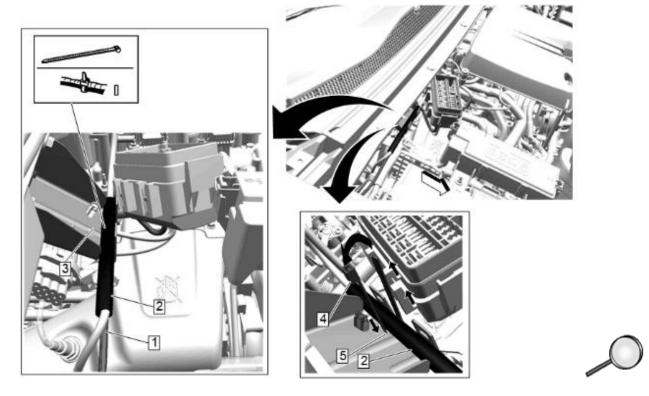




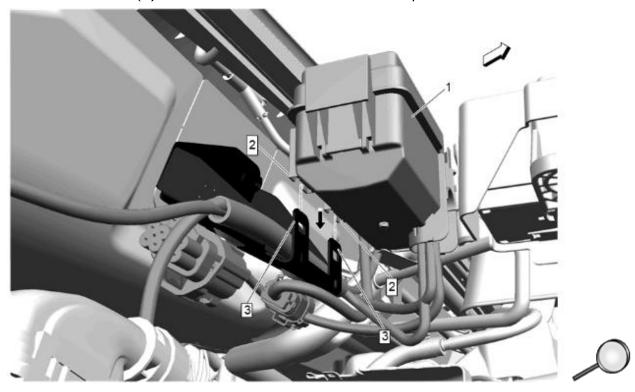




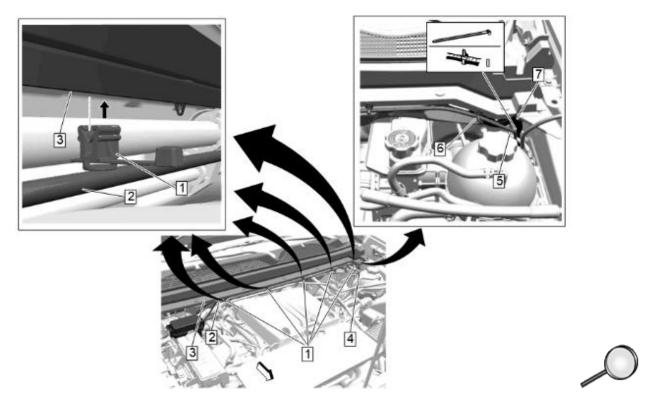
11. Route the red cable (2) from the relay box together with the wire harness breakout (1) near the small 8-way connector (that has no clips) through the piece of convolute (3) as shown.



12. Position the cable (1) so that it lays in the inside of the bracket (3) with the convolute protecting the cable on both sides of the bracket. Once positioned, use one of the tie straps (4) provided and insert through hole (5) in bracket and then fish tie strap between bracket and relay box to secure the colvolute (2) to the bracket. Trim excess off tie strap.



13. Align the slots (2) on the relay box (1) to the blades (3) on the bracket and push the relay box downward onto bracket until it is secure.



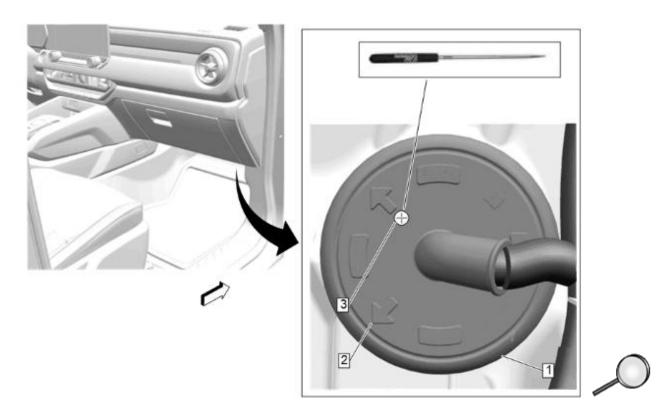
14. Route the wiring break-out branch (2) that has five of the edge biter clips (1) along the windscreen. Be careful before pushing on edge bite clips as once they are secure, they are difficult to remove. Engage the clips (1) by pushing upward on windscreen edge (3) and position them as shown, moving from left to right.

**Note:** The driver side outer most edge-biter clip (6) may be missing off the kit's harness assembly. If so neatly route kit wiring along the windscreen and use a tie-strap to secure the kit wiring to the vehicles body harness. First apply two wraps of tape to the body harness (7) and then tie strap the kit harness (5) to the body harness (7). Cut excess material once fastened.

15. **Excess wiring near driver grommet:** Bundle up the remaining wiring (4) that is to the right of the last clip neatly with tie straps as it may or may not be used. The wiring is intended to be attached to an interior switch if purchased.

Note: Make sure wiring does not get tangled in brake line area.

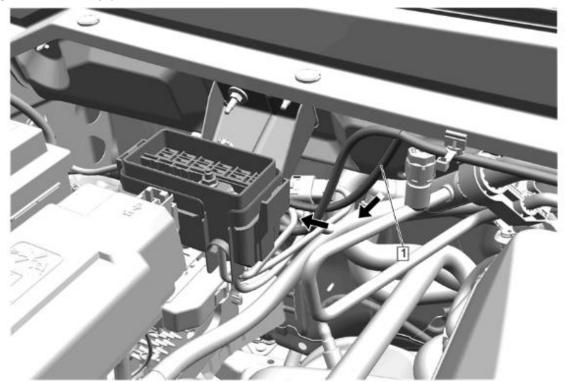
**Note:** The rest of the driver side wiring installation is covered in switch installation instruction ID: 84938261 when purchased. Refer to <u>Auxiliary Multifunction Switch Package</u>
<u>Installation</u> in Vehicle Accessory Installation Manual.



16. From inside the vehicle on the passenger side below the instrument panel, locate the wire harness grommet (1).

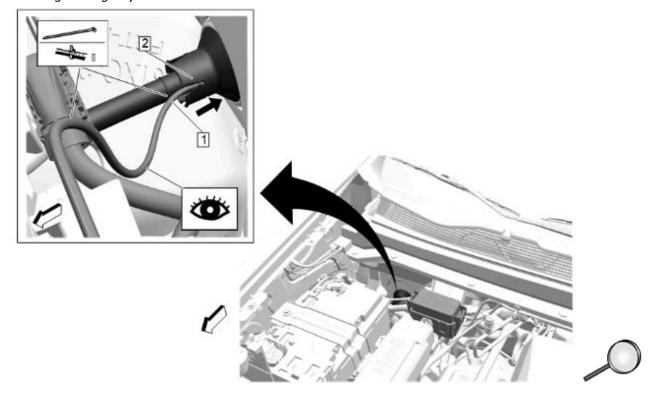
**Caution:** Always check position of hole before cutting/drilling. Failing to do so may cause damage to the vehicle, misalignment of components or the inability to install the accessory.

- 17. Poke a hole (2) using a straight pick through the inside and outside grommet (1) making sure to keep it centered between the grommets outer edge and the wire bundle to avoid damage to the grommet. (A drill with 3/8" bit an be used as an alternative method).
- 18. Using the pick as a fish tool (or replace with a longer fish tool if preferred), leave it in the grommet hole (2) and locate it underhood.





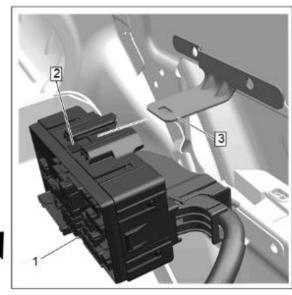
19. Locate the wiring (1) on the left side of the convolute (not the red cable) that was tie strapped to the relay bracket and route it toward the fish hook tool away from all objects (making sure not to get tangled).

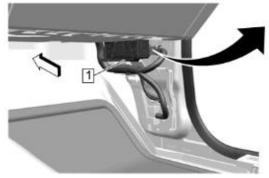


- 20. Tape the wires (1) at the end of the fish/hook tool and pull through the grommet (2) into the interior taking up excess length and assuring it does not get bound up.
- 21. Secure wiring under hood with 2 tie straps in locations shown. Trim excess off tie straps.

**Note:** Make sure wiring has a drip loop on engine compartment grommet side and then seal where wire enters grommet with waterproof silicone sealant or equivalent.

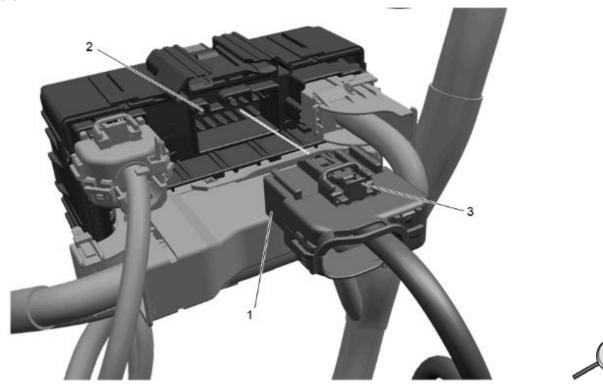
- 22. Disconnect the 12 volt negative battery cable. Refer to <u>Battery Negative Cable Disconnection</u> and <u>Connection</u> in Vehicle Service Manual.
- 23. On the front passenger interior side of vehicle, remove the front side door sill garnish molding. Refer to <u>Front Side Door Sill Garnish Molding Replacement</u> in Vehicle Service Manual.
- 24. Remove the instrument panel lower trim panel insulator. Refer to <u>Instrument Panel Lower Trim</u> Panel Insulator Replacement in Vehicle Service Manual.







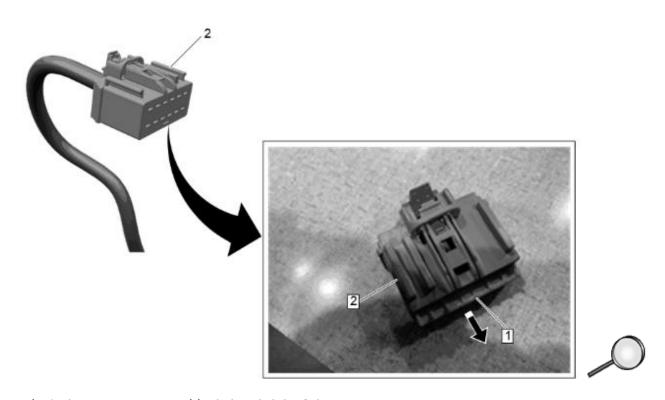
25. Locate the interior electrical center (1) and remove it from the bracket (3) by depressing the tab (2).



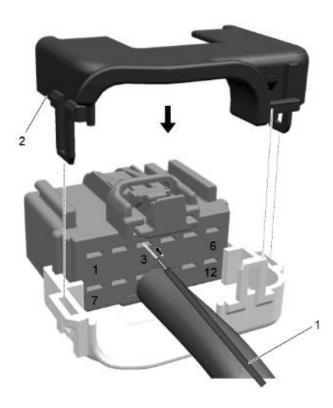
26. Locate the 12-way connector (1) and remove it from the back of the interior electrical center (2) by disengaging the CPA (3) and pinching tab with a pull motion.



27. Remove the 12-way connector cover (1) by disengaging tabs to gain access to back of connector.

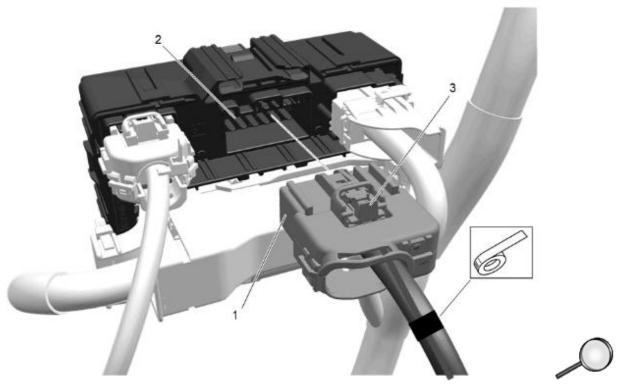


28. Unlock the orange terminal lock (TPA) (1) of the 12-way connector.

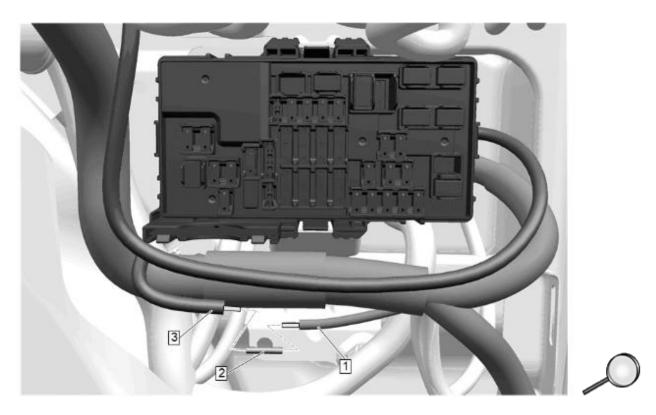




- 29. Locate and populate the single Violet wire (1) from kit into cavity 3 of 12-way connector.
- 30. Relock the orange terminal lock (TPA) of the 12-way connector and reseat the connector cover (2) that was removed to access the back.

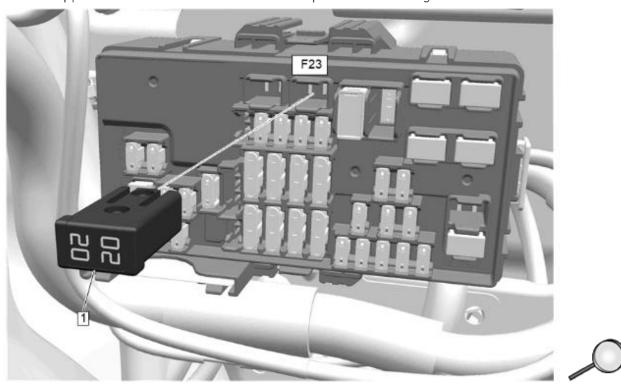


- 31. Route Violet wire along the wiring break-out and tape about 50 mm from back of 12-way connector assembly (1) so it does not get damaged.
- 32. Re-attach the 12-way connector (1) to the interior electrical center (2) and lock the red CPA (3).
- 33. Re-attach the interior electrical center to the bracket.
- 34. Splice the Violet circuit to its mating Violet wire that was fished through grommet with splices supplied. Refer to <u>Wire to Wire Repair</u> in Vehicle Service Manual.



35. Locate the taped give-away Blue/White wire (1) that will be on the main harness near the interior electrical center and splice it to the Blue/White wire (3) that was fished through grommet with supplied splice (2). Refer to <u>Wire to Wire Repair</u> in Vehicle Service Manual.

**Note:** Some vehicles may not have the blue wire or some installs may not need to use it due to other switches being installed. The blue wire can be taped to the main wire harness or tiestrapped. Make sure no bare wires are exposed when doing so.



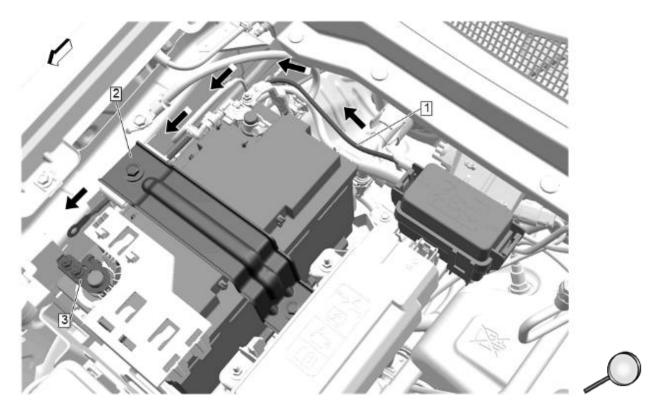
36. Install the supplied Blue 20A M-Case fuse (1) location F23 of the interior electrical center.

Note: Make sure fuse is seated tight in terminals.





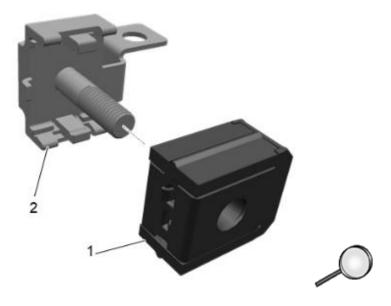
- 37. Secure the fished harness to the main harness with tie straps in areas shown. Trim excess off tie straps.
- 38. Reinstall the instrument panel lower trim panel insulator. Refer to <u>Instrument Panel Lower Trim Panel Insulator Replacement</u> in Vehicle Service Manual.
- 39. Reinstall the front side door sill garnish molding. Refer to <u>Front Side Door Sill Garnish Molding</u>
  Replacement in Vehicle Service Manual.



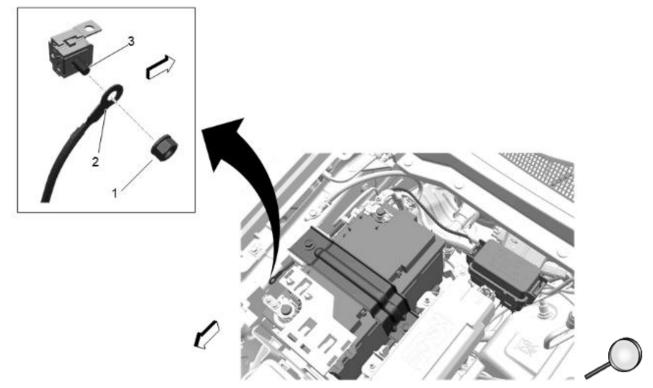
40. Back under hood, locate the relay box's red cable (1) that was set aside earlier and route it around the back and outboard area of the battery making sure it is under the battery brace (2) routing towards the battery positive cable.

Note: PPO builds will have special instructions to add 10 mm conduit over the red cable.

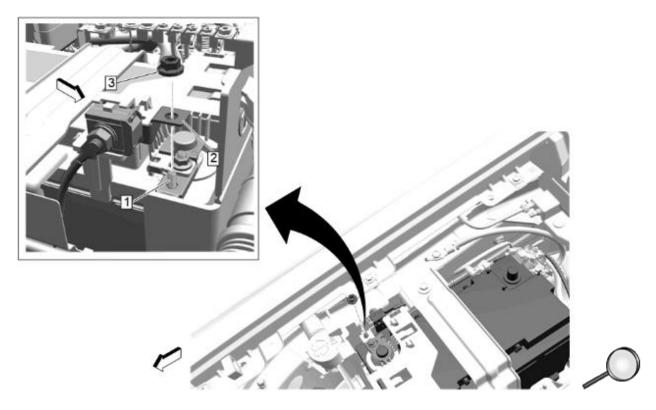
41. Open the battery protective cover to gain access to the battery positive terminal (3).



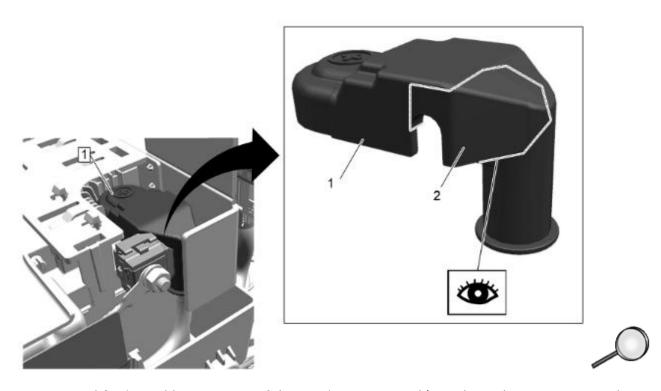
42. Locate the 60A fuse (1) from kit and snap it into the plastic housing (2) in the orientation shown within the small bracket. Make sure fuse is fully seated.



43. Locate the battery terminal (2) that is on the relay box cable and slide it on the stud (3) making sure eyelet is angled slightly downward to avoid contact with surrounding parts. Install supplied nut (1) and tighten to 14 N.m (10 lb ft).

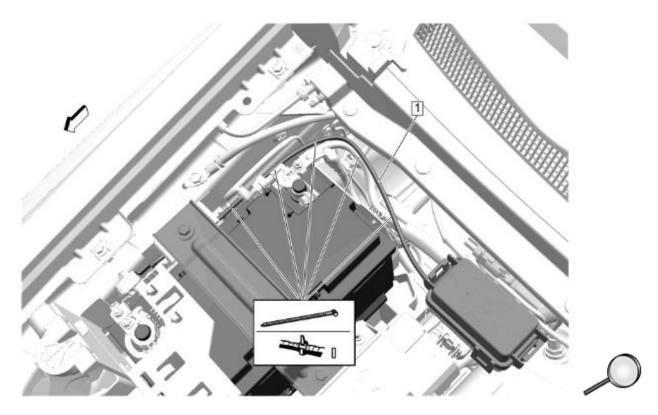


- 44. Lift the red battery cover from the battery positive post and remove the 8mm nut (3) from the battery post terminal (1), if present.
- 45. Install the 60A fuse/bracket assembly (2) to the battery post (1) and re-install 8mm nut (3) or use one supplied in kit. Make sure bracket sits flat and remove any excess cable glue with knife if necessary. Tighten nut to 13 N.m (115 lb in).

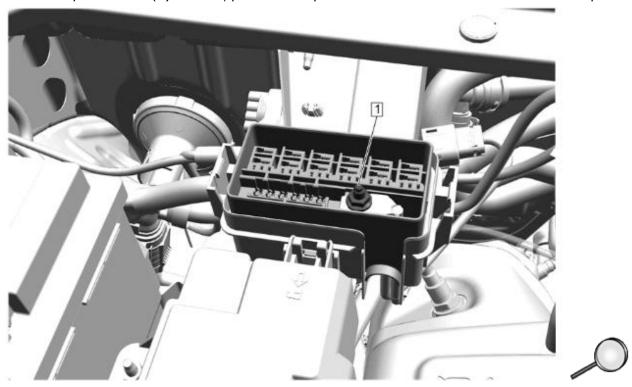


- 46. Position and fit the red battery cover (1) over the positive cable and trim battery cover in the area (2) as little as necessary for proper fit.
- 47. Re-secure the battery protective cover to the closed position.

48. Connect the 12 volt negative battery cable. Refer to <u>Battery Negative Cable Disconnection and Connection</u> in Vehicle Service Manual.



49. Secure relay box cable (1) with supplied tie straps in areas shown. Trim excess off tie straps.



50. Check and confirm that there is 12 volts at the fuse box terminal (1).



- 51. Re-attach cover (2) to relay box (1).
- 52. Clear any fault codes. Refer <u>Diagnostic Repair Verification</u> in Vehicle Service Manual.
- 53. Close hood and place instructions in vehicle instrument panel storage compartment.

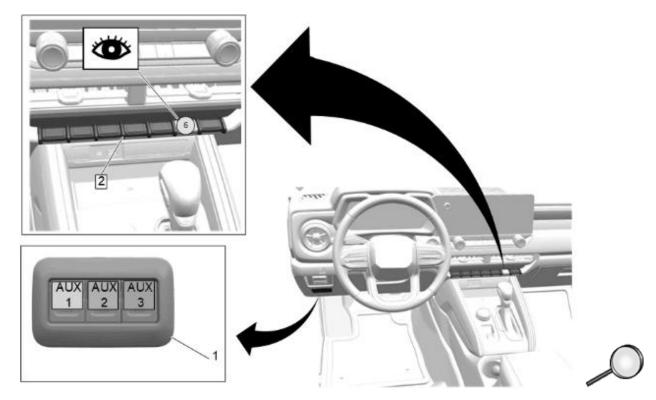
**Note:** This chart and the information below it are assembly aides to help with choosing switch position and the respective fuse and relay positions.

#### **Accessory VBP Fuse Box Reference**

Accessory VBP Fuse Box Reference					
Connector Pin- Out Wire Color		Relay Position	Fuse Position	Hard Switch Location	
1		Relay K1	Fuse F1	AUX Center Stack Position 6	
Yellow		K1 F1		6	
2 Blue		Relay K2 Fuse F2		AUX 1	

Connector Pin- Out	Wire Color	Relay Position	Fuse Position	Hard Switch Location
2		K2	F2	AUX 1
3		Relay K3	Fuse F3	AUX 2
3	Gray	КЗ	F3	AUX 2
		2		
4		Relay K4	Fuse F4	AUX 3
4	Black	K4	F4	AUX 3
5	White	Relay K5	Fuse F5	NA
6	Brown	Relay K6	Fuse F6	NA
7	NC	NC	NC	NA
8	NC	NC	NC	NA

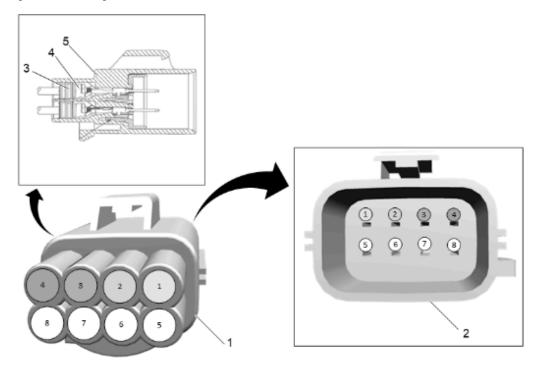
### **Instrument Panel Switch Locations**



Accessory dealer installed switch (1) in knee bolster.

OEM switch (2) in center stack. AUX switch in position #6.

## **Relay Box 8-Way Connector**





- GM P/N 13583215
- Terminals 2.8 Series

Wire insertion view (1)

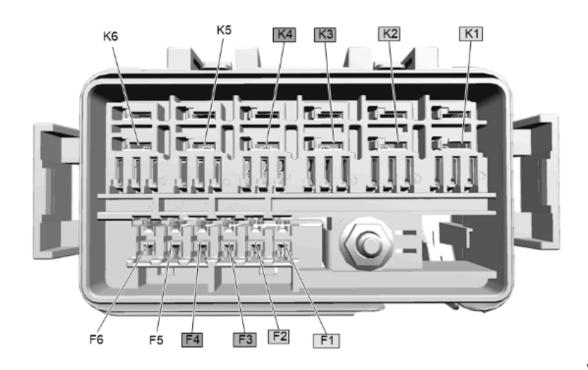
Interface pinout looking at front of connector (2)

Wire seal (3)

Male terminal (4)

Male housing (5)

## **Relay Box Relay and Fuse Positions**





## **Relay Interface**

Note: Positions are from left to right.

Κ6

K5

Κ4

K3

K2

K1

#### **Fuse Interface**

Note: Positions are from left to right.

F6

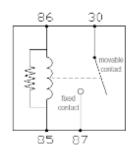
F5

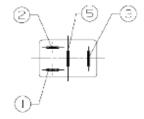
F2

F1

## **Relay Diagrams**











## **Relay Type**

- ISO Micro
- Hongfa GM P/N 13598343 or 90804297
- Denso; GM P/N 84145561

### **Fuse Type**



- · Automotive mini-series
- Available in 3, 5, 7.5, 10, 15, 20 and 30 amps

**Note:** Select the appropriate size for your wiring and load. Do not exceed 30 amps for a single fuse or 60 amps total for the relay center.

## **Fuse Type Reference**

Supplier	GM P/N	Supplier P/N	Fuse Type	Rating	Color
Littlefuse	12191645	0297002.T- GM	Mini Fuse	2 Amp	Gray
PEC	13586673	1202-00*0	Mini Fuse	2 Amp	Gray
PEC	13586672	1203-00*0	Mini Fuse	3 Amp	Violet
PEC	13586670	1204-00*0	Mini Fuse	4 Amp	Pink
Littelfuse	88864840	0297005.T- GM	Mini Fuse	5 Amp	Tan
PEC	13586671	1205-00*0	Mini Fuse	5 Amp	Tan
PEC	13586669	1207-00*0	Mini Fuse	7.5 Amp	Brown
Littelfuse	12092079	0297010.T- GM	Mini Fuse	10 Amp	Red
PEC	13586668	1210-00*0	Mini Fuse	10 Amp	Red
Littelfuse	88909754	0297015.T- GM	Mini Fuse	15 Amp	Blue
PEC	13586667	1215-00*0	Mini Fuse	15 Amp	Blue
Littelfuse	88861352	0297020.T- GM	Mini Fuse	20 Amp	Yellow
PEC	13586666	1220-00*0	Mini Fuse	20 Amp	Yellow
Littelfuse	88909756	0297025.T- GM	Mini Fuse	25 Amp	Natural
PEC	13586665	1225-00*0	Mini Fuse	25 Amp	Natural