



RECALL CAMPAIGN BULLETIN

Reference:

NTB16-041

Date:

April 12, 2016

VOLUNTARY SAFETY RECALL CAMPAIGN 2016 FRONTIER STARTER MOTOR HARNESS

CAMPAIGN ID #: PC440

NHTSA #: 16V-181

APPLIED VEHICLE: 2016 Frontier (D40) with V6 only

Check Service COMM to confirm campaign eligibility.

INTRODUCTION

Nissan is conducting a Voluntary Safety Recall Campaign on certain specific 2016 Frontier vehicles to inspect and, if necessary, reposition or replace the starter motor cable. This service will be performed at no cost to the customer for parts or labor.

IDENTIFICATION NUMBER

Nissan has assigned identification number PC440 to this campaign. This number must appear on all communications and documentation of any nature dealing with this campaign.

DEALER RESPONSIBILITY

It is the dealer's responsibility to check Service Comm for the campaign status on each vehicle falling within the range of this voluntary recall which for any reason enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a dealer's inventory. **Federal law requires that new vehicles in dealer inventory which are the subject of a safety recall must be corrected prior to sale. Failure to do so can result in civil penalties by the National Highway Traffic Safety Administration.** While federal law applies only to new vehicles, Nissan strongly encourages dealers to correct any used vehicles in their inventory before they are retailed.

Nissan 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 Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE:

Inspection

1. Write down all radio station presets.

Presets	1	2	3	4	5	6
A						
B						
C						
SAT						

2. Place the vehicle on a lift, open the hood and disconnect the negative battery cable.
3. Raise to the appropriate height to access the starter motor.
4. Locate the starter motor (Figure 1).
 - Starter motor is located on the passenger side of the engine.

NOTE: Figure 1 is of a 2WD vehicle; 4WD vehicle is similar, but has front axle.

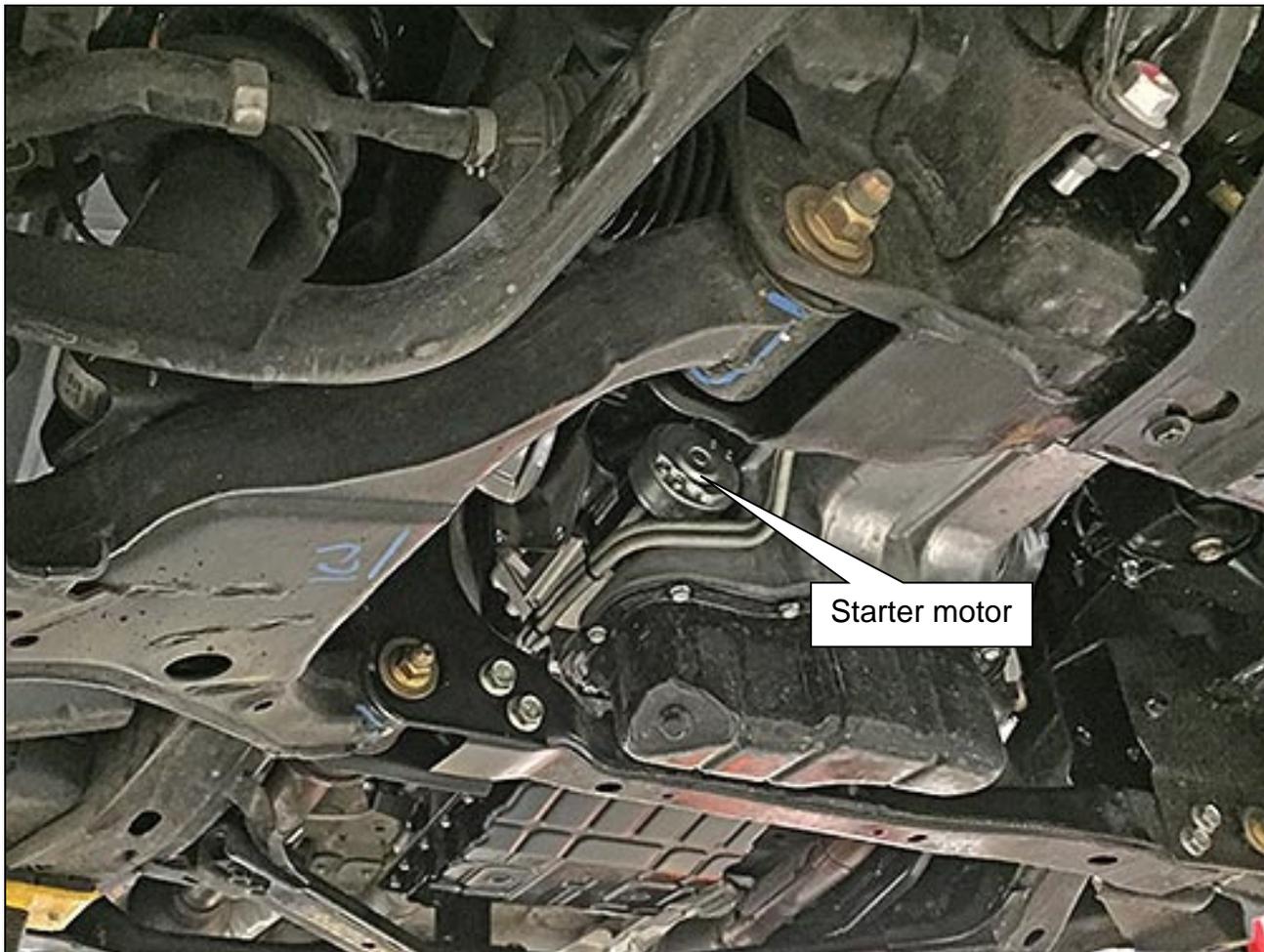
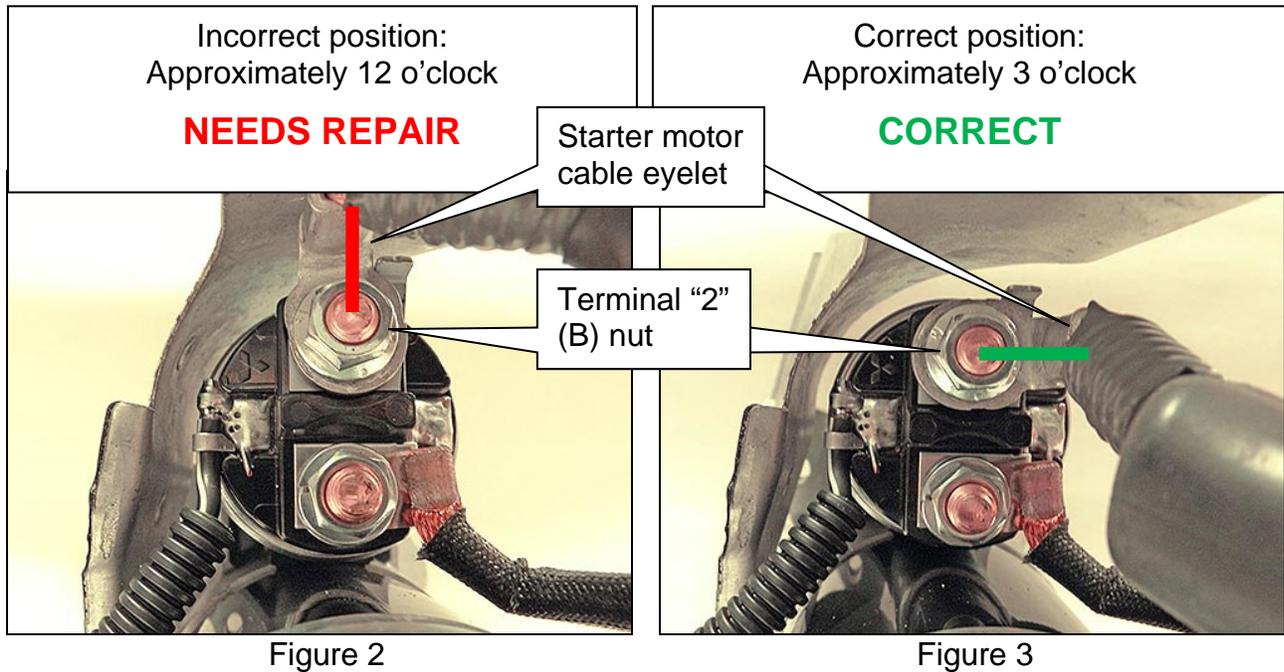


Figure 1

5. Gently pull back the starter motor cable boot for **terminal “2” (B) nut** so that you can see the position of the starter motor cable eyelet (Figure 2 or Figure 3).



6. Inspect the starter motor cable eyelet.

- a. If the starter motor cable eyelet is in the **CORRECT** position as shown in Figure 3 (approximately 3 o'clock):
- Gently push the starter motor cable boot back over terminal “2” (B) nut.
 - Lower the vehicle.
 - Reconnect the negative battery cable.
 - Submit a warranty claim using PC4400 per Claims Information.
 - Proceed to Additional Service when Disconnecting Battery on page 16.
- b. If the starter motor cable eyelet is in the **INCORRECT** position (Figure 2):
- Loosen the terminal “2” (B) nut and re-position the starter motor cable to the position shown in Figure 3 above (approximately 3 o'clock).
 - Torque terminal “2” (B) nut:
 - Nut torque: 11.0 N•m (1.12 Kg-m, **97.0 in-lb.**)
 - Gently push the starter motor cable boot back over terminal “2” (B) nut.
 - Lower the vehicle.
 - Reconnect the negative battery cable.
 - Submit a warranty claim using PC4401 per Claims Information.
 - Proceed to Additional Service when Disconnecting Battery on page 16.
- c. If starter motor cable, starter cover or harness show evidence of being overheated or of thermal deformation, proceed to **Starter, Starter Cover and Harness Replacement** on the next page.

Starter, Starter Cover and Harness Replacement

1. Remove the IPDM cover and the “fuse and relay box” cover.

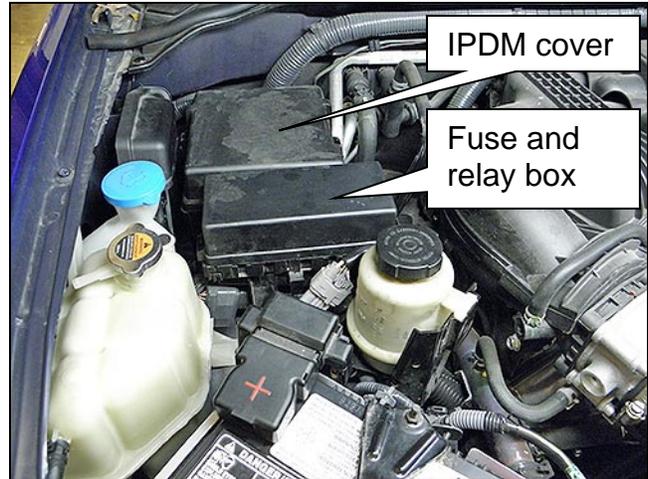


Figure 4

2. Disconnect the grey harness connector shown in (Figure 5) and then unclip it from the fuse and relay box.
3. Relocate the fuse and relay box as follows:
 - a. Remove the mounting bolt for the fuse and relay box (Figure 5).

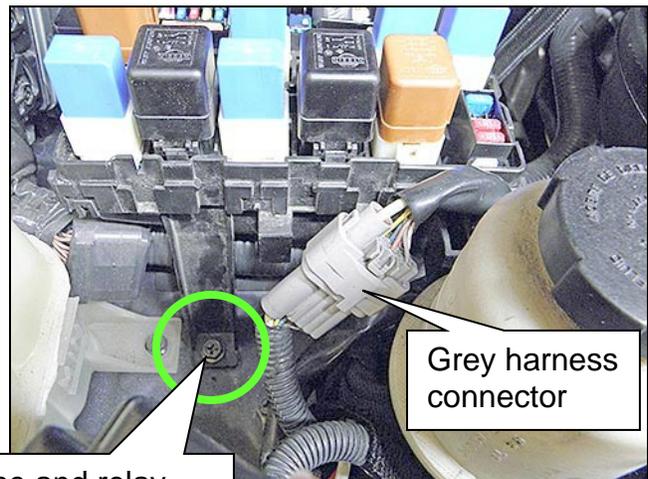


Figure 5

- b. Unclip the back of the fuse and relay box from the IPDM (Figure 6).

NOTE: The clip is located behind the fuse and relay box (opposite side of mounting bolt).

- c. Move the fuse and relay box toward cowl.

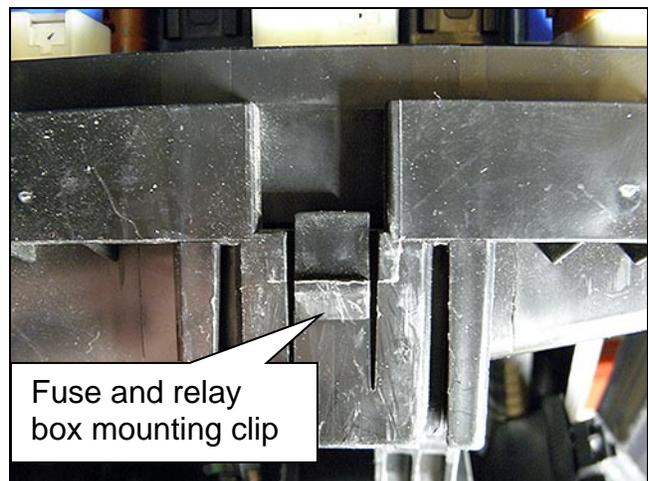


Figure 6

4. Remove the positive battery terminal / fusible link box cover.



Figure 7

5. Disconnect the 2 harness connectors at the base of the fusible link box (black and grey).

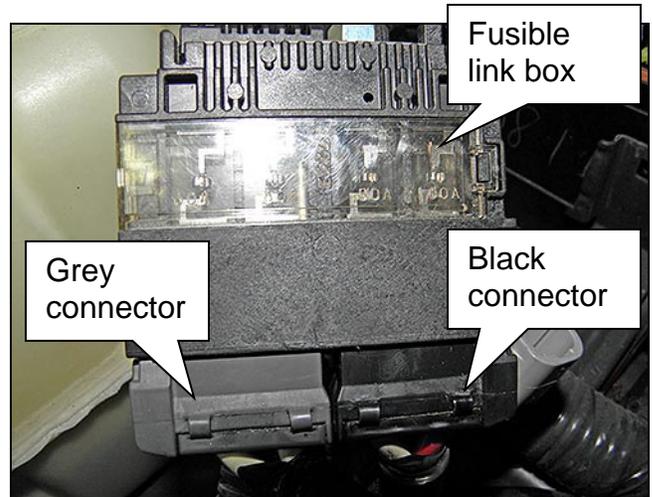


Figure 8

6. Remove nut and disconnect the driver's side cable shown in Figure 9 from the fusible link box.

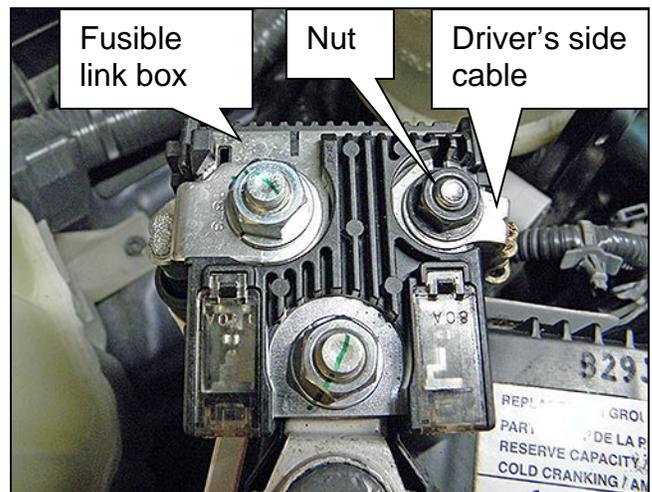


Figure 9

7. Disconnect the positive battery cable (fusible link box) from the battery.

8. Disconnect the Battery current sensor connector.
- Located on negative battery cable behind battery.

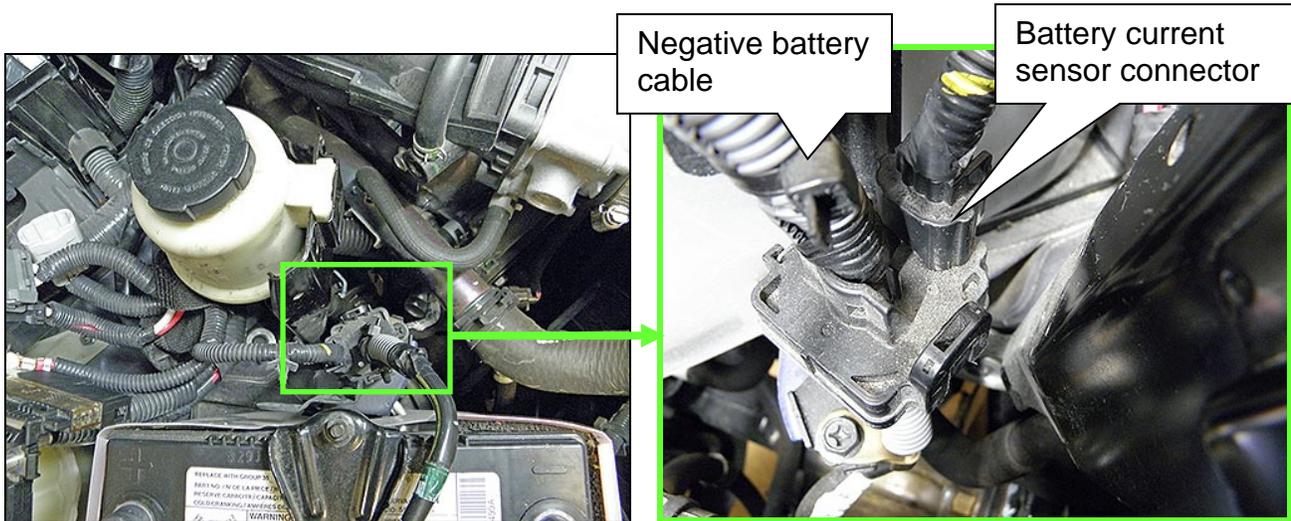


Figure 10

9. Move the disconnected harness out of the way and disconnect the upper engine room sub-harness clip.

NOTE: The clip is located below the power steering reservoir.

10. Remove the bolt for the body ground wire.

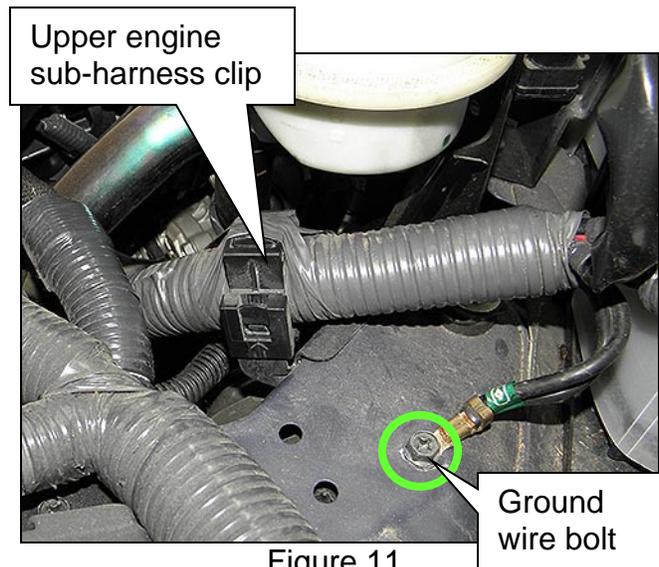


Figure 11

11. Raise vehicle on lift so that the passenger side wheel and inner fender protector can be removed.

12. Remove the right front wheel (Figure 12, wheel shown removed).

13. Remove the right front inner fender protector.

- The front inner fender protector is held by ten screws (indicated by green and white circles, and a white arrow in Figure 12).
 - If the vehicle is equipped with mudguards, (Figure 12) remove the four screws indicated by 3 white circles and one white arrow first.

NOTE: Fourth screw (white arrow) is not shown in Figure 12.

And

- Four push pins (indicated by green arrows in Figure 12).

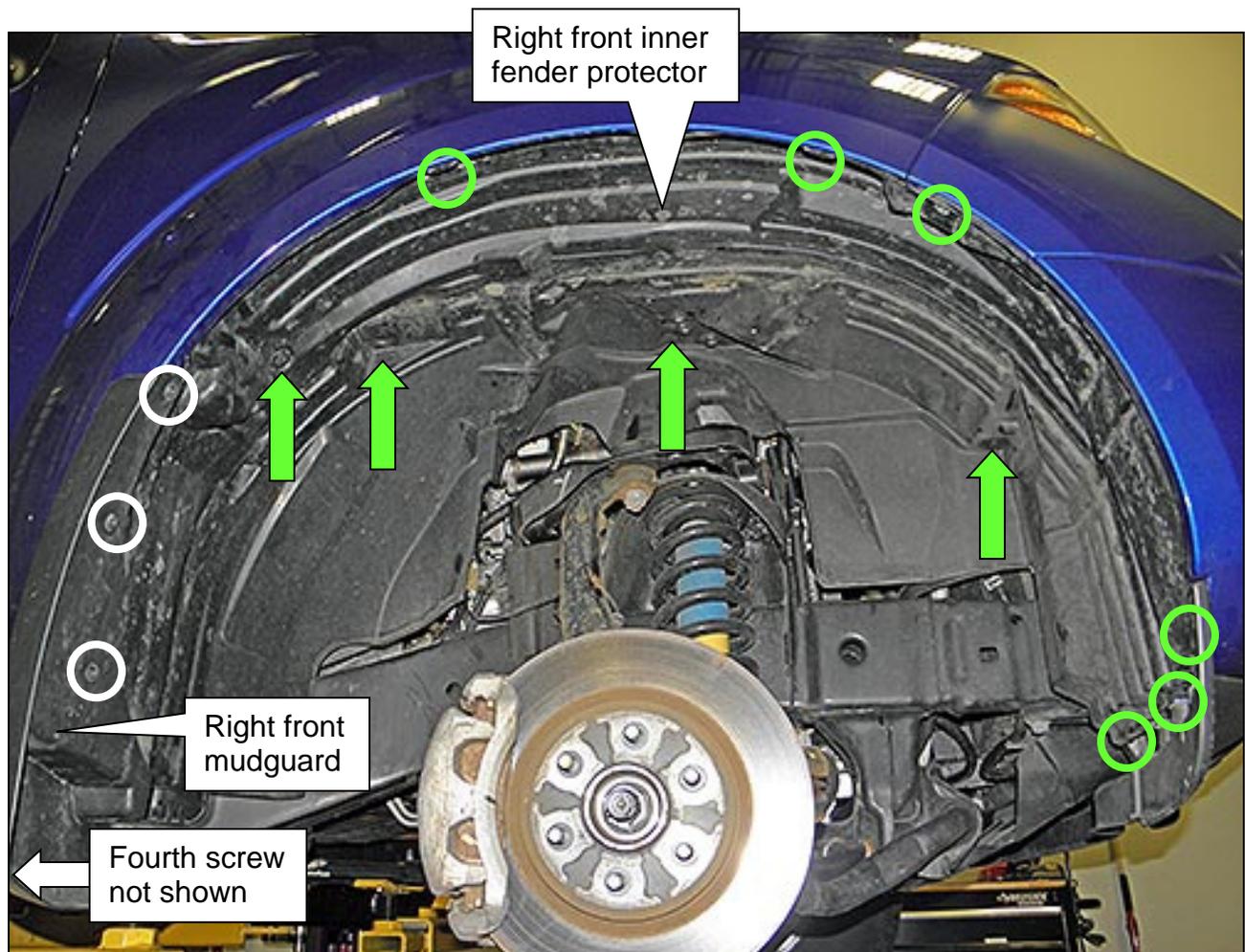


Figure 12

14. Release the lower engine sub-harness as follows:

- a. Unclip the lower engine sub-harness from the harness clip.
- b. Remove the lower engine sub-harness clip from engine bracket.

NOTE: A new engine sub-harness clip will come with harness.

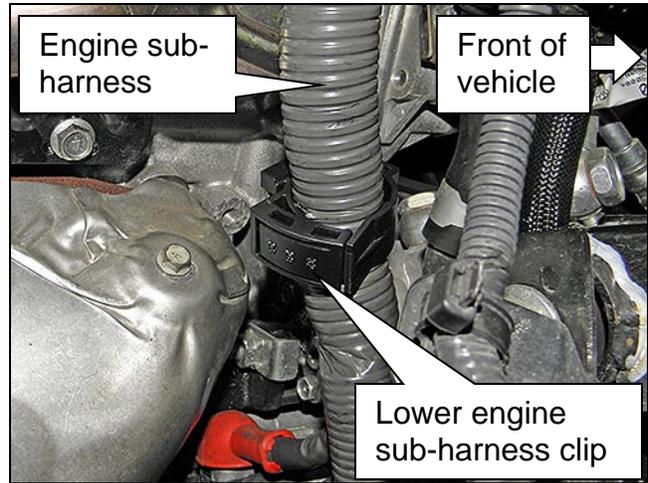


Figure 13

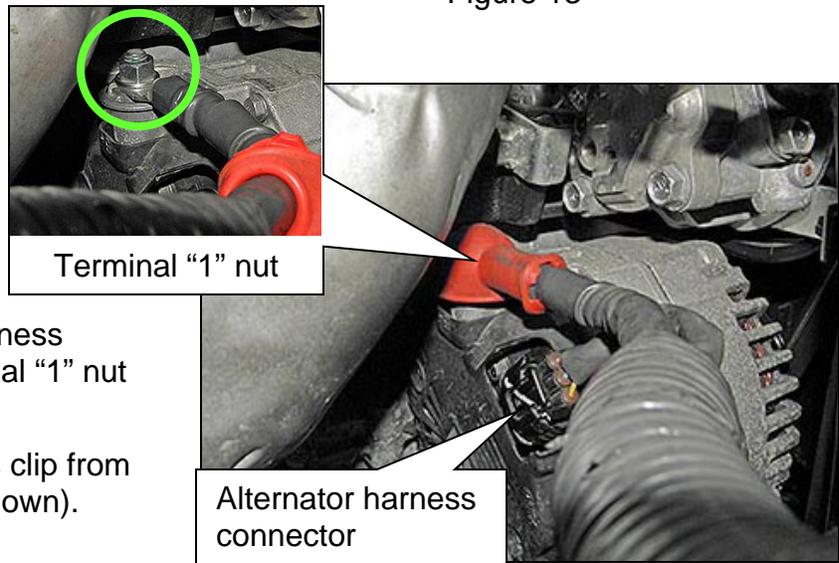


Figure 14

15. Disconnect the alternator harness connector and remove terminal "1" nut (Figure 14).

- Detach alternator harness clip from alternator housing (Not shown).

16. Unbolt the ground wire from engine block.

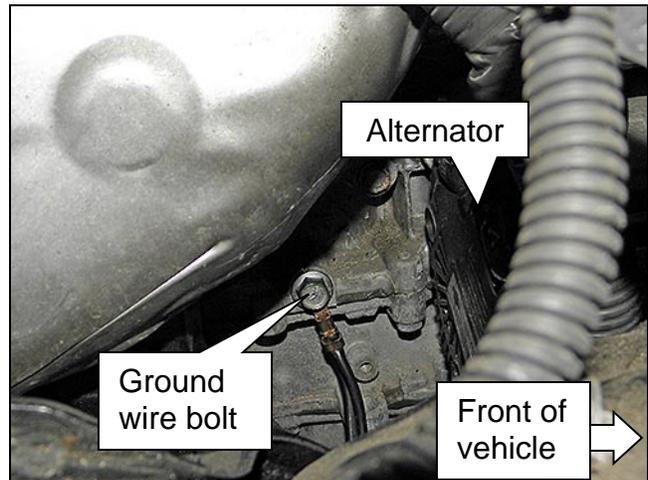


Figure 15

17. Remove the upper starter cover bolt and then two lower starter cover bolts attaching the starter cover to the starter (Figure 16).

NOTE: Upper starter cover bolt is accessible by using an extension and a 14mm swivel socket over the top of the frame rail.

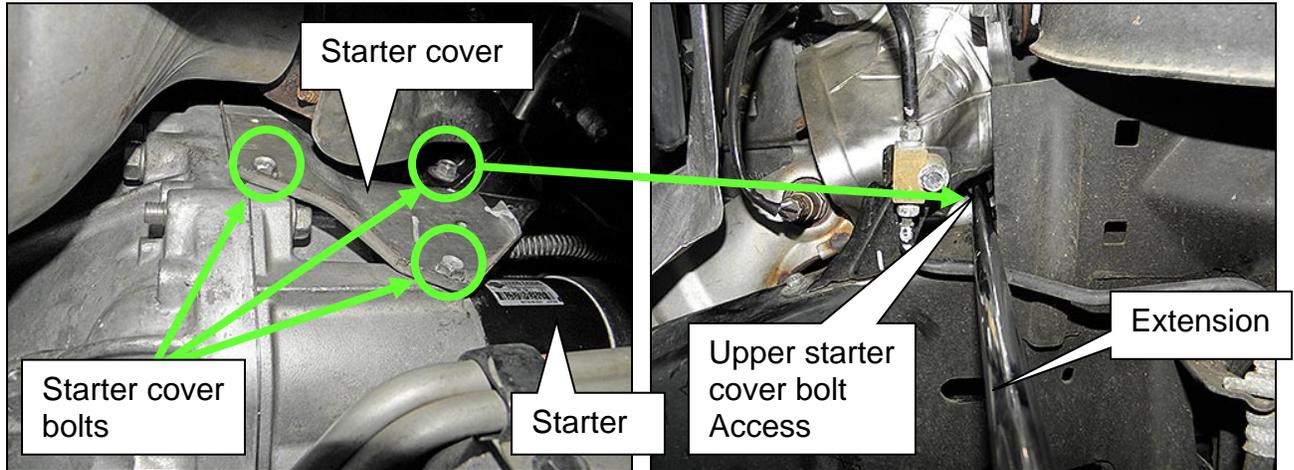


Figure 16

18. Remove terminal "2" (B) nut and then starter motor cable from the starter.

19. Unplug the grey harness connector for starter.

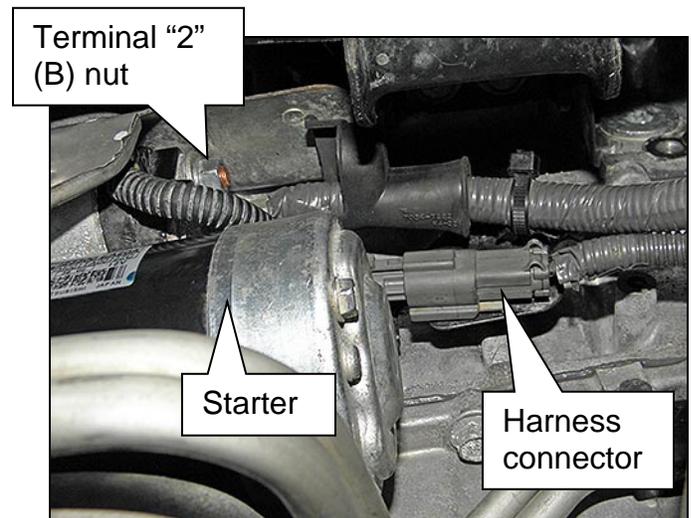


Figure 17

20. Disconnect the oil pressure switch and oil temp sensor harness connectors.

NOTE: Figure 18 is shown from bottom of engine looking straight up.

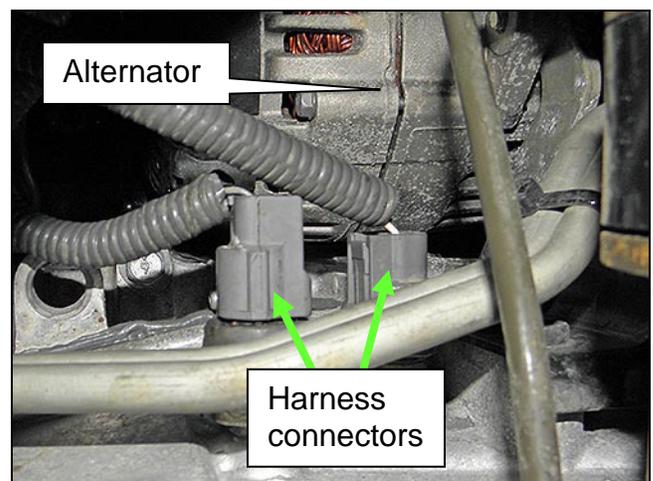


Figure 18

21. Remove the starter.

- Two bolts.
- Note the orientation of the cover plate between the starter and the transmission. This will be reinstalled later in this procedure with the new starter.

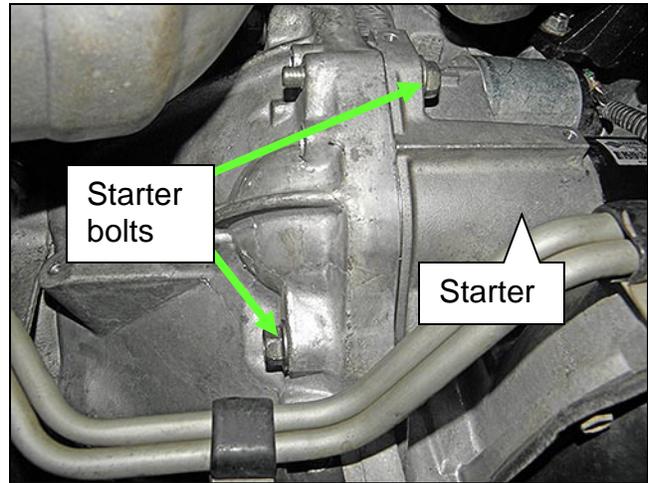


Figure 19

22. Remove the starter cable and start signal connector from bracket on engine block.

23. Lower the vehicle and gently pull the engine sub-harness out from the top.

24. Insert the new engine sub-harness in the space the old harness was just removed from.

NOTE: Insert the new engine sub-harness from the top down.

25. Attach the body ground wire located under the power steering reservoir.

- Bolt torque: 11 N•m (1.12 kg-m, **8 ft-lbs.**)

26. Attach the harness clip to bracket; pushing down until you hear it snap into place.

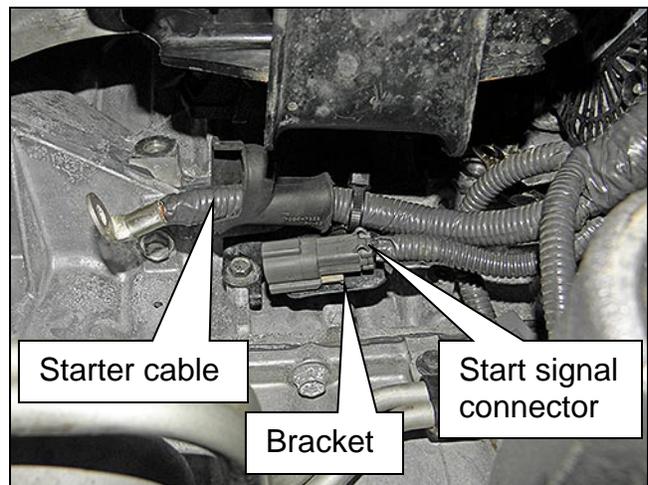


Figure 20

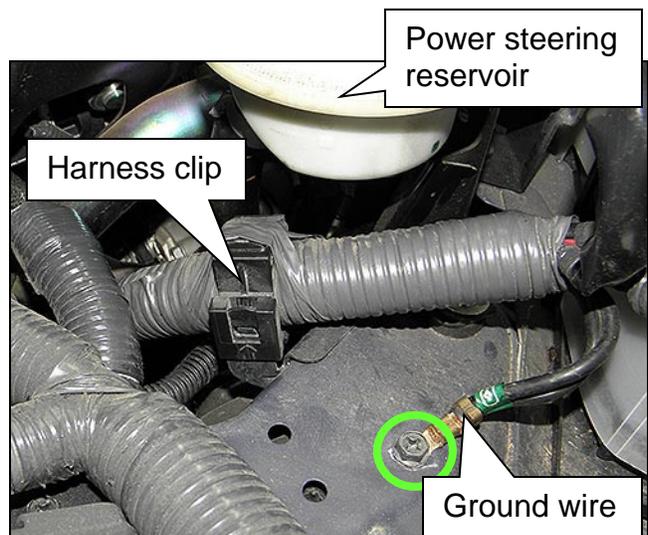


Figure 21

27. Attach the driver's side cable shown in Figure 22 to the fusible link box and torque.

- Nut torque: 11 N•m (1.12 kg-m, **8 ft-lbs.**)

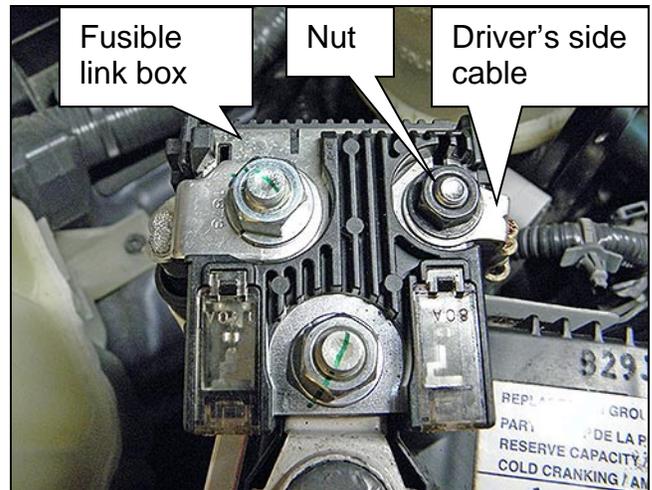


Figure 22

28. Reconnect the battery current sensor connector next to the negative battery cable.

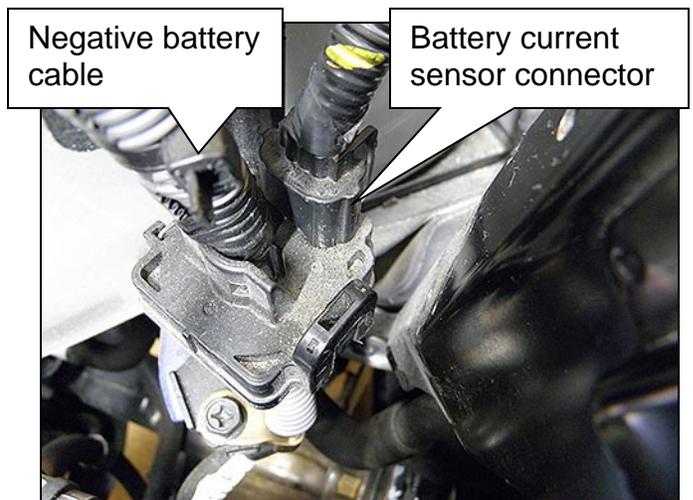


Figure 23

29. Reconnect the two harness connectors (black & grey) to the fusible link box.

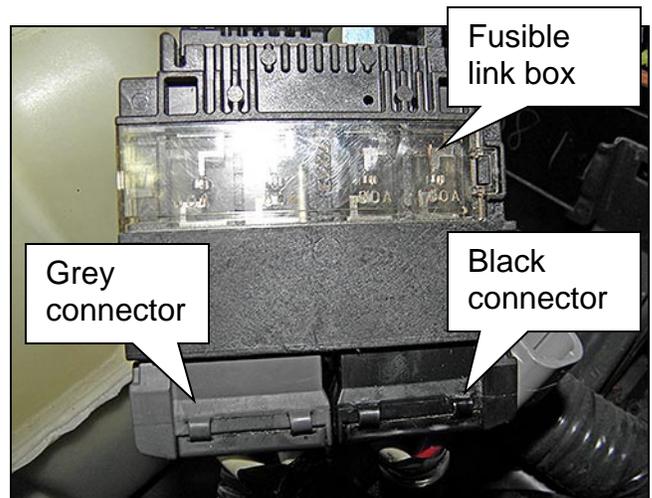


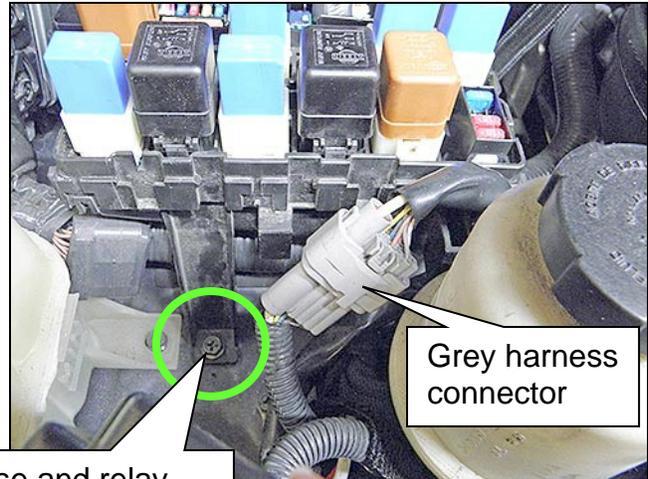
Figure 24

30. Install the fuse and relay box.

- Bolt torque: 11 N•m (1.12 kg-m, **8 ft-lbs.**)

31. Attach the harness clip to the fuse and relay box (Not shown).

32. Connect the grey harness connector.



Fuse and relay box mounting bolt

Figure 25

33. Reinstall the IPDM cover and fuse and relay box cover.

34. Raise the vehicle to gain access through the fender well.

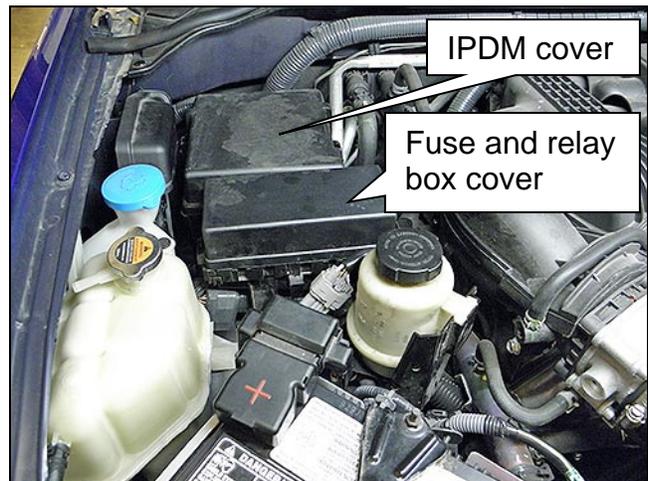


Figure 26

35. Gently pull the engine sub-harness down and attach harness connector to alternator terminal "1".

- Nut torque: 11 N•m (1.12 kg-m, **8 ft-lbs.**)

36. Reinstall the protective boot.

37. Plug the harness connector into the alternator.

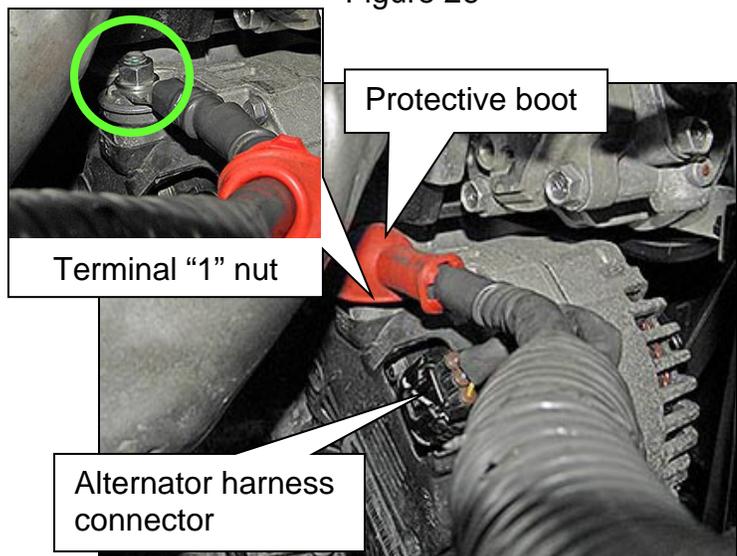


Figure 27

38. Attach harness clip into the hole on the side of alternator.

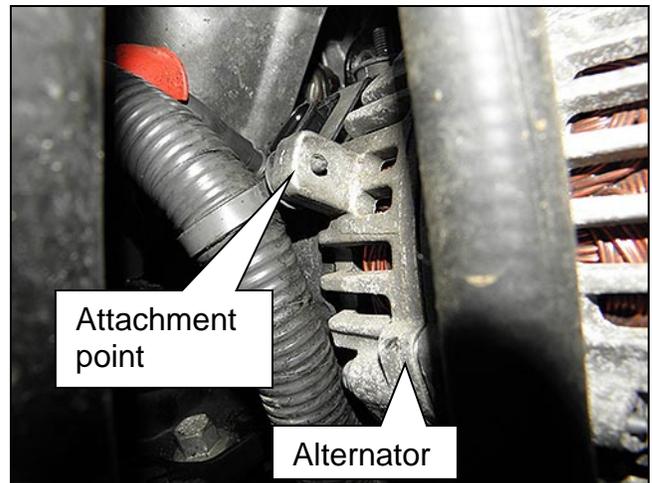


Figure 28

39. Attach the lower engine sub-harness clip to the bracket.

NOTE: Bracket hidden in Figure 29 by sub-harness.

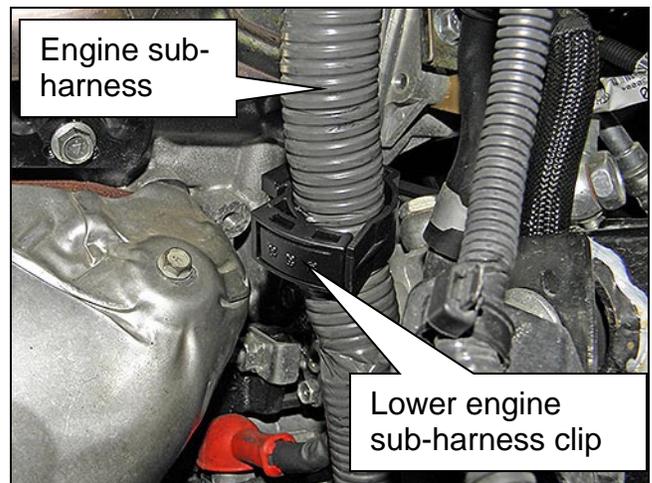


Figure 29

40. Attach ground wire to the block.

- Bolt torque: 45 N•m (4.59 kg-m, 33 ft-lbs.)

41. Fully raise vehicle on lift.

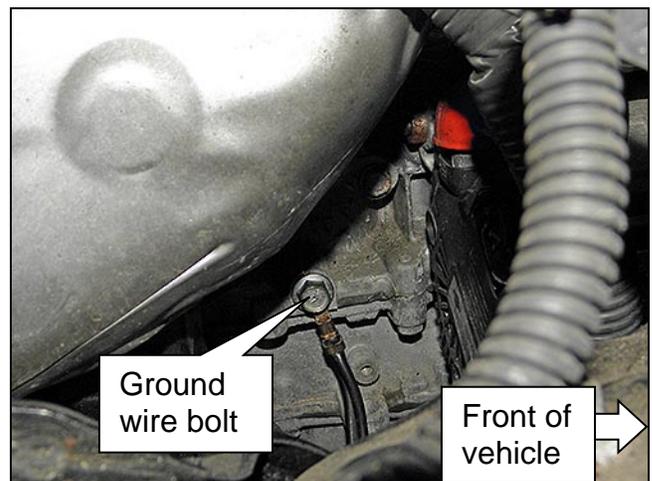


Figure 30

42. Connect the harness connectors to the oil pressure and temperature switch.

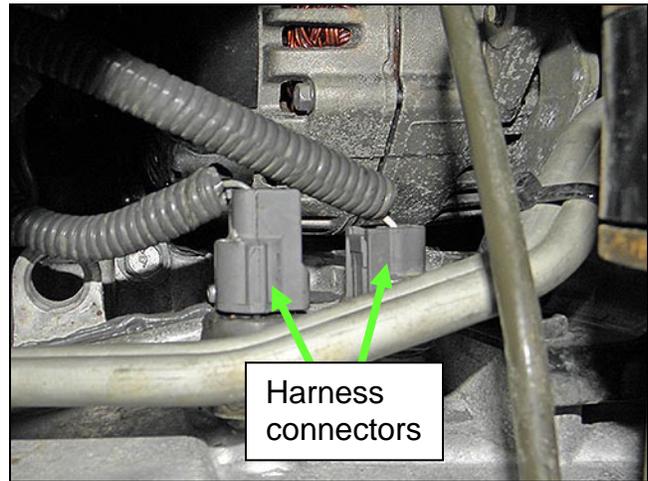


Figure 31

43. Install the new starter with the cover plate from step 21.

- Bolt torque: 45 N•m (4.59 kg-m, 33 ft-lbs.)

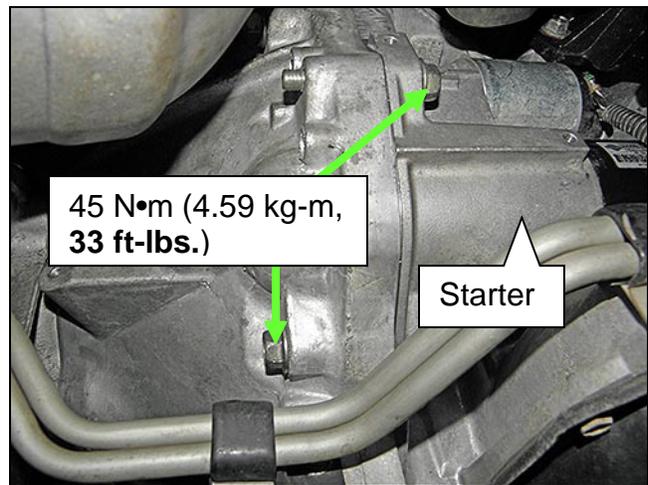


Figure 32

44. Install the starter cable to terminal “2” (B) and then secure to the bracket on engine block (Figure 33).

IMPORTANT: The starter cable eyelet **MUST** be in the 3 o'clock position (Figure 3 on page 3).

- Nut torque: 11 N•m (1.12 kg-m, 8 ft-lbs.)

45. Plug in grey harness connector and secure to bracket on engine block.

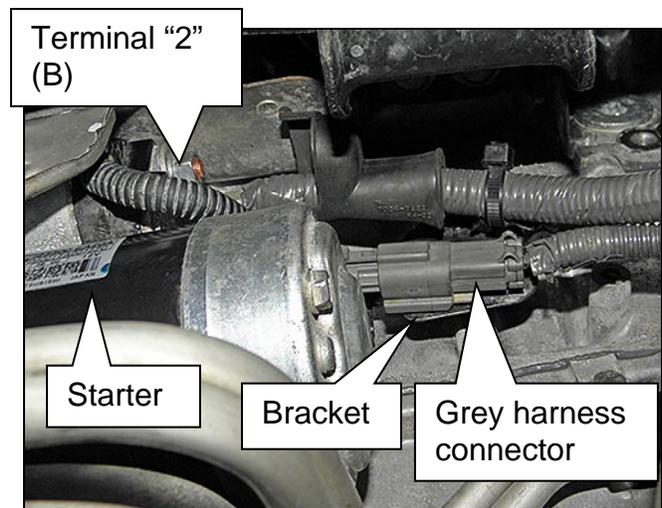


Figure 33

46. Install the new starter cover.

- (2 Bolts) Bolt torque: 9 N•m (0.92 kg-m, **80 in-lbs.**)
- (1 Bolt) Bolt torque: 45 N•m (4.59 kg-m, **33 ft-lbs.**)

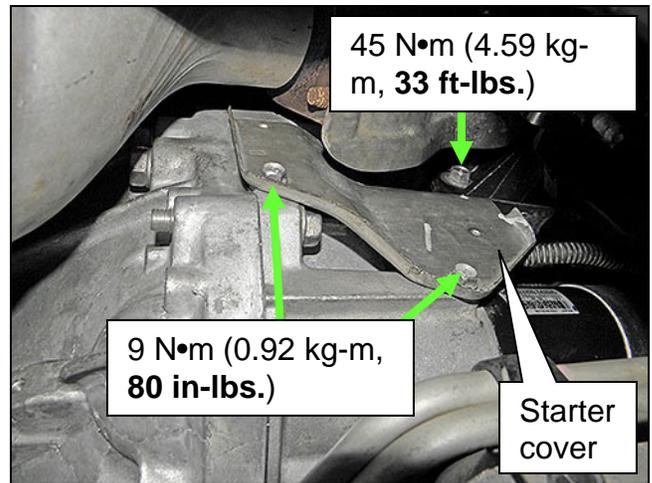


Figure 34

47. Install front fender protector, mudguard (if equipped) and wheel in the reverse order of disassembly.

- Lug nut torque: 133 N•m (13.56 kg-m, **98 ft-lbs.**)

48. Lower the vehicle.

49. Connect the positive battery cable and install cover.

50. Connect the negative battery cable.

51. Perform **Additional Service when Disconnecting Battery** on the next page.

52. Submit a warranty claim using PC4402 per Claims Information.

Additional Service when Disconnecting Battery

Perform the following procedures after the battery is re-connected:

- **Reprogram customer's radio presets.**
- **Initialize sunroof.**
- **Idle Air Volume Learn (IAVL)**

NOTE:

- **Listed below are common conditions required for IAVL to complete.**
- **If IAVL does not complete within a few minutes, a condition may be out of range.**
- **Refer to the appropriate Electronic Service Manual (ESM) for specific conditions required for the vehicle you are working on.**
 - Engine coolant temperature: 70 -105° C (158 - 221°F)
 - Battery voltage: More than 12.9V (At idle)
 - Selector lever: P or N
 - Electric load switch: OFF (Air conditioner, headlamp, rear window defogger)
 - Steering wheel: Neutral (Straight-ahead position)
 - Vehicle speed: Stopped
 - Transmission: Warmed up

PARTS INFORMATION

DESCRIPTION	PART #	QUANTITY
MOTOR ASSY-STARTER (New dealer inventory vehicles only)	23300-EA20A (1)	1
MOTOR ASSY-STARTER (For retailed vehicles)	2330M-EA20ARW	1
HARN-ENG NO 2 (Engine Sub-Harness)	24077-9BF0A (2)	1
COVER-STARTER MOTOR	23301-EA200	1
NUT	01221-00381	1

- (1) Dealers can use the remanufactured part for used car inventory, but must use the new starter on a new, unsold vehicle in their inventory.
- (2) Harness will be on parts return. Accompanying documentation will be used to confirm that the correct starter was used.

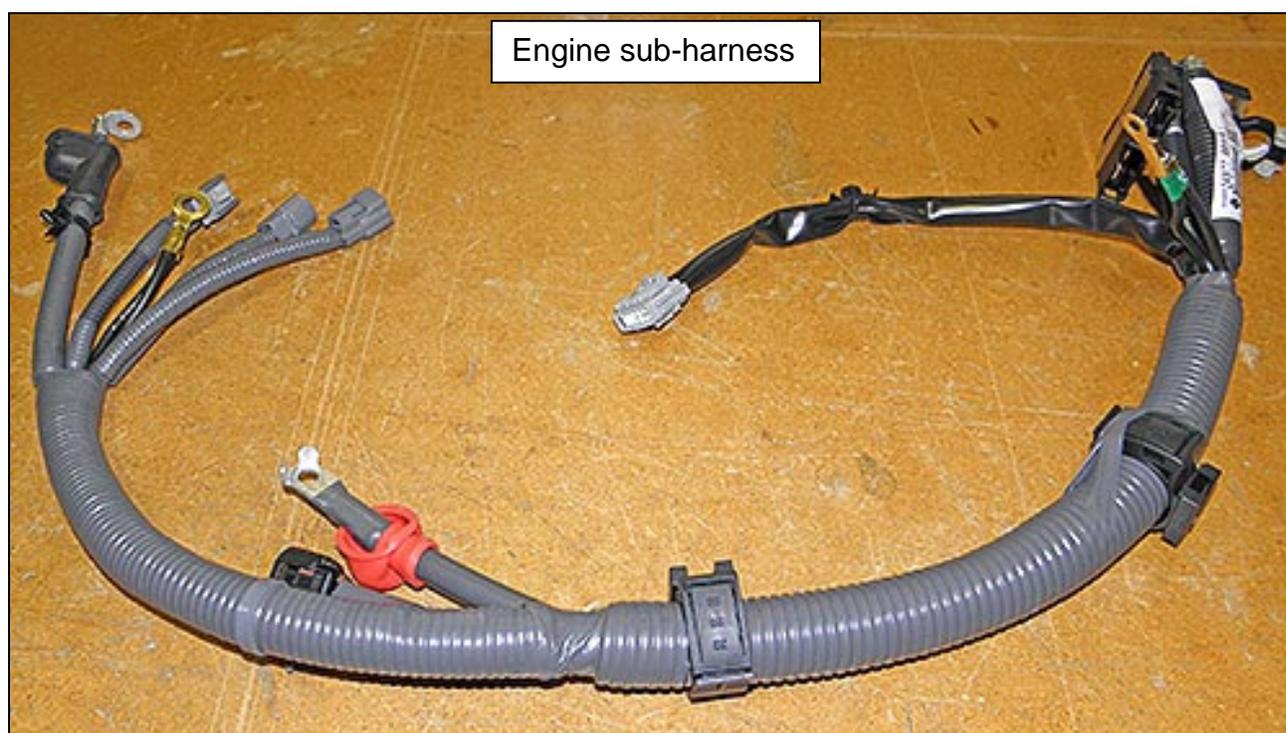


Figure 35

CLAIMS INFORMATION

Submit a Campaign (CM) line claim using the following claims coding:

CAMPAIGN ("CM") ID	DESCRIPTION	OP CODE	FRT
PC440	Inspect Starter Motor Wire Eyelet Position - OK	PC4400	0.4 Hr.
	Inspect and Re-position Starter Motor Wire Eyelet	PC4401	0.4 Hr.
	Inspect and Replace Starter, Heat Shield and Engine Sub-Harness	PC4402	1.9 Hr.