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REMOVAL

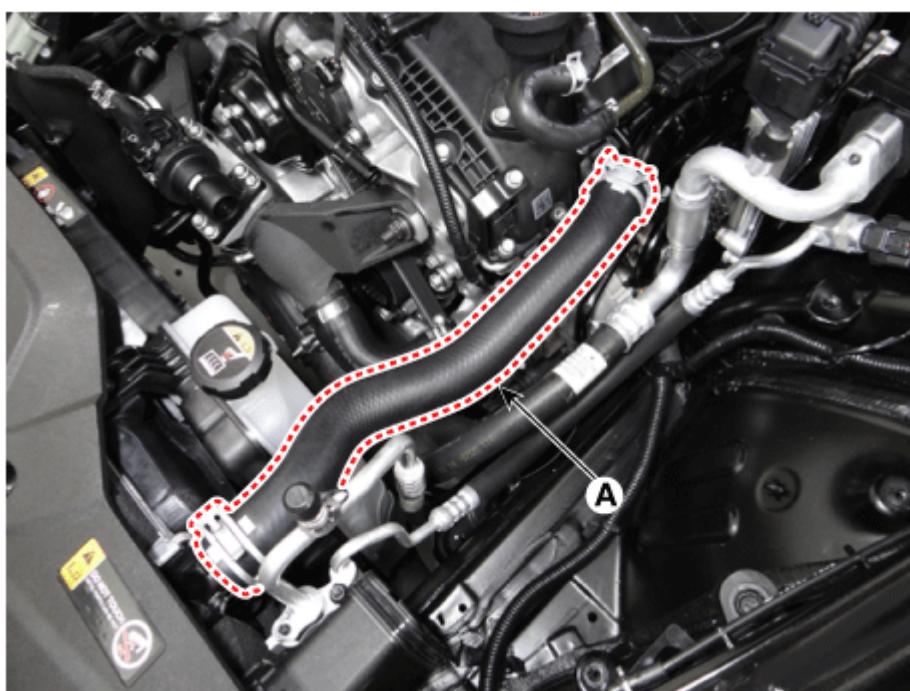
NOTICE

- Use fender covers to avoid damaging painted surfaces.
- To avoid damage, unplug the wiring connectors carefully while holding the connector portion.
- To release the fuel system pressure before removing the engine assembly, start the engine without fuel pump relay, and then turn off the ignition switch when the engine stops.

Information

Mark all wiring and hoses to avoid misconnection.

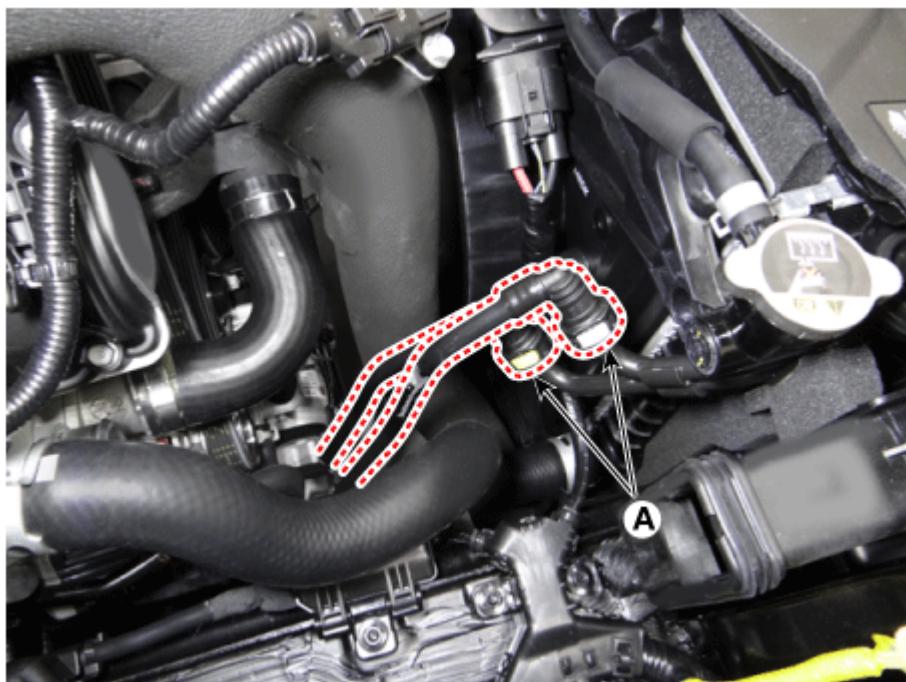
1. Disconnect the negative battery terminal.
2. Remove the engine cover.
[\(Refer to Engine and Transmission Assembly - "Engine Cover"\)](#)
3. Remove the engine room under cover.
[\(Refer to Engine and Transmission Assembly - "Engine Room Under Cover"\)](#)
4. Drain the coolant.
[\(Refer to Cooling System - "Coolant"\)](#)
5. Recover the refrigerant.
[\(Refer to Heating, Ventilation and Air conditioning - "Repair procedures"\)](#)
6. Remove the RH and LH air cleaner assembly.
[\(Refer to Intake and Exhaust System - "Air Cleaner"\)](#)
7. Disconnect the radiator upper hose (A).



8. Disconnect the radiator lower hose (A).



9. Disconnect the ATF cooler hose (A).



10. Remove the intercooler inlet hose & pipe.

- (1) Disconnect the intercooler inlet hose (A) from the intercooler inlet joint.

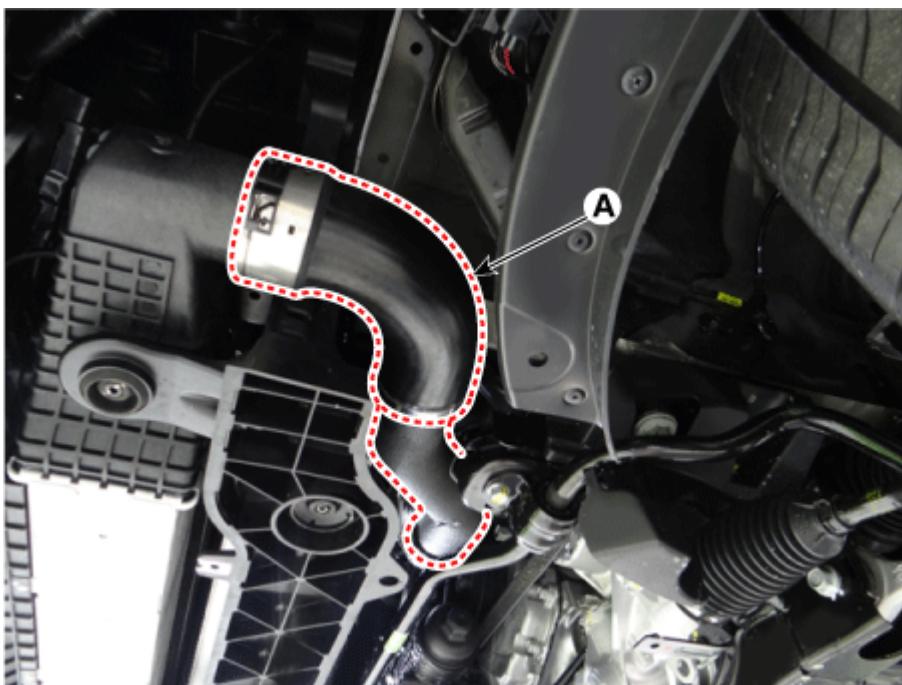
Tightening torque :

4.9 - 6.9 N·m (0.5 - 0.7 kgf·m, 3.6 - 5.1 lb·ft, 43.4 - 60.8 lb·in)

(If equipped with a cap, tighten it until the cap is removed.)

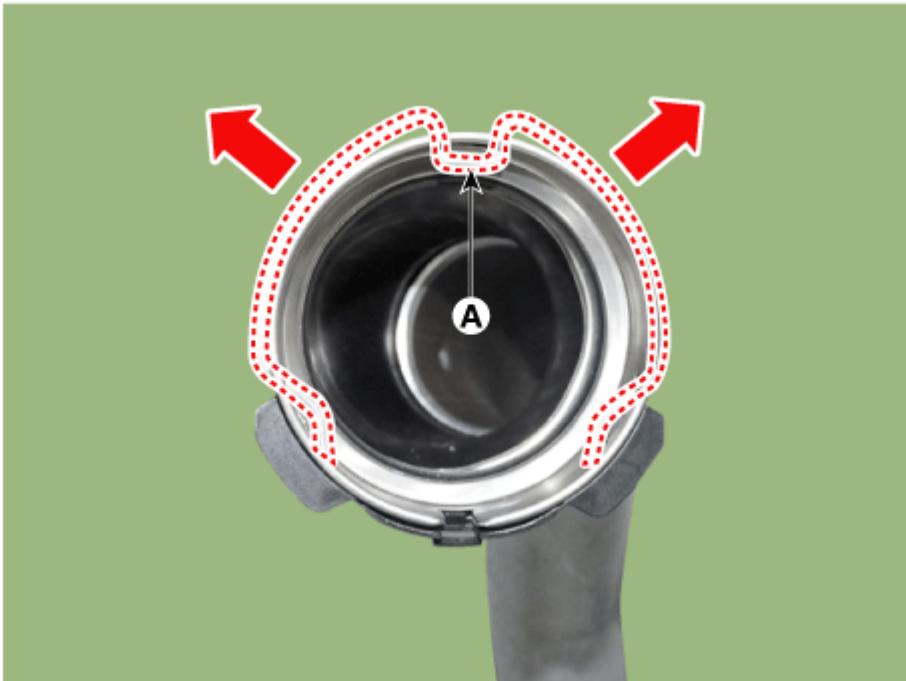


(2) Remove the intercooler inlet hose & pipe (A).

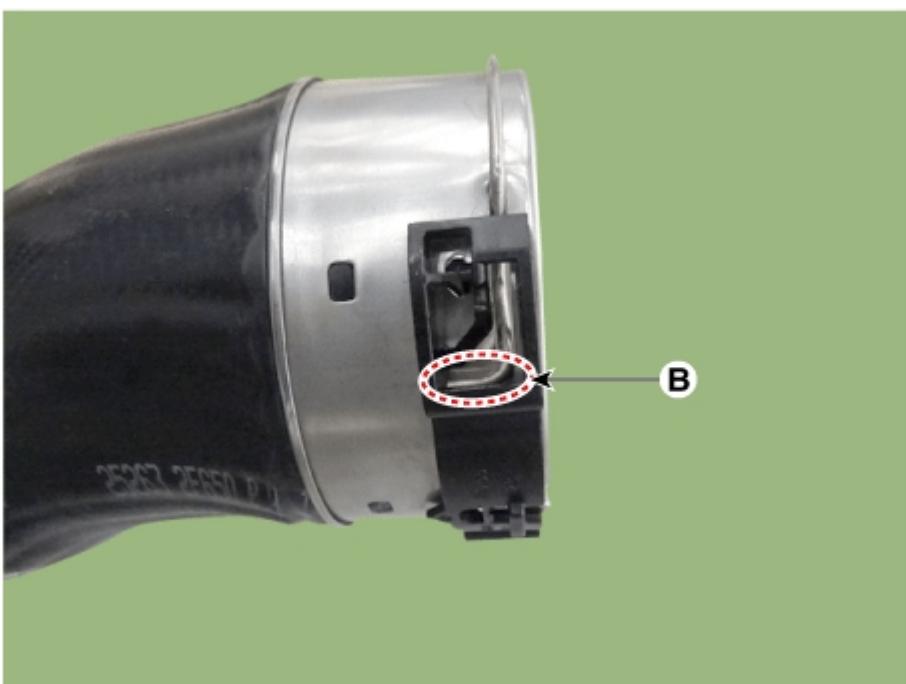


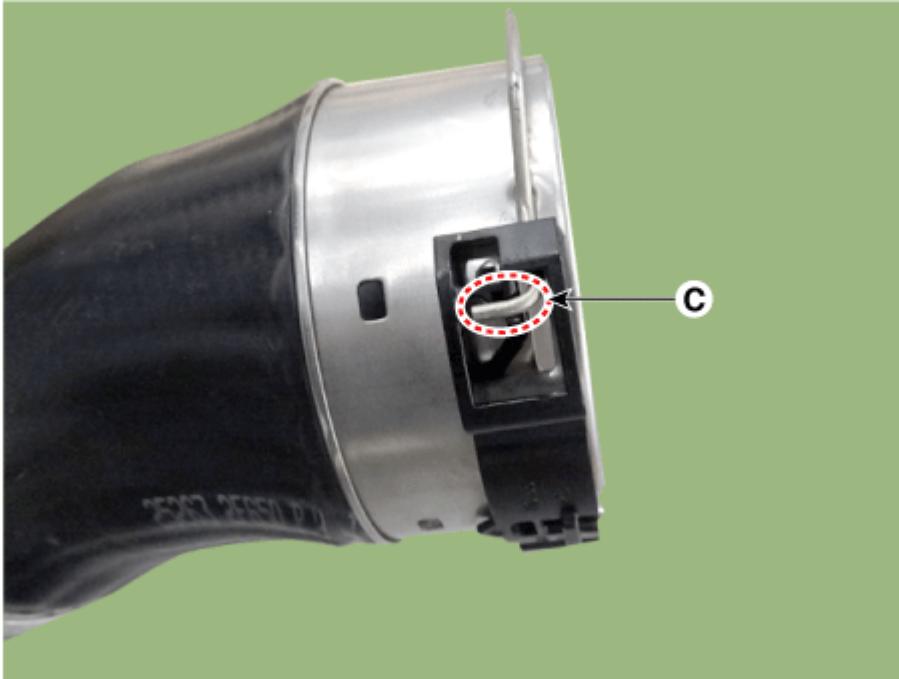
 **Information**

- 1) When disconnecting the intercooler inlet hose, pull out the quick connector clamp (A) in the direction of the arrow as shown below.



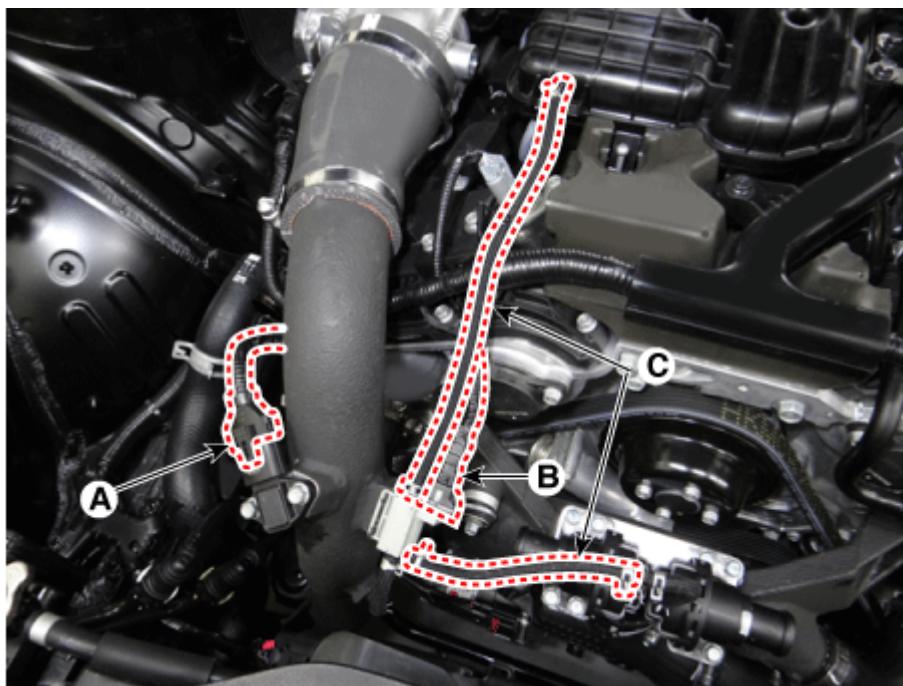
- 2) Move the quick connector clamp from position (B) to position (C) as shown below and pull out the quick connector hose.





11. Disconnect the intercooler outlet hose.

- (1) Disconnect the booster pressure sensor (BPS) connector (A).
- (2) Disconnect the RCV solenoid valve connector (B).
- (3) Disconnect the vacuum hose (C).



- (4) Disconnect the intercooler outlet hose (A).

Tightening torque

Hose clamp :

4.9 - 6.9 N·m (0.5 - 0.7 kgf·m, 3.6 - 5.1 lb·ft, 43.4 - 60.8 lb·in)

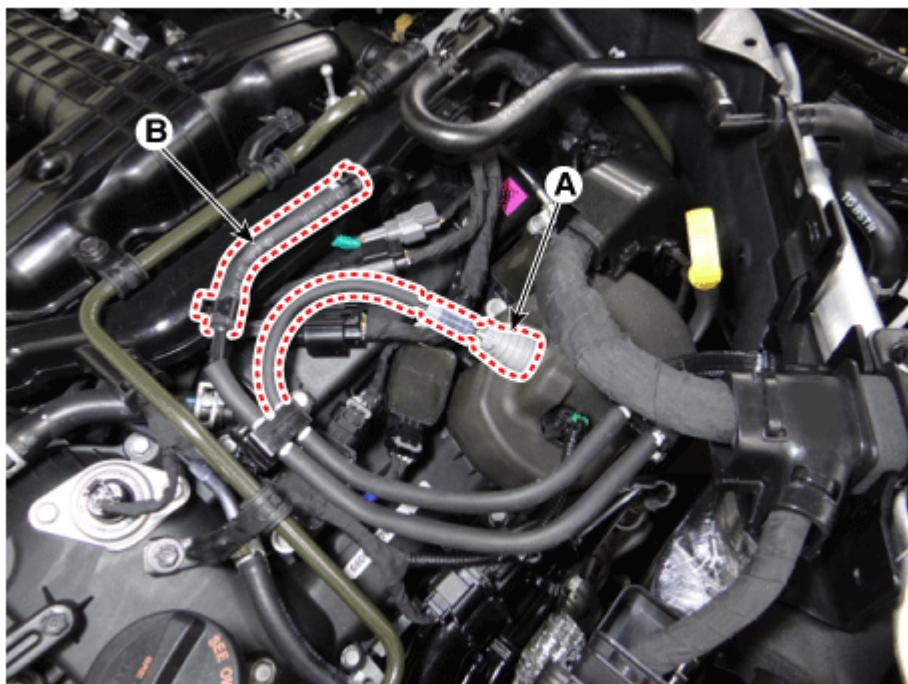
(If equipped with a cap, tighten it until the cap is removed.)

Pipe bolt :

18.6 - 23.5 N·m (1.9 - 2.4 kgf·m, 13.7 - 17.4 lb·ft)



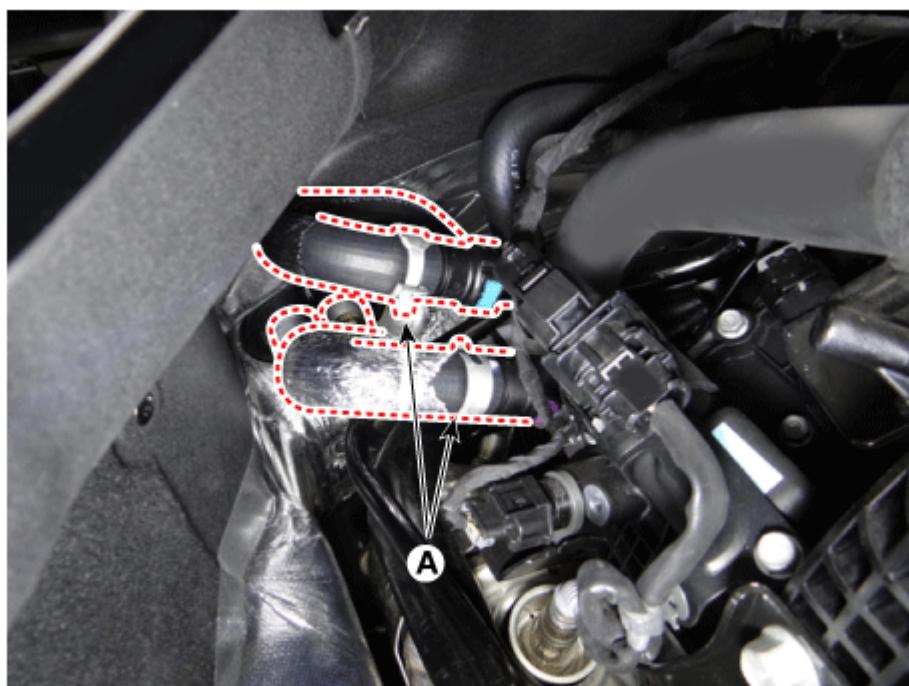
12. Disconnect the fuel hose (A) and purge control solenoid valve (PCSV) hose (B).



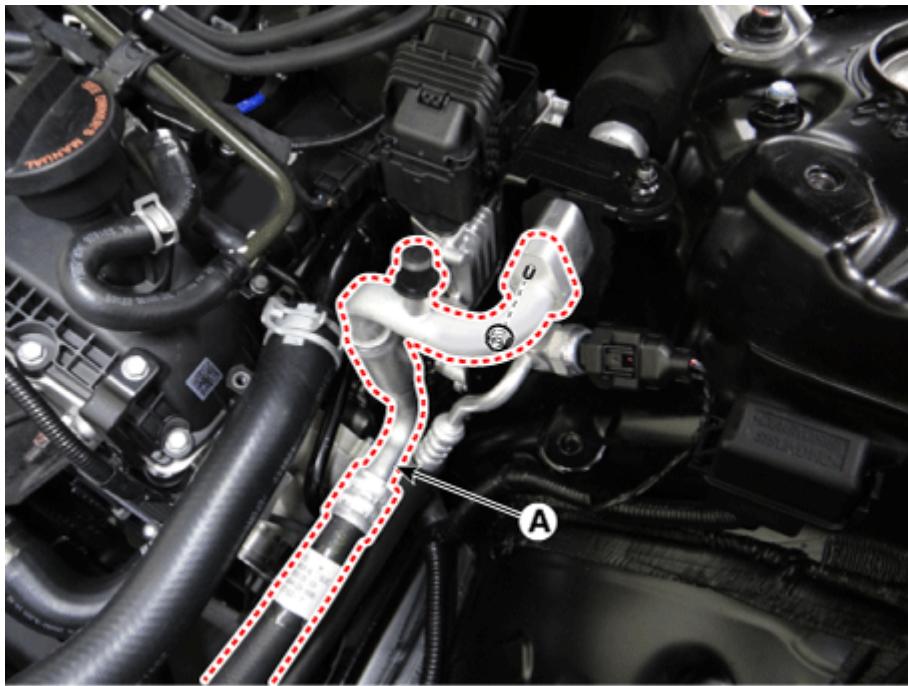
13. Disconnect the brake booster vacuum hose (A).



14. Disconnect the heater hoses (A).



15. Disconnect the discharge line (A).

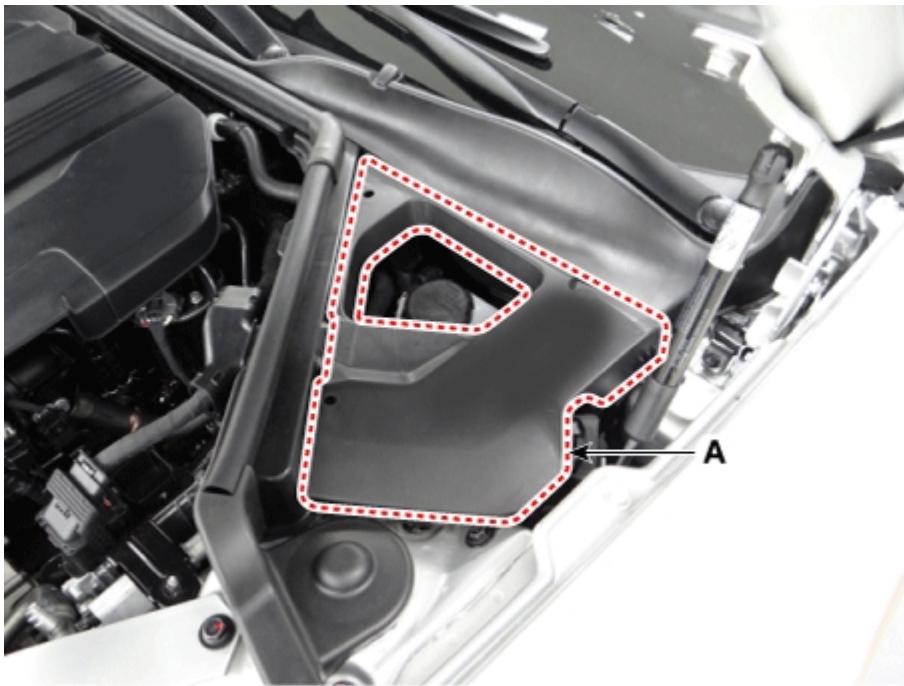


16. Disconnect the suction line (A).

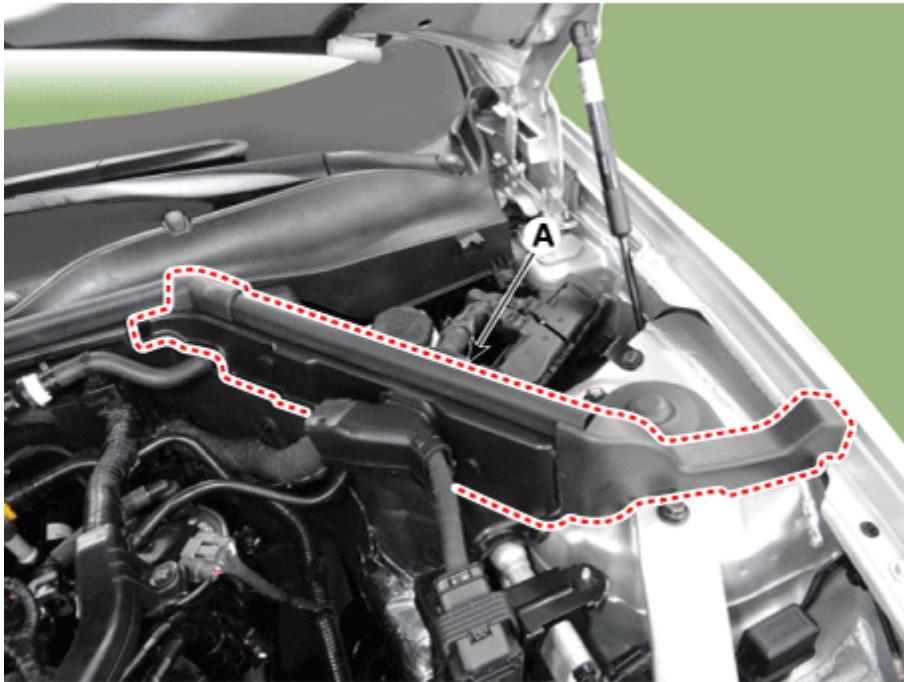


17. Disconnect the wiring connector and harness from the engine room.

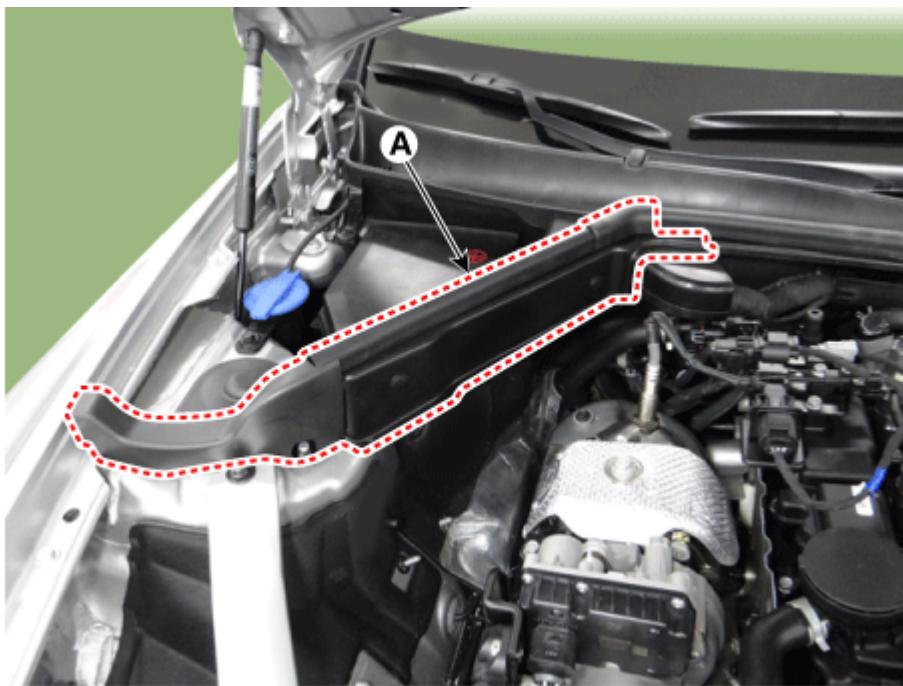
- (1) Remove the engine room cover (A).



(2) Remove the LH hood sealing cover (A).



(3) Remove the RH hood sealing cover (A).



(4) Remove the fuse box cover (A).



(5) Remove the cowl top cover.
(Refer to Body (Interior and Exterior) -"Cowl Top Cover")

(6) Disconnect the front control connector (A).

(7) Disconnect the wiring cable (B).

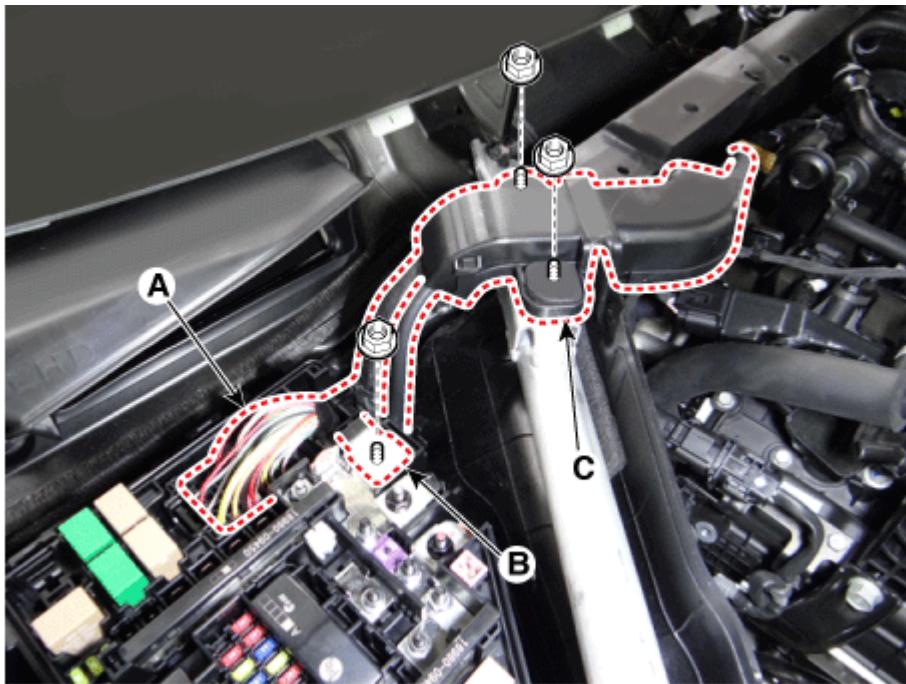
Tightening torque :

7.8 - 11.8 N·m (0.8 - 1.2 kgf·m, 5.8 - 8.7 lb·ft)

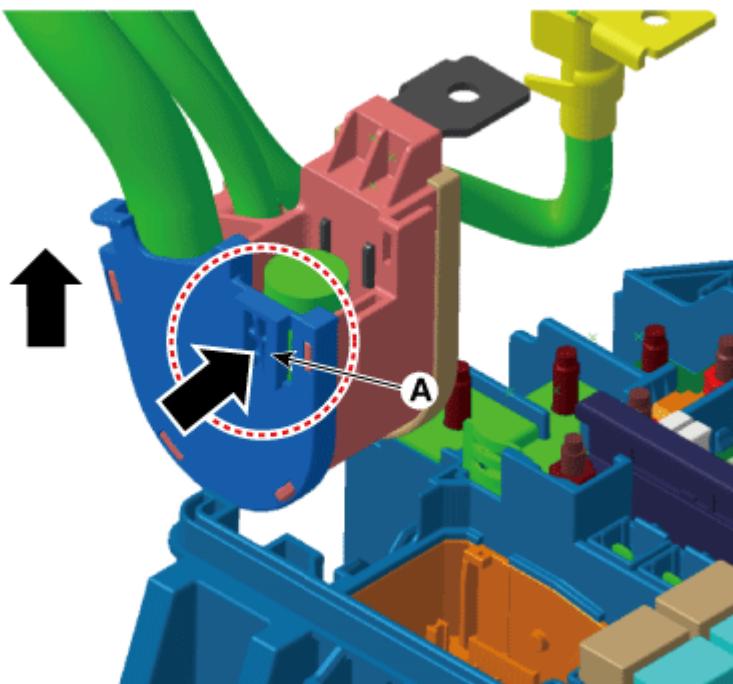
(8) Remove the wiring protector (C).

Tightening torque :

4.9 - 7.8 N·m (0.5 - 0.8 kgf·m, 3.6 - 5.8 lb·ft, 43.4 - 69.4 lb·in)

 **Information**

When remove the protector from the fuse box, push the protector fixing clip (A) in the direction of the arrow and then remove the protector.

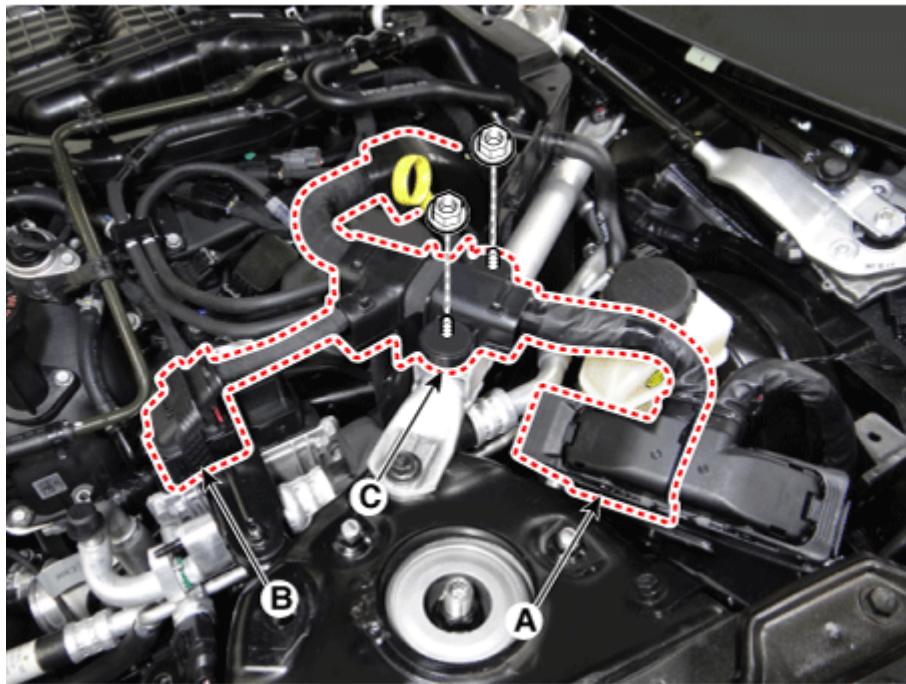


(9) Disconnect the ECM connector (A) and TCM connector (B).

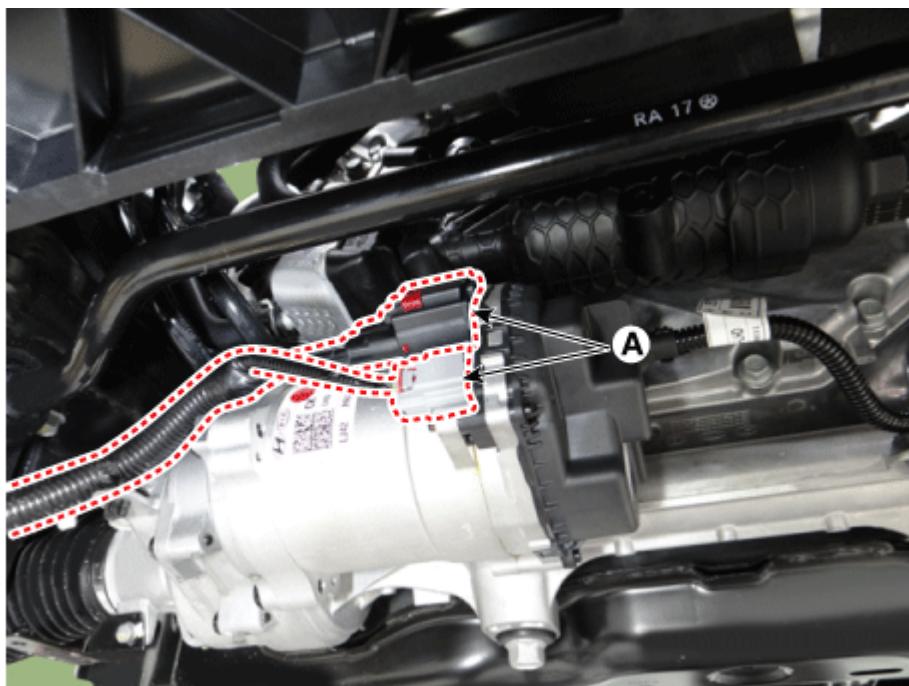
(10) Remove the wiring protector (C).

Tightening torque :

4.9 - 7.8 N·m (0.5 - 0.8 kgf·m, 3.6 - 5.8 lb·ft, 43.4 - 69.4 lb·in)



18. Disconnect the R-MDPS connector (A).



19. Disconnect the engine ground cable (A).

Tightening torque :

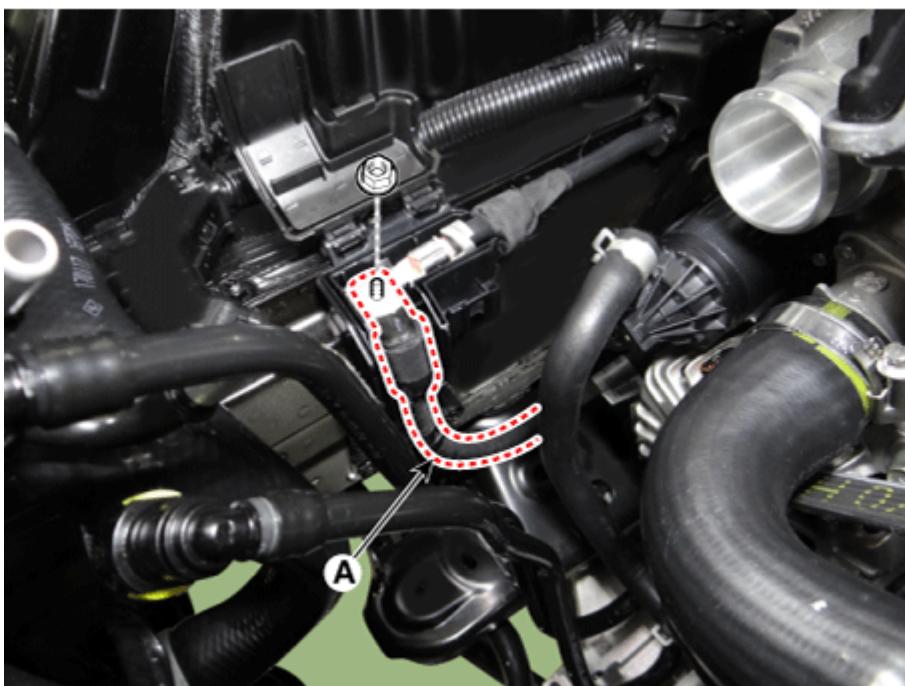
26.5 - 32.4 N·m (2.7 - 3.3 kgf·m, 19.5 - 23.9 lb·ft)



20. Disconnect the battery cable (A).

Tightening torque :

9.8 - 10.8 N·m (1.0 - 1.1 kgf·m, 7.2 - 8.0 lb·ft)



21. Remove the front and center muffler assembly.
(Refer to Intake and Exhaust System - "Muffler")
22. Remove the propeller shaft from the automatic transmission.
(Refer to Driveshaft and Axle - "Propeller shaft")
23. Remove the front wheel.
24. Remove the steering column.
(Refer to Steering System - "Steering Column and Shaft")
25. Remove the tie rod end ball joint from the knuckle.
(Refer to Steering System - "Steering Gear Box")
26. Remove the lateral arm and compression arm from the sub frame.
(Refer to Suspension System - "Front Lower Arm")
27. Remove the stabilizer link from the front shock absorber assembly.

28. Remove front driveshaft from the front axle. (If equipped with AWD system)

(Refer to Driveshaft and Axle - "Front Driveshaft")

29. Disconnect the automatic transmission ground cable (A).

Tightening torque :

21.6 - 23.5 N·m (2.2 - 2.4 kgf·m, 15.9 - 17.4 lb·ft)



30. Remove the parking release cable (shift cable) from the automatic transmission.

[SBW]

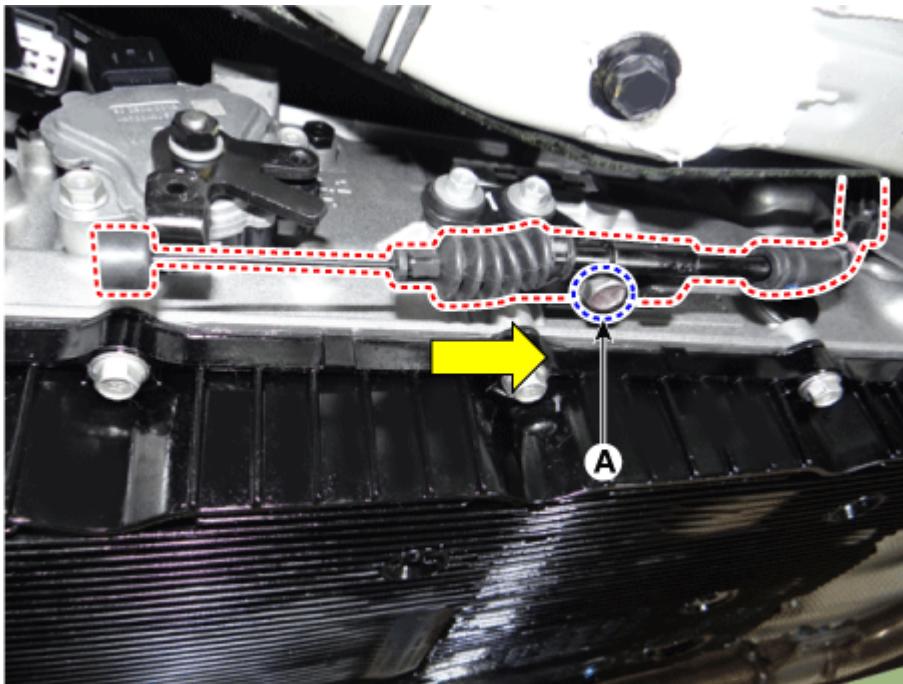
(1) Remove the fastener (A) and then disconnect the parking release cable from the parking switch.



(2) Remove the parking release cable after loosening the bolt (A).

Tightening torque :

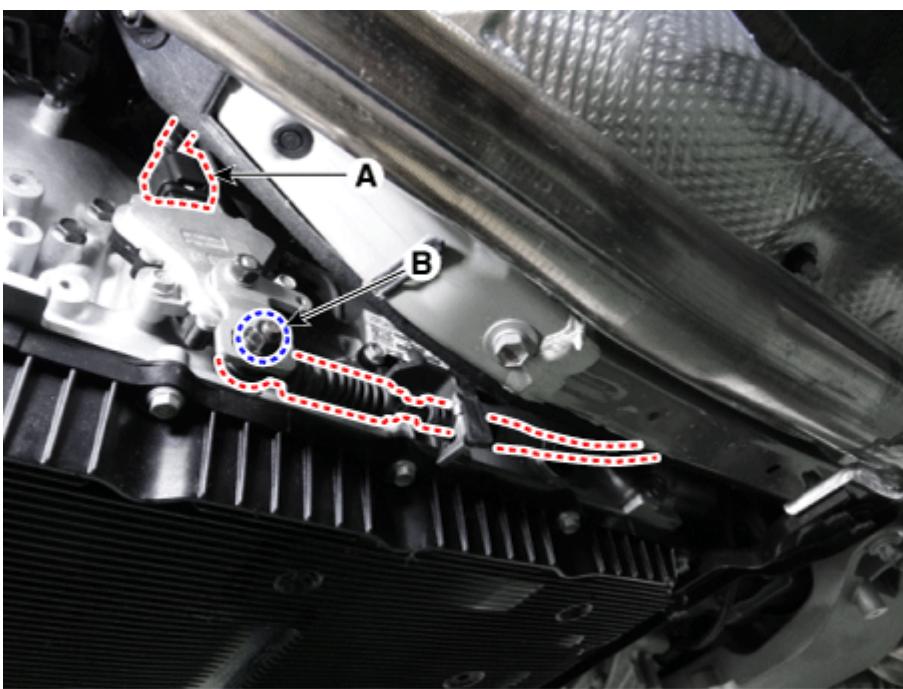
12.7 - 15.7 N·m (1.3 - 1.6 kgf·m, 9.4 - 11.6 lb·ft)

**[SBC]**

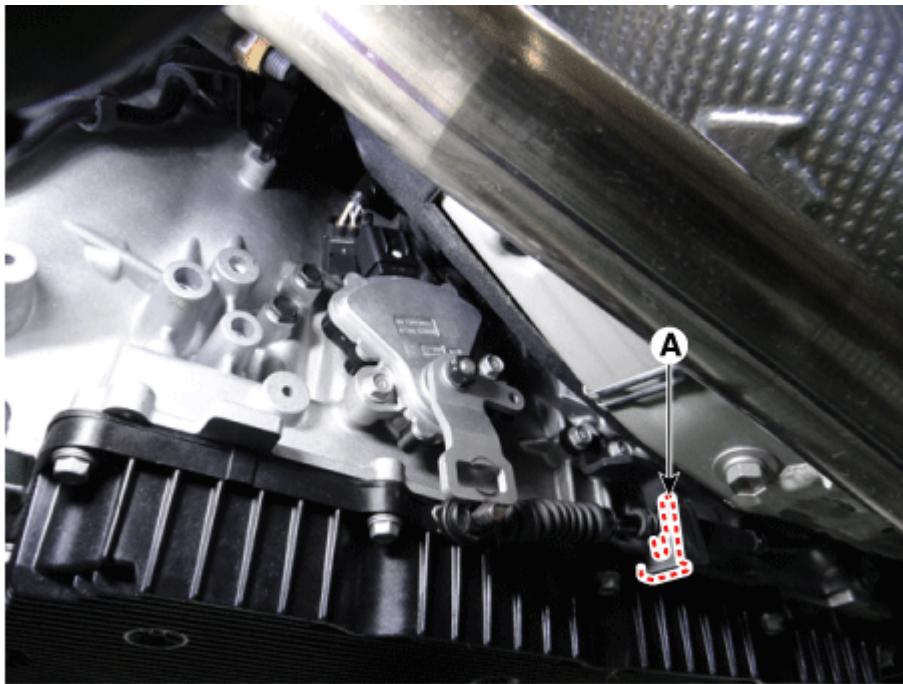
- (1) Disconnect the inhibitor switch connector (A) and then loosening the shift cable mounting nut (B).

Tightening torque :

9.8 - 14.7 N·m (1.0 - 1.5 kgf·m, 7.2 - 10.8 lb·ft)



- (2) Remove the existing shift cable clip (A).

**NOTICE**

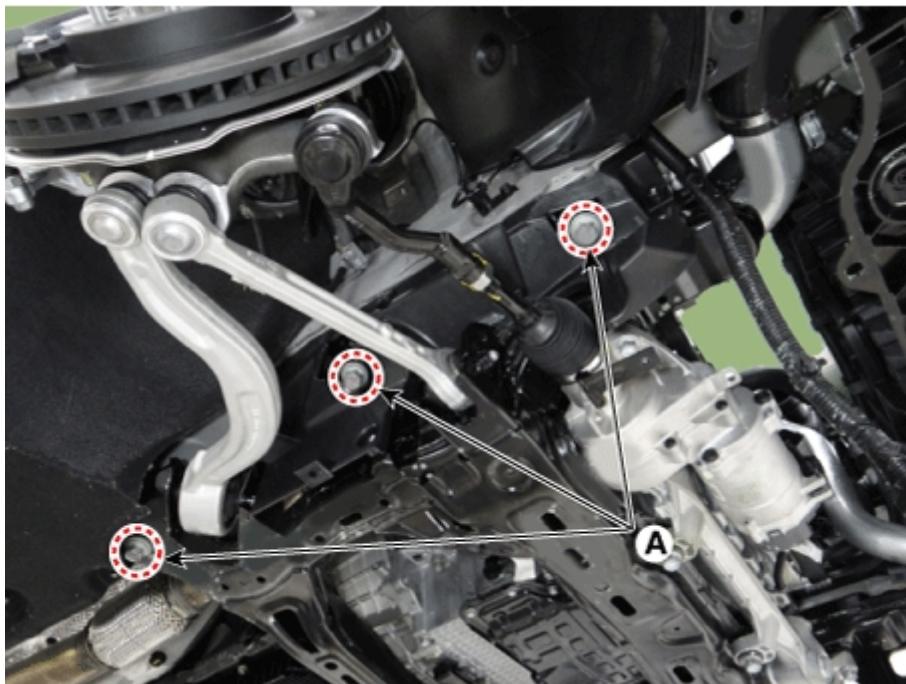
Always use new existing shift cable clip.

31. Support the engine and transmission assembly with a floor jack and then remove the sub frame mounting bolts (A)..

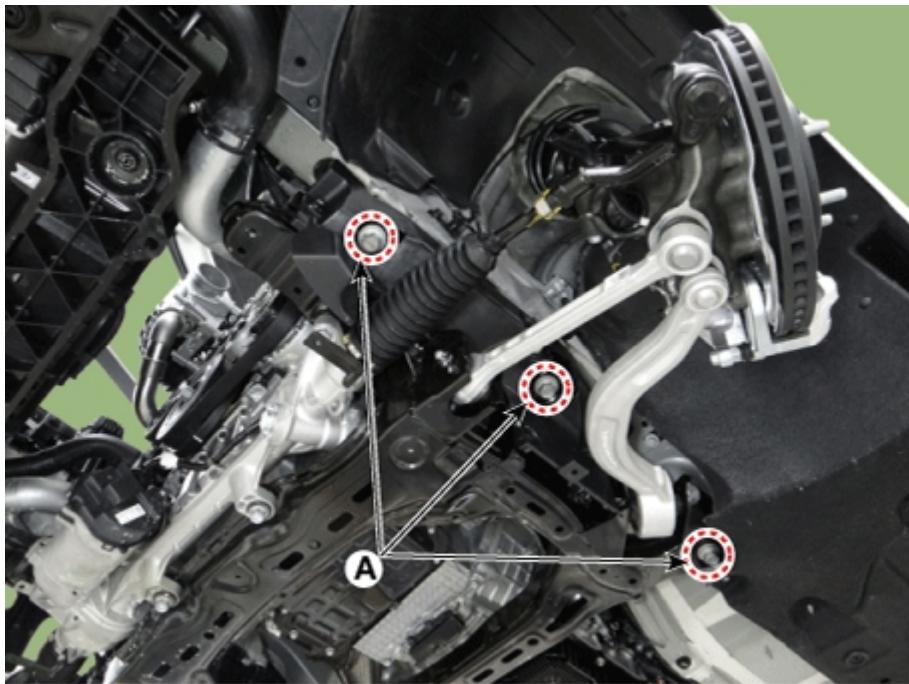
Tightening torque :

176.5 - 196.1 N·m (18.0 - 20.0 kgf·m, 130.2 - 144.7 lb·ft)

[LH]



[RH]

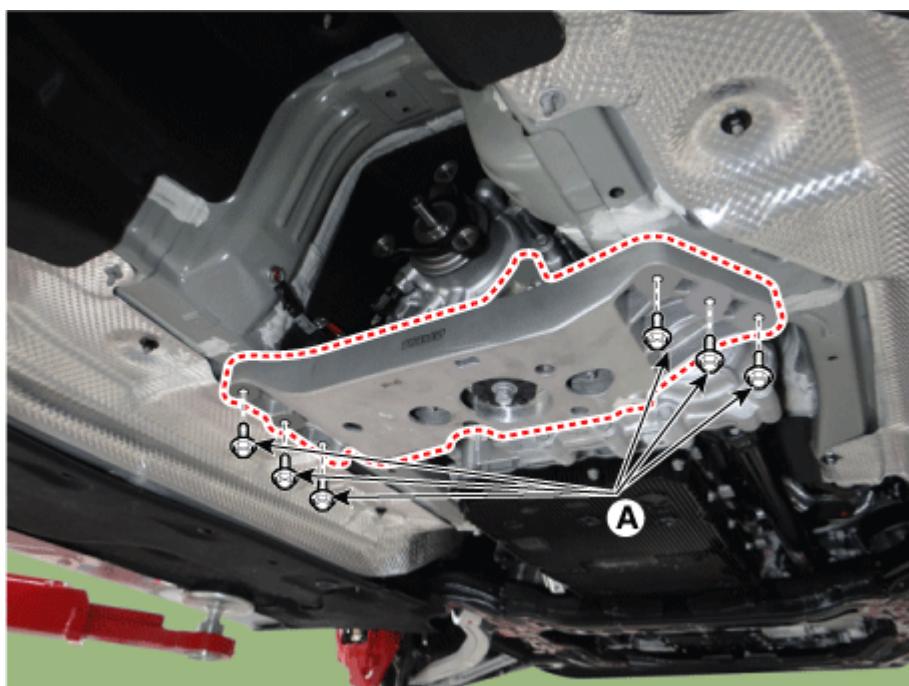


32. Remove the transmission mounting bracket mounting bolts (A).

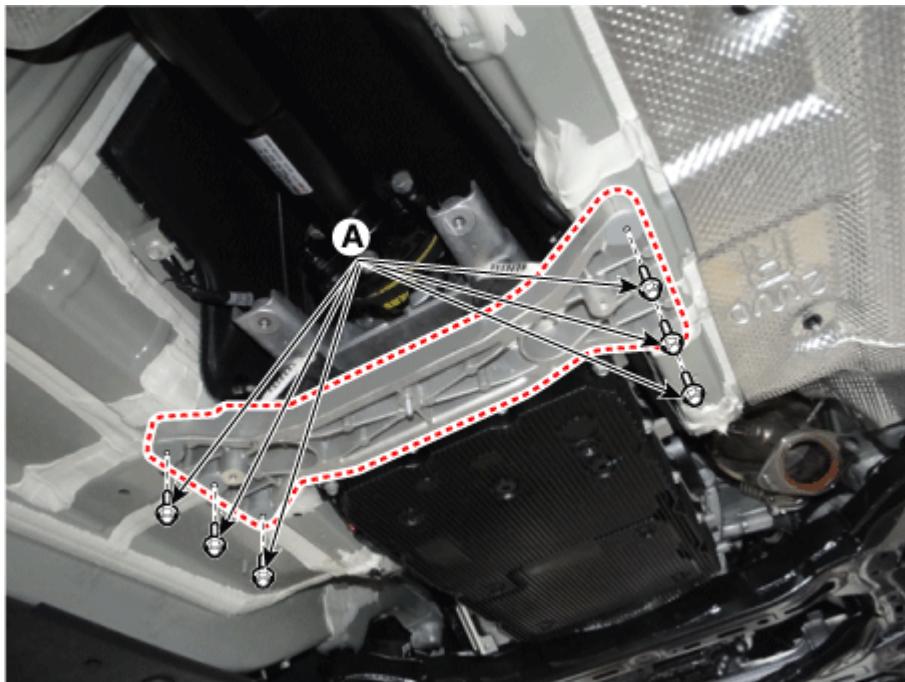
Tightening torque :

58.8 - 73.5 N·m (6.0 - 7.5 kgf·m, 43.4 - 54.2 lb·ft)

[AWD]



[2WD]



33. Remove the engine and transaxle assembly by lifting vehicle.



NOTICE

- Before removing the engine and transmission assembly, make sure hoses and wire connectors are disconnected.
- When removing the engine and transmission assembly, be careful not to damage any surrounding parts or body components.

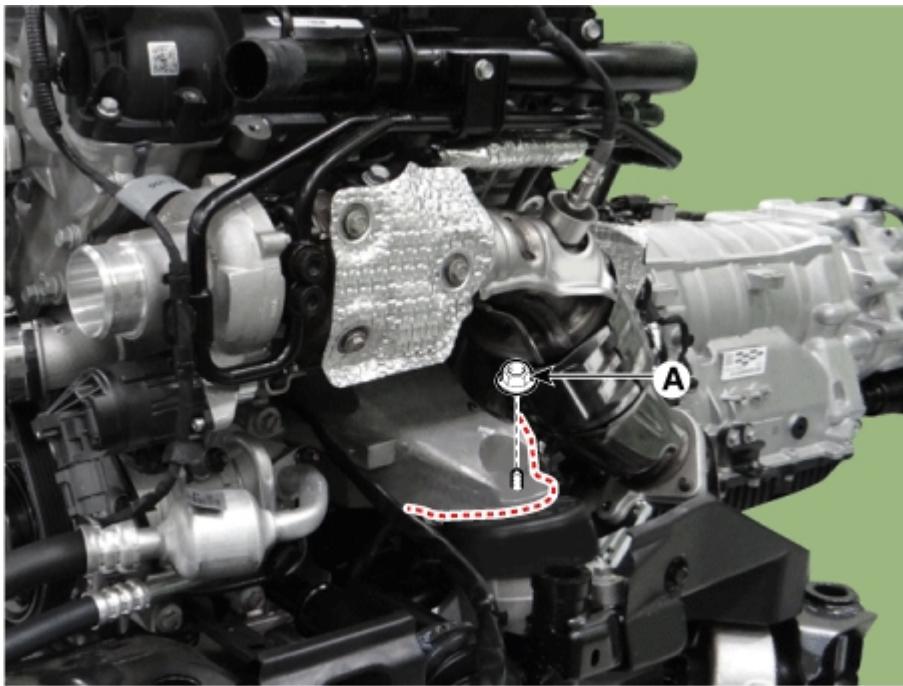
34. Remove the engine assembly from the sub frame.

(1) Remove the LH/RH engine mounting insulator nut (A).

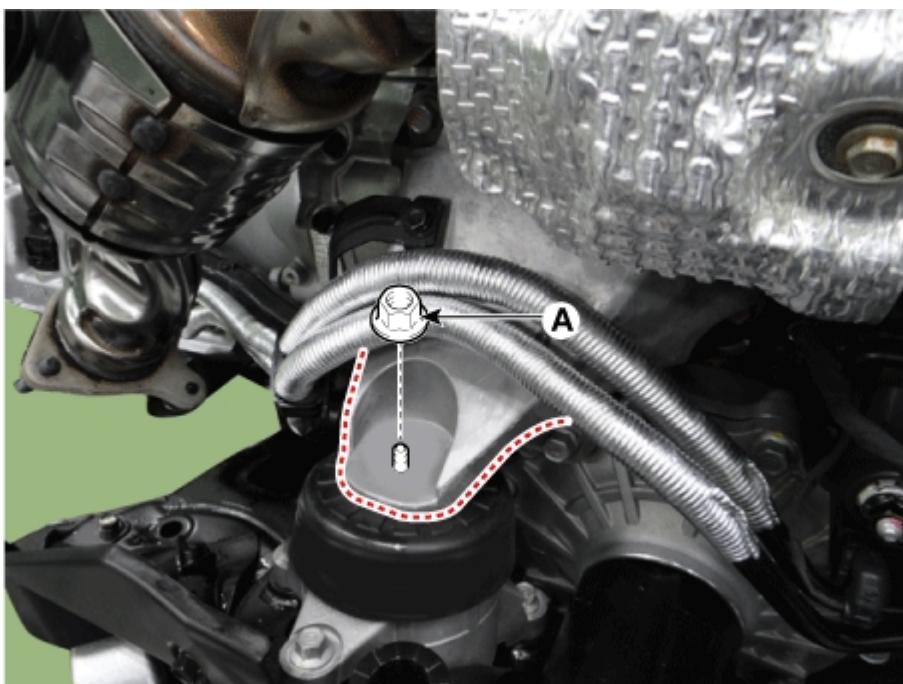
Tightening torque :

63.7 - 83.4 N·m (6.5 - 8.5 kgf·m, 47.0 - 61.5 lb·ft)

[LH]



[RH]



- (2) Hook the engine hoist to the hole of engine hanger.
- (3) Remove the engine assembly form the sub frame by lifting up the engine hoist.



INSTALLATION

Install in the reverse order of removal.

Perform the following :

- Adjust the shift cable.
- Refill engine with engine oil.
- Refill the Transmission with fluid.
- Refill the radiator and the reservoir tank with engine coolant.
- Clean battery posts and cable terminals and assemble.
- Inspect for fuel leakage.
- After assembling the fuel line, turn on the ignition switch (without operating the starter) so that the fuel pump runs for approximately two seconds and fuel line pressurizes.
- Repeat this operation two or three times, and then check for fuel leakage at any point on the fuel lines.
- Bleed air from the cooling system.
- Start engine and let it run until it warms up (until the radiator fan operates 3 or 4 times).
- Turn off the engine and let it cool down. Check the level in the radiator, and add coolant if needed. This will allow trapped air to be released from the cooling system.
- Put radiator cap on tightly, then run the engine again and check for leaks.

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