

Classification:

EL17-028

Reference:

ITB18-006

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Date:

February 12, 2018

2016-2017 QX60; VDC WARNING LAMP ON WITH DTC C1116 STORED

APPLIED VEHICLES: 2016-2017 QX60 (L50) **Without Intelligent Cruise Control ONLY**

IF YOU CONFIRM

A current or past customer concern of the Vehicle Dynamic Control (VDC) warning light being ON with either a current or past DTC C1116 (STOP LAMP SW) stored.

And

Brake lamp switch operation has been confirmed as operating correctly.

ACTION

Install the harness jumper from the Parts Information using the Service Procedure starting on page 2.

IMPORTANT: The purpose of ACTION (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the entire SERVICE PROCEDURE as it contains information that is essential to successfully completing this repair.

Infiniti Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Infiniti retailer to determine if this applies to your vehicle.

SERVICE PROCEDURE

CAUTION: Handle interior trim carefully to avoid damage. Work with clean hands and clean tools to avoid dirt and stains. Use protective covers as needed.

1. Record (write down) any customer settings that will be lost when the battery is disconnected.
 - Refer to the ESM, section **GI – General Information / ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL**, for a listing of systems that may lose settings or memory when disconnecting the 12V battery.
 - This list often includes items such as, HVAC, power windows, clock, etc.
2. Turn the ignition OFF.
3. Disconnect the negative terminal of the vehicle 12V battery.
 - Refer to the ESM, section **PG-Power Supply, Ground, & Circuit Elements**, for procedure to disconnect the 12V battery.

WARNING: In the following steps exposed sharp metal will be present. Take care to prevent personal injury.

4. Remove the Instrument Lower Panel LH.
 - Refer to the Electronic Service Manual (ESM), section **INT – Interior**, for procedure to remove.



Figure 1

5. Completely disconnect and remove the Fuse Block – Junction Box (J/B).
 - Refer to the Electronic Service Manual (ESM), section INT – Interior, for procedure to remove.

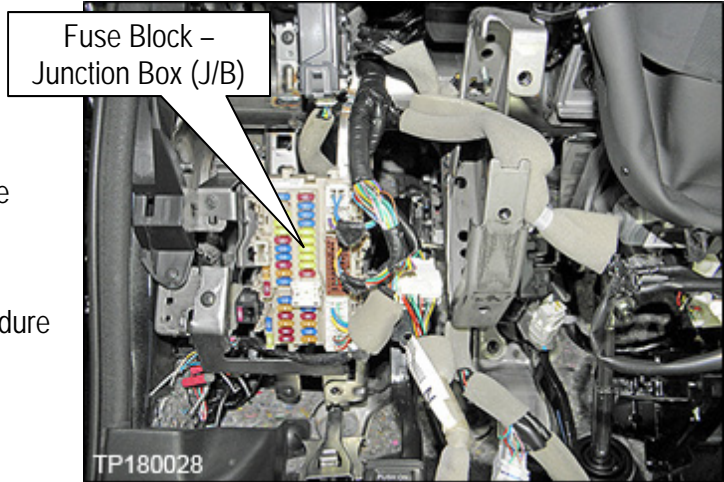


Figure 2

6. Unbolt the parking brake pedal assembly.
 - Remove four (4) bolts shown in Figure 3.

NOTE: Do not disconnect the parking brake cable.

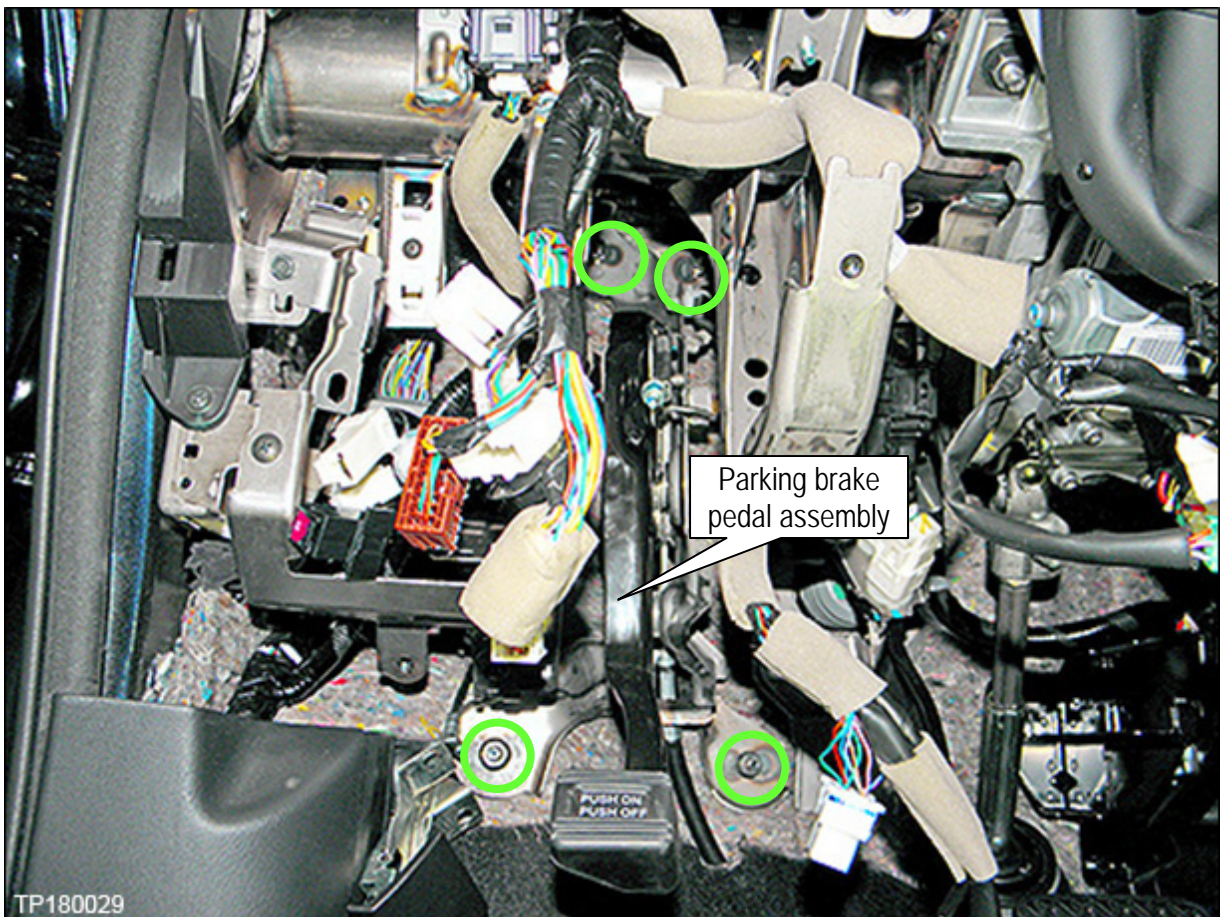


Figure 3

- Unclip the engine room harness from the parking brake pedal assembly in the two locations shown in Figure 4 and unplug the parking brake switch harness connector.

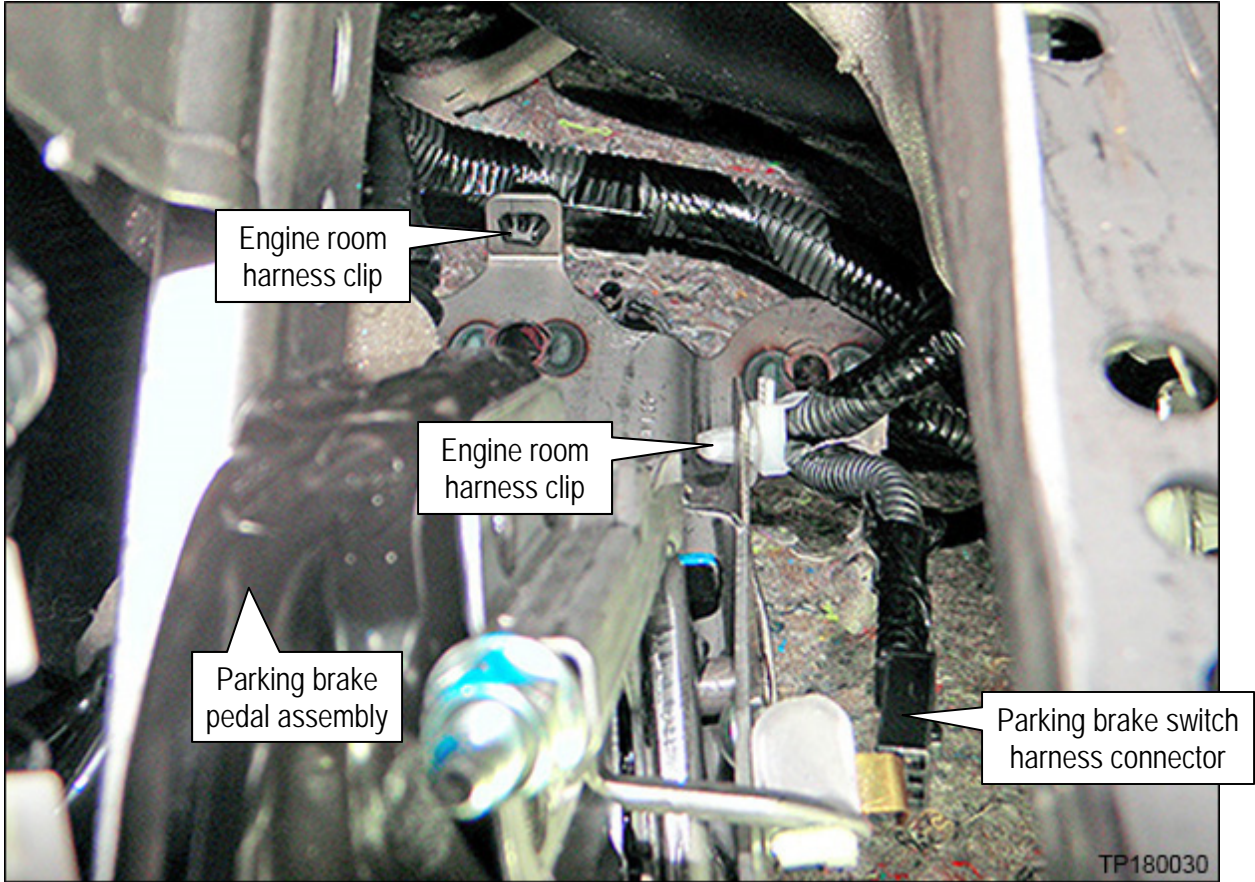


Figure 4

- Remove the parking brake pedal assembly from under the Instrument Panel and lay it on the floor as shown in Figure 5.

NOTE: Do not disconnect the parking brake cable.

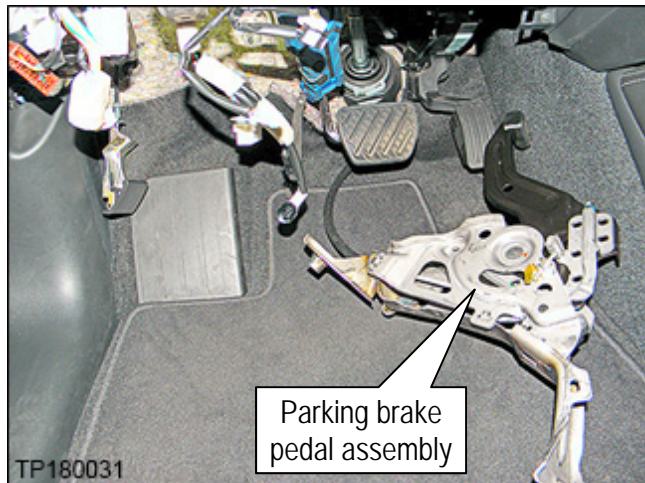


Figure 5

9. Disconnect the Super Multiple Junction (SMJ) connectors.

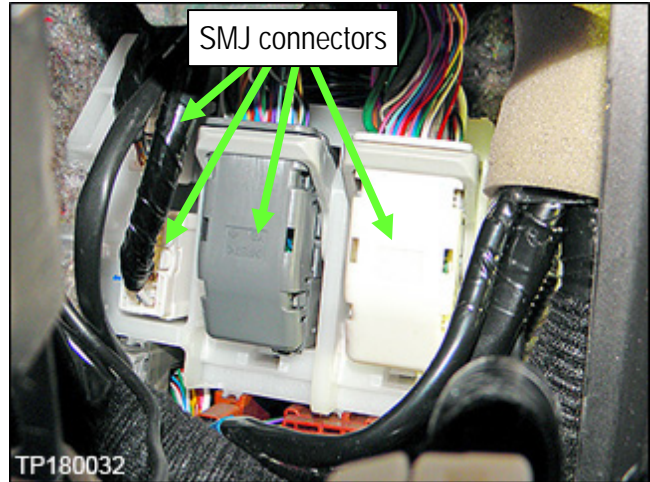


Figure 6

10. Remove bolt that is retaining SMJ.
11. Remove self-tapping bolt from harness ground.
NOTE: Bolt hidden in Figure 7 behind insulation material.

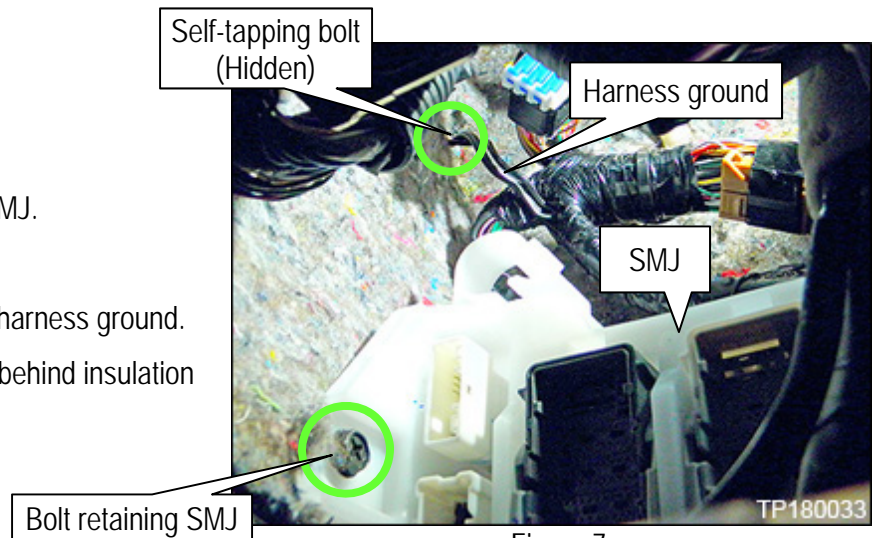


Figure 7

12. Unclip two (2) white clips of brake switch harness from brake pedal bracket.

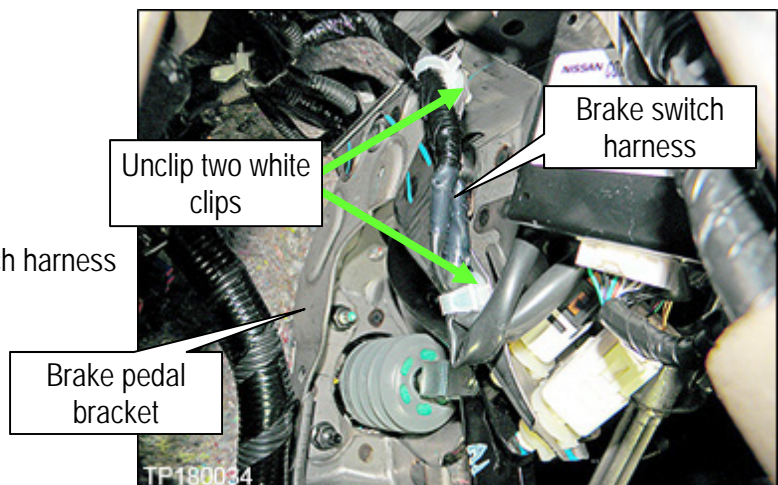


Figure 8

13. Disconnect both brake switch harness connectors from the brake switches.

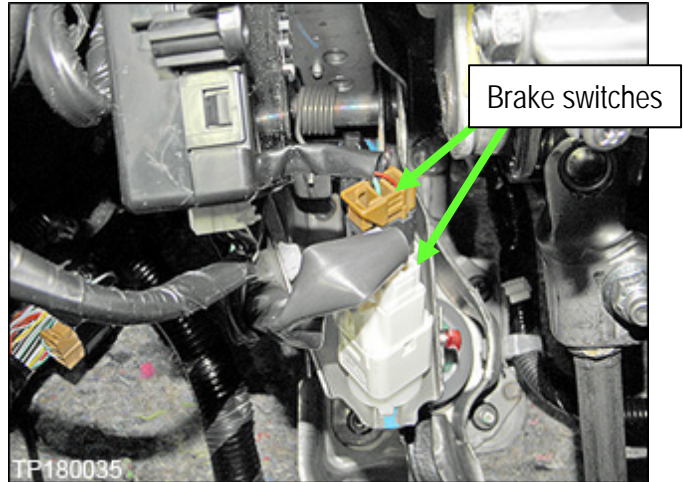


Figure 9

14. Remove the engine room harness completely from the Instrument panel and lay it on the floor.

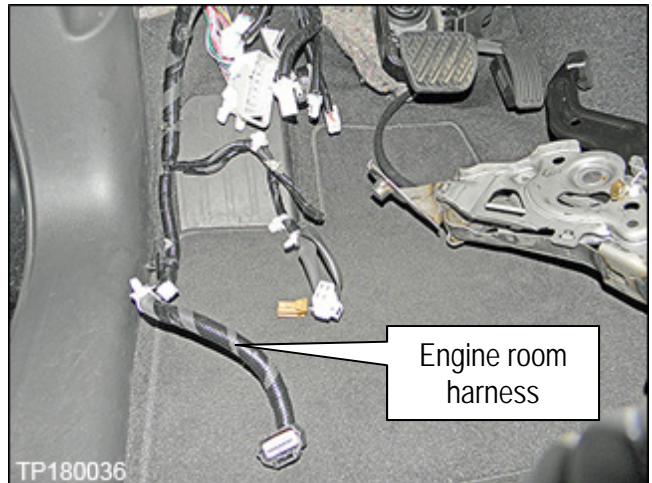


Figure 10

15. Detach harness strap from threaded stud, if not already detached.

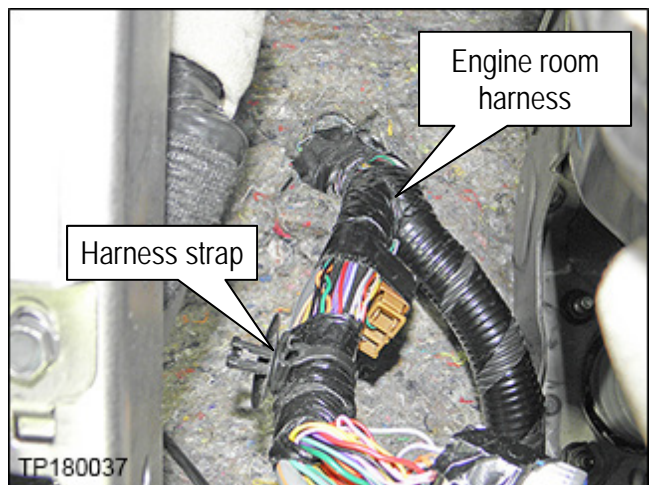


Figure 11

16. Remove the wiper arms as follows:

a. Remove the nut finisher caps.

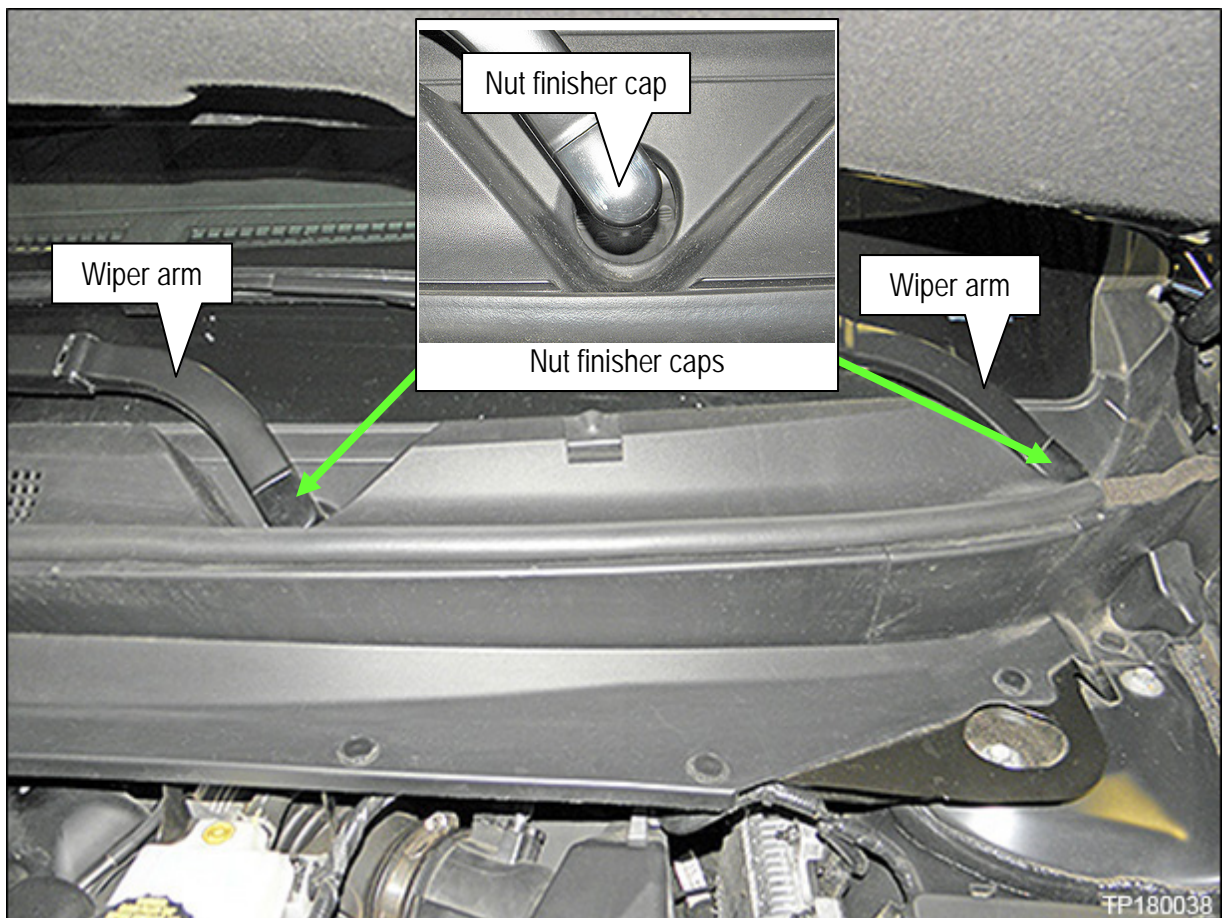


Figure 12

b. Remove the nuts that retain both wiper arms to the wiper motor shafts.

NOTE: Place masking tape on the windshield directly parallel to the wiper blades as alignment markers for wiper arm re-installation.

CAUTION: Lay a fender guard or other appropriate material on top of the windshield glass and do not contact the windshield glass with tools to prevent cracking or breaking the glass.

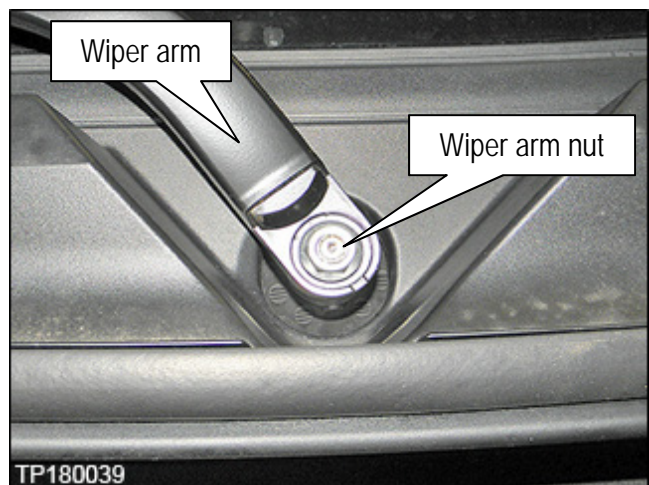


Figure 13

c. Remove both wiper arms.

17. Removed both left and right side cowl top side trim covers.

18. Remove the 9 clips that attach the cowl top cover (Figure 14).

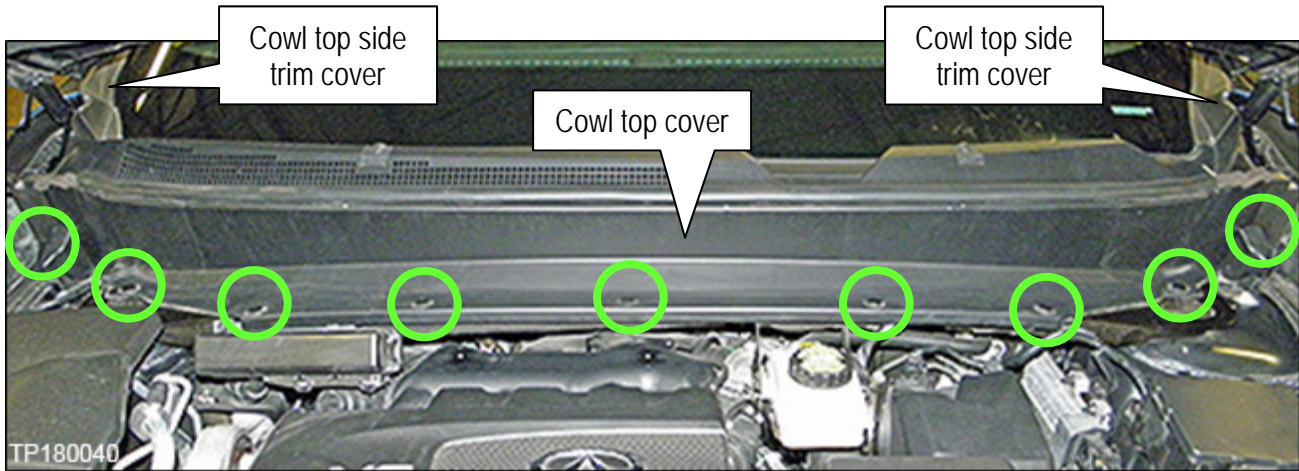


Figure 14

19. Disconnect the windshield washer hose.

- Located on the passenger side of the cowl top cover.

20. Remove the cowl top cover.

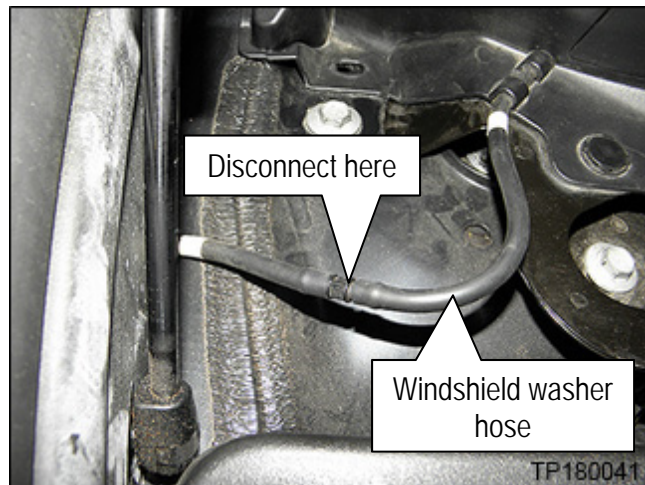


Figure 15

21. Remove the three nuts retaining the wiper motor.

22. Disconnect the wiper motor harness connector.

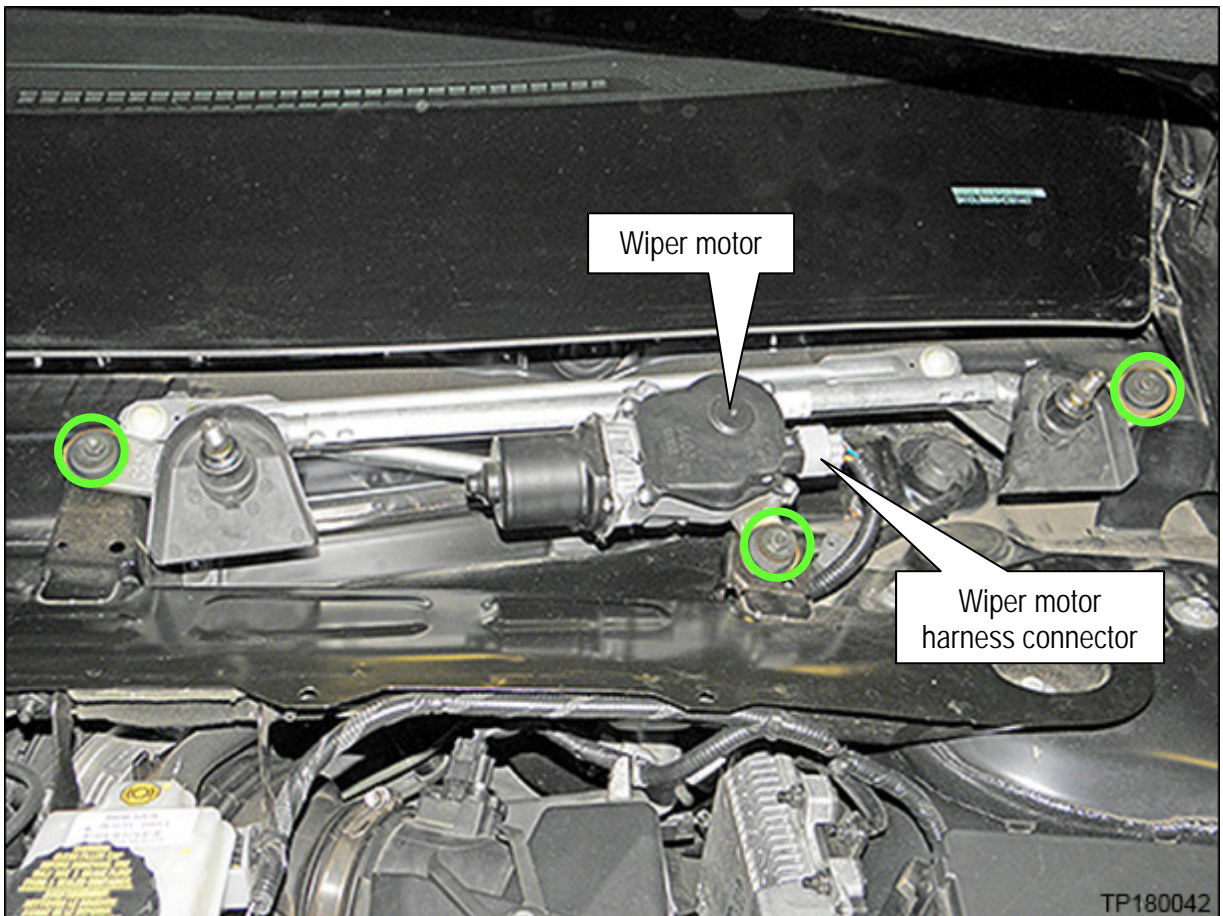


Figure 16

23. Remove the cowl top extension as follows:

- a. Remove four (4) bolts and one (1) nut along the rear edge of the cowl top extension.

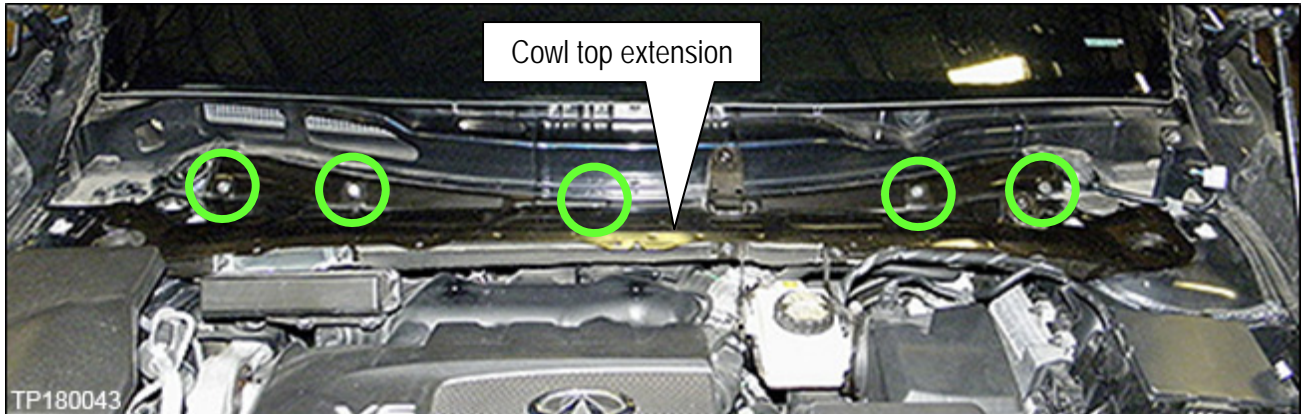


Figure 17

- b. Remove the six (6) bolts that attach the cowl top extension; three (3) at each end.
 - Three (3) Bolts shown in Figure 18 are on the driver's side. Three (3) bolts for passenger side are similar, but not shown.

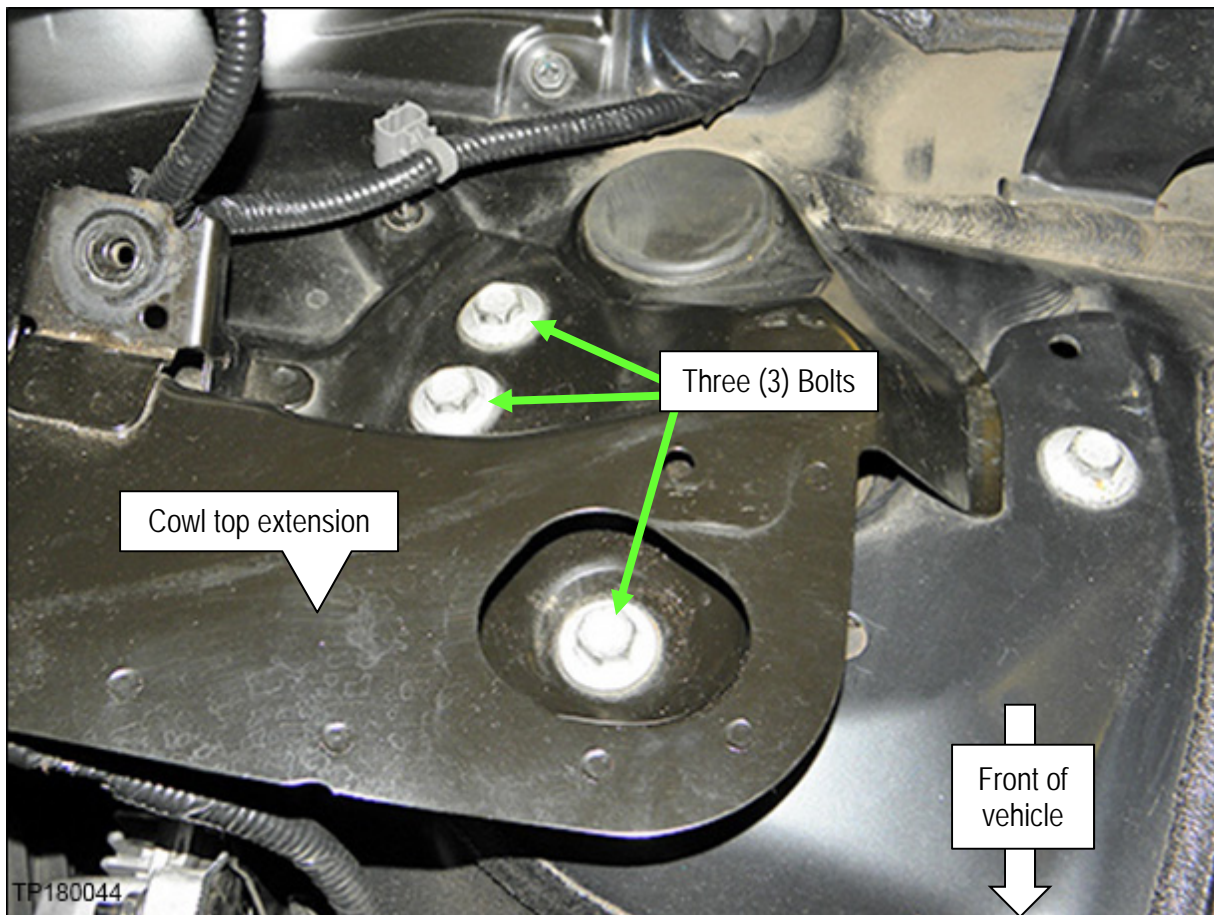


Figure 18

- c. Remove two (2) nuts that attach the brake fluid reservoir to the cowl top extension.
- d. Disconnect brake fluid reservoir harness clips from the cowl top extension.

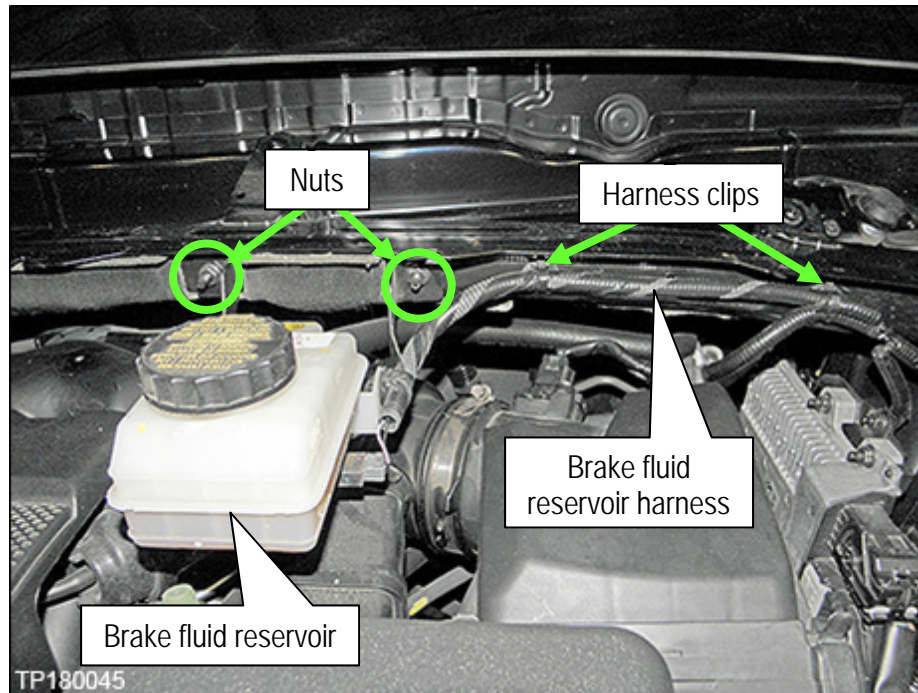


Figure 19

- e. Remove two (2) nuts that attach the Fuse and Relay Box 1 to the cowl top extension.

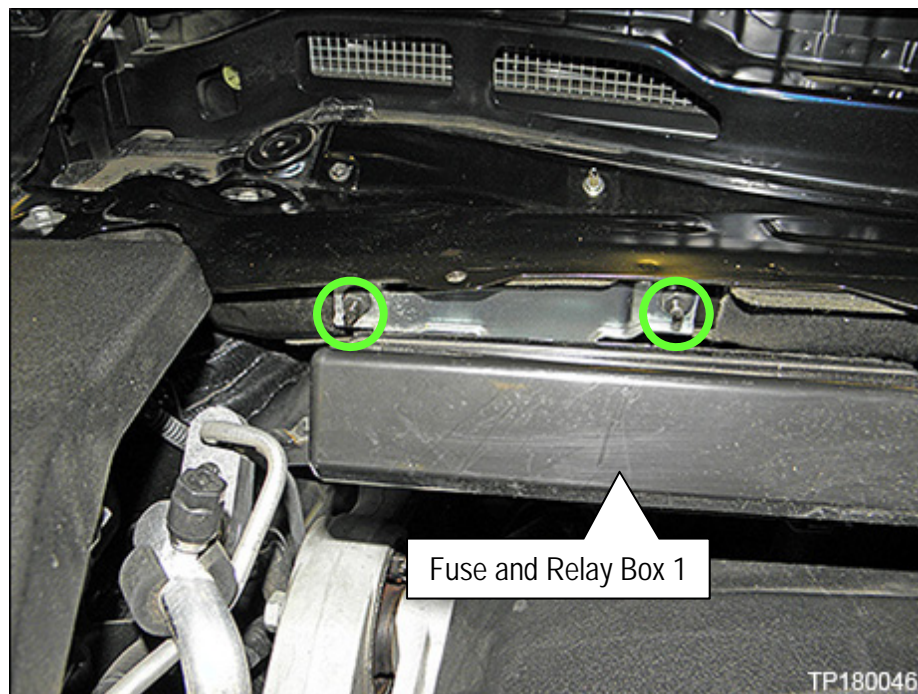


Figure 20

- f. Remove cowl top extension from vehicle.

24. Remove the front air duct and the air cleaner assembly (Figure 21).

25. Disconnect and remove the ECM.

- Refer to the ESM, section EC – Engine Control, for removal information.

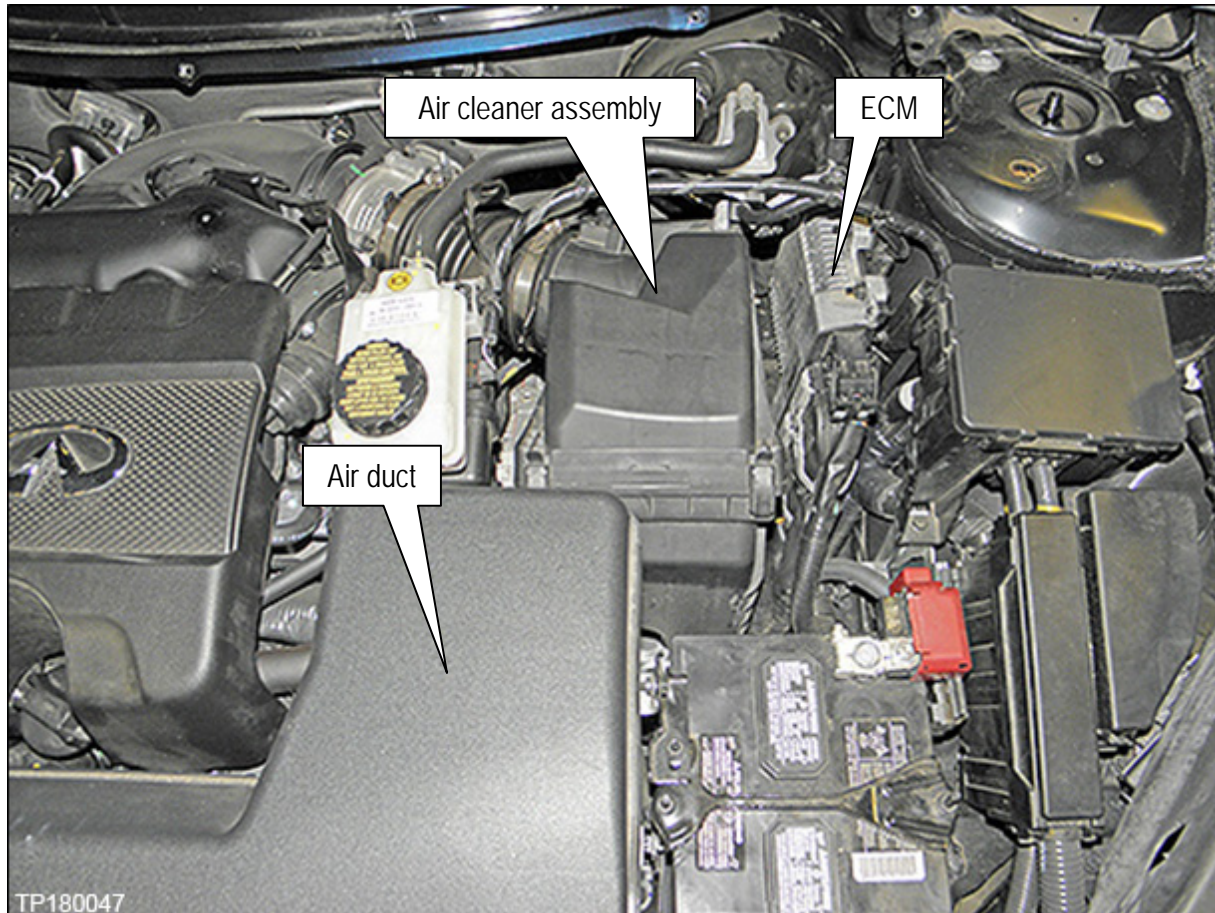


Figure 21

26. Pull the right side engine room harness completely through the Lower Dash Assembly (bulkhead) and into engine room.

IMPORTANT: Take care to not damage the harness or harness connectors on the sharp edges of the bulkhead as it is pulled through.

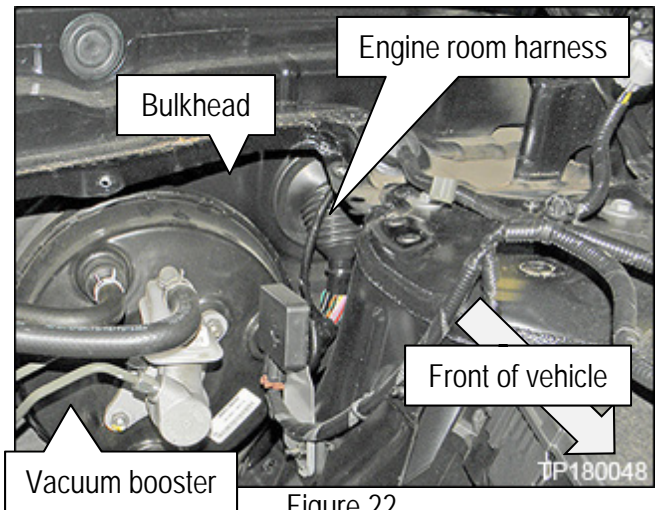


Figure 22

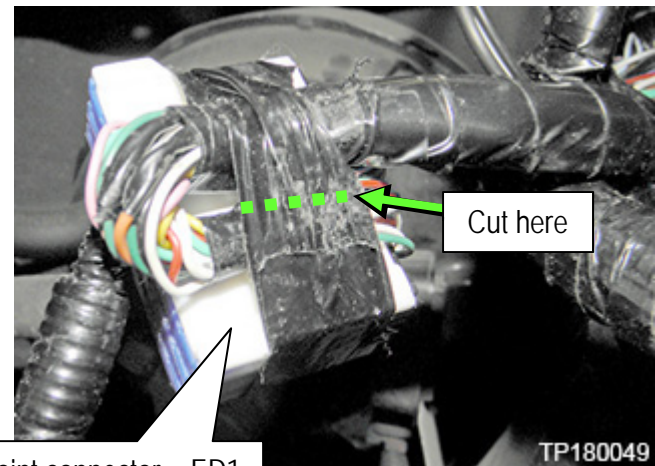
27. Locate "Joint connector – ED1" that is attached to the engine room harness.

- This harness connector has blue "shunts" plugged into its terminals.

28. Cut the black tape that is attaching Joint connector – ED1 to the engine room harness, and remove the black tape from Joint connector – ED1.

- Figure 24 shown with Joint connector – ED1 black tape removed.

IMPORTANT: Be careful to not damage the harness.



Joint connector – ED1

Figure 23

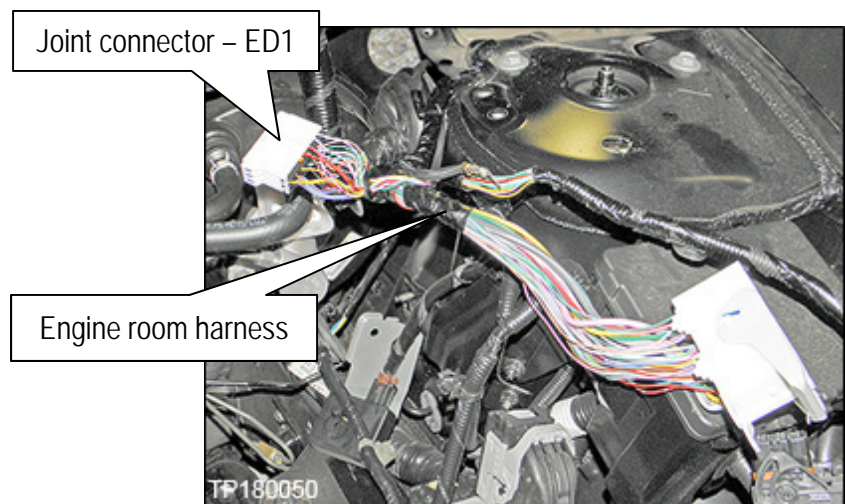


Figure 24

29. Place a fender cover over the driver's side fender and lay out the engine room harness.

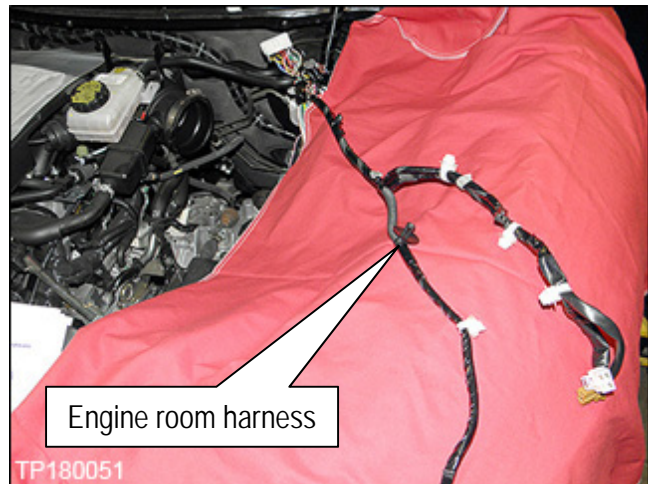


Figure 25

30. Locate the grey and pink wires shown in Figure 26 in the Joint connector –ED1 (connector number E44).

- Grey wire in position #15 as viewed from the harness side.
- Pink wire in position #14 as viewed from the harness side.

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Type	BJ30FW
Connector Color	WHITE

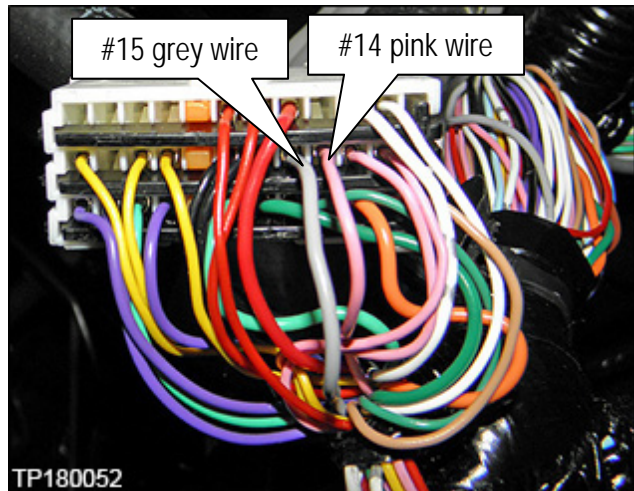
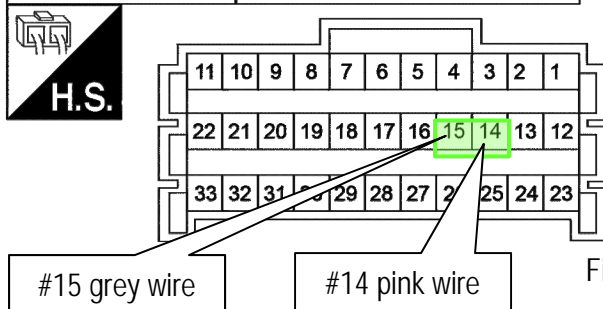


Figure 26

31. Separate the grey and pink wires that have been located from the other wires as shown in Figure 27.

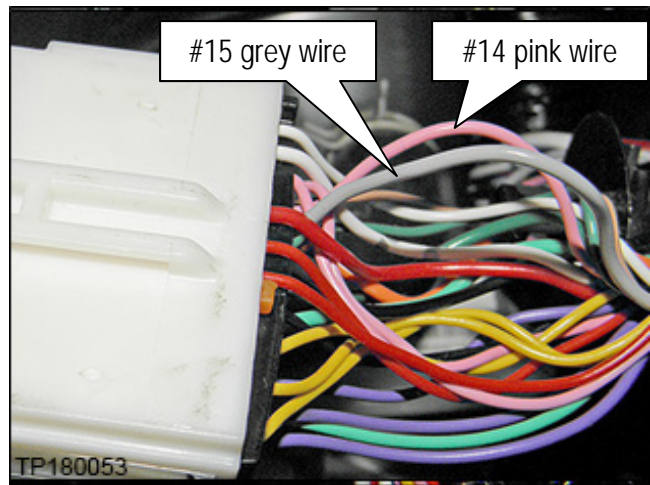


Figure 27

32. Cut the grey wire that was located in steps 30 and 31.

- Measure approximately 40 mm from Joint connector – ED1 to point where grey wire is cut.

33. Cut the pink wire that was located in steps 30 and 31.

- Measure approximately 25 mm from Joint connector – ED1 to point where pink wire is cut.

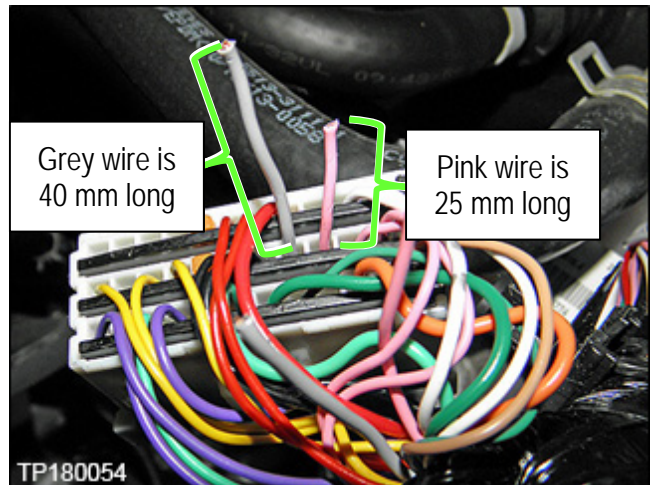


Figure 28

34. Fold over approximately 5 mm of the pink wire that is extending from Joint connector –ED1 as shown in Figure 29.

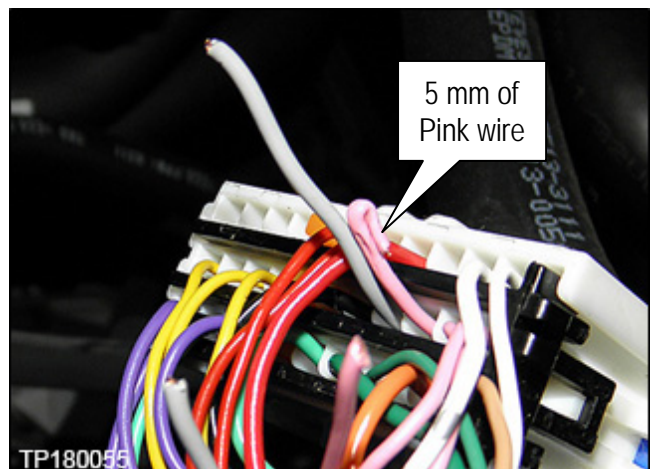


Figure 29

35. Wrap pink wire that was folded over in step 34 with black electrical tape.
- Use 3M/Scotch Professional Grade Vinyl Super 88 Electrical Tape (3/4 inch wide) or equivalent.



Figure 30

36. Strip approximately 10 mm from the remaining pink wire and the two grey wires.

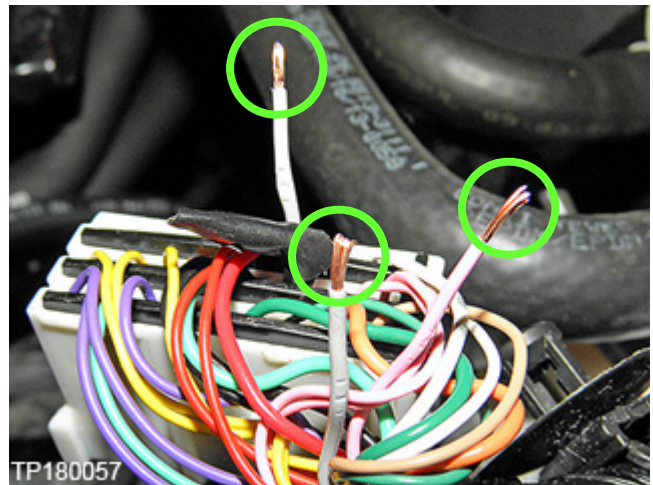


Figure 31

37. Strip approximately 10 mm from the pink and grey wires of the jumper harness from the Parts Information.

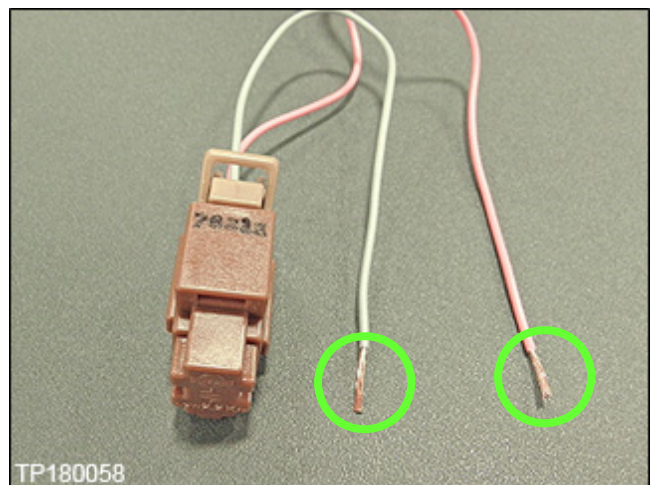


Figure 32

38. Slide a red solder sleeve connector over the pink wire of the jumper harness.
- Refer to the **PARTS INFORMATION** for solder sleeve connectors.

39. Twist together the pink wire of the jumper harness with the remaining pink wire cut in step 33. (See Figures 33 and 34).

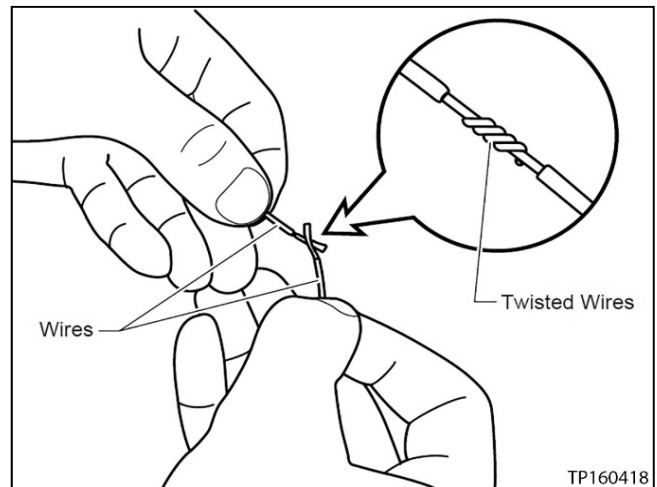


Figure 33

40. Position the solder ring in relation to the twisted wires as shown in Figure 34.

CAUTION: For the next step, do not use an electric type soldering tool. An electric type soldering tool may generate a current that may damage the ECU.

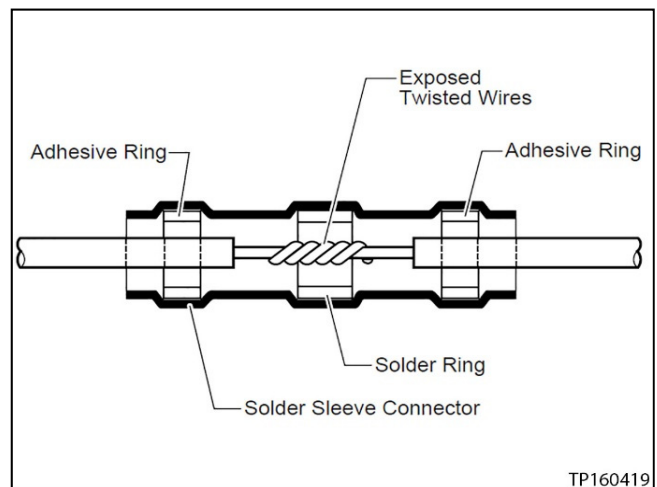


Figure 34

41. "Install" the solder sleeve connector by shrinking it to the wire with essential tool Flameless Heat Gun J-46538 or similar flameless heating tool (see Figure 35 and 36).

"Installing" the solder sleeve connector will:

- Melt the solder (silver ring inside the solder sleeve connector) into the exposed twisted wire area,
- Melt the sealant (red rings inside the solder sleeve connector) onto the wires, and
- Shrink the remainder of the solder sleeve connector to the wire.

NOTE: Tool J-46538 can be purchased from TECH-MATE at 1-800-662-2001.

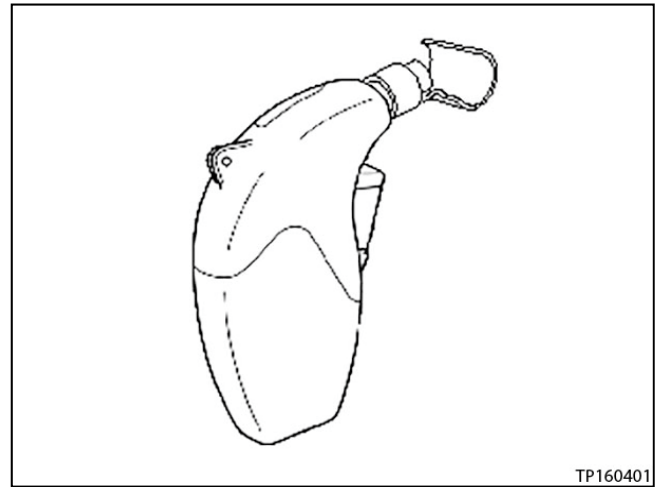


Figure 35

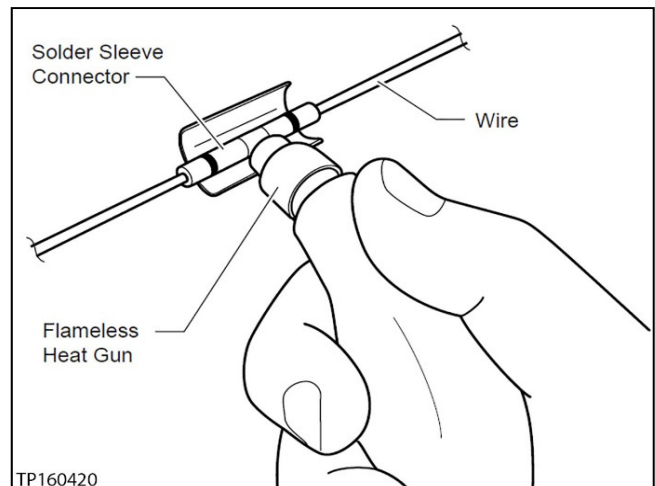


Figure 36

- Figure 37 shown with solder connection of pink wire of jumper harness and pink wire of Joint connector –ED1 completed.

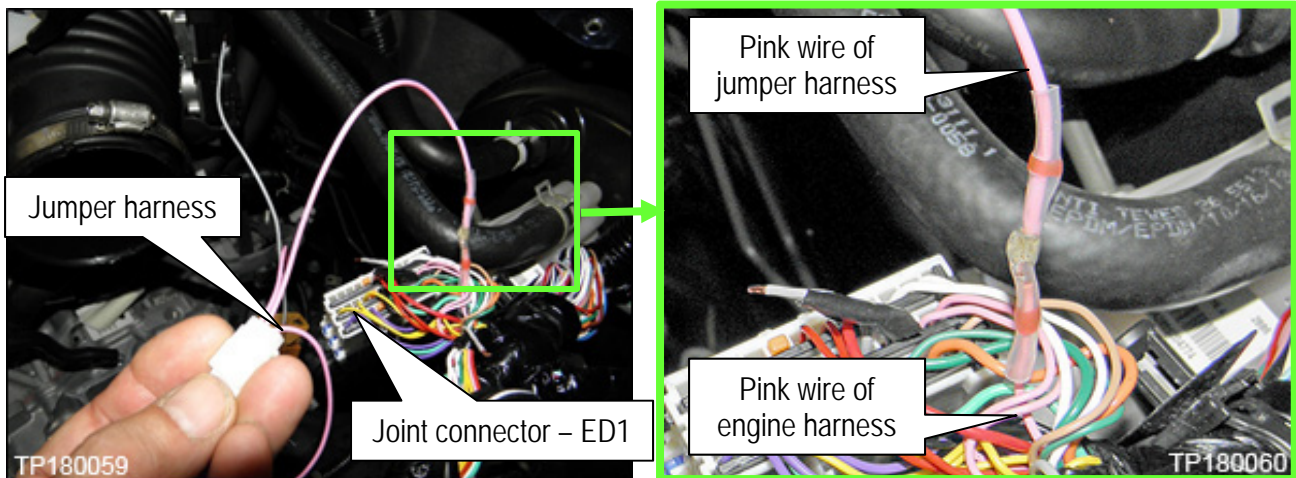


Figure 37

42. Twist together the grey wire of the engine harness that was cut in step 32 with the grey wire of the jumper harness as shown in Figures 38.

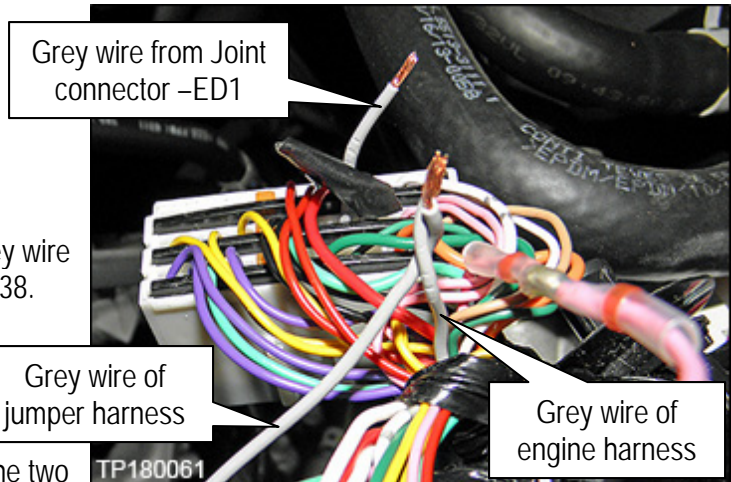


Figure 38

43. Slide a blue solder sleeve connector over the two grey wires that were twisted together in step 42.

- Refer to the **PARTS INFORMATION** for solder sleeve connectors.

44. Now twist the third grey wire from Joint connector – ED1 (Figure 39) that was cut through in step 32 to form a three way connection.

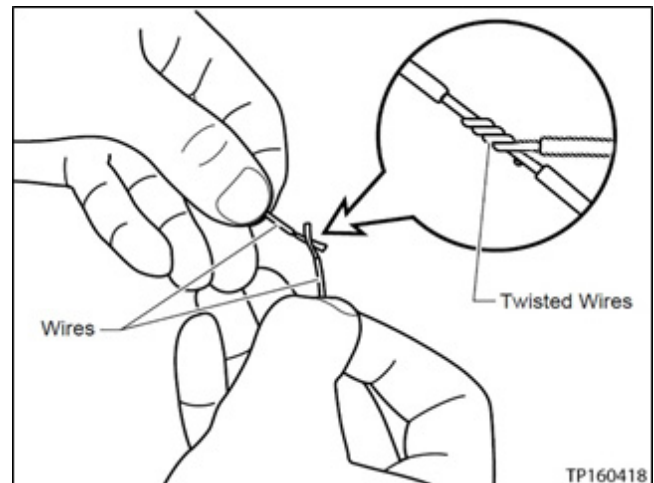


Figure 39

45. Position the blue solder sleeve connector so that the solder ring is in relation to the three twisted wires as shown in Figure 40.

CAUTION: For the next step, do not use an electric type soldering tool. An electric type soldering tool may generate a current that may damage the ECU.

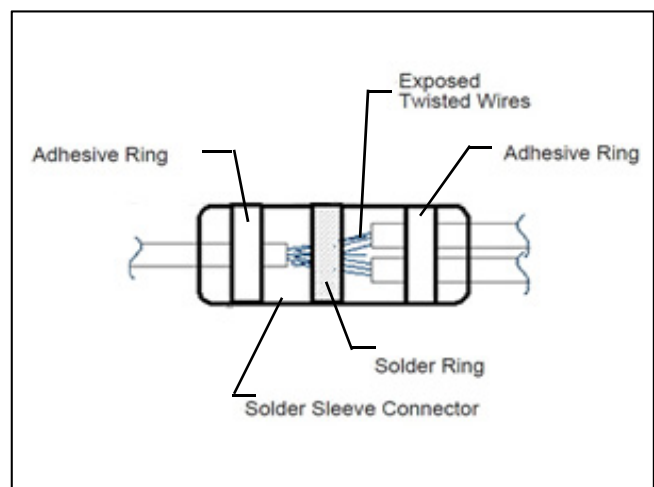


Figure 40

46. "Install" the solder sleeve connector by shrinking it to the wire with essential tool Flameless Heat Gun J-46538 or similar flameless heating tool (see Figure 41 and 42).

"Installing" the solder sleeve connector will:

- Melt the solder (silver ring inside the solder sleeve connector) into the exposed twisted wire area,
- Melt the sealant (blue rings inside the solder sleeve connector) onto the wires, and
- Shrink the remainder of the solder sleeve connector to the wire.

NOTE: Tool J-46538 can be purchased from TECH-MATE at 1-800-662-2001.

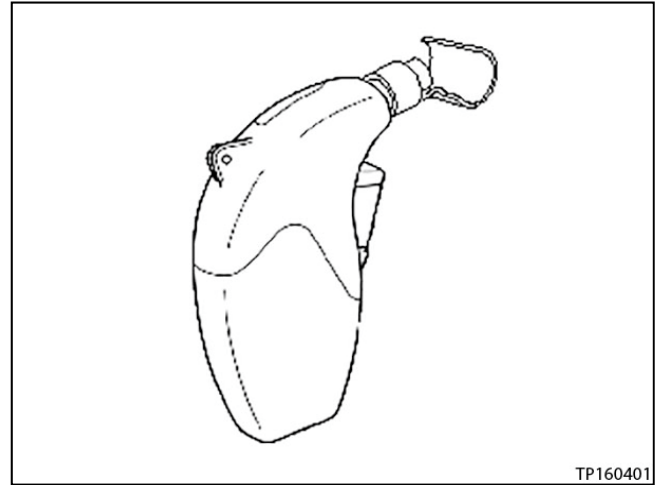


Figure 41

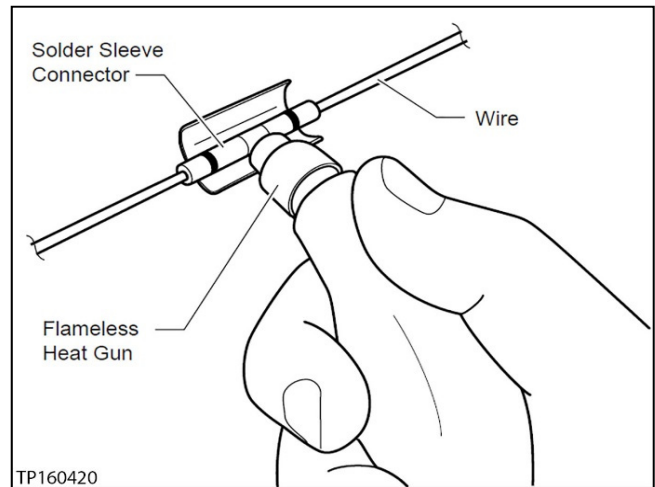


Figure 42

- Figure 43 shown with three way solder connections completed.

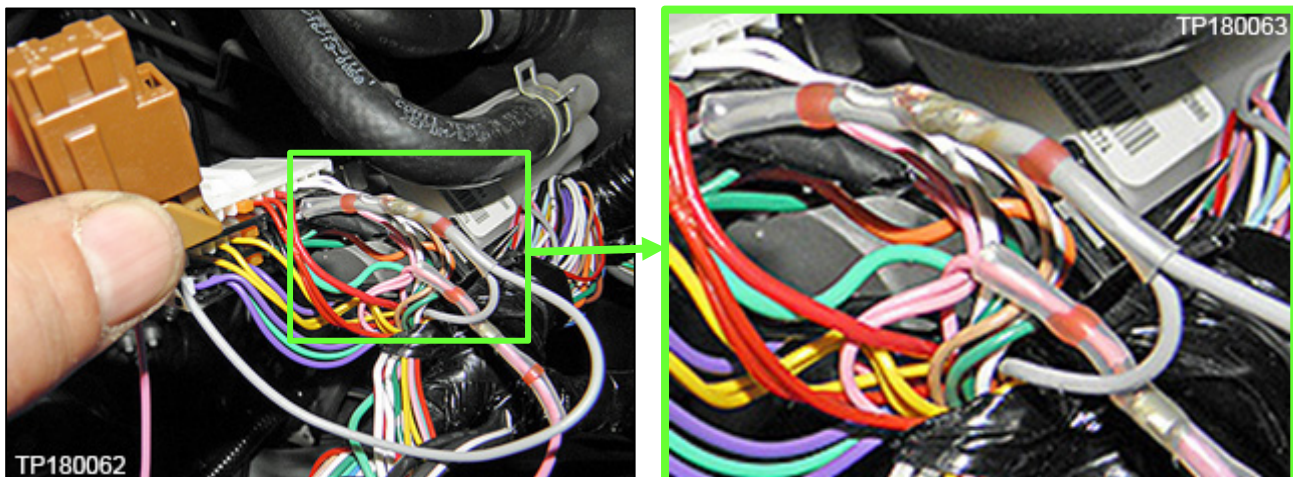


Figure 43

47. Route the pink and grey wires that were just connected to the engine room harness and Joint connector – ED1, along the brake switch harness.

48. Install a new band (clip-on tie band) from the Parts Information to Joint connector – ED1.

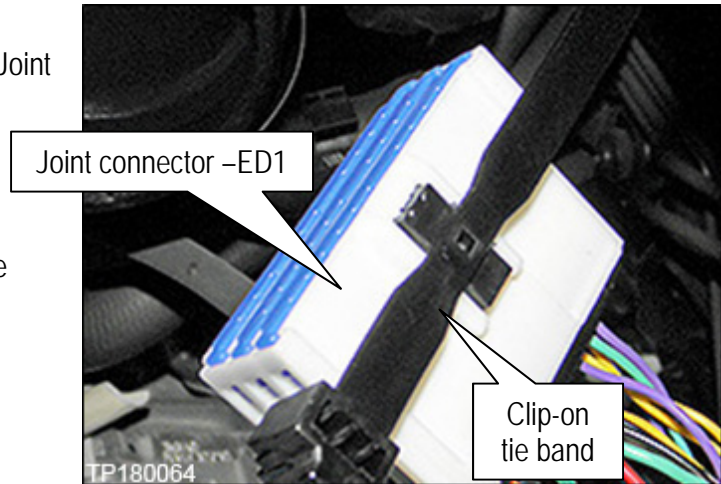


Figure 44

49. Bundle the brake switch harness and the jumper harness and then secure with the clip on tie band of Joint connector – ED1.

IMPORTANT: If tape is not present where Clip-on tie band will be located, wrap with 5-10 layers of electrical tape first as shown in Figure 45.

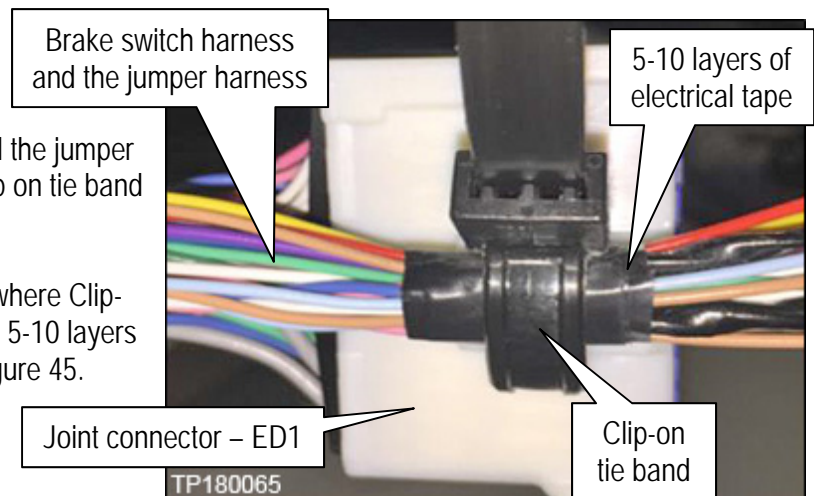


Figure 45

50. Remove the plastic harness connector protector from the jumper harness.



Figure 46

51. Insert the jumper wire connector into the open cavity of the harness side of the brake switch harness connector as shown in Figure 47.

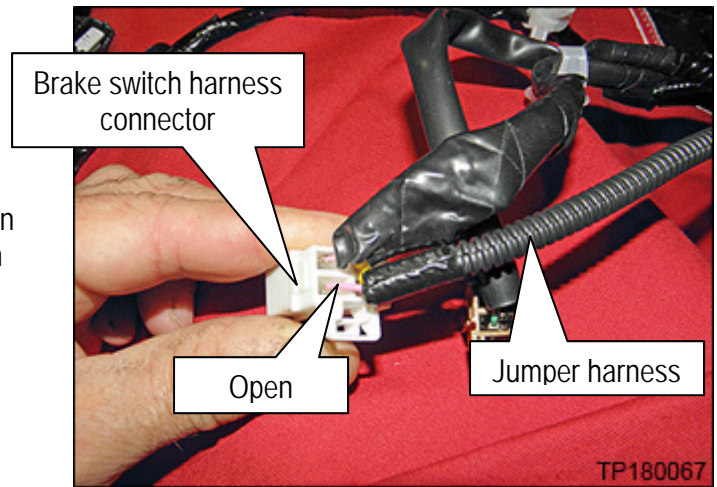


Figure 47

52. Attach the jumper harness to the brake switch harness as follows:

- a. Lay the new jumper harness next to the brake switch harness so that there is no slack at the harness plug end.
- b. Place the first (1st) zip tie approximately 1 inch (25 mm) from the brake switch harness connector.
- c. Place the second (2nd) zip tie next to the first white clip.
- d. Place the third (3rd) zip tie next to the second white clip.
- e. Place the fourth (4th) zip tie next to the third white clip.

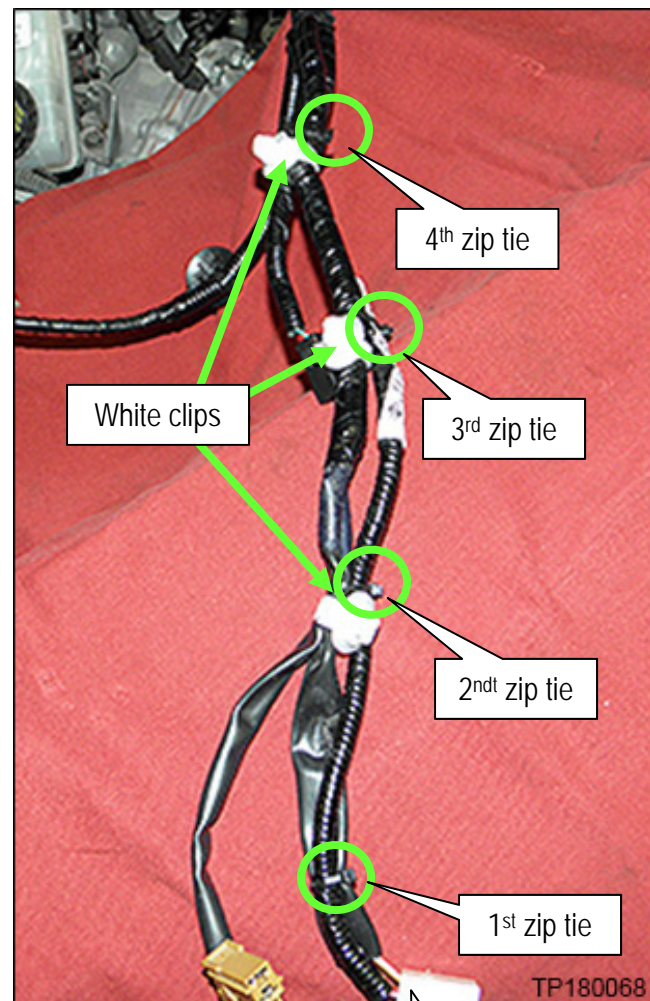


Figure 48

53. Secure the VDC resistor and VDC resistor jumper (both part of jumper harness) to the brake switch harness with black electrical tape.

- Use 3M/Scotch Professional Grade Vinyl Super 88 Electrical Tape (3/4 inch wide) or equivalent.

NOTE: This will hold them in place so that the harness can be wrapped in the next step.

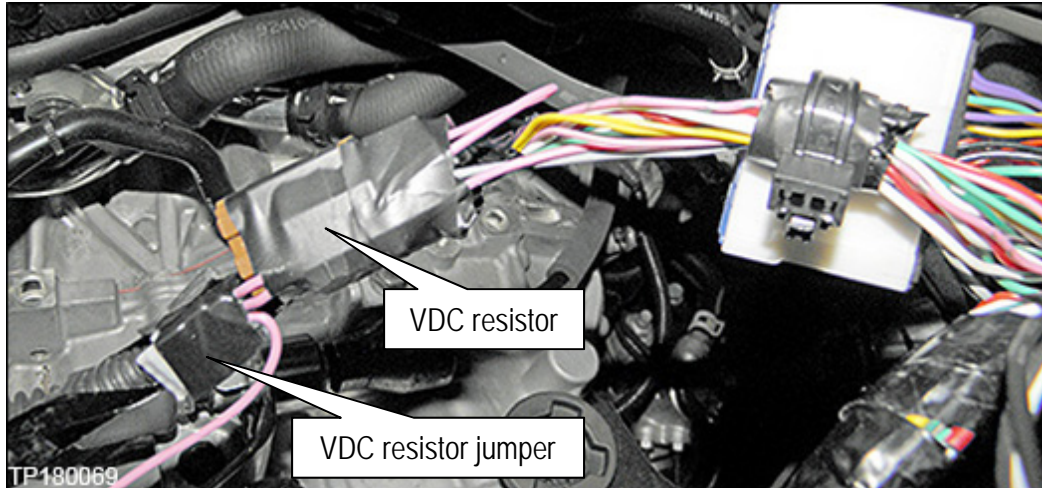


Figure 49

54. Starting at the point shown in Figure 50 wrap the jumper harness and brake switch harness together with black electrical tape as follows:

- Use 3M/Scotch Professional Grade Vinyl Super 88 Electrical Tape (3/4 inch wide) or equivalent.
 - a. Start the wrap approximately 1 inch (25 mm) below where the two (2) corrugated harness protectors of the jumper harness and brake switch harness come together.
 - Wrap only the jumper harness and brake switch harness together.

b. Wrap over the VDC resistor and VDC resistor jumper.

NOTE: Do not wrap over the end of the black harness clip.

c. End the wrap at Joint connector –ED1.

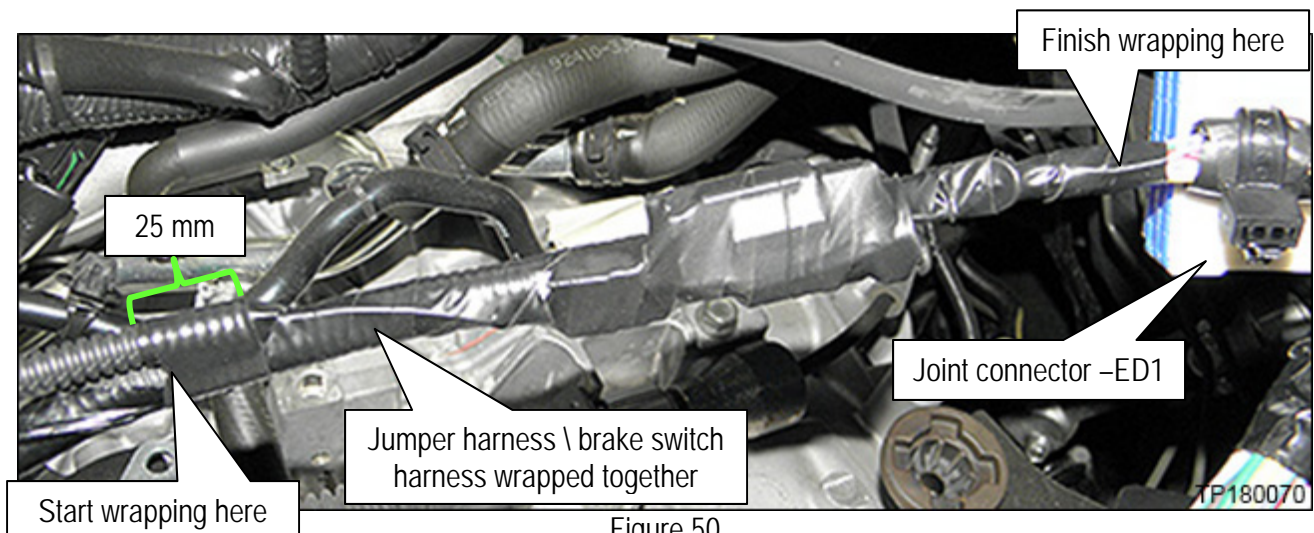


Figure 50

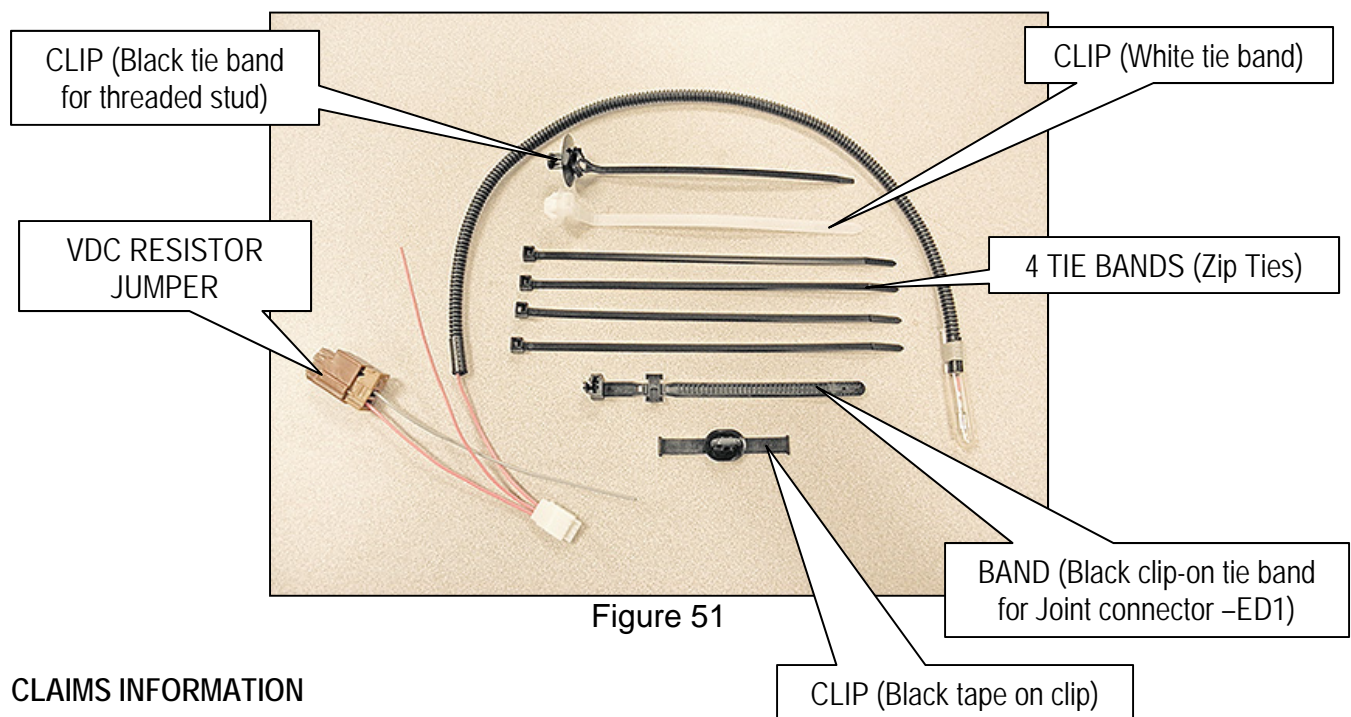
55. Reinstall the engine room harness through the bulkhead in the reverse order that it was removed.
56. Reassemble the remainder of the vehicle in the reverse order of disassembly.
57. Connect the battery negative cable.
58. Confirm that the brake lights function correctly.
59. Reset/reinitialize systems as needed.
 - Refer to the ESM, section **PG – Power Supply & Ground Elements**, for a listing of systems that require reset/initialization after reconnecting the 12V battery.
 - Look in the PG section index for **ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL**.
 - This list often includes items such as radio, power windows, clock, sunroof, etc.
60. Erase DTCs.
61. Test drive the vehicle and make sure it operates correctly and the MIL is OFF.
 - This bulletin does not cover any repairs beyond jumper harness installation.
 - If the MIL comes ON, go to ASIST for further diagnostic information.

PARTS INFORMATION

Description	PART NUMBER	Qty
RESISTOR SERVICE KIT	24167-9NJ9B	1
Resistor Service Kit includes:		
VDC RESISTOR JUMPER		1
CLIP (White tie band)		1
CLIP (Black tape on clip)		1
CLIP (Black tie band for threaded stud)		1
BAND (Black clip-on tie band for Joint connector -ED1)		1
TIE BANDS (Zip Ties)		4
Solder sleeve (red)	J-47003-2	1
Solder sleeve (blue)	J-47003-3	1
Electrical Tape	Use 3M/Scotch Professional Grade Vinyl Super 88 Electrical Tape (3/4 inch wide) or equivalent (1)	Shop Supply

(1) This product (or equivalent) is available at many local automotive supply stores, and many local hardware stores.

NOTE: Resistor Service Kit includes some pieces that may not be used, but are supplied if needed.



CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Install Jumper Harness	(1)	RX6AAA	ZE	32	2.3

(1) Refer to the electronic parts catalog (FAST) and use the ABS Actuator (47660-*****) Part Number as the Primary Failed Part.